CentralSquare Solutions Agreement

This CentralSquare Solutions Agreement (the "Agreement"), effective as of the latest date shown on the signature block below (the "Effective Date"), is entered into between CentralSquare Technologies, LLC, a Delaware Limited Liability Company with its principal place of business in Lake Mary, FL ("CentralSquare") and Burleson, TX, for use by the Burleson Police Department ("Customer"), together with CentralSquare, the "Parties", and each, a "Party".

WHEREAS, CentralSquare licenses and gives access to certain software applications ("Solutions") to its customers and also provides maintenance, support, migration, installation and other professional services; and

WHEREAS, Customer desires to license and/or gain access to certain Solutions and receive professional services described herein, and CentralSquare desires to grant and provide Customer license and access to such offerings as well as to provide support and maintenance, subject to the terms and conditions set forth in this Agreement; and

WHEREAS, Customer previously licensed software under the Software License and Service Agreement by and between SunGard Public Sector and Burleson TX, dated October 15, 2008 ("Legacy Agreement"); and a

WHEREAS, This Agreement revokes and replaces the Legacy Agreement including all licenses, services, and support, as applicable.

NOW, THEREFORE, in consideration of the mutual covenants, terms, and conditions set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, by the signatures of their duly authorized representative below, the Parties intending to be legally bound, agree to all of the following provisions and exhibits of this Agreement:

CentralSquare Technologies, LLC	Burleson Texas
1000 Business Center Dr. Lake Mary, FL 32746	
By: Kon Anderson	Ву:
Print Name: Anderson	Print Name:
Print Title: Chief Sales Officer	Print Title:
Date Signed: ^{3/16/2023}	Date Signed:

Solution:

Term.

<u>Initial Term</u>. The Initial Term of this Agreement commences as of the Effective Date and will continue in effect for five (5) years from such date unless terminated earlier pursuant to any of the Agreement's express provisions (the "**Initial Term**").

Renewal Term. This Agreement will automatically renew for additional successive one (1) year terms unless earlier terminated pursuant to any of the Agreement's provisions (a "Renewal Term" and, collectively, with the Initial Term, the "Term").

Non-Renewal. Either party may elect to end renewal of the contract by issuing a notice of non-renewal, in writing, to the other party six (6) months prior to the expiration of the current term.

Fees.

In consideration of the rights and services granted by CentralSquare to Customer under this Agreement, Customer shall make payments to CentralSquare pursuant to the amounts and payment terms outlined in Exhibit 1 (the "Fee Schedule").

All invoices shall be paid in accordance with the terms set forth in Exhibit 1. If Customer delays an invoice payment for any reason, Customer shall promptly notify CentralSquare in writing the reasons for such delay. Unless otherwise agreed by

both Parties, CentralSquare may apply any payment received to any delinquent amount outstanding.

Standard Terms and Conditions

- <u>Definitions</u>. Capitalized terms not otherwise defined in this Agreement have the meanings set forth below:
 - 1.1. "Action" means any claim, cause of action, demand, lawsuit, dispute, inquiry, audit, notice of violation, proceeding, litigation, citation, summons, subpoena or investigation of any nature, civil, criminal, administrative, regulatory or other, whether at law, in equity, or otherwise.
 - **1.2.** "Affiliate" means any other Entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Entity.
 - 1.3. "Authorized User" means Customer's employees, consultants, contractors, and agents who are authorized by Customer to access and use the Solutions pursuant to this Agreement, and for whom access to the Solutions has been purchased.
 - 1.4. "Baseline Solution" means the version of a Solution updated from time to time pursuant to CentralSquare's warranty services and maintenance, but without any other modification.
 - 1.5. "CentralSquare Systems" means the information technology infrastructure used by or on behalf of CentralSquare to deliver the Solutions, including all computers, software, hardware, databases, electronic systems (including database management systems), and networks, whether operated directly by CentralSquare or through the use of third-party services.
 - 1.6. "Confidential Information" means the Solution(s), Software, and customizations in any embodiment, and either Party's technical and business information relating to inventions or software, research and development, future product specifications, engineering processes, costs, profit or margin information, marketing and future business plans as well as any and all internal Customer and employee information, and any information exchanged by the Parties that is clearly marked with a confidential, private or proprietary legend or which, by its nature, is commonly understood to be confidential.
 - 1.7. "Customer Data" means information, data, and content, in any form or medium, collected, downloaded, or otherwise received, directly or indirectly from Customer, an Authorized User or end-users by or through the Solutions, provided the data is not personally identifiable and not identifiable to Customer.
 - 1.8. "Customer Systems" means the Customer's information technology infrastructure, including computers, software, hardware, databases, electronic systems (including database management systems), and networks, whether operated by Customer or through the third-party services.
 - 1.9. "Defect" means a material deviation between the Baseline Solution and its Documentation, for which Customer has given CentralSquare sufficient information to enable CentralSquare to replicate the deviation on a computer configuration that is both comparable to the Customer Systems and that is under CentralSquare's control. Further, with regard to any custom modification, Defect means a material deviation between the custom modification and the CentralSquare generated

specification and Documentation for such custom modification, and for which Defect Customer has given CentralSquare sufficient information to enable CentralSquare to replicate the deviation on a computer configuration that is both comparable to the Customer Systems and that is under CentralSquare's control.

1.10. "Delivery" means:

- 1.10.1. For on premise Solutions, when the software object code has been installed on Customer Systems and license keys have been received by Customer.
- 1.10.2. For a cloud-based Solutions, when Authorized Users have received access to any module of the Solution
- 1.11. "Documentation" means any manuals, instructions, or other documents or materials that CentralSquare provides or makes available to Customer in any form or medium and which describe the functionality, components, features, or requirements of the Solution(s), including any aspect of its installation, configuration, integration, operation, use, support, or maintenance.
- 1.12. "Entity" means an individual, corporation, partnership, joint venture, limited liability entity, governmental authority, unincorporated organization, trust, association, or other entity.
- 1.13. "Go Live" means first use of a Solution or module of a Solution in a production environment for a period as described in Exhibit 4: Statement of Work.
- 1.14. "Harmful Code" means any software, hardware, device or other technology, including any virus, worm, malware, or other malicious computer code, the purpose or effect of which is to (a) permit unauthorized access to, or to destroy, disrupt, disable, distort, or otherwise harm or impede any (i) computer, software, firmware, hardware, system, or network; or (ii) any application or function of any of the foregoing or the security, integrity, confidentiality, or use of any data processed thereby; or (b) prevent Customer or any Authorized User from accessing or using the Solutions as intended by this Agreement.
- 1.15. "Intellectual Property Rights" means any and all registered and unregistered rights granted, applied for, or otherwise now or hereafter in existence under or related to any patent, copyright, trademark, trade secret, database protection, or other intellectual property rights laws, and all similar or equivalent rights or forms of protection, in any part of the world.
- 1.16. "Maintenance" means optimization, error correction, modifications, and Updates to CentralSquare Solutions to correct any known Defects and improve performance. Maintenance will be provided for each Solution, the hours and details of which are described in Exhibit 2 ("Support Standards").
- **1.17.** "New or Major Releases" means new versions of a Baseline Solution (e.g., version 4.0, 5.0 etc.) not provided as part of Maintenance.

- 1.18. "Personal Information" means any information that does or can identify a specific individual or by or from which a specific individual may be identified, contacted, or located. Personal Information includes all "nonpublic personal information" as defined under the Gramm-Leach-Bliley Act, "protected health information" as defined under the Health and Insurance Portability and Accountability Act of 1996, "Personal Data" as defined in the EU General Data Protection Regulation (GDPR 2018), "Personal Information" as defined under the Children's Online Privacy Protection Act of 1998, and all rules and regulations issued under any of the foregoing.
- 1.19. "Professional Services" means configuration, installation, implementation, development work, training or consulting services including custom modification programming, support relating to custom modifications, on-site support services, assistance with data transfers, system restarts and reinstallations provided by CentralSquare.
- **1.20.** "Representatives" means, with respect to a Party, that Party's employees, officers, directors, agents, subcontractors, and legal advisors.
- 1.21. "Software" means the software program(s) (in object code format only) identified on Exhibit 1. The term "Software" excludes any Third-Party Software.
- 1.22. "Software Version" means the base or core version of the Solution Software that contains significant new features and significant fixes and is available to the Customer. The nomenclature used for updates and upgrades consists of major, minor, build, and fix and these correspond to the following digit locations of a release, a,b,c,d. An example of which would be 7.4.1.3, where the 7 refers to the major release, the 4 refers to the minor release, the 1 refers to the build, and the 3 refers to a fix. All Software Versions are provided and included as part of this Agreement.
- 1.23. "Solutions" means the software, Documentation, CentralSquare Systems and any and all other information, data, documents, materials, works, and other content, devices, methods, processes, hardware, software, technologies and inventions, including any deliverables, technical or functional descriptions, requirements, plans, or reports, provided or used by CentralSquare or any Subcontractor in connection with Professional Services or Support Services rendered under this Agreement.
- 1.24. "Support Services" means Maintenance, Enhancements, implementation of New Releases, and general support efforts to respond to incidents reported by Customer in accordance with the detailed Support Standards outlined in Exhibit 2.
- 1.25. "Third-Party Materials" means materials and information, in any form or medium, including any software, documents, data, content, specifications, products, related services, equipment, or components of or relating to the Solutions that are not proprietary to CentralSquare.

2. License, Access, and Title.

2.1. <u>License Grant.</u> For any Solution designated as a "license" on Exhibit 1, Customer is granted a perpetual (unless terminated as provided herein), nontransferable, nonexclusive right and license to use the software for Customer's own internal use for the applications described in the Statement of Work, in the applicable environment

- (e.g., production, test, training, or disaster recovery system) and in the quantity set forth in Exhibit 1. Additional software licenses purchased after the execution of this Agreement shall also be licensed in accordance with the provisions of this section. Customer shall not use, copy, rent, lease, sell, sublicense, create derivative works from/of, or transfer any software, or permit others to do said acts, except as provided in this Agreement. Any such unauthorized use shall be void and may result in immediate and automatic termination of the applicable license. In such event, Customer shall not be entitled to a refund of any license fees paid. Notwithstanding, Customer shall be entitled to use software at the applicable designated location for the purpose of the application(s) described in the Statement of Work to provide services for itself and other Affiliate governmental agencies/entities, provided that the Software is installed and operated at only one physical location. The Software license granted in this Agreement or in connection with it are for object code only and do not include a license or any rights to source code whatsoever.
- 2.2. Access Grant. For any Solution designated as a "subscription" on Exhibit 1, so long as subscription fees are paid and current, (unless terminated as provided herein), Customer is granted a nontransferable, nonexclusive right to use the software for the Customer's own internal use for the applications described in the Statement of Work, in the applicable environment (e.g., production, test, training, or disaster recovery system) and in the quantity set forth in Exhibit 1. Additional CentralSquare software subscriptions purchased after the execution of this Agreement shall also be accessed in accordance with the provisions of this section. Customer shall not use, copy, rent, lease, sell, sublicense, create derivative works from/of, or transfer any software, or permit others to do said acts, except as provided in this Agreement. Any such unauthorized use shall be void and may result in immediate and automatic termination of the applicable access. In such event, Customer shall not be entitled to a refund of any subscription fees paid. Notwithstanding, Customer shall be entitled to use software at the applicable designated location for the purpose of the application(s) described in the Statement of Work to provide services for itself and other Affiliate governmental agencies/entities. The subscription access granted in this Agreement or in connection with it are for object code only and do not include a license or any rights to source code whatsoever.
- 2.3. <u>Documentation License</u>. CentralSquare hereby grants to Customer a non-exclusive, non-sublicenseable, non-transferable license to use the Documentation during the Term solely for Customer's internal business purposes in connection with its use of the Solutions.
- 2.4. Reservation of Rights. Nothing in this Agreement grants any right, title, or interest in or to any Intellectual Property Rights in or relating to the Solutions, or Third-Party Materials, whether expressly, by implication, estoppel, or otherwise. All right, title, and interest in the Solutions, and the Third-Party Materials are and will remain with CentralSquare and the respective rights holders.
- 3. <u>Use Restrictions</u>. Authorized Users shall not:
 - **3.1.** copy, modify, or create derivative works or improvements of the Solutions, or rent, lease, lend, sell, sublicense, assign, distribute, publish, transfer, or otherwise make,

- available any Solutions to any Entity, including on or in connection with the internet or any time-sharing, service bureau, software as a service, cloud, or other technology or service;
- 3.2. reverse engineer, disassemble, decompile, decode, adapt, or otherwise attempt to derive or gain access to the source code of the Solutions, in whole or in part;
- 3.3. bypass or breach any security device or protection used by Solutions or access or use the Solutions other than by an Authorized User through the use of his or her own then valid access:
- 3.4. input, upload, transmit, or otherwise provide to or through the CentralSquare Systems, any information or materials that are unlawful or injurious, or contain, transmit, or activate any Harmful Code;
- 3.5. damage, destroy, disrupt, disable, impair, interfere with, or otherwise impede or harm in any manner the CentralSquare Systems, or CentralSquare's provision of services to any third-party, in whole or in part;
- 3.6. remove, delete, alter, or obscure any trademarks, specifications, Documentation, warranties, or disclaimers, or any copyright, trademark, patent, or other intellectual property or proprietary rights notices from any Documentation or Solutions, including any copy thereof;
- **3.7.** access or use the Solutions in any manner or for any purpose that infringes, misappropriates, or otherwise violates any Intellectual Property Right or other right of any third-party, or that violates any applicable law;
- 3.8. access or use the Solutions for purposes of competitive analysis of the Solutions, the development, provision, or use of a competing software service or product or any other purpose that is to CentralSquare's detriment or commercial disadvantage or otherwise access or use the Solutions beyond the scope of the authorization granted in Section 5.

4. <u>Audit.</u>

4.1. CentralSquare shall have the right to audit Customer's use of the Software to monitor compliance with this Agreement no more than once per year. If an audit reveals that Customer has exceeded the restrictions on use, Customer shall be responsible for the reimbursement of all costs related to the audit and prompt payment of any underpayment of Fees.

5. Customer Obligations.

- 5.1. Customer Systems and Cooperation. Customer shall at all times during the Term: (a) set up, maintain, and operate in good repair all Customer Systems on or through which the Solutions are accessed or used; (b) provide CentralSquare Personnel with such access to Customer's premises and Customer Systems as is necessary for CentralSquare to perform the Support Services in accordance with the Support Standards and specifications and if required by CentralSquare, remote access in accordance with Exhibit 6- Bomgar Access Policy; and (c) provide all cooperation as CentralSquare may reasonably request to enable CentralSquare to exercise its rights and perform its obligations under this Agreement.
- **5.2.** <u>Effect of Customer Failure or Delay</u>. CentralSquare is not responsible or liable for any delay or failure of performance caused in whole or in part by Customer's delay in

- performing, or failure to perform, any of its obligations under this Agreement.
- 5.3. Corrective Action and Notice. If Customer becomes aware of any actual or threatened activity prohibited by Section 3, Customer shall, and shall cause its Authorized Users to, immediately: (a) take all reasonable and lawful measures within their respective control that are necessary to stop the activity or threatened activity and to mitigate its effects (including, where applicable, by discontinuing and preventing any unauthorized access to the Solutions and permanently erasing from their systems and destroying any data to which any of them gained unauthorized access); and (b) notify CentralSquare of any such actual or threatened activity.
- 5.4. Maintaining Current Versions of CentralSquare Solutions.

 In accordance with Exhibit 2 (Support Standards),
 Customer shall install and/or use any New or Major
 Release within one year of being made available by
 CentralSquare to mitigate a performance problem,
 ineligibility for Support and Maintenance Services, or an
 infringement claim.

6. Professional Services.

- 6.1. Compliance with Customer Policies. While CentralSquare personnel are performing services at Customer's site, CentralSquare personnel will comply with Customer's reasonable procedures and site policies that are generally applicable to Customer's other suppliers providing similar services and that have been provided to CentralSquare in writing or in advance.
- 6.2. Contributed Material. In the process of CentralSquare's performing Professional Services, Customer may, from time to time, provide CentralSquare with designs, plans, or specifications, improvements, works or other material for inclusion in, or making modifications to, the Solutions, the Documentation or any other deliverables ("Contributed Material"). Customer grants to CentralSquare a nonexclusive, irrevocable, perpetual, transferable right, without the payment of any royalties or other compensation of any kind and without the right of attribution, for CentralSquare, CentralSquare's Affiliates and CentralSquare's licensees to make, use, sell and create derivative works of the Contributed Material.

Confidentiality.

7.1. Nondisclosure. The Parties agree, unless otherwise provided in this Agreement or required by law, not to use or make each other's Confidential Information available to any third party for any purpose other than as necessary to perform under this Agreement. Confidential Information shall be designated as confidential at the time of disclosure and if disclosed orally, shall be reduced to writing within ten (10) business days. The recipient shall protect the Confidential Information from disclosure by using the same degree of care, but no less than a reasonable degree of care, that it uses to protect its own confidential information of a like nature to prevent its unauthorized use, dissemination or publication by its employees or agents. Customer further agrees that it will not allow any form or variation of the Software to enter the public domain. Both Parties acknowledge that any breach of its obligations with respect to Confidential Information may cause the other irreparable injury for which there are inadequate remedies at law and that the non-disclosing party shall be entitled to

- equitable relief in addition to all other remedies available to it. Customer shall not disclose the results of any performance or functionality tests of the Software to any third party without CentralSquare's prior written approval.
- 7.2. Exceptions. A party's Confidential Information shall not include information that: (a) is or becomes publicly available through no act or omission of the recipient; (b) was in the recipient's lawful possession prior to the disclosure and was not obtained by the recipient either directly or indirectly from the disclosing party; (c) is lawfully disclosed to the recipient by a third party without restriction on recipient's disclosure, and where recipient was not aware that the information was the confidential information of discloser; (d) is independently developed by the recipient without violation of this Agreement; or (e) is required to be disclosed by law.

8. Security

- 8.1. CentralSquare will implement commercially reasonable administrative, technical and physical safeguards designed to ensure the security and confidentiality of Customer Data, protect against any anticipated threats or hazards to the security or integrity of Customer Data, and protect against unauthorized access or use of Customer Data. CentralSquare will review and test such safeguards on no less than an annual basis.
- **8.2.** Customer shall maintain, in connection with the operation or use of the Solutions, adequate technical and procedural access controls and system security requirements and devices, necessary for data privacy, confidentiality, integrity, authorization, authentication, non-repudiation, virus detection and eradication.
- **8.3.** To the extent that Authorized Users are permitted to have access to the Solutions, Customer shall maintain agreements with such Authorized Users that adequately protect the confidentiality and Intellectual Property Rights of CentralSquare in the Solutions and Documentation and disclaim any liability or responsibility of CentralSquare with respect to such Authorized Users.
- 9. Personal Data. If CentralSquare processes or otherwise has access to any personal data or personal information on Customer's behalf when performing CentralSquare's obligations under this Agreement, then:
 - 9.1. Customer shall be the data controller (where "data controller" means an entity which alone or jointly with others determines purposes for which and the manner in which any personal data are, or are to be, processed) and CentralSquare shall be a data processor (where "data processor" means an entity which processes the data only on behalf of the data controller and not for any purposes of its own);
 - 9.2. Customer shall ensure that it has obtained all necessary consents and it is entitled to transfer the relevant personal data or personal information to CentralSquare so that CentralSquare may lawfully use, process and transfer the personal data and personal information in accordance with this Agreement on Customer's behalf, which may include CentralSquare processing and transferring the relevant personal data or personal information outside the country where Customer and the Authorized Users are located in order for CentralSquare to provide the Solutions and perform its other obligations under this Agreement; and

- **9.3.** CentralSquare shall process personal data and information only in accordance with lawful and reasonable written instructions given by Customer and as set out in and in accordance with the terms of this Agreement; and
- 9.4. each Party shall take appropriate technical and organizational measures against unauthorized or unlawful processing of the personal data and personal information or its accidental loss, destruction or damage so that, having regard to the state of technological development and the cost of implementing any measures, the measures taken ensure a level of security appropriate to the harm that might result from such unauthorized or unlawful processing or accidental loss, destruction or damage in relation to the personal data and personal information and the nature of the personal data and personal information being protected. If necessary, the parties will cooperate to document these measures taken.

10. Representations and Warranties.

- 10.1. Intellectual Property Warranty. CentralSquare represents and warrants that (a) it is the sole and exclusive owner of (or has the right to license) the software; (b) it has full and sufficient right, title and authority to grant the rights and/or licenses granted under this Agreement; (c) the software does not contain any materials developed by a third party used by CentralSquare except pursuant to a license agreement; and (d) the software does not infringe any patent, or copyright.
- 10.2. Intellectual Property Remedy. In the event that any third party asserts a claim of infringement against the Customer relating to the software contained in this Agreement, CentralSquare shall indemnify and defend the Customer pursuant to section 13.1 of this Agreement. In the case of any such claim of infringement, CentralSquare shall either, at its option, (1) procure for Customer the right to continue using the software; or (2) replace or modify the software so that that it becomes non-infringing, but equivalent in functionality and performance.
- 10.3. <u>Software Warranty.</u> Central Square warrants to Customer that: (i) for a period of one year from the Effective Date (the "Warranty Period") the Software will substantially conform in all material respects to the specifications set forth in the Documentation, when installed, operated and used as recommended in the Documentation and in accordance with this Agreement; and (ii) at the time of delivery the Software does not contain any virus or other malicious code.
- 10.4. Software Remedy. If, during the Warranty Period a warranty defect is confirmed in the CentralSquare Software, CentralSquare shall, at its option, reinstall the Software or correct the Defects. Defects that occur in the Software after the Warranty Period will be corrected pursuant to Exhibit 2 Support Standards.
- 10.5. <u>Services Warranty.</u> CentralSquare warrants that the Professional Services delivered will substantially conform to the deliverables specified in the applicable statement of work and that all Professional Services will be performed in a professional and workmanlike manner consistent with industry standards for similar work. If Professional Services do not substantially conform to the deliverables, Customer shall notify CentralSquare of such nonconformance in writing, within 10 days from completion of Professional Service, and CentralSquare shall promptly

repair the non-conforming deliverables.

- 10.6. Disclaimer of Warranty. EXCEPT FOR THE EXPRESS LIMITED WARRANTIES SET FORTH ABOVE, MAKES NO **WARRANTIES** CENTRALSQUARE WHATSOEVER, EXPRESSED OR IMPLIED, WITH REGARD TO THE INTELLECTUAL PROPERTY, SOFTWARE, PROFESSIONAL SERVICES, AND/OR RELATING TO OTHER **MATTER** ANY AGREEMENT. AND **THAT CENTRALSQUARE** DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, INCLUDING ALL WARRANTIES ARISING FROM COURSE OF DEALING, USAGE OR TRADE PRACTICE, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY, **FITNESS FOR** PARTICULAR PURPOSE, OR TITLE. FURTHER, **CENTRALSQUARE EXPRESSLY** DOES NOT WARRANT THAT A SOLUTION, ANY CUSTOM MODIFICATION OR ANY IMPROVEMENTS WILL BE USABLE BY CUSTOMER IF THE SOLUTION OR CUSTOM MODIFICATION HAS BEEN MODIFIED BY THAN ANYONE OTHER **CENTRALSQUARE** PERSONNEL, OR WILL BE ERROR FREE, WILL OPERATE WITHOUT INTERRUPTION OR WILL BE COMPATIBLE WITH ANY HARDWARE OR SOFTWARE **EXCEPT TO THE EXTENT EXPRESSLY SET FORTH IN** DOCUMENTATION. **THIRD-PARTY** ALL MATERIALS ARE PROVIDED "AS-IS" AND ANY **REPRESENTATION** OR WARANTY OF <u>OR</u> **CONCERNING ANY OF THEM IS STRICTLY BETWEEN** CUSTOMER AND THE THIRD-PARTY. THIS AGREEMENT DOES NOT AMEND, OR MODIFY **CENTRALSQUARE'S** WARRANTY UNDER AGREEMENT OR ANY CONDITIONS, LIMITATIONS, OR RESTRICTIONS THEREOF.
- 11. Notices. All notices and other communications required or permitted under this Agreement must be in writing and will be deemed given when delivered personally, sent by United States registered or certified mail, return receipt requested; transmitted by facsimile or email confirmed by United States first class mail, or sent by overnight courier. Notices must be sent to a Party at its address shown below, or to such other place as the Party may subsequently designate for its receipt of notices in writing by the other Party.

If to CentralSquare:

CentralSquare 1000 Business Center Dr. Lake Mary, FL 32746

Phone: 407-304-32

info@CentralSquare.com
Attention: Legal/Contracts

Attention:

If to Customer:

Burleson, TX
For the benefit of Burleson Police
Department
Phone:
email:

12. Force Majeure.

Neither Party shall be responsible for failure to fulfill its obligations hereunder or liable for damages resulting from delay in performance as a result of war, fire, strike, riot or insurrection, natural disaster, pandemic or epidemic, delay of carriers, governmental order or regulation, complete or partial shutdown of plant, unavailability of equipment, software, or services from suppliers, default of a subcontractor or vendor to the Party if such default arises out of causes beyond the reasonable control of such subcontractor or vendor, the acts or omissions of the other Party, or its officers, directors, employees, agents, contractors, or elected officials, and/or other occurrences beyond the Party's reasonable control ("Excusable Delay" hereunder). In the event of such Excusable Delay, performance shall be extended on a day for day basis or as otherwise reasonably necessary to compensate for such delay.

13. Indemnification.

- 13.1. CentralSquare Indemnification. CentralSquare indemnify, defend, and hold harmless Customer from any and all claims, lawsuits or liability, including attorneys' fees and costs, brought by a third party, allegedly arising out of, in connection with, or incident to any loss, damage or injury to persons or property or arising solely from a wrongful or negligent act, error or omission of CentralSquare, its employees, agents, contractors, or any subcontractor as a result of CentralSquare's or any subcontractor's performance pursuant to this Agreement; however, CentralSquare shall not be required to indemnify Customer for any claims or actions caused to the extent of the negligence or wrongful act of Customer, its employees, agents, or contractors. Notwithstanding anything to the contrary in the foregoing, if a claim, lawsuit or liability results from or is contributed to by the actions or omissions of Customer, or its employees, agents or contractors, CentralSquare's obligations under this provision shall be reduced to the extent of such actions or omissions based upon the principle of comparative fault.
- **13.2.** Customer Indemnification. Customer shall indemnify, defend, and hold harmless CentralSquare from any and all claims, lawsuits or liability, including attorneys' fees and costs, allegedly arising out of, in connection with, or incident to any loss, damage or injury to persons or property or arising solely from a wrongful or negligent act, error or omission of Customer, its employees, agents, contractors, or any subcontractor as a result of Customer's or any subcontractor's performance pursuant to this Agreement: however. Customer shall not be required to indemnify CentralSquare for any claims or actions caused to the extent of the negligence or wrongful act of CentralSquare, its employees, agents, or contractors. Notwithstanding anything to the contrary in the foregoing, if a claim, lawsuit or liability results from or is contributed to by the actions or omissions of CentralSquare, or its employees, agents or contractors, Customer's obligations under this provision shall be reduced to the extent of such actions or omissions based upon the principle of comparative fault.
- **14.** <u>Termination</u>. This Agreement may be terminated:
 - 14.1. Either Party may terminate this Agreement for a material breach in accordance with this subsection. In such event, the disputing Party shall deliver written notice of its intent to terminate along with a description

- in reasonable detail of the problems for which the disputing Party is invoking its right to terminate and the specific requirement within this Agreement or any exhibit or schedule hereto that the disputing Party is relying upon. Following such notice, the Parties shall commence dispute resolution procedures in accordance with the dispute resolution procedure pursuant to Section 17.
- **14.2.** For Customer's failure to pay undisputed amounts due under this Agreement that has continued more than ninety (90) days after delivery of written notice of non-payment.
- 14.3. In the event the proper appropriation of funds for the continuation of this Agreement is not available for any fiscal year after the first fiscal year during the Term, then this Agreement may be terminated. To effect the termination of this Agreement, Customer shall, within forty-five (45) days following the beginning of the fiscal year for which the proper appropriation is not available, provide CentralSquare with written notice of the failure to obtain the proper appropriation of funds. Such notice shall be accompanied by the payment of all sums then owed CentralSquare under this Agreement, if any.
- **15.** <u>Effect of Termination or Expiration.</u> On the expiration or earlier termination of this Agreement:
 - 15.1. All rights, licenses, access, and authorizations granted to Customer hereunder will immediately terminate and Customer shall immediately cease all use of CentralSquare's Confidential Information and the Solutions, and within thirty (30) days deliver to CentralSquare, or at CentralSquare's request destroy and erase CentralSquare's Confidential Information from all systems Customer directly or indirectly controls; and
 - **15.2.** All licenses, access or subscription fees, services rendered but unpaid, and any amounts due by Customer to CentralSquare of any kind shall become immediately payable and due no later than thirty (30) days after the effective date of the termination or expiration, including anything that accrues within those thirty (30) days.
 - 15.3. The provisions set forth in the following sections, and any other right or obligation of the Parties in this Agreement that, by its nature (including but not limited to: Use Restrictions, Confidential Information, Warranty Disclaimers, Indemnifications, & Limitations of Liability), should survive termination or expiration of this Agreement, will survive any expiration or termination of this Agreement.
 - 15.4. In the event that Customer terminates this Agreement or cancels any portions of a project (as may be set forth in an executed Statement of Work) prior to Go Live, Customer shall pay for all Professional Services actually performed by CentralSquare on a time and materials basis, regardless of the payment terms in Exhibit 1.
 - 15.5. Return of Customer Data. If Customer requests in writing at least ten (10) days prior to the effective date of expiration or earlier termination of this Agreement, CentralSquare shall within sixty (60) days following such expiration or termination, deliver to Customer in CentralSquare's standard format the then most recent version of Customer Data maintained by CentralSquare, provided that Customer has at that

- time paid all Fees then outstanding and any amounts payable after or as a result of such expiration or termination.
- Deconversion. In the event of (i) expiration or earlier termination of this Agreement, or (ii) Customer no longer purchasing certain Solutions (including those indicated to be Third-Party Materials), if Customer requests assistance in the transfer of Customer Data to a different vendor's applications ("Deconversion"), CentralSquare will provide reasonable assistance. CentralSquare and Customer will negotiate in good faith to establish the relative roles and responsibilities of CentralSquare and Customer in effecting Deconversion, as well as the appropriate date for completion. CentralSquare shall be entitled to receive compensation for any additional consultation, services, software, and documentation required for Deconversion on a time and materials basis at CentralSquare's then standard rates.
- **15.7.** Termination of this Agreement shall not relieve either Party of any other obligation incurred one to the other prior to termination.
- 16. <u>Assignment</u>. Neither this Agreement nor any rights or obligations hereunder shall be assigned or otherwise transferred by either Party without the prior written consent of the other Party, which consent will not be unreasonably withheld; provided however, that in the event of a merger or acquisition of all or substantially all of CentralSquare's assets, CentralSquare may assign this Agreement to an entity ready, willing and able to perform CentralSquare's executory obligations hereunder.
- **17.** Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this Agreement (each, a "Dispute"), including the breach, termination, or validity thereof, shall be resolved as follows:
 - 17.1. Good Faith Negotiations. The Parties agree to send written notice to the other Party of any Dispute ("Dispute Notice"). After the other Party receives the Dispute Notice, the Parties agree to undertake good faith negotiations to resolve the Dispute. Each Party shall be responsible for its associated travel and other costs.
 - 17.2. Escalation to Mediation. If the Parties cannot resolve any Dispute through good faith negotiations, the dispute will be escalated to non-binding mediation, with the Parties acting in good faith to select a mediator and establishing the mediation process. The Parties agree the mediator's fees and expenses, and the mediator's costs incidental to the mediation, will be shared equally between the Parties. The Parties shall bear their own fees, expenses, and costs.
 - 17.3. Confidential Mediation. The Parties further agree all written or oral offers, promises, conduct, and statements made in the course of the mediation are confidential, privileged, and inadmissible for any purpose in any litigation, arbitration or other proceeding involving the Parties. However, evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation.
 - 17.4. <u>Litigation</u>. If the Parties cannot resolve a Dispute through mediation, then once an impasse is declared by the mediator either Party may pursue litigation in a court of

competent jurisdiction.

- 18. Waiver/Severability. The failure of any Party to enforce any of the provisions hereof will not be construed to be a waiver of the right of such Party thereafter to enforce such provisions. If any provision of this Agreement is found to be unenforceable, that provision will be enforced to the maximum extent possible, and the validity, legality and enforceability of the remaining provisions will not in any way be affected or impaired thereby.
- 19. LIABILITY. NOTWITHSTANDING ANY PROVISION WITHIN THIS AGREEMENT TO THE CONTRARY, AND REGARDLESS OF THE NUMBER OF LOSSES, WHETHER IN CONTRACT, EQUITY, STATUTE, TORT, NEGLIGENCE, OR OTHERWISE:
 - 19.1. NEITHER PARTY SHALL HAVE LIABILITY TO THE OTHER PARTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY, LIQUIDATED, OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING BUT NOT LIMITED TO, REPLACEMENT COSTS, AND NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR LOSSES OF PROFIT, REVENUE, INCOME, BUSINESS, ANTICIPATED SAVINGS, DATA, AND REPUTATION, AND MORE GENERALLY, ANY LOSSES OF AN ECONOMIC OR FINANCIAL NATURE, REGARDLESS OF WHETHER LOSSES SUCH MAY BE **DEEMED** AND CONSEQUENTIAL OR ARISING DIRECTLY NATURALLY FROM THE INCIDENT GIVING RISE TO THE CLAIM, AND REGARDLESS OF WHETHER SUCH LOSSES ARE FORESEEABLE OR WHETHER EITHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF **SUCH LOSSES; AND**
 - 19.2. CENTRALSQUARE'S TOTAL LIABILITY ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT SHALL NOT EXCEED THE AMOUNT(S) ACTUALLY PAID BY CUSTOMER TO CENTRALSQUARE HEREUNDER FOR THE LAST TWELVE MONTHS PRIOR TO THE DATE THE CLAIM AROSE.
- 20. <u>Insurance</u>. During the term of this Agreement, CentralSquare shall maintain insurance coverage covering its operations in accordance with Exhibit 3. Upon request by Customer, CentralSquare shall include Customer as an additional insured on applicable insurance policies provided under this Agreement. CentralSquare shall provide proof of current coverage during the term of this Agreement.
- 21. Third-Party Materials. CentralSquare may from time to time, include third parties to perform services, provide software, or provide equipment. Customer acknowledges and agrees CentralSquare provides front-line support services for these Third-Party Materials, but these third parties assume all responsibility and liability in connection with the Third-Party CentralSquare is not authorized to make any Materials. representations or warranties that are binding upon the thirdparty or to engage in any other acts that are binding upon the third-party, except specifically that CentralSquare is authorized to represent third-party fees and to accept payment of such amounts from Customer on behalf of the third-party for as long as such third-party authorizes CentralSquare to do so. As a condition precedent to installing or accessing certain Third-Party Materials, Customer may be required to execute a click-through, shrink-wrap End User License Agreement ("EULA") or similar agreement provided by the Third-Party Materials provider. All third-party materials are provided "as-is" and any representation or warranty concerning them is strictly between Customer and the third-party.

- 22. <u>Subcontractors</u>. CentralSquare may from time to time, in its discretion, engage third parties to perform services on its behalf including but not limited to Professional Services, Support Services, and/or provide software (each, a "Subcontractor"). CentralSquare shall be fully responsible for the acts of all subcontractors to the same extent it is responsible for the acts of its own employees.
- 23. Entire Agreement. This Agreement, and any Exhibits specifically incorporated therein by reference, constitute the entire agreement between the Parties with respect to the subject matter. These documents supersede and merge all previous and contemporaneous proposals of sale, communications, representations, understandings and agreements, whether oral or written, between the Parties with respect to the subject hereof. This Agreement may not be modified except by a writing subscribed to by authorized representatives of both Parties.
- 24. <u>Amendment</u>. Either Party may, at any time during the term, request in writing changes to this agreement. The Parties shall evaluate and, if agreed, implement all such requested changes. No requested changes will be effective unless and until memorialized in either a CentralSquare issued add-on quote signed by the customer, or a written change order or amendment to this agreement signed by both parties.
- 25. No Third-Party Beneficiaries. This Agreement is for the sole benefit of the Parties and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer on any other person any legal or equitable right, benefit, or remedy of any nature under or by reason of this Agreement.
- 26. <u>Counterparts</u>. This Agreement, and any amendments hereto, may be executed in several counterparts, each of which when so executed shall be deemed to be an original, and such counterparts shall constitute one and the same instrument. The Agreement (and any amendments) shall be considered properly executed by a Party if executed by that Party and transmitted by facsimile or other electronic means including, without limitation, Docusign, Tagged Image Format Files (TIFF), or Portable Document Format (PDF).
- 27. <u>Material Adverse Change</u>. If any law, regulation, applicable standard, process, OEM requirement is changed or comes into force after the Effective Date, including but not limited to PCI standards or Americans with Disabilities Act compliance (collectively, a "Material Adverse Change"), which is not explicitly addressed within this Agreement and results in *significant extra* costs for either Party in relation to the performance of this Agreement, both Parties shall promptly meet, discuss in good faith, and agree upon reducing the technical, operational, and/or commercial impact of such Material Adverse Change.
- 28. Cooperative Purchases. This Agreement may be used by Customer Affiliates. CentralSquare has agreed to offer similar services to other Affiliates under the same terms and conditions as stated herein except that the Fees may be negotiated between CentralSquare and other Affiliates based on the specific revenue expectations, agency reimbursed costs, and other Affiliate requirements. The Customer will in no way whatsoever incur any liability in relation to specifications, delivery, payment, or any other aspect of purchases by such Affiliates. CentralSquare and the Affiliate will enter into any such arrangement with an Amendment to this Agreement.

29. Order of Precedence.

29.1. In the event of any conflict or inconsistency between this Agreement, the Exhibits, or any purchase order, then the following priority shall prevail:

- 29.1.1. City of Burleson Addendum
- 29.1.2. The main body of this Agreement and any associated amendments, statements of work (including Exhibit 4), or change orders.
- 29.1.3. The attached Exhibits to this Agreement in the order in which they appear.
- 29.2. Customer's purchase terms and conditions or CentralSquare's sales terms and conditions are not applicable and shall have no force and effect, whether referenced or not in any document in relation to this Agreement.
- **29.3.** Incorporated Exhibits to this Agreement:

Exhibit 1: Fee Schedule

Exhibit 2: Maintenance & Support Standards

Exhibit 3: Sample Certificate of Insurance

Exhibit 4: Statement of Work

Exhibit 5: Using/Accessing Agency Guidelines

Exhibit 6: CentralSquare Access Management Policy

Exhibit 7: Sample Documents for C2C

Exhibit 8: City of Burleson Addendum to Vendor's Contract Additional Provisions (To take precedence in accordance with 29.1.1.)

Exhibit 9: Various Operation Scenarios Documents

Exhibit 10: Various Interface Requirements Documents

EXHIBIT 1

Fee Schedule

SOFTWARE

ANALY	TICS				
	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
1.	CrimeView Analytics: Informative (3 years data) CST System Subscription	1	3,350.00	- 1,105.50	2,244.50
2.	CrimeView Analytics: Standard (3 years data) CST System Subscription	1	3,125.00	- 1,031.25	2,093.75
3.	FireView Analytics: 2 Integration (5 years data) CST System Annual Subscription	1		- 3,894.00 rtics Software Subtotal rtics Software Discount	7,906.00 18,275.00 USD - 6,030.75 USD
CAD				tics Software Total	12,244.25 USD
CAD	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
4.	CAD Enterprise Site License (OP) Annual Subscription Fee	1	14,740.00	- 4,864.20	9,875.80
5.	Enterprise CAD Archive Server Software (OP) Annual Subscription Fee	1	1,100.00	- 363.00	737.00
6.	Enterprise CAD Browser (OP) Annual Subscription Fee	1	4,300.00	- 1,419.00	2,881.00
7.	Enterprise CAD Disaster Recovery System (OP) Annual Subscription Fee	1	2,500.00	- 825.00	1,675.00
8.	Enterprise CAD GISLink Utility Position (OP) Annual Subscription Fee	1	2,200.00	- 726.00	1,474.00
9.	Enterprise CAD Mapping (OP) Annual Subscription Fee	8	200.00	- 528.00	1,072.00
10.	Enterprise CAD Mapping Test or Training (OP) Annual Subscription Fee	2	200.00	- 132.00	268.00
11.	Enterprise CAD Position (OP) Annual Subscription Fee	8	4,300.00	- 11,352.00	23,048.00
12.	Enterprise CAD Routing Server - Disaster Recovery (OP) Annual Subscription Fee	1	1,300.00	- 429.00	871.00
13.	Enterprise CAD Routing Server - Test or Trn. System (OP) Annual Subscription Fee	1	1,300.00	- 429.00	871.00
14.	Enterprise CAD Routing Server - Test or Trn. System (OP) Annual Subscription Fee	1	1,300.00	- 429.00	871.00
15.	Enterprise CAD Routing Server (OP) Annual Subscription Fee	1	8,100.00	- 2,673.00	5,427.00
16.	Enterprise CAD Server Software (OP) Annual Subscription Fee	1	13,000.00	- 4,290.00	8,710.00
17.	Enterprise CAD Test or Training System (OP) Annual Subscription Fee	1	2,500.00	- 825.00	1,675.00
18.	NCIC/State Query Position for Enterprise CAD (OP) Annual Subscription Fee	8	200.00	- 528.00	1,072.00
				CAD Software Subtotal	90,340.00 USD

- 29,812.20 USD

CAD Software Discount

CAD-TO-	-CAD			CAD Software Total	60,527.80 USD
	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
19.	CAD-to-CAD Unify (Cloud) Annual Subscription Fee	1	14,950.00	- 4,933.50	10,016.50
DEMS	Subscription ree		CAD-to	-CAD Software Subtotal -CAD Software Discount -CAD Software Total	14,950.00 USD - 4,933.50 USD 10,016.50 USD
DLIVIS	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
20.	CentralSquare DEMS Annual Subscription Fee	1	6,360.00	- 2,098.80	4,261.20
	Subscription ree			DEMS Software Subtotal DEMS Software Discount DEMS Software Total	6,360.00 USD - 2,098.80 USD 4,261.20 USD
EASY ST	REET DRAW				
	PRODUCT NAME	QI	UANTITY	UNIT PRICE	TOTAL
21.	Easy Street Draw License Fee		1	8,888.10	8,888.10
FILEONC)		Easy St	reet Draw Software Total	8,888.10 USD
	PRODUCT NAME	O	UANTITY	UNIT PRICE	TOTAL
22.	FileOnQ Annual Subscription Fee		1	44,226.00	44,226.00
				FileOnQ Software	Total 44,226.00 USD
FTO					
23.	PRODUCT NAME Field Training Online (Stand-	QUANTITY 1	UNIT PRICE	DISCOUNT - 3,978.97	TOTAL 1,021.03
INITEDEA	Alone) – Annual Subscription Fee			FTO Software Subtotal FTO Software Discount FTO Software Total	5,000.00 USD - 3,978.97 USD 1,021.03 USD
INTERFA		OLIANITITY	LINUT DDICE	DISCOUNT	TOTAL
4	PRODUCT NAME	QUANTITY	UNIT PRICE		TOTAL
4.	CentralSquare Message Switch (OP) Annual Subscription Fee	1	9,500.00	- 3,135.00	6,365.00
5.	CentralSquare Message Switch Additional Provider (OP) Annual Subscription Fee	1	3,200.00	- 1,056.00	2,144.00
6.	CentralSquare Message Switch Additional Transaction (OP) Annual Subscription Fee	2	1,500.00	- 990.00	2,010.00
7.	Enterprise CAD ASAP Interface Annual Subscription (OP) Annual Subscription Fee	1	5,500.00	- 1,815.00	3,685.00
8.	Enterprise CAD CryWolf Alarm Incidents Export (OP) Annual Subscription Fee	1	0.00		0.00
9.	Enterprise CAD CryWolf Permits Import (OP) Annual Subscription Fee	1	0.00		0.00
0.	Enterprise CAD Premise Data Import (OP) Annual Subscription Fee	1	4,300.00	- 1,419.00	2,881.00
1.	Enterprise CAD RapidSOS Interface (OP) Annual Subscription Fee	1	5,400.00	- 1,782.00	3,618.00
32.	Enterprise CAD Text-to-911 Interface (OP) Annual Subscription Fee	1	8,000.00	- 2,640.00	5,360.00

33.	Enterprise Police-to-Police Annual Subscription Fee	1	5,000.00	- 2,500.00	2,500.00
34.	Public Safety Citizen Reporting Annual Subscription Fee	1	5,000.00	- 2,772.92	2,227.08
35.	Standard Alpha Numeric Paging Interface (OP) Annual Subscription Fee	1	3,900.00	- 1,287.00	2,613.00
36.	Standard ANI/ALI Interface (OP) Annual Subscription Fee	1	3,900.00	- 1,287.00	2,613.00
37.	Standard Arrest and Incident Publisher (OP) Annual Subscription Fee - TX Gang	1	4,100.00	- 1,353.00	2,747.00
38.	Standard Arrest and Incident Publisher (OP) Annual Subscription Fee - GangNet Systems	1	4,100.00	- 1,353.00	2,747.00
39.	Standard Citation Importer (OP) Annual Subscription Fee	1	5,100.00	- 2,353.00	2,747.00
40.	Standard EMD Integration (OP) Annual Subscription Fee	8	200.00	- 528.00	1,072.00
41.	Standard Incident Publisher (OP) Annual Subscription Fee	1	4,100.00	- 1,353.00	2,747.00
42.	Standard Logging Recorder Interface (OP) Annual Subscription Fee	1	8,400.00	- 2,772.00	5,628.00
43.	Standard National Data Exchange (N- DEx) Publisher (OP) Annual Subscription Fee	1	4,100.00	- 1,353.00	2,747.00
44.	Standard Texas State Crash Publisher (OP) Annual Subscription Fee	1	5,500.00	- 1,815.00	3,685.00
45.	Standard USDD Station Alert Interface (OP) Annual Subscription Fee	1	8,600.00	- 2,838.00	5,762.00
46.	Standard Warrant Publisher (OP) Annual Subscription Fee	1	4,100.00	- 1,353.00	2,747.00
47.	Standard Warrants Importer (OP) Annual Subscription Fee	1	10,800.00	- 3,564.00	7,236.00
48.	Std Enterprise CAD External Incident Data Transfer (OP) Annual Subscription Fee - ImageTrend	1	6,500.00	- 2,145.00	4,355.00
MOBILE	· ·		Interfa	aces Software Subtotal aces Software Discount aces Software Total	123,700.00 USD - 43,463.92 USD 80,236.08 USD
	PRODUCT NAME	QUANTITY	UNIT PRICE	DISCOUNT	TOTAL
49.	Enterprise Mobile Base Position (OP) Annual Subscription Fee	18	300.00	- 1,782.00	3,618.00
50.	Enterprise Mobile Base Position w/ CJIS/NCIC Forms (OP) Annual Subscription Fee	50	400.00	- 6,600.00	13,400.00
51.	Enterprise Mobile Disaster Recovery System (OP) Annual Subscription Fee	1	2,300.00	- 759.00	1,541.00
52.	Enterprise Mobile Mapping (OP) Annual Subscription Fee	68	100.00	- 2,244.00	4,556.00
53.	Enterprise Mobile Mapping Test	1	100.00	- 33.00	67.00

	or Training (OP) Annual Subscription Fee				
54.	Enterprise Mobile Server Software (OP) Annual Subscription Fee	1	10,800.00	- 3,564.00	7,236.00
55.	Enterprise Mobile Test or Training System (OP) Annual Subscription Fee	1	2,300.00	- 759.00	1,541.00
56.	Field Ops (CL) Annual Subscription Fee	20	120.00	- 792.00	1,608.00
57.	Mobile Enterprise Site License (OP) Annual Subscription Fee	1	5,010.00	- 1,653.30	3,356.70
	·			Mobile Software Subtotal Mobile Software Discount Mobile Software Total	55,110.00 USD - 18,186.30 USD 36,923.70 USD
RMS	DDODUCT NAME	OLIANITITY	LIMIT DDIC	F DICCOUNT	TOTAL
58.	PRODUCT NAME Enterprise PMS Assident (OR) Appual	QUANTITY 1	UNIT PRICE		
	Enterprise RMS Accident (OP) Annual Subscription Fee		5,600.00	- 1,848.00	3,752.00
59.	Enterprise RMS Concurrent User License (OP) Annual Subscription Fee	24	600.00	- 4,752.00	9,648.00
60.	Enterprise RMS Disaster Recovery System (OP) Annual Subscription Fee	1	1,700.00	- 561.00	1,139.00
61.	Enterprise RMS Evidence and Barcoding (OP) Annual Subscription Fee	1	5,600.00	- 1,848.00	3,752.00
62.	Enterprise RMS GIS (With CAD) (OP) Annual Subscription Fee	1	0.00		0.00
63.	Enterprise RMS NIBRS Module Annual Subscription	1	10,800.00	- 3,564.00	7,236.00
64.	Enterprise RMS Reporting Server License (OP) Annual Subscription Fee	1	1,100.00	- 363.00	737.00
65.	Enterprise RMS Server Software (OP) Annual Subscription Fee	1	15,100.00	- 4,983.00	10,117.00
66.	Enterprise RMS Test or Training System (OP) Annual Subscription Fee	1	1,700.00	- 561.00	1,139.00
67.	NCIC/State Software Enterprise RMS Concurrent User (OP) Annual Subscription Fee	3	200.00	- 198.00	402.00
68.	Records Enterprise Site License (OP) Annual Subscription Fee	1	9,750.00	- 3,217.50	6,532.50
				RMS Software Subtotal RMS Software Discount RMS Software Total	66,350.00 USD - 21,895.50 USD 44,454.50 USD

SOFTWARE SUMMARY

C-Garage Calabata	
Software Subtotal	433,199.10 USD
Software Discount	- 130,399.94 USD
Software Total	302,799.16 USD

SERVICES

CAD-TO-CAD

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	DESCRIPTION	TOTAL
1.	PSJ Cloud Startup Fee	10,000.00
2.	Public Safety Consulting Services - Fixed Fee	7,800.00
3.	Public Safety Project Management Services - Fixed Fee	3,510.00
4.	Public Safety Technical Services - Fixed Fee	4,680.00
5.	Public Safety Training Services - Fixed Fee	3,120.00
	CAD-to-CAD Services Su	btotal 29,110.00 USD
	CAD-to-CAD Services Di	- 1.528.80 USD

CAD-to-CAD Services Discount - 1,528.80 USD CAD-to-CAD Services Total 27,581.20 USD

FILEONQ

	DESCRIPTION	TOTAL	
6.	FileOnQ Annual Implementation Services	15,600.00	
		FileOnQ Services Total	15,600.00 USD

SERVICES

	DESCRIPTION	TOTAL
7.	Fixed Fee Travel & Living	100,000.00
8.	Public Safety Consulting Services - Fixed Fee	172,380.00
9.	Public Safety Data Conversion Services - Fixed Fee	166,335.00
10.	Public Safety GIS/Analytics Services - Fixed Fee	80,535.00
11.	Public Safety Project Management Services - Fixed Fee	148,785.00
12.	Public Safety Technical Services - Fixed Fee	252,525.00
13.	Public Safety Training Services - Fixed Fee	70,200.00
	Services Subtotal	990,760.00 USD
	Services Discount	- 71,260.80 USD
	Services Total	919,499.20 USD

SERVICES SUMMARY

Services Subtotal	1,035,470.00 USD
Services Discount	- 72,789.60 USD
Services Total	962,680.40 USD

HARDWARE

HARDWARE

	PRODUCT NAME	QUANTITY	UNIT PRICE	TOTAL
1.	Enterprise RMS Web Evidence and Barcoding Electronic Signature Pad Hardware	2	532.27	1,064.54
2.	Enterprise RMS Web Evidence and Barcoding Labels for Zebra printer using Thermal Transfer Labels 4" x 2" Hardware	2	111.29	222.58
3.	Enterprise RMS Web Evidence/Barcoding Mobile Printer - Ruggedized Hardware	2	1,075.43	2,150.86
4.	Shipping & Handling	1	203.48	203.48
5.	Zebra Cordless Barcode Scanner w/ USB & Cradle	2	949.00	1,898.00
6.	Zebra Wax Ribbon for Zebra ZD421	2	101.40	202.80
7	Zehra ZD420 Deckton Printer Only - Thermal			

7. Zebra ZD420 Desktop Printer Only - Thermal

		Transfer Ethernet (requires ribbon)	2	621.99	1,243.98
	PFRFO	RMANCE BONDS	На	ardware Total	6,986.24 USD
			OLLABITITY	LINIT DDICE	TOTAL
	8.	PRODUCT NAME Bonding Fee PSJ	QUANTITY 1	UNIT PRICE 21,500.74	21,500.74
		HARDWARE SUMMARY	1	21,500.74	21,300.74
	·	ARDWARE SUIVIIVIARY			
		<u> </u>			
	-lardware	Total			28,486.98 USD
		SUMMARY			20,400.30 035
	Software S	iuhtotal			
	, or time of				433,199.10 USD
					,
S	Services Su	ıbtotal			
					1,035,470.00 USD
ŀ	Hardware	Subtotal			
					28,486.98 USD
9	Subtotal				1,497,156.08 USD
ı	Discount				- 203,189.54 USD
	-10000				_00,_00.0
F	Project To	otal			1,293,966.54 USD
RE	CURRIN	NG FEES			

ТҮРЕ	AMOUNT
FIRST YEAR MAINTENANCE TOTAL	2,632.50
FIRST YEAR SUBSCRIPTION TOTAL	293,911.06

PAYMENT TERMS:

- o 20% completion of Project Kick-off as defined in 6.2 of the SOW
- o 15% completion of software load
- 20% completion of Functional Acceptance Testing as defined in 7.3.6 and 7.6.9 of the SOW
- 10% completion of End-User Training
- o 20% Go Live
- 15% Final System Acceptance as defined in 7.14 of the SOW
- Separate milestones for CAD-to-CAD:
 - Services 100% due at Install and Config as defined in 7.12.15.2 of the SOW
 - Subscription 100% due at Go Live as defined in 7.12.19 of the SOW, and annually thereafter on the anniversary date of Go Live
- Separate milestone for 3rd Party Software (Easy Street Draw, DEMS and FileOnQ):
 - Each due 100% upon system access, and annually thereafter on the anniversary date of system access
- Performance Bond:
 - 100% due at contract execution

Legacy Agreement support and maintenance shall be due until the applicable replacement software's Go Live. Any unused prepaid support, maintenance, or subscription fees shall be credited as a pro-rated amount towards the next applicable invoice due under this Agreement, or future invoice.

Performance Bond Terms

CentralSquare shall obtain and deliver to Customer a performance bond for twelve 12 month terms, to be extended by continuation certificate. Upon first Go Live, the performance bond shall be relinquished and terminate.

On-Premise Subscription Terms

The following terms apply to all deliverables designated with an "OP" indicator in the foregoing asset tables.

<u>Subscription Access.</u> Customer is purchasing subscription priced software. So long as Client has paid the annual subscription fees and is current at all times with the subscription fees as stated herein, CentralSquare grants to Client a limited non-exclusive, non-transferable access to use the subscription software granted in this Agreement. Client understands and acknowledges no ownership or any form of intellectual property rights transfer under the terms of this Agreement.

If customer terminates the "OP" deliverables in accordance with the termination for convenience provision below, customer shall be entitled to a pro-rata refund of the annual subscription fee, calculated by the remaining months in the applicable annual subscription.

<u>Termination for Convenience</u>. The "OP" deliverables may be terminated without cause by either party by providing written notice to the other party thirty (30) days prior to the date of termination.

<u>Termination of Access Rights.</u> Upon termination of the "OP" deliverables, (i) all rights granted herein shall terminate immediately and automatically upon the effective date of such termination; (ii) Customer's right to the accessed software granted herein shall terminate; and (iii) Customer will cease using such software and at CentralSquare's direction return or destroy the software and any supplemental confidential information or documentation.

Right to Audit. Customer shall maintain for a reasonable period, but in no event less than three (3) years after expiration or termination of this Quote, the systems, books and records necessary to accurately reflect compliance with software access and the use thereof under this Agreement. Upon request, Customer shall permit CentralSquare and its directors, officers, employees, and agents to have on-site access at Customer's premises (or remote access as the case may be) during normal business hours to audit such systems, books, and records for the purpose of verifying Customer's use of the software to monitor compliance with this Agreement no more than once per year. If an audit reveals that Customer has exceeded the restrictions

0	on use or non-compliance with this Agreement, Customer shall be responsible for the reimbursement of all costs related to the audit and prompt payment by Customer to CentralSquare of any underpayment.
	addit and prompt payment by customer to central square or any underpayment.

EXHIBIT 2

Support & Maintenance

This Support & Maintenance Exhibit describes support and maintenance relating to technical support that CentralSquare will provide to Customer during the Term of the Agreement.

1. Product Updates and Releases

- 1.1. <u>Software Version.</u> "Software Version" means the base or core version of the Software that contains significant new features and significant fixes and is available to the Customer. Software Versions may occur as the Software architecture changes or as new technologies are developed. The nomenclature used for updates and upgrades consists of major, minor, build, and fix and these correspond to the following digit locations of a release, a,b,c,d. An example of which would be 7.4.1.3, where the 7 refers to the major release, the 4 refers to the minor release, the 1 refers to the build, and the 3 refers to a fix. All Software Versions are provided and included as part of this Agreement.
- 1.2. <u>Updates.</u> From time to time CentralSquare may develop permanent fixes or solutions to known problems or bugs in the Software and incorporate them in a formal "Update" to the Software. If Customer is receiving technical support from CentralSquare on the general release date for an Update, CentralSquare will provide the Customer with the Update and related Documentation at no extra charge. Updates for custom configurations will be agreed upon by the Parties and outlined in a Statement of Work or Change Order.
- 1.3. Releases. Customer shall agree to install and/or use any New or Major Release within one year of being made available by CentralSquare to avoid or mitigate a performance problem, ineligibility for Support and Maintenance Services or infringement claim. All modifications, revisions and updates to the Software shall be furnished by means of new Releases of the Software and shall be accompanied by updates to the Documentation whenever CentralSquare determines, in its sole discretion, that such updates are necessary.

2. Telephone Support & Support Portal

- 2.1. CentralSquare shall provide to Customer, 24/7 via toll-free phone number 833-278-7877. CentralSquare shall provide to Customer, commercially reasonable efforts in solving errors reported by the Customer as well as making available an online support portal. Customer shall provide to CentralSquare reasonably detailed documentation and explanation, together with underlying data, to substantiate errors and to assist CentralSquare in its efforts to diagnose, reproduce and correct the error. Should either Party not be able to locate the error root cause and Customer and CentralSquare agree that on-site services are necessary to diagnose or resolve the problem CentralSquare shall provide a travel estimate and estimated hours in order to diagnose the reported error.
- 2.2. If after traveling onsite to diagnose a reported error and such reported error did not, in fact, exist or was not attributable to a defect in the Software provided by CentralSquare or an act or omission of CentralSquare, then Customer shall pay for CentralSquare's investigation, travel, and related services in accordance with provided estimate. Customer must provide CentralSquare with such facilities, equipment and support as are reasonably necessary for CentralSquare to perform its obligations under this Amendment, including remote access in accordance with the Remote Access Policy.

3. Online Support

Online support is available via https://support.centralsquare.com/s/contact-us, offering Customer the ability to resolve its own problems with access to CentralSquare's most current information. Customer will need to enter its designated username and password to gain access to the technical support areas on CentralSquare's website. CentralSquare's technical support areas allow Customer to: (i) search an up-to-date knowledge base of technical support information, technical tips, and featured functions; and (ii) access answers to frequently asked questions (FAQ).

4. Exclusions from Technical Support Services

CentralSquare shall have no support obligations to provide Support or Maintenance for Solutions that are not kept current to one version prior to the then current version of the Solution. CentralSquare shall have no support obligations with respect to any third-party hardware or software product not licensed or sold to Customer by CentralSquare ("Nonqualified Product"). Customer shall be solely responsible for the compatibility and functioning of Nonqualified Products with the Software.

5. Customer Responsibilities

In connection with CentralSquare's provision of technical support as described herein, Customer acknowledges that Customer has the responsibility to do each of the following:

- 5.1 Provide hardware, operating system and browser software that meets technical specifications, as well as a fast, stable, high-speed connection and remote connectivity for accessing the Solution.
- 5.2 Maintain any applicable computer system and associated peripheral equipment in good working order in accordance with the manufacturers' specifications, and ensure that any problems reported to CentralSquare are

not due to hardware malfunction;

- 5.3 For CentralSquare Solutions that are implemented on Customer Systems, maintain the designated operating system at the latest code revision level reasonably deemed necessary by CentralSquare for proper operation of the Software;
- 5.4 Supply CentralSquare with access to and use of all information and facilities reasonably determined to be necessary by CentralSquare to render the technical support described herein;
- 5.5 Perform any test or procedures reasonably recommended by CentralSquare for the purpose of identifying and/or resolving any problems;
- 5.6 At all times follow routine operator procedures as specified in the Documentation or any error correction guidelines of CentralSquare posted on the CentralSquare website;
- 5.7 Customer shall remain solely responsible at all times for the safeguarding of Customer's proprietary, confidential, and classified information contained within Customer Systems; and
- 5.8 Reasonably ensure that the Customer Systems are isolated and free from viruses and malicious code that could cause harm before requesting or receiving remote support assistance.
- 5.9 Provide access in accordance with Exhibit 6, Remote Access Policy.

6. Priorities and Support Response Matrix

The following priority matrix relates to software errors covered by this Agreement. Causes secondary to non-covered causes - such as hardware, network, and third-party products - are not included in this priority matrix and are outside the scope of this Support & Maintenance Exhibit. CentralSquare will make commercially reasonable efforts to respond to Software incidents for live remote based production systems using the following guidelines:

Priority		Issue Definition	Response Time
Priority 1 Urgent	-	The software is completely down and will not launch or function.	Priority 1 issues must be called in via 833-278-7877 and will be immediately answered and managed by the first available representative.
Priority 2 Critical	-		Priority 2 issues must be called in via 833-278-7877 and will be immediately answered and managed by the first available representative.
Priority 3 Non-Critical			immediately answered and managed by the first
Priority 4 Minor	-		Priority 4 issues called in via 833-278-7877 will be immediately answered and managed by the first available representative. Minor Priority 4 issues may also be reported via Https://support.centralsquare.com/s/contact-us

- 7. Exceptions. CentralSquare shall not be responsible for failure to carry out its Support and Maintenance obligations under this Amendment if the failure is caused by adverse impact due to:
 - 7.1. defectiveness of the Customer's Systems (including but not limited to environment, hardware or ancillary systems), or due to Customer corrupt, incomplete, or inaccurate data reported to the Solution, or documented defect.
 - 7.2. denial of reasonable access to Customer's System or premises preventing CentralSquare from addressing the issue.
 - 7.3. material changes made to the usage of the Solution by Customer where CentralSquare has not agreed to such changes in advance and in writing or the modification or alteration, in any way, by Customer or its subcontractors, of communications links necessary to the proper performance of the Solution.
 - 7.4. a Force Majeure event (as outlined in Section 14), or the negligence, intentional acts, or omissions of Customer or its agents.
- 8. Incident Resolution. Actual response times and resolutions may vary due to issue complexity and priority. For critical impact level and above, CentralSquare provides a continuous resolution effort until the issue is resolved. CentralSquare will make commercially reasonable efforts to resolve Software incidents for live remote based production systems using

the following guidelines:

Priority	Resolution Process	Resolution Time
Priority 1 – Urgent	procedural or configuration	CentralSquare will work continuously to provide the Customer with a solution that allows the Customer to resume live operations on the production system. CentralSquare will either resolve the issue or provide a resolution plan as soon as possible and not later than twenty-four (24) hours after notification.
Priority 2 –	procedural or configuration	CentralSquare will work continuously to provide the Customer with a solution that allows the Customer to resume normal
Critical	workaround or a code correction that allows the Customer to resume normal operations on the production System.	CentralSquare will either resolve the issue or provide a resolution plan as soon as possible and not later than thirty-six (36) hours after notification.
Priority 3 – Non – Critical	procedural or configuration	CentralSquare will work to provide the Customer with a resolution which may include a workaround or code correction within a timeframe that takes into consideration the impact of the issue on the Customer and CentralSquare's User base. Priority 3 issues have priority scheduling in a subsequent release.
Priority 4 – Minor	If CentralSquare determines that a reported Minor Priority error requires a code correction, such issues will be addressed in a subsequent release when applicable.	CentralSquare will work to provide the Customer with a resolution which may include a workaround or code correction in a future release of the software. Priority 4 issues have no defined resolution time.

- Non-Production Environments. CentralSquare will make commercially reasonable efforts to provide fixes to non-production environment(s). Non-production environments are not included under the response or resolution tables provided in this Exhibit.
 - 9.1. <u>Maintenance</u>. All non-production environment resolution processes will follow the structure and schedules outlined above for production environments.
 - 9.2. <u>Incidents and service requests</u>. Non-production environment incidents are considered priority 3 or 4, dictated by circumstances and will be prioritized and scheduled subordinate to production environment service requests.
- **10. Training.** Outside the scope of training services purchased, if any, Customer is responsible for the training and organization of its staff in the operation of the Software.
- 11. Development Work. Software support and maintenance does not include development work either (i) on software not licensed from CentralSquare or (ii) development work for enhancements or features that are outside the documented functionality of the Software, except such work as may be specifically purchased and outlined in the Agreement. CentralSquare retains all intellectual property rights in development work performed and Customer may request consulting and development work from CentralSquare as a separate billable service.
- 12. Technology Life Expectancy. Customer understands, acknowledges and agrees that the technology upon which the Hardware, Solution and Third-Party Software is based changes rapidly. Customer further acknowledges that CentralSquare will continue to improve the functionality and features of the Solution to improve legal compliance, accuracy, functionality and usability. As a result, CentralSquare does not represent or warrant that the Hardware, Solution and/or Third-Party Software provided to Customer under this Agreement or that the Customer Systems recommended by CentralSquare will function for an indefinite period of time. Rather, CentralSquare and Customer may, from time to time, analyze the functionality of the Hardware, Solution, Third-Party Software and Customer Systems in response to changes to determine whether Customer must upgrade the same. Customer upgrades may include without limitation, the installation of a new Release, additional disk storage and memory, and workstation and/or server upgrades. Customer upgrades may also include the installation and/or removal of Third-Party Software. Customer is solely responsible for all costs associated with future resources and upgrades.

EXHIBIT 3

Sample COI



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/12/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER				CONTACT NAME:				
MARSH USA, INC. TWO ALLIANCE CENTER				PHONE FAX (A/C, No, Ext): (A/C, No):				
3560 LENOX ROAD, SUITE 2400				E-MAIL ADDRESS:		(00)		
ATLANTA, GA 30326	INSURER(S) AFFORDING COVERAGE				NAIC#			
CN130114897-EO/C-GAWU-22-23				INSURER A: The Charte				25615
INSURED				INSURER B : Phoenix In				25623
CentralSquare Technologies, LLC 1000 Business Center Drive				INSURER C: Travelers				25674
Lake Mary, FL 32746								19038
,				INSURER D: Travelers				26883
				INSURER E : AIG Speci	alty insurance Co	mpany		20003
COVERAGES CEF	TIEI	^ A TE	NUMBER:	INSURER F: ATL-005494481-00		REVISION NUMBER: (
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						PERSONAL & ADV INJURY	S	2,000,000
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Evidence of Insurance								
CERTIFICATE HOLDER								
				CANCELLATION				
CentralSquare Technologies LLC						ESCRIBED POLICIES BE C		

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John Whittle

ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE of Marsh USA Inc.

ACORD 25 (2016/03)

Lake Mary, FL 32746

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	EXHIBIT 4 Statement of Work	
	Statement of Work (Attached)	



STATEMENT OF WORK City of Burleson, TX

Version 7.0

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Document Control

Date	Version	Details/Changes	Author
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01.09.23	1.1	MCP Review with Track Changes on	L. Kovacs/R. Harrison
1.17.23	2.0	Red-Line Review with Burleson and CST	A Velazquez
1.25.23	2.1	CAD2CAD and Burleson Revisions	A Velazquez
2.2.23	3.0	Red-Line Review with Burleson	A Velazquez
2.8.23	4.0	Red-Line Review with Burleson	A Velazquez
2.21.23	5.0	Red-Lined Review with Burleson	A Velazquez
2.22.23	6.0	Added Custom Message Query and Updated App Y	A Velazquez
3.8.23	7.0	Added FireView	A Velazquez

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1 OVERVIEW

1.1 Statement of Work

This Statement of Work (SOW) defines the services and deliverables that CentralSquare will be providing in accordance with the terms and conditions of the Agreement (the "Agreement") between CentralSquare Technologies, LLC (CentralSquare) and the City of Burleson, TX ("Client").

This project description includes the services and deliverables specified by the Agreement, including if applicable, CentralSquare and services, Subcontractor activities, third-party products, and services for the implementation of the System and Subsystems specified in the Agreement (collectively the "Project").

Statement(s) of Work for applicable CentralSquare Subcontractor(s) are presented in <u>Appendix E – Subcontractor(s) Statement(s) of Work.</u>

The framework of Deliverables documented by this SOW for this Project is further defined through additional documents such as: Operational Scenario Documents (OSD); User and Administrator Documentation and Training Materials.

The number and type of software licenses, products, or services provided by CentralSquare or its Subcontractors are specifically listed in the Agreement and any reference within this document as well as Subcontractors' SOWs (if applicable) do not imply or convey a software, license, or services that are not explicitly listed in the Agreement.

1.2 Project Implementation Definitions

Unless otherwise defined herein, capitalized terms within this document have the meanings described in the Definitions section of the Agreement and where applicable Software Support Agreement.

The following terms are used in this document. Since these terms may be used differently in other settings, these definitions are provided for clarity.

- a) **Agency** means any public safety organization responsible for services within the Client's physical boundaries.
- b) **Agency Administrator** is utilized in the CAD-to-CAD requirements to mean the administrator for a particular agency which has assigned rights to the C2C administrative access.
- c) API is an acronym for Application Programing Interface. An API is a connection between computers or between computer programs. It is a type of software interface, offering a service to other pieces of software. A document or standard that describes how to build or use such a connection or interface is called an API specification. A computer system that meets this standard is said to implement or expose an API. The term API may refer either to the specification or to the implementation.
- d) **CAD-to-CAD** or **CAD2CAD** is a term used for CAD integrations to another CAD.

- e) CAD-to-CAD Hub is CentralSquare's Solution which can be referred to as "the Hub".
- f) CAD-to-CAD Portal is an application that connects to the CAD-to-CAD Hub via web browser or thick client. The CAD-to-CAD Portal provides, to include but not limited to, a view of realtime CAD events for all connected CAD systems, access to administer the configuration of the CAD-to-CAD Hub (based on user roles), and access to detailed diagnostics for troubleshooting. The CAD-to-CAD Portal also has a GIS map feature that provides a visual reference for location of events and vehicles.
- g) **CAD Provider** means the 3rd party CAD Vendor that will be developing the adapter to connect their CAD to the Hub
- h) Change Management is a term that describes the request from either party for a change in project scope. Such a request is enforced by the parties only if it becomes a formal Change Order.
- i) Change Management Process defines how any significant changes to the Project as described in the SOW or related documents as referenced within the SOW, will be managed.
- j) A **Change Order** will be the vehicle for communicating and approving a change in the project scope.
- k) **Cloud** means a remote hosted server infrastructure.
- Codefiles are the component fields within each product that define the data to be contained within each table.
- m) **Connector** also referred to as **CAD Adapter** is an interface to be installed at an Agency that connects the Agency's CAD to the CAD-to-CAD Hub.
- n) **COTS** means "Commercial Off the Shelf" software packages provided by CentralSquare.
- o) **FBI CJIS Security Policy** means the Federal Bureau of Investigations Criminal Justice Information System Security Policy. The essential premise of the CJIS Security Policy is to provide appropriate controls to protect the full lifecycle of criminal justice information (CJI), whether at rest or in transit. The CJIS Security Policy provides guidance for the creation, viewing, modification, transmission, dissemination, storage, and destruction of CJI.
- p) **Functional Acceptance Test** (FAT) is a test(s) of specific functionality of the subsystems of the Enterprise System.
- q) **GIS** is an acronym for Geographic Information System, which is a system for storing and manipulating geographical information on a computer.
- r) **Go Live** means the event that occurs when Client first uses the CAD/Mobile/RMS for Live Operations in a non-test environment.
- s) **Installation Service Request (ISR)** documents servers required for the implementation and the servers' hardware/virtual specifications.
- t) **Modification** means changes or additions to Software from the standard version thereof prepared hereunder. The Modifications, if applicable, are described in Appendix A, Statement of Work. The CentralSquare Software is not custom software, and as such, at CentralSquare's discretion Modifications or enhancements to the standard version will be made available in a subsequent version release available to all CentralSquare clients; or as applicable, made available as a separate module or function, separately licensed and priced.
- u) **The Operational Scenario Document (OSD)** provides an operational description of an interface, capability, or feature within the applicable CentralSquare solution. OSD documents are of two types:

- i. For Standard Interfaces these documents are standard, published CentralSquare documents and are not specific to any Client.
- ii. For customizations (Custom Code or Custom Features) the OSD will provide a description in sufficient detail that both Client and CentralSquare team mutually agree to the expected deliverable. The OSD provides the "what", "how," and the information flow (including data flow and data elements, when appropriate) of the capability or feature. The OSD does not provide the technical or internal design of how CentralSquare's Development team will accomplish the requested feature. An OSD will be provided for each contracted product customization to be developed. Once approved by the Client, the OSD becomes the basis for CentralSquare's development. Once approved, any further changes requested by Client to the OSD and/or design may incur additional costs to Client.
- v) **Process** is a series of actions or steps taken in order to achieve a particular end.
- w) **Project Management Plan** means collectively the Communications Management Plan; Risk Management Plan; and Change Management Plan that provide the criteria for managing those tasks within the Project.
- x) Project Schedule means the schedule providing dates and timeframes for completion of tasks and Deliverables during the course of this Project. The Project Schedule is subject to change at the mutual agreement of CentralSquare and Client as further described in this SOW.
- y) **SDK** is the Software Development Kit that is provided to 3rd party CAD Vendors to develop the middleware (or adapter) that connects their CAD to the Hub.
- z) **SME** is an acronym for subject matter expert, an individual with a deep understanding of a particular topic.
- aa) **Solution** is the total complement of Licensed Software, Services, customizations, all other items, tangible and intangible, designed to operate as an integrated group to provide the functionality outlined in the Scope of Services.
- bb) **Subsystem** means each of the applications described in the Statement of Work including its equipment, other hardware, and software. In most cases, the Subsystem software will share equipment. Applicable Enterprise core applications, e.g., CAD Enterprise, Mobile Enterprise, and Records Enterprise are defined as Subsystems.
- cc) **System Integration Test (SIT)** will be conducted in partnership by CentralSquare and the Client for up to four hours with CentralSquare assisting remotely. The SIT will be conducted based on a provided scenario that tests the records management process. A small group of Client staff should participate in this test. CentralSquare will work with the Client to refine the test scenario that test the system based on Client's practices and must be signed off prior to commencement of the SIT.
- dd) **System Planning Guide** provides system administrators and system planners a single requirements reference.
- ee) **Task Completion Reports (TCR)** is a formal document presented to the Client that acknowledges completion of a major task or event.
- ff) **TTMS** is the acronym for the CentralSquare Message Switch.
- gg) Work Hours:
 - a. **Business hours** are defined as Monday Friday, 8:00am 5:00pm CT.
 - b. Training hours are defined as:

- i. **Remote Training**: Monday Friday, between 8:00am 10:00pm CT based on the actual duration of the class.
- ii. **On Site Training**: Tuesday Friday, between 7:00am 10:00pm CT based on the actual duration of the class.
- c. Alternate training schedules (e.g., Monday class starts for classes that would normally start on a Tuesday, multiple classes per day, evening, and weekend classes) are subject to additional cost.

1.3 General Client Responsibilities

In addition to those Client responsibilities stated elsewhere in this SOW, Client is responsible for the following:

- a) Electrical facilities cabling, network communications, telephone, other voice/data connections and peripherals for system workstations and mobiles for production and training use.
- b) Providing information to CentralSquare staff on network infrastructure, including any firewalls within the overall network that the system will operate and necessary port access for the system to operate in accordance with CentralSquare documentation.
- The installation, configuration, maintenance (including patch management and upgrades of Microsoft software on Workstations and Mobiles.
- d) Any hardware and third-party software or services necessary for implementing the System that is not listed in the Agreement as a CentralSquare Deliverable (not listed as a line item in the Price and Payment section of the Agreement). This includes workstations, server hardware not included with managed server/hosted solutions, network equipment, telephone or TDD equipment, performance test software, Microsoft licenses, Hypervisor licenses,
- e) Configuration, maintenance, testing, and supporting the Third-Party Systems that Client operates and which will be interfaced with as a part of this project. This project includes the Contracted Interfaces listed in Appendix B Standard CentralSquare Interfaces and Appendix C Custom CentralSquare Interfaces.
- f) Consoles, furniture, or fixtures as well as any modifications to install equipment used for Systems or Subsystems specified by the Agreement into existing consoles, furniture, vehicles, or existing facilities. Installation of Workstations into consoles, furniture, vehicles or like items, is the responsibility of Client.
- g) Client is responsible for providing remote connectivity to CentralSquare for the purpose of installation, configuration, testing, and troubleshooting of any CentralSquare applications at Client site. CentralSquare's approved remote connectivity methods are described in the System Planning Guide and Appendix J.
- h) Connect and configure any Third-Party hardware (including but not limited to: Bar Code Scanners, Bar Code Printers, Biometric Fingerprint Scanners, Signature Pads, and dongles) to Client workstations, if these services are not explicitly sold in the System Agreement.
- i) Active participation of the appropriate personnel with the necessary background knowledge and availability in the Project implementation meetings and working sessions during the course of the Project. Examples of such implementation sessions are System Orientation, Validation and Readiness, Functional Testing, Training, regular Project meetings, discussion regarding Interfaces, network planning and system installation planning.

- j) The provision of data as requested by CentralSquare. This information must be provided on a timely basis in order to meet the project timelines. This information will be provided in a format requested by CentralSquare staff in accordance with CentralSquare Documentation.
- k) If Onsite Training is purchased, provide a facility with the required computer and audio-visual equipment for training.
- I) Provision of facilities and electrical power for CentralSquare staff while onsite.
- m) The project timeline will require a commitment by Client staff to attend project meetings, attend training, and execute action items within the mutually agreed upon defined time parameters in the project schedule.

1.4 Project Exclusions

- a) CentralSquare provides software applications that it develops. These applications are sold as is and are considered to be "Commercial Off the Shelf" (COTS) software packages. The functionality of these products will be based on CentralSquare's current design and functionality of these COTS products, unless otherwise indicated in the Agreement.
- b) Work, software, services, hardware, Systems, Subsystems, product/software modifications, or any other deliverables not explicitly stated in the Agreement will not be included in the Project.
- c) Any modification to CentralSquare standard products or customizations to such products that are not explicitly stated in the Agreement are excluded from the scope of this Project.
- d) Changes in scope will only be executed through a mutually agreed upon Change Management Process, as described in the Project Management Plan.
- e) CentralSquare is not responsible for the deficiencies in Client's internal or Contracted network to support Enterprise Suite workstations\mobiles.
- f) CentralSquare is not responsible for the deficiencies in Client's network.
- g) CentralSquare is not responsible for the removal of the old (legacy) equipment, hardware, furniture, consoles, cabling, as part of the Project implementation unless specifically stated in the Agreement and this SOW.
- h) This project does not include creation or modification of GIS data by CentralSquare staff.
- i) CentralSquare is not responsible for coordination, management, or covering the cost of any software, work, customization, coding or testing that is required to be performed by any thirdparty vendors engaged in the context of standard, unless the work is defined under a Sub-Agreement with CentralSquare within the scope of this Agreement.
- j) CentralSquare is not responsible for the creation or modification of any Crystal Reports, SSRS Reports or other third-party reporting application. This includes changes to connection strings or the migration of custom reports.
- k) CentralSquare is not responsible for submitting NIBRS data to the State. Client assumes responsibility to take the necessary steps within the Subsystem to submit NIBRS data monthly to the State unless otherwise noted in the Agreement.

2 PROJECT DELIVERABLES

2.1 Overview of Project Deliverables

This project will provide a combination of software and services that comprise the System for use by Client's Public Safety Organization(s). The individual Subsystems to be provided comprise the overall System. The Agreement specifies the software licenses included in this Project by the quantity and environment in which licensed. This includes all Server and User Licenses, Standard Interfaces, as well as other CentralSquare tools and utilities.

Project Management services per the Agreement and in accordance with the approved plan outlined in Section 7, Project Execution, and corresponding schedule for project.

All installation and configuration activities, as well as upgrades for this project will be performed remotely.

Implementation of different components of the System is performed in a series of interrelated processes. Some processes can be performed concurrently while others are sequential in nature. CentralSquare has implemented process gates to ensure completion of tasks in the optimal order before a subsequent activity begins.

The only reference for the number and type of software licenses is the Agreement. Any reference within this document to services associated with a specific software product does not imply or convey a software license for products that are not listed in the Agreement.

All project services will be performed during normal business hours, defined as 8:00am-5:00 pm Central Time. If Client desires to perform the services outside of these hours, additional fees will apply.

2.1.1 Standard CentralSquare Deliverables

The functionality provided by Standard CentralSquare Products, including Interfaces (the core CentralSquare and Interfaces without any Modifications) is defined by CentralSquare Standard documentation such as User and Administration Guides for CentralSquare's major Subsystems such as CAD Enterprise, and other Standard Software products. Standard Interface Operational Scenario Documents (OSD) define the functionality of the Standard Interfaces. These documents are standard, published CentralSquare documents, and are not specific to Client.

Standard CentralSquare Interface Software to be delivered through this Project is identified as software licenses in the Agreement. The functionality provided by specified Standard CentralSquare Interface Software is defined by CentralSquare OSDs or other documents. A high-level description of Standard interface functionality, with named third party vendor or system will be included in Appendix B - Standard Interfaces.

2.1.2 Contracted Modifications to Standard CentralSquare Products

Any Modifications to Standard CentralSquare Products and Standard System Interfaces that are to be delivered through this Project are listed in the Agreement.

The functional scope of any Modification procured through the Agreement will be summarized in this Statement of Work and defined by an OSD for all items listed under Appendix A - Contracted Modifications to Standard CentralSquare Products, and other major CentralSquare Subsystems; and under Appendix C - Custom CentralSquare Interfaces. Any and all modifications or enhancements that are not explicitly listed in the Agreement or CentralSquare's responses to the RFP are not within the scope of this Project.

Any Modification to the functionality of Standard CentralSquare products or interfaces, outside the scope of the Agreement, within the System, or Subsystems, shall follow the Change Management Process as described in Section 5.2, Change Management Process.

Any post-approval changes to the requirements documented in the System OSDs or other documents are subject to formal Change Order.

Note: All enhancements and modifications to any of CentralSquare's Standard products (including the Interfaces) will only be released with a major version of the applicable subsystem (i.e., Records Enterprise and the like) based upon the relevance and dependency to these products.

Note: Software versioning is the process of assigning either unique version names or unique version numbers to unique states of computer software while a service pack or patch is a piece of software is designed to fix problems with or update a computer program or its supporting date. This includes fixing security vulnerabilities and other bugs.

3 CENTRALSQUARE PROJECT ROLESAND RESPONSIBILITY

3.1 Overview

CentralSquare will appoint a team of specialized personnel that will implement the Project under the direction of CentralSquare's Project Manager. The team will be multi-disciplinary, and the team members may specialize in different products or Subsystems. Team members may be engaged in different phases of the Project as necessary and in some cases are involved in the Project for a limited timeframe. Any personnel changes by CentralSquare will be discussed with and agreed upon by Client in advance. Such agreement will not be unreasonably withheld.

The descriptions of personnel roles noted below provide an overview of typical Project team members. Other personnel may be involved under the direction of the CentralSquare Project Manager to complete the requirements of the Project.

3.2 CentralSquare Project Manager

CentralSquare has appointed a CentralSquare Project Manager as the principal CentralSquare contact who will be responsible for managing CentralSquare's responsibilities related to the implementation of the Project, as described in this SOW and within the scope of the Agreement.

The Project Manager uses a standardized methodology for project implementation, project management, and risk identification and management. CentralSquare's Project Manager is responsible for Project scheduling and management of CentralSquare Project personnel and applicable Subcontractor/supplier resources, budget management, identification and management of Project risks, and communication with Client's Project team. The CentralSquare Project Manager will be responsible for the collaborative coordination of Client resources in an effort to ensure that avoidable Project delays will be minimized.

The Project Manager is involved in the Project beginning with the Kickoff Meeting and continuing through Post-Go-Live Project closure activities. The Project Manager will be an active participant in many of the milestone events through the course of the Project. The Project Manager will organize a bi-weekly Project status call with Client and necessary Project team members. Additionally, the Project Manager will provide Client with a written Project status report on a bi-weekly basis, as further defined in this SOW.

3.3 Technical Services Engineer - Interfaces

The Technical Services Engineer (TSE) is responsible for two primary functions, within the scope of the Project: 1) configuration of Standard CentralSquare Interfaces and Integrations (including configuration documentation). The TSE will additionally participate in testing of each of these Subsystems. In some cases, Software Engineers may perform the role of the Technical Services Engineer.

3.4 GIS Consultant

As part of the implementation team, CentralSquare utilizes a GIS Consultant that specializes in Geographical Information Technology. The GIS Consultant is responsible for mapping components required for the CentralSquare software and consultation services regarding converting the GIS source data for use in CentralSquare software.

GIS training is provided by a CentralSquare GIS Consultant and is described in the GIS section of this document.

3.5 CAD Enterprise Consultant

The CAD Enterprise Consultant is responsible for the configuration of the CAD based on Client's system requirements, business rules, configuration data, and reporting needs. The Consultant will provide services to Client with regard to the configuration and operation of CAD. The CAD Enterprise Consultant is also responsible for conducting the CAD System Orientation, Operational and Administrative Review (OAR), assisting with Functional Acceptance Testing and providing consulting support throughout the Project implementation life cycle.

After the completion of the OAR session, ownership for continued Code File configuration and maintenance transfers to Client. At this stage, the Consultant will serve as a guide for Client's

further configuration of Client's CAD system until Client's System is in live operation. These activities are described in later sections of this SOW.

Training for CAD Enterprise is provided by CentralSquare Consultants and is described in the training sections of this document.

The Consultant is responsible for the configuration of the CAD-to-CAD based on Client's system requirements, business rules, and configuration data. The Consultant will provide services to Client with regard to the configuration and operation of CAD-to-CAD. The Consultant is also responsible for conducting the initial discovery/configuration workshops with each participating agency, the Functional Acceptance Testing, the CAD-to-CAD Hub Administrator training, and providing consulting support throughout the Project implementation life cycle. The Consultant may be an active participant in many of the milestone events through the course of the Project and will participate in bi-weekly Project status calls, as needed.

3.6 Records Enterprise Consultant

Records Enterprise Business Consultant(s) participate in various activities throughout the implementation of each of these Subsystems. They are primarily responsible for conducting the System Orientation with Client to observe and evaluate Client's current business practices and make recommendations for improving efficiency and areas that need to be reviewed. They also conduct Administration Training, assist Client through Functional Testing for Records, and provide consulting support throughout the Project implementation life cycle.

After the completion of the Records Administration & Review training session, ownership for continued system build and maintenance transfers to Client. At this stage, the Business Consultant will serve as a consultant for Client's further configuration of Client's system until Client's System is in live operation. These activities are described in later sections of this SOW.

Training for Records Enterprise is provided by CentralSquare Consultants and is described in the training sections of this document.

The Business Consultant may be an active participant in many of the milestone events through the course of the Project and will participate in bi-weekly Project status calls, as needed.

3.7 Technical Services Engineer - Installation

The Technical Services Engineer (TSE-I) is responsible for installation and integration of CentralSquare onto the system hardware that is identified for this Project. This team works closely with Client's staff to coordinate IP and network addressing, security accounts, network connections, and remote access to the System.

This process is described in greater detail in Section 7 of the SOW.

3.8 Product Support

Product Support functions as technical support for all subsystems as purchased by the Client. During the project, support issues are managed through Product Support by the CentralSquare Project Manager. After Go-Live, it is the Client's responsibility to report issues, troubleshoot and coordinate with Product Support as defined in the Agreement and the Software Support Agreement.

3.9 Account Manager

The Account Manager is an important resource to the Client throughout the life of their System. The Account Manager will be the primary contact and liaison for non-technical support issues, system changes and billing questions. They provide support for general Client service requests, manage requests for new software and services, and aids with planning technology upgrades Post System Go-Live.

Having the Account Manager participate as a key Project member provides an enhanced level of continuity for the Client as they continue their relationship with CentralSquare.

4 RECOMMENDED CLIENT ROLES AND RESPONSIBILITIES

4.1 Overview

Implementation of the Subsystems in a manner that meets Client's operational needs requires collaboration with Client's team. In general, Client's Project team should include staff experienced in the operation and administration of Client's current public safety technology systems as applicable to the scope of this project. Such teams may include representatives from the PSAP, and other users and stakeholders. These "subject matter experts" need to be engaged through the course of the Project from initiation until live operations and may be involved in the support and maintenance of the System and Subsystems after Go-Live.

These recommendations do not speak to specific positions. Rather, this information defines specific responsibilities and estimated time commitment. A more detailed assessment of time commitment and cadence of commitment will be found in the Project Plan. Client may elect to create individual positions, combine responsibilities, and/or assign responsibilities within their current organizational structure. Client needs to periodically assess its staffing needs based on changes in Client's operational use of this technology.

Often, there is overlap with these core responsibilities - therefore, the team can generally be kept to a small group, dependent upon the complexity of the system being implemented and the number of Subsystems.

In addition, it is recommended that Client, early within the implementation process, identify those persons that will be responsible for the ongoing maintenance of Client's System to include the technical and business processes. The Application Administrator as well as the System Administrator, are very key to the success of the Project. It is paramount that the Client develops this team during the implementation process so that the Client successfully achieves a degree of self-reliance with the understanding of each of the Systems in addition to the generalized technical responsibilities.

4.2 Project Manager

Client's Project Manager is the principal Client contact who will manage a team of Client Project personnel. Client's Project Manager manages and coordinates Client's resources responsible for completing assigned Project tasks and activities.

Activities include facilitating Project Schedules and meetings, timely approval and processing of invoices, review, and approval of Task Completion Reports ("TCRs"), Project management plans, applicable configuration sheets, OSDs, approval of the Project documentation and Functional Test, and management of Client's staff. Additionally, Client's Project Manager is responsible for coordinating the efforts, activities, and communications between CentralSquare and third-party vendors that are not CentralSquare Subcontractors, as well as any deliverables from these vendors to the Project.

4.3 System Administrator

Client's System Administrator is the individual primarily responsible for managing the technical back-end of the System components, including Windows, SQL Server, network, hardware, data back-ups and log management for any on-premise components and the Client's network. This individual is the primary technical point of contact representing Client.

As identified in the Agreement and the Software Support Agreement, following the initial system installation, administration, and support for hardware (including the software operating system) and network components for any on-premise components are the responsibility of the Client. Client needs to plan for support and maintenance through the development of Client resources, other departments within Client's organization, or by Contracting for such services. Client should establish procedures for managing warranty service of hardware.

Activities for this position include 1) management of Microsoft Windows Operating System including patches and service packs; 2) management of Microsoft SQL Server including patches and service packs; 3) implementation of software prerequisites (in accordance with CentralSquare Documentation) on computers as needed for current operations and System upgrades; 4) monitoring, management and maintenance of Client's network including LANs, WANs, wireless networks, security accounts and support connectivity (in accordance with CentralSquare Documentation); 5) hardware maintenance and troubleshooting; file and data back-ups and software and error log management; and 6) creation, maintenance and renewal of certificates of on-Premise systems.

For Cloud Hosted deployments CentralSquare is the System Administrator for the Cloud Hosted components of the system. The Client System Administrator role is limited to the Client's network and any on-premise components of the system such as workstations, on-premise servers and network equipment.

Time commitment will vary with the number of computers on the system, the complexity of the network (including the use of a WAN) and the number of personnel to be managed in network access. If the System LAN is connected to Client's administrative LAN/WAN, coordination will be important to avoid problems with Client's network traffic.

4.4 CAD Enterprise Administrator

Client's CAD Enterprise Administrator is the individual primarily responsible for managing the CAD Enterprise application software settings to ensure efficient operation. This individual is the primary CAD-to-CAD setup and configuration of the CAD-to-CAD Hub for all connected CAD systems and participating agencies, as well as the primary CAD System configuration point of contact representing the Client.

Activities include CentralSquare setup, assignment, and management of CentralSquare modular security, maintenance of the Code Files, evaluation and implementation of version updates, reporting, prioritization, and management of support issues.

Within the Multi-Agency environment, separate CAD administration staff may be required to manage the components used by each operation - under the direction of an overall System-Wide CAD or CAD-to-CAD Administrator. Any personnel involved in CAD administration should participate in the OAR session, so they are prepared to maintain the CAD Code Files post-OAR. The CAD Administrator should additionally attend CAD Enterprise User Training.

4.5 Mobile Enterprise Administrator

Client Mobile Enterprise Administrator must possess a set of skills necessary to support Client's implementation of the Mobile System. The Mobile Enterprise Administrator will be responsible setting up and maintaining the users, and vehicles as well as minor configuration changes to the Mobile Enterprise product. The desired administrator should possess a working knowledge of:

- a) HTML/XML, CSS, and JavaScript.
- b) SQL, especially views, stored procedures, and database schema.
- c) Standard GPS protocol (TAIP and NMEA).
- d) The Mobile Enterprise Administrator should attend the Mobile Enterprise Train-the-Trainer course and the Mobile Enterprise Administration course.
- e) This individual should work closely with the System Administrator in order to manage file and data back-ups and System administration of the hardware and network.

4.6 Records Enterprise Administrator

The Records Enterprise Administrator will have the responsibilities for the implementation, configuration, and maintenance of CentralSquare's Records Enterprise. This person or persons will be engaged in the implementation of the CentralSquare's Records Enterprise and will participate in making decisions as it relates to implementing the CentralSquare's Records Enterprise.

Records Enterprise Administrator will attend the Records Enterprise Workshops throughout the course of the Project. This person should have a comprehensive understanding of the internal structure and workflow of Records Enterprise, departmental policies, and procedures as well as how the records department interacts with dispatch and field operations personnel.

The Records Enterprise Administrator will be responsible for building and maintaining the Records templates, workflows, and code tables. Additional activities include CentralSquare setup, assignment, and management of the agency specific Code Files, evaluation and implementation of version updates, reporting, prioritization, and management of support issues.

Within the Multi-Agency environment, separate local Records administration staff may be required to manage the components used by each Agency - under the direction of an overall Central Records Administrator. Any personnel involved in Records administration should participate in the Records workshops, so they are prepared to maintain Records Enterprise.

4.7 Records Enterprise Output Designer Administrator

The Records Enterprise Output Designer Administrator will have the responsibilities for creating custom form outputs within Records using Microsoft SQL Server Reporting Services (SSRS), which can be accessed from the Records Enterprise Web UI Data Entry Templates. Using the Records Enterprise Output Designer application utility, the administrator will learn to generate a dataset based on the Records Enterprise Module template, utilizing SSRS to customize the

output based off a pre-defined default output report. This administrator will be responsible for configuring the templates to use the custom form output within the Records Enterprise Web Data Entry Designer tool in conjunction with the Records Enterprise Administrator.

This is an advanced role and the resource should have prior working experience using SSRS. CentralSquare will not provide training on SSRS. This resource will also need to be familiar with the Records Enterprise Templates as designed by the Records Enterprise Administrator.

4.8 GIS Consultant/GIS Administrator/Software Applications Manager

The GIS Consultant is responsible for the mapping components required for the CentralSquare software. Activities include providing the initial GIS files to CentralSquare for analysis. The GIS Consultant will be responsible for working with CentralSquare's GIS Consultant to implement mapping components for the CentralSquare software.

During scheduled activities, the Client should have a fully dedicated person or persons. Post-implementation workload is based upon the number and type of GIS data edits that will be necessary for the local operations.

4.9 Supervisors (CAD/Records)

Input from the Users/Supervisors is important to ensure that the configuration settings approved by Client's team will be perceived as usable by users of each of the Subsystems. These Users/Supervisors should participate in meetings defining and evaluating the requirements and configuration of their respective products, such as System Orientation and Administration Training.

During scheduled activities, Client should have a fully dedicated person or persons. Post-implementation should be maintenance only. These personnel should attend the applicable User trainings.

4.10 Subject Matter Experts

Input from subject matter experts in all applicable areas (CAD, Records, Crime Analysis and each of the Interfaces and external Systems that integrate with CentralSquare Systems) is essential to successful implementation of the system. The subject matter expert(s) in each area are the individuals who are knowledgeable about the current operational and technical specifications of the system, the data flow between and among different applications, and any limitations associated with each application.

For Standard Interfaces, subject matter experts may be from the Client Agency, and\or third-party vendors. If the vendors are not CentralSquare Subcontractors, the Client will be responsible for engaging them in necessary discussions and documentation of the requirements.

Client should involve a fully dedicated person or persons during the scheduled activities, such as requirements analysis, demonstration of the applications (if applicable), review of requirements documentation, the testing process, and other events that are described in later sections of this SOW. Post-implementation, the involvement of the subject matter experts should be limited to maintenance only.

4.11 Application Trainers

A team of trainers is needed for training Client staff on CentralSquare on an on-going basis. Trainers will be responsible for reading CentralSquare release notes and maintaining an understanding of new and existing features. Client should involve a fully dedicated person or persons during scheduled activities such as training sessions. Post-implementation, the involvement of the subject matter experts should be limited to maintenance only. These personnel should attend the applicable product specific training courses.

5 PROJECT CONTROLLING PROCESSES

5.1 Overview

Project Controlling Processes are established early in the Project life cycle during the Planning Phase and described within the Project Management plans. Project Control is the process that includes completing regularly scheduled Project progress meetings and the use of regularly delivered Project progress reports, as well as implementing the processes needed for Communication Management, Risk Management, and Change Management. The process begins during the initiation process and concludes at the end of the Project.

The establishment of defined processes for Client communication (contact persons and reporting methods) provides a basis for effective and regular communication. This supports the previously noted processes necessary for successful Project outcome.

As part of the Controlling Processes, CentralSquare utilizes a series of measurements and management reviews to mitigate the effect of these variances. Checkpoints or milestones are planned into each phase of the Project to measure performance and determine if the Project is ready for the next phase.

Checkpoints are key tasks that act as gates to the next phase of a project. A delay in a milestone may cause a delay in starting or completing subsequent tasks; in effect creating a risk to the overall Project. Therefore, CentralSquare's Project staff closely monitors checkpoint tasks and milestones and promptly notifies the Project Manager of any delay or failure with a milestone task. Milestone delays on the part of either party will trigger an overall review of Project activities so that risks can be assessed and properly managed. In the event that either party becomes aware of a delay, notification shall be provided to the other party as soon as reasonably possible.

Evaluation of overall Project status at each checkpoint is essential to ensure that the Project is effectively progressing toward completion and that new risks are not being introduced. In many cases, Project activities leading to a checkpoint are interrelated to later scheduled tasks. Success at checkpoints diminishes the risk to the Project going forward.

Incomplete actions at a checkpoint may prompt delays and a rescheduling of the Project. For example, delays in completing or approving OSDs will delay the start and completion of the Interface development work, which may ultimately have an impact on the projected Go-Live date. Depending upon the importance of the Deliverable, these kinds of delays can have a cascading effect upon the Project Schedule including training and Go-Lives.

As part of the Project controlling process, upon completion of significant milestones and or tasks, CentralSquare will submit a Task Completion Report ("TCR") to the Client. The TCR serves as a formal tool for the purpose of verifying with Client that the work has been performed, services rendered, and products delivered according to the requirements specified within the SOW and/or related documents.

TCRs are presented to Client by CentralSquare's Project Manager for signature. Some TCRs may trigger a Project payment, in accordance with the payment terms within the Agreement. Upon execution of a TCR that is tied to a Project payment milestone, Client will receive an

invoice from CentralSquare's Accounting Department which must be paid based on the terms and conditions of the Agreement.

The TCR will include the following information:

- a) Description of Work performed, and products delivered.
- b) Comments noting any special circumstances.
- c) Product/Service deliverables listing the Agreement line items that are being recognized as delivered and will be invoiced.
- d) Related Payment Terms in accordance with the Agreement, for Agreement line items that will be invoiced relative to the TCR.

5.1.1 CentralSquare Responsibilities

- a) CentralSquare will prepare and submit TCRs for Client's signature upon completion of the applicable task.
- b) The TCR will cite the appropriate SOW reference.
- c) TCRs that trigger a payment will include the payment amount in accordance with the Agreement payment schedule.

5.1.2 Client Responsibilities

- a) Client will review and approve TCRs within a five (5) business day period from the time of receipt less any challenges to the validity of the report.
- b) In the event that Client disagrees with a TCR, Client shall submit to CentralSquare a written explanation detailing why the Client believes that the subject of the TCR and/or tasks have not been completed in accordance with the Purchase Agreement or this SOW. Such notification from the Client shall be provided to the CentralSquare Project Manager within five (5) business days of receipt of the TCR.

5.2 Change Management Process

Either party can request changes to the scope of the project at any time. Since a change may affect the price, project deliverables, this SOW, the supporting project schedule, and/or the terms of the Agreement for this SOW, both parties must approve each change in writing and agree on the impact each change may have on the Agreement and related attachments.

The purpose of the Change Management Process is to manage any significant changes to the Project as described in this SOW or related documents as referenced within the SOW. These changes may include but are not limited to a modification to Project scope, Standard or Custom products' functionality, CentralSquare and Client's identified roles and responsibilities, Project payment terms, and modifications to the scope or delivery location of services within the Project. All significant changes must be documented through the Change Management Process. The type of documentation needed will depend on the nature and significance of the change.

A Project Change Order will be the vehicle for communicating and approval of the changes. Whether initiated by Client or CentralSquare, all Change Orders will be documented by the

CentralSquare Project Manager. The Change Order shall describe the requested change, the party requesting the change, and the effect the change will have on the project, including the price, project deliverables, this SOW, the supporting project schedule, and/or the terms of the Agreement for this SOW.

All Change Orders must go through the CentralSquare's internal approval process before they can be presented to Client for review and approval. Once the Change Order is generated, Client Project Manager and CentralSquare Project Manager will review the proposed change and communicate as necessary to answer any questions, and/or work to resolve any issues preventing acceptance of the Change Order by both parties. Upon the approval by both parties the Change Order will be authorized for implementation.

The creation of some Change Orders may, depending upon the scope of the requested change, require fees in order for CentralSquare to properly investigate and scope the requested change. If additional fees are required by CentralSquare to create a Change Order, those fees will be identified and communicated to Client Project Manager prior to CentralSquare's investigation of the requested change. In such situations, CentralSquare will only proceed with the investigation required to create the Change Order if Client has agreed to pay the additional fees associated with creation of the Change Order.

Additional deliverables or Project deletions in terms of Software and services will require a mutually agreed upon Change Order. It must be noted that the later in the Project that a change is requested, the greater the likely impact in terms of costs, risks, and timescale. It is recommended that Client not delay any review activity as it is a best practice to discover potential changes as early as possible. In some cases, it may be more appropriate to plan modifications for Post-Go-Live delivery.

5.2.1 CentralSquare Responsibilities

- a) Change Orders will be prepared for submission to Client when required.
- b) CentralSquare will perform requirements capture necessary to prepare required documentation including a high-level description of the change for Client review and approval.
- c) Where Project changes require Engineering-level modifications, Client will be informed of the delivery mechanism (version and schedule).

5.2.2 Client Responsibilities

- a) When applicable, Client will identify the services or deliverables that will be subject to a Change Order, per the Agreement between both parties.
- b) When applicable, Client will identify changes to application features or functionality, Interfaces, or any other Subsystems that will require a change order. This process may also include participation with the requirements process.
- c) Client will approve and process Change Orders in a timely manner.

5.3 Project Reporting

CentralSquare will provide Monthly Status Reports advising Client Project Manager and key Client Project Stakeholders of the progress and status of project activities. This report will include the significant accomplishments, planned activities, issues, and potential risks associated with CentralSquare and CentralSquare's Subcontractors' Deliverables. The Project Status Reports will include the following:

- a) Accomplishments during the Reporting Period.
- b) Planned upcoming activities.
- c) Issues.
- d) Risks.
- e) Key Action Items.

In addition, the CentralSquare Project Manager will hold bi-weekly status meetings/conference calls to update Client on the status of the Project and key action items and deliverables.

During the course of the Project, one or more Project Provisioning Guides will be created to document Project issues and action items. These Provisioning Guides are generally product specific and are used by the Project Manager and other team members to facilitate successful Project completion. Project Provisioning Guides are reviewed with Client on an as needed basis through the course of the Project. The Project Manager is responsible for periodically providing copies of updated Provisioning Guides.

CentralSquare will provide an updated Project Schedule advising Client Project Manager of the progress of project activities. The Project Schedule may be lacking the detailed tasks for Client team, and Client may add such tasks, owners, and durations to the Project in collaboration with CentralSquare Project Manager. The Project Schedule will consist of the following:

- a) Major Tasks.
- b) Task Responsibility.
- c) Task Duration.
- d) Major Milestones.
- e) Tasks Completed.
- f) Tasks in Progress.

5.3.1 CentralSquare Responsibilities

- a) Provide a written report of Project status once a month.
- b) Track issues and action items to closure through product specific Provisioning Guides. Client will be periodically provided with updated copies of the Provisioning Guide.
- c) Conduct status meetings/conference calls every two weeks.
- d) Maintain an up-to-date Project Schedule.

5.3.2 Client Responsibilities

- a) Review the written report of Project status and provide feedback within five (5) business days in order to ensure that the documentation is correct.
- b) Participate in Project status meetings.
- c) Ensure participation of personnel in tasks and meetings.

5.4 Document Review

In the course of the Project, CentralSquare will deliver several documents to Client for review. These documents will include but are not limited to the Functional Acceptance Test Procedures, Project Schedule, OSD, Training Materials and Interface Requirement Documents for the Project. Approved documents are returned to the CentralSquare Project Manager. All documents will be provided in electronic (soft copy). If Client desires printed (hard copy) documentation, it is their responsibility to print and bind the desired copies. The CentralSquare Project Manager will retain a copy and provide Client with a copy.

Should Client find any document unacceptable, Client must provide specific reasons in writing to the CentralSquare Project Manager. CentralSquare can then assess any required corrective measures and make revisions or modifications to provide acceptable documents within a mutually satisfactory timeframe.

Status Reports are not subject to approval.

In order to ensure compliance with the Project Implementation Schedule, Client is responsible for the review of such documents and providing any comments to CentralSquare within five (5) business days.

5.4.1 Documents Subject to Client Approval

- a) Change Orders
- b) Operational Scenario Documents (OSD)
- c) Functional Acceptance Test Procedure documents
- d) Task Completion Reports

5.4.2 Documents Subject to Client Review not Requiring Approval

- a) Note: The Project Schedule and any changes hereto are to be mutually agreed upon between Client and CentralSquare.
- b) Project Status Reports

5.4.3 CentralSquare Responsibilities

- a) Distribute the documents to Client.
- b) Coordinate the process to consolidate comments and edit documents.

c) Manage the signoff process for applicable documents and the distribution of originals to Client and CentralSquare for filing.

5.4.4 Client Responsibilities

- a) Review the documents presented and provide the appropriate information back to CentralSquare within five (5) business days for configuration sheets, Change Orders and/or Sales Orders.
- b) Review the documents presented and provide the appropriate information back to CentralSquare within five (5) business days for requirements documents defined above. Unless unanticipated changes to the Project Schedule would warrant a shortened turn around.

5.5 Third-Party Management

CentralSquare will be responsible for the management of third parties that have been identified as Subcontractors or executed Change Orders to the Agreement.

As part of the Subcontractor agreement, all communications between those third parties and Client will be managed by CentralSquare. Any communication directly between Client and third parties that may require or imply the promise of a material change in scope or responsibilities will not be acknowledged by CentralSquare unless an appropriate Change Order has been prepared.

Conversely, Client will be responsible for the management of third parties that CentralSquare is not responsible for. Client will be responsible for the facilitation of discussions and the acquisition of materials from those third parties that are necessary for the configuration and development of Client's System.

5.5.1 CentralSquare Responsibilities

- a) Assume responsibility for third parties that are the responsibility of CentralSquare within the terms of the Agreement between CentralSquare and Client.
- b) Process any Change Orders that may arise from a material change in scope where third parties are concerned.
- c) Inform Client when configuration and or programming will require interaction and/or documentation from a third-party which is not the responsibility of CentralSquare under the Agreement between CentralSquare and Client.

5.5.2 Client Responsibilities

- a) Work directly through CentralSquare with regard to third parties that are the responsibility of CentralSquare.
- b) Review, sign and process any Change Orders that may arise from a material change in scope where third parties are concerned.

c) Facilitate interaction between CentralSquare and third parties not the responsibility of CentralSquare to include conference calls, answers to questions and documentation as requested.

6 PROJECT INITIATION AND PLANNING

6.1 Overview

Project Initiation and Planning involves gathering the necessary Project specific information in order to produce a Project Management Plan and a Project Schedule. In short, Project Planning consists of those processes designated to establish when and how the Project will be implemented while further elaborating on Project Deliverables. Most of the information exchange between Client and CentralSquare during this process is at a high-level and consists of interaction between both Project Managers and a small group of Project stakeholders.

Major Deliverables for the Project Planning phase are the specific Project Management Plans, and a baseline Project Schedule.

The project must be managed in a manner that will allow for the adjusting of the Project Management Plan and Project Schedule to address the circumstances that affect a project during Project Execution. As a result of these changes during the Project life cycle, Project Planning will overlap each subsequent process during the Project. Typically, Project Planning tasks will decrease in frequency as checkpoints are completed and as the Project nears Go-Live and Project completion.

Note: The Project Schedule is a living document, subject to change during the course of the Project due to several factors such as change in Project scope, scheduling conflicts, delay in approving project documents, resource availability, etc. All changes to the Project Schedule will be discussed between both parties and will be incorporated within a published schedule upon approval from Client and CentralSquare.

6.1.1 CentralSquare Responsibilities

- a) Assign a Project Manager to the Project to participate in Initiation phase activities.
- b) Produce required documentation to support Initiation activities (such as Standard Interface Operational Scenario Document OSDs, System Planning Guide, etc.)
- c) Identify and engage the CentralSquare Project team responsible for carrying out Project Execution.
- d) In collaboration with Client, develop the Project Management Plan (includes the Communication Management Plan, Risk Management Plan, and Change Management Plan).
- e) Baseline the Project Schedule.
- f) Prepare and submit the TCRs for Client acceptance of the Project Management Plan as defined above.
- g) Develop and submit invoice for payment due at execution of the Agreement.

6.1.2 Client Responsibilities

a) Assign a Project Manager for the Project to participate in Initiation phase activities.

- b) Identify and engage Client's Project team.
- c) Review and comment on the CentralSquare Project Management Plan and the Project Schedule.
- d) Review and comment on CentralSquare provided documentation to support Initiation activities.
- e) Approve the TCRs for the Project Management Plan within five (5) business days.

6.2 Project Kick-Off

During the planning phase, the CentralSquare Project Manager will hold a Kick-Off meeting with Client's Project team. During the Kick-Off meeting, the CentralSquare Project Manager will provide an overview of the following:

- a) The CentralSquare Execution Process.
- b) A high-level description of Project Deliverables.
- c) Roles and responsibilities for the Project team members.
- d) A high-level review of the preliminary Project Schedule including projected Project milestones and checkpoints.
- e) Describe the work that has been either completed, is in progress or is due to begin within the immediate future.
- f) Review any project related questions from Client's team.

6.2.1 CentralSquare Responsibilities

- a) Prepare the agenda and set a date for the Kick-Off that is convenient to Client and CentralSquare Team.
- b) Distribute any documents that Client should review in advance of the Kick-Off meeting.
- c) Conduct the Kick-Off meeting.

6.2.2 Client Responsibilities

- a) Work with the CentralSquare Project Manager to facilitate scheduling a date for the Kick-Off meeting.
- b) Schedule the appropriate personnel from Client's team to attend. This should also include key stakeholders that may not participate routinely in Project operations, but who have authority or responsibility over the Project.
- c) Provide adequate accommodations to include adequate seating and audiovisual equipment including a projector(s), screen, and whiteboard.

7 PROJECT EXECUTION

7.1 Overview

Project Execution focuses on the development and delivery of Project Deliverables. Processes will be iterative and consist of: 1) a review of Deliverable documents; 2) development, configuration, Installation and testing of software and hardware deliverables, and 3) delivery of Project related services such as Project related training. These processes are iterative in nature with a number of checkpoints to evaluate Project progress and where applicable, to initiate Change Management processes. Each Deliverable has a closing process which consists of specific completion criteria. These Deliverable closing processes are independent from the closing process of the Project.

7.2 System Installation

System installation is one of the early processes in the Project implementation phase and has a significant impact on and critical dependency on a number of key activities. All tasks and activities related to System Installation are included in this section and will occur in the order presented. Note that other project activities can occur concurrently or between these steps.

7.2.1 Review Hardware Specifications (On-Premise)

CentralSquare and Client will review the specifications to ensure that the correct hardware and third-party software components are procured and installed. CentralSquare will only be responsible for procurement of the hardware and third-party software that is explicitly listed under the Agreement as CentralSquare Deliverables or Deliverables of CentralSquare's Subcontractors.

7.2.1.1 CentralSquare Responsibilities

a) Review and validate hardware and Third-party specifications.

7.2.1.2 Client Responsibilities

a) Provide hardware and Third-party specifications to Client.

7.2.2 Hardware and Third-party Software Provisioning (On-Premise)

CentralSquare and Client will procure hardware, third-party software, and equipment per CentralSquare's recommended Specifications. CentralSquare is only responsible for procurement of the hardware and third-party software that is identified as CentralSquare Deliverables in the Agreement.

If the hardware and third-party software is procured by Client, it is Client's responsibility to procure the required equipment based on CentralSquare approved specifications, and to ensure the timely delivery of the hardware and third-party software to the site to allow timely implementation of the System and Subsystems.

Where Client is responsible for procuring the server hardware, Client will be responsible for completing the following steps:

- a) Fully configuring the servers with cores, memory, and disks.
- b) Loading VMware and Microsoft Windows.
- c) Partitioning disk drives and the implementing of applicable Raid level based upon CentralSquare documentation.
- d) Assigning the computer name and IP address based upon CentralSquare documentation.
- e) Creating the SSL Certificates needed for each server which requires one based upon CentralSquare documentation.
- f) Providing the media and licenses for SQL Server in a location accessible by the servers

7.2.3 Hardware Staging and Preparation for Installation (On-Premise)

Unless contracted through CentralSquare, Client will perform basic server integration for all on-premise servers. Basic server integration includes placing the servers in the racks, joining them to the existing domain, with the Domain Controller in place, installing the CentralSquare pre-requisites on applicable servers, and establishing remote connectivity capability via the CentralSquare remote support solution for authorized CentralSquare personnel to perform configuration. These activities will be coordinated between CentralSquare and Client IT staff. Guidance will be provided by CentralSquare's Technical Services Installation team as required. If Client is not willing to complete the basic server integration, this task may be performed by CentralSquare or CentralSquare's Subcontractors at additional cost.

To start configuration, Client must provide remote connectivity to CentralSquare. Client must also provide the server names, IP addresses, Administrator Account Information (Username, Password), Services Account Information, and the location of 3rd Party Software media (such as SQL). An Installation Service Request (ISR) will be provided to Client that organizes this information into the CentralSquare preferred format. Client is responsible for providing the completed ISR to CentralSquare no later than two (2) weeks prior to the installation activities.

Client is responsible for ensuring that the site is prepared and ready for the installation of hardware, third-party software, and CentralSquare as detailed in CentralSquare's documentation including the System Planning Guide no later than two (2) weeks prior to the scheduled Installation date. Delay in providing this information in its complete form will result in a delay in the Installation and the activities that follow installation of the System.

At least one (1) week prior to installation, a member of the CentralSquare Technical Services team will verify: 1) connectivity to Client site via CentralSquare's remote support solution, 2) connectivity to each of the servers, and 3) access to all required security accounts.

If the service accounts, and connectivity are not ready the Project may be rescheduled, which may have an impact on the overall Project Timelines.

7.2.3.1 CentralSquare Responsibilities

- a) Provide the System Planning Guide.
- b) Facilitate a hardware review prior to hardware/OS procurement.
- Procure equipment and third-party software if included in the Agreement as a CentralSquare deliverable
- d) Provide guidance and assistance as necessary if the system equipment is procured by Client.
- e) Distribute the Installation Service Request (ISR) document to Client.
- f) Assist in Client in completing the ISR.
- g) Review the completed ISR prior to the installation.
- h) Test the remote connectivity to the site prior to installation of the hardware and software.
- i) Install Microsoft SQL software.
- Prepare and submit a TCR for Client review and approval upon completion of these activities.

7.2.3.2 Client Responsibilities

- a) Complete the Installation Service Request (ISR) document and provide to CentralSquare.
- b) Perform site preparation, as specified in the System Planning Guide and ISR.
- c) Assign the computer name(s) and IP address(es) based upon CentralSquare documentation.
- d) Establish remote connectivity capability for authorized CentralSquare personnel to perform software installation and configuration.
- e) Provide all horizontal and vertical cable runs, pathways, coring, access points, floor cutting or drilling, and related tasks related to cable and equipment installation.
- f) Provide all Client-supplied telephone, external interface connection points, electrical power and other receptacles within manufacturer recommended distance of the equipment and all peripheral components.
- g) Provide electrical facilities (e.g., outlets, generator, and other electrical infrastructure facilities required for this project, including necessary maintenance.
- h) Provide cabling (e.g., power, network, interface, and other electrical and data transmission lines) required for this project, including necessary maintenance. All lines will be clearly identified and tested.
- i) Provide and install all data communication equipment switches, routers, and other components necessary for system operation and

- maintenance, connection to remote sites to other systems, and to other agencies.
- j) Provide network/communications connections (e.g., LAN/WAN, commercial wireless, telephone, VPN, and other voice/data connections), and maintain ongoing network/communications changes associated with installation, operation or support of the proposed system including the establishment and maintenance of security accounts.
- k) Configuration and/or programming of network routers, switches, and bridges – this includes providing information to CentralSquare staff on any firewalls within the overall network that the system will operate and necessary port access for the system to operate in accordance with CentralSquare documentation.
- The installation, configuration, maintenance (including patch management and upgrades of Microsoft software required by any onpremise component of the System).
- m) Provide TCP/IP communications and connection to the server equipment for any existing networks, workstations, mobiles, and printers that are to have access to the CentralSquare applications.
- n) Obtain all necessary IP addresses and schemes.
- Allow remote access to CentralSquare to all development and system "root" accounts on all servers running CentralSquare licensed Software.
- p) Procure equipment and third-party software if it is the responsibility of Client according to the Agreement.
- q) Install operating system software, perform Windows Genuine Advantage validation, and install all Windows Updates for Client procured hardware, the maintenance (including patch management and upgrades of Microsoft software required for any on-premise component of the System), unless the service is specified as a CentralSquare responsibility in the Agreement.
- r) Perform basic server integration including, but not limited to:
 - i. Installation of servers in applicable racks.
 - ii. Connecting servers to network switches.
 - iii. Joining servers to the existing domain with the domain controller in place.
 - iv. If applicable, install and setup of the VM environment.
- s) Provide CentralSquare with all necessary configuration documentation which includes machine naming, IP addresses, Administrator Account information, Service(s) Account information, naming convention, and connectivity as prescribed.

- t) Provide CentralSquare with a high-level network diagram. The diagram should be provided prior to CentralSquare installation.
- u) Install all peripheral equipment, including scanners, printers, barcode readers, etc.
- v) Create and maintain SSL certificates for the servers which require them, per CentralSquare documentation.
- w) Approve the applicable TCR.

7.2.4 Basic Server Preparation and Network Services (On-Premise)

Performing the services listed in this section is a responsibility of Client. If these services are explicitly included in the Agreement, CentralSquare or a CentralSquare Subcontractor will implement 3rd party software and/or hardware solutions based upon the following task list. These solutions can include but is not limited to, SAN, VMware, VDI and Domain Controller configurations. These services can be performed on site or remotely via a VPN connection. These services will be performed at additional cost to Client and are not included in CentralSquare's standard installation services.

7.2.4.1 Client Responsibilities

- a) Provide the facility suitable to house Server hardware and network infrastructure.
- b) Have a member of Client's IT staff available while software/network configuration is being performed.
- c) When deploying a SAN, configure the applicable RAID configuration, create the LUN(s), and present them to the physical or virtual servers.
- d) When deploying VDI, CentralSquare or a CentralSquare Subcontractor will install the hardware (if not already deployed at Client site) and VDI software as outlined in the Agreement.
- e) If the VM servers are not procured through CentralSquare, Client is responsible for building individual servers.
- f) When deploying a VMware solution, install the VMware operating system, connect physical host servers to a SAN if applicable, configure vCenter, create a VM Template for Interfaces and business servers, and configure vMotion and High Availability (HA) if applicable. Client is also responsible for building individual VM servers.
- g) If required, deploy the Domain Controller by adding the member server to an existing Domain or create a new Domain, promote the member server to Domain Controller, enable and configure DNS, enable, and configure DHCP if required.
- h) Create domain account(s) for CentralSquare's remote support connectivity and access so that CentralSquare can assist Client with installation and ongoing maintenance.

- Perform all necessary network configurations, to include but not limited to determining the network design routing protocols, subnet mask, redundancy, router, and switch configuration.
- j) Create Networking/Server documentation to illustrate intended configuration.

Note: VMware, vMotion and HA require a SAN or a way to present shared storage to the physical host servers in a VMware virtual farm.

Note: Network and Server security are always a responsibility of Client.

7.2.5 System Installation (On-Premise)

Once CentralSquare and Client have prepared the site based on CentralSquare documentation, to include the System Planning Guide and the applicable ISR form is completed, the CentralSquare Technical Services Engineer will perform the CentralSquare installation services.

These services will be performed remotely, unless otherwise specified in the Agreement, and include installation of the Contracted CentralSquare products on the quantity of servers and workstations as specified in the Agreement.

These installation activities will be coordinated between CentralSquare and Client.

The Installation services for different components of the System may be performed at different times, based on the implementation and deployment timelines for each Subsystem.

The scope of installation services and the number of servers and workstations to be installed and configured by CentralSquare is limited to the servers and workstations that have been explicitly listed in the Agreement. If Client has been granted Site Licensing for selected CentralSquare products, CentralSquare is only responsible for the initial installation services, and installation of additional servers will be subject to additional charges.

If Client does not follow the processes and procedures detailed in the CentralSquare System Planning Guide and this results in a need for reinstallation of the hardware or software, the reinstallation effort will be performed at additional cost to Client If determined to be as a result of a significant process and procedural oversight deviating from the System Planning Guide.

At CentralSquare's discretion, CentralSquare may perform installation activities for certain components of the system onsite.

The following pre-requisites must be in place prior to the start of CentralSquare installation:

- a) Site preparation is complete as outlined in the sections above.
- b) Hardware has been installed at Client site.
- c) Client has provided CentralSquare with remote connectivity to all applicable servers.

- All SSL Certificates required for operation must be created per CentralSquare documentation.
- e) Client has provided CentralSquare all relevant documentation as outlined in the sections above to include licensing keys, IP addresses, username/passwords, and the completed ISR.

7.2.5.1 Client Responsibilities

- a) Allocate appropriate onsite Project personnel to support CentralSquare personnel during configuration tasks as necessary and designate a primary point of contact to be available to address and answer questions that arise during the installation of the baseline application software. Appropriate Client personnel include the necessary IT personnel and database administrator(s) as needed during installation.
- b) All SQL server licenses will be installed by CentralSquare. Client is responsible for making the media and license keys available to CentralSquare for installation.
- c) Complete the configuration of workstations (after the installation of the limited number of workstations by CentralSquare) using the Prerequisite Software Package and applicable Launch configurations.
- d) Put in place CentralSquare's recommended backup procedures as outlined in the System Planning Guide and ensure backup procedures are consistently followed beginning at the completion of this task.
- e) Install and configure virus scanning and other security software as outlined in the System Planning Guide.
- f) Provide SSL Security Certificates for all CentralSquare web-enabled applications that require a certificate, configured per CentralSquare documentation.
- g) After completion of the initial installation and configuration of System servers, Client will be responsible for maintaining the System based on CentralSquare System Planning Guide, and the technical hand-off meeting and associated document from CentralSquare Technical Services department.
- h) Review and approve the TCR from the Technical Handoff meeting.

7.2.5.2 CentralSquare Responsibilities

- a) Install and configure Microsoft SQL to operate with each of the applicable CentralSquare product(s).
- b) Configure the System servers in the applicable environments (Production, Test, Training, and Disaster Recovery environments, if provisioned by the Agreement).

- Install and configure the applicable CentralSquare system(s) on the designated servers and applicable environments as specified in the Agreement.
- d) Provide verbal support to Client with self-installation procedures for the workstations using the CentralSquare provided Prerequisite Software Package and applicable Launch configurations.
- e) If applicable, create data dumps for Microsoft SQL database backups (as a backup for Records Enterprise databases).
- f) After completion of the initial installation and configuration of each major System (such as Records Enterprise servers), a member of Technical Services team provides a technical hand-off to designated staff from Client's information Technology team via a conference call. The following major topics will be discussed during this technical handoff:
 - 1. Proper procedures for performing System Backups
 - 2. File Structure Inclusions and exclusions
 - 3. Databases
 - 4. Moving Backups to media
 - 5. Proper procedures for refreshing Test/Training system (and related documentation)
 - 6. Approved configuration and use of Virus Scan software
 - 7. Approved procedure for application of Windows updates
 - 8. System Upgrade process and procedures
 - 9. Support Website and CentralSquare list server access
 - 10. Managing/Reviewing system logs (SQL and Event Logs)
- g) Provide a Network Layout Diagram of the installed servers.
- h) Provide a list of network ports and protocols utilized for the purpose of securing the system.
- i) Prepare and submit a TCR upon completion of the installation tasks and activities.

7.2.6 Disaster Recovery Provisioning (On-Premise)

The Disaster Recovery environment(s) for this Project is designed to address the failure of components of the server infrastructure; a failure of the primary database server at the primary server location; or a failure of the majority of the server infrastructure at the primary server location.

In the event where there is a significant failure of the primary server infrastructure, the Disaster Recovery environment allows staff to connect to a Disaster Recovery System located at a remote location in order to continue operations. This scenario is particularly

applicable in situations that involve power and/or network outages, facility failure, and lack of access to the primary server environment. CentralSquare will provide Disaster Recovery documentation (Failover Document and Switch-Over to the Disaster Recovery Server) that describes the technology that supports on-going operation of System(s) in this situation. This is also managed through CentralSquare approved Disaster Recovery software.

Failover to the Disaster Recovery system in each of above scenarios involves a number of manual and automated steps to activate CentralSquare files and configurations applicable for the Disaster Recovery System. CentralSquare will provide the necessary pre-staged files and the procedure specific to such files. Similar steps will be followed for a failback process. Client must ensure that trained personnel are available for failover/failback and that applicable documentation is carefully followed. Additional Information is available in the System Planning Guide and the CentralSquare operational manuals for Disaster Recovery Systems.

Note: The Synchronization between Primary and the Disaster Recovery server requires a CentralSquare approved third-party Disaster Recovery Software. If the license for this synchronization software is not explicitly listed in the Agreement (purchased through CentralSquare) Client is responsible for procurement of the required licenses for this software.

7.2.7 Cloud Virtual Provisioning

Cloud virtual provisioning will be the responsibility of CentralSquare. Implementations may be Cloud only, or a combination of cloud and On-Premise. For combinations of Cloud and On-Premise the guidelines on hardware and server/network preparation remain in effect for the On-Premise portion.

The CentralSquare Cloud Team will provision the CentralSquare software in the Cloud. This will entail a planning meeting with the Client System/Network Administrator and other CentralSquare staff (Project Manager, Technical Services), configuration of the VPN, advising on network communications, and configuring access to the provisioned system.

7.2.7.1 CentralSquare Responsibilities

- a) Technical meeting with Client network\systems administration staff.
- b) Provision VPN tunnel to Client's endpoint.
- c) Provide port, protocol information to Client for firewall rules.
- d) Provide guidance on DNS forward lookup zones needed for interoperability between Client networks and cloud deployment.
- e) Provide guidance on routing needed from Client networks to Cloud environment.
- f) Configure tunnel for all Client workstation subnets.
- g) Provision Cloud systems.
- h) Provide URLs and any other paths for Client connectivity.
- Configure on-premise message switch to communicate with Cloud deployed systems.

 Perform Connectivity tests with Client assistance at least one week prior to any workshops.

7.2.7.2 Client Responsibilities

- a) Attend technical meeting with CentralSquare resources.
- b) Provide an endpoint device compatible with Cisco ASav VPN.
- c) Provide end point public IP address for VPN tunnel to CentralSquare Cloud environment.
- d) Work with CentralSquare technical staff to provision the VPN.
- e) Open firewall as directed by CentralSquare Technical staff.
- f) Implement DNS forward lookup zones for interoperability with Cloud environment.
- g) Provide routing rules to route traffic through the VPN tunnel as advised by CentralSquare technical staff.
- h) Identify subnets where workstations will connect to the Cloud environment from.
- i) Perform connectivity tests, with CentralSquare assistance at least one week prior to any workshops.

7.3 Implementation of CAD Enterprise

CAD Enterprise is implemented through a series of standard steps and process gates designed to ensure that operational needs are identified, configurations are verified, and tested to validate proper functionality prior to Go-Live.

7.3.1 CAD Enterprise Implementation Process Overview

Major Task	Description
System Orientation	Initial activity to kick off work on deliverable.
Workshops	CentralSquare and Client will conduct workshops as indicated in the approved Project Schedule.
Base System Build	After initial build by CentralSquare, Client assumes ownership of building and maintaining codefiles.
Functional Testing	Conducted prior to the start of End User Training.
Training	As indicated in the approved Project Schedule.
Go-Live	The application is brought into Production use.

Major Task	Description
Overview	Codefile review validates the accuracy and completeness of information provided for call-taking and dispatch workflows and ensures mutual
	understanding how information will be used within CAD Enterprise.
	understanding now information will be used within OAD Enterprise.
	Course prepares Client personnel to manage, evaluate, and optimize CAD
	Codefiles using CAD Enterprise utilities.
	CentralSquare will provide hands-on training in management of CAD Codefile using CAD Enterprise utilities.
Client Participants	Key members of implementation team to include representatives from dispatch
	and operations. Participants must be able to make decisions regarding
	subsequent changes in call flow that may arise during Codefile review.
	Participants should not exceed twelve (12).
Duration	As noted in the Project Schedule.
Output	CAD Core Team learns how to use the key utilities used to configure the
	System.
	Completion of the Codefiles transfers to Client, who will enter the balance of
	Codefiles not built by CentralSquare.
	Client becomes responsible moving forward for maintaining Codefiles,
	including those that must be continually updated (personnel, units, premises,
	caution notes, etc.) to keep Codefiles in Go-Live ready status.
	The CentralSquare Consultant will provide ongoing consultation services.
Prerequisities	Client is responsible for supplying the requested data to CentralSquare no
	later than four (4) weeks prior to ORCA to allow sufficient configuration time.
	The centerline conversion should be completed no later than four (4) weeks
	The defice that four should be completed no later than four (+) weeks

CAD Enterprise Orientation Review and Codefile Course (ORCA)

Note: CAD Enterprise ORCA is an event applicable to CAD Enterprise only. No other Systems or Subsystems will be demonstrated during this session.

Note: The ORCA is not intended to provide a comprehensive end user training understanding of the Subsystem; rather, to provide participants an understanding of basic features, call flow and how configuration files influence them.

7.3.2.1 CentralSquare Responsibilities

- a) Schedule ORCA in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the meeting agenda a week prior to the meeting.
- c) Conduct the meeting based on the agenda.
- d) Provide introduction and hands-on training to the different modules and their configurations based off of the SMS document.
- e) Review installed maps for CAD Enterprise.
- f) Introduce Client to and begin documentation within the Provisioning Guide.
- g) Document and assign owners and due dates for action items and track to closure.
- h) Handoff management of Codefiles from the SMS document to Client.
- Provide Client team with a copy of the CAD Enterprise User and Administration Guides.
- j) Prepare and submit a TCR upon completion of the ORCA.

7.3.2.2 Client Responsibilities

- a) Provide adequate environment to conduct the ORCA.
- b) Provide subject matter experts to examine and confirm the hierarchy build as articulated to the Consultant in terms of the agency structure.
- Provide subject matter experts to examine and confirm the proposed call flow.
- d) Provide participants who will be tasked with completing the Codefile build and maintaining it once ownership transfers.
- e) Provide participants who will verify the agency's geopolitical/operational boundaries.
- f) Provide participants responsible for translating the geopolitical/operational boundaries into data (ESRI shape files) suitable for use within the Subsystem and can validate those boundaries.
- g) Provide participants responsible for the maintenance of the agency's street centerline data.
- h) Assume ownership for the continued build and maintenance of the system from the SMS document under the guidance of the CentralSquare Consultant.
- i) Review and approve applicable TCRs.

7.3.3 Geographical Information Services

7.3.3.1 Data Evaluation

Major Task	Description
Analysis Report Overview	The CentralSquare GIS Analyst will work with Client to perform a one-time evaluation and initial conversion of Client provided street center-line GIS data. GIS data must be from a single integrated source when delivered to CentralSquare for conversion. Routing and Navigability: Data will be analyzed to ensure there are no breaks
	in the road network and that an acceptable range of addresses within the service area are routable with impedances or speed limits, applicable turn restrictions (one way data), elevations for overpasses, and street types.
	Addressing: Evaluate data for the presence of block ranges, street types, and city designators.
	Supplemental Coverage: Evaluate GIS data that may be available for response areas, ESRI compatible overlays including satellite images, and applicable point data to ensure compatibility.
Client Participants	GIS Administrators and CentralSquare GIS resource.
Duration	Training On-Site is 3 days or Remote is broken up over 5 days.
Output	A report will be prepared upon completion of the GIS analysis prior to import of GIS data.
	If there are issues with data, additional work and analysis may need to be added to the project via Change Order; additional costs may apply.
	Project timeline may require evaluation based on severity of issues and time required for correction for CAD to function properly.
	CentralSquare will also provide training on the GISLink utility so Client can perform updates to GIS data on an ongoing basis.
	The CentralSquare Analyst will provide ongoing consultation services.

Note: Data evaluation only applies to Custom Map conversions of Client-supplied data.

Standard mapping conversion (TeleAtlas data) is limited to converting source mapping data from one of the standard mapping data providers and must also be provided by Client.

7.3.3.2 CentralSquare Responsibilities

- a) Evaluate Client-supplied GIS data to ensure it is formatted correctly for street-centerline display, address point usage and address functions.
- b) Evaluate Client-supplied GIS data to ensure it is formatted correctly for routable functions.
- c) Evaluate Client-supplied GIS data to ensure it is formatted correctly for CAD Enterprise Quickest Path Unit Recommendations functionality.
- d) Review Client-supplied GIS layers for CAD and Mobile Enterprise for viewing and execute the initial basic map configuration, and optimization for Enterprise Mobile.
- e) Provide a report which summarizes the findings from GIS analysis services for CAD Enterprise.
- f) Prepare and submit a TCR upon completion of relevant activities.

7.3.3.3 Client Responsibilities

- a) Provide data in the required format, and per Project Schedule.
- b) Provide data to include 1) Centerline data; 2) response areas; 3) viewable/cosmetic layers.
- c) Based on the Analysis Report provided by CentralSquare, make requested changes to mapping data to meet CentralSquare's GIS data requirements.
- d) Review and approve the appropriate TCR.
- e) Mapping Data Conversion and Import
- f) CentralSquare will perform a Mapping Data Import that provides maps for the CAD Enterprise System. The process does not include making corrections to Client GIS data. If the GIS data consists of data from more than one source, CentralSquare will not be responsible for joining these areas, or "stitching" areas together to create a uniform geographic area.

7.3.3.4 Configuration of Mapping Layers

A CentralSquare GIS Analyst will configure up to 7 Standard GIS layers for viewing on CAD and Mobile Enterprise. Conversion activities will include training so Client can create additional layers for use in CAD Enterprise and Mobile. Additional conversion work by CentralSquare staff is an additional charge and must be authorized by the Agreement or a Change Order.

- Standard layers are limited to the following:
 - a) Water line features (rivers, streams, creeks)b) Water polygon features (ocean, lakes, ponds)
 - c) Airports
 - d) Railroads
 - e) Parks
 - f) City Boundaries
 - g) County Boundaries

7.3.3.5 Response Area Import Service

If Client provides Response Area data to CentralSquare at the time of CAD map conversion, the CentralSquare GIS Analyst will import Response Areas into CAD Enterprise. GISLink training will provide Client with the capability to add, delete, or modify Response Areas for ongoing GIS maintenance.

7.3.3.6 CentralSquare Responsibilities

- a) Provide initial configuration services to enable use of CAD Enterprise Quickest Path Unit Recommendations functionality.
- b) Perform mapping data conversion and import of Client-supplied data into applicable licensed Systems and Subsystems.
- c) Prepare and submit a TCR upon completion of relevant activities.

7.3.3.7 Client Responsibilities

- a) After initial GIS conversion, assume responsibility for updating the data.
- b) CentralSquare provided GIS tools to ensure that data is up to date for Go-Live.
- c) Review and approve the applicable TCR.

7.3.4 CAD Enterprise Workshops

After the CAD Enterprise ORCA has been completed, CentralSquare will conduct one or more CAD Enterprise workshops. Workshops are an extension of the ORCA and are specified in the Agreement.

Refer to Appendix Y, Workshop and Training Summary for a complete listing applicable to this project.

7.3.4.1 CentralSquare Responsibilities

- a) Schedule workshops in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the meeting agendas and documents for Client review or completion prior to each workshop.
- c) Conduct workshops based on the distributed agenda.
- d) Prepare and submit a TCR upon completion of the workshop.

7.3.4.2 Client Responsibilities

- a) Provide adequate environment to conduct the workshop.
- b) Ensure participation of the appropriate personnel.
- c) Continue Codefile building activities as directed.
- d) Review and approve the applicable TCR.

7.3.5 CAD Enterprise Validation & Readiness Workshop

Major Task	Description
Overview	The workshop validates system build completeness and readiness for Functional Testing and End User Training. Any remaining workflow questions or other issues are also addressed.
Client Participants	Key members of implementation team to include CAD Enterprise Admin, key SMEs who attended System Orientation, and Client Project Manager. Participants should not exceed twelve (12) per class.
Duration	Three (3) days with a maximum duration of eight (8) hours, per day.
Output	Upon completion, Client's CAD Enterprise system is acknowledged as ready to proceed with Functional Testing and End User Training.

7.3.5.1 CentralSquare Responsibilities

- a) Schedule workshop in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the agenda and documents for Client review or completion to all required attendees prior to the workshop.
- c) Conduct the workshop based on the agenda.
- d) Prepare and submit a TCR upon completion of workshop.

7.3.5.2 Client Responsibilities

- a) Provide workstations with CAD Enterprise.
- b) Provide adequate environment to conduct workshop.
- c) Ensure participation of appropriate personnel.
- d) Review and approve the applicable TCR.

7.3.6 CAD Enterprise Functional Acceptance Testing

Major Task	Description
Overview	Client leads and CentralSquare will assist with Functional Testing, which is a remote activity occurring one time after ORCA and prior to End User Training and Go-Live. Functional Testing is conducted for the first phase going into Production and is not repeated for subsequent phases.
	CentralSquare may organize at its discretion, separate breakout Functional Test sessions for subsections of the Functional Test documents that are applicable only to one agency (for example, applicable only to Law or Fire

agencies). Each test will be executed once, and applicable users and agencies must attend the Functional Test session and conduct the tests. Since the focus of Functional Testing is functionality of the System but not a validation of Codefiles, it is not necessary that all Codefiles be built prior to conducting the Functional Test. The Functional Test process consists of running script-based standard tests in a format designed to verify the functionality of CAD Enterprise. Functional Test documents are submitted and approved by Client prior to testing in acknowledgement that the test scenarios will be used to validate System functionality for Pre-Production and Post-Go-Live assessment of features for Software Acceptance. Script sign-off is a precursor to administration of the Functional Test. Following the completion of the FAT, any failure will be classified based on the following criteria: Go-Live Issues: Issues in the subsystem identified during Functional Acceptance Testing with contractually required functionality that must be corrected prior to Go-Live. CentralSquare will research such identified issues and propose a plan for resolution. Go-Live Issues will be corrected prior to Go-Live. CentralSquare will research such identified issues and propose a plan for resolution. Go-Live Issues will be corrected prior to Go-Live. Post-Go-Live Issues: Issues in a subsystem with contractually required functionality that can be corrected after Go-Live. Client and CentralSquare will mutually agree these issues may be addressed after Go-Live. CentralSquare will provide an estimated date for resolution of the issue post Go-Live Support Issues: Issues in a subsystem identified that are not contractually required functionality and do not prevent the City from performing normal daily or monthly processes; and therefore, can be corrected after the subsystem Go-Live. These issues will not affect acceptance of the system. Support issues will be managed based upon the procedures outlined in the Software Support Agreemen		
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Output Upon completion, Client's CAD Enterprise system is acknowledged as having	Client Participants	· · · · · · · · · · · · · · · · · · ·
	Duration	One (1) day.
l	Output	'

Client and CentralSquare will review Functional Test exceptions (if any), perform an assessment, and determine the timeline for remedying the exceptions (pre versus Post-Go-Live).

CentralSquare will not train Client's end users until the Functional Test has been conducted and TCR signoff has been received.

Client, with CentralSquare assistance as needed, will repeat failed test(s) following correction of issues that caused the test(s) to fail. A full retest of the System will not be conducted.

7.3.6.1 CentralSquare Responsibilities

- a) Deliver CentralSquare's standard Functional Test document to Client for review no later than two weeks prior to conducting the Functional Test.
- b) Provide a TCR to Client to approve receipt of Functional Test documents and content thereof.
- c) Assist Client in conducting Functional Test.
- d) Identify and document exceptions and assess to determine timeline to remedy exceptions (Go-Live versus Post-Go-Live).
- e) Upon completion of the Functional Test, provide a TCR to Client for review and approval. Functional Test exceptions will be documented in the TCR.
- f) Schedule follow-up testing for validation of exceptions after correction and confirm/document the results via TCR.
- g) Provide a final TCR to Client to confirm resolution of all Go-Live exceptions.

7.3.6.2 Client Responsibilities

- a) Complete all predecessor tasks to include the base system installation and Codefile build required to conduct the Functional Test.
- b) Provide adequate environment to conduct the Functional Test.
- c) Review and signoff on the Functional Test documents no later than one week prior to commencement of the Functional Test via TCR.
- d) Lead the Functional Test by providing operational subject matter experts with the authority to provide validation the tests have passed.
- e) Assist CentralSquare in documenting Functional Test results.
- f) Review and approve the applicable TCRs.

7.3.7 GISLink Utility Training

Major Task Description

Overview CentralSquare will provide hands-on training, typically at Client's site, in usage of the GISLink utility. GISLink is a CAD Enterprise utility that consolidates GIS data-related tools for maintaining and using GIS data in CentralSquare products. It consists of a Windows Forms application, a command line console application, and a programming API that consists of a set of reusable publicly exported classes and methods. Class prepares Client personnel to import and manage existing GIS data used in CAD and Mobile Enterprise. Client Participants GIS Administrator(s). The number of students is typically one to three (1-3) per class. Duration As noted in the Agreement with a maximum duration of eight (8) hours. Training typically occurs between Tuesday and Thursday. Output Students will learn how to use the GISLink utility to manage GIS data in CAD Enterprise. No other activities (including but not limited to CentralSquare performing follow-up changes to Client's maps, development of special material for Client, or a follow-up one-on-one session with Client's GIS staff) are within the scope of this class. Prerequisite System installation to include GIS-related components and initial map installation to include at least one CAD Enterprise console with the GISLink utility installed on it. GIS knowledge and background; familiarity with ESRI tools.		
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installation to include at least one CAD Enterprise console with the GISLink utility installed on it.		follow-up changes to Client's maps, development of special material for Client, or a follow-up one-on-one session with Client's GIS staff) are within the scope
GIS knowledge and background; familiarity with ESRI tools.	Prerequisite	installation to include at least one CAD Enterprise console with the GISLink
		GIS knowledge and background; familiarity with ESRI tools.

7.3.8 CAD Enterprise Training

CAD Enterprise Training is conducted on consecutive weekdays during business hours (Monday-Friday, between 7am-10pm local time based on the actual duration of the class). Alternate training schedules (e.g., Monday class starts for classes that would normally start on a Tuesday, multiple classes per day, evening, and weekend classes) are subject to additional cost.

Note: Training classes are conducted based on the quantities specified in the Agreement. The appearance of a course description in this Statement of Work does not mean a course will be conducted – it must be listed in the Agreement. Refer to Appendix Y, Workshop and Training Summary for a complete listing applicable to this project.

The training classes related to CAD Enterprise and its subsystems are classified into three general groups:

- a) Classes dependent upon specific Client configurations and requirements; therefore, conducted on Client's System after completion of the Functional Test and in preparation for Go-Live. CAD Enterprise Call Taker/Dispatcher User Training Course are examples.
- b) Classes such as GISLink that are delivered to a specialized group within Client's team throughout the Project to assist with implementation and maintenance of the System.
- c) Classes such as System Administration Training and CAD API Training that are not dependent upon Client configurations and are generic in nature. These classes are offered on a regular schedule by CentralSquare (not by Client), and as a remote activity, include attendees from different agencies.

7.3.8.1 CentralSquare Responsibilities (For All CAD Enterprise Training)

- a) Conduct Training Orientation via conference call with the designated Client representative(s) to define a curriculum based on the configurations of CAD Enterprise (if necessary, plan takes into consideration multi-agency/multi-site parameters).
- b) Conduct training in increments of one (1), eight (8) hour days.
- c) Provide feedback to Client Supervision as to the progress of the students.
- d) Prepare and submit a TCR upon completion of each type of training.

7.3.8.2 Client Responsibilities (For All CAD Enterprise Training)

- a) Provide a decision-maker to participate during Training Orientation who can articulate business practices that will be used to define the curriculum based on the practices and the build of CAD Enterprise.
- b) Provide adequate facilities for the execution of the training.
- c) Provide a supervisor for each class to respond to agency-specific questions.
- d) Review and approve the applicable TCRs.

7.3.9 CAD Enterprise Call Taker/Dispatcher User Training Course

Major Task	Description
Overview	CentralSquare will provide hands-on training for call taker and dispatch personnel.
	Training can be onsite or remote. If held at Client site, Client is responsible to provide training facilities with adequate space, seating, white board, projector, and workstation setups (dual monitors are preferred).

Client Participants	Call takers and dispatchers. Dispatch supervisors (in each class, to respond to agency-specific questions) and trainers as applicable.
	The number of students is limited to twelve (12) per class.
Duration	Two (2) days with a maximum duration of eight (8) hours.
	Training occurs between Tuesday and Thursday.
Output	Prepares Client staff for operation in a Production environment.
	·
Prerequisite	Training Orientation.
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7.3.10 CAD Enterprise Dispatch Supervisor

Major Task	Description
Overview	CentralSquare will provide hands-on training for dispatch supervisory personnel.
	Course commences after the two-day Call Taker/Dispatch Training.
	Class includes topics such as: PowerLine configuration, Premise-building and maintenance, Personnel maintenance, Vehicle Manager, and other supervisory-related subjects as well as creating the canned reports available in CAD Enterprise.
	Training can be onsite or remote. If held at Client site, Client is responsible to provide training facilities with adequate space, seating, white board, projector, and workstation setups (dual monitors are preferred).
Client Participants	Dispatch supervisors.
	The number of students is limited to twelve (12) per class.
Duration	Four (4) hours.
	Training occurs between Monday and Friday.
Output	Prepares Client staff for operation in a Production environment, to include supervisory support of front-line users and maintenance tasks after Go-Live.
Prerequisite	Training Orientation.

7.3.11 CAD Enterprise Post-Go-Live System Optimization Workshop

Major Task	Description
Overview	Advanced configuration and workflow options as well as other areas to be edited or refined according to Client's Post-Go-Live needs.
Client Participants	Key members of the implementation team familiar with CAD Enterprise and should generally not exceed twelve (12) attendees.
Duration	Three (3) days.
Output	Upon completion, identified areas targeted for optimization or change are resolved. Any remaining work required to be completed by Client is also identified.

7.3.11.1 CentralSquare Responsibilities

- a. Schedule workshop in accordance with Client's availability and the Project Schedule.
- b. Prepare and distribute the agenda and documents for Client review or completion to all required attendees prior to the workshop.
- c. Conduct the workshop based on the agenda.
- d. Prepare and submit a TCR upon completion of workshop.

7.3.11.2 Client Responsibilities

- a. Provide workstations with CAD Enterprise.
- b. Provide adequate environment to conduct workshop.
- c. Ensure participation of appropriate personnel.
- d. Review and approve the applicable TCR.

7.4 Implementation of Field Ops

7.4.1.1 Field Ops Configuration

Consultant will configure Field Ops as a remote activity, based on Client's existing agencies.

7.4.1.1.1 CentralSquare Responsibilities

- Configure the system interface to enable Field Ops communication with CAD Enterprise.
- b) Enable an administrative user for license administration.
- c) Validate Field Ops is working in the installed environment.

7.4.1.1.2 Client Responsibilities

a) Provide a list of agencies and number of licenses per agency for configuration.

- b) Identify an administrator to manage Field Ops license assignments.
- c) Perform all required network configurations as advised by the CentralSquare Consultant prior to the configuration event.
- d) Review and approve the applicable TCRs.

7.5 Mobile Enterprise Configuration

Major Task	Description
Overview	CentralSquare consultant will complete Mobile configuration options based on related options in CAD Enterprise and Mobile Configuration Sheet once servers are installed at Client site. The same configurations are used as a base for the Functional Test document.
	Conversion and import of Mobile map and layers needed for Go-Live are also completed.
	All activities are performed remotely
Client Participants	CAD/Mobile Administrators and core members of Client implementation team who can address key points and make decisions to complete Mobile System configuration.
Duration	As noted in the Project Schedule.
Output	Completed Mobile configuration.
	The CentralSquare Consultant will provide ongoing consultation services.

7.5.1 Mobile Enterprise Administration Configuration Training

Major Task	Description
Overview	CentralSquare will use the installed Mobile server to teach students how to configure and maintain the server and related administrative Mobile-related tasks.
	Instruction will also be provided on installation of Mobile Clients with assistance for installation of up to five (5) Mobile devices. Client is responsible for installation of the balance of Mobile devices.
Client Participants	Mobile Administrator(s).
	The number of students is typically one to five (1-5) per class.
Duration	One day with a maximum duration of eight (8) hours.

	Training typically occurs between Tuesday and Thursday.
Output	Students will learn how to configure and maintain the Mobile server, as well as customize screen layouts, Active & Waiting Incident Queue, Unit Queue, and agency-specific screens.
Prerequisite	Knowledge of: 1) Standard GPS protocol (TAIP and NMEA), and 2) HTML and JAVA experience for any custom configuration.

7.5.2 Mobile Enterprise Functional Testing

Functional Tests test specific functionality of the Mobile Enterprise System and formally documents that the system meets required functionality according to the Agreement.

Major Task	Description
Overview	Client leads and CentralSquare will assist with Functional Testing which is a remote activity occurring in conjunction with the CAD Functional Test and prior to End User Training and Go-Live.
	Since the focus of the Functional Test is functionality of the System but not a validation of Codefiles, it is not necessary that Mobile is completed prior to conducting the Functional Test.
	The Functional Test process consists of running script-based standard tests in a format designed to verify the functionality of Mobile Enterprise. Functional Test documents are submitted and approved by Client prior to testing in acknowledgement that the test scenarios will be used to validate System functionality for Pre-Production and Post-Go-Live assessment of features for Software Acceptance. Script sign-off is a precursor to administration of the Functional Test.
	Completion of the Functional Test does not constitute Final System Acceptance.
Client Participants	Key members of implementation team familiar with Mobile Enterprise.
Duration	One day with a maximum duration of four (4) hours.
Output	Upon completion, Client's Mobile Enterprise system is acknowledged as having completed Pre-Production Acceptance (see note below).
	Client and CentralSquare will review Functional Test exceptions (if any), perform an assessment, and determine the timeline for remedying the exceptions (pre versus Post-Go-Live).
	CentralSquare will not train Client's end users until the Functional Test has been conducted and TCR signoff has been received.

Client, with CentralSquare assistance as needed, will repeat failed test(s) following correction of issues that caused the test(s) to fail. A full retest of the System will not be conducted.

7.5.2.1 CentralSquare Responsibilities

- a) Deliver CentralSquare's standard Functional Test documents to Client no later than two weeks prior to conducting the Functional Test.
- b) Provide a TCR to Client to approve the receipt of the Functional Test documents.
- c) Install at least one Mobile Client (device) to conduct the Functional Test.
- d) Assist Client in conducting the Functional Test.
- e) Identify and document any exceptions discovered during the Functional Test.
- f) Prepare and submit a TCR upon completion, documenting any exceptions.

7.5.2.2 Client Responsibilities

- a) Work toward the timely completion of all predecessor tasks to include the base system installation.
- b) Provide adequate facilities to execute the Functional Test.
- c) Participate in the Functional Test by providing operational subject matter experts to administer the tests.
- d) Assist CentralSquare in documenting Functional Test findings and results.
- e) Review and approve the applicable TCRs.

7.5.3 System Integration Testing

Once the Functional Test is concluded for CAD Enterprise, Mobile Enterprise, and interfaces and in preparation for Go-Live, CentralSquare and Client will conduct System Integration Testing (up to one hour with CentralSquare assisting remotely).

The System Integration Test will be conducted based on scenarios that test call flow from creation to final disposition in CAD and include CAD and Mobile Enterprise, and Interfaces that can be tested in the pre-production environment and are scheduled to Go-Live at the same time. It is recommended that Client utilizes sample calls from their legacy System.

A small group of Client staff (1-2 dispatchers and 1-2 Mobile field users) should participate in this test with the CentralSquare Consultant. CentralSquare will work with the Client on defining a set of test scenarios to test the system based on Client's practices; the scenarios must be signed off prior to commencement of the System Integration Test.

At the completion without critical issues that prevent the System to be taken Live, Client shall provide TCR approval that the System is ready for Go-Live.

7.5.3.1 CentralSquare Responsibilities

a) Schedule System Integration Test with Client.

- b) Assist Client in preparing test scenarios that can be used during this test and closely simulates the normal Client's call flow.
- c) Prepare and submit a TCR to Client documenting the tests that will be used for the System Integration Test.
- d) Participate in the System Integration Test with Client.
- e) Prepare and submit TCRs upon completion of the System Integration Test.

7.5.3.2 Client Responsibilities

- a) Provide test scenarios that closely simulate Client's normal call flow.
- b) Participate in conducting the System Integration Test.
- c) Review and approve the applicable TCRs.
- d) Provide test systems (or pre-Production systems) for all integrations and interfaces. If Client cannot provide a test system CentralSquare must test using the production system. This testing includes, but it not limited to, test data entry in a production system.

7.5.4 Mobile Enterprise Train-the-Trainer/End User Training

Major Task	Description
Overview	CentralSquare will provide hands-on training for Client users who will train other field users in the use of Enterprise Mobile. If multi-agency, training scenarios may vary by agency. Each participant should have their own pre-configured Mobile device.
Client Participants	Mobile trainers.
	The number of students is limited to ten (10) per class.
Duration	One day with a maximum duration of four (4) hours.
	Training typically occurs between Tuesday and Friday.
Output	Students will learn how to start/stop the application, process updates, view screen layouts, messaging, status changes, mobile maps, incident assignments and incident updates.
Prerequisite	Completion of a Microsoft Windows Tutorial (this may be waived upon demonstrated ability to work with Windows), typing skills of a minimum of 25 words/minute and Mobile field user experience.

7.6 Implementation of Records Enterprise

Records Enterprise is implemented through a series of standard steps and process gates designed to ensure that operational needs are identified, configurations are verified, and tested to validate the proper functionality prior to Go-Live.

7.6.1 Records Enterprise Implementation Process Overview

Major Task	Description
System Orientation	Initial activity to kick off work on deliverable.
Workshops	CentralSquare and Client will conduct workshops as indicated in the approved Project Schedule.
Base System Build	After Records Enterprise Administration and Review Training, Client assumes ownership of building and maintaining modules and templates.
Functional Testing	Conducted prior to the start of End User Training.
Training	As indicated in the approved Project Schedule.
Go-Live	The application is brought into Production use.

7.6.2 Records Enterprise Administration and Review Training

Major Task	Description
Overview	Hands-on course conducted once Records Enterprise is installed at Client site. Students learn how to create users, assign roles, create templates, and assign workflows. Course also covers administration responsibilities for implementation, configuration, and maintenance of Records Enterprise.
Client Participants	Key members of implementation team to include representatives from Records Central and local administrators. Participants must be able to make decisions regarding configurations in system for the Records application. Participants should not exceed twelve (12).
Duration	As noted in the Project Schedule.
Output	Records Core Team learns how to use the key utilities used to configure the System. Build templates, create workflows, and complete personnel build. Client becomes responsible moving forward for maintaining the Records application that must be continually updated (Personnel, Violation Codes, Property Locations, etc.) to keep system in a Go-Live ready status. The CentralSquare Consultant will provide ongoing consultation services.

7.6.2.1 CentralSquare Responsibilities

- a) Schedule Records Enterprise Administration and Review Training in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the meeting agenda and documents for Client review or completion two weeks prior to training.
- c) Conduct meeting based on the agenda.
- d) Introduce Client to and begin documentation within the Provisioning Guide.
- e) Document and assign owners and due dates for action items and track to closure.
- f) Provide Client team with a copy of the Records Enterprise User and Administration Guides.
- g) Prepare and submit a TCR upon completion of the training.

7.6.2.2 Client Responsibilities

- a) Provide adequate environment to conduct training.
- b) Ensure participation of the appropriate personnel.
- c) Assume ownership for the continued build and maintenance of the system under the guidance of the CentralSquare Consultant.
- d) Review and approve the applicable TCR.

7.6.3 Records Enterprise Base System Build

Major Task	Description
Overview	After completion of the Records Enterprise Administration and Review Training, and through subsequent workshops and training classes, Client assumes ownership of completion and ongoing maintenance of system.
Client Participants	Records Enterprise Administrators and core members of Client implementation team who can address key points and make configuration decisions while participating in the system building process.
Duration	As noted in the Project Schedule.
Output	After initial build by CentralSquare Consultant, Client completes and maintains system files and templates, to include Personnel, Roles, Property Locations, and Violation Codes.
	CentralSquare delivers the Records Enterprise system with base NCIC and NIBRS codes. It is the Client's responsibility to complete NIBRS code-mapping to Violation Codes.
	a) CentralSquare does not provide training or assistance with Client's understanding of State or Federal (N)IBRS requirements or laws. CentralSquare services are reserved exclusively to the configuration.

- and use of Records Enterprise to collect and output state or federal required data.
- b) No conversion of historical incident data from UCR to NIBRS is included. As a result, there may be historical records that will contain missing NIBRS mandatory fields.

The CentralSquare Consultant will provide ongoing consultation services.

7.6.3.1 CentralSquare Responsibilities

a) Monitor and evaluate System build throughout implementation and provide guidance as needed.

7.6.3.2 Client Responsibilities

- a) Provide timely input and updates to Templates, Workflows, Users, Roles, and System codes.
- b) Continue and complete building the Templates, Workflows, Users, Roles, and System files (those not built by CentralSquare).

Note: Any changes required to RMS templates required for standard work is the responsibility of Client.

7.6.4 Geographical Information Services

7.6.4.1 Data Evaluation

The CentralSquare GIS Analyst will work with the Client to create the address locator packages and configure Records GIS services. GIS data must be from a single integrated source when delivered to CentralSquare for conversion.

7.6.4.2 CentralSquare Responsibilities

- a) Evaluate Client-supplied GIS data to ensure it is formatted correctly for creation of the address locator packages.
- b) Create address locator packages and configure Records GIS services.
- c) Prepare and submit a TCR upon completion.

7.6.4.3 Client Responsibilities

- a) Provide data in the required format, and per Project Schedule.
- b) Based on the analysis provided by CentralSquare, make requested changes to mapping data to meet CentralSquare's GIS data requirements.
- c) Review and approve the appropriate TCR.

7.6.5 Records Enterprise Workshops

CentralSquare will conduct Records Enterprise workshops after the Records Enterprise Administration and Review Training has been completed. Workshops are specified in the Agreement but generally include:

- a) Records Enterprise Workshop #1 Incident, Arrest, and Case Management
- b) Review, configuration, and completion of the Incident, Arrest, and Case Management modules including the queues, templates, and code tables.
- c) Records Enterprise Workshop #2 Crash, Citation, Other Event & Field Interview
- d) Review, configuration, and completion of the Crash, Citation, and Other Event & Field Interview modules including the queues, templates, and code tables.
- e) Records Enterprise Workshop #3 TBD

Participants include key members of Client's implementation team to include Records Central and local administrators, and each key functional area, and should not exceed twelve (12) students.

Refer to Appendix Y, Workshop and Training Summary for a complete listing applicable to this project.

7.6.5.1 CentralSquare Responsibilities

- a) Schedule workshops in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the meeting agendas and documents for Client review or completion prior to each workshop.
- c) Conduct workshops based on the distributed agenda.
- d) Prepare and submit a TCR upon completion of the workshop.

7.6.5.2 Client Responsibilities

- a) Provide adequate environment to conduct the workshop.
- b) Ensure participation of the appropriate personnel.
- c) Continue system building activities as directed.
- d) Review and approve the applicable TCR.

7.6.6 Records Enterprise Output Designer Workshop

Major Task	Description
Overview	Workshop is conducted approximately 6-8 weeks after completion of the Incident, Arrest, and Case Management Workshops.
	Records templates must be 90-95% complete prior to this workshop to prevent rework on form outputs and possible impact to the overall project timeline.

	Students learn how to create custom form outputs using Microsoft SQL Server Reporting Services (SSRS) and the Records Enterprise Output Designer application utility.
Client Participants	Key members of implementation team responsible for creation of custom form outputs.
	Participants should not exceed five (5) students.
Duration	As noted in the Project Schedule.
Output	Attendees will learn how to generate a dataset based on the Records Enterprise Module template, utilizing SSRS to customize the output based off of a pre-defined default output report.
	Attendees will also learn how to configure templates to use the custom form output within the Records Enterprise Web Data Entry Designer tool.
	The CentralSquare Consultant will provide ongoing consultation services.
Prerequisites	This is an advanced Workshop and attendees must have prior experience using SSRS. CentralSquare will not provide training on SSRS.

7.6.6.1 CentralSquare Responsibilities

- a) Schedule workshop in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the agenda and documents for Client review or completion to all required attendees prior to the workshop.
- c) Conduct the workshop based on the agenda.
- d) Prepare and submit a TCR upon completion of workshop.

7.6.6.2 Client Responsibilities

- a) Provide workstations with Records Enterprise and SQL Server Reporting Service access.
- b) Provide adequate environment to conduct workshop.
- c) Ensure participation of appropriate personnel.
- d) Continue Output Designer activities after completion of workshop.
- e) Review and approve the applicable TCR.

7.6.7 Records Enterprise Report Writing

Major Task Description

Overview	CentralSquare will provide hands-on training to prepare students to create, modify, and run reports on data within the Records Enterprise application. Students will learn how to use the Ad-Hoc Reporting module within Records Enterprise, as well as how to create new Microsoft SQL Reporting Services (SSRS) Custom Reports using SQL Database Model Views.
Client Participants	Recommended for personnel who will utilize the provided reporting tools to extract data from Enterprise Records. The number of students is limited to twelve (12) per class.
Duration	Three (3) days. Training occurs between Tuesday and Thursday.
Output	Prepares Client staff for operation in a Production environment.
Prerequisite	Completion of Enterprise Records training. Basic understanding of computers and Windows environment. General understanding of departmental reporting requirements.

7.6.7.1 CentralSquare Responsibilities

- a) Schedule workshop in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the agenda and documents for Client review or completion to all required attendees prior to the workshop.
- c) Conduct the workshop based on the agenda.
- d) Prepare and submit a TCR upon completion of workshop.

7.6.7.2 Client Responsibilities

- a) Provide workstations with Records Enterprise.
- b) Provide adequate environment to conduct workshop.
- c) Ensure participation of appropriate personnel.
- d) Review and approve the applicable TCR.

7.6.8 Validation & Readiness Workshop

Major Task	Description
Overview	The workshop validates system build completeness and readiness for Functional Testing and End User Training. Any remaining workflow questions
	or other issues are also addressed.

Client Participants	Key members of implementation team to include Records Enterprise Admin, key SMEs who attended System Orientation, Personnel to perform testing on data entry templates and report writing, and Client Project Manager. Attendance not to exceed twelve (12) participants.
Duration	Three (3) days.
Output	Upon completion, Client's Records Enterprise system is acknowledged as ready to proceed with Functional Testing and End User Training.

7.6.8.1 CentralSquare Responsibilities

- a) Schedule workshop in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the agenda and documents for Client review or completion to all required attendees prior to the workshop.
- c) Conduct the workshop based on the agenda.
- d) Prepare and submit a TCR upon completion of workshop.

7.6.8.2 Client Responsibilities

- a) Provide workstations with Records Enterprise.
- b) Provide adequate environment to conduct workshop.
- c) Ensure participation of appropriate personnel.
- d) Review and approve the applicable TCR.

7.6.9 Records Enterprise Functional Acceptance Testing

The Functional Acceptance Testing tests specific functionality of the Records Enterprise System and formally documents that the system meets required functionality according to the Agreement.

Major Task	Description
Overview	Client leads and CentralSquare will assist with Functional Testing, which is a onsite activity occurring prior to End User Training and Go-Live.
	Since the focus of the Functional Test is functionality of the System but not a validation of Codefiles, it is not necessary that all Codefiles be built prior to conducting the Functional Test.
	The Functional Test process consists of running script-based standard tests in a format designed to verify the functionality of Records Enterprise. Functional Test documents are submitted and approved by Client prior to testing in acknowledgement that the test scenarios will be used to validate System functionality for Pre-Production and Post-Go-Live assessment of features for Software Acceptance. Script sign-off is a precursor to administration of the Functional Test.

	CentralSquare may organize at its discretion, separate breakout Functional Test sessions for subsections of the Functional Test documents that are applicable only to one agency (for example, applicable only to a Sheriff's Department or single agency). Each test will be executed once, and all applicable users and agencies must attend the Functional Test session and observe the tests. Following the completion of the FAT, any failure will be classified based on the following criteria: Go-Live Issues: Issues in the subsystem identified during Functional Acceptance Testing with contractually required functionality that must be corrected prior to Go-Live. CentralSquare will research such identified issues and propose a plan for resolution. Go-Live Issues will be corrected prior to Go-Live. Post-Go-Live Issues: Issues in a subsystem with contractually required functionality that can be corrected after Go-Live. Client and CentralSquare will mutually agree these issues may be addressed after Go-Live. CentralSquare will provide an estimated date for resolution of the issue post Go-Live. Support Issues: Issues in a subsystem identified that are not contractually required functionality and do not prevent the City from performing normal daily or monthly processes; and therefore, can be corrected after the subsystem Go-Live. These issues will not affect acceptance of the system. Support issues will be managed based upon the procedures outlined in the Software Support Agreement.
	Acceptance.
Client Participants	Key members of implementation team familiar with Records Enterprise and should generally not exceed five (5) attendees.
Duration	As noted in the Project Schedule.
Output	Upon completion, Client's Records Enterprise system is acknowledged as having completed Pre-Production Acceptance (see note below). Client and CentralSquare will review Functional Test exceptions (if any), perform an assessment, and determine the timeline for remedying the exceptions (pre versus Post-Go-Live). CentralSquare will not begin training until the Functional Test has been conducted and TCR signoff has been received. Client, with CentralSquare assistance as needed, will repeat failed test(s) following correction of issues that caused the test(s) to fail. A full retest of the System will not be conducted.

7.6.9.1 CentralSquare Responsibilities

- a) Deliver CentralSquare's standard Functional Test documents to Client no later than two weeks prior to conducting the Functional Test.
- b) Provide a TCR to Client to approve receipt of the Functional Test documents and content thereof.
- c) Assist Client in conducting the Functional Test.
- d) Identify and document exceptions and assess to determine timeline to remedy exceptions (pre versus Post-Go-Live).
- e) Upon completion of Functional Test, provide a TCR to Client for review and approval. Functional Test exceptions will be documented in the TCR.
- f) Schedule follow-up testing for validation of exceptions after correction and confirm/document the results via TCR.
- g) Provide a final TCR to Client to confirm resolution of all Pre-Go-Live exceptions.

7.6.9.2 Client Responsibilities

- a) Complete all predecessor tasks to include the base system installation and code table entry and configuration to conduct the Functional Test.
- b) Provide adequate environment to conduct the Functional Test.
- c) Review and signoff on the Functional Test documents no later than one week prior to commencement of the Functional Test via TCR.
- d) Lead the Functional Test by providing operational subject matter experts with the authority to provide validation the tests have passed.
- e) Assist CentralSquare in documenting Functional Test results.
- f) Review and approve the applicable TCRs.

7.6.10 Records Enterprise System Integration Testing

Once the Functional Test is concluded for Records Enterprise and in preparation for Go-Live, CentralSquare and Client will conduct the System Integration Test (up to four hours with CentralSquare assisting remotely). The System Integration Test will be conducted based on a provided scenario that tests the records management process. A small group of Client staff (1-2 Records staff and field users) should participate in this test. CentralSquare will work with Client to refine the test scenario that tests the system based on Client's practices and must be signed off prior to commencement of the System Integration Test.

At the completion, without any issues that prevent the System to be taken Live, Client shall provide written approval that the System is ready for Go-Live.

7.6.10.1 CentralSquare Responsibilities

- a) Schedule System Integration Test with Client.
- b) Assist Client in preparing test scenarios that can be used during this test and closely simulates the normal Client's call flow.

- c) Prepare and submit a TCR to Client documenting the tests that will be used for the System Integration Test.
- d) Participate in the System Integration Test with Client.
- e) Prepare and submit TCR upon completion of the System Integration Test.

7.6.10.2 Client Responsibilities

- a) Provide test scenarios that closely simulate Client's normal call flow.
- b) Participate in conducting the System Integration Test.
- c) Review and approve the applicable TCRs.
- d) Provide test systems (or pre-Production systems) for all integrations and interfaces. If Client cannot provide a test system CentralSquare must test using the production system. This testing includes, but it not limited to, test data entry in a production system.

7.6.11 Post-Go-Live Optimization Workshop

Major Task	Description
Overview	Advanced configuration and workflow options as well as other areas to be edited or refined according to Client's Post-Go-Live needs.
Client Participants	Key members of implementation team familiar with Records Enterprise and should generally not exceed twelve (12) attendees.
Duration	As noted in the Project Schedule.
Output	Upon completion, identified areas targeted for optimization or change are resolved. Any remaining work required to be completed by Client is also identified.

7.6.11.1 CentralSquare Responsibilities

- a) Schedule workshop in accordance with Client's availability and the Project Schedule.
- b) Prepare and distribute the agenda and documents for Client review or completion to all required attendees prior to the workshop.
- c) Conduct the workshop based on the agenda.
- d) Prepare and submit a TCR upon completion of workshop.

7.6.11.2 Client Responsibilities

- a) Provide workstations with Records Enterprise.
- b) Provide adequate environment to conduct workshop.
- c) Ensure participation of appropriate personnel.
- d) Review and approve the applicable TCR.

7.6.12 Records Enterprise Training

Records Enterprise Training classes are conducted on consecutive weekdays during business hours (Tuesday-Friday). Alternate training schedules (multiple classes per day, evening, and weekend classes) are subject to additional cost.

Note: Training classes are conducted based on the quantities that are specified in the Agreement. The appearance of a course description in this Statement of Work does not mean a course will be conducted – it must be listed in the Agreement. Refer to Appendix Y, Workshop and Training Summary for a complete listing applicable to this project.

7.6.12.1 CentralSquare Responsibilities (for all Records Enterprise Training)

- a) Conduct a remote training orientation between CentralSquare Training personnel and the designated Client representative. The objective of the session is to define the training schedule based on configurations of the Subsystem.
- b) Schedule the Records Enterprise Training class(es) in accordance with Client's availability and the Project Schedule.
- c) Prepare and distribute agendas and documents prior to each meeting.
- d) Develop and provide the Records Enterprise Training Plan.
- e) Conduct session(s) per the Schedule.
- f) Prepare and submit a TCR upon completion of each class, or a group of consecutive classes.

7.6.12.2 Client Responsibilities (for all Records Enterprise Training)

- a) Participate in training orientation and provide a decision maker who can articulate specific business practices used in guiding the build of Client's System.
- b) Provide adequate environment for execution of training.
- c) Provide a Local Records Administrator for each class to answer agency specific questions related to the build of Client's system and internal policies or workflow.
- d) Provide schedule for training remaining end users.
- e) Review and approve applicable TCRs.

7.6.13 Records Enterprise End User Training – Records

Major Task	Description
Overview	CentralSquare will provide hands-on training that prepares students to add,
	edit, and modify Incident, Arrest, Custody, Crash, Citation, Field Interviews, State Reporting, Redaction and Expungements.
	Class also instructs users how to search crime report records.

	Students will learn how to maintain State-reportable UCR/NIBRS reports.
Client Participants	Recommended for personnel responsible for day-to-day records data entry and maintenance of departmental reports.
	The number of students is limited to twelve (12) per class.
Duration	Two (2) days.
	Training occurs between Tuesday and Thursday.
Output	Prepares Client staff for operation in a Production environment.
Prerequisite	Basic understanding of computers and Windows environment.
	Comprehensive understanding of the internal structure of the Records
	Department and departmental policies and procedures.
	An understanding of how the Records Department interacts with Patrol.

7.6.14 Records Enterprise End User Training – Field Officers and Investigations

Major Task	Description
Overview	CentralSquare will provide hands-on training that prepares students to use Records Enterprise and includes instructions on how to create and submit Incident, Arrest, Field Interview, Citation, and Crash (or applicable modules) through the workflow process.
	For the train-the-trainer portion of the class, CentralSquare prepares selected Client personnel to train other end users on Records Enterprise. The goal is to prepare these personnel to apply CentralSquare's training concepts to train field users on Records Enterprise.
Client Participants	Recommended for field personnel responsible for creating and submitting respective reports as described above.
	The number of students is limited to twelve (12) per class.
Duration	Two (2) days with a maximum duration of eight (8) hours. Training occurs between Tuesday and Thursday.
Output	Prepares Client staff for operation in a Production environment.
Prerequisite	Basic understanding of computers and Windows environment.
	Comprehensive understanding of the internal structure of the Records Department and departmental policies and procedures.

An understanding of how Patrol interacts with the Records Department and Dispatch.
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7.6.15 Records Enterprise Property and Evidence Training

7.6.16 Records Enterprise End User Training – Warrants

Major Task	Description
Overview	CentralSquare will provide hands-on training for personnel responsible for entering, updating, and maintaining civil process records and warrants.
	Students learn how to maintain names, property, fees, dispositions, and payments associated with these civil process records. Training for this module should be specific to the staff involved in the Civil Process.
	Training should be conducted directly with detectives who will train other detectives at their agency; this ensures proper workflows are discussed and configured.

Client Participants	Recommended for personnel responsible for working with and supporting Investigations and Case Management.
	The number of students is limited to twelve (12) per class.
Duration	Two (2) days.
	Training occurs between Tuesday and Thursday.
Output	Prepares Client staff for operation in a Production environment.
Prerequisite	Basic understanding of computers and Windows environment.
	Comprehensive understanding of departmental policies and procedures associated with civil process, associated records, and reports.
	A comprehensive understanding of the departmental policies and procedures and requirements for managing the warrants process, associated records, and reports.

7.7 Implementation of P2P (Police-to-Police Sharing)

Police-to-Police data sharing (P2P) allows information to be shared with other law enforcement agencies while maintaining control over their own records management systems and databases. It provides a single informational point of access, real-time availability, SSL encryption, and customized dashboards.

The P2P Host will be installed at the agency (commonly on an application server) and will be configured to permit read-only access to the agency's Records Enterprise data being shared with cooperating police agencies. The P2P Host accepts authenticated requests from CentralSquare's P2P Switch over TCP/IP. Traffic between the P2P Host at the agency and CentralSquare's P2P Switch is encrypted with AES-256 FIPS 140-2 compliant encryption.

7.7.1 Implementation Scheduling

P2P is implemented through a series of standard steps and process gates designed to ensure accurate configuration, followed by testing to validate functionality prior to training. Refer to Appendix Y, Workshop and Training Summary for a complete listing applicable to this project.

7.7.1.1 Administrative Training

Administrative training focuses on management of configuration settings for the agency's site administrators as well as how to navigate the site and utilize its various features.

7.7.1.2 End User Training

End user training focuses on teaching users how to navigate the site and utilize its various features.

7.8 Implementation of Police to Citizen

The Police to Citizen implementation will begin when the Incident Module configuration has been completed and the overall Records Enterprise build is approximately 75% complete. When the build has been completed and functionality verified, the module will allow citizens the ability to perform simple searches, download reports, and submit non-emergency incidents.

CentralSquare will conduct working sessions with Client to determine the proper configuration settings for the module, as well as the functionality associated with Incident reports submitted by Citizens via the portal. This will include building code tables, picklists, system settings and assignment of security permissions. Training will be provided for Administrative and End Users.

Administrative training should be attended by those responsible for maintaining user information and code tables, as well as by subject matter experts for the specific application area.

End User training focuses on processes and tools within the applications for productive use of the system and include data entry, searching, sorting, filtering, editing, and printing reports, accepting, rejecting, and deleting reports, and general application navigation.

Refer to Appendix Y, Workshop and Training Summary for a complete listing applicable to this project.

7.8.1 CentralSquare Responsibilities

- a) Schedule the working sessions in accordance with Client's availability and the Project Schedule.
- b) Conduct the working sessions based on the schedule and provide assignments as necessary to Client.
- c) Ensure the module is functioning per the configuration.
- d) Conduct Administrative and End User training.
- e) Prepare and submit a TCR upon completion of the deliverable.

7.8.2 Client Responsibilities

- a) Ensure participation of appropriate personnel for each scheduled activity.
- b) Complete all assignments on a timely basis.
- c) Review and approve the applicable TCR.

7.9 Implementation of Field Training Online (FTO)

Field Training Online (FTO) provides public safety agencies with a simple and secure method for streamlining new-hire training programs. FTO is a flexible, secure web-based application that allows agencies to break free from time-consuming, paper-based evaluation and reporting methods.

With Field Training Online, agencies can manage the full spectrum of field training operations efficiently, from creating unlimited types of training programs and managing officer workflow to tracking daily activity and automating evaluation and reporting processes. The application offers integration, security, real-time tracking, and on-demand reporting to improve accuracy and reduce both cost and time.

7.9.1 CentralSquare Responsibilities

a) Schedule time to initiate project work in accordance with Client's availability and the Project Schedule.

7.9.2 Client Responsibilities

- a) Ensure participation of appropriate personnel for each scheduled activity.
- b) Complete all assignments on a timely basis.
- c) Review and approve the applicable TCR.

7.10 Implementation of DEMS

The CentralSquare DEMS (Digital Evidence Management System) facilitates collaboration between agencies, attorneys, and the public. DEMS helps organizations speed up investigations by allowing them to securely collect, manage, review, and share digital evidence from a single application. The solution is an open platform allowing agencies to gather digital evidence from many sources, including surveillance systems, body-worn devices, in-car systems, and citizens. Integration allows agencies to create cases in CentralSquare DEMS from CentralSquare Enterprise Records.

7.10.1 CentralSquare Responsibilities

- Schedule workshop to initiate project work in accordance with Client's availability and the Project Schedule.
- b) Create pilot account and deliver to Client for review.
- c) Initiate training to individuals participating in each phase of the deployment.
- d) Complete design of Access Request Form template to initiate desired workflow.
- e) As applicable, complete application integration.
- f) As applicable, complete import of existing evidence.

7.10.2 Client Responsibilities

- a) Ensure participation of appropriate personnel for each scheduled activity.
- b) Complete all assignments on a timely basis.
- c) Review and approve the applicable TCR.

7.11 Implementation of CrimeView/Firefiew Analytics

The CrimeView Analytics subscriptions that the Client has purchased represent the data sets include:

- CrimeView Analytics Standard: CAD Incidents, RMS Incidents (plus people and vehicles associated with RMS Incidents).
- CrimeView Analytics Informative: Arrests, Citations, Crashes, Field Interviews, Warrants
- FireView Analytics 2 Integration

CrimeView/FireView Analytics will be implemented through a series of standard steps and process gates.

7.11.1 Analytics Kick-Off Meeting

The Kick-Off meeting provides a high-level review of the application's functionality and project deliverables, customer prerequisites, and implementation process.

7.11.1.1 CentralSquare Responsibilities

- a) Schedule and lead the meeting.
- b) Provide action items.

7.11.1.2 Client Responsibilities

- a) Configure the CrimeView/FireView import server and provide CentralSquare with a local administrator account.
- b) Collect and deliver the GIS data to be used for the application to CentralSquare.

7.11.2 Requirements Collection and Preparation

Client's preparation and delivery of prerequisites to the CentralSquare project team is a critical gate for starting implementation work.

7.11.2.1 CentralSquare Responsibilities

a) Provide hardware, GIS, and any other requirements details to Client during and following the Kick-Off meeting.

7.11.2.2 Client Responsibilities

- a) Configure hardware, including creation of a CentralSquare local administrator account on the import server.
- b) Provide required GIS data.

7.11.3 Code Mapping

CentralSquare will map customer code values to standard categories to enable CrimeView/FireView map symbology.

7.11.3.1 CentralSquare Responsibilities

- a) Extract code tables from Client's CAD and/or Records Enterprise system and match to standard code sets.
- b) If necessary, provide Client with an Excel document to review code mapping.

7.10.3.1.2 Client Responsibilities

a) Review and revise code mapping within five (5) business days.

7.11.4 Application Configuration

The CentralSquare GIS/Analytics Specialist will configure and automate the ETL (Extract, Transform, and Load) process that securely replicates data to the cloud CrimeView/FireView environment, and configure the user application.

7.11.4.1 CentralSquare Responsibilities

- a) Configure the ETL process and CrimeView/FireView application.
- b) Prepare standard dashboards for initial demonstration

7.11.4.2 Client Responsibilities

- a) Respond to information, data, and assistance requests.
- b) Work with the CentralSquare Project Manager to facilitate a date for the Application Review Meeting.

7.11.5 Initial Demonstration, Consultation, and Content Preparation

The CentralSquare GIS/Analytics Specialist will provide a short demonstration of the system with Client's data and lead a discussion of Client needs and how the system might meet those needs.

7.11.5.1 CentralSquare Responsibilities

- a) Schedule the initial demonstration in accordance with Client's availability and the Project Schedule.
- b) Schedule and lead the initial demonstration and collect Client feedback.

7.11.5.2 Client Responsibilities

a) Have the appropriate users and stakeholders attend the initial demonstration and participate in follow-up conversations.

7.11.6 CrimeView/FireView Analytics Administrator/Designer Training (Remote)

Major Task	Description
Overview	CentralSquare will provide remote training for those individuals who will be responsible for managing CrimeView/FireView Analytics users and creating and managing the dashboard content in the system.
Client Participants	Designated CrimeView/FireView administrator(s), power users and stakeholders who can provide input on configuration of the system. The number of students is limited to twelve (12) per class.
Duration	Up to six (6) hours.
Output	Prepares Client staff to administer the CrimeView/FireView Analytics application.
Prerequisite	Basic understanding of computers and CAD & Records Enterprise data.

General understanding of departmental reporting and analytics needs.

7.11.6.1 CentralSquare Responsibilities

- a) Schedule the Administrator/Designer training in accordance with Client's availability and the Project Schedule.
- b) Provide standard Administrator/Designer training sessions for Client personnel.

7.11.6.2 Client Responsibilities

- a) Schedule appropriate personnel to attend training.
- b) Ensure computers have access to the CrimeView/FireView Analytics website.
- c) Provide adequate hardware, telecom, and/or other facilities for training.

7.11.7 CrimeView/FireView Analytics Train the Trainer (Remote)

Note: Training must occur within four (4) weeks of CrimeView/FireView Analytics
Administrator/Designer Training. If Client cannot schedule the training within this window,
an alternative, equivalent delivery method such as a video or remote training will be
provided. Refer to Appendix Y, Workshop and Training Summary for a complete listing
applicable to this project.

Major Task	Description				
Overview	Central Square will provide hands-on training for those individuals who will be responsible for training and assisting CrimeView/FireView end users.				
Client Participants	Designated CrimeView/FireView administrator(s) and power users and trainers responsible for training and supporting end users. The number of students is limited to fifteen (15) per class.				
Duration	Two (2) hours.				
Output	Prepares power users and trainers to train and support end users.				
Prerequisite	Basic understanding of computers and CAD & Records Enterprise data.				

At completion of this training, participants will be able to perform the following:

- Navigate and interact with the content within the application
- Use charts, tables, maps, and dashboard filters to drill into data
- Export content
- Set up Pulse Alerts for themselves

7.11.7.1 CentralSquare Responsibilities

- a) Schedule the class in accordance with Client's availability and the Project Schedule.
- b) Conduct training session on a mutually agreed-upon schedule.

7.11.7.2 Client Responsibilities

- a) Provide adequate training facilities, including a conference room with adequate space, computers for each attendee, and a projector.
- b) Ensure computers have access to the CrimeView/FireView Analytics website.
- c) Ensure participation of appropriate personnel.
- d) Provide CrimeView/FireView training to all other end users.

7.11.8 System Review

The system review period begins after the Administrator/Designer Training and closes ten (10) business days after Train the Trainer. During the System Review, Client is responsible for reviewing the application and informing the CentralSquare project team of any noticed or potential issues or deficiencies with the configuration or data. CentralSquare will address the reported items during and following the review period; CentralSquare responses will fall into one of the following categories:

- Item refers to something in the application or data import configuration that has been confirmed and fixed/changed.
- Further information or action from Client is required to assess the item (a time window for Client action will be provided).
- Item is a result of Client's source data and requires Client action to fix (a time window for Client action will be provided).
- Item identifies a software bug that has been submitted for review and rectification.
- Item represents a requested enhancement to the software. Software enhancements are not included in the scope of the project but may be undertaken at CentralSquare's Product Management discretion.

7.11.8.1 CentralSquare Responsibilities

- a) Inform Client that the System Review period has begun; provide the review items listed above.
- b) Receive and address all items/issues submitted by Client during the System Review.

7.11.8.2 Client Responsibilities

- a) Interact with the system and create new content after the Administrator/Designer Training
- b) Inform the CentralSquare Project Manager of any questions, issues, or requested configuration changes.

7.11.9 CrimeView/FireView Analytics Acceptance

The CrimeView/FireView Analytics Dashboard application will be considered Accepted upon completion of the System Review.

7.12 Implementation of Enterprise System Interfaces

7.12.1 Enterprise Standard Interfaces - Implementation Overview

Standard interfaces to be implemented for this project are listed within the Agreement and Appendix B of this SOW.

Standard Interfaces may require certain work to be completed in the system prior to implementation. This may include code table configuration, system hierarchy, template design and the configuration of servers, certificates and integrations required for interface operation. Standard Interface OSD documents will detail network, third party and other pre-requisites for interface operation.

Standard Interfaces are deployed in the Pre-Production environment (which becomes Production at Go-Live). Interfaces are not deployed in Test or Training Environments unless specified in the Agreement and Appendix B of this SOW.

Disaster Recovery Interfaces are also licensed in the Agreement and listed in Appendix B of this SOW.

The Disaster Recovery system for On-Premise Systems will include licensed Disaster Recovery Interface configurations if the Interface Servers are replicated at a Virtual Machine level, with the assumption that no re-configuration needs to occur to either the CentralSquare or Third-Party end points as a result of a failover.

If the On-Premise Disaster Recovery system contains separately configured, non-replicated, Interface servers then Interface configuration services will need to be included in the Agreement.

Cloud Interfaces are replicated for Disaster Recovery with no end point configuration changes.

Major Task	Description
Schedule	CentralSquare and Client will conduct interface implementation tasks as indicated in the approved Project Schedule.
	Applicable Code Tables, configurations and Templates that must be built as part of the overall Project Schedule as a pre-requisite for interface deployment and/or testing will be detailed by the OSD.
Functional Review	Review of Standard interface functional specifications with CentralSquare, Client's subject matter expert (SME), and third-party vendor to review the Operational Scenario Document (OSD).

Installation and Configuration	CentralSquare will install the Interface, configure the interface and dry-run test the interface.
Functional Testing	CentralSquare will complete functional testing of the interface with Client and third party using a Functional Test document based solely on the OSD. Client notates the Functional Test document to indicate which tests passed or did not pass based on the OSD. Any exceptions are resolved and re-tested.
Sign Off	Client signs off on each interface via a Task Completion Report (TCR) upon completion of Functional Test.
Go-Live	The interfaces are brought into Production during system Go-Live.

7.12.2 Enterprise Standard Interfaces - Roles and Responsibilities

7.12.2.1 CentralSquare Responsibilities

- a) Review interface OSD with Client for each standard interface.
- b) Prepare and submit a TCR to Client documenting the delivery/review of the OSD.
- c) Assist with detailing configuration options for the interface.
- d) Install, configure and pre-test each interface based on the agreedupon configurations.
- e) Assist Client and third-party vendors to complete functional testing in accordance with Functional Test document. CentralSquare is not responsible for configuration of third-party systems.
- f) Prepare and submit a TCR documenting completion of Functional Test including any exceptions.
- g) Resolve Functional Test issues and re-run tests to confirm they have been resolved.

7.12.2.2 Client Responsibilities

- a) Participate in the review of OSDs for each standard interface.
- b) Provide the information that is necessary to complete the configuration options for each interface.
- c) Obtain the detailed documentation, schema, protocols, query specifications, sample files, and API access for each of the thirdparty applications that CentralSquare interfaces with and provide the documentation to CentralSquare.
- d) Act as the primary point of contact with third parties, including other vendors, state and/or local agencies that control products with which CentralSquare products will interface with.
- e) Ensure connectivity on the designated protocols and ports to or from third party or Client-hosted endpoints.

- f) Ensure design decisions and functional signoff decisions are made conclusively and in a timely fashion.
- g) Provide a point of contact/administrator for each/all standard interfaces with knowledge and experience of the work and data flows.
- h) Participate in the Functional Test with CentralSquare and third-party vendor and notate each test has passed, failed, or is not applicable.
 Validate data transferred to/from CentralSquare systems as part of the testing process of the interface.
- i) Assist CentralSquare in documenting, testing, and resolving Functional Test exceptions.
- j) Review and approve applicable TCRs.

Note: Any changes required to RMS templates required for standard interface work is the responsibility of Client.

Notes: Modifications requested by Client to a standard interface may incur additional cost and could result in project delays, since modifications to standard interfaces are only released with a major software version.

Changes to the configuration of standard interfaces made by Client may make the interface non-supportable. As a result, troubleshooting efforts may be subject to additional cost.

Client will arrange for third party vendor participation for systems that will be interfaced with, to ensure successful configuration and testing for end-end data flow.

Client is responsible for any services or software needed from third party systems to allow for interaction with the third-party system, or for connection to CentralSquare software in the absence of a third-party API. CentralSquare is not responsible for cost associated for the API, any required third-party lab or certification testing, cost associated with required programming, custom work by third party vendors, or any license fees that may be required by third party vendors. No third-party interface software will be installed on CentralSquare servers without the permission of CentralSquare.

7.13 Implementation of CAD-to-CAD Unify

7.13.1 CAD-to-CAD Overview

The CentralSquare CAD-to-CAD Hub (or simply the "Hub") provides intelligent options for sharing data between disparate CAD systems including call and unit information. Use of the Hub as a CAD-to-CAD solution reduces the use of phone calls and radio traffic while reducing response times and increasing information accuracy. The following documentation provides scope, processes, and deliverables necessary to implement a successful Unify system.

Unify provides the deepest system integration by interfacing bi-directionally to and from the connecting system. This allows users to send and receive incident and unit data to and from the Hub using their existing CAD. The Unify product package also provides user access to the Hub Portal Incident Viewer and Hub Notifications typically associated with the Aware and Notify product packages.

The customization efforts involved when integrating the Adapters and interfaces with the CAD-to-CAD Hub include several risks, the outcome of which are not completely certain until implementation and testing is complete. Based upon the differences of each CAD system, an agency may use different methods of sharing incidents and exchanging information through their connection to the Hub. Thus, actual functionality can vary widely by agency, even for those using the same make of CAD system. Accordingly, each agency is treated as a separate integration with inherent risks associated with configuration efforts. CentralSquare will work with the City of Burleson to identify, track and mitigate risks associated with this project.

7.13.2 Solution Overview

The City of Burleson will be connected to a Cloud CAD-to-CAD Hub using one of the methods noted below.

- Unify: Bi-directional solution, enables sharing of incidents, unit updates, and unit locations.
- Portal Access only (for situational awareness).

A table outlining each participating agency is included in Section 7.13.3, System Connections.

The City of Burleson will Go-Live with CentralSquare CAD Enterprise at a date that
is to be determined. CentralSquare will work with the City to develop a mutually
agreed upon schedule for the deployment and Go-Live of the CAD-to-CAD at the
City of Burleson. An interim solution is available for the potential participating
agencies that are waiting on the development of the CAD Adapter connection.

Portal access is included to view real-time CAD events as well as resource sharing requests. Agencies would also be able to receive and respond to requests in the Portal.

For any outside entities that have a CAD system and would like to participate in the CAD-to-CAD project, an executed Agreement with CentralSquare is needed for a licensed Aware, Notify, or Unify CAD-to-CAD solution which will include Portal access. For those outside entities (i.e., schools, hospitals) who do not have a CAD system, portal licenses can be purchased via an executed Agreement with CentralSquare. Alternatively, the City of Burleson may access this Agreement to procure Aware, Notify, or Unify CAD-to-CAD or portal licensing and/or professional services on behalf of outside entities.

7.13.3 Deliverable System Connections on CAD-to-CAD Hub Unify

CentralSquare will provide the City of Burleson with the following system connections as indicated in the below table.

Adapter Status Definitions:

- Development needed by CAD provider: The CAD Vendor does not have an Adapter available and development work is required. The CAD Vendor must also complete the certification process with CentralSquare before the Adapter is available for deployment.
- Certification in process with CAD provider: CentralSquare is working with the CAD Vendor to test the Adapter and upon completion of successful testing, the Adapter will be available for deployment.
- Certified Adapter: The development work by the CAD Vendor and the certification process with CentralSquare have been completed. The Adapter is available for deployment.

#	Agency	Connecting System (Vendor/Description)	Connection Type	Product Package	Adapter Status
1	Burleson Police, TX	CentralSquare CAD	Bi-	Unify	Certified Adapter
		Enterprise	directional		

7.13.4 Modifications

No CentralSquare modifications are included outside of standard functionality described within this SOW, unless noted in Appendix A.

7.13.5 Unify Client Deliverables

In order to expedite the project implementation timeline and maximize the benefit of the product, the City of Burleson agrees to the following:

7.13.5.1 Regional Governance

The City of Burleson will designate an administrative sponsor (and/or agency representatives) to address policy decisions with partners related to this project as well as to support ongoing sustainability of the delivered system. Governance representatives from each agency form the region's governance body. This governance body must be identified early in the project in order to mitigate the risk of project delays due to policy decisions that may need to be addressed.

7.13.5.2 Testing Coordination

It is difficult to predict the time needed to accomplish sufficient testing because of a number of unknown factors (for example: readiness of technology partners, well defined Client goals, consistent participation of testers). Since the City of Burleson has a uniquely positioned relationship with all potential participating technology providers, it is the City Project Manager's responsibility to coordinate all testing sessions for this project.

CentralSquare will provide guidance and direction for the needed testing sessions during the appropriate stages of the project.

7.13.5.3 Subject Matter Experts (SME)

The City of Burleson will ensure that personnel are assigned to serve as the Subject Matter Experts (SME) that will provide input and feedback throughout this project. Ideally, this will be a CAD Administrator and one or more Dispatchers with a detailed understanding of the daily operations of the dispatch center. Members of this group should remain consistent throughout the project. The SMEs will be required to attend scheduled meetings and work sessions with CentralSquare and the Project Manager. Responsibilities include but are not limited to:

- a) Documenting common incident-sharing scenarios and business processes
- b) Providing lists of units, codes, and descriptions
- c) Mapping units and codes to the common code set in the CAD-to-CAD Hub
- d) Assistance in the development of the collaborative documentation
- e) Assistance during testing and troubleshooting

7.13.5.4 Network Connections

The City and agencies are responsible for establishing a secure connection between the CAD-to-CAD Hub and the connected CAD systems including:

- a) Establishing a high speed (10Mbps) network connection
- b) Establishing network security
- c) Configuring firewalls and ports
- d) The City and agencies will identify and provide a CAD Administrator that can login to test CAD systems and work jointly with CentralSquare and the Provider on any project related network connection items.

7.13.5.5 Memorandum of Understanding

The City of Burleson is responsible for obtaining any agreements necessary for the sharing of CAD data from, and with, all participating CAD systems as required by each agency's policy.

7.13.5.6 Agency Specific Training

CentralSquare will provide training related to the Hub Portal console and administrator user training. All training related directly to dispatch operations will be conducted by the City of Burleson.

7.13.5.7 Test Environment

The City of Burleson is responsible for providing a test CAD environment including the installation of CAD interface and API that adequately mirrors the agency's production CAD environment, with associated test data that is capable of interfacing with CAD-to-CAD Hub. The test environment will connect to the same server cluster as the production environment, located at the agencies host facility.

a) Failure to provide a complete test environment, as described herein, will introduce overhead, will require additional testing and implementation effort outside the scope of this SOW, and will be priced accordingly and managed through the Change Order process.

7.13.5.8 Remotely Accessible Test CAD Console

The City of Burleson will need to identify and provide a CAD Administrator that can login to a test CAD console, that can be used for testing with the Hub for each CAD system. The CAD Administrator will be accessible to CentralSquare personnel during normal business hours and must have login credentials that can add and modify incidents in order to conduct end-to-end system testing. The test CAD console should be configured to match the production system.

a) The test CAD console allows CentralSquare personnel to rapidly implement, and test functionality as needed while limiting the involvement of agency personnel until acceptance testing. Lack of a remotely accessible test CAD console will require a dedicated Client tester to be available on short notice to conduct testing session. Failure to meet this requirement will result in additional incurred costs to be billed at the hourly rate stated in the associated Agreement.

7.13.5.9 Timelines and Shared Responsibilities

The CAD-to-CAD Hub Unify project schedule distributes responsibilities between multiple parties. Following the plan will deliver a highly functional solution. The agreed upon fees in the associated Pricing Schedule is dependent upon close and timely coordination and cooperation of all parties. Delays in the City of Burleson and/or third parties assigned duties not only impact this Project but other CentralSquare projects also. Delays caused by the City of Burleson and/or third parties not fulfilling their responsibilities in a timely manner are extremely disruptive. A delay in a milestone may cause a delay in starting or completing subsequent tasks; in effect creating a risk to the overall Project. Milestone delays on the part of either party will trigger an overall review of the Project activities so that risks can be assessed and properly managed. In the event that either party becomes aware of a delay, notification shall be provided to the other party as soon as reasonably possible.

7.13.6 STANDARD FUNCTIONALITY CAD-TO-CAD UNIFY

7.13.6.1 Overview

The City of Burleson is licensed to use the CAD-to-CAD Unify functionality as described in this section. The features listed below are available components within CAD-to-CAD Hub's core functionality. Each feature requires effort to train personnel, discover needs, configure, test and deploy the system. This SOW which governs the supported features, the number of configurations allowed, and the maximum effort that will be expended by CentralSquare personnel to implement these features. Not all capabilities described herein will be deployed with every Unify Hub integration project. Features and components not listed

below are not included in the project. Additional customizations must be expressly detailed in the SOW, Appendix A.

Software releases are available every quarter and CentralSquare Product Support will notify the City of Burleson of the release schedule and will work with the City to establish a mutually agreed upon CAD-to-CAD upgrade schedule. Features and functionality within software releases are included as part of the Subscription.

7.13.7 Business Rules, Filters, and Data Translations

Business Rules to Exchange Call and Unit Information: The CAD-to-CAD Hub may be configured to share information automatically using business rules based on pre-defined criteria determined by the City of Burleson. Each business rule identifies call or unit criteria which will act as a trigger to a subsequent information sharing action. Business rules are configurable without the need for customized coding or scripting.

- a) The following are supported criteria for triggering a business rule:
 - i. Call or unit meets the criteria of a defined Filter in the Hub Portal
 - ii. Call or unit stops meeting the criteria of a defined Filter in the Hub Portal
 - iii. Comment added to a call containing pre-configured text string or keyword
 - iv. External resource is requested. The call information will be shared with the CAD system that owns the requested physical resource.
 - v. Resource request is granted, denied, or cancelled
 - vi. Error (network or notification error) is received from an interface
 - vii. Unit is assigned or unassigned from a call
 - viii. Call or unit field updated
 - ix. Non-incident CAD message is received
- b) The following are actions that may be taken by a business rule:
 - i. Share a call
 - ii. Request a Resource
 - iii. Grant/Deny/Cancel a resource request
 - iv. Grant/Deny a resource request based on availability
 - v. Send an email or SMS alert to a user or user group
 - vi. Create an on-screen toast notification
- c) The following are some sample scenarios that can be implemented using a business rule:
 - i. Dispatcher initiated comment of "##WV" triggers a call share with another agency that is connected to the hub
 - ii. Call share triggers a comment to be added to the shared call containing the originating dispatch center and call number
 - iii. Resource request triggers an on-screen toast notification for a user group at the dispatch center owning the requested resource
 - iv. Network error when attempting a call share generates a toast notification at the corresponding dispatch center
- d) Business rules require effort to define needs, configure, test, and refine. Even simple business rules may have unintended interactions with the connecting system or policies of the dispatch center. Testing is required to refine rules as necessary. The time associated will increase with the complexity of the business rule. Refer to the below table which identifies the number of business rules and the

maximum effort to be expended by CentralSquare personnel to implement those rules.

Configuration Allowance: CentralSquare will assist the City of Burleson in developing five (5) business rules and User Groups, with associated filters. The City of Burleson is responsible for creating the remainder of the items that are needed for the configuration. There is not a limit for the number of business rules or User Groups that can be created by the agency.

Configuration	Count	
Business rules with associated filters	5	
User groups with associated filters	5	

Filters: Filters are used to define criteria to be met for information sharing including business rules, restrict viewing for user groups, and other built-in configurations. Determining and configuring filter criteria is the responsibility of the City of Burleson with assistance from CentralSquare.

- a) Filters may be created based on:
 - Incoming Common Data Mappings for Supported CAD Incident Fields as defined in this document
 - ii. Incoming Common Data Mappings for Supported Unit Update Fields as defined in this document
 - iii. Time and Date parameters
- b) The following are sample use cases for which filters may be used to restrict viewing or trigger business rules:
 - i. Calls originating from a particular dispatch center
 - ii. Calls mapped to a single or multiple common nature code(s)
 - iii. Calls of a particular discipline such as Law, Fire, or EMS
 - iv. Calls shared with other dispatch centers
 - v. Calls located in a particular geographic area (geofence)
 - vi. Units dispatched to shared calls
- c) Filters are created through the standard menu-driven functionality of the Hub Portal. Complex filtering scenarios may require additional effort involving defining needs, configuring the filter, test, and refinement.

Code Mappings/Translations: The CAD-to-CAD Hub includes the ability to translate incident and unit field values such as Call Nature between sharing CAD systems by mapping codes through a common code set. The City of Burleson and potential participating agencies are responsible for defining the common code set, inputting local codes and mapping them to the common codes, and maintaining the entire set of codes using the Hub Portal. Code mapping is supported for the following codes:

- a) Agency Name
- b) City
- c) Discipline (i.e., Fire, Law, EMS)
- d) Dispatch Center
- e) Nature/Response Type
- f) Priority

- g) Response Area/Zone
- h) Response Type
- i) Station
- j) Transport Destination (Code)
- k) Unit/Resource
- I) Unit Status
- m) Zone (Map Data)

This document is limited to standard menu-driven code mapping functionality. Complex mappings that require custom scripts is not included as standard functionality. The following are examples of non-standard customizations which will need to be scoped separately:

- a) Using a combination of factors to determine which code to send on a shared incident. For example, sending a Call Nature of "Structure Fire" for Fire calls and "Fire Assistance" for Law calls when a shared Incident has spawned two or more incidents in a separate CAD system.
- b) Changing the Call Nature based on which unit is requested.

Custom Scripts: If customization is necessary, this will generally be done using custom scripts. Writing of any custom script is not included as part of standard functionality and will be scoped separately.

7.13.8 Call/Incident Related Data

Supported CAD Incidents Fields: The following CAD Incident fields are supported for sharing by the CAD-to-CAD Hub. CentralSquare will not support fields that are not provided or accepted by the CAD system.

- a) Agency Name
- b) Apartment Number
- c) Building Number
- d) Call Nature (Accident, Structure Fire, Heart Condition, etc.)
- e) Call Priority (P1, P2, P3, etc.)
- f) Caller Address
- g) Caller Name
- h) Caller Number
- i) City
- j) Comments
- k) Cross Streets
- I) Discipline (i.e., Fire, Law, EMS)
- m) Dispatch Center
- n) Disposition
- o) Latitude/Longitude (Decimal Format)
- p) Location (common place name- Central Park, County Library, etc.)
- q) Radio Channel
- r) Response Area/Zone
- s) State
- t) Street Address
- u) Time Stamps

- v) Zip
- w) Zone (Map Data)

Note: Standard functionality is limited to sharing of text and translated codes. If the CAD system reacts in an undesirable way to updates, (such as spamming the narrative with unnecessary comments), the data field causing the problem should be disabled. Services to provide more complex manipulation of data sharing will need to be scoped separately.

Updates and Synchronization of Shared Incident Data: Updates to the following event fields may be configured to share either as a direct update to the call record or as a pre-formatted comment added to the narrative.

- a) Apartment Number
- b) Building Number
- c) Call Nature (Accident, Structure Fire, Heart Condition, etc.)
- d) Comments
- e) Cross Street
- f) Radio Channel
- g) Street Address

Note: Standard functionality is limited to simple updates of the call data. If the CAD system reacts in an undesirable way to updates, (such as spamming the narrative with unnecessary comments), the data field causing the problem should be disabled. Services to provide more complex manipulation of data sharing will need to be scoped separately.

Address Validation: Each CAD system may store address location information differently creating the potential for shared addresses to not validate. It is expected that some addresses may not validate automatically and may require some manual intervention by a dispatcher to correct.

Note: Standard functionality is limited to the exchange of text-based address fields. Services to provide more complex manipulation of address data such as changing "St" to "Street" in order to improve shared address validation will need to be scoped separately.

Comment Sharing: Comments refers to any notes, remarks, or narrative entered in your CAD system that are sent to the CAD-to-CAD Hub and potentially shared with other CAD systems. If implemented in the Adapter and supported by the CAD, sharing of comments can convey critical information and be very useful. However, excessive sharing of non-critical comments runs the risk of overloading dispatchers with unnecessary information. It is highly recommended to limit comment sharing using configuration options in the Hub.

- a) One of the following options may be used to determine how comments will be shared:
 - Only share comments that contain a key text string, such as "##SHARE"
 - Removing comments that follow a specific pattern. This feature may be used to remove automatic system messages that are not useful to other dispatch centers
 - iii. Share all comments (not recommended)
 - iv. Disable comment sharing entirely
- b) The City of Burleson is responsible for configuring the Hub to limit comment delivery, including determining which text strings will be used to filter comments and adding them to the system.
- c) CAD system may have different sources of incident comments. For example, a CAD may provide a static information from "Basic Notes" completely separate from a "Running Comment Log." Usually only comments from the "Running Comment Log" are implemented in the Adapter shared by your CAD. The City of Burleson and potential participating agencies, working with the Provider are responsible to configure that Adapter to share the appropriate comment data.
- d) Similarly, if there are confidential comments that should not be shared by your system, configurations can be set to block those from being viewed by other CAD systems or in the Hub.

Note: Due to inconsistencies in how each CAD system generates additional system comments as well as how each CAD processes comments and messages coming from the Hub, it is possible that some duplicate or redundant comments may result. While the Hub has been designed to reduce unnecessary comments as much as possible, some edge cases may still result in unwanted comments. Customizations needed to remove duplicate or unwanted comments outside of the standard features mentioned here, will need to be scoped separately.

7.13.9 Unit/Resource Related Data

Supported Unit Update Fields: The following unit fields are supported for CAD-to-CAD sharing by the CAD-to-CAD Hub system. CentralSquare will not support fields not provided by the CAD system.

- a) Agency Name
- b) Assigned Call Number (when assigned to a call)
- c) Assigned Call Unique ID (when assigned to a call)
- d) Heading
- e) Latitude/Longitude (Decimal format)
- f) Location
- g) Signed On Status
- h) Speed
- i) Station
- j) Status
- k) Time at Coordinate
- I) Time at Current Status

- m) Transport Destination (Code)
- n) Type of Unit
- o) Unique Unit ID
- p) Unit Number

Unit Status Sharing: Real-time unit status updates can be shared between connected CAD systems, including AVL data (if available) by mapping physical to external units in the Hub. (External means placeholder or virtual units defined in a system that represent a physical unit in another system.)

- a) Available/Unavailable Status: When a physical unit is assigned to a non-shared incident in the unit's owning CAD, other systems with an external mapping to that unit receive unit status updates that the unit is unavailable. Once the unit clears the scene or is otherwise available for dispatch, an available status will be sent for that unit to other systems.
- b) **True Unit Status for Shared Incidents:** When a physical unit is on a shared incident, detailed unit updates (whether the unit is dispatched, enroute, arrived, etc.) will be shared with the other systems sharing incident.
- c) Unit Control: Once a resource request for a unit has been granted, either explicitly or implicitly, control of that unit is shared with the requesting system/agency. If implemented in the Adapter and supported by the requesting CAD, the status of that unit can be set by the requester. A system-to-system message containing the updated unit status will be sent to the unit's owning system. If implemented in the Adapter and supported by the owning CAD, the true status of the unit is updated.
- d) **Limiting AVL Updates:** Due to the potential for high volumes of unit status and AVL updates, CentralSquare reserves the right to restrict the frequency of such updates in order to maximize overall system performance.
- e) CAD System Dependencies Regarding Unit Statuses: The Hub is dependent on the Adapter and the CAD system to provide and consume up-to-date information. Unit status syncing can be impacted by momentary network outages, system processing delays, or other temporary issues. It is not uncommon for units to occasionally be out of sync between systems for short intervals but is quickly corrected by a subsequent successful unit status update. If a unit is requested by a system/agency in error due to out-of-sync unit information, denial of the resource request by the owning CAD system will override the out-of-sync status and notify the requester the unit is unavailable. Otherwise, manual dispatcher intervention may be required either through exchange of incident comments or a phone call.
- f) This document is limited to sharing standard translated unit status updates and AVL data. The following are examples of non-standard customizations which will need to be scoped separately:
 - i. Sending different unit status updates based on the unit type being updated such as 'On Scene' for law units and 'On Scene Staging' for fire units.

ii. Sending fabricated progressive unit status updates in order to satisfy the unit status progression requirements of the target CAD system. For example, sending multiple unit status updates such as 'Dispatched', 'Enroute' and 'On Scene' in order to reflect a single status update of 'On Scene' from the sharing CAD. Handling these out-of-scope requirements should be part of the receiving CAD Adapter.

7.13.10 System Administration

System Administrators: System Administrators have access to the setup and configuration of the CAD-to-CAD Hub for all connected CAD systems and participating agencies. Changes made by the administrator can potentially affect another agency inadvertently. For this reason, System Administrators should regularly consult and coordinate together before making configuration changes to the Hub.

- a) It is the responsibility of the City of Burleson and potential participating agencies to determine which individuals will be assigned as System Administrators.
- b) When an administrator change is made, a log entry is created that describes the change made, the date and time, and the user that made the change.
- c) System Administrators can create new users and assign permissions.

User Administration: Users are administered at both the system and agency level. System administrators may create users and assign permissions for all users. Agency User Administrators, which are created by System Administrators, may only do so for the agencies to which they are assigned.

- a) It is the responsibility of the City of Burleson and potential participating agencies to determine which individuals will be assigned as Agency User Administrators at the agency level.
- b) Some configuration settings may be reset for all users across all agencies. These include:
 - i. The amount of time that inactive calls are displayed
 - ii. The amount of time that toast notifications are displayed (if used)
 - iii. Users may change these settings on an individual basis if desired.
- c) User administration tasks such as creating new users and user groups, assigning permissions, resetting passwords, and Portal configuration settings are the responsibility of the City of Burleson and potential participating agencies.
- d) User groups may be configured using Filters so that only certain calls and units are visible. Incident comments may also be configured so that the incident is visible, but comments are not.

GIS Sources: The Hub system uses your geographical information systems (GIS) data sources to build maps. By copying the GIS sources that you want to use to build your maps into a folder, you can then import them into the Hub through the Hub Portal user interface. The Hub Portal supports the display of active calls and units on a GIS map view for situational awareness. The Portal provides GIS layer import tools for the City and agencies to import their own map files including but not limited to ESRI and other standard shapefiles and image files (i.e. Geographic or State Plane). The GIS layer import tool only takes minutes to load the data, but note that when importing map files, there will be downtime. Recommended GIS Map Data Elements are: Boundaries, Stations (Police/Fire), Freeways/Interstates, Major Streets, Waterways, Parks, and Address Points (optional). The City and agencies are responsible for providing, loading, and updating the GIS map data for a single, consolidated view for all agencies connected to the Hub. The frequency of GIS updates are determined by the City of Burleson and potential participating agencies as they have no bearing on geo validation, they are just a visual tool.

a) Beyond basic training and initial assistance in configuring GIS information in the Hub, all other GIS related effort is the responsibility of the City of Burleson and potential participating agencies.

System Connections: Each system Adapter connects to the CAD-to-CAD Hub over a secured connection provided and maintained by the City of Burleson and potential participating agencies. For bi-directional interfaces an HTTP connection (https://URL:port) is required at each endpoint (Hub side of the network and the Adapter side). All firewall configuration and configuring of ports is the responsibility of the City and participating agencies.

7.13.11 Data Retention and Backup

CAD for Data Retention: The CAD-to-CAD Hub provides call and unit information to each respective CAD system as the authoritative method for permanent data retention. The Hub is not designed as a data warehouse for long-term storage and retrieval. A separate interface may be used to send call and unit updates to a client-provided database for long-term storage.

Data Purging: Portal administration provides a setting to purge data older than a certain number of days. This feature may be set to retain data indefinitely, but this is not recommended. Data purging occurs automatically without adversely affecting the system in production.

System Backups: System backups in the Cloud are the responsibility of CentralSquare.

7.13.12 Portal Features

Overview: The Hub Portal is a thick client installed on a Windows-based workstation. The Portal is used to display call and unit related data as well as administrative tools for system configuration.

Call and Unity Display: The Hub Portal displays call and unit information in the dispatch view in real-time. This includes separate list and map views of current calls and units as well as a call details view. The information contained here may be limited based on filters applied to each user group. Hub includes the following tools for viewing call and unit-related information.

a) Calls List - Displays currently open calls in a list view

- b) Call Details Displays detailed information about a call including comments, connected calls, and assigned resources
- c) Units List Complete list of units and current status
- d) Map View Calls and units are shown on a map. Geofences and markers may also be created and shared with other user groups

Toast Notifications: Pop-up notifications that display in the lower-right corner of your screen and display call and unit information based on pre-configured business rules. These notifications may be used to bring attention to bi-directional call-sharing actions, or to bring bi-directional functionality to centers that may have a publish-only or no interface whatsoever.

User Preferences: Allow the user to adjust color schemes, when stagnant calls disappear from view, configure toast notifications, and enable/disable connection status monitoring.

Admin Alerts: Historical display of email and text message alerts that have been sent to your user

Diagnostics and Log Views: Tools for troubleshooting and identifying information shared with each interface.

Connection Monitoring: The connection between each CAD system and the CAD-to-CAD Hub is continually monitored by the CAD adapter through heartbeat transactions to detect network failures. The Hub also monitors system network connections through heartbeat transactions and network errors. Users are notified of detected disconnects in the following ways:

- a) If the Hub detects a potential disconnect such as lack of a heartbeat or a network error with any CAD system, a warning will display through the Connection Status Monitor in the Hub Portal. A subsequent reconnect will remove this warning.
- b) If a CAD system has not transacted any updates to Hub for a configurable amount of time, a warning will display through the Connection Status Monitor in the Portal. This may indicate that although the Adapter continues to share heartbeats with Hub, it has lost the connection with its CAD system. A subsequent transaction will remove this warning.
- c) If the CAD detects a potential disconnect to the Hub, it is responsible to notify its users through the CAD user interface.

Settings: System and user administrators access and adjust system settings including connections, business rules, filters, and user administration using the Portal.

7.13.13 Information Sharing Redundancy

CAD-to-CAD sharing errors may result from various sources including the following:

- a) User error
- b) CAD system error
- c) Network error
- d) CAD-to-CAD Hub error
- e) Administrator error

f) Unforeseen circumstances

If there is an error in the CAD-to-CAD process, dispatchers must be aware of the problem immediately so that other means may be used to communicate such as phones or radios. The following are suggested methods to provide redundancy and checks to ensure awareness of CAD-to-CAD sharing.

- a) User error confirmation phone calls
- b) Unit status timers in the CAD system
- c) CAD-to-CAD Hub email or text message alerts
- d) Hub Portal notifications
- e)

7.13.14 Unify External System Dependencies

The ability of Hub Unify to perform its functional requirements depends on the external systems' ability to do the following:

7.13.14.1 Bi-directional Adapters

Unify relies on bi-directional Adapters to external CAD systems which should support the following capabilities:

Continuously provide and receive updated CAD incident and unit status data to and from the CAD-to-CAD Hub

- a) Share/receive new incidents
- b) Update data fields on current incidents
- c) Update dispatcher comments
- d) Assign units/resources to current Incidents
- e) Provide unit status updates including AVL data
- f) Present information to the CAD operator in an appropriate way

Continuously provide and receive updated unit information to and from the Hub

- a) Unit assignment to incidents
- b) Unit status updates
- c) Send and receive unit requests

Connection notices: Provide connection and failure notices to the dispatcher when a prolonged disconnect or outage is detected.

Synchronize (refresh) active CAD data upon connecting including current CAD incident data and unit status data.

7.13.14.2 Other Considerations

Functionality: Data, functionality, and operational incongruences between the connected CAD systems may limit the level of interoperability achievable. Although the CAD-to-CAD Hub may support certain capabilities, CentralSquare cannot provide functionality that the external system does not support. In cases where there is a gap between needs and what the CAD system is able to provide, converting data to comments or other methods may be used but certain limitations will naturally be beyond the CAD-to-CAD Hub's ability to work around.

7.13.14.3 External System Adapter Requirements

The dependencies listed in this section are an overview and are for general awareness. The CAD-to-CAD Hub SDK provides a more complete set of detailed requirements for the external system's Adapter. The City of Burleson and potential participating agencies should require the provider to comply with all requirements of the SDK.

7.13.15 PROJECT EXECUTION

7.13.15.1 Implementation Overview of CAD-to-CAD Unify

The CAD-to-CAD Hub is implemented through a series of standard steps and process gates designed to ensure that operational needs are identified, configurations are verified, and tested to validate proper functionality prior to Go-Live.

The implementation includes tasks to be completed by multiple stakeholders including CentralSquare, City and agency personnel, and the 3rd party system Provider. The tasks below are an overview and will be refined in a detailed project schedule with the City of Burleson upon project Kick-Off.

7.13.15.2 CAD-to-CAD Hub Initial Installation and Configuration

CentralSquare will provide support for the initial system configuration. This will include the following:

- a) Installing the database and application server software.
- b) Once network connections have been established between the servers by the City of Burleson and potential participating agencies, CentralSquare will establish software connections between each server.
- c) Establish each environment such as test, training, and production as set forth in this document and the accompanying Agreement.
- d) Configure the connection parameters for each 3rd party system connection. Note it is the City of Burleson and potential participating agencies responsibility to ensure network connectivity between servers are established.
- e) Load initial data mapping sets for the following codes. Note that mapping and translation of these codes is the responsibility of the City of Burleson.
 - i. Agency
 - ii. Dispatch Centers
 - iii. Nature / Response Type
 - iv. Unit / Resource
 - v. Unit Status
 - vi. Unit Type
- f) If the project involves joining a new dispatch center to an existing hub or upgrading a publish-only interface to a bi-directional interface, some or all of these steps may have been already completed. The associated Agreement will outline exceptions or additions to these steps.

7.13.15.3 CAD-to-CAD Hub System Setup

The tasks listed under system setup may be executed simultaneously.

CAD Provider Adapter Implementation and Configuration: Includes the installation and configuration of the CAD Provider Adapter by the Provider or by CentralSquare as defined in the SOW, Section 7.13.3.

Software Installation: Basic server configuration is added for each interface on the CentralSquare server hosted on AWS GovCloud and the Portal client software is delivered to the City of Burleson and potential participating agencies. Software installation marks the completion of the system setup tasks.

7.13.15.4 Initial Discovery and Configuration

A discovery phase will take place that will identify site-specific configurations for the Hub. Specific configurations may be recorded in the documentation listed below. It is agreed that all shared can be exchanged in an electronic form, such as .PDF, .DOCX, .XLSX, etc.

- a) List of CAD Codes: The City of Burleson and potential participating agencies will provide a list of CAD codes and descriptions that will be mapped to those of other CAD systems through the Hub. Common codes include incident status, nature, unit status, units, agencies, cities, and jurisdictions.
- b) Code Mapping Document: Under the guidance of CentralSquare, the City of Burleson and potential participating agencies will provide a list of mappings of the CAD Codes provided above to a common code set provided by CentralSquare. The common code set in the Hub facilitates mapping and translation to other agencies' codes, which is the responsibility of the City of Burleson and potential participating agencies.
- c) Test Scenarios: CentralSquare will provide a standardized list of tests for acceptance. Other tests can be suggested by the City of Burleson providing that they are within the scope of the accompanying Agreement. These test scenarios will form the basis of training documentation.
- d) Configuration Documentation: Documentation may be added directly into the configuration screens of the Hub and is easily exported as text. This will serve as the primary form of technical documentation.
- e) Product Manuals: CAD-to-CAD Administrator's Guide will be provided electronically.

The City's Project Manager and Subject Matter Experts play a critical role during this time. Discovery and configuration involves the gathering of business requirements, CAD codes, system configuration including code mappings on the CAD-to-CAD Hub.

The results of the discovery and configuration sessions will be compiled, documented in an Operational Scenarios Document (OSD) and signed off by the City of Burleson, via a TCR, before the configuration phase begins. CentralSquare will provide OSD documentation as appropriate. The OSD document will be updated as the agencies are implemented and brought online.

This task is considered complete upon completion of the client questionnaire documentation and a joint review between the City of Burleson, the potential participating agencies and CentralSquare.

7.13.16 CAD-TO-CAD UNIFY TESTING

7.13.16.1 Isolated CAD Adapter Testing

CentralSquare and the City of Burleson will develop a mutually agreed upon testing schedule. System testing will be conducted throughout the project in three distinct periods and a Reliability Period, described in SOW, Section 7.14.

The isolated CAD Adapter testing will be conducted simultaneously with other implementation tasks and will largely involve CentralSquare Engineers and the Provider implementing its Adapter. This testing will use a CAD-to-CAD Hub Test Environment, and test instances of the CAD system and Adapter. CentralSquare will use a CAD simulator to test all aspects of the connection between the Hub and the Provider's Adapter and CAD system. Sample data may be used to demonstrate the ability to view data using the Hub Portal client. Testing support from the Provider and assistance from the City of Burleson and potential participating agencies are required. The City of Burleson and potential participating agencies will identify and provide a CAD Administrator that can login to test CAD systems with its Adapter connected to the Hub. The CAD Administrator will work jointly with CentralSquare and the Provider to complete this testing.

At the conclusion of the isolated CAD Adapter testing, the connection to the server is demonstrated as messages are successfully being exchanged in a bi-directional fashion between the Provider CAD system and the Hub.

7.13.16.2 Provider End-to-End testing

Provider end-to-end testing will be conducted when the isolated CAD Adapter testing is complete for each CAD system that is required to meet the standard incident and resource sharing requirements. It will involve CentralSquare Engineers, the CAD providers, the City of Burleson, and the potential participating agencies. If a dependent CAD system is not ready for end-to-end testing, the testing may proceed using a CAD simulator provided by CentralSquare. CAD Simulator testing does not replace end-to-end testing with the CAD Provider. The City of Burleson and the potential participating agencies will need to identify and provide a CAD Administrator that can login to the test CAD systems with its Adapter connected to the Hub. The testing period will be paused for resolution of Go-Live issues as defined in the SOW, Section 7.14. Defects found in the Adapter for each CAD system may also pause the testing period. CentralSquare, the City of Burleson and the potential participating agencies will expedite where possible the resolution of any Provider defects.

At the conclusion of the Provider end-to-end testing, meeting all the Adapter and CAD Provider testing requirements as defined in the OSD marks the completion of the Provider end-to-end testing.

7.13.16.3 Functional Acceptance Testing (Client End-to-End Testing)

Once the Provider end-to-end testing is concluded for each CAD system, Functional Acceptance Testing will be conducted by the City of Burleson, the potential participating agencies, and the CAD Provider under CentralSquare supervision. Each agency will go through Functional Acceptance Testing when they are ready to connect to the system, so Functional Acceptance Testing may happen multiple times on the same CAD-to-CAD Hub.

It is during the Functional Acceptance Testing that the City of Burleson and the potential participating agencies, gain close familiarity with the CAD-to-CAD Hub and related functionalities. Expanded Standard Operating Procedures (SOPs) are more fully defined and tested by the City of Burleson and the potential participating agencies, during this time. Changes required for City and agency SOPs are out of scope unless explicitly agreed.

In order to confirm that all work has been completed under this SOW and that the system meets the functional requirements of the COTS Hub system, CentralSquare and the City of Burleson will develop a mutually agreed upon functional acceptance test plan that is based on the criteria contained in "Exhibit 8- Operational Scenario Document (OSD)" which will be incorporated into the "Exhibit 7 - Sample Docs for C2C". The Functional Acceptance Testing process consists of verifying and running script-based standard tests ("Exhibit 7: Sample Docs for C2C") in a format designed to verify the functionality of the CAD-to-CAD solution. CentralSquare will work with the City of Burleson and the potential participating agencies to develop a mutually agreed upon testing schedule for the agencies. Following the completion of the Functional Acceptance Testing, any defects that are raised will be prioritized as follows:

Priority	Issue Definition
Go-Live Issues	Issues in the CAD-to-CAD solution identified during Functional Acceptance Testing with contractually required functionality that must be corrected prior to Go-Live. CentralSquare will research such identified issues and propose a plan for resolution. Go-Live issues will be corrected prior to Go-Live.
Post-Go-Live Issues	Issues in the CAD-to-CAD solution identified during Functional Acceptance Testing with contractually required functionality that can be corrected after Go-Live. The City and CentralSquare will mutually agree these issues may be addressed after Go-Live. CentralSquare will provide a reasonable date for resolution of the Post-Go-Live issues.
Support Issues	Issues in the CAD-to-CAD solution identified during Functional Acceptance Testing that are not contractually required functionality and do not prevent the City from performing normal daily or monthly processes; and therefore, can be corrected after the CAD-to-CAD Go-Live. These issues will not affect functional acceptance of the system. Support issues will be managed based upon the procedures outlined in the Software Support Agreement.

The City of Burleson will agree to sign off upon the completion of each Functional Acceptance Testing session, acknowledging the delivery and receipt of the testing results, via a TCR. Upon resolution of any Go-Live or Post-Go-Live issues, the failed test(s) will be repeated by the participating agencies under CentralSquare supervision, until resolved. The City will agree to sign off on a TCR reflecting the completion of Functional Acceptance Testing when the testing has been completed with no Go-Live issues (i.e., a passing Acceptance Test). Upon completion of Functional Acceptance Testing, preparations for deployment may begin. A migration plan will be defined and executed. The City of Burleson and potential participating agencies will train their own dispatchers from expanded SOPs defined during the Functional Acceptance Testing.

7.13.17 CAD-TO-CAD UNIFY TRAINING

Upon completion of the Functional Acceptance Testing, CentralSquare will conduct CAD-to-CAD Hub Administrator training. CentralSquare and the City of Burleson will develop a mutually agreed upon training schedule for the agencies.

CentralSquare follows a "Train-the-Trainer" approach to training. This method allows indepth training to key individuals at each agency who will then provide training to the remainder of the users. CentralSquare Technical Support personnel will be available as a resource to the City and agency trainers through established Technical Support procedures as defined in the Agreement.

- a) CAD-to-CAD Hub Administrator Training: CentralSquare will provide Portal Administrator training on how to monitor system health, manage groups and users, and make basic configuration changes. This training will be conducted remotely through a webinar.
- b) Unify User Training: CentralSquare will work with the City and agency trainers to advise them on incorporating CAD-to-CAD concepts into their training courses for dispatchers and call takers. However, since the methods for interacting with CAD incident and resource sharing are dependent upon their configuration, training for the Unify users is the responsibility of the City of Burleson and the potential participating agencies. It is expected that Subject Matter Experts (SME's) will be sufficiently familiar with their operational procedures and their CAD configuration to conduct this training for their respective agency.
- c) Hub Portal Training Videos: CentralSquare will provide the City of Burleson and potential participating agencies with access to training videos on essential Portal features.
- d) Training Documentation: Agency specific documentation of local sharing use cases and rules is the responsibility of the City of Burleson and potential participating agencies.

7.13.18 CONDUCT CAD-TO-CAD PRE-GO-LIVE TASKS

After the Client-led User training is complete, the system is ready for deployment. Preparation for cutover to live operations will be outlined in the Project Schedule and the Go Live Plan four (4) to six (6) weeks prior to Go Live. The Go Live plan includes the overall timeline for the event, products involved, agencies involved, roles and responsibilities, established meeting dates/times, issue reporting and escalation process, transition to support and the communication plan.

Pre Go-Live Tasks:

- a) Client to distribute final version of documentation to participating agencies outlining modifications to standard operating procedures.
- CentralSquare Project Manager and the City will ensure all end user training has been completed, and that all Go-Live deliverables are completed with related TCRs approved.
- CentralSquare Project Manager will schedule and monitor internal and Clientfacing Go-Live readiness checks during team planning meetings.
- d) CentralSquare Project Manager and the City Project Manager, along with key resources, will conduct separate planning meetings to draft/approve the Go-Live Plan.
- e) The Go-Live plan provides details about the time period for the event, products involved, supportive roles and responsibilities, the overall timeline for the Go-Live, establishes meeting dates/times, the issue reporting and escalation processes, transition to support, and communications plan.

Go-Live Preparation:

CentralSquare and the City will draft the CentralSquare Go-Live Authorization Letter for each Go-Live group. The Go-Live Authorization Letter confirms that the system has been installed and tested, and that the City agrees to proceed with moving the system to live operation. It acknowledges sufficient user training has been completed, confirms software is functional for a live environment, and that none of the currently identified issues are critical to the Go-Live. Date and time of the Go-Live is memorialized, the participating agencies, along with assurance the City's technical team and subject matter experts will be available twenty-four (24) hours a day to support the Go-Live unless otherwise noted in the Agreement. The City is required to review and sign off on the Go-Live Authorization Letter no later than three (3) weeks prior to the scheduled Go-Live date.

Transition Presentation:

CentralSquare will provide a presentation to the City to gain familiarity with the Support structure and methodologies. CentralSquare will assist in

confirming that representatives designated by the City needing access to enter and track support tickets have credentials for CentralSquare access.

7.13.19 CAD-TO-CAD GO-LIVE

Go-Live of the CAD-to-CAD solution for each of the participating agency entities into the production environment is a highly orchestrated activity that will require resources from the City of Burleson, any participating agencies, CentralSquare, and the CAD Provider teams. The CAD-to-CAD Hub has the ability to deploy functionality on a case-by-case basis. The migration plan may, for example, first deploy bi-directional unit status updates followed later by automated call sharing.

Go-Lives are conducted either on Tuesday or Wednesday. Any CentralSquare Go-Live Support that is beyond the amount specified per the Agreement may be subject to an additional cost.

The system is brought into production per the Go-Live Plan and the Go-Live Authorization Letter. Go-Live support is provided by CentralSquare as follows.

Go-Live Support: A total of three (3) consecutive days of remote support will be provided
when the City of Burleson goes live with CentralSquare CAD Enterprise. CentralSquare
will provide support for eight (8) hours per day, for days one and two, and a half day on
day three with one (1) Consultant (trainer) during normal business hours.

A TCR will be provided to the City for signature upon completion of the Go-Live event and CentralSquare provided support, per the Agreement. The system will then enter into its Reliability Period as defined in the SOW, Section 7.14. During Go-Live, issues are reported and managed by CentralSquare with the City's assistance. Upon cessation of Go-Live support by CentralSquare, issues are reported and managed by the City.

7.14 System and Subsystem Go-Live

7.14.1 Go-Live

Go-Live of Enterprise Subsystems into the Production environment is a highly orchestrated activity that will require resources from both Client and CentralSquare teams.

Go-Lives are conducted on consecutive weekdays (Monday-Friday). Go-Lives that require CentralSquare support that begins before or extends beyond weekdays (unless included in the Agreement) are subject to additional cost.

- a) "Go-Live" means the event that occurs when Client first uses a Subsystem for Live Operations. A separate Go-Live may take place with respect to each Subsystem, each Interface, and each Modification.
- b) "Go-Live" means "First use in a non-test bed environment".
- c) "Go-Live" means "Live in a Production environment for a period of 10 days with no Priority One or Priority Two support error".

Major Task	Description
Schedule	CentralSquare and Client will conduct all associated Go-Live tasks as indicated in the approved Project Schedule, associated documents, and per the Agreement.
Pre-Requisite Go- Live Tasks	CentralSquare project manager and Client will ensure all end user training has been completed, and that all Go-Live deliverables are completed with related TCRs approved.
	CentralSquare project manager will schedule and monitor internal and Client-facing Go-Live readiness checks during team planning meetings.
	CentralSquare project manager and Client project manager, along with key resources, will conduct separate planning meetings to draft/approve the Go-Live plan.
	The Go-Live plan provides details about the time period for the event, products involved, supportive roles and responsibilities, the overall timeline for the Go-Live, establishes meeting dates/times, the issue reporting and escalation processes, transition to support, and communications plan.
Go-Live Preparation	CentralSquare and Client will draft the CentralSquare Go-Live Authorization Letter.
	The Go-Live Authorization Letter confirms system has been installed and tested, and that Client agrees to proceed with moving the system to live operation. It acknowledges sufficient user training has been completed, confirms software is functional for a live environment, and that none of the currently identified issues are critical to the Go-Live. It lists all Subsystems included for Go-Live and any exceptions that will not be included (if applicable). Date and time of the Go-Live is memorialized, along with assurance Client's technical team and subject matter experts will be available 24 hours a day to support the CAD/Mobile Enterprise Go-Live and standard business hours (8:00am – 5:00pm Monday - Friday) for RMS Enterprise

	unless otherwise noted in the Agreement. Client is required to sign off on the Go-Live Authorization Letter. The CentralSquare project manager will coordinate the completion of Pre-Go-Live Checklists at regular intervals in the weeks leading up to the Go-Live to ensure the system is ready. Both CentralSquare and Client have
	responsibilities to complete the Checklists. Training data will be purged from the system, and the system itself will be locked down.
Support Transition Presentation	CentralSquare will invite Client to participate in a presentation to gain familiarity with Support structure and methodologies.
	CentralSquare will assist in confirming that representatives designated by Client needing access to enter and track support tickets have credentials for CentralSquare access.
Go-Live	The system is brought into Production per the Go-Live Plan and Go-Live Authorization Letter, and Go-Live support is provided by CentralSquare per the Agreement.
	Milestone TCR(s) are provided to Client for approval based on the Agreement.
	System enters into its Reliability Period, as defined per RFP response and/or Agreement.
	During Go-Live, issues are reported and managed by CentralSquare with Client's assistance. Upon cessation of Go-Live support by CentralSquare, issues are reported and managed by Client.
Transition to Support and CSM	At the conclusion of the Contractual Reliability Period, the project is closed and transitioned into Maintenance and Support. This also begins the relationship between Client and the Customer Success Manager (CSM).
Post-Go-Live Deliverables	If applicable, Post-Go-Live deliverables will be managed to completion of delivery by the CentralSquare project manager per the Agreement.

7.14.1.1 CentralSquare Responsibilities

- a) Complete internal Go-Live readiness checks and interval team planning meetings.
- b) Prepare a Go-Live Plan for delivery to Client.
- c) Prepare a Go-Live Authorization Letter and deliver to Client.
- d) Identify the participants for the Go-Live in accordance with the terms of the Agreement.
- e) Coordinate CentralSquare personnel in advance of the Go-Live date to complete final tasks as a part of the Go-Live preparations.
- f) Assist Client in placing the system into Production.

- g) Assist Client staff in usage of the system as well as documenting, reporting, and researching issues.
- h) Provide support during and after system Go-Live as specified within the Agreement.
- i) Prepare and submit TCR(s) upon first live operation of system in a live environment.

7.14.1.2 Client Responsibilities

- a) Complete end user training needed to support operation of Subsystems.
- b) Participate in review of the Go-Live Plan.
- c) Review and approve the Go-Live Authorization Letter no later than three (3) weeks prior to Go-Live.
- d) Complete prerequisite tasks as directed by CentralSquare.
- e) Place the software into Production and begin operational use in accordance with the project schedule, Go-Live Plan, and Go-Live Authorization Letter.
- f) Provide adequate persons for the supervision and assistance to end users during Go-Live and beyond the participation of the CentralSquare staff.
- g) Provide dedicated workstations for CentralSquare support staff use during Go-Live.
- h) Provide IT support to cover all Client end user and CentralSquare staff hours of operation.
- i) Develop a process for the identification of, research, reporting and resolution of issues.
- i) Review and approve the applicable TCR(s).

7.15 Reliability Period

Client's cutover to live Production of any CentralSquare supplied Subsystem (i.e., productive use) constitutes Client's acceptance of the Subsystem.

Upon Go-Live for the Subsystem(s), Client shall use the Subsystem for a thirty (30) consecutive day period to verify operational functionality in a live environment. If no Critical Priority or Urgent Priority Software Errors (as those terms are defined in Addendum E to the Agreement) are reported during such thirty (30) day period, the Subsystems shall be deemed to have achieved Final Acceptance. In the event that a Critical Priority or Urgent Priority Software Error occurs during the Reliability Test Period, CentralSquare shall commence actions in accordance with the Software Support Agreement to correct the reported error.

Note: If Subsystems do not Go-Live on the same day, or if agencies and/or PSAPs Go-Live in multiple phases, the Reliability Acceptance Period for each Subsystem will start the first day that Subsystem Goes Live and is used in a Production environment by any agency and/or

PSAP. There will not be separate Reliability Acceptance Periods as subsequent agencies and/or PSAPs Go-Live.

In the event that a Critical Priority Software Error occurs between day one (1) and day thirty (30) of the Acceptance Test Period, the Acceptance Test Period will be stopped and restarted at day one (1) once the Software Error has been resolved in accordance with the Software Support Agreement.

In the event that an Urgent Priority Software Error occurs between day one (1) and day fifteen (15), the Acceptance Test Period will be stopped and restarted from day one (1) once the Software Error has been resolved in accordance with the Software Support Agreement. If the Software Error occurs between day fifteen (15) and day thirty (30), the Acceptance Test Period will be stopped and restarted from the day the resolution has been provided in accordance with the Software Support Agreement.

Critical or Urgent Priority software errors caused by factors that are outside of CentralSquare's control, and/or from variables which are outside the scope of CentralSquare's responsibilities, will not be counted Critical or Urgent Priority software errors. Examples of such issues could be, but are not limited to:

- Power failures
- Operator error
- External network failure
- Availability of components that are not provided by CentralSquare but interface to/from the CentralSquare solution
- Hardware or Operating System software
- Non CentralSquare supplied software components introduced into the working environment

During the Reliability Test Period, the Subsystem will be frozen, (i.e., no changes, fixes, and/or updates will be applied, except those that are required to address Downtime Failures associated with the Reliability Test Period.)

At the conclusion of the Reliability Test Period, as further defined in the Agreement, the Subsystem will be deemed accepted by Client.

7.15.1 CentralSquare Responsibilities

- a) Document the start of the Reliability Period upon Go-Live of the Subsystem via TCR.
- b) Address Reliability Period issues that are reported during this period.
- c) Document issues that are not considered "Reliability Acceptance" issues to be addressed as part of the support and maintenance of the Subsystem.
- d) Provide the TCR to document Final Acceptance of the System.

7.15.2 Client Responsibilities

- a) Report issues when they occur.
- b) Review and approve the applicable TCRs.

8 PROJECT CLOSURE

Project closure activities commence when all project deliverables have been completed. Support of systems and subsystems will be transitioned to CentralSquare's Support and monitored per the Support and Maintenance Agreements.

Major Task	Description
Post Go-Live Project Deliverables	Once complete, ensure CentralSquare project manager will provide TCR to Client for signoff of completed deliverables.
Final Audit	CentralSquare project manager will perform a final audit to ensure all Contractual obligations have been met. A final TCR will be provided to Client to confirm the project is completed.
Final Transition	CentralSquare project manager performs final transition of Client to Support who will become the primary conduit for entry, tracking, and resolution of system issues.
	Client interaction is officially handed over from the CentralSquare project manager to the CentralSquare Customer Success Manager (CSM).
Project Closure	CentralSquare project manager performs administrative tasks to archive project documents and close the project.

8.1.1 CentralSquare Responsibilities

- a) Perform payment reconciliation, deliver final project TCRs which generate remaining invoices.
- b) Transition the CentralSquare point of contact from the Project Manager to the CSM and Client Support Services Department.
- c) Provide continued support based on terms of Agreement.

8.1.2 Client Responsibilities

- a) Provide approval of final Project TCRs within five (5) business days.
- b) Process payment of final invoices.

Appendix A - Contracted Modifications to Standard CentralSquare Products

Note: Any changes to the requirements documented in approved System OSDs are subject to Change Order.

There are no product modifications proposed for this project.

Appendix B - Standard Central Square Interfaces

The scope of functionality for these Standard interfaces is limited to 1) the capability of the CentralSquare System being interfaced and 2) the capabilities of the external system being interfaced. Descriptions of each of the standard interfaces below will become the basis for the scope of detailed requirements, described in the OSD. Any changes in the requirements documented and approved in the System OSDs are subject to Change Order.

Standard Interfaces

Standard Interfaces are included in the Contract and listed in this SOW. If not explicitly listed in the Contract, the interface will not be installed and supported.

Standard Interface	Description
Interface Name	Enterprise CAD ASAP Interface
Interface Description	The Automated Secure Alarm Protocol (ASAP) is an American National Standard developed jointly by APCO and The Monitoring Association and approved by the American National Standards Institute. NLETS is a partner in the program and uses its systems to provide a data bridge between both systems. Using ASAP, Central Station alarm companies such as Vector Security, Rapid Response, and ADT can transmit alarm data electronically to Central Square's Inform CAD, reducing the potential for human error and call volume, and results in a decreased response time for Calls for Service.
Subsystem	CAD
Direction	Import
Interface Document Name	OSD – ASAP Standard Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Enterprise CAD CryWolf Alarm Incidents Export
Interface Description	This interface transfers alarm incident data from the CAD to the CryWolf system for daily processing of false alarms. This process is automated, using scheduled data transfers during off-peak hours to our secure FTP site for processing and does not require Client resources to operate.
Subsystem	CAD
Direction	Export
Interface Document Name	TBD
Instances Contracted	Production

Standard Interface	Description
Interface Name	Enterprise CAD CryWolf Permits Import

Interface Description	This interface transfers alarm permit information from CryWolf for consumption by the CAD system. It transfers alarm permit data (contact information, premise info and permit status) from the CryWolf database to a format which can be consumed by the CAD system.
Subsystem	CAD
Direction	Import
Interface Document Name	TBD
Instances Contracted	Production

Standard Interface	Description
Interface Name	Enterprise CAD Premise Data Import - ImageTrend
Interface Description	CentralSquare Technologies provides the standard External System to Inform CAD Data Transfer Interface to provide the ability to import and update premise records from an external source. This is a single directional interface from the external source (typically an RMS) to Enterprise CAD. The interface will enable information that is entered or edited on the external system to propagate to the Enterprise CAD system. Any premise information added or edited within the Enterprise CAD system will be allowed, but the changes will not be updated back to the external system.
Subsystem	CAD
Direction	Import
Interface Document Name	OSD - External to CAD - Premise v2.pdf
Instances Contracted	Production

Standard Interface	Description
Interface Name	Enterprise CAD RapidSOS Interface
Interface Description	CentralSquare shall implement a standard RapidSOS, service-based, interface to work with the RapidSOS API. The API provides the ability for connecting clients to query the RapidSOS Clearinghouse server over public networks only when using TLS and tightly-controlled API keys. The API keys are used during the query process to authenticate the requestor to an agency that is authorized to retrieve caller location data.
Subsystem	CAD
Direction	Bi-Directional
Interface Document Name	OSD – Standard RapidSOS Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Alpha Numeric Paging Interface
Interface Description	The Enterprise CAD Paging Interface is a standard
-	alphanumeric paging interface to provide sending text "paging"
	messages to a paging system vendor(s) using PET/TAP,

	WCTP, SMTP, or SNPP paging protocols, for delivery to the intended recipients.
Subsystem	CAD
Direction	Export
Interface Document Name	OSD – AlphaNumeric Paging Standard Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard ANI/ALI Interface - Vesta
Interface Description	This Interface provides a one-way transfer and processing of data from the E911 Controller of the phone system to Enterprise CAD using one of the two available types of package structures: fixed position and delimited fields. The Interface is configurable to process various formats of ANI/ALI data streams—to include certain formats of TTY/TDD emergency calls.
Subsystem	CAD
Direction	Import
Interface Document Name	OSD – Enterprise CAD Standard ANI/ALI Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Text-to-911 - Vesta
Interface Description	VESTA provides output via Ethernet network communications using a VESTA Third-Party Interface (TPI) API. When the Public Safety Answering Point (PSAP) operator ends a call session, the VESTA system transfers Complete TTY Conversation event message for consumption by the CAD Enterprise interface. When the CAD Enterprise interface identifies this event message with a text message transcript, the interface shall present to the user at the CAD Enterprise workstation corresponding to the phone position referenced in the event message with the option to create a new incident with the transcript, append the transcript to an existing open incident, or ignore the text message.
	When the interface incorporates the conversation transcript into an incident, the interface shall compose an incident comment to include the basic information regarding the session (a remark that a TTY call was received, the message connection/received timestamp, the contact phone number, the VESTA system phone position, and the corresponding CAD Enterprise workstation). A text file with each timestamped receive (Rx) and transmit
Subovetem	(Tx) text leg of the session is attached to the incident.
Subsystem Direction	
Interface Document Name	Import OSD – CAD Enterprise Motorola VESTA Text-to-911 Interface
Instances Contracted	Production
instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Logging Recorder Interface: Eventide
Interface Description	CentralSquare will make CAD incident data available to Eventide through a dedicated SQL view made available on the CAD Archive Server. The customer will be responsible for providing SQL Access to Eventide to the CAD Archive Server to access this view.
Subsystem	CAD
Direction	Export
Interface Document Name	N/A
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard USDD (G2) Station Alert Interface
Interface Description	CentralSquare shall implement a standard Station Alerting Interface to work with the US Digital Designs Phoenix G2 Station Alerting. The Phoenix G2 Station Alerting System consists of a Communications Gateway that interfaces with CAD, allows system management and monitoring, communicates with Station Controller devices located in stations. Upon an Enterprise CAD System dispatch event, the Enterprise CAD Interface shall pass dispatch assignment information to the Phoenix G2 System. The Phoenix G2 Alerting System Server shall receive the CAD dispatch data and perform programmed station alerting functions for the stations involved.
Subsystem	CAD
Direction	Bi-Directional Bi-Directional
Interface Document Name	IRD - USDD Station Alerting Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Enterprise CAD External Incident Data Transfer – ImageTrend Fire/ePCR
Interface Description	The Standard CAD to External System Data Transfer Interface will provide a one-way data transfer of selected Enterprise CAD incident data fields from Enterprise CAD to a single Records Management System (RMS), Reporting Module, or other system external to the Enterprise CAD System.
Subsystem	CAD
Direction	Export
Interface Document Name	IRD – Standard CAD-to-External System Data Transfer
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Arrest and Incident Publisher – TX Gang

Interface Description	The Arrest and Incident Publisher Interface publishes Arrest and Incident data from Enterprise RMS via XML files to the network file share in a CentralSquare defined file format.
Subsystem	Records
Direction	Export
Interface Document Name	OSD – Enterprise RMS Incident and Arrest Publisher Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Arrest and Incident Publisher – GangNet Systems
Interface Description	The Arrest and Incident Publisher Interface publishes Arrest
	and Incident data from Enterprise RMS via XML files to the network file share in a CentralSquare defined file format.
Subsystem	Records
Direction	Export
Interface Document Name	OSD – Enterprise RMS Incident and Arrest Publisher Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Citation Importer Interface – Tyler Incode
Interface Description	The CentralSquare Standard Citation Importer (the "Interface") is a unidirectional interface. It will import Citation data from the Third Party System into Records Enterprise. The XML imported will be in CentralSquare's Standard Citation format.
Subsystem	Records
Direction	Import
Interface Document Name	OSD - Records Enterprise Citation Importer Interface v1.1
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Incident Publisher Interface – IA Pro
Interface Description	The Incident Publisher Interface publishes Incident data
	from Records Enterprise a configured network file share in a
	CentralSquare defined file format.
Subsystem	Records
Direction	Export
Interface Document Name	OSD – Enterprise RMS Incident Publisher Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard National Data Exchange (N-DEx) Publisher
Interface Description	The N-DEx Publisher Interface is a unidirectional interface that publishes Arrest and Incident data from Records Enterprise to the N-DEx file share.
Subsystem	Records

Direction	Export
Interface Document Name	OSD – National Data Exchange (N-DEx) Publisher
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Texas State Crash Publisher
Interface Description	The Crash Publisher – Texas Interface publishes Crash data from Records Enterprise to the Texas Department of Transportation (TX DOT) system.
Subsystem	Records
Direction	Export
Interface Document Name	OSD – TX Allen TXDOT Enterprise RMS Crash Publisher v1.2
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Warrant Publisher Interface – Tyler Incode
Interface Description	The Warrant Publisher Interface publishes Warrant data from Records Enterprise to a configured network file share in a CentralSquare defined file format.
Subsystem	Records
Direction	Export
Interface Document Name	OSD – Enterprise RMS Warrant Publisher Interface
Instances Contracted	Production

Standard Interface	Description
Interface Name	Standard Warrant Importer Interface – Tyler Incode
Interface Description	The CentralSquare Warrant Importer (the "Interface") is a unidirectional interface. It will import Warrant data from the Third Party System into Records Enterprise. The XML imported will be in CentralSquare's Standard Warrant format. The Interface includes the import of attachments. The attachment must include a Filename, Extension, and Media in order to import. The Extension is the file type without a dot (ex: jpg, bmp). The Media is the attachment data in base64string format.
Subsystem	Records
Direction	Import
Interface Document Name	OSD - Warrant Importer Interface
Instances Contracted	Production

Appendix D - Message Switch

The CentralSquare Message Switch is a component of the CentralSquare Suite which allows query and response transactions between CentralSquare Suite applications, the State, and some third-party data sources. CentralSquare Message Switch is a standalone application that can be accessed from any web application, or within a CentralSquare products, to centralize inquires to state switch systems, internal systems and/or other providers while reducing user interactions and data entry workflows.

A **Message Switch Provider** is equivalent to a data source (such as a CentralSquare component like Records Enterprise, the State, or a SQL database).

Message Switch Providers use Transactions to query the data source.

A *Message Switch Transaction* can be considered the equivalent of an individual query or a combination (combo query which queries multiple Providers). Examples of individual queries would be Person by Name or Driver's License Number Transaction for the Provider Records Enterprise, or a Message key Transaction to the Provider State Justice Switch, or a Type of SQL Query to an external SQL database for a Custom Provider). Transactions are rolled up under each Provider. An example of a combination query would be a Transaction defined as a Combination Query of a Person query on both a State Provider and a SQL Custom Transaction (e.g., a Person by Name query which searches both the State, and an external SQL Data Source).

Standard transactions are included in the project, subject to applicable access. Standard queries can be performed via the Records Enterprise Menu Options, and Records Enterprise Query entry page.

The list of Message Switch Providers and associated Transactions included in this Contract are as follows:

Standard Providers (for CAD and Records Enterprise):

Provider: CAD Enterprise

Standard CAD Enterprise Transactions:

Category	Transaction Name
AdminOther	CAD Incident Inquiry
Person	CAD Person Inquiry
Article	CAD Property Inquiry
Vehicle	CAD Vehicle Inquiry
Gun	CAD Weapon Inquiry
Vehicle	Query Tow Request
Person	Query BOLO Person
Vehicle	Query BOLO Vehicle

Provider: Records Enterprise

Standard Records Enterprise Transactions:

Category	Transaction Name
AdminOther	Free Form
Gun	Gun Inquiry
Vehicle	Vehicle Inquiry
AdminOther	Location Inquiry
Person	Person Inquiry
Article	Property Inquiry

Provider: ONESolution RMS

Standard ONESolution RMS Transactions:

Category	Transaction Name
Vehicle	Vehicle Inquiry
Person	Person Inquiry

Provider: State Justice Switch (TEXAS)

Standard State Justice Switch Transactions (State/NLETS/NCIC transactions)

For new State implementations where CentralSquare has not yet developed standard transactions, the Client is responsible for providing State documentation for review by CentralSquare Product Management to identify standard state transactions.

The following responses are supported for parsing local Person and Vehicle state transactions. Parsing of returns is applicable if Client is using Records Enterprise and transactions are already defined.

None of queries below include record entry, modification, or update (Cancel, Clear, Locate) transactions. This functionality is available only if CentralSquare develops the query as part of the Contract or at additional cost via Change Order. The Custom State Justice Switch Transactions section below contains any custom Transactions for this Contract.

Message Key	Transaction Name
NDN	Nics Denial Notification
NDO	Nics Denial Overturned Notification
QDP	Nics Denied Person Inquiry By Agency Record Identifier

QDP	Nics Denied Person Inquiry By Nics Record Number
QND	Nics Denied Person Inquiry By Name
QND	Nics Denied Person Inquiry By NCIC Number
QND	Nics Denied Person Inquiry By NTN Number
QNP	Nics Initial Inquiry
QNR	Nics Follow Up Inquiry By DCI Number
QNR	Nics Follow Up Inquiry By FBI Number
QNR	Nics Follow Up Inquiry By NCIC Number
QNR	Nics Follow Up Inquiry By NICS Record Index Number
QNR	Nics Follow Up Inquiry By NICS Transaction Number
XAA	Group Article Cancel
XA	Single Article Cancel
XLAA	Group Article Cancel – Lost
XLA	Single Article Cancel – Lost
XGMN	Gang Supplemental Cancel
XGM	Gang Cancel
XFG	Felony Gun Cancel
XG	Stolen Gun Cancel
XLG	Lost Gun Cancel
XRG	Recovered Gun Cancel
XID	Identity Theft Cancel
XIN	Identity Theft Supplemental Cancel
XII	Investigative Interest Cancel
XMPN	Person With Information Supplemental Cancel
XMP	Person With Information Cancel
XSS	Serialized Securities Cancel
XS	Single Security Cancel
XB	Stolen Boat Cancel
XCNS	Stolen Fraudulent Identifiers Cancel
XCN	Supervised Release Supplemental Cancel
XC	Supervised Realease Cancel
CAA	Group Article Clear
CA	Single Article Clear
CLAA	Group Article Clear - Lost
CLA	Single Article Clear - Lost

CRBD	Benefits And Effectiveness After Clear - Person
CRBD	Benefits And Effectiveness After Clear - Property
CFG	Felony Gun Clear
CG	Stolen Gun Clear
CLG	Lost Gun Clear
CRG	Recovered Gun Clear
CL	Stolen License Plate Clear
СМ	Missing Person Clear
CSS	Serialized Security Clear
CS	Single Security Clear
СВ	Stolen Boat Clear
СС	Supervised Release Clear
CV	Vehicle Clear
EAA	Group Article Entry
EA	Single Article Entry
ELAA	Group Article Entry - Lost
ELA	Single Article Entry - Lost
EGMN	Gang Supplemental Entry
EGM	Gang Entry
EIDC	Identity Theft C Entry
EID	Identity Theft Entry
EIN	Identity Theft Supplemental Entry
EB	Stolen Boat Entry
EII	Investigative Interest Entry
ED	Missing Person Dental Information Entry
EMPN	Person With Information Supplemental Entry
EMP	Person With Information Entry
ECNS	Stolen Fraudulent Identifiers Entry
ECN	Supervised Release Supplemental Entry
EC-C	Supervised Release Entry - C
EC	Supervised Release Entry
ED	Wanted Person Dental Information Entry
LAA	Group Article Locate
LLAA	Group Article Locate - Lost
LLA	Single Article Locate - Lost
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LRBD	Benefits And Effectiveness After Locate - Person
LRBD	Benefits And Effectiveness After Locate - Property
LB	Stolen Boat Locate
LFG	Felony Gun Locate
LLG	Lost Gun Locate
LSS	All Securities In A Group Locate
LSS	One Or More Not All Securities In A Group Locate
MAA	Group Article Modify
MLAA	Group Article Modify - Lost
MLA	Single Article Modify - Lost
ELGP	Lost Gun Entry - Hold For Latents
ERGP	Recovered Gun Entry - Hold For Latents
EFGP	Felony Gun Entry - Hold For Latents
EFG	Felony Gun Entry
ERG	Recovered Gun Entry
ELG	Lost Gun Entry
EG-P	Stolen Gun Entry - Hold For Latents
EG	Stolen Gun Entry
EL	Stolen License Plate Entry
ESS	Serialized Security Entry
ES	Single Security Entry
EN	Wanted Person Supplemental Record Entry
LA	Single Article Locate
LG	Stolen Gun Locate
LL	Stolen License Plate Locate
LSS	Serialized Security Locate
LS	Single Security Locate
MA	Single Article Modify
MGM	Gang Modify
MFG	Felony Gun Modify
MLG	Lost Gun Modify
MRG	Recovered Gun Modify
MG	Stolen Gun Modify
MID	Identity Theft Modify
ML	Stolen License Plate Modify

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MD	Missing Person Dental Information Modify
MMP	Person With Information Modify
MSS	Serialized Security Modify
MS	Single Security Modify
MB	Stolen Boat Modify
MC	Supervised Release Modify
MD	Wanted Person Dental Information Modify
AQ	Criminal History Admin Inquiry
FQ	Criminal History Follow Up Inquiry
IQ	Criminal History Initial Inquiry
QGG	Gang Reference Inquiry
QI	One Crime Inquiry
QID	Identity Theft Inquiry
QMNI	Criminal History Master Name Index Inquiry
QO	ORI Details Inquiry
QRI	Criminal History By FBI Inquiry
ZO	ORI Name Inquiry
QU	Unidentified Person Inquiry
QM	Missing Person Inquiry
ZU	Unidentified Person Inquiry (Test)
ZM	Missing Person Inquiry (Test)
AR	Out Of State Criminal History Response
QPO	Protection Order Inquiry
ZWA	Wanted Person Inquiry - All (Test)
ZW	Wanted Person Inquiry (Test)
ZV	Stolen or Felony Vehicle Inquiry (Test)
ZS	Single Security Inquiry (Test)
ZG	Gun Inquiry (Test)
ZB	Boat Inquiry (Test)
ZA	Single Article Inquiry (Test)
	Free Form NCIC Transaction
QWA	Wanted Person Inquiry - All
QA	Single Article Inquiry
QB	Boat Inquiry
QG	Gun Inquiry
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QH	III Criminal History Record Inquiry
QR	Full III Criminal History Record Inquiry
QS	Single Security Inquiry
QV	Stolen or Felony Vehicle Inquiry
QW	Wanted Person Inquiry
QGM	Gang Member Inquiry
QWI	Wanted Person Inquiry - III
QII	Image Inquiry
	OFML Free Form Transaction
ACQ	Nlets Prism Carrier Status Inquiry
AVQ	Nlets Prism Vehicle Status Inquiry
CPQ	Nlets Corrections Photo By Corrections Number Inquiry
CPQ	Nlets Corrections Photo By Name and DOB Inquiry
CPQ	Nlets Corrections Photo By OLN Inquiry
CPQ	Nlets Corrections Photo By SID Number Inquiry
CPQ	Nlets Corrections Photo By SSN Inquiry
FGQ	Nlets Interpol Gun Follow-Up Inquiry
FPQ	NLETS Interpol Persons Follow-Up Inquiry
FQC	Nlets International Fuel Tax Transaction Inquiry
FTQ	Nlets Interpol Travel Documents Follow-Up Inquiry
FVQ	Nlets Interpol Vehicle Follow-Up Inquiry
GVQ	Nlets VIN Check Inquiry
IGQ	Nlets Interpol Gun Initial Inquiry
IPQ	Nlets Interpol Person Initial Inquiry
ITQ	Nlets Interpol Travel Documents Initial Inquiry
IVQ	Nlets Interpol Vehicle Initial Inquiry
JQ	Query Aircraft Tracking
LQ	Stolen Vehicle Recovery Network Notification - TCIC
CAQ	NLETS Canadian Article File Query
PAQ	Nlets Person Probation/Corrections/Parole all Inquiry
PBQ	Nlets Person Probation Inquiry
PCQ	Nlets Person Corrections Inquiry
RCQ	Nlets Railroad Crossing Inquiry
SOQ	Nlets Sex Offender Inquiry
CPQ	Nlets Corrections Photo By FBI Number Inquiry

SWQ	Nlets State Warrant By FBI Number Inquiry
SWQ	Nlets State Warrant By Misc Number Inquiry
SWQ	Nlets State Warrant By Name and DOB Inquiry
SWQ	Nlets State Warrant By OLN Inquiry
SWQ	Nlets State Warrant By SSN Inquiry
YQPO	NLETS Hit Confirmation Request For Protective Order
YQSA	NLETS Hit Confirmation Request For Stolen Article
YQMP	NLETS Hit Confirmation Request For Missing Person
YQWP	NLETS Hit Confirmation Request For Wanted Person
YQSL	NLETS Hit Confirmation Request For Stolen License Plate
YQSP	NLETS Hit Confirmation Request For Stolen Part
YQSV	NLETS Hit Confirmation Request For Stolen Or Felony Vehicle
YQSB	NLETS Hit Confirmation Request For Stolen Boat
YRSA	NLETS Hit Confirmation Response For Stolen Article
YRSB	NLETS Hit Confirmation Response For Stolen Boat
YRSG	NLETS Hit Confirmation Response For Stolen Gun
YRSL	NLETS Hit Confirmation Response For Stolen License Plate
YRSP	NLETS Hit Confirmation Response For Stolen Part
YRSV	NLETS Hit Confirmation Response For Stolen Or Felony Vehicle
YRWP	NLETS Hit Confirmation Response For Wanted Person
IAQ	NLETS Immigration Alien Query
CWQ	NLETS Concealed Weapons Permit Query
FQ	NLETS Full Criminal History Query
IQ	NLETS Criminal History Identity Query
GQ	Query Aircraft Registration
	Free Form NLETS Transaction
LEOFA	Law Enforcement Officer Flying Armed NLETS Message
VQ	NLETS Canadian Vehicle File Query
WQ	NLETS Canadian Person File Query
XQ	NLETS Canadian Vehicle Registration Query
TQ	ORION File Query
MQ	Hazardous Materials Query
SQ	NLETS Snowmobile Registration Query
BQ	Query Boat Registration

DNQ	NLETS Driver History Query By Name Only
DQG	NLETS Regional Driver Record Query
KQ	NLETS Driver History Query
RNQ	NLETS Vehicle Registration Query By Name Only
RQG	NLETS Regional Vehicle Registration Query
RQ	NLETS Vehicle Registration Query
UQ	NLETS Canadian Driver Record Query
QFA	Foster Home Address Inquiry
RZW	Regional Query Wanted (Test)
QR-T	Full III Criminal History Record Inquiry - TCIC Only
QV-T	Stolen or Felony Vehicle Inquiry - TCIC Only
QH-T	III Criminal History Record Inquiry - TCIC Only
RSDWW	TLETS Combination Inquiry By Drivers License
RSDW	TLETS Combination Inquiry
V	Basic Vehicle Registration Inquiry
VX	Basic Enhanced Vehicle Registration Inquiry
VINX	Complete Enhanced Vehicle Registration Inquiry
VIN	Complete Vehicle Registration Inquiry
DWI	Driver's License Inquiry With DWI Information
RDL	Regular Driver's License Inquiry
QW-X	Wanted Person Inquiry - Exact DOB Match
CPL	Complete Driver's License Inquiry
QW-T	Wanted Person Inquiry - TCIC Only

Appendix E - Subcontractor Statement of Work

Subcontractor Statement(s) of Work provided as applicable to the project.

Appendix G – CrimeView/FireView Analytics GIS Data and Application Specifications

GIS Data Specifications

Client shall provide files of relevant boundaries and landmarks within the area of interest. Typical features include:

- 1) Boundaries and jurisdictions such as beats and reporting districts.
- 2) Landmark information such as schools, parks, and other locations of interest.
- 3) Geocoding Reference Data
- 4) Client is responsible for providing accurate Geocoding Reference Data in a GIS format that can be used to generate a geocoding service. Reference data may consist of street centerlines, address points, parcels, points of interest, or other GIS features referenceable in the data to be geocoded.

Application Specifications

- Data History
 - a. The Dashboard will include a rolling thirty-six (36) months of historical data for each dataset.
- 2) Widgets
 - a. Each widget presents data based on the query/selection configured for it by the agency.
 - b. Widgets can be added, deleted, and modified by administrator or designer users and are updated automatically up to four times per day.
 - c. A total of 400 widgets are licensed with the Dashboard, and more may be added at an additional cost.
- Symbology
 - a. All applications include standard CentralSquare symbology for each data source.
- 4) Users
 - a. Two user types will be provided in order to utilize and administer the application:
 - i. Three (3) Designer logins for purposes of creating new content and managing user logins.
 - ii. Unlimited End User logins for purposes of viewing content and creating queries on demand.

Appendix J – CentralSquare Connectivity to Enterprise On- Premise systems

Policy

The BeyondTrust/Bomgar and/or SecureLink remote support solutions shall be the method of remote access to on-premise customer systems and/or data. These solutions meet all requirements as contained in Section 5.5.6 of the FBI CJIS Security Policy (Remote Access). Use of either of these solutions enable customer agencies to remain CJIS compliant for purposes of FBI and/or state regulatory agency audits.

Appendix Y – Workshop and Training Summary

Training/Go-Live Deliverable	Quantity	Training(s)/Workshop(s) Included	Max # of Attendees	Remote/Onsite
CAD Enterprise Orientation, Review & CodeFile Course (ORCA)	1	Four (4) day workshop	12	Onsite
GISLink Utility Training	1	Three (3) day workshop	3	Onsite
CAD Enterprise Response Plan Workshop	1	Three (3) day workshop	12	Onsite
CAD Enterprise Validation & Readiness Workshop	1	Three (3) day workshop	12	Onsite
CAD Enterprise Call Taker/Dispatcher User Training	3	Two (2) day training classes	12	Onsite
CAD Enterprise Dispatch Supervisor Training	1	Four (4) day training class	12	Onsite
CAD Enterprise Onsite Go-Live Support Services	1	Three (3) day Go-Live Support – 2 CentralSquare Consultants per 12-hour shift, 2 shifts per day		Onsite
CAD Enterprise Post Go-Live Optimization and Advance Configuration Workshop	1	There (3) day workshop	12	Onsite
Mobile Enterprise Administration Configuration Training	2	Two (2) day Training Class	3	Onsite
Mobile Enterprise Train-the- Trainer/End User Training	12	Four (4) hour training class (Classes must be completed over the course of two weeks)	10	Onsite
CrimeView/FireView Analytics Administrator/Designer Training	1	Six (6) hour training class	12	Remote
CrimeView/FireView Analytics Train- the-Trainer	1	Two (2) hour training class	15	Remote
Records Enterprise Administration and Review Training	1	Three (3) day workshop	12	Onsite
Records Enterprise Workshop #1 – Incident, Arrest, and Case Management	1	Three (3) day workshop	12	Onsite
Records Enterprise Workshop #2 - Crash, Citation, Other Events, Field Interview	1	Three (3) day workshop	12	Onsite
Records Enterprise Workshop #3 – TBD	1	Three (3) day workshop	12	Onsite
Records Enterprise Workshop #4 – TBD	1	Three (3) day workshop	12	Onsite
Records Enterprise Output Designer Workshop	1	Three (3) day workshop	5	Onsite

Records Enterprise Report Writing Training	1	Three (3) day workshop	12	Onsite
Records Enterprise Validation & Readiness Workshop	1	Three (3) day workshop	12	Onsite
Records Enterprise End User Training – Patrol/Field Personnel/Investigations	10	Two (2) day training class	12	Onsite
Records Enterprise End User Training – Records Personnel & State Reporting	1	Two (2) day training class	12	Onsite
Records Enterprise End User Training - Property and Evidence	1	Two (2) day training class	12	Onsite (if completed same week as Records Training)
Records Enterprise End User Training - Warrants Training	2	Two (2) day training class	12	Onsite
Records Enterprise Onsite Go-Live Support Services	1	Three (3) day Go-Live Support – 1 CentralSquare Consultants per 8-hour day		Onsite
Records Enterprise Post Go-Live System Optimization Workshop	1	Three (3) day workshop	12	Onsite
Police-to-Citizen Training	1	One (1) day training class	12	Remote
CAD Enterprise Initial Discovery, Configuration: Workshop #1: Kick-Off, SMS & Questionnaire (one hour all agencies need to attend the workshop) Workshop #2: Code-Mapping (one hour, all agencies need to attend the workshop)	1	One (1) hour workshop	12	Remote
CAD-to-CAD Hub Portal Console and Administrator Training (all agencies need to attend this training session)	1	Two (2) hours training	TBD	Remote
CAD-to-CAD Go-Live Support Services	1	Day 1 and Day 2: Remote Go- Live Support – one (1) Consultant (trainer), eight (8) hours each day. Day 3: Remote Go-Live Support – one (1) Consultant (trainer), four (4) hours.		Remote

Appendix Z – Data Conversions

CentralSquare CAD Enterprise Data Conversion

Data Conversion Overview

Data conversion is the implementation process of moving data from a legacy system or data files into your CentralSquare software product. Data conversion is a highly collaborative process between Client and CentralSquare Technologies.

The listed data conversion services and their associated costs are based on CentralSquare's understanding of Customer's needs and current system. Any modules not explicitly listed in this section are not part of the current project scope and will not be included in implementation. If additional module conversions are required, each one will come at an additional cost based on the scope of the work required for each.

CentralSquare will implement a structured methodology for CAD Enterprise data conversion. Client is responsible for providing CentralSquare with extracted data in a format that can be used by CentralSquare for import. Formats suitable for import into can include Excel, MDB, CSV, and ODBC access from MS SQL; however, the specific format to be used for this Project should be reviewed between the respective CentralSquare and Client teams.

The conversion of prior CAD data is a process that involves several steps. CentralSquare develops a data conversion plan to Client detailing the data mapping between the legacy System and CentralSquare CAD Enterprise. During this phase of work, CentralSquare will work closely with the appropriate individuals from Client to map each data element in each legacy application to the appropriate target data element in the CAD Enterprise databases and reflect this information in the data conversion plan.

Generally, there is an initial conversion to bring the data set close to Go-Live, a second conversion just before Go-Live and a last conversion after Go-Live. Each step does not involve a re-conversion of previously converted data. These steps do not include ongoing maintenance of imported data. If the legacy data elements have a relevant counterpart in the target CAD Enterprise databases, CentralSquare can map the data and import it into the CAD Enterprise database structure.

Conversion of Premise and Caution notes can be performed independent from the Prior Incident data. A small sub-set of the data will be initially converted and loaded to validate the process. Upon completion of this test, the Premise and Caution notes data will be converted and imported to the system close to Go-Live, as a onetime process. Additions to Premises and Caution notes in the old system, between the time of data conversion and Go-Live will require manually entry by Client to the new system.

It is imperative that a member of Client's staff be available to support the data conversion effort. Many operational questions will arise that depend on the data and operational expertise of Client's staff.

This process is considered complete once the last set of data has been converted for the new CAD Enterprise system. The client is responsible for the validation of the data.

Due to the need for specific knowledge of Client's area, the geo validation process for the converted data is the responsibility of Client.

Note: Legacy data conversion will not include conversion of attachments to Premises or Historical Incidents into CentralSquare databases.

Data Conversion Modules

Modules for conversion are defined in the Sales Order and this Scope Appendix: Agency 1: Burleson Police/Fire, Source Vendor: ONESolution CAD

Module to be Converted	Definition of Module
Premise and Caution Notes	CAD Premise Info and Caution Notes
Incidents	Two (2) years of historical incident data
Additional Incidents	N/A

Data Conversion Process

The Data Conversion process is the work that drives the configuration and implementation process. Below are the significant tasks included in this project:

Major Task	Description
Schedule	CentralSquare and Client will schedule the Data Conversion Tasks as part of the overall Project Schedule. CentralSquare CAD GIS training and build out of CAD Code Tables are pre-requisites to any conversion mapping exercise.
Extraction	Client will extract sample data in a format compatible with conversion and provide to CentralSquare
Configuration Documentation	CentralSquare will provide a configuration document to Client for the Incident Data Conversion Plan.
Review	An in-depth review between CentralSquare and Client SME will be held. This meeting will be recorded, and Client should be prepared to operate within the UI of the old system to provide examples and context
Setup	CentralSquare will configure servers and systems needed for the Data Conversion.
Premise and Caution Note Sample Conversion	A Small Premise and Caution Note conversion sample will be run to validate the mapping and the conversion process.
Review and Validation	A second in-depth review between CentralSquare and Client SME will be held to review changes to the Incident Data Conversion Plan and validate Premise and Caution sample data.

Bulk Incident Data Conversion	CentralSquare will bulk convert data into Client's Pre-
	production Archive system approximately two months prior
	to Go-Live.
Premise and Caution Note Conversion	Approximately one month prior to Go-Live the Premise and
	Caution Note conversion is run into Client's pre-production
	system. From this time onward Client must maintain
	Premise and Caution notes in their existing Production
	System and the CentralSquare Pre-Production system
Sign Off	Client Signs off on Data Conversion
Go-Live	The Final extraction of Incident data and the final Incident
	delta Data Conversion is run as part of the Go-Live
Final Sign Off	Client signs off on the Final Data conversion

CentralSquare Responsibilities

- a) Work with Client to identify, document and implement a comprehensive data conversion.
- b) Advise on possible conversion options.
- c) Advise on project milestone dates and Client expectations.
- d) Provide training for Client on using CentralSquare data mapping tools.
- e) Work with Client to limit the number of Go-Live conversion events.
- f) Perform one or more sample conversions.
- g) Provide training for Client on validating the data conversion for completeness and accuracy.
- h) Convert legacy data into corresponding elements in the CentralSquare system. (Modifications to the CentralSquare system or database for the purposes of data conversion will be limited or unavailable).
- i) Perform final delivery of data conversion.

Client Responsibilities

- a) Provide subject matter experts to complete data conversion tasks, including providing expertise in third-party data architecture, providing business processing logic for addressing data conversion and identifying and scheduling appropriate personnel to attend training.
- b) Provide data dumps in the prescribed format within thirty (30) days of Agreement signing.
- c) Provide routine data dumps throughout the implementation process.
- d) If needed, provide a temporary workstation for data conversion personnel.
- e) If needed, provide UI access to the legacy system or test system for data conversion personnel.
- f) Ensure the legacy data is "conversion ready," meaning it is clean (duplicates, typos, missing information, etc. have been corrected).
- g) Provide a data dictionary or equivalent documentation to facilitate mapping data elements between the legacy system and the CentralSquare database(s).

- h) Configure code values outside the scope of the data conversion process.
- i) Take responsibility for costs assessed by the legacy system or any other third-party for performing the data extraction as described.
- j) Configure code value and complete code value data mapping prior to data conversion processing.
- k) Use provided tools to translate (map) code values between your legacy system and the CentralSquare system.
- I) Manual adjustments by Client may be required on converted data to make it eligible for state submissions, reports, or to align with new workflow processes.
- m) Perform manual back entry of data saved after the final data cut if necessary.
- n) Perform data validation. Validate data converted is both complete and accurate. Report discrepancies during the implementation process. (System downtime may be required to complete the data conversion process).
- o) Use provided tools to report data conversion issues.
- p) Provide sign-off of the converted data in a non-production environment.
- q) Provide sign-off of the converted data set into the production environment.

CentralSquare Records Enterprise Data Conversion

Data Conversion Overview

Data conversion is the implementation process of moving data from a legacy system or data files into your CentralSquare software product. Data conversion is a highly collaborative process between Client and CentralSquare Technologies.

The listed data conversion services and their associated costs are based on CentralSquare's understanding of Customer's needs and current system. Any modules not explicitly listed in this section are not part of the current project scope and will not be included in implementation. If additional module conversions are required, each one will come at an additional cost based on the scope of the work required for each.

The customer shall provide unencrypted data for conversion in one of the following compatible formats:

- a) MS SQL .bak files with database version and credential information
- b) MySQL .dump or .SQL files with database version and credential information
- c) PostgreSQL .SQL files with database version and credential information
- d) MS Access 2003 or newer .mdb files
- e) CSV files with column headers and relationship mapping documentation
- f) Oracle 10g or newer backup files

No images, objects or attachments will be converted as part of this conversion unless explicitly purchased.

Master Location GEO Validation is not included in the conversion.

All data conversion related fields must be finalized (for all agencies) within the Default Summary Templates prior to data conversion initiation. Changes to data conversion fields after the sign off of the Default Summary Templates may involve a Change Order.

For multi-agency conversions, it is assumed that the default summary templates built for the converted modules are used across all agencies. If agencies wish to customize the templates on a per-agency basis, then per-agency scope for Data Conversion will need to be scoped.

In the Data Conversion Modules section several modules are referenced as being conversions of Summaries Only. A Summary is an aggregate all of the individual reports merged together. The individual reports are not converted into individual reports in Records.

Records Enterprise Templates (UI Forms) are a flexible design. Where no directly corresponding default element exists in Records Enterprise, the Template may be modified (or a new Template created for a module which does not exist) in order to accommodate the data. Some legacy data elements may also be stored in a narrative if desired.

If Client desires any modification to their original data in order to include it in a Records Enterprise record, they must fully document the transformation process used. All transformations so supplied must be able to be implemented via repeatable scripts vs. "human-interpretive" processes, or scripts requiring multiple passes or complicated parsing. These include but are not limited to names and addresses.

The CentralSquare data conversion team will not perform any data cleanup, master name merging, or redact information during the conversion process. Any data cleanup must be performed by the Agency either before or after the data conversion process.

The Agency should complete all state reporting on data entered into the legacy system prior to the final extract for the go-live run. All data manually entered into the Records Enterprise system after go-live can be reported to the state using the new Enterprise RMS system.

A conversion of legacy data into Records Enterprise does not entail any UCR to NIBRS conversion. CentralSquare Technologies will provide a Data Conversion Specifications document prior to executing the data conversions. The Specifications document is a written plan for the conversion of the data, detailing source and target elements. This must be approved by the Client and CentralSquare and signed as part of a TCR in order to proceed with coding and iterations of data conversion.

CentralSquare Data Conversion personnel will train the Client in the use of the Records Enterprise system, and the use of tools for reporting Data conversion issues. The client is responsible for data review of the converted data.

Timely review and issue logging is critical to the timeline of the Data Conversion, and the project as a whole. Review and issue reporting per iteration must be completed within three weeks of hand off of the converted data to the Client. Appropriate personnel should be budgeted for and made available to carry out this task. If a longer review turnaround interval is needed this will need to be contracted for, Either in this agreement or as a Change Order.

The scope for the conversion includes three iterations of the conversion, plus a final conversion at go live. If further iterations are needed these can be added with a Change Order. An iteration is defined as a conversion of all modules per data source.

The Records Enterprise Data Conversion line items in the Agreement support a single data source. Additional sources can be added either as separate sources, or as separate modules (such as standalone Property and Evidence Systems). This breakdown is detailed on the Data Conversion Modules section below.

Other Events conversions cover up to twenty-five fields to be converted into the Other Event Template. The Other Event Template may contain more than twenty-five fields in total, but the number of converted fields is not to exceed twenty-five. Additional fields can be added to an Other Event module conversion as a custom scope and will be documented in the Modules breakdown below.

Data Conversion Modules

Modules for conversion are defined in the Sales Order and this Scope Appendix:

Agency 1: Burleson Police, Source Vendor 1: ONESolution RMS

Module to be Converted	Definition of Module
Number of years to convert: 5 years	
Masters	Master Person, Address, Property and Vehicle tables— only person, address, property and vehicle information associated to incident records are converted. Exception, all Master Person records with mugshot/image to be converted regardless of associated modules and number of years.
Cases	Case Summaries Only
Incidents	Incident Summaries Only
Arrests	Arrest Module
Warrants	Warrants Module
Attachments/Document Management	Document Management System
Mugshots	Mugshot Data. All Master Person records with mugshot/image to be converted regardless of associated modules and number of years.

Data Conversion Process

The Data Conversion process is the work that drives the configuration and implementation process. Below are the significant tasks included in this project:

Major Task	Description
Schedule	CentralSquare and Client will schedule the Data Conversion Tasks as part
	of the overall Project Schedule. Code Tables, configurations and Templates
	must be built as part of the overall Project Schedule as a Pre-requisite for
	Data conversion iterations to begin

Data Delivery	Client will provide data in a format compatible with conversion and provide to CentralSquare. For CentralSquare source products CentralSquare will provide the extraction from the legacy format into CentralSquare's schema.
Setup	CentralSquare will configure servers and systems needed for the Data Conversion including the staging template database. CentralSquare must have a copy of the legacy database prior to this step to ensure enough space and memory is assigned to the server to avoid issues during the conversion process.
Template Finalization	Agency to finalize all data conversion related fields within each of their default summary templates in Records Enterprise. The agency signs the Template sign-off TCR.
System Walk Through	An in-depth review between CentralSquare and Client SME will be held. This meeting may be recorded, and Client should be prepared to operate within the UI of the old system, or within the schema, to provide examples and context. A Data Conversion Coordinator will draft the Data Conversion Specifications Document. CentralSquare and the client sign the Data Conversion Specification document TCR confirming that the Data Conversion Coordinator has covered all the data conversion related fields. The specification document must be signed before CentralSquare can proceed with coding.
Data Conversion Development	Using the Data Conversion Specifications Document CentralSquare Engineers will map the data to the target format and develop scripts to fulfill the Data conversion Specifications Document.
Code Table Mapping	CentralSquare will provide guidance on the Code Table Mapping Tool. Client will Map Code Table data using the tool.
Data Conversion Iterations	CentralSquare will convert data into Client's system which has been dedicated for Data Conversion Testing. This is an iterative process and may involve new extracts and a refresh form the current Pre-Production system into the Data conversion system and a purge of data from the Data Conversion target system.
Review and Validation	Client will review data conversion and provide feedback via designated CentralSquare tools. This is an iterative process.
Sign Off	Client Signs off on acceptance with the Data Conversion Verification Document.
Go-Live	The Final Data Conversion is re-run as part of the Go-Live
Final Sign Off	Client signs off on the Go-Live.

CentralSquare Responsibilities

- a) Work with Client to identify, document and implement a comprehensive data conversion.
- b) Advise on possible conversion options.
- c) Advise on project milestone dates and Client expectations.
- d) Provide training for Client on using CentralSquare data mapping tools.
- e) Work with Client to limit the number of Go-Live conversion events.
- f) Perform one or more sample conversions.
- g) Provide training for Client on validating the data conversion for completeness and accuracy.

- h) Convert legacy data into corresponding elements in the CentralSquare system. (CentralSquare has a flexible approach to the design of Templates which allows the Client to create templates and elements to convert data into. Modifications to the CentralSquare Records Enterprise code or database schema for the purposes of data conversion will be unavailable).
- i) Perform final delivery of data conversion.

Client Responsibilities

- a) Provide subject matter experts to complete data conversion tasks, including providing expertise in source system data architecture, providing business processing logic for addressing data conversion and identifying and scheduling appropriate personnel to attend training.
- b) Provide data dumps in the prescribed format within thirty (30) days of Agreement signing.
- c) Provide routine data dumps throughout the implementation process.
- d) If needed, provide a temporary workstation for data conversion personnel.
- e) If needed, provide UI access to the legacy system or test system for data conversion personnel.
- f) Provide a data dictionary or equivalent documentation to facilitate mapping data elements between the legacy system and the CentralSquare database(s)
- g) Configure code values outside the scope of the data conversion process.
- h) Take responsibility for costs assessed by the legacy system or any other third-party for providing the data dumps.
- i) Configure code values and complete code value data mapping prior to data conversion processing.
- j) Use provided tools to translate (map) code values between your legacy system and the CentralSquare system.
- Perform manual back entry of legacy system data saved after the final data cut if necessary.
- m) Provide sign-off of the Data Conversion Plan.
- n) Perform data validation. Validate data converted is both complete and accurate. Report discrepancies during the implementation process. (System downtime may be required to complete the data conversion process).
- o) Use provided tools to report data conversion issues.
- p) Provide sign-off of the converted data in a non-production environment.
- q) Provide sign-off of the converted data set into the production environment.

EXHIBIT 5 <u>Using/Accessing Agency Guidelines (if applicable)</u>

The following agencies are authorized to use the Customer's system in the quantities specified in Exhibit 1. Customer acknowledges and agrees to be responsible for these authorized agencies use of the System and to bind each authorized agency to all terms of the Agreement as reasonably applicable. In the event of breach, or threatened breach of the provisions of the Agreement, Supplier has no adequate contractual remedy with the Authorized agencies and accordingly shall be entitled to pursue remedy direct from the Customer. The Customer shall be the point of contact for each of these authorized agencies in the event that support services are required or requested by said authorized agency. Customer agrees to be responsible for all payment obligations incurred by any authorized agency inclusive of support and any additional purchases under the Change Order/Amendment processes as described in the Agreement.

Exhibit 6 CentralSquare Access Management Policy

In order to provide secure, CJIS compliant connections to agency systems CentralSquare Technologies ("CentralSquare") requires BeyondTrust or SecureLink as the only approved methodology of connection. BeyondTrust and Securelink provide the necessary remote access in order to service and maintain CentralSquare products while adhering to the FBI CJIS requirements. Both solutions utilize two-factor authentication Federal Information Processing Standard Publication ("FIPS") 140-2 validated cryptographic modules and AES encryption in 256-bit strengths.

BeyondTrust and Securelink meet the security requirements required for Remote Access under the FBI CJIS Security Policy.

BeyondTrust and Securelink are addressed in turn via this Access Management Policy; Customers may choose which remote privileged access management solution will be utilized by CentralSquare.

BeyondTrust

The BeyondTrust remote support solution may be utilized via escorted session or a jump client. As for an escorted session, when an agency needs assistance from CentralSquare, the agency employee requesting assistance will receive verbal or email communication with a session key necessary to enable remote access. If a verbal key is provided, the user enters the session key after visiting https://securesupport.centralsquare.com.

Jump clients are a Windows service that can be stopped/started to facilitate a support session. Connections made via jump client can be active or passive. An active jump client is always available. A passive connection is enabled for a specific purpose and then disabled when not used. Regardless of the option selected, CentralSquare's support team will arrange a BeyondTrust session to establish the jump client.

The jump client resides on the agency side on the installed device, where an agency administrator can manage. Instructions on how to enable/disable jump clients can be provided upon request. A sample workflow of a passive jump client is provided below:

Should an agency require support from CentralSquare, a call would be placed and/or a support ticket opened in the portal on the CentralSquare customer support website. Before accessing the agency's system and/or environment, the CentralSquare representative would send a notice of connection from the CentralSquare support portal instance. This notice can be sent to the individual at the agency that the CentralSquare representative is working with or other designated contacts as necessary. Upon receipt of the notice of connection, the agency personnel would enable the BeyondTrust jump client. The CentralSquare representative would then be admitted to the agency's system and/or environment to perform the necessary task. Upon completion of the task, the CentralSquare representative sends a notice of disconnection from the CentralSquare support portal instance. Upon receipt of the notice of disconnection, the agency personnel would then disable the BeyondTrust jump client.

Securelink

Similar to BeyondTrust's escorted session, Securelink may be utilized via "quick connect". To enable a quick connect sessionwhen an agency needs assistance from CentralSquare, the Agency employee requesting assistance will enter a key code in order to connect for screen sharing on a device.

Similar to the jump client methodology, SecureLink may also be utilized via "gatekeeper". The sample workflow description for a jump client provided above is substantially similar to the workflow for gatekeeper.

Summation

BeyondTrust and Securelink allow customers the ability to monitor connectivity to the customer's network and maintain CJIS compliance while enabling CentralSquare to perform the necessary support functions.

For any additional information, please do not hesitate to reach out to CentralSquare.

		Exhibit 7		
	Sample	Documents for C2	C	



Sample Unify Itemized Checklist

About

This checklist is the framework for acceptance testing with very brief descriptions and steps for each test to make the content more easily fit into a small space.

Approach

Round 1

Round 2

Round 3

This testing is meant to reflect only your CAD system as much as possible. As such, we will not be documenting how the third party system sends or accepts messages from your system. This will be covered in the documentation for that system. When multiple end-to-end systems are tested simultaneously, results will need to be added to multiple testing documents, one for each system.

To be as concise as possible, the testing documents are organized such that early tests and tests that may come much later are listed on the same sheet. Each testing column is listed as round 1, 2, or 3 in order to better clarify when the testing is expected to

Testing Rounds

Standard tests to ensure that data is successfully sent FROM your CAD system TO the CAD-to-CAD.Hub.

Standard tests to ensure that data is successfully sent from CAD-to-CAD. Hub TO your CAD system. These tests are more involved

and require call sharing interactions with a third system.

Tests to ensure your specific configurations are in place and functioning correctly. These include unit requests, automated

comments, call sharing mechanisms, and other functions.

Tabs and Definitions

Call Creation Steps to create calls and perform normal functions without a unit assigned.

Call Fields Fields that will be verified and documented for sharing to CAD-to-CAD. Hub and receiving from CAD-to-CAD. Hub.

Unit Status Basic steps to update unit statuses.

Fields that will be verified and documented for sharing to CAD-to-CAD. Hub and receiving from CAD-to-CAD. Hub. Unit Fields

Requests for specific units from various agencies. **Unit Requests**

Configuration Testing Basic configurations for additional information on shared calls such as automated comments and error handling. CallSharingScenarios These contain addresses, natures, and call sharing methods that are expected to be functional for go-live.

Functional Tests This is a generic example of call sharing tests in a more detailed format.

Documentation Key

If a date is listed in a field, that denotes the day the test successfully passed. Date

N/A This test is not applicable to this configuration

Notes Notes are added to identify how a test has been observed and what the expected behavior is.

Additional columns may optionally be added to display results from each testing session. This differs from the notes in that these

Additional columns may contain errors noticed and action items to resolve the errors.

Each test may be iterated with various addresses, codes, or ordering of steps. These notes are added by the customer so that test

Repetitions may be repeated with the documented values.

Call fields and Unit fields have * or ** to show if a field is generally required. There is flexibility in this in that requirements depend on

* Fields your specific needs and use cases.

Steps for Testing

Various steps will be repeated throughout, the application of which depend on your CAD system. In general the following apply. Create a call in your CAD system and complete it to the point that it is shared with the CAD-to-CAD. Hub. When a call is shared with

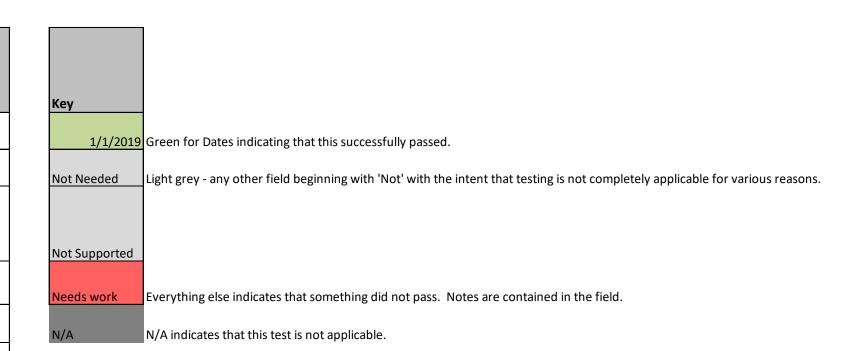
you, the call will be created in an external CAD and then shared through CAD-to-CAD. Hub Create a call

Comments are referred to as remarks, narrative, or notes in other CAD systems. Some CAD systems have a separate method for adding a general note about a call, versus streaming updates about that call. Furthermore, there are system notes added by the

CAD itself. All notes are referred to here. Assigning a responding unit to a call.

Add Comments Dispatch Unit

Category Category Category Category Category Category Capital Agency NA NA NA NA NA NA NA NA NA N	
Category Category Category Updates sent to Received from CAD-to-hub CAD-Hub CAD-Hub	
Category recommended Hub CAD-Hub Notes	
Call	
2 Call	ended) Hub CAD.Hub CAD.Hub Notes
2 Call CallFamilyID or ParentiD* (if applicable)	
Call	N/A N/A N/A
3 Call CallFamilyID or ParentID* (if applicable) N/A	
A Call Discipline / Call Type* N/A N/A N/A	iber* N/A N/A N/A
A Call	
A Call Discipline / Call Type* N/A N/A N/A	
A Call Discipline / Call Type* N/A N/A N/A	
S Call Nature*	ilyID or ParentID* (if applicable) N/A N/A N/A
S Call	
S Call Nature*	ne / Call Type* N/A N/A N/A
Call	
Call	
Reserve	
Reserve	nannel*
B Call Comments' (Initial, Updates, Extended) 9 Call IsOpen*	N/A N/A N/A
9 Caller CallerName CallerName CallerAddress CallerPhone CallerAddress CallerA	
9 Caller CallerName CallerName CallerAddress CallerPhone CallerAddress CallerA	nts* (Initial, Updates, Extended)
10 Caller CallerAddres	
11 Caller Calle	
12 Caller Callar Caller Callar Caller Callar Caller Callar Calla	
13 Location ApartmentNumber*	
14 Location ApartmentNumber* 15 Location BuildingNumber* 16 Location City* 17 Location CrossStreet* 18 Location Location or Common Location* 19 Location MileMarker* 20 Location State N/A N/A N/A 21 Location State N/A N/A N/A 21 Location Location Longitude* N/A N/A N/A 23 Location Longitude* N/A N/A N/A 24 Timestamp TimeCreated* N/A N/A N/A 25 Timestamp TimeClosed* N/A N/A N/A 26 Timestamp TimeReopened N/A N/A N/A 27 Call DispatchCenter N/A N/A N/A 28 Call AlarmLevel N/A N/A N/A 30 Caller PhoneType N/A N/A N/A 31 Caller AlarmLevel N/A N/A N/A 32 Dispatcher	
15 Location	
16 Location City*	
17 Location Location Location or Common Location*	
18 Location Location or Common Location*	reet*
19	
19	
20 Location State N/A <	Tor Common Location"
20 Location State N/A <	
21 Location Zone / Response Area N/A	
22 Location Latitude* N/A	
Location Longitude*	
24 Timestamp TimeCreated* N/A N/A N/A 25 Timestamp TimeClosed* N/A N/A N/A 26 Timestamp TimeReopened N/A N/A N/A 27 Call DispatchCenter N/A N/A N/A 28 Call AlarmLevel N/A N/A N/A 29 Call State N/A N/A N/A 30 Caller PhoneType N/A N/A N/A 31 Caller Alternate Contact N/A N/A N/A 32 Dispatcher CallTakerld N/A N/A N/A 33 Dispatcher CallTakerName N/A N/A N/A 34 Dispatcher CallTakerWorkstationId N/A N/A N/A 35 Dispatcher AcknowledgedByld N/A N/A N/A 36 Dispatcher AcknowledgedByName N/A N/A N/A	
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27 CallDispatchCenter28 CallAlarmLevelN/AN/AN/A29 CallStateN/AN/AN/A30 CallerPhoneTypeN/AN/AN/A31 CallerAlternate ContactN/AN/AN/A32 DispatcherCallTakerIdN/AN/AN/A33 DispatcherCallTakerNameN/AN/AN/A34 DispatcherCallTakerWorkstationIdN/AN/AN/A35 DispatcherAcknowledgedByldN/AN/AN/A36 DispatcherAcknowledgedByNameN/AN/AN/A	
28 Call AlarmLevel N/A N/A N/A N/A 29 Call State N/A N/A N/A N/A 30 Caller PhoneType N/A N/A N/A N/A 31 Caller Alternate Contact N/A N/A N/A N/A 32 Dispatcher CallTakerld N/A N/A N/A N/A 33 Dispatcher CallTakerName N/A N/A N/A N/A 34 Dispatcher CallTakerWorkstationId N/A N/A N/A N/A 35 Dispatcher AcknowledgedByld N/A N/A N/A N/A 36 Dispatcher AcknowledgedByName N/A N/A N/A N/A	
29 Call State N/A N/A N/A N/A 30 Caller PhoneType N/A N/A N/A N/A 31 Caller Alternate Contact N/A N/A N/A N/A 32 Dispatcher CallTakerId N/A N/A N/A N/A 33 Dispatcher CallTakerName N/A N/A N/A N/A 34 Dispatcher CallTakerWorkstationId N/A N/A N/A N/A 35 Dispatcher AcknowledgedById N/A N/A N/A N/A 36 Dispatcher AcknowledgedByName N/A N/A N/A N/A N/A N/A	
30 Caller PhoneType N/A N/A N/A N/A 31 Caller Alternate Contact N/A N/A N/A N/A 32 Dispatcher CallTakerId N/A N/A N/A N/A 33 Dispatcher CallTakerName N/A N/A N/A N/A 4 Dispatcher CallTakerWorkstationId N/A N/A N/A N/A 5 Dispatcher AcknowledgedById N/A N/A N/A N/A 6 Dispatcher AcknowledgedByName N/A N/A N/A N/A N/A	
31 Caller Alternate Contact N/A	N/A N/A N/A
31 Caller Alternate Contact N/A	
32 Dispatcher CallTakerId N/A N/A N/A 33 Dispatcher CallTakerName N/A N/A N/A 34 Dispatcher CallTakerWorkstationId N/A N/A N/A 35 Dispatcher AcknowledgedByld N/A N/A N/A 36 Dispatcher AcknowledgedByName N/A N/A N/A	
33 Dispatcher CallTakerName N/A N/A N/A 34 Dispatcher CallTakerWorkstationId N/A N/A N/A 35 Dispatcher AcknowledgedByld N/A N/A N/A 36 Dispatcher AcknowledgedByName N/A N/A N/A	
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36 Dispatcher AcknowledgedByName N/A N/A N/A N/A	TIVA IIVA IIVA
36 Dispatcher AcknowledgedByName N/A N/A N/A N/A	
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	ledgedByName N/A N/A N/A
37 Dispatcher AcknowledgeByWorkstationId N/A N/A N/A N/A	
	ledgeByWorkstationId N/A N/A N/A N/A
38 Location LocationHazard	nHazard
39 Location LocationNote	nNote
40 Location NearestIntersection	
41 Location Zip N/A N/A N/A N/A	N/A N/A N/A
42 Other ANI N/A N/A N/A	N/Δ N/Δ
42 Other A11	NI/A
43 Other ALI N/A N/A N/A	N/A N/A N/A
44 Timestamp TimeHumanAcknowledged N/A N/A N/A N/A	man A cknowledged N/A N/A
44 TimestampTimeHumanAcknowledgedN/AN/AN/A45 TimestampTimeIncidentN/AN/AN/A	
TO TIMESTAMP TIMEMOUGHT	IN/A IN/A IN/A



# Category	Unit Fields (* denotes required or strongly recommended)	Round 1: Sent to Hub for Owned Units	Round 1: Sent for External Units (for controlling external units if applicable)	Round 2:	Round 2: Received for Owned Units (for external control of your units)	Notes
" Category	recommended	Owned Omes	иррпсиыс)	Omes	unicoj	THOUS .
1 Unit	Agency*					
2 Unit	UnitNumber*					
4 Unit 5 UnitCall	UniqueID*			N/A		
Some	AssignedCallId*			N/A		
6 UnitCall	AssignedCallNumber			N/A		
3 Unit	Description			N/A		
7 UnitStatus	Status*					
8 UnitStatus	TransportDestination*					
9 UnitStatus	IsSignedOn					
10 UnitStatus	IsVirtual			N/A		
11 Timestamp	TimeAtStatus*			N/A		
	Zone					
13 UnitLocation	Location				_	
	Station					
15 AVL	Latitude*					
16 AVL	Longitude*					
17 AVL	Heading					
18 AVL	Speed					
19 Timestamp	TimeAtCoordinate*					

Кеу

1/1/2019 Green for Dates indicating that this successfully passed.

Not Tested Yellow for items specifically not tested.

Not Needed Light grey - any other field beginning with 'Not' with the intent that testing is not completely applicable for various reasons.

Not Supported

eds work Everything else indicat

Needs work

N/A

Everything else indicates that something did not pass. Notes are contained in the field.

N/A indicates that this test is not applicable.

#	Test	Round 1: Sent to Hub	Round 1: Sent for External Units (for controlling external units if applicable-not typically used)	Avail/Unav Received for	Round 2: True Status Received for External Units on Shared Call	Round 2: Received for Owned Units (for controlling external units if applicable-not typically used)	Notes
A.1	Unit set Unavailable				N/A		
A.2	Unit set Available				N/A		
A.3	Repeat by dispatching unit to an UNSHARED call				N/A		
	Single Unit						
B.1	Call created			N/A	N/A		
B.2	Single unit dispatched to call				N/A		
B.3	Single unit progressed through statuses			N/A			
B.4	Unit Transport Destination shared (if applicable)			N/A			
B.5	Single unit cleared			N/A			
B.6	Call closed			N/A	N/A		
	Multiple units dispatch						
C.1	Call created						
C.2	Multiple units dispatched to call						
C.3	Multiple units progressed through statuses						
C.4	Multiple unit destinations shared (if applicable)						
C.5	Multiple unit cleared						
C.6	Call closed			N/A	N/A		
	Unit reassignment (accidental clear)						
D.1	Call created			N/A	N/A		Optional (if applicable to CAD)
D.2	Unit assigned						Optional (if applicable to CAD)
D.3	Unit cleared						Optional (if applicable to CAD)
D.4	Same unit re-assigned						Optional (if applicable to CAD)
D.5	Unit cleared			N/A	N/A		Optional (if applicable to CAD)
-	Combined Calls tied to same parent ID						
E.1	Multiple calls created (if applicable)			ļ	N/A		Optional (if applicable to CAD)
E.2	Multiple units assigned			-			Optional (if applicable to CAD)
E.3	Multiple units progressed through statuses			ļ			Optional (if applicable to CAD)
E.4	Multiple units cleared (each call individually)				N1/A		Optional (if applicable to CAD)
E.5	Call Closed				N/A		Optional (if applicable to CAD)

Repeat A & B above with these variations (where applicable):

Units		
	Use a mix of units including, law, medical, fire, owned, e.	xternal and other units
1		

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15	
13 14	
Statuces	

Statuses	
	List all possible statuses
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		Round 1:	Round 2: Received from CAD-to-	
#	Test	Sent to Hub	CAD.Hub	Notes
A.1	Create Call (choose address/nature from list)			
A.2	Update structured data Add Comments (choose add comment method)			
A.3 A.4	Close call (choose close call method)		+	
	When sharing, test call sharing before and after comments added.			
71.0	Second call linked to "A" event.			
B.1	Create Call		T	
	Spawn linked call (if applicable)			
B.3	Update structured data			
	Add Comments to each call			
B.5	Close call (choose close call method)			
B.6	When sharing test sharing before and after linked call			
	Merging a duplicate call			
	Create Call			
C.2	Create Second Call			
	Merge Calls (not supported for shared calls)			
C.4	Close Call			
C.5	When sharing test sharing before and after merge			
	Call Share Tests			
	Create Call			
D.2	Close Call			
	Reopen Call (not supported for shared calls)			
D.4	Close Call			
	Test share before and after reopen call			
D.6	Test close/reopen share behavior with both owned and external call			
Dono	eat A above with those variations designated by the systemer			
Addre	eat A above with these variations designated by the customer:			Notes
Auur	Use a mix of addresses including various street types, cross streets, mile		huildings location	
1		e marker anartments		
	(Sample address that is either problematic or not)	e marker, apartments, I	Tullulings, location	
	(Sample address that is either problematic or not)	e marker, apartments,	buildings, location	,
2	(Sample address that is either problematic or not) 2 (Sample address that is either problematic or not)	e marker, apartments,	bullulings, location	3
2	(Sample address that is either problematic or not)	e marker, apartments,	Dunumys, rocation	,
2 3 4	(Sample address that is either problematic or not) (Sample address that is either problematic or not) (Sample address that is either problematic or not)	e marker, apartments,	buildings, location	
2 3 4 5	(Sample address that is either problematic or not) (Sample address that is either problematic or not) (Sample address that is either problematic or not)	e marker, apartments,	Dunumgs, rocation	
2 3 4 5 6	(Sample address that is either problematic or not) (Sample address that is either problematic or not) (Sample address that is either problematic or not)	e marker, apartments,	Dunumgs, rocation	
2 3 4 5 6 7	(Sample address that is either problematic or not) (Sample address that is either problematic or not) (Sample address that is either problematic or not)	e marker, apartments,	Dunumgs, rocation	
2 3 4 5 6 7	(Sample address that is either problematic or not) (Sample address that is either problematic or not) (Sample address that is either problematic or not)	e marker, apartments,	Dunumgs, rocation	
2 3 4 5 6 7	(Sample address that is either problematic or not)	e marker, apartments,	Dunumgs, rocation	
23 34 55 66 77 88	(Sample address that is either problematic or not)	e marker, apartments,	Dunumgs, rocation	
23 34 55 66 77 88	(Sample address that is either problematic or not)	e marker, apartments,	Dunumgs, rocation	
2 3 4 5 6 7 8 9 10	(Sample address that is either problematic or not)	e marker, apartments,		
23 33 44 55 66 77 88 9 10 Nature 1	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 33 44 55 66 77 88 9 10 Nature 1	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 34 55 66 77 88 99 10 Nature 1 2 3 4	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 33 44 55 66 77 88 9 10 Nature 1	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
22 33 44 55 66 77 88 99 100 Natur 1 2 3 3 4 5	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 34 55 66 77 88 99 10 Nature 1 2 3 4	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 34 55 66 77 88 99 10 Natur 1 22 33 4 55	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not) (Close Method Cancel	e marker, apartments,		
23 34 55 66 77 88 99 10 Natur 1 2 2 5 Call ((Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 34 55 66 77 88 99 10 Natur 1 2 2 5 Call ((Sample address that is either problematic or not) (Sample Nature that is either problematic or not) (Close Method Cancel	e marker, apartments,		
23 34 55 66 77 88 9 10 Natur 1 2 3 4 5 5 Call ((Sample address that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 3 4 5 5 Call (Call (C	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		
23 3 4 5 5 Call (Call (C	(Sample address that is either problematic or not) (Sample Nature that is either problematic or not)	e marker, apartments,		

I/1/2019
Not Tested
Not Needed
Light grey - any other field beginning with 'Not' with the intent that testing is not completely applicable for various reasons.

Not Supported
Needs work
Everything else indicates that something did not pass. Notes are contained in the field.

N/A indicates that this test is not applicable.

#	To Dispatch Center	Address	Nature	Sharing Trigger	Notes
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		Round 3:	
#	Test	Configurations	Notes
A.1	Automated CAD-to-CAD.Hub comments received with incoming shared call		
	Automated CAD-to-CAD.Hub comments received after outgoing shared call		
A.3	Automated CAD-to-CAD.Hub comments when external call closed		
A.4	Automated CAD-to-CAD.Hub comments when structured data is updated		
	Unwanted incoming comments are blocked		
B.2	Unwanted outgoing comments are blocked		
C.1	External units display Avail/Unav status appropriately		
C.2	External units display true status appropriately		
C.3	Calls remain in pending queue until owned unit dispatched		
D.1	Disconnect messages displayed for external CAD systems		
D.2	Error messages from external CADs added to comments		
E.1	Share the call with AMR when agency=AMR.		

#	Test	Round 3: Sent to CAD B	Round 3: Received from CAD B	Notes
A.1	Create call			
A.2	Request external unit			
A.3	Unit is granted			
A.4	Observe status updates			
A.5	Unit is cleared			
A.6	Close calls			
Δ7	Reneat for unit deny and other ontions			

Repeat A with these variations where applicable:
1 Unit Deny
2 Unit Request Cancelled
3

Key

1/1/2019
Green for Dates indicating that this successfully passed.

Not Tested
Not Needed
Not Supported
Needs work
N/A

Everything else indicates that something did not pass. Notes are contained in the field.

N/A

N/A

Signature

N/A

Green for Dates indicating that this successfully passed.

Yellow for items specifically not tested.

Not Needed
Not Supported
Needs work
Not Supported
Needs work
N/A

N/A indicates that this test is not applicable.

Test	Action/Expected Result Performed	3/25/2019
Testing	Performed by:	
	nectivity Testing	
	**Check for established bidirectional connection.	
	TESTCAD - Is the TESTCAD Adapter running and is the Test CAD able to send and receive messages from CAD-to-CAD.Hub?	
	TESTCAD - Are heartbeats being received from CAD-to-CAD.Hub?	
1.1	CAD-to-CAD.Hub - Does the "Test Connection" under System/Interfaces in Portal show success?	
	**Check for established bidirectional connection.	
	CAD-to-CAD.Hub - Is the CAD Simulator running and able to connect to CAD-to-CAD.Hub?	
1.2	CAD-to-CAD.Hub - Does the "Test Connection" under System/Interfaces in Portal show success?	
	**Check for established bidirectional connection.	
	CAD-to-CAD.Hub - Is the CAD Simulator running and able to connect to CAD-to-CAD.Hub?	
1.2	CAD-to-CAD.Hub - Does the "Test Connection" under System/Interfaces in Portal show success?	
	t Statuses Sharing - Available/Unavailable, Location, Station, AVL	
2. 0111	·	
	**TESTCAD Units and Unit Statuses are mapped and that cycling Units from Available to Unavailable is working	
	CAD-to-CAD.Hub - Are the Units being tested configured as Common Units and mapped to the corresponding Interface Units?	
	CAD-to-CAD.Hub - Are the Available/Unavailable Unit Statuses mapped to the appropriate Interface Statuses?	
	TESTCAD - Cycle two or more local Units in TESTCAD that are properly configured in CAD-to-CAD. Hub from Available to Unavailable and	
	back. Are the proper codes showing in the Portal and CAD Simulator?	
	CAD-to-CAD.Hub - Confirm using the Portal and CAD Simulator that Unit Station, Unit Location <string>, and LAT/LON information is being</string>	
	shared properly from TESTCAD	
	CAD-to-CAD.Hub - Cycle two or more local Units in CAD Simulator that are properly configured in CAD-to-CAD.Hub from Available to	
	Unavailable and back. Are the proper codes showing in the Portal and the TESTCAD?	
	TESTCAD - Confirm using the Portal and TESTCAD that Unit Station and Unit Location <string>, and LAT/LON information is being shared</string>	
	properly from CAD Simulator	
	CAD-to-CAD.Hub - Confirm using the Portal Diagnostic tool that the Update Unit message from TESTCAD contains a valid	
2.1	"timeAtStatusUTC" value.	
	**CAD Simulator Units and Unit Statuses are mapped and that cycling Units from Available to Unavailable is working	
	CAD-to-CAD.Hub - Are the Units being tested configured as Common Units and mapped to the corresponding Interface Units?	
	CAD-to-CAD.Hub - Are the Available/Unavailable Unit Statuses mapped to the appropriate Interface Statuses?	
	CAD-to-CAD.Hub - Cycle two or more local Units in CAD that are properly configured in CAD-to-CAD.Hub from Available to Unavailable and	
	back. Are the proper codes showing in the Portal?	
2.2	TESTCAD - Confirm that external TESTCAD Units mapped to Units being cycled are being updated with the appropriate status	
3. Call	and Call Updates are being shared with CAD-to-CAD.Hub (No CAD2CAD)	
0.00	**TESTCAD new Call creations and Call updates are being shared with CAD-to-CAD.Hub	
	CAD-to-CAD.Hub - Are the Translated Codes (Nature, Agency, Priority, Dispatch Center, Cities, etc.) configured and mapped properly?	
	TESTCAD - Upon a new Call creation, does the Call appear properly in the Portal with all translations and comments?	
	CAD-to-CAD.Hub - Verify through the Portal - Tester Mode or through the Diagnostic tool that all fields are included in the Update Call	
	Message. Of importance are the fields "timeCreatedUTC", "timeIncidentUTC", "uniqueID"(must be unique in the CAD-to-CAD.Hub database	
	for all time).	
	CAD-to-CAD.Hub - Verify that all fields identified in the SOW and OSD are available. Note any exceptions.	
	TESTCAD - Attempt to update the updatable fields (see OSD) of the Call. Add new comments. Are they properly received by CAD-to-	
	CAD. Hub and visible through the Portal?	
	CAD-to-CAD.Hub - Verify that all fields identified in the SOW and OSD are available. Note any exceptions.	
3.1	**OAD 0: 14 OAD 4 OAD 11	
	**CAD Simulator new Call creations and Call updates are being shared with CAD-to-CAD.Hub	
	CAD-to-CAD.Hub - Are the Translated Codes (Nature, Agency, Priority, Dispatch Center, Cities, etc.) configured and mapped properly?	
	CAD-to-CAD.Hub - Upon a new Call creation, does the Call appear properly in the Portal with all translations and comments?	
	CAD-to-CAD.Hub - Verify through the Portal - Tester Mode or through the Diagnostic tool that all fields are included in the Update Call	
	Message. Of importance are the fields "timeCreatedUTC", "timeIncidentUTC", "uniqueID"(must be unique in the CAD-to-CAD.Hub database	
	for all time).	
	CAD-to-CAD.Hub - Verify that all fields identified in the SOW and OSD are available. Note any exceptions.	
	CAD-to-CAD.Hub - Attempt to update the updatable fields (see OSD) of the Call. Add new comments. Are they properly received by CAD-to-	
	CAD.Hub and visible through the Portal?	
	CAD-to-CAD.Hub - Verify that all fields identified in the SOW and OSD are available. Note any exceptions.	
3.2		
	ress Type Updates are being shared with CAD-to-CAD.Hub	

*Verify that all Address components are being shared and updated properly between CAD and CAD-to-CAD.Hub TESTCAD - Test that the following address types share as accurately as possible. (Expand as needed based on CAD capability.) --Street address with house number. -Apartment number --Building number --Cross Street --Mile marker --Latitude/Longitude --City --Location name CAD-to-CAD.Hub - Verify through Portal and Diagnostic tool that these fields are being shared properly TESTCAD - Test that these Address components can be updated after the initial Call has been created. CAD-to-CAD.Hub - Verify through Portal and Diagnostic tool that these fields are being shared properly 5. True Unit Status Override on Non-Shared Call ** Verify that an assigned Unit on an unshared Call is statused as Unavailable to other mapped CAD systems CAD-to-CAD.Hub - After creating a Call in CAD Simulator, dispatch a local Unit that is mapped to an external Unit in TESTCAD TESTCAD - Verify that CAD-to-CAD. Hub did not share the True status, but shared and Unavailable status with TESTCAD CAD-to-CAD.Hub - Unassign the local Unit from the Call in the CAD Simulator TESTCAD - Verify that CAD-to-CAD. Hub did now share the True status; the mapped external Unit should now show Available in TESTCAD. 6. Explicit Call Sharing (CAD2CAD) without any units *Using a CAD-to-CAD.Hub Business Rule or built-in transfer command share Call between TESTCAD and CAD Simulator through CAD-to-CAD.Hub CAD-to-CAD.Hub Build simple Comment Keyword business rule to share Call from Interface CAD to CAD Simulator or use built in transfer CAD-to-CAD.Hub - Make sure Dispatch Center mappings and translations are configured properly if using built-in transfer command TESTCAD - After creating a Call, transfer the Call to CAD-to-CAD. Hub dispatch center using business rule or built-in transfer command CAD-to-CAD.Hub - Verify that the Call was received by the CAD Simulator through CAD-to-CAD.Hub CAD-to-CAD.Hub - Verify that all of the fields were translated properly and received by the CAD Simulator as expected TESTCAD - Make various updates (Address, Nature, etc.) to the Call CAD-to-CAD.Hub - Verify that all of the updates were translated properly and received by the CAD Simulator as expected 6.1 **Using built-in transfer command share Call between CAD Simulator and Interface CAD through CAD-to-CAD.Hub CAD-to-CAD.Hub - Make sure Dispatch Center mappings and translations are configured properly if using built-in transfer command CAD-to-CAD.Hub - After creating a Call in CAD Simulator, transfer the Call to TESTCAD dispatch center using built-in transfer command TESTCAD - Verify that the Call was received by the Interface CAD through CAD-to-CAD.Hub TESTCAD - Verify that all of the fields were translated properly and received by the Interface CAD as expected CAD-to-CAD.Hub - Make various updates (Address, Nature, etc.) to the Call TESTCAD - Verify that all of the updates were translated properly and received by the CAD Simulator as expected 7. Automatic Call Sharing (CAD2CAD) through external Unit requests - Grant *By assigning an external Unit, share an existing Call with the CAD that owns that Unit (TESTCAD-> CAD Sim) TESTCAD - Are the external Units in CAD properly configured to generate a Unit Request CAD-to-CAD.Hub - Are the Units being tested configured as Common Units and mapped to the corresponding CAD Simulator Units? TESTCAD - After creating a Call, transfer the Call by Dispatching an external Unit the belongs to the CAD Simulator CAD-to-CAD.Hub - Verify that the Call was shared and that the correct Unit was requested through the Resource Request. CAD-to-CAD.Hub - Grant the Resource Request through the CAD Simulator (note that the CAD Simulator also dispatches the Unit) CAD-to-CAD.Hub - Verify that the Unit was granted and is displayed in the Portal as being Dispatched on the Call TESTCAD - Verify that an acknowledgement was presented to the dispatcher that the requested Unit was granted CAD-to-CAD.Hub - Progress the assigned Unit to the Enroute status and verify that it's progression was received and visible in the Portal TESTCAD - Verify the Unit was progressed to the Enroute status TESTCAD - Progress the borrowed Unit to the Arrived status. (Because the Resource Request was approved, the borrower can make Unit CAD-to-CAD.Hub - Verify the Unit was progressed to Arrived status in both the Portal and the CAD Simulator Both - Test all valid Unit status progressions and verify that all Interface Statuses are properly mapped and shared. Finally, unassign the Unit from the Call. This may close the Call in some CAD systems if it is the only Unit remaining on the Call.

*Test again with multiple outstanding Unit requests - Grant TESTCAD - After creating a Call, transfer the Call by Dispatching an external Unit the belongs to the CAD Simulator TESTCAD - Request an additional external Unit before the first is granted CAD-to-CAD.Hub - Verify that the Call was shared only once and that the correct Units are requested through the Resource Request CAD-to-CAD.Hub - Grant the Resource Requests through the CAD Simulator (note that the CAD Simulator also dispatches the Unit) CAD-to-CAD.Hub - Verify that the Units were granted and are displayed in the Portal as being Dispatched on the Call TESTCAD - Verify that two acknowledgements were presented to the dispatcher that the requested Units were granted Both - Test various Unit status progressions and verify that all Interface Statuses are properly mapped and shared. Finally, unassign the Units from the Call. This may close the Call in some CAD systems if it is the only Unit remaining on the Call. **By assigning an external Unit, share an existing Call with TESTCAD that owns that Unit (CAD Sim ->TESTCAD) CAD-to-CAD.Hub - Are the external Units in CAD Simulator properly configured to generate a Unit Request CAD-to-CAD.Hub - Are the Units being tested configured as Common Units and mapped to the corresponding Interface Units? CAD-to-CAD.Hub - After creating a Call, transfer the Call by Dispatching an external Unit the belongs to the Interface CAD TESTCAD - Verify that the Call was shared and that the correct Unit was requested through the Resource Request. TESTCAD - Grant the Resource Request through the CAD console and separately dispatch the Unit if required CAD-to-CAD.Hub - Verify that the Unit was granted and is displayed in the Portal as being Dispatched on the Call CAD-to-CAD.Hub - Verify that an acknowledgement was presented in the CAD Simulator that the requested Unit was granted TESTCAD - Progress the assigned Unit to the Enroute status and verify that it's progression was received and visible in the Portal CAD-to-CAD.Hub - Verify the Unit was progressed to the Enroute status in the CAD Simulator CAD-to-CAD.Hub B - Progress the borrowed Unit to the Arrived status. (Because the Resource Request was approved, the borrower can make Unit status changes) TESTCAD - Verify the Unit was progressed to Arrived status in both the Portal and the CAD Simulator Both - Test all valid Unit status progressions and verify that all Interface Statuses are properly mapped and shared. Finally, unassign the Unit from the Call. This may close the Call in some CAD systems if it is the only Unit remaining on the Call. **Test again with multiple outstanding Unit requests - Grant CAD-to-CAD.Hub - After creating a Call, transfer the Call by Dispatching an external Unit the belongs to the CAD Simulator CAD-to-CAD.Hub - Request an additional external Unit before the first is granted TESTCAD - Verify that the Call was shared only once and that the correct Units are requested through the Resource Request TESTCAD - Grant the Resource Requests through the CAD Console and dispatch the Units if necessary CAD-to-CAD.Hub - Verify that the Units were granted and are displayed in the Portal as being Dispatched on the Call CAD-to-CAD.Hub - Verify that two acknowledgements were presented to the dispatcher that the requested Units were granted Both - Test various Unit status progressions and verify that all Interface Statuses are properly mapped and shared. Finally, unassign the Units from the Call. This may close the Call in some CAD systems if it is the only Unit remaining on the Call. 8. Automatic Call Sharing through external Unit requests - Deny / then Grant **By assigning an external Unit, share an existing Call with the CAD that owns that Unit (TESTCAD -> CAD Sim) TESTCAD - After creating a Call, transfer the Call by Dispatching an external Unit the belongs to the CAD Simulator CAD-to-CAD.Hub - Verify that the Call was shared and that the correct Unit was requested through the Resource Request. CAD-to-CAD.Hub - Deny the Resource Request through the CAD Simulator CAD-to-CAD.Hub - Verify that the Unit was denied and is displayed in the Portal as being still being Available TESTCAD - Verify that an acknowledgement was presented to the dispatcher that the requested Unit was denied TESTCAD - With the Call already shared, Dispatch the same unit again which will create another Resource Request CAD-to-CAD.Hub - This time, grant the Resource Request through the CAD Simulator (note that the CAD Simulator also dispatches the CAD-to-CAD.Hub - Verify that the Unit was granted and is displayed in the Portal as being Dispatched on the Call TESTCAD - Verify that an acknowledgement was presented to the dispatcher that the requested Unit was granted Both - Test all valid Unit status progressions and verify that all Interface Statuses are properly mapped and shared. Finally, unassign the Unit from the Call. This may close the Call in some CAD systems if it is the only Unit remaining on the Call. Again - Go through the sequence again, but this time after the first Unit is denied, request a different Unit. Verify that everything works as 8.1 *By assigning an external Unit, share an existing Call with the CAD that owns that Unit (CAD Sim -> TESTCAD) CAD-to-CAD.Hub - After creating a Call, transfer the Call by Dispatching an external Unit the belongs to the Interface CAD TESTCAD - Verify that the Call was shared and that the correct Unit was requested through the Resource Request. TESTCAD - Deny the Resource Request through the CAD console CAD-to-CAD.Hub - Verify that the Unit was denied and is displayed in the Portal as still being Available CAD-to-CAD.Hub - Verify that an acknowledgement was presented in the CAD Simulator that the requested Unit was denied CAD-to-CAD.Hub - With the Call already shared, Dispatch the same unit again which will create another Resource Request TESTCAD - This time, grant the Resource Request through the CAD Console and dispatch the Unit if necessary CAD-to-CAD.Hub - Verify that the Unit was granted and is displayed in the Portal as being Dispatched on the Call CAD-to-CAD.Hub - Verify that an acknowledgement was presented to the dispatcher that the requested Unit was granted Both - Test all valid Unit status progressions and verify that all Interface Statuses are properly mapped and shared. Finally, unassign the Unit from the Call. This may close the Call in some CAD systems if it is the only Unit remaining on the Call. Again - Go through the sequence again, but this time after the first Unit is denied, request a different Unit. Verify that everything works as expected.

*Test again with multiple outstanding Unit requests - Grant / Deny TESTCAD - After creating a Call, transfer the Call by Dispatching an external Unit the belongs to the CAD Simulator TESTCAD - Request an additional external Unit before the first is granted CAD-to-CAD.Hub - Verify that the Call was shared only once and that the correct Units are requested through the Resource Request CAD-to-CAD.Hub - Grant on and deny on of the Resource Requests through the CAD Simulator CAD-to-CAD.Hub - Verify that the Units were granted/denied and are displayed in the Portal appropriately TESTCAD - Verify that two acknowledgements were presented to the dispatcher appropriately 9. External Unit Status Suppression may be required so that Shared Call remains in Pending Queue * Determine if the TESTCAD requires that external unit statuses be suppressed on shared Calls to prevent Call from prematurely moving from Pending queue, until TESTCAD has assigned one of its own units. CAD-to-CAD.Hub - Configure TESTCAD Dispatch Center in CAD-to-CAD.Hub so that Unit Status Suppression is disabled. CAD-to-CAD.Hub - Create Call in CAD Simulator; Dispatch a local Unit on the Call; then Dispatch an external TESTCAD Unit to the Call, sharing the Call and Resource Request with TESTCAD. Verify the Call was shared in the Portal. TESTCAD - Verify that the Call was received with the assigned external Unit; a pending Resource Request should also be outstanding. TESTCAD - Before granting the Resource Request, determine if the shared Call was moved from the Pending Queue? - If NO, then no External Unit Status Suppression is required. - If YES, and this is expected behavior, then no External Unit Status Suppression is required. - If YES, and this is not the expected behavior, then External Unit Status Suppression is required. Proceed to section 8.2 9.1 ** With External Unit Status Suppression enabled, verify that the desired behavior is achieved (Only if REQUIRED!) CAD-to-CAD.Hub - Configure TESTCAD Dispatch Center in CAD-to-CAD.Hub so that Unit Status Suppression is enabled CAD-to-CAD.Hub - Create Call in CAD Simulator; Dispatch a local Unit on the Call; then Dispatch an external TESTCAD Unit to the Call, sharing the Call and Resource Request with TESTCAD. Verify the Call was shared in the Portal. TESTCAD - Verify that the Call was received; the assigned external CAD Simulator Unit should not be visible (suppressed); a pending Resource Request should also be outstanding. TESTCAD - Before granting the Resource Request, determine if the shared Call remained in the Pending Queue? TESTCAD - Grant the Resource Request, placing a local TESTCAD Unit on the Call; this should move the Call from the Pending Queue. TESTCAD - CAD-to-CAD. Hub will release the suppressed External Unit; verify that it now shows on the Call CAD-to-CAD.Hub - Verify that the granted Unit appears in the Portal and in the CAD Simulator. 10. Unit Transport Location Sharing ** Verify that Unit Transport Location Name is sharing properly TESTCAD - After creating a Call, transfer the Call to CAD-to-CAD. Hub by dispatching an external Unit or built-in transfer command TESTCAD - Dispatch a local Unit and progress Unit to Transport status; make sure a Transport Location has been selected CAD-to-CAD.Hub - Verify using the Portal or CAD Simulator that the Unit status and Transport Location is received properly; the Transport Location should be a name that can be translated in CAD-to-CAD.Hub CAD-to-CAD.Hub - After creating a Call, transfer the Call to TESTCAD by dispatching an external Unit or built-in transfer command CAD-to-CAD.Hub - Dispatch a local Unit and progress Unit to Transport status; make sure a Transport Location has been specified TESTCAD - Verify using the Portal or TESTCAD that the Unit status and Transport Location is received properly; the Transport Location should be a name that can be translated in CAD-to-CAD.Hub 11. Comment Sharing ** Verify that all desired Comments are being shared properly TESTCAD - After creating a Call, add multiple Comments to the Call Narrative; transfer the Call to CAD-to-CAD. Hub by dispatching an external Unit or built-in transfer command CAD-to-CAD.Hub - Verify in the Portal and CAD Simulator that all Comments added to the Call prior to the transfer were properly shared. TESTCAD - Ad an additional Comment to the shared Call CAD-to-CAD.Hub - Verify in the Portal and CAD Simulator that the additional Comment was received. BOTH - Close the shared Call CAD-to-CAD.Hub - After creating a Call, add multiple Comments to the Call Narrative; transfer the Call to TESTCAD by dispatching an external Unit or built-in transfer command TESTCAD - Verify in the Portal and TESTCAD that all Comments added to the Call prior to the transfer were properly shared. CAD-to-CAD.Hub - Ad an additional Comment to the shared Call TESTCAD - Verify in the Portal and TESTCAD that the additional Comment was received. 11.1 12. Comment Filtering 12.1 ** If any special Filtering of Comments has been added, these will be testing separately 13. Closed Calls

	·				
	** Verify that when a Call is closed it is updated in CAD-to-CAD.Hub				
	TESTCAD - Create a Call in TESTCAD; dispatch a local Unit to ensure that the Call moves to the active queue				
	CAD-to-CAD.Hub Verify that the Call is received by CAD-to-CAD.Hub by observing the Call in the Portal				
	TESTCAD - Unassign the Unit and close the Call				
	CAD-to-CAD.Hub - Verify that the Call was closed in CAD-to-CAD.Hub by observing the Call in the Portal				
	CAD-to-CAD.Hub - Verify through the Portal Diagnostic tool that the "TimeClosed" field was set with the appropriate ETC time				
13.1	CAD-to-CAD.Hub - Verify through the Portal Diagnostic tool that the "Disposition" field was set with a valid disposition code				
13.2	** If any special Call Closed comments are configured to be sent to other shared Calls, these will be tested separately				
14. Re	opened Calls				
	** Allow CAD to Reopen a closed Call and continue operations				
	TESTCAD - After creating a Call, share the Call by Dispatching an external Unit that belongs to the CAD Simulator				
	CAD-to-CAD.Hub - Through the CAD Simulator, grant the Unit request and dispatch the Unit				
	TESTCAD - Clear the borrowed Unit from the Call; close the Call				
	CAD-to-CAD.Hub - Verify in the Portal and the CAD Simulator that the Unit was removed from the Call and that the TESTCAD Call was				
	closed				
	TESTCAD - Reopen the closed Call; dispatch an external Unit that belongs to the CAD Simulator				
	CAD-to-CAD.Hub - Verify in the Portal and the CAD Simulator that the Call was reopened and that the Resource Request was received for				
14.1	the Unit dispatched				
14.2	** If any special Call Reopen comments are configured to be sent to other shared Calls, these will be tested separately				
15. Dis	sconnect and Error Notifications				
	TESTCAD will monitor Heartbeat responses from CAD-to-CAD. Hub and in the event they are failing for a configurable amount of time, a				
15.1	notification will be sent to the CAD operators.				
	CAD-to-CAD.Hub detects when TESTCAD stops sending data. It also detects when TESTCAD stops responding to Heartbeats from CAD-to-				
	CAD.Hub . These conditions are visible in the Portal. An Alert can also be generated from a Business Rule to give appropriate personnel				
15.2	notification.				
15.3					
15.4					



Sample Nature Code Mapping Exercise

Task Instructions	Hint	Ver: 21.3.0
	Only modify green columns in the next two tabs.	
1 PSAP to map all Common Codes to their own nature codes using the	Print the CAD code list and have it on your desk to reference.	
"Common" Tab. Do this by entering your nature code in "CAD Nature		
Code" Column.	You'll see gray conditional formatting added as a help to identify codes	
	that still require mapping.	
Note: All Common Codes should be mapped, but some CAD Natures		
may not be used in this step. That's OK.	It is usually easier to go quickly from top to bottom, mapping codes that	
	are obvious and straight forward. Then iterate over a few times, mapping	
This will define how a call will be shared with you when a neighboring	remaining codes until it is finished.	
PSAP initiates the call share		
The PSAP is to map all of their Nature Codes to the Common Code set	Print the COMMON code list and have it on your desk to reference.	
using the "CAD" Tab. Do this by entering the Ref # in column "Common		
Code Ref #" Column.	You'll see gray conditional formatting added as a help to identify codes	
	that still require mapping.	
Note: All PSAP CAD Code should be mapped, but some Common codes		
may not be used in this step. That's OK.	It is usually easier to go quickly from top to bottom, mapping codes that	
	are obvious and straight forward. Then iterate over a few times, mapping	
This will define the behavior of how your PSAP CAD codes will be	remaining codes until it is finished.	
presented to other PSAPs through the Common Code set.		
3 Create or chose an existing Nature Code in your CAD that will receive	ex: UNKWN = UNKNOWN C2C.	
ANY C2C request if the common code is NOT mapped to one of your	Put your code and description here =>	
codes.		

				CAD Nature		
Ref #	Common Code List	Description		Code	COA Nature (DO NOT ENTER IN THIS COLUMN)	Hint: Based on mapping in CAD tab
100 101	ADM ADM-COMMPOL	ADMIN COMMUNITY POLICING	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
101	ADM-INFO	INFORMATION CALL	->	_	(Not Mapped)	no hint yet
103	ADM-MVUP	VEHICLE MOVEUP	->	_	(Not Mapped)	no hint yet
104	ADM-OTH	OTHER ADMIN	->	_	(Not Mapped)	no hint yet
105	ADM-PUBWKS	PUBLIC WORKS	->	_	(Not Mapped)	no hint yet
106 107	_ ADM-TEST ADM-UNK	TEST ONLY - ADMIN UNKNOWN ADMIN	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
200	ALRM	ALARM	->	_	(Not Mapped)	no hint yet
201	ALRM-FIRE	FIRE ALARM	->		(Not Mapped)	no hint yet
202	ALRM-FIRE-GAS	FIRE/GAS ALARM	->	_	(Not Mapped)	no hint yet
203	_ALRM-FIRE-GAS-CO ALRM-FIRE-GAS-CO2	CARBON MONOXIDE ALARM	->	_	(Not Mapped)	no hint yet
204	ALRM-FIRE-GAS-NGAS	CARBON DIOXIDE ALARM NATURAL GAS ALARM	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
206	ALRM-FIRE-GAS-PROPN	PROPANE GAS ALARM	->	_	(Not Mapped)	no hint yet
207	ALRM-FIRE-HEAT	FIRE ALARM - HEAT	->	_	(Not Mapped)	no hint yet
208	ALRM-FIRE-KPAD	FIRE ALARM - KEYPAD	->	_	(Not Mapped)	no hint yet
209 210	_ALRM-FIRE-PULL ALRM-LAW	FIRE ALARM - PULL LAW ALARM - GENERAL	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
211	ALRM-LAW-ENDNGR	ENDANGERMENT ALARM - LAW	->	_	(Not Mapped)	no hint yet
212	ALRM-LAW-ENDNGR-AUD-ROB	ROBBERY ALARM	->	_	(Not Mapped)	no hint yet
213	ALRM-LAW-ENDNGR-PANIC	PANIC ALARM	->		(Not Mapped)	no hint yet
214	_ ALRM-LAW-ENDNGR-SLNT	SILENT ROBBERY ALARM	->	-	(Not Mapped)	no hint yet
215 216	ALRM-LAW-ENDNGR-SLNT-PANIC ALRM-LAW-ENDNGR-SLNT-ROB	SILENT ENDANGERMENT ALARM SILENT PANIC ALARM	->	_	(Not Mapped) (Not Mapped)	no hint yet
217	ALRM-LAW-SILENT	SILENT LAW ALARM - GENERAL	->	_	(Not Mapped)	no hint yet
218	ALRM-MED	MEDICAL ALARM	->	_	(Not Mapped)	no hint yet
219	ALRM-MED-DEFIB	DEFIB ALARM	->		(Not Mapped)	no hint yet
220	ALRM-OTH	OTHER ALARM	->		(Not Mapped)	no hint yet
221	ALRM-TEST	TEST ONLY - GENERAL ALARM	->		(Not Mapped)	no hint yet
222	ALRM-TEST-FIR ALRM-TEST-LAW	TEST ONLY - FIRE ALARM TEST ONLY - LAW ALARM	->		(Not Mapped) (Not Mapped)	no hint yet no hint yet
223	ALRM-TEST-LAW ALRM-TEST-MED	TEST ONLY - LAW ALARM	->		(Not Mapped)	no hint yet
225	ALRM-UNK	UNKNOWN ALARM	->		(Not Mapped)	no hint yet
226	ALRM-VEH	VEHICLE ALARM	->		(Not Mapped)	no hint yet
227	ALRM-WTR	WATER ALARM	->	_	(Not Mapped)	no hint yet
250	COVID-19	COVID-19 INCIDENT FIRE	->	_	(Not Mapped)	no hint yet
300 301	_ FIRE FIRE-AIRCRFT	AIRCRAFT FIRE	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
302	FIRE-ARSON	ARSON - FIRE	->	_	(Not Mapped)	no hint yet
303	FIRE-COMM-FUEL	FUEL FACILITY FIRE	->		(Not Mapped)	no hint yet
304	FIRE-COMMERC	COMMERCIAL FIRE	->		(Not Mapped)	no hint yet
305	FIRE-CTLR_BRN	CONTROLLED BURN	->	_	(Not Mapped)	no hint yet
306 307	FIRE-ELEC FIRE-GAS	ELECTRICAL FIRE GAS LEAK	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
307	FIRE-HAZMAT	HAZMAT FIRE	->	_	(Not Mapped)	no hint yet
309	FIRE-HIRISE	HIGH RISE FIRE	->	_	(Not Mapped)	no hint yet
310	FIRE-LIFE_ENDNGR	LIFE ENDANGER FIRE	->		(Not Mapped)	no hint yet
311	FIRE-MARINE	MARINE/BOAT FIRE	->	_	(Not Mapped)	no hint yet
312	FIRE-OTH	OTHER FIRE	->	_	(Not Mapped)	no hint yet
313 314	_ FIRE-REPORT FIRE-RES-MOBIL	FIRE REPORT MOBILE HOME FIRE	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
315	FIRE-RESID	RESIDENTIAL FIRE	->	_	(Not Mapped)	no hint yet
316	FIRE-RESID-APT	APARTMENT FIRE	->	_ _	(Not Mapped)	no hint yet
317	FIRE-TEST	TEST ONLY - FIRE	->		(Not Mapped)	no hint yet
318	FIRE-TRAIN	TRAIN FIRE	->	_	(Not Mapped)	no hint yet
319 320	_ FIRE-TRASH _ FIRE-UNK	TRASH/GARBAGE FIRE UNKNOWN FIRE	->	_	(Not Mapped) (Not Mapped)	no hint yet no hint yet
321	FIRE-VEGET	BRUSH/VEGETATION FIRE	->	_	(Not Mapped)	no hint yet
322	FIRE-VEH	VEHICLE FIRE	->	_	(Not Mapped)	no hint yet
323	FIRE-VEH-HAZ	HAZMAT VEHICLE FIRE	->		(Not Mapped)	no hint yet
324	FIRE-VEH-HAZFUEL	FUEL TANKER FIRE	->	_	(Not Mapped)	no hint yet
325	FIRE-VEH-LG	LARGE VEHICLE FIRE	->		(Not Mapped)	no hint yet
326 327	FIRE-VEH-OTH FIRE-VEH-SM	OTHER VEHICLE FIRE SMALL VEHICLE FIRE	->		(Not Mapped) (Not Mapped)	no hint yet no hint yet
328	FIRE-VEH-UNK	UNKNOWN VEHICLE FIRE	->		(Not Mapped)	no hint yet
400	INC	INCIDENT	->		(Not Mapped)	no hint yet
401	INC-ACC	ACCIDENT - GENERAL	->		(Not Mapped)	no hint yet
402	INC-ACC-INDUS	INDUSTRIAL ACCIDENT - GENERAL	->		(Not Mapped)	no hint yet
403 404	_ INC-AIRC INC-AIRC-AIRBRN	AIRCRAFT INCIDENT - GENERAL AIRCRAFT INCIDENT - AIRBORNE	->		(Not Mapped) (Not Mapped)	no hint yet no hint yet
405	INC-AIRC-GRND	AIRCRAFT INCIDENT - GROUND	->		(Not Mapped)	-no hint yet
406	INC-ANML	ANIMAL INCIDENT - GENERAL	->		(Not Mapped)	no hint yet
407	INC-CIV_DIST	CIVIL DISTURBANCE INCIDENT	->		(Not Mapped)	no hint yet
408	INC-COMMRC	COMMERICAL/BUSINESS INCIDENT	->		(Not Mapped)	no hint yet
409 410	_INC-ELEC INC-ELEC-HZD	ELECTRICAL INCIDENT - GENERAL ELECTRICAL HAZARD	->		(Not Mapped) (Not Mapped)	no hint yet no hint yet
411	INC-ELEC-WIRES	WIRES DOWN	->		(Not Mapped)	no hint yet
412	INC-EMOT_DIST	EMOTIONAL DISTRESS - GENERAL	->		(Not Mapped)	no hint yet
413	INC-EMOT_DIST-SUIC	SUICIDE	->		(Not Mapped)	no hint yet
414	INC-EMOT_DIST-SUIC-THR	SUICIDE THREAT	->		(Not Mapped)	no hint yet
415	INC-EXPLOS	EXPLOSIVE	->		(Not Mapped)	no hint yet
416 417	_INC-HAZ_SITUAT INC-HAZMAT	HAZARDOUS SITUATION HAZARDOUS MATERIAL	->		(Not Mapped) (Not Mapped)	no hint yet no hint yet
417	INC-HAZMAT-BIO	BIOHAZARDOUS MATERIAL	->		(Not Mapped)	no hint yet
419	INC-HAZMAT-CHEM	CHEMICAL HAZARD	->		(Not Mapped)	no hint yet
420	INC-MOT_VEH	MOTOR VEHICLE INCIDENT - GENERAL	->		(Not Mapped)	no hint yet
421	INC-MUTAID	MUTUAL AID - GENERAL	->		(Not Mapped)	no hint yet
422	INC-MUTAID-STNDBY	AGENCY STANDBY	->		(Not Mapped)	no hint yet
423 424	_INC-NATDIS INC-OTH	MINOR NATURAL DISASTER OTHER INCIDENT - GENERAL	->		(Not Mapped) (Not Mapped)	no hint yet no hint yet
424	INC-RES	RESIDENTIAL INCIDENT	->		(Not Mapped)	no hint yet
					, ,	,

426	INC-ROAD_DMG	ROAD DAMAGE	->	(Not Mapped)	no hint yet
427	INC-SPEC_EVNT	SPECIAL EVENT	->	(Not Mapped)	no hint yet
428	INC-TEST	TEST ONLY INCIDENT - GENERAL	->	(Not Mapped)	no hint yet
429	INC-TRAIN	TRAIN INCIDENT	->	(Not Mapped)	no hint yet
430	INC-TRAIN-DRL	TRAIN DERAILMENT	->	(Not Mapped)	no hint yet
431 432	INC-UNK INC-WATR	UNKNOWN INCIDENT - GENERAL WATER INCIDENT - GENERAL	->	(Not Mapped) (Not Mapped)	no hint yet-
432	INCMAJ	MAJOR INCIDENT	->	(Not Mapped)	no hint yet no hint yet
434	INCMAJ-ACT_SHOOT	ACTIVE SHOOTER	->	(Not Mapped)	no hint yet
434	INCMAJ-ACT_SHOOT	MAJOR CIVIL DISTURBANCE	->	(Not Mapped)	no hint yet
436	INCMAJ-MASS_CAS	MASS CASUALTY	->	(Not Mapped)	no hint yet
430	INCMAJ-MASS_HOSTG	MASS HOSTAGE	->	(Not Mapped)	no hint yet
438	INCMAJ-NATDIS	MAJOR NATURAL DISASTER	->	(Not Mapped)	no hint yet
439	INCMAJ-OTH	OTHER MAJOR INCIDENT	->	(Not Mapped)	no hint yet
440	INCMAJ-PAND	PANDEMIC	->	(Not Mapped)	no hint yet
441	INCMAJ-RADIAT	RADIATION - MAJOR	->	(Not Mapped)	no hint yet
442	INCMAJ-RESCUE	MAJOR RESCUE OPERATION	->	(Not Mapped)	no hint yet
443	INCMAJ-TEST	TEST ONLY - MAJOR INCIDENT	->	(Not Mapped)	no hint yet
444	INCMAJ-UNK	UNKNOWN MAJOR INCIDENT	->	(Not Mapped)	no hint yet
445	INCMAJ-VEH_ACC	MASS VEHICLE ACCIDENT	->	(Not Mapped)	no hint yet
500	LAW	LAW	->	(Not Mapped)	no hint yet
501	LAW-911HANGUP	911 HANGUP	->	(Not Mapped)	no hint yet
502	LAW-911OPEN	911 OPEN LINE	->	(Not Mapped)	no hint yet
503	LAW-911	911 HANGUP/OPEN LINE	->	(Not Mapped)	no hint yet
504	LAW-ABDUCT	ABDUCTION	->	(Not Mapped)	no hint yet
505	LAW-ABDUCT-FAM	FAMILY ABDUCTION	->	(Not Mapped)	no hint yet
506	LAW-ABDUCT-NONFAM	NON-FAMILY ABDUCTION	->	(Not Mapped)	no hint yet
507	LAW-ABUSE	ABUSE	->	(Not Mapped)	no hint yet
508	LAW-ABUSE-NEGLECT	NEGLECT	->	(Not Mapped)	no hint yet
509	LAW-ARREST	ARREST	->	(Not Mapped)	no hint yet
510	LAW-ASSLT SUGGE	ASSAULT	->	(Not Mapped)	no hint yet
511	LAW-ASSLT-SHOOT	SHOOTING	->	(Not Mapped)	no hint yet
512 512	LAW-ASSLT-STAB	STABBING BACKUB PEOUEST	->	(Not Mapped)	no hint yet
513 514	LAW-BACKUP_REQ LAW-BARRCD	BACKUP REQUEST BARRICADED INDIVIDUAL	->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
515	LAW-BOLO	BOLO	->	(Not Mapped)	no hint yet
516	LAW-BOLO-PER	BOLO - PERSON	->	(Not Mapped)	no hint yet
517	LAW-BOLO-VEH	BOLO - VEHICLE	->	(Not Mapped)	no hint yet
518	LAW-BURG	BURGLARY	->	(Not Mapped)	no hint yet
519	LAW-CARJ	CARJACKING	->	(Not Mapped)	no hint yet
520	LAW-CHECK	STATUS CHECK	->	(Not Mapped)	no hint yet
521	LAW-CHECK-BLDG	BUILDING CHECK	->	(Not Mapped)	no hint yet
522	LAW-CHECK-WELL	WELLBEING CHECK	->	(Not Mapped)	no hint yet
523	LAW-CHLD_VEH	CHILD IN VEHICLE	->	(Not Mapped)	no hint yet
524	LAW-CIT_ASSIST	CITIZEN ASSIST	->	(Not Mapped)	no hint yet
525	LAW-CIT_ASSIST-LOCK	LOCKOUT	->	(Not Mapped)	no hint yet
526	LAW-CIT_ASSIST-VEH	CITIZEN VEHICLE ASSIST	->	(Not Mapped)	no hint yet
527	LAW-CIVIL	CIVIL MATTER	->	(Not Mapped)	no hint yet
528	LAW CROWD CTD	CRIMINAL TRAFFIC	->	(Not Mapped)	no hint yet
529 530	LAW-CROWD_CTRL LAW-CURFEW	CROWD CONTROL CURFEW VIOLATION	->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
531	LAW-DEATH	DEATH/FOUND BODY	->	(Not Mapped)	no hint yet
532	LAW-DEATH-NTF	DEATH NOTIFICATION	->	(Not Mapped)	no hint yet
533	LAW-DISORDER	DISORDERLY CONDUCT	->	(Not Mapped)	no hint yet
534	LAW-DISORDER-SMOKING	SMOKING VIOLATION	->	(Not Mapped)	no hint yet
535	LAW-DOM-NONVIOL	NON VIOLENT DOMESTIC DISPUTE	->	(Not Mapped)	no hint yet
536	LAW-DOM-VIOL	VIOLENT DOMESTIC DISPUTE	->	(Not Mapped)	no hint yet
537	LAW-DRUGS	DRUG VIOLATION	->	(Not Mapped)	no hint yet
538	LAW-DRUGS-ALCOHOL	ALCOHOL VIOLATION	->	(Not Mapped)	no hint yet
539	LAW-DRUGS-DUI	DUI	->	(Not Mapped)	no hint yet
540	LAW-DRUGS-INTOX	INTOXICATED PERSON	->	(Not Mapped)	no hint yet
541 542	LAW-DRUGS-PAR LAW-ELUDING	DRUG PARAPHERNALIA ELUDING	->	(Not Mapped)	no hint yet no hint yet
542	LAW-ESCORT	ESCORT	->	(Not Mapped) (Not Mapped)	no nint yet no hint yet
544	LAW-EXTORT	EXTORT	->	(Not Mapped)	no hint yet
545	LAW-FIGHT	FIGHT	->	(Not Mapped)	no hint yet
546	LAW-FIREWORKS	FIREWORK VIOLATION	->	(Not Mapped)	no hint yet
547	LAW-FOUND-PERS	PERSON FOUND	->	(Not Mapped)	no hint yet
548	LAW-FOUND-PROP	PROPERTY FOUND	->	(Not Mapped)	no hint yet
549	LAW-FRAUD	FRAUD	->	(Not Mapped)	no hint yet
550	LAW-FRAUD-CNTRFT	COUNTERFEIT	->	(Not Mapped)	no hint yet
551	LAW-HARASS	HARASSMENT	->	(Not Mapped)	no hint yet
552	LAW-HOMELESS	HOMELESS	->	(Not Mapped)	no hint yet
553 554	LAW-HOMIC LAW-HOSTAGE	HOMICIDE HOSTAGE	->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
555	LAW-IMMIGRTN	IMMIGRATION VIOLATION	->	(Not Mapped)	no hint yet
556	LAW-IMPERSON	IMPERSONATION	->	(Not Mapped)	-no hint yet
557	LAW-INTERNET	INTERNET	->	(Not Mapped)	no hint yet
558	LAW-INVESTIG	INVESTIGATION	->	(Not Mapped)	no hint yet
559	LAW-LARCENY	LARCENY	->	(Not Mapped)	no hint yet
560	LAW-LARCENY-SHOPLIFT	SHOPLIFTING	->	(Not Mapped)	no hint yet
561	LAW-MISCONDUCT	MISCONDUCT	->	(Not Mapped)	no hint yet
562	LAW-MISS-PERS	MISSING PERSON	->	(Not Mapped)	no hint yet
563	LAW-MISS-PERS-ENDNGR	ENDANGERED MISSING PERSON	->	(Not Mapped)	no hint yet
564	LAW-MISS-PERS-RUNAWAY	RUNAWAY	->	(Not Mapped)	no hint yet
565 566	LAW-MISS-PROP	MISSING PROPERTY	->	(Not Mapped)	no hint yet
566 567	LAW-MISS-PROP-LOST LAW-MISS-PROP-STLN	LOST PROPERTY STOLEN PROPERTY	->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
568	LAW-NOISE_COMP	NOISE COMPLAINT	->	(Not Mapped)	no hint yet
569	LAW-NOISE_COMI	ORDER VIOLATION	->	(Not Mapped)	no hint yet
570	LAW-OTH	OTHER LAW	->	(Not Mapped)	no hint yet
571	LAW-PARKING	PARKING	->	(Not Mapped)	no hint yet
572	LAW-PERWANT	PERSON WANTED	->	(Not Mapped)	no hint yet
573	LAW-PRISONER	PRISONER	->	(Not Mapped)	no hint yet

574	LAW-PRISONER-ESCP	ESCAPE	->	(Not Mapped)	no hint yet
575	LAW-PURS-FOOT	FOOT PURSUIT	->	(Not Mapped)	no hint yet
576	LAW-PURS-VEH	VEHICLE PURSUIT	->	(Not Mapped)	no hint yet
577	LAW-PURSUIT	PURSUIT	->	(Not Mapped)	no hint yet
578	_LAW-RECKL_DRV	RECKLESS DRIVING	->	(Not Mapped)	no hint yet
579	LAW-ROBBERY	ROBBERY	->	(Not Mapped)	no hint yet-
580 581	LAW-ROBBERY-ARM LAW-SEXOFF	ARMED ROBBERY SEX OFFENSE	->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
582	LAW-SEXOFF-INDECENT	INDECENT EXPOSURE	->	(Not Mapped)	no hint yet
583	LAW-SEXOFF-RAPE	RAPE	->	(Not Mapped)	no hint yet
584	LAW-SUBJSTP	SUBJECT STOP	->	(Not Mapped)	-no hint yet-
585	LAW-TEST	TEST ONLY - LAW	->	(Not Mapped)	no hint yet
586	LAW-THRT	THREATENING BEHAVIOR	->	(Not Mapped)	no hint yet
587	LAW-THRT-BOMB	BOMB THREAT	->	(Not Mapped)	no hint yet
588	LAW-TOW	TOW	->	(Not Mapped)	no hint yet
589	LAW-TRAFFIC	TRAFFIC	->	(Not Mapped)	no hint yet
590	LAW-TRAFFIC-HAZ	TRAFFIC HAZARD	->	(Not Mapped)	no hint yet
591	LAW-TRAFFIC-STOP	TRAFFIC STOP	->	(Not Mapped)	no hint yet
592	LAW-TRESPASS	TRESPASSING	->	(Not Mapped)	no hint yet
593	LAW-TRESPASS-FORCENTR	FORCED ENTRY	->	(Not Mapped)	no hint yet
594	LAW-TRUANT	TRUANT	->	(Not Mapped)	no hint yet
595	LAW-UNK	UNKNOWN LAW	->	(Not Mapped)	no hint yet
596	LAW-VANDAL LAW-VEH	VANDALISM VEHICLE	->	(Not Mapped)	no hint yet
597 598	LAW-VEH-ABAN	ABANDONED VEHICLE	->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
599	LAW-VEH-REC	RECOVERED VEHICLE	->	(Not Mapped)	-no hint yet
600	LAW-VEH-REPO	REPOSESSION	->	(Not Mapped)	-no hint yet
601	LAW-VEH-STOL	STOLEN VEHICLE	->	(Not Mapped)	no hint yet
602	LAW-VICE	VICE	->	(Not Mapped)	no hint yet
603	LAW-WARRANT	WARRANT	->	(Not Mapped)	no hint yet
604	LAW-WEAPON	WEAPON	->	(Not Mapped)	no hint yet
605	LAW-WEAPON-SHOT	SHOTS FIRED	->	(Not Mapped)	no hint yet
606	LAW-WILDLIFE	WILDLIFE VIOLATION	->	(Not Mapped)	no hint yet
650	MAYDAY	MAYDAY	->	(Not Mapped)	no hint yet
700	MED ARROW	MED	->	(Not Mapped)	no hint yet
701	MED-ABDOM	ALLERCY	->	(Not Mapped)	no hint yet-
702	MED-ALLERGY MED-ALS	ALLERGY ALS	->	(Not Mapped)	no hint yet-
703 704	MED-ANIM_ATCK	ANIMAL ATTACK	->	(Not Mapped) (Not Mapped)	no hint yet
704	MED-BACK	BACK	->	(Not Mapped)	no hint yet no hint yet
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707	MED-BLEED-HEMOR	HEMORRHAGE	->	(Not Mapped)	no hint yet
708	MED-BLS	BLS	->	(Not Mapped)	no hint yet
709	MED-BURNS	BURNS	->	(Not Mapped)	no hint yet
710	MED-CARDIAC	CARDIAC	->	(Not Mapped)	no hint yet
711	MED-CHEST	CHEST	->	(Not Mapped)	no hint yet
712	MED-CHOKING	CHOKING	->	(Not Mapped)	no hint yet
713	MED-DIABETIC	DIABETIC	->	(Not Mapped)	no hint yet
714	MED-DRUG_POISON	DRUG/POISON/OD	->	(Not Mapped)	no hint yet
715	MED-ELEC	ELECTROCUTION	->	(Not Mapped)	no hint yet-
716 717	MED-EXPOSURE MED-EYE	EXPOSURE EYE PROBLEM	->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
717	MED-FALL	FALL	->	(Not Mapped)	no hint yet
719	MED-HEAD	HEAD	->	(Not Mapped)	no hint yet
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721	MED-PREG	PREGNANCY	->	(Not Mapped)	no hint yet
722	MED-PSYCH	PSYCHIATRIC	->	(Not Mapped)	no hint yet
723	MED-RESP	RESPIRATORY	->	(Not Mapped)	no hint yet
724	MED-RESP-ARR	RESPIRATORY ARREST	->	(Not Mapped)	no hint yet
725	MED-SEIZURE	SEIZURE	->	(Not Mapped)	no hint yet
726	MED-STROKE	STROKE TEST ONLY MEDICAL	->	(Not Mapped)	no hint yet-
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730	MED-TRAUMA-ASSLT	TRAUMA - ASSAULT	->	(Not Mapped)	no hint yet
731	MED-TRAUMA-ASSLT-PENET	PENETRATING WOUND FROM ASSAULT		(Not Mapped)	-no hint yet
732	MED-TRAUMA-PENET	PENETRATING WOUND	->	(Not Mapped)	no hint yet
733	MED-UNCONSC	UNCONSCIOUS	->	(Not Mapped)	no hint yet
734	MED-UNK	UNKNOWN MEDICAL INCIDENT	->	(Not Mapped)	no hint yet
750	RES	RESCUE	->	(Not Mapped)	no hint yet
751	RES-COLLAPSE	STRUCTURE COLLAPSE	->	(Not Mapped)	no hint yet
752	RES-COLLAPSE BDG	BUILDING COLLAPSE	->	(Not Mapped)	no hint yet-
753 754	RES-COLLAPSE-BRG	BRIDGE COLLAPSE	->	(Not Mapped)	no hint yet-
754 755	RES-DROWN RES-ENTRAP	DROWNING ENTRAPMENT	->	(Not Manned)	no hint yet no hint yet
755 756	RES-OTH	OTHER RESCUE	->	(Not Mapped) (Not Mapped)	no nint yet no hint yet
757	RES-SRCH_RES	SEARCH AND RESCUE	->	(Not Mapped)	no hint yet
758	RES-TEST	TEST ONLY - RESCUE	->	(Not Mapped)	no hint yet
759	RES-UNK	UNKNOWN RESCUE	->	(Not Mapped)	no hint yet
760	RES-WATER	WATER RESCUE	->	(Not Mapped)	no hint yet
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803	SUS-ITEM	SUSPICIOUS ITEM - GENERAL	->	(Not Mapped)	no hint yet
804	SUS-ODOR	SUSPICIOUS ODOR	->	(Not Mapped)	no hint yet-
805	SUS-OTH SUS-PERS	SUSPICIOUS OTHER SUSPICIOUS PERSON	->	(Not Manned)	no hint yet
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906	_VEHA-HITRUN-INJ VEHA-INJ	HIT AND RUN WITH INJURIES	->	(Not Mapped)	no hint yet
907	_ VEHA-INJ_MULTI	VEHICLE ACCIDENT WITH INJURIES VEHICLE ACCIDENT WITH MULTIPLE INJU	-> ->	(Not Mapped) (Not Mapped)	no hint yet no hint yet
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911	VEHA-OTH	OTHER VEHICLE ACCIDENT	->	(Not Mapped)	no hint yet
912	VEHA-SM_VEH	ACCIDENT - SMALL SIZE VEHICLES	->	(Not Mapped)	no hint yet
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Exhibit 8 City of Burleson Addendum to Vendor's Contract Additional Provisions

City of Burleson Addendum to Vendor's Contract Additional Provisions

Vendor Name: CentralSquare Technologies, LLC

Vendor Address: 1000 Business Center Drive, Lake Mary, FL 32746

The City of Burleson, Texas ("City") and the Vendor are this day entering into a contract for and, for the mutual convenience, the parties are using the standard contract and/or purchase order form provided by Vendor (the "Vendor's Contract Form").

This Addendum ("Addendum"), duly executed by the parties, is incorporated into the Vendor's Contract Form and made an integral part thereof. This Addendum and the Vendor's Contract Form shall be referenced to hereafter collectively as the "Agreement".

In the event of a conflict between any provision in this Addendum and any other provision in the Agreement or any other exhibit to the Agreement, the terms provided in this Addendum shall govern and control.

Additional Provisions

- 1. <u>Limitation of Vendor's Contract Form.</u> The Vendor's Contract Form is, with the exceptions noted herein, generally acceptable to City. Nonetheless, because certain standard clauses that may appear in the Vendor's Contract Form cannot be accepted by City, because of its status as a political subdivision of the State of Texas, and in consideration for the convenience of using provisions in the Vendor's Contract Form instead of negotiating a separate contract document, the parties agree that none of the provisions listed below, if they appear in the Vendor's Contract Form, shall have any effect or be enforceable against City:
 - i. Requiring City to maintain any type of insurance either for City's benefit or for the Vendor's benefit.
 - ii. Renewing or extending the Agreement beyond the contract term or automatically continuing the contract period from term to term.
 - iii. Requiring or stating the terms of the Vendor's Contract Form shall prevail over the terms of this Addendum in the event of conflict.
 - iv. Requiring the application of the law of any state other than Texas in interpreting or enforcing the Agreement, or resolving any dispute under the Agreement. The Agreement and the obligations of the parties shall be construed and enforced in accordance with the laws of the State of Texas.
 - v. Releasing the Vendor or any other entity or person from its legal liability, for unlawful or negligent conduct or failure to comply with any duty recognized or imposed by applicable law, subject to Section 19 of the Agreement.C
 - vi. Requiring any total or partial compensation or payment for lost profit or liquidated damages by City if the Agreement is terminated before the end of the contract term.
 - vii. Changing the time period within which claims can be made or actions can be brought under the laws of the State of Texas.
 - viii. Binding City to any arbitration provision or to the decision of any arbitration board, commission, panel or other entity.

- ix. Obligating City to pay costs of collection or attorneys' fees.
- x. Requiring City to provide warranties.
- xi. Obligating City to indemnify, defend or hold harmless any party.
- xii. Granting a security interest in City's property or placing a lien on City's property.
- 2. <u>Payment Terms.</u> Payment will be made upon submittal and approval of a valid invoice. City shall make payment in accordance with Chapter 2251 of the Texas Government Code. It is the policy of the City to make payment on a properly prepared and submitted invoice within thirty (30) days of the latter of any final acceptance of performance or the receipt of a properly submitted invoice.
- 3. <u>Applicable Law; Venue.</u> This Agreement is subject to and governed by the laws of the State of Texas. Any disputes arising from or relating to this Agreement shall be resolved in a court of competent jurisdiction located in Johnson County, Texas, or the federal courts for the United States for the Northern District of Texas. The parties hereto irrevocably waive any right to object to the jurisdiction of such courts in any dispute arising from or relating to this Agreement.
- 4. <u>Tax Exempt Status.</u> As a political subdivision of the State of Texas, City is tax exempt in the State of Texas. Tax exemption certification will be furnished upon request.
- 5. Termination Due to Lack of Appropriations. If City should not appropriate or otherwise receive funds sufficient to purchase, lease, operate, or maintain the equipment or services set forth in this Agreement, City may unilaterally terminate this Agreement effective on the final day of the fiscal year through which City has funding. City will make every effort to give Vendor at least thirty (30) days written notice prior to a termination for lack of appropriations. In the event of termination due to a lack of appropriations, City will pay Vendor for all undisputed fees and expenses related to the equipment and/or services City has received, or Vendor has incurred or delivered, prior to the effective date of termination.
- 6. No Waiver of Governmental Immunity. The Vendor expressly acknowledges City is a political subdivision of the State of Texas and nothing in the Agreement will be construed as a waiver or relinquishment by City of its right to claim such exemptions, privileges, and immunities as may be provided by law. Neither the execution of the Agreement by City nor any other conduct, action, or inaction of any representative of City relating to the Agreement constitutes or is intended to constitute a waiver of City's sovereign immunity to suit.
- 7. Public Information. Vendor acknowledges that City is obligated to strictly comply with the Public Information Act, Chapter 552, Texas Government Code, in responding to any request for public information pertaining to this Agreement, as well as any other disclosure of information required by applicable Texas law. The City's compliance with the Texas Public Information Act shall not violate the Agreement. Upon City's written request, Vendor will promptly provide specified contracting information exchanged or created under this Agreement for or on behalf of City. The requirements of Subchapter J, Chapter 552, Texas Government Code, may apply to this Agreement and the Vendor agrees that the Agreement can be terminated if the Vendor knowingly or intentionally fails to comply with a requirement of that subchapter.
- 8. <u>Entire Agreement.</u> This Agreement constitutes the entire agreement between the parties and may not be waived or modified except by a written agreement signed by the parties.

- 9. <u>Savings Clause</u>. If a court of competent jurisdiction finds any provision of this Agreement illegal, ineffective or beyond contractual authority of either party, then the offending provision will be stricken and the remainder of the agreement between the parties will remain in effect.
- 10. <u>Conflicts Of Interest.</u> By executing this Agreement, Vendor and each person signing on behalf of Vendor certifies, and in the case of a sole proprietorship, partnership or corporation, each party thereto certifies as to its own organization, that to the best of their knowledge and belief, no member of City Council, city manager, deputy city manager, city secretary, department heads, or deputy department heads of the City has direct or indirect financial interest in the award of this Agreement, or in the services to which this Agreement relates, or in any of the profits, real or potential, thereof, in violation of Section 132 of the Home Rule Charter of the City.
- 11. <u>Anti-Boycotting Provisions.</u> Vendor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
 - i. Pursuant to Section 2271.002 of the Texas Government Code, Vendor certifies that either (i) it meets an exemption criterion under Section 2271.002; or (ii) it does not boycott Israel and will not boycott Israel during the term of the Agreement. Vendor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
 - ii. Pursuant to SB 13, 87th Texas Legislature, Vendor certifies that either (i) it meets an exemption criterion under SB 13, 87th Texas Legislature; or (ii) it does not boycott energy companies, as defined in Section 1 of SB 13, 87th Texas Legislature, and will not boycott energy companies during the term of the Agreement. Vendor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
 - iii. Pursuant to SB 19, 87th Texas Legislature, Vendor certifies that either (i) it meets an exemption criterion under SB 19, 87th Texas Legislature; or (ii) it does not discriminate against a firearm entity or firearm trade association, as defined in Section 1 of SB 19, 87th Texas Legislature, and will not discriminate against a firearm entity or firearm trade association during the term of the Agreement. Vendor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
- 12. Vendor Certification Regarding Business With Certain Countries And Organizations. Pursuant to Subchapter F, Chapter 2252, Texas Government Code, Vendor certifies Vendor (1) is not engaged in business with Iran, Sudan, or a foreign terrorist organization. Vendor acknowledges this Agreement may be terminated and payment withheld if this certification is inaccurate.
- 13. <u>Relationship of the Parties.</u> The parties agree that in performing their responsibilities under this Agreement, they are in the position of independent contractors. This Agreement is not intended to create, does not create, and shall not be construed to create a relationship of employer-employee. Vendor, Vendor's employees, and anyone else working at Vendor's direction is an independent contractor and not an employee or servant of the City. Nothing in this Agreement is intended to or shall be construed in any manner as creating or establishing the relationship of employer-employee between Vendor, Vendor's employees, and anyone else working at Vendor's direction. Vendor, Vendor's employees, and anyone else working at Vendor's direction shall at all times remain an independent contractor with respect to the service to be performed under this Agreement.
- 14. <u>Survival</u>. The terms of this Addendum shall survive any closing or termination of the Agreement.
- 15. No Indemnification by City. The Parties expressly acknowledge that the City's authority to indemnify and hold harmless any third party is governed by Article XI, Section 7 of the Texas

Constitution, and any provision that purports to require indemnification by the City is invalid. Nothing in this Agreement requires that the City incur debt, assess, or collect funds, or create a sinking fund.

- 16. <u>Conflict.</u> In the event of a conflict between any provision in this Addendum and any other provision in the Agreement or any other exhibit to the Agreement, the terms provided in this Addendum shall govern and control.
- 17. <u>Counterparts; PDF Signatures</u>. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any pdf-format or other electronic transmission of any signature of a signatory shall be deemed an original and shall bind such signatory.

IN WITNESS WHEREOF, the parties have caused this Addendum to be duly executed, intending thereby to be legally bound.

City of Burleson, Texas:	For the Vendor:
Ву:	Ву:
Printed:	Printed:
Title:	Title:
Date:	Date:

	Exhibit 9	
Various Operation	nal Scenarios Documents	



Enterprise CAD Standard Alphanumeric Paging Interface

Operational Scenario Document

Public Safety and Justice



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1 Revisions

Date	Rev. No.	Author	Comments
08/27/2020	1	N. Novak	Document created



2 Overview

The Inform CAD Paging Interface is a standard alphanumeric paging interface to provide sending text "paging" messages to a paging system vendor(s) using PET/TAP, WCTP, SMTP, or SNPP paging protocols, for delivery to the intended recipients.

Note: Currently, SMS is not directly supported. SMS functionality can be achieved using SMTP protocol to vendors' SMTP-to-SMS gateways, for vendors that support such service.

For connection to vendors using TAP protocol, CentralSquare recommends the use of a constant connection to the paging provider – such as a leased line – to facilitate rapid pager activation; however, dial-up connections are supported through this Interface.

For connection to vendors using Internet protocols, the customer will be required to establish access from the Paging Server interface to the Internet (and SMTP relay service for SMTP paging).

This Paging Interface will allow Inform CAD to send predefined and manually created pager messages to alphanumeric pagers. Automatic pages are limited to those defined in the paging setup utility defined in the Inform CAD documentation.

CentralSquare is not responsible for any equipment, software or services needed by the paging vendors.

CentralSquare is responsible for providing and initially configuring the Inform CAD Paging Interface software, and the method of connection. The customer is responsible for the paging vendors, any necessary cabling, or communications connections, and arrangement and funding of any work. The customer is also responsible for building the Inform CAD paging formats and entering pager assignment information, including page groups. The customer understands that changes made by the paging vendor(s) and/or network, including the format of expected data, may disrupt the operation and functionality of this interface.



3 External Prerequisites and Constraints

3.1 External System

3.1.1 Communications Infrastructure

 The network infrastructure shall support a persistent TCP/IP (or serial/modem, where applicable) connection from the Enterprise CAD interface to the client paging vendor(s).

3.2 Enterprise CAD System

3.2.1 Enterprise CAD

• Vehicles and Personnel are configured in Enterprise CAD's System Administrator, including adding Pager PIN's to each vehicle and/or person to receive pages.

3.2.2 Enterprise CAD Interface

 The interface shall be hosted on a server meeting the minimum requirements of an Enterprise CAD interface server as documented in the *Enterprise Suite System* Planning Guide.



3 Operational Scenarios

3.1 Use Case: Incident Events

Several events within Inform CAD may trigger pre-formatted pages to be sent to individual pagers or groups of pagers. The Inform CAD Paging and Dialing Setup Utility (refer to Inform CAD User Guide) will allow the System Administrator to define the content and format of each message by jurisdiction, and who will be notified, if anyone, for each event. These events include:

- Too Long in Wait Queue
- Response Address Change
- Response Priority Change
- Last Response Comment Added
- Response Custom Time Stamps
- Response Custom Data Fields
- Response Times Call Completed
- Comment Notification
- Response Group Page
 - Based on Initial Assign commit;
 - Provides filtering based on hierarchy/Response Area with optional criteria including Incident Type, Problem/Nature, Alarm Level, and Premises;
 - Sends notification to page group(s) selected in the configuration.

3.2 Use Case: System Events

Several events within Inform CAD may trigger pre-formatted pages to be sent to individual pagers or groups of pagers. The Inform CAD Paging and Dialing Setup Utility (refer to Inform CAD User Guide) will allow the System Administrator to define the content and format of each message by jurisdiction, and who will be notified for each event. These events include:

- Facility Divert
- SSM Level Page

3.3 Use Case: Unit Events

Several events within Inform CAD may trigger pre-formatted pages to be sent to individual pagers or groups of pagers. The Inform CAD Paging and Dialing Setup Utility (refer to Inform CAD User Guide) will allow the System Administrator to define the content and format of each message by jurisdiction, and who will be notified for each event. These events include:



- Response Information (Dispatch Event)
- All Response Comments (Dispatch Event)
- Too Late Out of Chute
- Late Scene Arrival
- Too Long at Scene
- Late Turn Around at Hospital
- Response Times Delayed Available
- Response Times Call Cancelled
- Response Times at Hospital
- Post Assignment
- Depart Scene Pre-Scheduled Call
- Depart Scene Emergency Call

3.4 Use Case: Manual Events

The system will allow users with appropriate security access to send manual pages at any time if users are logged into Inform CAD, pages may be sent to the following destinations:

3.4.1 Use Case: Paging Personnel

The user may page one or more personnel from the Page Distribution Utility located in the Inform CAD tool bar.

3.4.2 Use Case: Paging Pre-defined Locations

The Page Distribution Utility will allow users to page one or more locations pre-defined in the Location Builder using information contained in the setup utility.

3.4.3 Use Case: Paging Stations

The Page Distribution Utility will allow users to page one or more locations pre-defined in the Location Builder using information contained in the setup utility.

3.4.4 Use Case: Paging Groups

Using the Inform CAD Popup List Utility, the user may define one or more paging groups. These groups may contain one or more people with pagers assigned in their personnel file and/or one or more vehicles with pagers assigned in their configuration.

3.4.5 Use Case: Paging Vehicles

Send manual pages at any time as long as users are logged into Inform CAD. Any vehicle on duty may be paged with free form text or short hand comments.



3.4.6 Use Case: Quick Paging

A manual page may be sent from the command line or from the page distribution utility at any time as long as users are logged into Inform CAD. From the command line, the user can send the following message types to a vehicle, user or group:

- **Response Information** this will send the initial response page information.
- Response Custom Time Stamps the page will inform the vehicle of any custom time stamps for their assigned incident.
- **Response Times** a page will be sent to the vehicle showing their time stamps for their assigned incident.
- All Response Comments will send all comments on the assigned incident to the vehicle.
- Free form text any text entered will be sent to a vehicle even if they are not currently assigned to an incident.
- **Shorthand Comments** shorthand comments entered the text area will be expanded and transmitted.

3.5 Use Case: Notification of Unsuccessful Page

The interface will contain a setup utility that allows the administrator to select notification groups, individuals or machines that should receive a message when an unsuccessful page is processed by the interface. The utility will allow for the administrator to make multiple selections from the following:

- Inform CAD Messaging designated employee position groups
- Entries to the Inform CAD Activity log

3.6 Use Case: Logging

The interface shall log all page requests and results to the database. The Page Log Viewer, a Inform CAD Module, shall be viewable by users with the appropriate authority.

The interface shall also log data process details of the interface. The data will be recorded into a log that the System Administrator can view. This information will not be displayed to the Inform CAD user and is primarily used for diagnostic purposes. The file name and location (path) of the logs are predetermined (Q Drive).

The interface maintains the log files. As the logs reach their maximum size, the interface archives the current log file by modifying the filename with a date and time stamp string and creates a new active/current file. The interface maintains a set number (configurable) of archived log files. When the maximum allowed number of archived log files is reached, the



interface will delete configuration there	e the oldest archived lo is little concern of the	g file before arch logging affecting	iving the current le system performal	og file. Under this nce.



4 Additional Design Constraints

No.	Design Constraint	Description	Notes
1	Location	Location of Inform CAD Interface shall support dial-up or direct connect modems, or Internet access to paging vendors.	Serial connection(s) should be through RS-232 data cable of no more than 50 feet without special considerations to prevent data loss. Third-party, network-based serial port replication products are available that may accommodate extended distances.
2	Specifications for Inform CAD Interface Server	The Interface will be located on a server resident on the Inform CAD system local area network. This program will run under an approved version of Windows on a machine that meets CentralSquare's hardware specifications.	The latest release of the "Inform CAD Planning Document" and Inform CAD version and service pack release note provide details on hardware, software and infrastructure requirements.



5 Glossary

Term	Definition
CentralSquare	CentralSquare Technologies
SA	Client System Administrator
Interface	The software module described herein
Inform CAD	The CentralSquare Computed Aided Dispatch software product
Users	Customer personnel who perform dispatcher and call-taking functions
SA	Client System Administrator
Interface	The software module described herein



6 Implementation Tasks and Assumptions

The IRD process will be to submit a copy of this document for customer review. If functionality beyond the existing functionality of this standard interface is required, the customer will work with CentralSquare to develop detailed changed control(s) to be approved by both the customer and CentralSquare. Functionality defined by the change control process may result in additional costs to the customer, and extend the time required for implementation.

After customer review of this document, CentralSquare will work with the customer to complete a detailed Alphanumeric Paging Interface Configuration Document, indicating selected feature options and data mapping. The Configuration Document will provide CentralSquare Engineering staff the necessary details to install and initially configure the interface.



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ASAP Interface

Operational Scenarios Document

[Keywords]

Public Safety and Justice



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1 Revisions

Date	Rev. No.	Author	Comments



2 Overview

The Automated Secure Alarm Protocol (ASAP) is an American National Standard developed jointly by APCO and The Monitoring Association and approved by the American National Standards Institute. NLETS is a partner in the program and uses its systems to provide a data bridge between both systems. Using ASAP, Central Station alarm companies such as Vector Security, Rapid Response, and ADT can transmit alarm data electronically to Central Square's Inform CAD, reducing the potential for human error and call volume, and results in a decreased response time for Calls for Service.

This document describes the operational workflow of the ASAP Interface as it relates to Inform CAD. It generally describes the prerequisites of external and internal systems that are integral to the function of the Interface, along with operational scenarios on how the Interface functions. This document also references external parties, such as COMMSYS and state representatives, which play a role in the overall implementation of the Interface. The implementation of ASAP on a client's system shall be a joint effort between the COMMSYS Consultant, the client, CentralSquare Engineers, and any supporting representatives from state entities providing NLETS services.



3 External Prerequisites and Constraints

3.1 External System

3.1.1 State Connection to NLETS and Support of ASAP Messaging

- a) The COMMSYS Consultant and the Client shall verify if the Client has access to NLETS and are authorized to received messages via the NLETS system.
- b) The COMMSYS Consultant and the Client shall verify if the State in which the Client resides supports ASAP messaging.

3.1.2 Requesting ORI's and PSN's

ORI's are required to provide means of directing traffic to the appropriate environment. Be it production NLETs messages to Production Inform CAD or Test NLETs messages to Test Inform CAD.

- a) The COMMSYS Consultant and the Client shall request and obtain ORI's from the State for the implementation of this interface. One ORI will be used for the Production Environment and the second ORI will be used in the Test/Training Environment.
- b) A PSN is the mnemonic the ASAP interface sends in the ALR message to the State. If required, the State will provide PSN's along with the ORI's.

3.2 Inform CAD System

3.2.1 Inform CAD

- a) The System Administrator shall update Inform CAD to version 5.7.37 or newer.
- b) Ensure TriTech.VisiNetBrowserRemoteProcess is running. This process is used to generate multi-agency responses.

3.2.2 Tritech Message Switch (TTMS)

- a) The System Administrator shall update TTMS to version 1.4.4 or newer.
- b) TTMS State Provider must support ALQ and ALR messages.

3.2.3 Inform CAD Interface

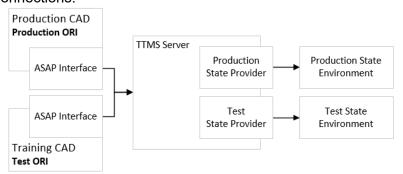
a) The interface shall be hosted on a server meeting the minimum requirements of an Inform CAD Interface server as documented in the *Inform Suite System Planning Guide*.



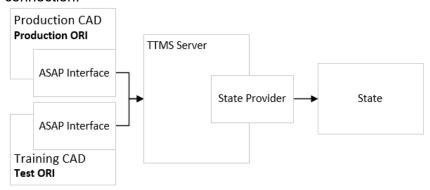
4 Configurability

Each configuration piece described in this section shall be implemented into any applicable Inform CAD environment, i.e., Production or Test/Training. Theses settings and the parameters for each, will be discussed in detail in the Interface Configuration Document. There are different variations of connection methods between Inform CAD, TTMS, and the State, which depend on the Client's infrastructure. The available options are depicted below:

a) Production and Test/Training Inform CAD Environments; One TTMS Server; Two State Connections.

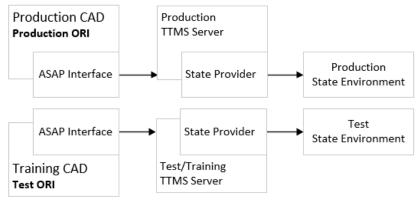


b) Production and Test/Training Inform CAD Environments; One TTMS Server; One state connection.

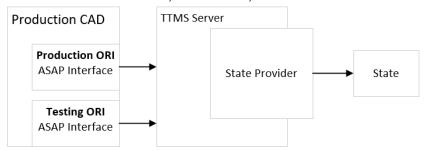




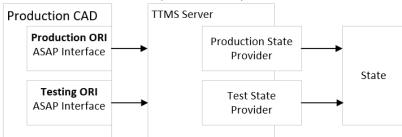
c) Production and Test/Training Inform CAD Environments; Two TTMS Servers; Two State connections.



d) Production Inform CAD Environment; One TTMS; One State Connection.



e) Production Inform CAD Environment; One TTMS; Two State Connections.



4.1 Connectivity

4.1.1 Agencies, ORI's, and PSN's

- a) The CentralSquare Engineer shall configure the appropriate ORI and PSN provided by the Client.
- b) The CentralSquare Engineer shall configure the agencies within Inform CAD that are designated to receive Alarms messages via ASAP.



4.1.2 TTMS

a) The CentralSquare Engineer shall configure the TTMS server to be used as a broker between the ASAP interface and the State's NLETS services.

4.2 Interface Configuration

4.2.1 Problem Cross-Reference

The Consultant and the Client shall create the Problem Cross Reference table. This table defines the mapping of Alarm Company Alarm Events to Inform CAD Problem codes.

a) The CentralSquare Engineer shall input the table values into the ASAP interface configuration for each agency.

Note: Each agency will have its own term for Call Problem. Variations may include Incident Type, Signal, Call Nature, or Call Type.

4.2.2 Geo-Validation

The ASAP interface will reject any Alarm sent to the PSAP if it does not meet address verification requirements. The ASAP interface will use the LocationName or StructuredAddress which consists of a parsed StreetNumber, StreetName, AddressBuildingText, AddressSecondaryUnitText, LocationCityName, LocationCountyName, and LocationStateName during geo-validation. The ASAP interface searches based on the spelling of each field. To ensure the expected address to be found, the fields must match exactly. When Require AlarmEvent Building and Apartment to match CAD data is disabled if all the fields do not match the data within CAD, the ASAP interface will find the best match based on the fields sent from the Alarm Company. If a Building is available but the SecondaryUnit is not, the ASAP interface will try to find the best match where the building matches. If the SecondaryUnit is available and the Building is not, the ASAP interface will find the best match where the SecondaryUnit matches. If both the Building and SecondaryUnit are not available, or an exact match is not found for those fields, the ASAP interface will find the best match based on the other available fields. When Require AlarmEvent Building and Apartment to match CAD data is enabled, all of the fields must match data within CAD for Geo-Validation to succeed. If an address fails, the Alarm company shall adjust their GIS data to match the values, spelling, or format as seen in Inform CAD. Exceptions to this rule exists when the Client's Inform CAD system contains City/County values that differ from the proper City/County name.

- a) The CentralSquare Engineer shall map City/County values from Inform CAD to proper City/County names if the system values differ from the proper City/County name.
 - For example, 'San Diego [SD]' → 'San Diego', or 'San Bernardino*' → 'San Bernardino'

If a match is not an exact match, meaning all the available fields do not match exactly, a Geo-Validation warning is available to the dispatcher. See section 4.2.5.

For Address Verification requests, the interface requires an exact match on all of the fields in order to return an Address Validation Only Good Address response.



4.2.3 Response Area Filter

The ASAP interface will receive address verifications form Alarm Companies. If an address is geo-validated, it will associate the address point to a response area. If the response area is listed as an exclusion within the Interface configuration, then it will reject the Alarm sent by the Alarm Company.

- a) The Client shall determine which Response Areas, if any, are to be excluded from being able to receive Alarms from Alarm Companies.
- b) The CentralSquare Engineer shall configure any exclusions or inclusions, based on the client's needs or requirements.

4.2.4 Alarm Rejection

The ASAP Interface can be configured to automatically reject specific Alarm Events. This feature could be used during inclement weather situations such as hurricanes, earthquakes, or storms, that may trigger a high number of erroneous alarms. This configuration is turned off by default.

a) The CentralSquare Engineer shall inform the Client about this feature and demonstrate how it can be enabled.

4.2.5 Advisor Alerts

That ASAP interface has four standard Advisor Alerts that are used to notify a CAD Users during key situations in Alarm message transactions. Those key situations are described below:

- I. **Text from Alarm Company** Notifies the dispatcher that the alarm company agent has sent a text message to CAD.
- II. **ASAP Geo Validation Warning** Notifies the dispatcher on condition where the alarm address was successfully geo validated, but a potentially better location can be chosen if the dispatch re-geo validates the incident address again.
- III. **ASAP Alarm Accepted** Notifies that an alarm company sent an alarm and the alarm was accepted, and so the incident was created.
- IV. **Failed Sending Update to ASAP** Notifies the dispatcher when the ASAP interface has failed sending the text to the alarm company.
 - a) The CentralSquare Engineer shall configure four Advisor Alerts with default settings.

4.2.6 PowerLine

The PowerLine command Send Text to Alarm Company (STTAC, which configurable, see below) provides the ability for a user to send a text message to an ASAP Alarm Vendor via the PowerLine.

a) The CentralSquare Engineer shall configure a PowerLine Command.



5 Operational Scenarios

5.1 Receiving ASAP Alarms

5.1.1 Preconditions

- a) Inform CAD is running without any impactful system health issues reported.
- b) The Interface is properly configured on an interface server where the VisiNet Service is turned on and running and
- c) The Interface is configured following one of the five connection types depicted in Section 4.
- d) TTMS is installed and operational without any connection errors to the State.
- e) Response Areas must be pre-configured in Inform CAD.

5.1.2 Workflow Details

- a) An Alarm Company Sends an Alarm to the PSAP.
- b) The information flows from the Alarm Company, through NLETS, to the State entity providing PSAP's with NLETS services, to the agency's TriTech Message Switch, to the ASAP Interface, and finally to the Inform CAD User.
- c) As the Alarm message hits the ASAP Interface, it initiates an address geo-validation that validates the address, City (if required, see Section 4.2.2), and County (if required, see Section 4.2.2). Address Geo-Validations will generally pass if it meets the following criteria:
 - 1. When a location name and address sent from the Alarm Company matches a location name and address in Inform CAD;
 - 2. When a single exact match is produced;
 - 3. When multiple "exact" matches are produced (i.e., address points and centerlines);

Note: Multiple exact matches will generate a notification to the dispatcher that better address matches may be available (Advisor Alert described in Section 4.2.5 ASAP Geo Validation Warning).

- 4. When no street address is present, and a match is produced using two intersecting streets;
- 5. When no street address or cross streets are present, and a match is produced using coordinates.
- d) If an address is rejected, the ASAP Interface will send a "Rejected" message to the originating Alarm Company.
- e) If an address is still valid, the ASAP Interface will determine what Response Area the address is found in.
 - 1. If a Response Area is configured to be excluded as described in Section 4.2.3, the ASAP Interface will reject the Address and send a "Rejected" message to the originating Alarm Company.



- f) The ASAP Interface shall send an "Accept" message to the originating Alarm Company when the resulting Response Area is not excluded as described in Section 4.2.3.
- g) An incident shall be created and be placed in the Pending Incident Queue in CAD.
- h) When a Response Area contains default assignments for radio channels, the Interface shall write the Command Channel and Primary TAC channel defaults to the Incident.
- Once an Incident is placed in the Pending Incident Queue, a Dispatcher can doubleclick on the pending incident to view incident details and perform any updates to the incident.
- j) When a unit, or units, are assigned to the incident, arrive on scene, or cancel their response, the Interface shall automatically send one update message per incident event (dispatched, arrive on scene, or cancel) to the originating Alarm Company.
- k) As the Incident gets closed, the Interface shall automatically send to the originating Alarm Company a message denoting that the call has been closed and include any disposition code and description if available.

5.2 Messaging with ASAP

Inform CAD allows the dispatcher to communicate with the Alarm Company's representative through the Inform CAD incident window. Simple PowerLine Commands allows the Dispatcher to send messages and Advisor Alerts notify the Dispatcher when messages come into the incident window.

5.2.1 Preconditions

- 1. Preconditions listed in 5.1.1 shall be met.
- 2. An Incident shall exist in the Pending Incident Queue and have an Incident ID assigned
- 3. The Incident: Send Text to Alarm Company PowerLine shall be properly configured

5.2.2 Workflow Details

- a) A Dispatcher shall enter the following:
 - The required configurable command into the PowerLine Command Field (Default: ASAP)
 - 2. The required Incident ID of the Incident
 - 3. The message desired to be sent.
- b) The message shall be sent through the Interface once the Dispatcher hits "Enter" on the keyboard.
- c) The message shall be added to the Incident window's Comment/Notes tab.
- d) When an Alarm Company Representative sends the Inform CAD User a message, an advisor alert will notify the Dispatcher that a message has been received.



e)	The message sent from the Alarm Company will be added to the Incident Window's Comment/Notes tab.



6 Roles

Role	Definition
CAD Administrator	Person responsible for ongoing configuration of the CAD system. This person may be the same as the System Administrator.
CAD User	Person who has an active role to play within the CAD user base and who regularly uses the CAD system to perform that role.
System Administrator	Person responsible for daily maintenance of the system (e.g., database backups, routine maintenance tasks etc.).
CentralSquare Engineer	Person responsible for initial installation, configuration, and integration testing of the Interface.
COMMSYS Consultant	Person who will drive the ASAP implementation and manage the integration with the Alarm Companies that each Client conducts business with.
Alarm Company	Any Alarm Company that will be sending Alarm messages to the PSAP through the ASAP Interface.



7 Glossary

Term	Definition
CentralSquare	CentralSquare Technologies
Administrator	Client System/Agency/Interface Administrator
Interface	The software module described herein
Enterprise CAD	The CentralSquare Computer Aided Dispatch software product
Users	Customer personnel who perform dispatcher and call-taking functions
State	The State entity that provides NLETS services to the Client
TTMS	TriTech Message Switch. Message broker between the State and the ASAP interface
PSAP	Public Safety Answering Point
NLETS	National Law Enforcement Telecommunications System
ASAP	Automated Secure Alarm Protocol



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Enterprise CAD External System to Inform CAD Data Transfer Interface (Premise)

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1 Revisions

Date	Rev. No.	Author	Comments
10/16/2019	1	A. Durnan	Initial draft



2 Overview

CentralSquare Technologies provides the standard External System to Inform CAD Data Transfer Interface to provide the ability to import and update premise records from an external source.

This is a single directional interface from the external source (typically an RMS) to Enterprise CAD. The interface will enable information that is entered or edited on the external system to propagate to the Enterprise CAD system. Any premise information added or edited within the Enterprise CAD system will be allowed, but the changes will not be updated back to the external system.

Note: Premise data entered or modified manually within Enterprise CAD is subject to being overwritten by the Enterprise CAD interface as updates from the external source are processed.

The architecture uses a method of data transfer based on file transfer from the external source. This preferred approach requires the external source to generate formatted files to be staged and processed by the interface. Typically, creation of the formatted files is done as the premises records are created and modified within the external system, although batch handling of files is supported by the interface.

The external source will not be responsible for the enforcement of any business rules or data integrity associated with the Enterprise CAD system, as these would be the responsibility of the interface.

Note: While multiple external systems may provide input to the interface in the specified format, the interface relies on the coordination (manual or otherwise) of the external systems to avoid contention issues (i.e., configured interface defaults and cross-references are not specific to individual external systems, and premise code and premise name conventions must be coordinated outside the interface). Even when multiple instances of the interface are licensed, configured, and implemented uniquely for separate external systems, the code and name values must be coordinated externally to avoid contention issues.

This document will describe the system environment, constraints and functionality. It will outline use cases describing interface functionality and any identified design constraints. The proposed architecture for this interface will be one where the external system shall deposit premise information in the form of XML-formatted files into a shared directory. The XML files shall reference a single premise and contain either location information, personnel contact information, caution notes, hazmat information, or alarm zone information associated with the premise.

The interface will poll the shared directory. When a file with the specified naming convention is deposited in the shared directory, the interface will read and process the contents of the files as follows.



- For base premise record files (see Appendix C for a sample file), attempt to match the information in the XML file to an Inform CAD premise record. The interface will insert or update the Inform CAD premise record based on the information contained in the XML file.
- 2. For premise contact record files (see Appendix C for a sample file), attempt to match the information in the XML file to an Inform CAD premise contact record. The interface will insert, update, or delete the Inform CAD premise contact record based on the information contained in the XML file.
- 3. For premise hazmat record files (see Appendix C for a sample file), attempt to match the information in the XML file to an Inform CAD premise hazmat record. The interface will insert, update, or delete the Inform CAD premise hazmat record based on the information contained in the XML file.
- 4. For premise caution note record files (see Appendix C for a sample file), attempt to match the information in the XML file to an Inform CAD premise caution note record. The interface will insert, update, or delete the Inform CAD premise caution note record based on the information contained in the XML file.
- 5. For premise alarm zone record files (see Appendix C for a sample file), attempt to match the information in the XML file to an Inform CAD premise alarm zone record. The interface will insert, update, or delete the Inform CAD premise alarm zone record based on the information contained in the XML file
- 6. For premise attachment files (see Appendix C for a sample file), attempt to match the information in the XML file to an Inform CAD premise and local attachment file. The interface will insert the Inform CAD premise attachment record based on the information contained in the XML file.

The Inform CAD interface will remove the processed file from the shared directory and create a results file to indicate the success level of the process and identify possible errors.



3 External Prerequisites and Constraints

Review the following prerequisites and design constraints to ensure the external system meets these requirements.

3.1 Unique Premise Code and Premise Name

The premise code and premise name field coming from the RMS must be a unique value when imported into Enterprise CAD. The interface shall update the sole unique record that exists. Enterprise CAD shall not permit multiple premise records with non-unique premise code and premise name values.

It is a requirement the key fields in the two databases match so imported records can be matched to locate existing data in Enterprise CAD.

The field used for matching purposes is the Enterprise CAD premise code field. This shall be used as the key field for updating premise records and creating and updating related data, such as location information.

3.2 XML File Format

Files shall be in XML format. <u>Appendix C</u> provides sample XML files containing premise information.

3.3 Table Structure

Fields accepted by the interface shall conform to Enterprise CAD table structures. The interface shall truncate incoming data to meet Enterprise CAD field size limitations, including any serialization appended to a value to make it unique.

Appendix B provides data mapping schema for XML file fields to Enterprise CAD data fields.

3.4 Premise Exclusion

The RMS application shall provide an exclusion filter within the RMS export to ensure there is a way to filter out premise records in the RMS that should not be transferred to Enterprise CAD.

For example, there may be premise records in the RMS application that cannot be mapped within the Enterprise CAD geography (i.e., latitude and longitude coordinates). The exclusion option allows these records to be identified and excluded from being transferred to Enterprise CAD.



4 Configurability

4.1 Business Rules

Business rules are XML documents containing validation settings and definitions for incoming data from the external RMS before insertion of that data into Enterprise CAD. The business rules shall be defined differently and separately for each field. Business rules shall be stored within the Enterprise CAD database for retrieval by the interface.

For all fields, there are sets of common edits that may be applied.

- Incoming values (source)
 - What is the name of the incoming XML element containing the data value?
 - o What is the data type expected from the external system?
 - What is the maximum number of characters for the incoming value when the data type is a string?
- Enterprise CAD fields (destination)
 - What is the name of the table column that will contain the incoming data value?
 - o What is the data type for the Enterprise CAD table column?
 - What is the maximum number of characters for storing the value when the data type is a string?
- Edits (modifications required when constraints disallow certain values)
 - What is the default value if no value is provided and a value is required?
 - Indication if a value is required (an error will result if a value is required and no default is provided)
 - o If a value is not required, can the interface submit a NULL value?
 - Are duplicate values acceptable across records of the same type?

To validate the incoming fields, the interface shall apply the specified business rules prior to applying Enterprise CAD table inserts and updates. Business rules are configurable by the Systems Engineer and are established during interface implementation.

4.2 Cross-Reference Tables and Default Values

The interface shall provide the ability to cross-reference jurisdictional values from the external source to match the values in the corresponding Enterprise CAD hierarchy. Default values (i.e., location type, etc.) and required fields (i.e., location type, phone type, etc.) can be applied when a value is not provided in the XML file. Default values



are part of the business rules and cross-reference tables are established as part of the interface configuration profile and stored in the Enterprise CAD database as virtual tables.

When an XML file is retrieved by the interface, the interface shall check for and apply appropriate matching cross-references or defaults. If none exist, the values provided in the XML file shall be used in attempting to populate the corresponding fields in the Enterprise CAD premise record.

Note: The cross-references and defaults are global to the interface, including when multiple systems are supplying data (i.e., not specific to the source supplying the data). However, each separate instance of the interface may be configured uniquely, including the cross-references.



5 Operational Scenarios

5.1 Use Case: User Creates New Premise Record in RMS

When the end-user creates a new premise record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall build a premise record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.1.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise (i.e., a single premise record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2001". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.1.2 Workflow Details

- 1. The end-user creates a new premise record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise export-flagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2001" to designate the record type as premise information.
 - c. The <ROWID> element shall contain the **premise code** from the external RMS. This value shall be used as the unique identifier for the record.



- 3. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise record.
 - a. When the file contents meet the requirements for a valid premise record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise record contents. This XML file shall be written to the configured network location designated for error response files.



- c. The interface shall follow the standard logging process to document the actions taken to validate the premise record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code contained within the XML file against premise codes recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise record is new (INSERT transaction) and the premise code does not exist in Enterprise CAD, the interface shall compose a premise record and insert it into the Enterprise CAD database. The interface shall keep the XML directive as an INSERT transaction.
 - b. When the XML directive indicates the premise record is new (INSERT transaction) and the premise code does exist in Inform CAD, the interface shall compose a premise record and update the existing one in the Enterprise CAD database. The interface shall change the XML directive to be an UPDATE transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise record and any success or error conditions arising from such actions.

5.2 Use Case: User Updates Existing Premise Record in RMS

When the end-user updates an existing premise record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.2.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise (i.e., a single premise record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise".



- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2001". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.2.2 Workflow Details

- The end-user updates an existing premise record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise export-flagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2001" to designate the record type as premise information.
 - c. The <ROWID> element shall contain the **premise code** from the external RMS. This value shall be used as the unique identifier for the record.
- 3. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.



- The date/time recorded by the operating system attribute DateLastModified.
- b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise record.
 - a. When the file contents meet the requirements for a valid premise record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code contained within the XML file against premise codes recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise record is existing (UPDATE transaction) and the premise code does exist in Enterprise CAD, the interface shall compose a premise record and update the existing one in the Enterprise CAD database. The interface shall keep the XML directive as an UPDATE transaction.
 - When the XML directive indicates the premise record is existing (UPDATE transaction) and the premise code does not exist in Enterprise CAD, the interface shall compose a premise record



- and insert it into the Inform CAD database. The interface shall change the XML directive to be an **INSERT** transaction.
- c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise record and any success or error conditions arising from such actions.

5.3 Use Case: User Deletes Existing Premise Record in RMS

When the end-user deletes an existing premise record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Infor Enterprise m CAD database schema.

5.3.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise (i.e., a single premise record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2001". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.3.2 Workflow Details

- The end-user deletes an existing premise record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.



- b. The <MESSAGETYPEID> element shall contain the value, "2001" to designate the record type as premise information.
- c. The <ROWID> element shall contain the **premise code** from the external RMS. This value shall be used as the unique identifier for the record.
- 3. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise record.
 - a. When the file contents meet the requirements for a valid premise record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise record.



- 7. The interface shall determine if the file contents indicate an existing record by comparing the premise code contained within the XML file against premise codes recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise record is to be deleted (**DELETE** transaction) and the premise code **does exist** in Enterprise CAD, the interface shall update the existing premise record by setting the status to "inactive" as Enterprise CAD does not allow the deletion of premise records due to relational constraints with other records.
 - b. When the XML directive indicates the premise record is to be deleted (**DELETE** transaction) and the premise code **does not exist** in Enterprise CAD, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise record and any success or error conditions arising from such actions.

5.4 Use Case: User Creates New Premise Contact Record in RMS

When the end-user creates a new premise contact record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise contact and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall build a premise record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.4.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise contact (i.e., a single premise contact record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.



• The business rule number for this interface is identified as "2002". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.4.2 Workflow Details

- 1. The end-user creates a new premise contact record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2002" to designate the record type as premise contact information.
 - c. The <ROWID> element shall contain the premise code and phone type (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- 3. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise contact record.



- a. When the file contents meet the requirements for a valid premise contact record, the interface shall determine the next course of action based on the directive composed within the XML file.
- b. When the file contents do not meet the requirements for a valid premise contact record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise contact record contents. This XML file shall be written to the configured network location designated for error response files.
- c. The interface shall follow the standard logging process to document the actions taken to validate the premise contact record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and phone type contained within the XML file against premise codes/phone types recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise contact record is new (INSERT transaction) and the premise code/phone type do not exist in Enterprise CAD, the interface shall compose a premise contact record and insert it into the Enterprise CAD database. The interface shall keep the XML directive as an INSERT transaction.
 - b. When the XML directive indicates the premise contact record is new (INSERT transaction) and the premise code/phone type do exist in Inform CAD, the interface shall compose a premise contact record and update the existing one in the Enterprise CAD database. The interface shall change the XML directive to be an UPDATE transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise contact record and any success or error conditions arising from such actions.

5.5 Use Case: User Updates Existing Premise Contact Record in RMS

When the end-user updates an existing premise contact record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise contact and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise contact record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.



5.5.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise contact (i.e., a single premise contact record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2002". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.5.2 Workflow Details

- 1. The end-user updates an existing premise contact record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise contact export-flagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2002" to designate the record type as premise contact information.
 - c. The <ROWID> element shall contain the **premise code and phone type** (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.



- a. The date/time recorded by the operating system attribute DateLastModified.
- b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise contact record.
 - a. When the file contents meet the requirements for a valid premise contact record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise contact record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise contact record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise contact record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and phone type contained within the XML file against premise codes/phone types recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise contact record is existing (UPDATE transaction) and the premise code/phone type do exist in Enterprise CAD, the interface shall compose a premise contact record and update the existing one in the Enterprise CAD database. The interface shall keep the XML directive as an UPDATE transaction.
 - b. When the XML directive indicates the premise contact record is existing (UPDATE transaction) and the premise code/phone type do not exist in Enterprise CAD, the interface shall compose a premise contact record and insert it into the Enterprise CAD database. The interface shall change the XML directive to be an INSERT transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise contact record and any success or error conditions arising from such actions.



5.6 Use Case: User Deletes Existing Premise Contact Record in RMS

When the end-user deletes an existing premise contact record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise contact and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise contact record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.6.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise contact (i.e., a single premise contact record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2002". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.6.2 Workflow Details

- 1. The end-user deletes an existing premise contact record within the external RMS and flags the record to be exported to Enterprise CAD.
- The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2002" to designate the record type as premise contact information.
 - c. The <ROWID> element shall contain the premise code and phone type (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location



accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.

- a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
- b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise contact record.
 - a. When the file contents meet the requirements for a valid premise contact record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise contact record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise contact record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise contact record.
- 7. The interface shall determine if the file contents indicate an existing record by comparing the premise code and phone type contained within the XML file against premise codes/phone types recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise contact record is to be deleted (**DELETE** transaction) and the premise code/phone type do exist in Enterprise CAD, the interface shall delete the existing premise contact record.



- b. When the XML directive indicates the premise contact record is to be deleted (**DELETE** transaction) and the premise code/phone type do not exist in Enterprise CAD, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise contact record contents. This XML file shall be written to the configured network location designated for error response files.
- c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise contact record and any success or error conditions arising from such actions.

5.7 Use Case: User Creates New Premise Hazmat Record in RMS

When the end-user creates a new premise hazmat record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise hazmat and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall build a premise record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.7.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise hazmat (i.e., a single premise hazmat record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2003". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.7.2 Workflow Details

- 1. Workflow Details
- 2. The end-user creates a new premise hazmat record within the external RMS and flags the record to be exported to Enterprise CAD.



- 3. The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2003" to designate the record type as premise hazmat information.
 - c. The <ROWID> element shall contain the premise code and chemical name (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- 4. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 5. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise YYYYMMDDHHMMSSmsec.xml.
- 6. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 7. The interface shall determine if the consumed file meets the requirements for a valid premise hazmat record.
 - a. When the file contents meet the requirements for a valid premise hazmat record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise hazmat record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the



- error response along with the original premise hazmat record contents. This XML file shall be written to the configured network location designated for error response files.
- c. The interface shall follow the standard logging process to document the actions taken to validate the premise hazmat record.
- 8. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and chemical name contained within the XML file against premise codes/chemical names recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise hazmat record is new (INSERT transaction) and the premise code/chemical name do not exist in Enterprise CAD, the interface shall compose a premise hazmat record and insert it into the Enterprise CAD database. The interface shall keep the XML directive as an INSERT transaction.
 - b. When the XML directive indicates the premise hazmat record is new (INSERT transaction) and the premise code/chemical name do exist in Enterprise CAD, the interface shall compose a premise hazmat record and update the existing one in the Enterprise CAD database. The interface shall change the XML directive to be an UPDATE transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise hazmat record and any success or error conditions arising from such actions.

5.8 Use Case: User Updates Existing Premise Hazmat Record in RMS

When the end-user updates an existing premise hazmat record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise hazmat and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise hazmat record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.8.1 Preconditions

 The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise hazmat (i.e., a single premise hazmat record).



- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2003". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.8.2 Workflow Details

- 1. The end-user updates an existing premise hazmat record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise hazmat export-flagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2003" to designate the record type as premise hazmat information.
 - c. The <ROWID> element shall contain the premise code and chemical name (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.



- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise hazmat record.
 - a. When the file contents meet the requirements for a valid premise hazmat record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise hazmat record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise hazmat record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise hazmat record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and chemical name contained within the XML file against premise codes/chemical names recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise hazmat record is existing (UPDATE transaction) and the premise code/chemical name do exist in Enterprise CAD, the interface shall compose a premise hazmat record and update the existing one in the Enterprise CAD database. The interface shall keep the XML directive as an UPDATE transaction.
 - b. When the XML directive indicates the premise hazmat record is existing (**UPDATE** transaction) and the premise code/chemical name **do not exist** in Enterprise CAD, the interface shall compose a premise hazmat record and insert it into the Enterprise CAD database. The interface shall change the XML directive to be an **INSERT** transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise hazmat record and any success or error conditions arising from such actions.

5.9 Use Case: User Deletes Existing Premise Hazmat Record in RMS

When the end-user deletes an existing premise hazmat record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise hazmat and export



the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise hazmat record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.9.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise hazmat (i.e., a single premise hazmat record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2003". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.9.2 Workflow Details

- 1. The end-user deletes an existing premise hazmat record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2003" to designate the record type as premise hazmat information.
 - c. The <ROWID> element shall contain the premise code and chemical name (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.



- a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
- b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise hazmat record.
 - a. When the file contents meet the requirements for a valid premise hazmat record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise hazmat record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise hazmat record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise hazmat record.
- 7. The interface shall determine if the file contents indicate an existing record by comparing the premise code and chemical name contained within the XML file against premise codes/chemical names recorded in the Inform CAD database.
 - a. When the XML directive indicates the premise hazmat record is to be deleted (**DELETE** transaction) and the premise code/chemical name **do exist** in Inform CAD, the interface shall delete the existing premise hazmat record.
 - b. When the XML directive indicates the premise hazmat record is to be deleted (**DELETE** transaction) and the premise code/chemical name



do not exist in Inform CAD, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise hazmat record contents. This XML file shall be written to the configured network location designated for error response files.

c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise hazmat record and any success or error conditions arising from such actions.

5.10 Use Case: User Creates New Premise Caution Note Record in RMS

When the end-user creates a new premise caution note record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise caution note and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall build a premise record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.10.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise caution note (i.e., a single premise caution note record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2004". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.10.2 Workflow Details

- 1. The end-user creates a new premise caution note record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.



- b. The <MESSAGETYPEID> element shall contain the value, "2004" to designate the record type as premise caution note information.
- c. The <ROWID> element shall contain the premise code and external caution note ID (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise caution note record.
 - a. When the file contents meet the requirements for a valid premise caution note record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise caution note record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise caution note record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise caution note record.



- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and external caution note ID contained within the XML file against premise codes/external caution note IDs recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise caution note record is new (INSERT transaction) and the premise code/external caution note ID do not exist in Enterprise CAD, the interface shall compose a premise caution note record and insert it into the Inform CAD database. The interface shall keep the XML directive as an INSERT transaction.
 - b. When the XML directive indicates the premise caution note record is new (INSERT transaction) and the premise code/external caution note ID do exist in Enterprise CAD, the interface shall compose a premise caution note record and update the existing one in the Enterprise CAD database. The interface shall change the XML directive to be an UPDATE transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise caution note record and any success or error conditions arising from such actions.

5.11 Use Case: User Updates Existing Premise Caution Note Record in RMS

When the end-user updates an existing premise caution note record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise caution note and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise caution note record based on the data contained within the XML file and import the data to the Inform CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.11.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise caution note (i.e., a single premise caution note record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.



• The business rule number for this interface is identified as "2004". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.11.2 Workflow Details

- 1. The end-user updates an existing premise caution note record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise caution note export-flagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2004" to designate the record type as premise caution note information.
 - c. The <ROWID> element shall contain the premise code and external caution note ID (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- 3. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise caution note record.



- a. When the file contents meet the requirements for a valid premise caution note record, the interface shall determine the next course of action based on the directive composed within the XML file.
- b. When the file contents do not meet the requirements for a valid premise caution note record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise caution note record contents. This XML file shall be written to the configured network location designated for error response files.
- c. The interface shall follow the standard logging process to document the actions taken to validate the premise caution note record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and external caution note ID contained within the XML file against premise codes/external caution note IDs recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise caution note record is existing (UPDATE transaction) and the premise code/external caution note ID do exist in Enterprise CAD, the interface shall compose a premise caution note record and update the existing one in the Enterprise CAD database. The interface shall keep the XML directive as an UPDATE transaction.
 - b. When the XML directive indicates the premise caution note record is existing (UPDATE transaction) and the premise code/external caution note ID do not exist in Enterprise CAD, the interface shall compose a premise caution note record and insert it into the Enterprise CAD database. The interface shall change the XML directive to be an INSERT transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise caution note record and any success or error conditions arising from such actions.

5.12 Use Case: User Deletes Existing Premise Caution Note Record in RMS

When the end-user deletes an existing premise caution note record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise caution note and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise caution note record based on the data contained within the XML file and import the data to the



Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.12.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise caution note (i.e., a single premise caution note record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2004". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.12.2 Workflow Details

- 1. The end-user deletes an existing premise caution note record within the external RMS and flags the record to be exported to Enterprise CAD.
- The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2004" to designate the record type as premise caution note information.
 - c. The <ROWID> element shall contain the premise code and external caution note ID (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- 3. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.



- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise caution note record.
 - a. When the file contents meet the requirements for a valid premise caution note record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise caution note record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise caution note record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise caution note record.
- 7. The interface shall determine if the file contents indicate an existing record by comparing the premise code and external caution note ID contained within the XML file against premise codes/external caution note IDs recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise caution note record is to be deleted (**DELETE** transaction) and the premise code/external caution note ID **do exist** in Enterprise CAD, the interface shall delete the existing premise caution note record.
 - b. When the XML directive indicates the premise caution note record is to be deleted (**DELETE** transaction) and the premise code/external caution note ID **do not exist** in Enterprise CAD, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise caution note record contents. This XML file shall be written to the configured network location designated for error response files.



c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise caution note record and any success or error conditions arising from such actions.

5.13 Use Case: User Creates New Premise Alarm Zone Record in RMS

When the end-user creates a new premise alarm zone record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise alarm zone and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall build a premise record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.13.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise alarm zone (i.e., a single premise alarm zone record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2006". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.13.2 Workflow Details

- 1. The end-user creates a new premise alarm zone record within the external RMS and flags the record to be exported to Enterprise CAD.
- The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2006" to designate the record type as premise alarm zone information.
 - c. The <ROWID> element shall contain **the premise code and "ZONE" label** (separated by the designated separator character) from the



external RMS. This value shall be used as the unique identifier for the record.

- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise alarm zone record.
 - a. When the file contents meet the requirements for a valid premise alarm zone record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise alarm zone record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise alarm zone record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise alarm zone record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and label contained within the XML file against premise codes/labels recorded in the Enterprise CAD database.



- a. When the XML directive indicates the premise alarm zone record is new (INSERT transaction) and the premise code/"ZONE" label do not exist in Enterprise CAD, the interface shall compose a premise alarm zone record and insert it into the Enterprise CAD database. The interface shall keep the XML directive as an INSERT transaction.
- b. When the XML directive indicates the premise alarm zone record is new (INSERT transaction) and the premise code/"ZONE" label does exist in Enterprise CAD, the interface shall compose a premise alarm zone record and update the existing one in the Enterprise CAD database. The interface shall change the XML directive to be an UPDATE transaction.
- c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise alarm zone record and any success or error conditions arising from such actions.

5.14 Use Case: User Updates Existing Premise Alarm Zone Record in RMS

When the end-user updates an existing premise alarm zone record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise alarm zone and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise alarm zone record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.14.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise alarm zone (i.e., a single premise alarm zone record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2006". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.



5.14.2 Workflow Details

- 1. The end-user updates an existing premise alarm zone record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise alarm zone export-flagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2006" to designate the record type as premise alarm zone information.
 - c. The <ROWID> element shall contain the premise code and "ZONE" label (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise alarm zone record.
 - a. When the file contents meet the requirements for a valid premise alarm zone record, the interface shall determine the next course of action based on the directive composed within the XML file.



- b. When the file contents do not meet the requirements for a valid premise alarm zone record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise alarm zone record contents. This XML file shall be written to the configured network location designated for error response files.
- c. The interface shall follow the standard logging process to document the actions taken to validate the premise alarm zone record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and label contained within the XML file against premise codes/labels recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise alarm zone record is existing (UPDATE transaction) and the premise code/"ZONE" label do exist in Enterprise CAD, the interface shall compose a premise alarm zone record and update the existing one in the Enterprise CAD database. The interface shall keep the XML directive as an UPDATE transaction.
 - b. When the XML directive indicates the premise alarm zone record is existing (**UPDATE** transaction) and the premise code/"ZONE" label **do not exist** in Enterprise CAD, the interface shall compose a premise alarm zone record and insert it into the Enterprise CAD database. The interface shall change the XML directive to be an **INSERT** transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise alarm zone record and any success or error conditions arising from such actions.

5.15 Use Case: User Deletes Existing Premise Alarm Zone Record in RMS

When the end-user deletes an existing premise alarm zone record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise alarm zone and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise alarm zone record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.15.1 Preconditions

 The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall



- contain data for a single premise alarm zone (i.e., a single premise alarm zone record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2006". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.15.2 Workflow Details

- 1. The end-user deletes an existing premise alarm zone record within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
- 3. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
- 4. The <MESSAGETYPEID> element shall contain the value, "2006" to designate the record type as premise alarm zone information.
- 5. The <ROWID> element shall contain the premise code and "ZONE" label (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- 6. The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
- 7. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
- The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
- 10. The date/time recorded by the operating system attribute DateLastModified.
- 11. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.



- 12. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 13. The interface shall determine if the consumed file meets the requirements for a valid premise alarm zone record.
- 14. When the file contents meet the requirements for a valid premise alarm zone record, the interface shall determine the next course of action based on the directive composed within the XML file.
- 15. When the file contents do not meet the requirements for a valid premise alarm zone record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise alarm zone record contents. This XML file shall be written to the configured network location designated for error response files.
- 16. The interface shall follow the standard logging process to document the actions taken to validate the premise alarm zone record.
- 17. The interface shall determine if the file contents indicate an existing record by comparing the premise code and label contained within the XML file against premise codes/labels recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise alarm zone record is to be deleted (**DELETE** transaction) and the premise code/"ZONE" label **do exist** in Enterprise CAD, the interface shall delete the existing premise alarm zone record.
 - b. When the XML directive indicates the premise alarm zone record is to be deleted (**DELETE** transaction) and the premise code/"ZONE" label **do not exist** in Enterprise CAD, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise alarm zone record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise alarm zone record and any success or error conditions arising from such actions.

5.16 Use Case: User Creates New Premise Attachment Record in RMS

When the end-user creates a new premise attachment within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise attachment and export both the file to be attached and the XML file describing the file to be attached to the designated file share location. The interface shall monitor that location for new files



whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall process the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.16.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise attachment (i.e., a single premise attachment file).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files and attachment files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems. Both the premise attachment record XML file and the premise attachment file reside in the same network share location for processing, so to avoid a race condition, premise attachment files must be loaded into the network share location prior to loading the premise attachment record XML files.
- The business rule number for this interface is identified as "2007". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.16.2 Workflow Details

- 1. The end-user creates a new premise attachment within the external RMS and flags the record to be exported to Enterprise CAD.
- 2. The external RMS shall compose an XML-format file for each premise export-flagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2007" to designate the record type as premise attachment information.
 - c. The <ROWID> element shall contain the **premise code and filename** (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.
- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.



- a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
- b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise attachment record.
 - a. When the file contents meet the requirements for a valid premise attachment record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise attachment record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise attachment record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise attachment record.
- 7. The interface shall determine if the file contents indicate a new record or an existing record by comparing the premise code and filename contained within the XML file against premise codes/labels recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise attachment record is new (INSERT transaction) and the premise code/filename do not exist in Enterprise CAD, the interface shall compose a premise attachment record and insert it into the Enterprise CAD database. The interface shall keep the XML directive as an INSERT transaction.
 - b. When the XML directive indicates the premise attachment record is new (INSERT transaction) and the premise code/filename **do exist** in Enterprise CAD, the interface shall compose a premise attachment record and update the existing one in the Enterprise CAD database. The interface shall change the XML directive to be an **UPDATE** transaction.
 - c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise attachment record and any success or error conditions arising from such actions.



5.17 Use Case: User Updates Existing Premise Attachment Record in RMS Updating a premise attachment is not a valid action.

5.18 Use Case: User Deletes Existing Premise Attachment Record in RMS

When the end-user deletes an existing premise attachment record within the RMS and that record is designated to be exported to Enterprise CAD, the RMS will automatically create an XML file containing the predefined data about that premise attachment and export the file to the designated file share location. The interface shall monitor that location for new files whose filenames begin with the designated identifying string of characters (e.g., "Premise_") and when found shall update the matched premise attachment record based on the data contained within the XML file and import the data to the Enterprise CAD database using configured business rules that define how the data shall be conformed to the Enterprise CAD database schema.

5.18.1 Preconditions

- The external RMS system shall be programmed/configured to build an XML file based on the specifications found in this document. Each XML file shall contain data for a single premise attachment (i.e., a single premise attachment record).
- The external RMS system shall write XML files with a filename that begins with the string, "Premise_".
- The external RMS system shall be programmed/configured to place composed XML files within a predefined shared location on the Enterprise CAD network or a designated network location accessible by both systems.
- The business rule number for this interface is identified as "2007". This value shall be contained in the <MESSAGETYPEID> element within the XML file to identify the type of data contained within the XML document.

5.18.2 Workflow Details

- 1. The end-user deletes an existing premise attachment record within the external RMS and flags the record to be exported to Enterprise CAD.
- The external RMS shall compose an XML-format file for each premise exportflagged using the format specifications found in this document.
 - a. The composed XML file shall contain all the required fields as identified within the specifications found in this document.
 - b. The <MESSAGETYPEID> element shall contain the value, "2007" to designate the record type as premise attachment information.
 - c. The <ROWID> element shall contain the premise code and filename (separated by the designated separator character) from the external RMS. This value shall be used as the unique identifier for the record.



- The external RMS shall write the XML file to the predefined shared network location within the Enterprise CAD network or a designated network location accessible by both systems. The filename shall be composed in a manner specified within the interface configuration.
 - a. The filename must contain the designator, "Premise_" at the beginning of the filename. When this designator is not present, the file shall not be processed.
 - b. The filename may contain the file creation date and time (down to milliseconds) expressed in the format YYYYMMDDHHMMSSSSS.
- 4. The interface shall monitor the shared network location for new files meeting the filename requirements. The interface shall determine which is the oldest file by one of two methods.
 - a. The date/time recorded by the operating system attribute DateLastModified.
 - b. The date/time embedded within the filename when composed as Premise_YYYYMMDDHHMMSSmsec.xml.
- 5. When the interface identifies a file matching the filename requirements, the interface shall consume the file contents. When more than one file is found matching the filename requirements, the oldest file is consumed based on the configured settings for determining file age.
- 6. The interface shall determine if the consumed file meets the requirements for a valid premise attachment record.
 - a. When the file contents meet the requirements for a valid premise attachment record, the interface shall determine the next course of action based on the directive composed within the XML file.
 - b. When the file contents do not meet the requirements for a valid premise attachment record, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise attachment record contents. This XML file shall be written to the configured network location designated for error response files.
 - c. The interface shall follow the standard logging process to document the actions taken to validate the premise attachment record.
- 7. The interface shall determine if the file contents indicate an existing record by comparing the premise code and label contained within the XML file against premise codes/labels recorded in the Enterprise CAD database.
 - a. When the XML directive indicates the premise attachment record is to be deleted (**DELETE** transaction) and the premise code/filename **do**



- **exist** in Enterprise CAD, the interface shall delete the existing premise attachment record and premise attachment file.
- b. When the XML directive indicates the premise attachment record is to be deleted (DELETE transaction) and the premise code/filename do not exist in Enterprise CAD, the interface shall compose an error response in the form of an XML-formatted file. The XML file shall contain the error response along with the original premise attachment record contents. This XML file shall be written to the configured network location designated for error response files.
- c. The interface shall follow the standard logging process to document the actions taken to validate and compose the premise attachment record and any success or error conditions arising from such actions.



Roles 6

Role	Definition
CAD Administrator	Person responsible for ongoing configuration of the CAD system. This person may be the same as the System Administrator.
CAD User	Person who has an active role to play within the CAD user base and who regularly uses the CAD system to perform that role.
System Administrator	Person responsible for daily maintenance of the system (e.g., database backups, routine maintenance tasks etc.).
CentralSquare Engineer	Person responsible for initial installation, configuration, and integration testing of the Interface.



7 Glossary

Term	Definition
CentralSquare	CentralSquare Technologies
Administrator	Client System/Agency/Interface Administrator
Interface	The software module described herein
Enterprise CAD	The CentralSquare Computer Aided Dispatch software product
Users	Customer personnel who perform dispatcher and call-taking functions

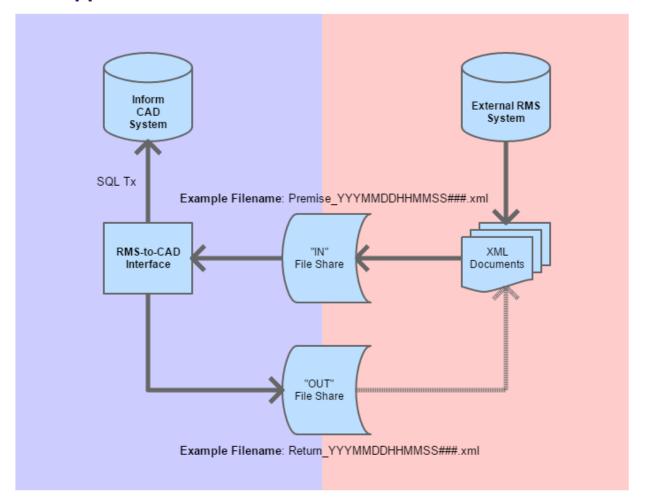


8 Disclaimers

This document, and the information contained herein, is proprietary and confidential to CentralSquare Technologies. Disclosure of this information to any third party, corporation, agency, or other entity of any kind without the express written permission of CentralSquare Technologies is strictly prohibited.



9 Appendix A – Data Flow





10 Appendix B - Data Mapping

10.1 Premise Location Information (Base Premise Record) – File Type 2001

XML FIELD/TAG	REQ?		INFORM CAD			
		TABLE NAME	FIELD NAME	DATA TYPE	SIZE	
MESSAGETYPEID	Υ					File type: 2001
MESSAGEQUEUEID	N					Unique serial file identifier from external RMS
DESTINATIONNAME	N					"INFORMCAD"
MESSAGEQUEUETIME	N					Date-time composed yyyy- mm-dd HH:mm:ss
FLAG	Y					Action type: INSERT, UPDATE, DELETE
ROWID	Υ					Same as CODE below
CODE	Y	Locations	Code	Text	10	Key field – Inform CAD Premise Code
PARENT_LOCATION_ID	N	Locations	Code (of parent location record)	Text	10	For sublocations, this is the reference Code for the parent location
NAME	Y	Locations	Name	Text	400	Must be unique to each premise record in Inform CAD. Can add serialization suffix to incoming value to provide uniqueness if not provided by source.
STRNO PREFIX	Y	Locations	Address	Text	400	Street address (a single field to include street



STRNAME STREETTYPE SUFFIX						number, directional, street name, street type). Geovalidation of address is attempted by interface when configured.
CITY	N	Locations	City	Text	35	
STATE	N	Locations	State	Text	5	
ZIP	N	Locations	Zip	Text	10	
		Locations	Latitude	Integer		No need to send – determined by
		Locations	Longitude	Integer		successful geovalidation of address.
		Locations	StreetID	Integer		
UNIT	N	Locations	Apt	Text	10	
BUILDING_USE	Y	{translation}		Text	255	Interface will perform cross- reference translation from RMS value to Inform CAD Location Type.
BLDPHONE	N	Locations	Phone	Text	20	
CROSSSTREET	N	Locations	Cross_Street	Text	400	
PREPLANNUMBER	N	Locations	PrePlan_Reference	Text	10	Can be unique file reference.
		Locations	ActiveFlag	Bit	1	Assumed only active premises are sent.
		Locations	IsCaller	Bit	1	Default value used.



10.2 Premise Contact Information – File Type 2002

XML FIELD/TAG	REQ?	INFORM CAD				COMMENTS
		TABLE NAME	FIELD NAME	DATA TYPE	SIZE	
MESSAGETYPEID	Y					File type: 2002
MESSAGEQUEUEID	N					Unique serial file identifier from external RMS
DESTINATIONNAME	N					"INFORMCAD"
MESSAGEQUEUETIME	N					Date-time composed yyyy- mm-dd HH:mm:ss
FLAG	Y					Action type: INSERT, UPDATE, DELETE
ROWID	Y	Locations LocationPersonnel	Code ShowNote	Text Text	10 255	ROWID is a combination of the premise code and the unique reference mapped as PHONE1TYPE separated by an ASCII pipe symbol (I). For example, DW010 Office
FIRSTNAME	Y	LocationPersonnel	Name	Text	30	Separate FIRSTNAME and
LASTNAME	N					LASTNAME fields from the external source will be combined into a single Name field in Inform CAD. Alternatively, the configuration can support a single NAME source field with the full display name.
PHONE1TYPE	Y	LocationPersonnel	ShowNote	Text	255	Each PHONE1NUMBER
PHONE1NUMBER	N	LocationPersonnel	Phone	Text	20	and PHONE1TYPE pair is converted into a separate record. The Name is appended with a serialization to observe uniqueness constraints.



						The ShowNote field dispalys with a label of Comment for the contact records in the Inform CAD Premise Utility.
POSITION	N	LocationPersonnel	Position	Text	30	Job title of personnel.
LOCATION	N	LocationPersonnel	Location	Text	400	Specific location where personnel are located.



10.3 Premise Hazardous Materials Information – File Type 2003

XML FIELD/TAG	REQ?						
		TABLE NAME	FIELD NAME	DATA TYPE	SIZE		
MESSAGETYPEID	Y					File type: 2003	
MESSAGEQUEUEID	N					Unique serial file identifier from external RMS	
DESTINATIONNAME	N					"INFORMCAD"	
MESSAGEQUEUETIME	N					Date-time composed yyyy- mm-dd HH:mm:ss	
FLAG	Y					Action type: INSERT, UPDATE, DELETE	
ROWID	Y	Locations Location_Hazmat_Info	Code ShipName	Text Text	10 50	ROWID is a combination of the premise code and the unique reference mapped as SHIPNAME separated by an ASCII pipe symbol (I). For example, DW010 Acetic acid anhydride	
CODE	Y	Locations	Code	Text	10	Premise code.	
SHIPNAME	Υ	Location_Hazmat_Info	Chemical_Name	Text	50		
DOT_NO	N	Location_Hazmat_Info	Chemical_ID	Integer			
GUIDENO	N	Location_Hazmat_Info	Chemical_Guide	Integer	<32768		
QTY	N	Location_Hazmat_Info	Quantity	Text	30	Quantity as value and units.	
LOCATION	N	Location_Hazmat_Info	StorageLocation	Text	255		



10.4 Premise Caution Notes Information – File Type 2004

XML FIELD/TAG	REQ?		COMMENTS			
		TABLE NAME	FIELD NAME	DATA TYPE	SIZE	
MESSAGETYPEID	Υ					File type: 2004
MESSAGEQUEUEID	N					Unique serial file identifier from external RMS
DESTINATIONNAME	N					"INFORMCAD"
MESSAGEQUEUETIME	N					Date-time composed yyyy- mm-dd HH:mm:ss
FLAG	Y					Action type: INSERT, UPDATE, DELETE
ROWID	Y	Locations Caution_Notes	Code Caution Note External Key	Text Text	10 50	ROWID is a combination of the premise code and the unique reference mapped as ID (caution note external key) separated by an ASCII pipe symbol (). For example, DW010 123456
CODE	Υ	Locations	Code	Text	10	Premise code.
ID	Y	Caution_Notes	CautionNoteExternalKey (and an applied CautionNoteExternalSource value)	Text	50	A unique ID from the external system (i.e., record ID) used as reference to the caution note for updating and deleting subsequent to the insert. In addition, during implementation, the interface is configured with an external source
CAUTION_NOTE	Y		Caution_Note	Text	255	identifier default. Linked to premise
						record through Inform CAD CautionNotes_Link



				table in the Streets database.
PRIORITY	N	CautionNotePriorityID	Integer	List of caution note priorities with corresponding IDs will be provided after Inform CAD system configuration with client.
SOURCE	N	CautionNoteSourceID	Integer	List of caution note sources with corresponding IDs will be provided after Inform CAD system configuration with client.
CATEGORY	N	CautionNoteCategoryID	Integer	List of caution note categories with corresponding IDs will be provided after Inform CAD system configuration with client.
STARTDATE	Υ	Start_Date	Datetime	YYYY-MM-DD
ENDDATE	Y	End_Date	Datetime	YYYY-MM-DD Blank for no expiration.
HIERARCHY	Y			CAD agency or jurisdiction to which record belongs. Populates CautionNotes_ Link.AgencyID field. Default action nis to create the caution note in all agencies.



10.5 Premise Alarm Zones Information – File Type 2006

XML FIELD/TAG	REQ?						
		TABLE NAME	FIELD NAME	DATA TYPE	SIZE		
MESSAGETYPEID	Y					File type: 2006	
MESSAGEQUEUEID	N					Unique serial file identifier from external RMS	
DESTINATIONNAME	N					"INFORMCAD"	
MESSAGEQUEUETIME	N					Date-time composed yyyy- mm-dd HH:mm:ss	
FLAG	Y					Action type: INSERT, UPDATE, DELETE	
ROWID	Y	Locations Caution_Notes	Code Caution Note External Key	Text Text	10 50	ROWID is a combination of the premise code and the keyword "ZONE" separated by an ASCII pipe symbol (). For example, DW010 ZONE	
CODE	Υ	Locations	Code	Text	10	Premise code.	
[zone 1 label]	Y	Location_AlarmZones Location_AlarmZones	Description Note	Text Text	30 255	The XML tag maps to the Description field and must be predefined in the interface business rules. No spaces allowed. The value maps to the Note field.	
[zone 2 label]	Y	Location_AlarmZones Location_AlarmZones	Description Note	Text Text	30 255	The XML tag maps to the Description field and must be predefined in the interface business rules. No spaces allowed. The value maps to the Note field.	
[zone 3 label]	Y	Location_AlarmZones	Description	Text	30	The XML tag maps to the Description	



	Location_AlarmZones	Note	Text	255	field and must be predefined in the interface business rules. No spaces allowed. The value maps to the Note field.
Schema continues for as many "zon	es" as are defined in the	interface business rules.			



10.6 Premise Attachment Information – File Type 2007

XML FIELD/TAG	REQ?		COMMENTS			
		TABLE NAME	FIELD NAME	DATA TYPE	SIZE	
MESSAGETYPEID	Υ					File type: 2007
MESSAGEQUEUEID	N					Unique serial file identifier from external RMS
DESTINATIONNAME	N					"INFORMCAD"
MESSAGEQUEUETIME	N					Date-time composed yyyy- mm-dd HH:mm:ss
FLAG	Y					Action type: INSERT, DELETE
ROWID	Y	Locations	Code	Text	10	ROWID is the existing premise record to link the document as an attachment.
CODE	Y	LocationAttachment	LocationID	Text	30	The premise code of an existing premise record to link the document as an attachment.
FILENAME	Y	DocumentDocument	FileName	Text	4000	The full name (filename with extension) that is staged in the "IN" directory by the source system to be processed into Inform CAD as a premise attachment.
DESCRIPTION	N	DocumentDocument	Description	Text	255	Describes the file to the users.
ADDTOINCIDENT	N	LocationAttachment	AddToIncident	Bit		1 = Document will be attached to incidents created from the premise record. Candidate for default value.





11 Appendix C – XML Samples

11.1 Base Premise Record (2001) – Master Location

```
<?xml version="1.0" ? >
<DOC>
     <HEADER>
          <MESSAGETYPEID>2001</MESSAGETYPEID>
          <MESSAGEQUEUEID>2334168</messageQUEUEID>
          <DESTINATIONNAME>INFORMCAD/DESTINATIONNAME>
          <MESSAGEQUEUETIME>2018-11-28 14:49:46
     </HEADER>
     <ROW>
          <ROWID>F0ANB</ROWID>
          <FLAG>INSERT<//FLAG>
          <COLUMN>
                <CODE>F0ANB</CODE>
                <PARENT_LOCATION_ID>FOANB/PARENT_LOCATION_ID>
                <NAME>Dispatch Warehouse</NAME>
                <STREETNO>1234</STREETNO>
                <PREFIX>W</PREFIX>
                <STRNAME>PIKE</STRNAME>
                <STREETTYPE>ST</STREETTYPE>
                <SUFFIX></SUFFIX>
                <CITY>Seattle</CITY>
                <STATE>WA</STATE>
                <UNIT>401</UNIT>
                <BLDPHONE>5557218100</BLDPHONE>
                <PREPLANNUMBER>5915/PREPLANNUMBER>
                <BUILDING_USE>Office Building/BUILDING_USE>
          </COLUMN>
     </ROW>
</DOC>
```



11.2 Base Premise Record (2001) - Sub Location

```
<?xml version="1.0" ? >
<DOC>
     <HEADER>
          <MESSAGETYPEID>2001</MESSAGETYPEID>
          <MESSAGEQUEUEID>2334192</messageQUEUEID>
          <DESTINATIONNAME>INFORMCAD/DESTINATIONNAME>
          <MESSAGEQUEUETIME>2018-11-28 14:49:47
     </HEADER>
     <ROW>
          <ROWID>W4ANB</ROWID>
          <FLAG>INSERT<//FLAG>
          <COLUMN>
               <CODE>W4ANB</CODE>
               <PARENT_LOCATION_ID>FOANB</PARENT_LOCATION_ID>
               <NAME>CADs R Us</NAME>
               <STREETNO>1234</STREETNO>
               <PREFIX>W</PREFIX>
               <STRNAME>PIKE</STRNAME>
               <STREETTYPE>ST</STREETTYPE>
               <SUFFIX></SUFFIX>
               <CITY>Seattle</CITY>
               <STATE>WA</STATE>
               <UNIT>401B</UNIT>
               <BLDPHONE>5551239876
               <PREPLANNUMBER>
               <BUILDING_USE>Office Building/BUILDING_USE>
          </COLUMN>
     </ROW>
</DOC>
```



11.3 Premise Contact Record (2002)

```
<?xml version="1.0" ? >
<DOC>
     <HEADER>
           <MESSAGETYPEID>2002</MESSAGETYPEID>
           <MESSAGEQUEUEID>5453855</messageQUEUEID>
           <DESTINATIONNAME>INFORMCAD/DESTINATIONNAME>
           <MESSAGEQUEUETIME>2018-11-28 23:25:17</messagequeuetime>
     </HEADER>
     <ROW>
           <ROWID>F0ANB|4576</ROWID>
           <FLAG>INSERT</FLAG>
           <COLUMN>
                <FIRSTNAME>FRED</FIRSTNAME>
                <LASTNAME>SMITH</LASTNAME>
                <PHONE1TYPE>Cell</PHONE1TYPE>
                <PHONE1NUMBER>5553457654</PHONE1NUMBER>
                <POSITION>Security Manager</POSITION>
                <LOCATION>Security Office - Main Building (1236 W)
                            Pike)</LOCATION>
           </COLUMN>
     </ROW>
</DOC>
```



11.4 Premise Hazmat Record (2003)

```
<?xml version="1.0" ? >
<DOC>
     <HEADER>
          <MESSAGETYPEID>2003</MESSAGETYPEID>
          <MESSAGEQUEUEID>5453857</messageQUEUEID>
          <DESTINATIONNAME>INFORMCAD/DESTINATIONNAME>
          <MESSAGEQUEUETIME>2018-11-28 23:25:21</messagequeuetime>
     </HEADER>
     <ROW>
          <ROWID>F0ANB|Acetic acid anhydride
          <FLAG>INSERT</FLAG>
          <COLUMN>
               <CODE>F0ANB</CODE>
                <SHIPNAME>Acetic acid anhydride
                <DOT_NO>1234</DOT_NO>
                <GUIDENO>108</GUIDENO>
                <QTY>1,000 to 9,999 pounds</QTY>
                <LOCATION>Main Storage Room SW Corner
          </COLUMN>
     </ROW>
</DOC>
```



11.5 Premise Caution Note Record (2004)

```
<?xml version="1.0" ? >
<DOC>
     <HEADER>
           <MESSAGETYPEID>2004</MESSAGETYPEID>
           <MESSAGEQUEUEID>5453859</messageQUEUEID>
           <DESTINATIONNAME>INFORMCAD/DESTINATIONNAME>
           <MESSAGEQUEUETIME>2018-11-28 23:25:23
     </HEADER>
     <ROW>
           <ROWID>F0ANB|34512</ROWID>
           <FLAG>INSERT</FLAG>
           <COLUMN>
                <CODE>F0ANB</CODE>
                <ID>34512</ID>
                <CAUTION_NOTE>Inadequate sprinkler protection,
                           no access on west side. Poor aisle and egressways. Bulk
                           storage unstable. No venting or curtain boards. Lots of
                           Styrofoam packing.</CAUTION NOTE>
                <PRIORITY>1</PRIORITY>
                <SOURCE>3</SOURCE>
                <CATEGORY>3</CATEGORY>
                <STARTDATE>2012-07-23</STARTDATE>
                <ENDDATE>2020-07-23
           </COLUMN>
     </ROW>
</DOC>
```



11.6 Premise Alarm Zone Record (2006)

```
<?xml version="1.0" ? >
<DOC>
     <HEADER>
          <MESSAGETYPEID>2004</MESSAGETYPEID>
          <MESSAGEQUEUEID>5453928/MESSAGEQUEUEID>
          <DESTINATIONNAME>INFORMCAD/DESTINATIONNAME>
          <MESSAGEQUEUETIME>2018-11-28 23:25:33
     </HEADER>
     <ROW>
          <ROWID>F0ANB|ZONE</ROWID>
          <FLAG>INSERT</FLAG>
          <COLUMN>
               <ANNUNCIATORLOCATION>Back Door
               <COMMONATTIC>Yes</COMMONATTIC>
               <CONTROLPANELLOCATION>Front Door</CONTROLPANELLOCATION>
               <DOMESTERWATERSHUTOFF>In Alley/DOMESTICWATERSHUTOFF>
               <ELECTRICALPANELLOCATION>Bravo Side
                    </ELECTRICALPANELLOCATION>
               <EMERGENCYGENERATOR>Yes
               <EMERGENCYGENERATORLOCATION>Bravo Side
                    </EMERGENCYGENERATORLOCATION>
               <FIREALARM>Back Wall/FIREALARM>
               <GASMETERLOCATION>Bravo Side</GASMETERLOCATION>
               <LOCKBOX>Yes</LOCKBOX>
               <LOCKBOXLOCATION>Front Door</LOCKBOXLOCATION>
               <OCCUPANCYDAY>58</OCCUPANCYDAY>
               <OCCUPANCYNIGHT>0</OCCUPANCYNIGHT>
               <ROOFACCESS>Yes/ROOFACCESS>
               <SPRINKLERSYSTEM>Unknown/SPRINKLERSYSTEM>
               <SPRINKLERTYPE>Deluge</SPRINKLERTYPE>
          </COLUMN>
     </ROW>
</DOC>
```



11.7 Premise Attachment Record (2007)

```
<?xml version="1.0" ? >
<DOC>
     <HEADER>
          <MESSAGETYPEID>2007</MESSAGETYPEID>
          <MESSAGEQUEUEID>5453932</messageQUEUEID>
          <DESTINATIONNAME>INFORMCAD/DESTINATIONNAME>
          <MESSAGEQUEUETIME>2018-11-28 23:25:40</messageQUEUETIME>
     </HEADER>
     <ROW>
          <ROWID>F0ANB</ROWID>
          <FLAG>INSERT</FLAG>
          <COLUMN>
                <CODE>F0ANB</CODE>
                <FILENAME>F0ANB_Floorplan.pdf
                <DESCRIPTION>Floor Plan of Building/DESCRIPTION>
                <ADDTOINCIDENT>1</ADDTOINCIDENT>
          </COLUMN>
     </ROW>
</DOC>
```



Operational Scenario Document (OSD)

N-DEx Arrest and Incident Publisher Interface

Version 1.0



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Revisions

Date	Rev. No.	Author Comments		
12/16/2019	1	Robbin Massey	Initial	

Overview

Export From:	Enterprise RMS
Import To:	N-DEx
Module:	Arrest and Incident
Data Transfer Medium:	Network File Share
File Format:	XML
Action Trigger:	Create, Update, Delete

Description

The CentralSquare N-DEx Publisher Interface (the "Interface") is a unidirectional interface that will publish Arrest and Incident data from Enterprise RMS via XML files to the network file share.

Assumptions

- 1. Enterprise RMS has been implemented prior to delivery of the Interface.
- 2. No modifications to existing CentralSquare products are required for the Interface.
- 3. The Interface will publish the transformed data to the network file share location accessible by both the Interface and N-DEx.
- 4. The format of the published XML file will align with the Enterprise RMS. (See Supplemental Documentation).
- An Enterprise RMS user account needs to be created with permissions to run the Interface.
- 6. The Interface resides on a conventional or virtualized server platform as described in the **CentralSquare System Planning Document.**

CentralSquare Responsibilities

- 1. CentralSquare will complete the installation, training, and support of the Interface remotely.
- 2. CentralSquare will configure the Interface as required to operate in the Client environment.
- 3. CentralSquare will provide an overview of the operation and monitoring of the Interface.
- 4. CentralSquare will provide verification of the successful operation of the Interface.
- 5. CentralSquare will provide a sample publish XML file.



Client Responsibilities

- 1. The Client will provide a secure, reliable connection that has been properly configured to operate this Interface.
- 2. The Client will create and maintain the RMS data entry template.
- 3. The Client will create and maintain the RMS code tables compatible with the code fields, including Violation Codes.
- 4. The Client is responsible to manage XML files published to the network file share.

Details

Architecture

The Interface consists of a Windows service that listens on the Enterprise RMS Message Bus for event notifications. Once an event notification is detected, the Interface will use the Arrest or Incident Record Identifier to gather data from Enterprise RMS and package it into an XML document. The Interface will then publish the XML document to the configured network file share.

If the Interface is configured for Restrictions, then on the Create message, if a restriction is present it will not publish the record. This can be configured for certain restrictions. On the Update message if a Restriction is detected, the interface will send the delete xml. This is also configurable for certain restrictions only.

Event notifications are raised in Enterprise RMS under the following circumstances:

- 1. Create: An Arrest or Incident record is created in Enterprise RMS.
- 2. Update: An Arrest or Incident record is modified in Enterprise RMS.
- 3. Delete: An Arrest or Incident record is deleted in Enterprise RMS.

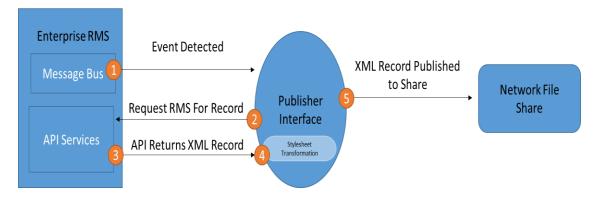
Note: For Deletion, the delete xml will only contain a node with the unique GUID of the Record's Identifier from RMS. This GUID will also be in every Create or Update message.

It should be noted that Enterprise RMS maintains two kinds of records: Reports and Summaries. In effect, these are two versions of the same report. A "Report" is the data record containing a report, which may be in the process of review. When the review is completed, this record becomes read-only and represents the initial version of the report. Upon completion, a "Summary" record is created that allows an RMS user the ability to continue to work with and make changes to the record. When the Summary record is created, an event will be raised by Enterprise RMS and processed by the Interface thus prompting the Interface to publish the Summary record to the configured network file share. In effect, the Interface acts only on Arrest or Incident data after it has been reviewed and approved at all steps in its defined workflow.



Workflows

Enterprise RMS Publisher



- 1. Enterprise RMS notifies the Interface (via the Message Bus) of the event.
- 2. The Interface requests the Arrest and Incident record(s) from Enterprise RMS.
- 3. The Arrest or Incident record(s) is returned to the Interface.
- 4. The Arrest or Incident record(s) is transformed into XML.
- 5. The Arrest or Incident XML file is immediately published to the network file share location for consumption by the third N-DEx system.
 - a. Create or Update files will be named like the following examples.

RMSWEB.Summary.Incident.6B43F3A1-6645-C5F1-821F-08D52AEBD65A.xml

RMSWEB.Summary. Arrest. 6a10bf70-e0a6-c562-d134-08d501f8cd53.xml

b. Deleted files will be named like the following examples.

The content of the delete file will only be a nodeset containing the following:

```
<RecordDeletion>
<RecordId>
RMSWEB.Summary.Arrest.6a10bf70-e0a6-c562-d134-08d501f8cd53
</RecordId>
</RecordDeletion>
```

 $RMSWEB. Summary. \textbf{Incident}. 6B43F3A1-6645-C5F1-821F-08D52AEBD65A_\textbf{Delete}. xml$

The content of the delete file will only be a nodeset containing the following:



Software

- 1. Windows Server 2012 or higher.
- 2. Microsoft .NET Framework 4.6.2 or higher.
- 3. Enterprise RMS 4.21.1 or higher.

Security

- 1. Enterprise RMS user credentials: a single user account will need to be created for the Interface to connect to the RMS API. This user account must be granted appropriate permissions for each Agency that wishes to publish data.
- 2. Enterprise RMS Message Bus credentials: a user account must be created for the Interface to receive events from the Enterprise RMS Message Bus.
- 3. File System permissions: The Windows account under which the Interface service runs must have rights to read, create, modify, and delete local files on the server where the Interface is installed.
- 4. Output location permissions: The Windows account under which the Interface service runs must have appropriate rights to publish files to the configured output location, whether SFTP (via a separate set of credentials) or network share (via implicit access).

Please note that, if the output location is a network share, the service account must be granted access on its own merit, that is, another set of credentials cannot be required to access the network location.

Logging

The Interface supports the following log levels. Each level contains the information from previous levels and adds its own layer of additional verbosity.

- Error: Critical application exceptions.
- Warning: Validation failures and non-critical errors.
- Info (default): General application execution information.
- Debug: Detailed application execution information will be logged. This level will consume
 disk space much more rapidly than the other log levels, so it is only recommended for
 use when troubleshooting application errors.

Logs can be written to a text file, the Windows Event Viewer, or sent via email to a configured address.

Supplemental Documentation

CentralSquare_EnterpriseRMS_IncidentSchema_1.6.xsd CentralSquare_EnterpriseRMS_ArrestSample_1.6.xml



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Operational Scenario Document (OSD)

Records Enterprise Citation Importer Interface

Version 1.1



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Revisions

Date	Rev. No.	Author	Comments
11/1/2019	1	Robbin Massey	Initial
8/18/2021	1.1	Robbin Massey	Update product name.

Overview

Export From:	Third Party
Import To:	Records Enterprise
Module:	Citation
Data Transfer Medium:	Network File Share
File Format:	XML file format as defined by CentralSquare
Action Trigger:	File Watch

Description

The CentralSquare Standard Citation Importer (the "Interface") is a unidirectional interface. It will import Citation data from the Third Party System into Records Enterprise. The XML imported will be in CentralSquare's Standard Citation format.

The Interface includes the import of attachments. The attachment must include a Filename, Extension, and Media in order to import. The Extension is the file type without a dot (ex: jpg, bmp). The Media is the attachment data in base64string format.

Assumptions

- 1. Records Enterprise has been implemented prior to delivery of the Interface.
- 2. No modifications to existing CentralSquare products are required for this interface.
- 3. The Third Party system will supply data to a file share as a fully documented XML file that aligns to the Records Enterprise schema format.
- 4. The network file share must be accessible to the Interface.
- 5. The Interface resides on a conventional or virtualized server platform as described in the CentralSquare System Planning Document.

CentralSquare Responsibilities

- 1. CentralSquare will complete the installation, training, and support of the Interface remotely.
- 2. CentralSquare will configure the Interface as required to operate in the Client environment.
- 3. CentralSquare will provide an overview of the operation and monitoring of the Interface.
- 4. CentralSquare will provide verification of the successful operation of the Interface.



Client Responsibilities

- 1. The Client will provide a secure, reliable connection that has been properly configured to operate this Interface.
- The Client will ensure that Records Enterprise code tables are configured and
 maintained with values compatible with the Third Party system. It is important to remain
 aware the code table values are often a critical part of system operation, and
 customizations must also take external systems into account.
- 3. The Client will ensure that data entry templates in Records Enterprise will contain all the necessary fields compatible with data elements required to be exchanged with the Third Party system. As with code tables, data entry templates are configurable. The Client may potentially have customization needs, and such customizations should take the Interface with external systems into account.

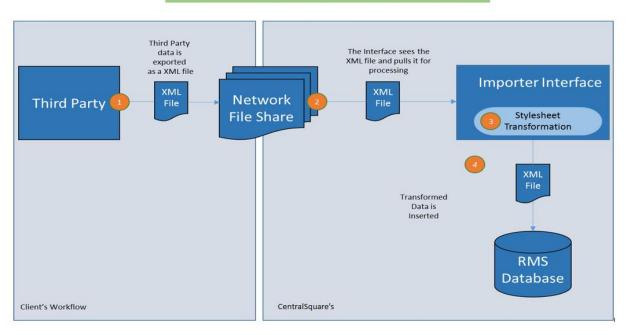
Details

Architecture

The Third Party System will export Citation related data in an XML format to the network file share. The Interface will automatically detect the XML file in the network file share. Once detected, the Interface will transform the data and insert it into the Records Enterprise system as a Citation Summary. Records Enterprise will handle Master Indices Resolution.

Workflows

Standard Importer Interface Overview



Client's Workflow:

1. Third Party Citation System publishes Citation data in an XML document to the network file share.



CentralSquare's Workflow:

- 2. The Interface automatically detects the XML file on the network file share.
- 3. The Interface transforms the XML file into a format that can be accepted by Records Enterprise.
- 4. The Interface imports the Citation data into Records Enterprise as a Citation Summary.

Software

- 1. Windows Server 2012 or higher.
- Microsoft .NET Framework 4.8 or higher.
- 3. The RMS server must be RMS 20.1.3 or higher.

Security

- 1. File System permissions: Windows domain credentials with access rights to read, create, modify, and delete local files on the server where the Interface is installed.
- 2. Records Enterprise User Credentials Records Enterprise user account that has permission for adding and modifying data in the Citation module.

Logging

The Interface supports the following log levels. Each level contains the information from previous levels and adds its own layer of additional verbosity.

- Error: Critical application exceptions.
- Warning: Validation failures and non-critical errors.
- Info (default): General application execution information.
- Debug: Detailed application execution information will be logged. This level will consume
 disk space much more rapidly than the other log levels, so it is only recommended for
 use when troubleshooting application errors.

Logs can be written to a text file, the Windows Event Viewer, or sent via email to a configured address.

Supplemental Documentation

Citation Schema : StandardCitationSchema.xsd
Citation XML: StandardCitationXML.xml

Extended Data: Extended Data – Records Enterprise.pdf



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Enterprise CAD Standard ANI/ALI Interface

Operational Scenario Document

Client Name (XXXX)

Public Safety and Justice



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1 Revisions

Date	Rev. No.	Author	Comments
05/04/2019	1	A. Durnan	Initial draft



2 Overview

The Enterprise CAD E911, ANI/ALI Interface is a Standard Interface provided and implemented by a CentralSquare Systems Engineer. This Interface provides a one-way transfer and processing of data from the E911 Controller of the phone system to Enterprise CAD using one of the two available types of package structures: fixed position and delimited fields. The Interface is configurable to process various formats of ANI/ALI data streams—to include certain formats of TTY/TDD emergency calls. The information being captured by the Interface will be used for the features outlined in this document.

When a call-taker answers an emergency call, the agencies E911 Controller will assemble a data stream that contains details such as, but not limited to, attendant number, caller telephone number, and location information, and sends the data packet to the Enterprise CAD Interface through an RS-232 serial or compatible network connection. Once the Interface receives a valid data packet, it will process the data, store selected fields into the Enterprise CAD system database, and notify Enterprise CAD workstations of the event. The target Enterprise CAD workstation will process the event by automatically opening a new Emergency Call Taking screen with designated ANI/ALI data populating predetermined display fields.



3 External Prerequisites and Constraints

3.1 External System

The external systems to which the Interface is to communicate with must be available and connected to the Enterprise CAD system. Configuration of the external system must support providing data input to the Interface to initiate interface processing and to verify expected results.

The Client shall take responsibility of the phone system E911 controller, any necessary cabling, connections, arrangements, and funding of any work.

Virtual servers may additionally require Serial-to-Ethernet Adapters to convert the serial spill from the E911 Controller to a virtual COM port on the ANI/ALI Interface host.

3.2 Enterprise CAD System

3.2.1 Enterprise CAD Interface

- a) The Interface shall be hosted on a server meeting the minimum requirements of an Enterprise CAD interface server as documented in the *Enterprise Suite System Planning Guide*.
- b) The Interface is an application that shall be kept running while logged into a Windows session using the *Console Account* which has local admin privileges.



4 Configurability

4.1 Connectivity

Based on reference documentation and sample raw data from output of the E911 controller supplied by the Client, the CentralSquare Engineer shall establish the connectivity parameters for the incoming AN/ALI feed connection. That includes COM Port and parameters for a serial communication feed, or alternatively, the listening port for feeds that support a compatible network communication.

4.2 ANI / ALI Data Parsing and Data Mapping

Based on reference documentation and sample raw data from output of the E911 controller supplied by the Client, the CentralSquare Engineer shall be responsible for establishing a parsing and mapping configuration of the ANI/ALI data received from the E911 Controller for proper storage into the Enterprise CAD system tables and proper display on the Emergency Call taking screen.

The CAD Administrator shall be responsible for communicating with the project team during the life of the project, and with CentralSquare Support after the fact, on any changes of ANI/ALI data formats. Minor changes to the ANI/ALI format will cause interface failures that may be evident through incorrect data parsing. Major changes to ANI/ALI formats or connections, for example change in port numbers or change in ANI/ALI providers, will result in Interface failures.

4.2.1 Message Types

The CentralSquare Engineer shall configure the Interface to recognize the different message types (e.g., based E911 Class of Service) and establish parsing specific to each message type. A common configuration set as a default parsing is configured to account for unidentified message types and/or a common parsing among several E911 message types. Each additional message type requiring unique parsing and mapping will be defined by a separate configuration (e.g., wireless, TTY/TDD, "record not found", etc.).

4.2.2 Parsing

The CentralSquare Engineer shall configure the parsing of each message type defined in the Interface. As a minimum the parsing must include a field that the Interface uses to identify the message type (e.g., Class of Service), the phone console identifier, and the phone number. Additional fields are configured for parsing based on the source definition of the E911 message. Parsing methods include fixed field length and delimited fields. The Interface is set to one of those methods. If multiple or hybrid methods are required based on the format of the source data, then a custom parsing solution is required, and must be developed to support the parsing.

4.2.3 Field Mapping

The CentralSquare Engineer shall configure the mapping of parsed fields to Enterprise CAD fields for each message type defined in the Interface. As a minimum the mapping must include a field that the Interface uses to identify the message type, and the phone console identifier. Additional fields are mapped based on the parsing of the message. The following Enterprise CAD fields represent a basic set of fields that are considered for mapping:

- Phone Number
- Class of Service



- Address House Number
- Address Directional
- Address (the composite address)
- Apartment
- Building
- City
- State
- County
- Customer Name
- Location Information
- ESN (Emergency Services Number)
- ESN Text
- Pilot Phone
- PSAP identifier
- Latitude
- Longitude
- Position Uncertainty
- Position Confidence

A combination of these or additional parsed field may be used to compose up to 3 incident comments. (Required for processing TTY/TDD messages that are compatible.)

4.3 Workstation Cross-Reference

The CentralSquare Engineer shall configure the relationship between the Call Station Identifier and the Enterprise CAD workstation name. This configuration shall be discussed in detail to ensure mutually exhaustive cross-references are provided and configured. The problematic case of having duplicate Call Station Identifiers arises when an agency utilizes more than one phone system, each with a E911 controller feeding the Interface. While the ANIALI Interface supports multiple data feeds, separate ANIALI Interfaces would be required to handle overlapping Call Station Identifiers.

4.4 Presentation Options

The CentralSquare Engineer shall configure the initial Enterprise CAD presentation of the ANI/ALI data based on client preference in one of two ways:

- Display a Verification Screen to accept or decline the ANI/ALI information. This
 displays a summary of parsed ANI/ALI information. The User may Accept,
 initiating an Emergency Call Taking Screen prepopulated with the parsed and
 mapped ANI/ALI information. Or the User may Decline, initiating a blank
 Emergency Call Taking Screen.
- Bypass the Verification Screen and initiate an Emergency Call Taking Screen prepopulated with the parsed and mapped ANI/ALI information.



In addition, the CAD Administrator shall enable or disable the "Accept ALI" option for each CAD agency. Enabling the option requires the Accept ALI button be configured in the Emergency Call Taking (ECT) Setup configuration. With the Accept ALI option enabled and the button configured, the parsed Address/Location information from the ANI/ALI message content is displayed as Caller Location on the ECT Screen, but delays populating the incident Address until the User presses the Accept ALI button. This is useful when the caller location is not the location of the incident (e.g., alarm company), or when the User wants to delay the geovalidation process while entering other incident information (e.g., comments).

4.5 Data Conversion to Assist Geo-Validation

The Interface provides different groups of settings that collectively help increase the likelihood of geo-validation by "cleaning" the street address data. The settings discussed in this section are optional and shall only be configured if a translation is required between the data received from the E911 Controller and the Enterprise CAD system. Those groups of settings are expressed by tabs in the Interface ANIALI setup window and labeled as "Address Conversion", "City Code", "Apartment", "Replace Address", and "County Code". These settings are explained in this section.

4.5.1 Address Conversion

This tab has three different configurable settings that shall be initially configured by the CentralSquare Engineer if they are applicable:

- a) The CentralSquare Engineer shall configure the Interface to convert numeric street names from cardinal numbers to ordinal numbers. For example, making '2 ST' to '2ND ST'
- b) The CentralSquare Engineer shall configure a cross-reference list of street designators. For example, translating 'AV' to 'AVE'
- c) The CentralSquare Engineer shall configure, from a list of standard values, which street directional standards should be allowed. For example, 'N', 'NW', 'S', 'SW, etc.

4.5.2 City Code

The CentralSquare Engineer shall configure a cross-reference list of city code abbreviations from the E911 Controller to match those listed in the Enterprise CAD system.

4.5.3 Apartment

The settings in this tab allow for building type translations to be made. For example, '9477 Waples *Suite* 100' versus, '9477 Waples *Ste* 100'.

- a) The CentralSquare Engineer shall configure a cross-reference list of apartment building types by:
 - i. Designating the phrase received by the E911 Controller;
 - ii. Designating the position at which this phrase is to be expected;
 - iii. Entering the phrase that should replace the phrase received from the E911 Controller.
- b) The CentralSquare Engineer shall configure additional settings that are used to record if any changes are made by the interface. If selected, the changes will be made visible in the Response Edit Log.



4.5.4 Replace Address

The CentralSquare Engineer shall configure a cross-reference list of street addresses from the E911 Controller to any desired address. For example, "MLK Hwy" to "Martin Luther King Jr Hwy".

4.5.5 County Code

The CentralSquare Engineer shall configure a cross-reference list of county codes or abbreviations from the E911 Controller to match those listed in Enterprise CAD.

4.6 Wireless E911 Messages

4.6.1 Identifying and Parsing Wireless Messages

The Interface provides the ability to identify and parse E911 message type by an identifier such as Class of Service. Special consideration is provided for messages originated by a wireless provider. The CentralSquare Engineer shall configure the Interface to parse wireless E911 messages separately than other E911 message types, and further identify whether the message is wireless Phase II, providing phone location information as latitude and longitude coordinates. The wireless Phase II configuration provides the ability to translate the latitude/longitude format to be compatible with Enterprise CAD (e.g. degrees-minutes-seconds or degree-decimal to the Enterprise CAD integer format).

4.6.2 Cell Tower/Caller Locations Geo Map Layer

The GIS Analyst shall configure the system map theme document (MXD) to display the Cell Tower/Caller Locations 'layer' that allows display of the wireless ANI/ALI latitude/longitude coordinates and referential lines from related incidents.

4.7 Duplicate and Rebid Message Handling

4.7.1 Duplicate Criteria

The CentralSquare Engineer shall attempt to configure criteria for identifying "duplicates", whether from automatic rebids, placing and taking the call off hold, or rebids initiated by the phone console, and avoid the CAD User from having to handle the message as a new call. Criteria is based on a time interval (e.g., 300 seconds) to match specific parsed fields, typically phone number and phone station identifier.

Note: This configuration is required to support updating incident location based on a wireless Phase II rebid with new latitude and longitude.

4.7.2 Optional Duplicate Call Comment

When the setting is enabled, the Interface configuration provides for creating an incident comment based on the composition of text and fields specified in the configuration.



4.8 Heartbeats and Acknowledgements

4.8.1 State of Connection

The Interface provides the ability to receive and process "heartbeat" messages used to verify the state of the connection between the E911 Controller and the Interface. The Interface application window displays when a heartbeat was received and will reply to the E911 Controller with an acknowledgment to the heartbeat. By default, this functionality is disabled.

The CentralSquare Engineer shall configure the Heartbeat settings to include the following, if maintaining a heartbeat is required: Heartbeat string, i.e., "H"; Heartbeat timeout in seconds; and Time Out between warnings generated by the Interface through CAD Messaging when heartbeats are not received within the specified time out. In the event where a timeout occurs while using a serial connection to the E911 controller using a serial connection, the interface will generate a standard system message and send it to all logged in users within CAD.

In the event where a timeout occurs while using a TCP/IP connection to the E911 controller, the interface generates a pre-configured message to all logged in users within CAD. The CentralSquare Systems Engineer shall configure the Subject, Message, and intended recipients for this message.

Note: Some E911 Controllers may not be able to handle acknowledgments or other messages from Enterprise CAD.

Note: The failure to acknowledge messages from the E911 Controller may initiate time out/retry attempts and error conditions in the phone system.

Note: During implementation, it is common to provide parallel feed to the existing CAD system as well as the Enterprise CAD ANI/ALI Interface. In this case, acknowledgements should be disabled from the Interface as to not interfere with production operation of the existing system.

4.9 Logging

The operating Interface shall provide up to four (4) different logs for troubleshooting purposes. The logs include 1) ANIALI Interface_**DBG.log**; 2) ANIALI Interface_**RAW.log**; 3) ANIALI Interface_**SER.log**; and 4) ANIALI Interface_**ERR.log**. The logs shall be stored by default in the *C:\TriTech\VisiCAD\Data\System* folder.

The Interface will create log files when entries are to be logged and the log files do not exist. When additional entries would exceed the maximum log file size of approximately 1 MB, the active log file is archived, and a new active log file is generated. On the attempt to archive an active log file when five (5) archived log files exist, the interface shall delete the oldest archived log file and then proceed to archive the active log file. In total, this interface maintains no more than 5 interface archive logs for each of the types—all with a file size of approximately 1 MB.

- ANIALI Interface <u>DBG.log</u> Contains the most pertinent debug and error details for troubleshooting ANI/ALI.
- 2. <u>ANIALI Interface RAW.log</u> Contains all unaltered incoming packages from the E-911 Controller.
- 3. <u>ANIALI Interface SER.log</u> Contains incoming 911 call packages only. Does not contain heartbeat information.



4.	ANIALI Interface ERR.log- Contains error information generated by the Interface.



5 Operational Scenarios

5.1 Process ANI/ALI Data

Answering an E911 call will result in the interface receiving, processing and storing the ANI/ALI data, and then directing the mapped Enterprise CAD workstation to process the information to the User.

5.1.1 Preconditions

- The ANI/ALI Interface application has been started and is running with no persistent error condition adversely affecting the running state of the Interface.
- The Interface has been configured (<u>section 4</u>).
- The phone system E911 controller is supplying a data feed through an established connection to the Interface.

5.1.2 Workflow Details

- 1. An E911 call is received by the phone system.
- 2. A User at a position with a phone system console and a corresponding Enterprise CAD workstation mapped by the Interface configuration (section 4.3) answers the E911 call.
- 3. The phone system initiates a data message from the E911 controller to the ANI/ALI Interface, where the message is received. (Commonly referred to as the ALI "spill" or "dump"), and activity is indicated on the ANI/ALI Interface application display.
- 4. When configured, the ANIALI Interface returns a message acknowledgement to the E911 controller (section 4.8).
- 5. The Interface identifies the message type and parses the data (<u>section 4.2</u>), applies translations (<u>section 4.5</u>), and then stores the data in the Enterprise CAD database.
- 6. When the identified phone console identifier is not mapped to an Enterprise CAD workstation, or the mapped Enterprise CAD workstation is not logged on by a User, the processing of the ANI/ALI message is complete.
- 7. When the identified phone console identifier is mapped to an Enterprise CAD workstation, the ANI/ALI information is presented to the CAD Users based on the configured options (section 4.4).
- 8. When the Verification Screen configuration is enabled, the User is prompted with a window with summary parsed/mapped information (phone number, location or address information, class of service, and latitude/longitude) and Accept and Decline options.
 - a. When the Interface identifies the data source as wireless Phase II with valid latitude and longitude, the Class of Service shall display as "Phase2" and the map button will be active on the window.
 - When the User selects the active map button, the coordinates are plotted, with the coordinates as the label, on the Enterprise CAD Geo map.



- b. When the User selects Decline from the Verification Screen, a blank Emergency Call Taking Screen (ECT) is presented to the User and processing of the ANI/ALI data is complete
- c. When the User selects Accept from the Verification Screen, an ECT is presented to the user pre-populated with the parse/mapped ANI/ALI data.
- 9. When the Verification Screen configuration is not enabled, an ECT is presented to the User pre-populated with the parse/mapped ANI/ALI data.
- 10. When the Accept ALI feature is enabled, and the Accept ALI button is configured on the ECT for the applicable CAD agency, the incident Address fields of the ECT remain blank, and only the Caller Location, Caller Phone and Caller Name fields are populated by the ANI/ALI parsed/mapped data.
 - a. The User selects the Accept ALI button on the ECT, populating the incident Address fields from the ANI/ALI parsed/mapped data.
- 11. When the incident Address fields are populated with the ANI/ALI parsed/mapped data, geo-validation of the incident location is automatically initiated on the workstation.
- 12. The User continues to enter ECT fields to complete the incident entry and create the incident in Enterprise CAD.
- 13. The User may select the ANI/ALI button on the ECT to select and view the processed ANI/ALI records associated with the incident record.

5.2 Detecting and Processing Duplicates

There are many instances in the duration of a phone call where additional data messages regarding the call are sent by the E911 controller to the ANI/ALI Interface (e.g., manual rebid, automatic rebid, transfer call to another phone console, taking the call off hold, etc.). The ANI/ALI Interface attempts to correlate received data messages to previous data messages to avoid unwanted presentations of the ECT and duplicate incidents in CAD.

5.2.1 Preconditions

- Interface application started with no persistent error condition adversely affecting the running state of the Interface.
- Criteria to identify duplicates/rebids by matching incoming data record fields within a time limit has been configured in the Interface (<u>section 4.7</u>).
- The phone system E911 controller is supplying a data feed through an established connection to the Interface.

5.2.2 Workflow Details

- The phone system receives and process an E911 call. During the course of the call a data message is sent from the E911 Controller to the ANI/ALI Interface and is processed (<u>section 5.1</u>).
- 2. A User either initiates a rebid from the phone system, takes the call off hold, or conducts a process related to the phone call initiating a data message from the E911



- controller to the ANI/ALI Interface, where the message is received, and activity is indicated on the ANI/ALI Interface application display.
- 3. When configured, the ANI/ALI Interface returns a message acknowledgement to the E911 controller (section 4.8).
- 4. The Interface identifies the message type and parses the data (<u>section 4.2</u>), applies translations (<u>section 4.5</u>), and then stores the data in the Enterprise CAD database.
- 5. The Interface compares fields processed from the data message to fields stored from previously processed ANI/ALI data messages within configured time interval (<u>section 4.7.1</u>).
- 6. When no match is found the Interfaces continues to process the data message as a new call (section 5.1).
- 7. When a match is found within the time interval, the Interface considers the data message a duplicate or rebid and links the record to the previously stored matching record.
- 8. **Optionally**, incident comments are updated with an entry indicating an E911 duplicate or rebid message was received (section 4.7.2).
- 9. A User viewing the incident in CAD may select the ANI/ALI button on the ECT to select and view the processed ANI/ALI records associated with the incident record, including records determined to be duplicates/rebids.

5.3 Wireless Phase II E911 Messages

ANI/ALI data messages from the E911 controller related to wireless phone calls where phone position information is included are referred to as wireless Phase II E911 messages. The Interface processes the additional call details related to the phone position as the caller's location.

5.3.1 Preconditions

- Interface application started with no persistent error condition adversely affecting the running state of the Interface.
- Interface has optional "Phase II" settings enabled and configured (section 4.6.1).
- Criteria to identify duplicates/rebids by matching incoming data record fields within a time limit has been configured in the Interface (<u>section 4.7</u>).
- The phone system E911 controller is supplying a data feed through an established connection to the Interface.
- The Enterprise CAD Geo Map layer "Cell Tower/Caller Locations" is enabled and selected for display (optional section 4.6.2).

5.3.2 Workflow Details

- 1. A phone call is routed from a wireless service provider to the E911 phone system and includes Phase II location information regarding the phone.
- 2. The ANI/ALI Interface identifies the data message as Phase II and processes the data message (section 5.1).



- 3. When the "Cell Tower/Caller Locations" layer is selected on the Geo, a tower icon is displayed on Enterprise CAD Geo Map.
- 4. When geo-validating the incident location, the CAD workstation data will attempt to reverse-geocode the Phase II latitude and longitude to a street segment (block range address) if found within the Reverse-Geo Tolerance setting of Enterprise CAD.

Note: If no street segment can be found within the tolerance, the incident address will be set to the latitude/longitude coordinate string text.

5.3.2 Address Update Workflow Details

- 1. During the call from the wireless phone, the phone system User initiates a rebid of the ALI information and the wireless provider responds. Alternately, some E911 systems may initiate an automatic rebid.
- The E911 control forwards the updated ALI information as a data message to the ANI/ALI Interface processing, and activity is indicated on the ANI/ALI Interface application display.
- 3. The interface processes the message and identifies the Phase II message as a possible duplicate or rebid based on matching fields to a previously processed ANI/ALI data message within the time specified in the configuration and links the record to the previously stored matching record.
- 4. Incident comments are updated with an entry indicating an E911 rebid message was received (optional).
- **Note**: Typical configuration of the "duplicate" ANI/ALI incident comment composition would include a message stating, "A cellular re-bid has occurred, check the ANI/ALI Viewer for details". The comment text is configurable. This comment is not required for this test scenario to occur, however it is enabled by default and will write the comment each time a cellular rebid is received.
 - 5. When the coordinates of the phone indicated in the rebid ANI/ALI response are different than the previous matching record, the incident is marked as having an address update available, with an asterisk next to the Address in the Incident Queue listing the incident, and the Address Update button on the viewed incident being highlighted.
 - 6. A User views the incident, and selects the highlighted "Update Address" button, opening the Update Address window with the Phase II update listed.
 - 7. The User selects the listed Phase II record in the Update Address window and either Accepts or Declines the update.
 - a. When the User Accepts the Phase II update, the Address of the incident is replaced with the Phase II coordinates, geo-validation is initiated, and the address is updated with the street segment of the nearest street within reverse geo-code tolerance, or the latitude and longitude if no street segment is within reverse geo-code tolerance.
 - b. When the User Declines the Phase II update, the Address of the incident remains as is, and the Update Address button resets (i.e., not highlighted).



8. When the User selects the ANI/ALI button on the ECT for the incident, the ANI/ALI Viewer opens and displays a list of all ANI/ALI records that have been linked to the incident. Listed Phase II records may be plotted on the Geo Map by selecting/viewing the Phase II ANI/ALI record and selecting the Map button.

5.4 Processing TTY/TDD as ANI / ALI Data

The Interface can process TTY/TDD data that is passed by the phone system E911 controller in the ANI/ALI data feed and create incident comments from the TTY/TDD text in the resulting Enterprise CAD incident.

5.4.1 Preconditions

- Interface application started with no persistent error condition adversely affecting the running state of the Interface.
- ANI/ALI data stream shall contain compatible messages reflecting a TTY/TDD conversation with a type identifier, a phone system answering position identifier, along with TTY/TDD text. Each leg of the conversation, send and receive, results in a separate ANI/ALI data message.
- The Interface is configured with a message type specific to identify and process ANI/ALI data messages in the TTY/TDD format (section 4.2), with the text mapped to an incident comment. That message type is also configured to detect, and process, "duplicate" calls based on phone station ID within a specified time interval, with the comment enabled and composition including the parsed TTY/TDD text.

5.4.2 Workflow Details

- 1. The User receives a TTY/TDD call on the phone system.
- 2. The phone system sends the initial ANI/ALI data message with the TTY/TDD related message type identifier, phone system console ID, and the text received from the caller.
- 3. The ANI/ALI Interface receives the data message, and activity is indicated on the ANI/ALI Interface application display.
- 4. The Interface identifies the data message as TTY/TDD, and processes the data message (section 5.1), presenting the User with an ECT that has the TTY/TDD text as a comment.
- 5. After the initial presentation of the ECT with the first leg of the TTY/TDD conversation in the comments, the CAD User edits the necessary fields (e.g., Address, Problem, Priority, etc.) to create the incident record and add additional information.
- The dialogue continues between the call-taker and the TTY/TDD caller, with each leg of the conversation (send and receive) triggering an ANI/ALI spill from the phone system in the TTY/TTD message format.
- 7. The Interface compares fields processed from the data message to fields stored from previously processed ANI/ALI data messages of the TTY/TDD message type within configured time interval (section 4.7.1).



- 8. When a match is found within the time interval, the Interface considers the data message a "duplicate" and links the record to the previously stored matching record.
- 9. The incident comments are updated with an entry with the TTY/TDD text of the "duplicate" message.
- 10. The process (steps 5. *through* 8.) repeats for each leg of the TTY/TDD conversation, record each leg as an addition incident comment.

5.5 Processing Heartbeat Messages

Optional functionality provides the ability to receive and process "heartbeat" messages used to verify the state of the connection. By default, this functionality is disabled.

Note: When implementing the ANI/ALI Interface in a pre-production CAD system using a split feed from the current production CAD system, acknowledgements to the E911 controller from the pre-production ANI/ALI Interface should be disabled to avoid contention with the production system.

5.5.1 Preconditions

- Interface application started with no persistent error condition adversely affecting the running state of the Interface.
- The phone system is set to send heartbeat messages in the ANI/ALI feed to the Enterprise CAD ANI/ALI Interface.
- Interface is configured to identify heartbeat messages from the E911 Control and has the optional "Maintain Heartbeat" setting enabled, and interval configured.
- The phone system is set to process acknowledgements (optional).

5.5.2 Workflow Details

- 1. During periods of low volume of ANI/ALI data to be sent from the phone system, the E911 controller shall send periodic heartbeat messages to confirm maintained connectivity and communication with the ANI/ALI Interface (typical interval is 60 seconds but may vary from system to system).
- The Interface received a heartbeat message from the E911 controller, identifies the message as a heartbeat, and activity is indicated on the ANI/ALI Interface application display.
- 3. The Interface application window display updates to indicate when last heartbeat was received.
- 4. The Interface replies to E911 with an acknowledgment to the heartbeat.
- 5. When no message, including heartbeats are received by the ANI/ALI Interface within the configured timeout interval, the Interface generates a CAD Messaging message to all CAD workstations indicating the loss of communications.





6 Roles

Role	Definition
CAD Administrator	Person responsible for ongoing configuration of the CAD system. This person may be the same as the System Administrator.
CAD User	Person who has an active role to play within the CAD user base and who regularly uses the CAD system to perform that role.
System Administrator	Person responsible for daily maintenance of the system (e.g., database backups, routine maintenance tasks etc.).
CentralSquare Engineer	Person responsible for initial installation, configuration, and integration testing of the Interface.



7 **Glossary**

Term	Definition		
CentralSquare	CentralSquare Technologies		
Administrator	Client System/Agency/Interface Administrator		
Interface	The software module described herein		
Enterprise CAD	The CentralSquare Computer Aided Dispatch software product		
Users	Customer personnel who perform dispatcher and call-taking functions		
E911 Controller	ANI/ALI Provider		



8 Disclaimers

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Operational Scenario Document (OSD)

Enterprise RMS Incident and Arrest Publisher Interface

Version 1.0



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Revisions

Date	Rev. No.	Author	Comments
10/29/2019	1	Robbin Massey	Initial

Overview

Export From:	Enterprise RMS
Import To:	Third Party
Module:	Incident and Arrest
Data Transfer Medium:	Network File Share
File Format:	XML
Available Event Trigger Options:	Create, Update, Delete, Button Press on Summary, Button Press on Report

Description

The CentralSquare Incident and Arrest Publisher Interface (the "Interface") is a unidirectional interface. It will publish Incident and Arrest data from Enterprise RMS via XML files to the network file share.

Assumptions

- 1. Enterprise RMS has been implemented prior to delivery of the Interface.
- 2. No modifications to existing CentralSquare products are required for the Interface.
- 3. The Interface will publish the transformed data to the network file share location accessible by both the Interface and Third Party.
- 4. The format of the published XML file will align with the Enterprise RMS. (See Supplemental Documentation).
- 5. An Enterprise RMS User account needs to be created with permissions to run the Interface.
- 6. The Interface resides on a conventional or virtualized server platform as described in the **CentralSquare System Planning Document.**

CentralSquare Responsibilities

- 1. CentralSquare will complete the installation, training, and support of the Interface remotely.
- 2. CentralSquare will configure the Interface as required to operate in the Client
- 3. CentralSquare will provide an overview of the operation and monitoring of the Interface.
- 4. CentralSquare will provide verification of the successful operation of the Interface.
- 5. CentralSquare will provide a sample publish XML file.



Client Responsibilities

- 1. The Client will provide a secure, reliable connection that has been properly configured to operate this Interface.
- 2. The Client will create and maintain the RMS data entry template.
- 3. The Client will create and maintain the RMS code tables compatible with the code fields, including Violation Codes.
- 4. The Client is responsible to manage XML files published to the network file share.

Details

Architecture

The Interface consists of a Windows service that listens on the Enterprise RMS Message Bus for event notifications.

Once an event notification is detected, the Interface will use the Arrest or Incident Record Identifier to gather data from Enterprise RMS and package it into an XML document. The Interface will then publish the XML document to the configured network file share. If the Interface is configured for Restrictions, then on the Create message, if a restriction is present it will not publish the record. This can be configured for certain restrictions. On the Update message if a Restriction is detected, the interface will send the delete xml. This is also configurable for certain restrictions only.

Event notifications can be configured to be raised in Enterprise RMS under the following circumstances:

- 1. Create: An Incident or Arrest record is created in Enterprise RMS.
- 2. Update: An Incident or Arrest record is modified in Enterprise RMS.
- 3. Delete: An Incident or Arrest record is deleted in Enterprise RMS.
- 4. Button Press from Incident or Arrest Summary.
- 5. Button Press from Incident or Arrest Report.

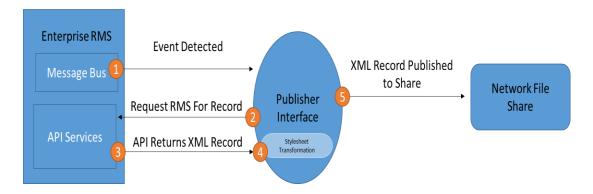
Note: For Deletion, the delete xml will only contain a node with the unique GUID of the Record's Identifier from RMS. This GUID will also be in every Create or Update message.

It should be noted that Enterprise RMS maintains two kinds of records: Reports and Summaries. In effect, these are two versions of the same report. A "Report" is the data record containing a report, which may be in the process of review. When the review is completed, this record becomes read-only and represents the initial version of the report. Upon completion, a "Summary" record is created that allows an RMS user the ability to continue to work with and make changes to the record. When the Summary record is created, an event will be raised by Enterprise RMS and processed by the Interface thus prompting the Interface to publish the Summary record to the configured network file share. In effect, the Interface acts only on Incident or Arrest data after it has been reviewed and approved at all steps in its defined workflow.



Workflows

Enterprise RMS Publisher



- 1. Enterprise RMS notifies the Interface (via the Message Bus) of the event.
- The Interface requests the Incident and Arrest record(s) from Enterprise RMS.
- 3. The Incident and Arrest record(s) is returned to the Interface.
- 4. The Incident and Arrest record(s) is transformed into XML.
- 5. The Incident and Arrest XML file is immediately published to the network file share location for consumption by the third party system.
 - a. Create or Update files will be named like the following examples.

RMSWEB.Summary.Incident.6B43F3A1-6645-C5F1-821F-08D52AEBD65A.xml

RMSWEB.Summary. Arrest. 6a10bf70-e0a6-c562-d134-08d501f8cd53.xml

b. Deleted files will be named like the following examples.

 $RMSWEB. Summary. \textbf{Arrest}. 6a10bf70-e0a6-c562-d134-08d501f8cd53_\textbf{Delete}. xml$

The content of the delete file will only be a nodeset containing the following:

```
<RecordDeletion>
<RecordId>
RMSWEB.Summary.Arrest.6a10bf70-e0a6-c562-d134-08d501f8cd53
</RecordId>
</RecordDeletion>
```

RMSWEB.Summary.Incident.6B43F3A1-6645-C5F1-821F-08D52AEBD65A_Delete.xml

The content of the delete file will only be a nodeset containing the following:

```
<RecordDeletion>
  <RecordId>
   RMSWEB.Summary.Incident.6B43F3A1-6645-C5F1-821F-08D52AEBD65A
  </RecordId>

</RecordDeletion>
```



Software

- 1. Windows Server 2012 or higher.
- 2. Microsoft .NET Framework 4.6.2 or higher.
- 3. Enterprise RMS 4.23.1 or higher.

Security

- Enterprise RMS user credentials: a single user account will need to be created for the Interface to connect to the RMS API. This user account must be granted appropriate permissions for each Agency that wishes to publish data.
- 2. Enterprise RMS Message Bus credentials: a user account must be created for the Interface to receive events from the Enterprise RMS Message Bus.
- 3. File System permissions: The Windows account under which the Interface service runs must have rights to read, create, modify, and delete local files on the server where the Interface is installed.
- 4. Output location permissions: The Windows account under which the Interface service runs must have appropriate rights to publish files to the configured output location, whether SFTP (via a separate set of credentials) or network share (via implicit access).

Please note that, if the output location is a network share, the service account must be granted access on its own merit, that is, another set of credentials cannot be required to access the network location.

Logging

The Interface supports the following log levels. Each level contains the information from previous levels and adds its own layer of additional verbosity.

- Error: Critical application exceptions.
- Warning: Validation failures and non-critical errors.
- Info (default): General application execution information.
- Debug: Detailed application execution information will be logged. This level will consume
 disk space much more rapidly than the other log levels, so it is only recommended for
 use when troubleshooting application errors.

Logs can be written to a text file, the Windows Event Viewer, or sent via email to a configured address.

Supplemental Documentation

CentralSquare_EnterpriseRMS_IncidentSample_1.6.xml CentralSquare_EnterpriseRMS_IncidentSchema_1.6.xsd CentralSquare_EnterpriseRMS_ArrestSample_1.6.xml CentralSquare_EnterpriseRMS_ArrestSchema_1.6.xsd



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10/29/2019	1	Robbin Massey	Initial

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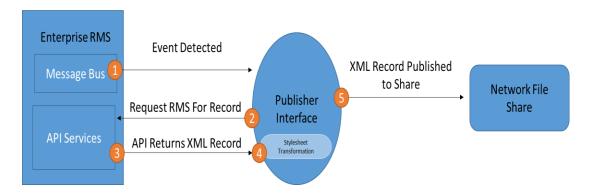
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Enterprise RMS Publisher



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- Debug: Detailed application execution information will be logged. This level will consume
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Logs can be written to a text file, the Windows Event Viewer, or sent via email to a configured address.

Supplemental Documentation

CentralSquare_EnterpriseRMS_IncidentSample_1.6.xml CentralSquare_EnterpriseRMS_IncidentSchema_1.6.xsd



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CAD Enterprise Motorola VESTA Text-to-911 Interface

Operational Scenario Document

Standard Interface

Public Safety and Justice



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Revisions

Date	Rev. No.	Author	Comments
2/22/2021	1	W. Haladay	Initial draft.
2/23/2022	2	W. Haladay	Added additional requirements for call takers and dispatchers.
6/09/2022	3	W. Haladay	Rewrote narrative to reference VESTA terminology and API behavior.
8/15/2022	4	W. Haladay	Added Section 4.3.2 for the configuration toggle to write TTY conversation to incident comments or as an attachment.



1 Overview

CentralSquare Technologies (CST) shall implement a CAD Enterprise interface to receive Complete TTY Conversation events from the Motorola VESTA system to capture Text-to-911 message text.

VESTA provides output via Ethernet network communications using a VESTA Third-Party Interface (TPI) API. When the Public Safety Answering Point (PSAP) operator ends a call session, the VESTA system transfers Complete TTY Conversation event message for consumption by the CAD Enterprise interface. When the CAD Enterprise interface identifies this event message with a text message transcript, the interface shall present to the user at the CAD Enterprise workstation corresponding to the phone position referenced in the event message with the option to create a new incident with the transcript, append the transcript to an existing open incident, or ignore the text message.

When the interface incorporates the conversation transcript into an incident, the interface shall compose an incident comment to include the basic information regarding the session (a remark that a TTY call was received, the message connection/received timestamp, the contact phone number, the VESTA system phone position, and the corresponding CAD Enterprise workstation).

A text file with each timestamped receive (Rx) and transmit (Tx) text leg of the session is attached to the incident.

1.1 VESTA Third-Party Interface (TPI)

1.1.1 Application Programming Interface (API)

The VESTA Third-Party Interface version 2.2 (referred to in this document as Third-Party Interface) is a programmatic interface by which a custom application can access a subset of VESTA functionality, such as location information or hold a TTY conversation outside the VESTA application.

The Third-Party Interface, version 2.2, supports VESTA® 9-1-1 version DMS-100 (3.0 or greater).



2 Content References

2.1 Vendor Documents

2.1.1 Technical Specifications

1. VESTA Third-Party Interface - API Guide for Developers 2.2 - Rev 5.pdf



3 Prerequisites and Constraints

3.1 External System

3.1.1 Network and Communications

Communication between the VESTA TPI and CST's VESTA TPI interface relies upon well-known industry standards and protocols. Certain protocols rely upon published, default TCP port values that must be allowed to traverse a PSAP's computer network. If these ports are blocked by policy and network firewall configuration rules between the VESTA TPI interface and the Third-Party Interface API, interface communication shall be pre-empted and functionality shall be hindered.

The utilized standards and protocols are identified as follows.

- TCP/IP to establish connections and transport data
- HTTP 1.1 protocol (default port 80) to define top-level message details
- SOAP 1.1 protocol (no port required) to define action-specific message details and application-level errors
- XML 1.1 protocol to define the document type
- UTF-8 to define the character set used in the XML document

It is the responsibility of the client to provide the network communication path between the VESTA system and the CAD Enterprise system.

3.1.2 Third-Party Interface

The VESTA Third-Party Interface (herein referred to as "VESTA TPI") runs as a Windows® operating system service whether running on a workstation or a back-room server. In the event the service is in an "out of service" state, CST's Text-to-911 interface shall not be able to communicate with the VESTA system to provide the functionality for which it is designed. Once the service returns to an "in service" state, the VESTA TPI interface shall resume its function to provide CAD Enterprise with functionality supported by the Third-Party Interface API.

3.1.3 Third-Party Interface Location Implementation

There are two methods of location implementation available when installing the Third-Party Interface.

1. Site Interface – A site-centric interface location means an external interface such as the VESTA TPI interface can subscribe to events that occur throughout the



VESTA system. Events that are sent from each VESTA workstation to the VESTA server are propagated to the VESTA TPI interface.

- a. When installing the Third-Party Interface in this manner, the VESTA TPI interface shall communicate with the Third-Party Interface API located on the central host server.
- b. The site-based Third-Party Interface runs as a Windows executable, which automatically starts and stops when Windows® starts and stops.
- c. This method supports a one-to-many multiplicity, meaning one instance of the interface shall receive events from multiple VESTA workstations.
- 2. **Host Interface** A host-centric interface location means services are provided from a VESTA workstation to a third-party application. Requests are executed and events are generated from each VESTA workstation and propagated by the Third-Party Interface to the VESTA TPI interface.
 - a. When installing the Third-Party Interface in this manner, the VESTA TPI interface shall be installed as a CAD workstation plugin to communicate with its paired VESTA workstation.
 - b. The host-based Third-Party Interface runs as a Windows service and is managed using the Windows® Services control manager. The Third-Party Interface service starts and stops when Windows® starts and stops.
 - c. This method supports a one-to-one multiplicity, meaning one instance of the interface shall receive events from one VESTA workstation.

The CST VESTA TPI interface shall communicate with the VESTA TPI API using the Host Interface method.

3.1.4 VESTA Host Interface Configuration

The VESTA Host Interface must be properly configured for a third-party application, such as the CST TPI Interface, to send requests to and receive events from a single VESTA workstation. The following Third-Party Host Interface configuration items need to be set prior to the CST Host Interface sending requests to VESTA via the VESTA Third-Party Interface.

 Enable Host Interface – the "Enable the Host Interface" option needs to be enabled for Host Interface configuration to be activated. This configuration item is *disabled* by default.



- TCP Port Number set the port number by which the Host Interface will use to receive requests. The default is 50000, but the port number can be in a range from 49152 through 65535. The value entered must match the port number the CST Host Interface will use to send requests to the VESTA Host Interface.
- 3. **Confirmations** –the "Agent must confirm the Log Off Agent request" allows the Site Administrator to enable or disable the confirmation dialog that is displayed when the Third-Party Interface receives a request from the CST Host Interface to log off the agent from VESTA. The confirmation dialog is **enabled** by default.

3.2 CAD Enterprise System

3.2.1 CAD Enterprise

- 1. The CAD Enterprise system must be upgraded to a version that supports the developed interface.
- CAD Enterprise must have the Documents and Attachments feature enabled and configured to support the interface attaching the processed message transcript to the CAD incident record.
- CAD Enterprise shall incorporate and maintain certain data values from the VESTA system to capture unique identifiers related to VESTA call records. These values include the Call ID and the VESTA console number.
 - The "Call ID" element is the foundation or key for calls managed within VESTA and the Third-Party Interface. As such, it also forms the foundation for linking VESTA-originated calls within CAD Enterprise. Because calls can be active at more than one VESTA workstation during the lifetime of the call, it is necessary to track that activity using a consistent identifier. Due to this importance for accurately tracking linked calls in both VESTA and CAD, the Call ID is provided in each of the events published by the Host interface that contain call-based states and information.

CAD Enterprise shall use the Call ID to track calls that change during the lifetime of the call. This can happen when a call is tracked over multiple VESTA workstations (known as "legs"). The Third-Party Interface notifies third-party applications when the Call ID changes so newly identified legs can be correctly associated with the original call.

The Call ID can change if VESTA determines a new call is the leg of a conference or part of another call.



 The "Console Number" element identifies the VESTA workstation associated with an event. This allows the third-party application to be centrally located rather than be tied to each of the VESTA workstations. All the events published by the Host Interface contain the Console Number.

3.2.2 CAD Enterprise Interface

- The interface shall be hosted on a server meeting the minimum requirements of a CAD Enterprise interface server as documented in the Enterprise Suite System Planning Guide.
- The interface is a VisiNet Service plugin solution hosted on the CAD Enterprise interface server that is configured to receive the VESTA text conversation through a Motorola VESTA TPI API implementation.
- 3. The CST VESTA TPI Interface shall maintain awareness of the connection health between the two systems.

Host Interface Health State – To determine the health of the Host Interface, the CST Host Interface shall utilize the "Confirm Subscription to Host Interface" message. This message elicits an immediate response from the Host Interface and provides the necessary "heartbeat" required to determine the health status of the connection.



4 Configurability

4.1 Connectivity

4.1.1 Summary

The VESTA Host Interface must be properly configured for a third-party application, such as the CST VESTA TPI Interface, to send requests to and receive events from a single VESTA workstation. The following Third-Party Host Interface configuration items need to be set prior to the CST Host Interface sending requests to VESTA via the VESTA Third-Party Interface.

- Enable Host Interface the "Enable the Host Interface" option needs to be enabled for Host Interface configuration to be activated. This configuration item is *disabled* by default.
- TCP Port Number set the port number by which the Host Interface will use to receive requests. The default is 50000, but the port number can be in a range from 49152 through 65535. The value entered must match the port number the CST Host Interface will use to send requests to the VESTA Host Interface.
- 3. Confirmations the "Agent must confirm the Log Off Agent request" allows the Site Administrator to enable or disable the confirmation dialog that is displayed when the Third-Party Interface receives a request from the CST Host Interface to log off the agent from VESTA. The confirmation dialog is *enabled* by default.

4.2 Data Processing

4.2.1 Summary

The interface provides configuration to correlate data received to a CAD workstation or ignore received data based on the VESTA console position number provided in the processed Complete TTY Conversation message.

4.2.2 Details — Workstation Mapping

The Interface Engineer or System Administrator shall configure the interface by mapping each CAD Enterprise workstation to a corresponding VESTA system console position number.

4.2.3 Details — VESTA Consoles to Ignore

The Interface Engineer or System Administrator shall configure the interface by listing VESTA system console numbers that should be ignored (e.g., when there are VESTA system consoles that correspond to another CAD system or no CAD system). This prevents processing an error condition and potential Advisor Alerts.



4.2.4 Details — Advisor Notifications

The Interface Engineer or System Administrator shall configure the CAD Advisor for a Notification Type of "Advisor Notification Created" with the Trigger Rule of "when Advisor notification identifier is TextTo911Error", conditions to allow designated alert recipients to receive the notification, an appropriate notification description, and enable the notification.

4.3 User Interface Options

4.3.1 "Ignore" Option

The System Administrator shall configure the workstation plug-in option for the interface to enable/disable the "Ignore" option when presenting the CAD user dialog to process the received TTY information.

4.3.2 "Conversation" Option

The System Administrator shall configure the workstation plug-in to direct the full conversation text to one of the following options. Note, only one option may be chosen.

- 1. Write TTY conversation to incident comments as text block.
- 2. Attach TTY conversation to incident as hyperlinked document.



5 Operational Scenarios

5.1 Processing Incoming Text Conversation

When a call is terminated on the VESTA system, including when an operator terminates a text call, the VESTA call record is completed and is transferred to the CAD Enterprise interface. When the received call record contains a text transcript, the interface shall present the CAD user with a dialog to create a new incident and attach the text message dialog, or to attach the text message dialog to an existing open incident, or ignore the text transcript, and then process the message based on the user selection.

5.1.1 Preconditions

- 1. The CAD Enterprise interface is running, configured, and receiving communications from the VESTA system.
- 2. The VESTA system phone position to CAD workstation mapping configuration is established (section 4.2.2).
- 3. TextTo911Error Advisor notification (section 4.2.4) configured to provide alert to at least one logged-in recipient.

5.1.2 Workflow Details — Creating a CAD Incident

- 1. The VESTA system operator, who is also a CAD workstation user, receives a Text-to-911 call on the VESTA system and creates a dialog session by receiving text messages and sending text messages, and then terminates the call session.
- 2. The VESTA system creates and completes a call record for the session, and transfers the data, including the transcript of received and sent text messages, to the interface.
- 3. The CAD Enterprise interface identifies the received message as having a text transcript, identifies the phone position as being mapped to an CAD Enterprise workstation (section 4.2.2), and presents the CAD Enterprise user logged into the workstation with a link to view the text message transcript, along with a dialog to create a new incident, or to append to an existing incident, or to ignore the message.
 - a. When the user selects the transcript link on the dialog, a window with the text message transcript displays.
 - b. The window with text message transcript is closed by user action.
- 4. When the CAD user chooses to create a new incident, the user is presented with an emergency call taking (ECT) screen to create a new incident with the following information prepopulated from the incoming data:



- a. Callback (caller) phone number mapped from the contact phone number.
- b. An incident comment with:
 - i. Date and time received.
 - ii. Comment initial indicates the comment was the result of the interface processing.
 - iii. Comment text stating that a Text-to-911 message was received with the contact phone number from the conversation, the VESTA phone position, and the mapped CAD workstation.
- c. When the System Administrator configures the interface to write the TTY text conversation to the incident comments, the full conversation is written to the incident comments.
- d. When the System Administrator configures the interface to attach the TTY text conversation to the incident, a text file attachment displays the text message transcript parsed from the message, including the timestamp and the "Tx" or "Rx" indicator.

5.1.3 Workflow Details — Appending to Open Incident

- 1. The VESTA system operator, who is also a CAD workstation user, receives a Text-to-911 call on the VESTA system and creates a dialog session by receiving text messages and sending text messages and then terminates the call session.
- 2. The VESTA system creates and completes a call record for the session and transfers the data, including the transcript of received and sent text messages, to the interface.
- 3. The CAD Enterprise interface identifies the received message as having a text transcript, identifies the phone position as being mapped to a CAD Enterprise workstation (section 4.2.2) and presents the CAD Enterprise user logged into the workstation with a link to view the text message transcript, along with a dialog to create a new incident, or to append to an existing incident, or to ignore the CDR.
 - a. When the user selects the transcript link on the dialog, a window with the text message transcript displays.
 - b. The window with text message transcript is closed by user action.
- 4. When the CAD user chooses to append to an open incident, the user must enter the three-digit CAD Enterprise incident queue ID.



- 5. When the three-digit incident queue ID does not match an open incident within the CAD Enterprise system, the user is provided feedback that the incident ID is invalid and the option to create an incident or append to an open incident or ignore the CDR is presented again.
- 6. When the 3-digit incident queue ID matches an open incident within the CAD Enterprise System, the interface shall add the following incident comments to the selected incident record.
 - a. An incident comment with:
 - i. Date and time received.
 - ii. Comment initial indicates the comment was the result of the interface processing.
 - iii. Comment text stating that a Text-to-911 message was received, and including the contact phone number, the VESTA phone position, and the mapped CAD workstation.
 - When the System Administrator configures the interface to write the TTY text conversation to the incident comments, the full conversation is written to the incident comments
 - c. When the System Administrator configures the interface to attach the TTY text conversation to the incident, a text file attachment displays the text message transcript parsed from the message, including the timestamp and the "Tx" or "Rx" indicator.

5.1.4 Workflow Details — User Selects to Ignore the CDR

- 1. The VESTA system operator, who is also a CAD workstation user, receives a Text-to-911 call on the VESTA system and creates a dialog session by receiving text messages and sending text messages and then terminates the call session.
- The VESTA system creates and completes a call record for the session and transfers the CDR data, including the transcript of received and sent text messages, to the interface.
- 3. The CAD Enterprise interface identifies the received message as having a text transcript, identifies the phone position as being mapped to an CAD Enterprise workstation (section 4.2.2), and presents the CAD Enterprise user logged into the workstation with a dialog to create a new incident, or to append to an existing incident, or to ignore the CDR.



4. When the CAD user chooses the option to ignore the message, the interface shall create an Activity Log entry that indicates a 9-1-1 text message was received and ignored and references the mapped CAD Enterprise workstation and the CAD Enterprise user selecting the "ignore" action.

5.1.5 Workflow Details — Workstation Not Mapped

- 1. The VESTA system operator receives a Text-to-911 call on the VESTA system and creates a dialog session by receiving text messages and sending text messages, and then terminates the call session.
- 2. The VESTA system creates and completes a call record for the session, and transfers the data, including the transcript of received and sent text messages, to the interface.
- 3. The CAD Enterprise interface identifies the received message as having a text transcript, and based on the interface mapping of the VESTA phone positions to CAD Enterprise workstations (section 4.2.2):
 - a. The VESTA phone position is not in the configuration
 - b. Or, the VESTA phone position is not mapped to a logged on CAD Enterprise workstation.
- 4. The CAD Enterprise interface shall create an Activity Log entry that indicates a 9-1-1 text message was received but could not be mapped to logged-in CAD Enterprise workstation and references the VESTA phone position provided in the call record and the mapped CAD Enterprise workstation (when determined).
- 5. The CAD Enterprise interface shall initiate an Advisor Alert.



6 Roles

Role	Definition
CAD Administrator	Person responsible for ongoing configuration of the CAD system. This person may be the same as the System Administrator.
CAD User	Person who has an active role to play within the CAD user base and who regularly uses the CAD system to perform that role.
CentralSquare Engineer	Person responsible for initial installation, configuration, and integration testing of the Interface.
System Administrator	Person responsible for daily maintenance of the system (e.g., database backups, routine maintenance tasks etc.).

7 Glossary

Term	Definition
Administrator	Client System/Agency/Interface Administrator.
CAD Enterprise	The CentralSquare Computer Aided Dispatch (CAD) software product.
CentralSquare	CentralSquare Technologies (CST)
Interface	The software module described herein.
MSRP	Message Session Relay Protocol
PSAP	Public Safety Answering Point
RFAI	Request for Assistance Interface
Users	Customer personnel who perform dispatcher and call-taking functions.

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CAD Enterprise Standard RapidSOS Interface

Operational Scenarios Document

Public Safety and Justice



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1 Revisions

Date	Rev. No.	Author	Comments
06/12/2019	1	J. Franquez	Initial draft
05/24/2022	2	N. Novak	Updated prerequisites and scenarios



2 Overview

CentralSquare shall implement a standard RapidSOS, service-based, interface to work with the RapidSOS API. The API provides the ability for connecting clients to query the RapidSOS Clearinghouse server over public networks only when using TLS and tightly-controlled API keys. The API keys are used during the query process to authenticate the requestor to an agency that is authorized to retrieve caller location data. The Clearinghouse contains the information of callers that have:

- 1. The technical ability to deliver their location information to the Clearinghouse;
- 2. Placed a 911 call.

The RapidSOS Clearinghouse server interfaces with CAD Enterprise through a host server using a REST Web Service (HTTPS). Once an Incident ID is assigned to a call incident that was created using ANI/ALI data, the Interface will query the Clearinghouse using the received ANI and return the location for that caller (if a location is available). Workflows on assigning an Incident ID to a call varies between agencies and will affect how this interface initially queries the Clearinghouse.



3 Content References

3.1 Technical Documents

3.1.1 Technical Reference Guide

a) RapidSOS Interface Technical Reference 5.8.6



4 External Prerequisites and Constraints

4.1 External System

4.1.1 Internet Security Requirements

4.1.1.1 TLS 1.2

a) The network shall support TLS 1.2 as a means of communication from the CAD Enterprise Interface server hosting the interface to the Clearinghouse server.

Note: The Clearinghouse has deprecated the use of TLS 1.0 and 1.1 for connecting agencies.

4.1.1.2 Whitelisting

a) If whitelisting is required to meet network security policies, the client System Administrator shall whitelist the domain api.rapidsos.com.

4.1.2 API Key Requests

a) The Client System Administrator shall request credentials from RapidSOS through their RapidSOS portal. These are unique credentials that are assigned per CAD Enterprise system and is delivered to and maintained by the requestor.

Note: If there is a multi-agency CAD build, one set of credentials (Username/Password) will suffice for authentication. If agencies are on different systems, each will require their own set of credentials.

If an agency has multiple CentralSquare products that offer RapidSOS as a feature, each integration will require its own unique set of credentials, i.e., CAD Enterprise, 911 Enterprise, CAD Pro.

4.1.3 Geofence Approvals

- a) RapidSOS shall build a geofence using the values from the form field named, "GEOGRAPHIC AREA COVERED BY AGENCY", in the online portal used to request credentials (Section 4.1.2).
- b) RapidSOS shall approve these geofences. This process can take a minimum of 14 days to complete from the date the credentials are issued to CentralSquare.

4.2 CAD Enterprise System

4.2.1 CAD Enterprise

- a) The client System Administrator shall update CAD Enterprise to version 5.8.7 or newer.
- b) The CentralSquare Engineer shall confirm that there is an ANI / ALI interface configured and running.
- c) The client System Administrator shall configure the default CAD Enterprise Geomap MXD document to contain the "Cell Tower Caller Location" and "Cell Tower Caller Location Lines" map layers.



4.2.2 CAD Enterprise Interface

a) The interface shall be hosted on a server meeting the minimum requirements of an CAD Enterprise Interface server as documented in the *Enterprise Suite System Planning Guide*.



5 Configurability

5.1 Connectivity and Status

The interface will initiate a connection to the Clearinghouse through a HTTPS request over TCP port 443 using the API URL and credentials provided in the interface configuration. The connection is not continuous and is only one-way—requests will always be "outbound" from the CAD Enterprise Interface Server to the Clearinghouse. The Clearinghouse will never initiate any connections to the CAD Enterprise Interface server other than to provide location returns when requested.

5.1.1 Connection Settings

 The CentralSquare Engineer shall configure the interface with the client provided API URL (default api.rapidsos.com), clientid (username), and clientsecret (password).

5.1.2 Communication Time-Out Settings

 The CentralSquare Engineer shall configure the interface for the interval at which a request to the Clearinghouse will time-out.

5.1.3 Advisor Alerts

 The CentralSquare Engineer or client System Administrator shall configure an Advisor alert in CAD Enterprise to display when the VisiNet Service stops running.

5.2 Caller Location Polling

The wireless caller location poll process consists of sending a query to the Clearinghouse, receiving the location, and providing an address update to the CAD User.

5.2.1 PowerLine Command

- a) The CentralSquare Engineer shall configure the PowerLine command that will be used to initiate a continuous poll of a caller's location.
- b) The System Administrator shall ensure proper permissions are set for Users to have access to this feature.

5.2.2 Polling Interval

a) The CentralSquare Engineer shall configure the interface with the polling interval for sending caller location requests to the Clearinghouse.

5.2.3 Minimum Distance

a) The CentralSquare Engineer shall configure the interface with the minimum distance in feet for determining whether an address update is required or not.



6 Operational Scenarios

6.1 Querying the RapidSOS Clearinghouse

When a PSAP receives an active 911 call from a wireless caller, the interface will query the Clearinghouse for caller location information (latitude and longitude) and provide the return to the CAD User that answered the call.

6.1.1 Preconditions

- a) The CAD Enterprise interface is configured to be hosted on an interface server and is properly configured with the API URL and valid credentials provided by RapidSOS.
- b) An CAD Enterprise ANI/ALI interface is configured and operational.
- c) The VisiNet Service is running on the host interface server.
- d) The selected CAD Enterprise GEO map document (.mxd) is configured to show a caller's location with the icons provided in the "Cell Tower Caller Location" and "Cell Tower Caller Location Lines" map layers.

6.1.2 Workflow Details

- a) When an incident is created on a call-taker's ECT window using ANI/ALI from a wireless call, the interface will immediately generate one query to the Clearinghouse server using the phone number received through ANI/ALI.
 - 1. When an incomplete phone number is received, the interface will not query the Clearinghouse. A complete number will include the 3-digit area code and 7-digit phone number.
 - 2. When a complete phone number is received, the interface will automatically add a '1' in front of the phone number during the query process.
- b) When the interface receives a return from the Clearinghouse with valid location data, the active call will receive an address update. This will illuminate the "Update Address" button on the ECT screen. When the "Update Address" button is selected, the Updated Address Information window will appear and will display address information with its respective source. One of the address records listed in the window will be from RapidSOS.
 - When no data exists in the Clearinghouse for the caller's phone number, the return will not contain location information, Update Address button will not illuminate and there will not be a record with a source of "RapidSOS" displayed in the "Updated Address Information" window.
 - 2. The Activity Log will record any return from the Clearinghouse even if there was no location information. The Activity Log will not record errors.
 - Each time the call taker accepts the Updated Address from the Updated Address Information window, the address on the ECT will be updated, effectively changing the incident address.
- c) Simultaneous to signaling the dispatcher of an address update by illuminating the Update Address button, the Geomap will plot an icon in the map using the location information received. The icon will also display a label with the latitude and longitude.
 - 1. If the location of the caller differs from the location on an incident, the Incident location icon will be connected to the caller location icon using a blue, double-line, link line.



d) Once the CAD call is Closed, the interface will stop processing location updates

6.2 Continuous Polling

CAD Enterprise provides a PowerLine command for initiating a continuous poll of the caller location (latitude and longitude).

6.2.1 Preconditions

- 1. The CAD Enterprise interface is configured to be hosted on an interface server and is properly configured with the API URL and valid credentials provided by RapidSOS.
- 2. An CAD Enterprise ANI/ALI interface is configured and operational.
- The VisiNet Service is running on the host interface server.
- 4. An incident has been created using ANI/ALI and has an Incident ID assigned.
- 5. The RapidSOS PowerLine is configured and assigned a user command in CAD Enterprise (PowerLine and Function Setup Utility), with CAD users having Function Level Security permission based on their Function Group membership.

6.2.2 Workflow Details

- 1. A CAD User initiates the RapidSOS Continuous Polling PowerLine command and includes the Incident ID. Optional parameters are available to either START, STOP, or do a single poll of a caller's location with the ONCE parameter.
 - Initiating the command without an optional parameter will start a continuous poll.
 - 2. The only way to stop continuous polling on an active call, or while having the ECT open, is by re-entering the PowerLine command, Incident ID, and the optional parameter of STOP.
- 2. Immediately after sending the command through the PowerLine, the interface will generate a query with the ANI at a configurable polling rate. The rate at which the interface polls the caller location depends on the setting configured in the interface (Section 5.2.2).
- 3. When the interface receives the returned location from the Clearinghouse, it will compare it to the previously received location and determine the difference in distance. If the distance is further than the configured distance, it will provide an address update. If it is within the configured distance it, it will disregard the update (Section 5.2.3).
- 4. The interface will update the RapidSOS address in the Update Address Information window if it has not been accepted as the incident address since the last polled location was received.
- 5. The continuous polling will continue at the preconfigured interval (seconds) until the CAD User explicitly stops it using the PowerLine Command or until the incident is closed.



Roles 7

Role	Definition
CAD Administrator	Person responsible for ongoing configuration of the CAD system. This person may be the same as the System Administrator.
CAD User	Person who has an active role to play within the CAD user base and who regularly uses the CAD system to perform that role.
System Administrator	Person responsible for daily maintenance of the system (e.g., database backups, routine maintenance tasks etc.).
CentralSquare Engineer	Person responsible for initial installation, configuration, and integration testing of the Interface.



Glossary 8

Term	Definition
CentralSquare	CentralSquare Technologies
Administrator	Client System/Agency/Interface Administrator
Interface	The software module described herein
Enterprise CAD	The CentralSquare Computer Aided Dispatch software product
Users	Customer personnel who perform dispatcher and call-taking functions



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Operational Scenario Document (OSD)

Enterprise RMS Warrant Publisher Interface

Version 1.0



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Revisions

Date	Rev. No.	Author	Comments
11/8/2019	1	Robbin Massey	Initial

Overview

Export From:	Enterprise RMS
Import To:	Third Party
Module:	Warrant
Data Transfer Medium:	Network File Share
File Format:	XML
Available Event Trigger Options:	Create, Update, Delete, Button Press on Summary, Button Press on Report

Description

The CentralSquare Publisher Interface (the "Interface") is a unidirectional interface. It will publish Warrant data from Enterprise RMS via XML files to the network file share.

Assumptions

- 1. Enterprise RMS has been implemented prior to delivery of the Interface.
- 2. No modifications to existing CentralSquare products are required for the Interface.
- 3. The Interface will publish the transformed data to the network file share location accessible by both the Interface and Third Party.
- 4. The format of the published XML file will align with the Enterprise RMS.
- 5. An Enterprise RMS User account needs to be created with permissions to run the Interface.
- 6. The Interface resides on a conventional or virtualized server platform as described in the **CentralSquare System Planning Document.**

CentralSquare Responsibilities

- 1. CentralSquare will complete the installation, training, and support of the Interface remotely.
- 2. CentralSquare will configure the Interface as required to operate in the Client environment.
- 3. CentralSquare will provide an overview of the operation and monitoring of the Interface.
- 4. CentralSquare will provide verification of the successful operation of the Interface.
- 5. CentralSquare will provide a sample publish XML file.



Client Responsibilities

- 1. The Client will provide a secure, reliable connection that has been properly configured to operate this Interface.
- 2. The Client will create and maintain the RMS data entry template.
- 3. The Client will create and maintain the RMS code tables compatible with the code fields, including Violation Codes.
- 4. The Client is responsible to manage XML files published to the network file share.

Details

Architecture

The interface consists of a Windows service that listens on the Enterprise RMS Message Bus for event notifications.

Once an event notification is detected, the Interface will use the Warrant Record Identifier to gather data from Enterprise RMS and package it into an XML document. The Interface will then publish the XML document to the configured network file share. If the Interface is configured for Restrictions, then on the Create message, if a restriction is present it will not publish the record. This can be configured for certain restrictions. On the Update message if a Restriction is detected, the interface will send the delete xml. This is also configurable for certain restrictions only.

Event notifications can be configured to be raised in Enterprise RMS under the following circumstances:

- 1. Create: A Warrant record is created in Enterprise RMS.
- 2. Update: A Warrant record is modified in Enterprise RMS.
- 3. Delete: A Warrant record is deleted in Enterprise RMS.
- 4. Button Press from a Warrant Summary.
- 5. Button Press from a Warrant Report.

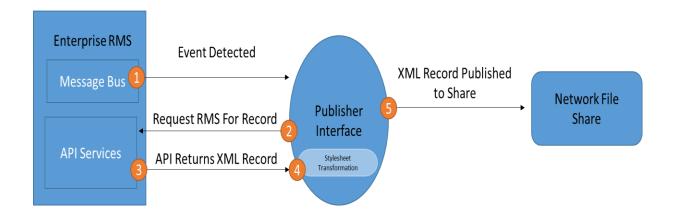
Note: For Deletion, the delete xml will only contain a node with the unique GUID of the Record's Identifier from RMS. This GUID will also be in every Create or Update message.

It should be noted that Enterprise RMS maintains two kinds of records: Reports and Summaries. In effect, these are two versions of the same report. A "Report" is the data record containing a report, which may be in the process of review. When the review is completed, this record becomes read-only and represents the initial version of the report. Upon completion, a "Summary" record is created that allows an RMS user the ability to continue to work with and make changes to the record. When the Summary record is created, an event will be raised by Enterprise RMS and processed by the Interface thus prompting the Interface to publish the Summary record to the configured network file share. In effect, the Interface acts only on Warrant data after it has been reviewed and approved at all steps in its defined workflow.



Workflows

Enterprise RMS Publisher



- 1. Enterprise RMS notifies the Interface (via the Message Bus) of the event.
- 2. The Interface requests the Warrant record(s) from Enterprise RMS.
- 3. The Warrant record(s) is returned to the Interface.
- 4. The Warrant record(s) is transformed into XML.
- 5. The Warrant XML file is immediately published to the network file share location for consumption by the third party system.

Software

- 1. Windows Server 2012 or higher.
- Microsoft .NET Framework 4.6.2 or higher.
- 3. Enterprise RMS 4.23.1 or higher.

Security

- 1. Enterprise RMS user credentials: a single user account will need to be created for the Interface to connect to the RMS API. This user account must be granted appropriate permissions for each Agency that wishes to publish data.
- Enterprise RMS Message Bus credentials: a user account must be created for the Interface to receive events from the Enterprise RMS Message Bus.
- 3. File System permissions: The Windows account under which the Interface service runs must have rights to read, create, modify, and delete local files on the server where the Interface is installed.
- 4. Output location permissions: The Windows account under which the Interface service runs must have appropriate rights to publish files to the configured output location, whether SFTP (via a separate set of credentials) or network share (via implicit access).



Please note that, if the output location is a network share, the service account must be granted access on its own merit, that is, another set of credentials cannot be required to access the network location.

Logging

The Interface supports the following log levels. Each level contains the information from previous levels and adds its own layer of additional verbosity.

- Error: Critical application exceptions.
- Warning: Validation failures and non-critical errors.
- Info (default): General application execution information.
- Debug: Detailed application execution information will be logged. This level will consume
 disk space much more rapidly than the other log levels, so it is only recommended for
 use when troubleshooting application errors.

Logs can be written to a text file, the Windows Event Viewer, or sent via email to a configured address.



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Operational Scenario Document (OSD)

Enterprise RMS Crash Publisher Interface

Version 1.2



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Revisions

Date	Rev. No.	Author	Comments
11/5/2019	1	Robbin Massey	Initial
1/28/2020	1.1	Robbin Massey	Added clarification surrounding web service type and Supplemental Information section.
10/12/2020	1.2	Robbin Massey	 Updated Architecture, Action Trigger, Workflow, Supporting Documentation and Supplemental Information sections.
			 Added item 5 to the CentralSquare responsibilities and removed items 2 & 3 from customer responsibilities.

Overview

Export From:	Enterprise RMS
Import To:	TX DOT
Module:	Crash
Data Transfer Medium:	TxDOT SOAP based Web Service
File Format:	TxDOT defined XML
Action Trigger:	Approved Crash Report
	Button Press for Report or Summary Validation
	Button Press on Summary for Resubmissions

Description

The CentralSquare TxDOT Crash Interface (the "Interface") is a Bidirectional interface. It will publish Crash related data from Records Enterprise to the TxDOT web service and receive response data from TxDOT back into Records Enterprise.

Assumptions

- 1. Enterprise RMS has been implemented prior to delivery of the Interface.
- 2. No modifications to existing CentralSquare products are required for the Interface.
- 3. The Interface will publish the transformed data to the web service location accessible by both the Interface and TxDOT.
- 4. The format of the published data will align with the TxDOT crash submission format.
- 5. A Records Enterprise user account will be created by CentralSquare with permissions to run the Interface.
- 6. The Interface will reside on a conventional or virtualized server platform as described in the **CentralSquare System Planning Document.**



CentralSquare Responsibilities

- 1. CentralSquare will complete the installation, training, and support of the Interface remotely.
- 2. CentralSquare will configure the Interface as required to operate in the Client environment.
- 3. CentralSquare will provide an overview of the operation and monitoring of the Interface.
- 4. CentralSquare will provide verification of the successful operation of the Interface.
- 5. CentralSquare will provide the Crash template designed to be used for capturing data for submitting to TxDOT. Manual changes to the Crash template may result in adverse impacts to Interface performance.

Client Responsibilities

1. The Client will provide a secure, reliable connection that has been properly configured to operate this Interface.

Details

Architecture

The Interface consists of a Windows service that listens for event notifications within the Records Enterprise Crash module, on the Records Enterprise Message Bus. Once an event notification is detected, the Interface will use the Crash Record Identifier to gather data from Records Enterprise and package it into an XML document. The Interface will then publish the XML document to the configured web service.

Events notifications will be raised in Enterprise RMS under the following circumstances:

- 1. Button Press: The Crash report can be validated against the TxDOT validation endpoint by selecting the "Validate with TxDOT" option from the action dropdown. Upon clicking on the "Validate with TxDOT", a toaster message will display indicating whether the validation was successful or whether an error was returned by the state. The user can then click the report number hyperlink in the toaster message to be redirected to the report where any errors can be reviewed in "Submission Log" narrative.
- 2. Approved Report: A Crash report is approved in Records Enterprise which initiates a transfer of the data to a Summary record. The Crash record will then be sent to the Interface including an accompanying image of the crash report. This image must be submitted as a PDF file created from the agency / vendor of the paper report. The collision diagram will be within the PDF file. Upon Approving a Crash report, a toaster message will display indicating whether the publish was successful or whether an error was returned by the state. The user can then click the summary number hyperlink in the toaster message to be redirected to the Summary where any errors can be reviewed in "Submission Log" narrative.
- 3. Button Press: A Crash record can be published manually by selecting the "Publish to TxDOT" option from the action dropdown on the Crash Summary record. This will include an accompanying image of the crash report. This image must be submitted as a PDF file created from the agency / vendor of the paper report. The collision diagram



will be within the PDF file. Upon clicking "Publish to TxDOT", a toaster message will display indicating whether the publish was successful or whether an error was returned by the state. The user can then click the summary number hyperlink in the toaster message to be redirected to the summary where any errors can be reviewed in the "Submission Log" narrative.

Supplement Process

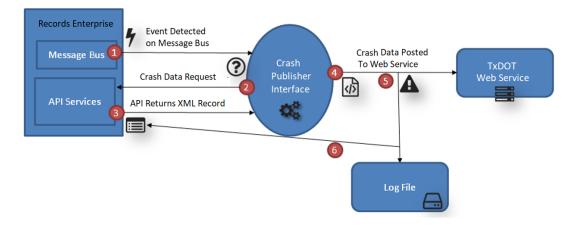
The same original unique Agency Crash Identifier for a crash will be used for submissions of supplements. For example, if the original Agency Crash Identifier was 1000234, then the supplement Agency Crash Identifier must be 1000234 and the "AmendmentFlag" must be set to "Yes" in the XML. If a record was sent successfully in the past, then the interface will set the "AmendmentFlag" as "Yes" for subsequent submissions.

Collision Diagram Requirement

The crash diagram will be included as a base64 string in the XML

Workflow

TxDOT Crash Publisher Interface Overview



- 1. Records Enterprise notifies the Interface (via the Message Bus) of the event.
- 2. The Interface requests the Crash record from Records Enterprise.
- 3. The Crash record is returned to the Interface and transformed into XML.
- 4. The Crash XML file is immediately published to the either the validation endpoint or to the production endpoint for consumption by the TxDOT system.
- 5. TxDOT will respond with validation errors, success responses or rejections and will be logged to a log file or database table for diagnostic purposes.
- 6. The transmission response returned by the TxDOT system will be interpreted, reformatted, and added to the "Submission Log" in the Crash Report or Summary narrative section. A toaster message will display as outlined in the Architecture section above and will contain a hyperlink so the user can view any errors reported in the "Submission Log" narrative. This provides a user visible record showing the transmission history of the Crash record.



Software

- 1. Windows Server 2012 or higher.
- 2. Microsoft .NET Framework 4.8 or higher.
- 3. Enterprise RMS 4.21.3 or higher.

Security

- 1. Records Enterprise user credentials: a single user account will be created by CentralSquare for the Interface to connect to the RMS API. This user account must be granted appropriate permissions for each Agency that wishes to publish data.
- Records Enterprise Message Bus credentials: a user account will be created by CentralSquare for the Interface to receive events from the Records Enterprise Message Bus.

Logging

The Interface supports the following log levels. Each level contains the information from previous levels and adds its own layer of additional verbosity.

- Error: Critical application exceptions.
- Warning: Validation failures and non-critical errors.
- Info (default): General application execution information.
- Debug: Detailed application execution information will be logged. This level will consume
 disk space much more rapidly than the other log levels, so it is only recommended for
 use when troubleshooting application errors.

Logs can be written to a text file, the Windows Event Viewer, or sent via email to a configured address.

Supporting Documentation

Data Entry - Field Requirements FRS v20.0.pdf

Submission Services Implementation and Testing v.20.0.docx

20076096 Template 1.xml

20086024_Template 2.xml

20076122 Template 3.xml

Supplemental Information

Current Test WSDL:

https://crisuat.dot.state.tx.us/secure/CrisServices/SharingServiceWS?wsdl

Current Production WSDL:

https://cris.dot.state.tx.us/secure/CrisServices/SharingServiceWS?wsdl



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Operational Scenario Document (OSD)

Warrant Importer Interface

Version 1.0



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Revisions

Date	Rev. No.	Author	Comments
9/11/2017	1	Frank Hundley	Initial
10/25/2019	2	Robbin Massey	Updated to the new OSD format

Overview

Export From:	Third Party
Import To:	Records Enterprise
Module:	Warrant
Data Transfer Medium:	Network File Share
File Format:	XML
Action Trigger:	File Watch

Description

The CentralSquare Warrant Importer (the "Interface") is a unidirectional interface. It will import Warrant data from the Third Party System into Records Enterprise. The XML imported will be in CentralSquare's Standard Warrant format.

The Interface includes the import of attachments. The attachment must include a Filename, Extension, and Media in order to import. The Extension is the file type without a dot (ex: jpg, bmp). The Media is the attachment data in base64string format.

Assumptions

- 1. Records Enterprise has been implemented prior to delivery of the Interface.
- 2. No modifications to existing CentralSquare products are required for this interface.
- 3. The Vendor system will supply data to a file share as a fully documented XML file that aligns to the CentralSquare Records Enterprise schema format.
- 4. The network file share must be accessible to the Interface.
- 5. The Interface resides on a conventional or virtualized server platform as described in the CentralSquare System Planning Document.



CentralSquare Responsibilities

- 1. CentralSquare will complete the installation, training, and support of the Interface remotely.
- 2. CentralSquare will configure the Interface as required to operate in the Client environment.
- 3. CentralSquare will provide an overview of the operation and monitoring of the Interface.
- 4. CentralSquare will provide verification of the successful operation of the Interface.

Client Responsibilities

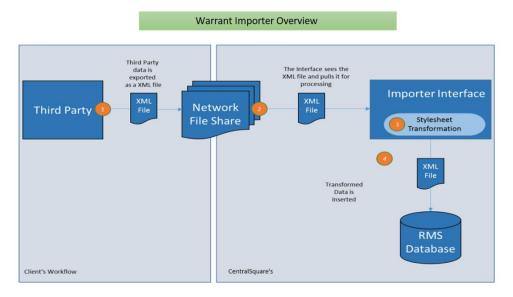
- 1. The Client will provide a secure, reliable connection that has been properly configured to operate this Interface.
- 2. The Client will create and maintain the RMS data entry template.
- 3. The Client will create and maintain the RMS code tables compatible with the code fields, including Violation Codes.

Details

Architecture

The Third Party System will export Warrant related data in an XML format to the network file share. The Interface will automatically detect the XML file in the network file share. Once detected, the Interface will transform the data and insert it into the Records Enterprise system as a Warrant record. Records Enterprise will handle Master Indices Resolution.

Workflows



Client's Workflow:

1. Third Party Warrant System publishes Warrant data in an XML document to the network file share.



CentralSquare's Workflow:

- 2. The Interface automatically detects the XML file on the network file share.
- 3. The Interface transforms the XML file into a format that can be accepted by Records Enterprise.
- 4. The Interface imports the Warrant data into Records Enterprise.

Software

- 1. Windows Server 2012 or higher.
- 2. Microsoft .NET Framework 4.6.2 or higher.
- 3. The RMS server must be RMS 4.23.3 or higher.

Security

- 1. File System permissions: Windows domain credentials with access rights to read, create, modify, and delete local files on the server where the Interface is installed.
- 2. Records Enterprise User Credentials CentralSquare will create a user account that has permission for adding and modifying data in the Warrant module.

Logging

The Interface supports the following log levels. Each level contains the information from previous levels and adds its own layer of additional verbosity.

- Error: Critical application exceptions.
- Warning: Validation failures and non-critical errors.
- Info (default): General application execution information.
- Debug: Detailed application execution information will be logged. This level will consume
 disk space much more rapidly than the other log levels, so it is only recommended for
 use when troubleshooting application errors.

Supplemental Documentation

Warrant Schema: StandardWarrantSchema.xsd
Warrant XML: StandardWarrantXML.xml

Json Schema: StandardJson.xsd

Extended Data: Extended Data in RMS Web.docx



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	Exhibit 10		
Various Interfac	ce Requirements Docu	ıments	



Enterprise CAD Standard CAD-to-External System Data Transfer Interface

Interface Requirements

Document

Public Safety and Justice



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1 Revisions

Date	Rev. No.	Author	Comments
05/24/2019	1	J. Franquez	Initial draft



2 Overview

The Standard CAD to External System Data Transfer Interface will provide a one-way data transfer of selected Enterprise CAD incident data fields from Enterprise CAD to a single Records Management System (RMS), Reporting Module, or other system external to the Enterprise CAD System.

Select Enterprise CAD incident and resource assignment data fields will be transferred during this process. Data transfer is configurable to support sending incident and resource data automatically upon the following CAD events: incident creation, unit status update events of assigned units, when assigned units clear the incident, upon update of select incident record fields, and/or when the incident closes. The interface also provides a means of manually selecting and transferring of individual or a range of selected incident records.

Data transfer will be via incident and unit assignment record packages. The receiving system will be expected to process the data contained in the record packages, including any management of the output (e.g., file deletion).

CentralSquare is not responsible for any equipment, software or services required by the external system vendor. However, CentralSquare will work cooperatively with the external system vendor to achieve this integration. The Interface communication with the external system may be configured to be a single network TCP/IP connection, a serial port connection, a client connection to a Web service (customization may be required), or through generation of data files. CentralSquare Software Systems is responsible for providing and initially configuring the CAD to External System Data Transfer Interface software. The customer is responsible for the external system, any necessary cabling, or communications connections, and arrangement and funding of any work. The customer understands that changes made to the external system and/or network, may disrupt the operation and functionality of this interface.

Note: CentralSquare has developed several separate configurations (i.e., data formats and transfer methods) for the Interface to support various external system vendors. Only one format is supported per implementation of the Interface. More than instance of the Interface may be implemented on a single Enterprise CAD system to support multiple vendors or multiple destinations for a single vendor.



3 Functionality

3.1 Use Case: Data Transfer

Transfer of incident information is accomplished through defined data packages, with configurable control of which incidents to send based on the current state of the incident, whether the incident meets field filter criteria, and whether the incident achieved a threshold state prior to reaching the send state.

The data packages are organized as incident information, resource (unit assignment) information, and transport information, with a great degree of flexibility in the content of the data and the delivery method.

3.1.1 Send Trigger

The Standard CAD to External System Data Transfer Interface will initiate the transfer of incident data (INC01 data package) based on configurable triggers. The Interface can be implemented to send only upon the closure of an incident. Or the interface may be implemented to send data upon incident creation, and/or when an incident reaches a certain state of assignment and/or unit progression on an incident, and/or update of select incident data fields.

A resource (unit assignment) record (INC02 data package) for each unit assigned to the incident will be sent to the external system, along with the incident data record, when at least one unit is assigned to the call.

3.1.2 Send Threshold

The Interface includes the option to set a minimum state that the incident must attain before an incident record is considered for sending to the external system. Options include: on incident creation, change in incident status (such as first unit assigned, first unit responding, first unit on scene), or on call closing.

An example of how this feature is used is to set the send threshold to first unit assigned and set the send trigger to call close. If an incident is created, but then canceled or closed prior to a unit being assigned to the incident, the interface will not send the incident data to the external system when the call closes.

3.1.3 Filtering

The Interface shall provide the ability to filter the generation of records by Incident Jurisdiction or Unit Jurisdiction, and/or Problem/Nature. The filtering may be configured as inclusive or exclusive. Inclusive filtering, when configured, shall pass records to the external system only when the incident data matches the configured filter values. Conversely, exclusive filtering shall pass incident records to the external system unless the incident matches one of the values in any the configured filter lists. Currently, filters must be all inclusive or all exclusive.

3.1.4 Data Format

The resource records may be configured to be sent as separate data records from the associated incident data records or joined with the related incident data record as a single combined incident resource record, depending on the requirements of the external system.

The content and format of the Incident Record (INC01), Resource (Unit Assignment) Record (INC02), and any additional data (INC03) messages will be identified in a separate Configuration Document for the interface. The data format may follow fixed length field, delimited field, or XML formatting.

The data fields available for mapping are the fields of the Incident (Response_Master_Incident and Response_PreScheduled_Info) record, Unit Assignment (Response_Vehicles_Assigned and Vehicle), and Transport (Response_Transports). Some special functions are available for unique fields (e.g., incident comments, custom numbering, etc.), but to require mapped data from a source where direct field mapping or a preexisting mapping function is not available, may require development of custom functions, which will necessitate a Change Control process (section 5).



The Interface composes the data records for transfer at time of send. Therefore, the interface only sends the current state of the incident and will not buffer information from a previous state of an incident, or for data records that fail transfer.

3.1.5 Transfer Method

The Interface may be configured to one of the following methods: transfer data via TCP/IP network, file transfer via network share point, file transfer via FTP, serial connection. Additional configuration capabilities exist to provide Web service delivery as a possible method (each implementation through Web service is evaluated as to whether the standard solution supports the delivery, or additional custom development requiring a change order would be required).

The Interface does not support multiple delivery methods. Separate implementations of the Interface would be required to support different transfer method configurations.

3.1.6 Transfer Retries

For certain delivery methods (e.g., TCP/IP network), the Interface can be configured to require a return acknowledgement when data is sent to the external system. If an acknowledgement is not received from the external system within a configured timeout period, the interface will attempt to resend the record packages. A configured number of retries will be attempted to successfully transfer the record. When the maximum number of retries have been attempted to send a package, and the Interface is unsuccessful at sending the packages and receiving acknowledgement from the external system, the Interface will send a failure notification message to an employee position group identified in the interface configuration.

3.2 Use Case: Additional Configuration

The CAD to External System Data Transfer Interface provides many configuration options to determine when incident and resource assignment records are generated and sent to the external system. The fields of the records, and the failure notification criteria and messages can also be configured within the Interface. The Standard CAD to External System Data Transfer Interface Configuration Document outlines all available options, as well as the configured data mapping.

Several setup options will be accessible from the Interface application as follows:

3.2.1 Setup: Resource Type Cross-Reference

The Interface shall provide a Vehicle Type cross reference. When resource assignment records (INC02) are configured to include the resource type field, the Interface shall substitute the translated value from the Resource Type Cross Reference when sending unit packages to the external system.

3.2.2 Setup: Failure Notification Message

The Interface provides a Notification Message configuration that can be used to set the number of retries, the interval between attempts, and designates the employee positions to be notified when all retries have failed.

3.3 Use Case: Batch Process

The interface provides the ability to manually select and send/resend incident information. Selection is performed from the interface Batch Process window, with the Administrator selecting the desired filter option and either the corresponding inclusive time frame (last 24 hours as default) or Master Incident Number. The available filters are as follows:

Send Incidents that have Never Been Sent



- Send Incidents that were Sent but Not Acknowledged
- Send All (Note: incidents will be sent even if they were sent before.)
- Send by Master Incident Number (Note: incident will be sent even if it was sent before.)

An example of when the Batch Process would be used is when the interface has not been running or has not been able to transfer data for a period of time, and then the condition is corrected and connectivity from the Interface to the external system is restored. The System Administrator would use the Batch Process to trigger sending the data that could not be transferred while connectivity with the external system was down.

3.4 Use Case: Failure Notification

The Interface provides the ability to send notification to an Enterprise CAD Employee Position Group when the configurable timeout and retry attempts to deliver the incident and resource assignment exceed the configured maximum (section 3.1.6).

3.4.1 Heartbeat Processing

For transfer methods that support acknowledgements, the Interface provides the ability to transfer a System message (SYS01) at a regular interval (configurable). The external system is expected to respond with an acknowledgement (SYS01R message). If an acknowledgement is not received within the prescribed timeout period, the interface will attempt to resend the System messages. If no acknowledgement is received after a configurable number of retries, an employee position-based failure notification message will be sent. The feature serves two purposes: to verify a constant state of communication and initiate notification when communication is lost, and to maintain persistent connectivity when the external system is designed to drop connectivity when no data is received for a period of time.

3.5 Use Case: Logging

The interface will log data process details of the interface. The data will be recorded into a log that the System Administrator can view. This information will not be displayed to the Enterprise CAD user and is primarily used for diagnostic purposes. The file name and location (path) of the logs shall be are configurable from within the interface.

The interface maintains the log files. As the logs reach their maximum size (configurable), the interface archives the current log file by modifying the filename with a date and time stamp string and creates a new active/current file. The interface maintains a set number (configurable) of archived log files. When the maximum allowed number of archived log files is reached, the interface will delete the oldest archived log file before archiving the current log file. Under this configuration there is little concern of the logging affecting system performance.



4 Additional Design Constraints

No.	Design Constraint	Description	Notes
1.	Location – network connection	Location of the Enterprise CAD Interface and the External System Server shall be in a network configuration that supports a routable TCP/IP connection.	
2.	Location – serial connection	Location of the Enterprise CAD Interface and the External System Server shall support a serial connection via RS-232 cabling or third-party network-based port replicating software.	
3.	Location – file transfer	Location of the file output path shall support Windows application access to the folder local to the Interface, or access (security and Windows share access) to a remote Windows share location.	SFTP is supported in CAD versions above 5.8.37
4.	Specifications for Enterprise CAD Interface	The Interface will be located on a server resident on the Enterprise CAD local area network. This program will run under an approved version of Windows on a machine meeting CentralSquare hardware specifications.	The latest release of the "VisiNet Command and VisiNet System Planning Document" and Enterprise CAD version and service pack release notes provide details on hardware, software and infrastructure requirements.



5 **Glossary**

Term	Definition
CentralSquare	CentralSquare Technologies
Administrator	Client System/Agency/Interface Administrator
Interface	The software module described herein
Enterprise CAD	The CentralSquare Computer Aided Dispatch software product
Users	Customer personnel who perform dispatcher and call-taking functions



6 Implementation Tasks and Assumptions

The IRD process will be to submit a copy of this document for customer review. If functionality beyond the existing functionality of this standard interface is required, the customer will work with CentralSquare to develop detailed changed control(s) to be approved by both the customer and CentralSquare. Functionality defined by the change control process may result in additional costs to the customer, and extend the time required for implementation.



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Enterprise CAD USDD Station Alerting Interface

Interface Requirements
Document

Public Safety and Justice



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1 Revisions

Date	Rev. No.	Author	Comments
06/04/2019	1	A. Jones	Initial draft



2 Overview

CentralSquare shall implement a standard Station Alerting Interface to work with the US Digital Designs Phoenix G2 Station Alerting. The Phoenix G2 Station Alerting System consists of a Communications Gateway that interfaces with CAD, allows system management and monitoring, communicates with Station Controller devices located in stations. Upon an Enterprise CAD System dispatch event, the Enterprise CAD Interface shall pass dispatch assignment information to the Phoenix G2 System. The Phoenix G2 Alerting System Server shall receive the CAD dispatch data and perform programmed station alerting functions for the stations involved.



3 Prerequisites

Some interfaces have elements that must be in place prior to implementation and may take extra time and effort to complete. The following items need early consideration for the project timeline to stay on schedule and must be resolved by the client and/or third-party vendors as they are outside the scope of CentralSquare's responsibilities.

3.1 Enterprise CAD System

3.1.1 Enterprise CAD System

- 1. Stations are configured in Enterprise CAD Station Manager by the System Administrator and assigned a unique Station Code.
- 2. Vehicles are configured in Enterprise CAD Vehicle Manager by the System Administrator, including a required assignment to a home station. Within Enterprise CAD, vehicles are bought on duty as units that are available for assignment to incidents. Users may assign vehicles to stations other than a vehicle's home station, as a "current" station assignment.

3.1.2 Enterprise CAD Interface

- 1. The Interface shall be hosted on an Enterprise CAD Interface Server meeting the minimum requirements of the Enterprise CAD Planning Document.
- The CentralSquare Engineer shall configure the alert message composition. After installation, testing and acceptance of the Interface, changes to the alert message composition require CentralSquare Engineer involvement, are outside the scope of normal Interface Support, and will be a chargeable work request.

3.2 External System Prerequisites

3.2.1 TCP/IP Network Infrastructure

1. A routable TCP/IP network shall exist to support a TCP socket connection from the Enterprise CAD Interface to the Phoenix G2 Communications Gateway

3.2.2 US Digital Design Station Alerting System

- 1. A Phoenix G2 Communications Gateway providing the Station Alerting System Interface to Enterprise CAD, supporting communication of dispatch alerts to Fire/EMS stations.
- 2. The Station Alerting System shall be configured to recognize the Enterprise CAD Station Codes, Units, and incident data elements to be passed by the Interface
- 3. The Station Alerting System shall be configured to interpret alert data messages from the Enterprise CAD Interface and provide the appropriate audible and visual response at the stations.



4 Functionality

4.1 Configure the Enterprise CAD Interface

4.1.1 Summary

The Interface configuration shall be established upon installation by the CentralSquare Engineer, with some settings configurable and managed by the Interface Administrator. The settings shall be utilized throughout the Interface to enable options and provide values to settings required for desired operation.

4.1.2 Workflow Details

- 1. The CentralSquare Engineer configures the XML formatted "Dispatch" alert data message with a comprehensive set of incident data elements as follows:
 - 2. Master Incident Number
 - Recipient stations to be alerted
 - 4. Recipient units to be alerted
 - 5. Recipient radio IDs to be alerted
 - 6. List of Units Dispatched
 - 7. Incident Location Name
 - 8. Incident Address
 - 9. Apartment
 - 10. Building

- 11. Problem/Nature
- 12. Incident Type
- 13. Incident Priority
- 14. Alarm Level
- 15. Command Channel
- 16. Primary TAC Channel
- 17. Map Info
- 18. Cross Streets
- 19. Incident Comments
- 20. The CentralSquare Engineer configures the XML formatted "Move Up" alert data message, to include fields indicating station, unit and radio ID recipients, and an element with the assigned station for the Move Up.
- 21. The CentralSquare Engineer configures the XML formatted "Test" alert data message to include fields indicating station recipients.
- 22. The Interface Administrator sets the TCP/IP network TCP socket connection parameters the Interface shall use to connect to the Phoenix G2 Communications Gateway.
- 23. The Interface Administrator specifies the Enterprise CAD Agencies that the Interface shall process dispatch alerts.
- 24. The Interface Administrator adds, changes, or deletes the Enterprise CAD Station Codes from the configuration that indicates the stations that shall be managed for alerts by the Interface.
- 25. The Interface Administrator sets an In Quarter Exception option to determine whether the Interface shall only alert the stations for units that have an In Quarters status in Enterprise CAD prior to the Dispatch event, or alert the stations regardless of the units' status prior to the dispatch event. The setting shall be global to all Enterprise CAD Agencies that have alerts processed by the Interface.



- 26. The Interface Administrator sets an option to Enable Assigned Type, allowing the Interface to process or ignore unit assignments for alerts by considering Enterprise CAD Vehicle Assigned Type. Enterprise CAD Vehicle Assigned Types include Initial Assign, Add Resources, Add Capabilities, Enterprise CAD Unit Assignment, and numerous Enterprise CAD Powerline Commands (e.g., "Unit Assignment w/o Tones", "Incident-Based Backup At Scene", etc.).
- 27. When Enable Assigned Type is enabled, the Interface Administrator sets each Enterprise CAD Assigned Type for alerting or not alerting. The Assigned Types are defined within the Enterprise CAD product and not the Interface.
- 28. The Interface Administrator sets the "heartbeat" message interval (in seconds) to determine how often the Interface shall send a "heartbeat" event message to the Phoenix G2 Communications Gateway.
- 29. The Interface Administrator sets the communication failure monitoring interval that the Interface shall use to determine when communication failure exists.
- 30. The Interface Administrator sets the Enterprise CAD Messaging Distribution Group(s) that the Interface shall notify when communication failure with the Phoenix G2 Communications Gateway is detected.

4.2 Interface Startup/Initialization

4.2.1 Summary

Upon Interface startup, the Interface establishes connection and communication with the Phoenix G2 Communications Gateway. A process of "heartbeat" messages sent by the Interface and acknowledgements received from the Phoenix G2 Communications Gateway determines the state of continued communications.

4.2.2 Workflow Details

- 1. The Interface Administrator starts the Interface application
- 2. The Interface shall attempt to establish a persistent TCP/IP network TCP socket connection with the Phoenix G2 Communications Gateway based on the parameters set in the Interface configuration (3.1.2.d).
- 3. Upon successful network connection with the Phoenix G2 Communications Gateway, the Interface shall send heartbeat event messages at the configured interval (3.1.2.j).
- 4. The Phoenix G2 Communications Gateway responds to every message received by the Interface, including heartbeat event messages, by replying with an Acknowledgement.
- 5. The Interface shall monitor the time from the last Acknowledgement received from the Phoenix G2 Communications Gateway, including Acknowledgement replies to heartbeat event messages.
- 6. When the time from the last Acknowledgement received from the Phoenix G2 Communications Gateway exceeds the communication failure monitoring interval (3.1.2.k), the interface shall generate a communication failure notification message to the configured Enterprise CAD Messaging Distribution Group(s) (3.1.2.l).



4.3 Unit Dispatch Notification

4.3.1 Summary

Upon an Enterprise CAD unit assignment event, the Interface shall determine if alert criteria are met and generate a "Dispatch" alert data message to the Phoenix G2 Communications Gateway that identifies stations to be alerted. The "Dispatch" alert message will also contain incident related data elements for use by the Alerting System for programmed alert functions. The Phoenix G2 Communications Gateway shall process the alerts to the Phoenix G2 Alerting System components at the individual stations. The Phoenix G2 Alerting System shall reply with a Delivery Status Message indicating which alerts were successfully processed and acknowledged, and which alerts failed. The Interface will provide feedback of the delivery status to the Enterprise CAD System.

4.3.2 Workflow Details

- 1. The Dispatcher dispatches one or more units from Enterprise CAD by any method available in Enterprise CAD. The method used defines the Assigned Type.
- By background Enterprise CAD system processes, the Interface is made aware of the dispatch event, including the incident and units involved, and begins to process as a possible alert.
- 3. The Interface shall lookup the Enterprise CAD Agency of the incident involved in the dispatch event.
- 4. When the interface is not configured to process alerts for the identified Enterprise CAD Agency (3.1.2.e), the Interface shall cease further alert processing of the dispatch event.
- 5. The Interface shall lookup the Assigned Type for the dispatch event.
- 6. When the interface is configured to Enable Assigned Type (3.1.2.g), and the Assigned Type is configured to not alert (3.1.2.i), the Interface shall cease further alert processing of the dispatch event.
- 7. The Interface shall lookup the Current Station for each unit dispatched.
- 8. For each unit dispatched, the Interface shall determine if the previous status of the unit was In Quarters.
- 9. When the Interface is configured to only alert stations for units that had a previous status of In Quarters (3.1.2.g), the Interface shall identify the units that were In Quarters prior to the dispatch event, and only consider their "current" assigned stations for station alerts.
- 10. When the Interface is configured to alert stations regardless of the units' status prior to the dispatch event (3.1.2.g), the Interface shall identify all involved stations for station alerts.
- 11. The Interface shall compose the "Dispatch" alert data message (3.1.2.a), with recipient stations to be alerted, and send it to the Phoenix G2 Communications Gateway.
- 12. The Phoenix G2 Communications Gateway shall route the alert to the Phoenix G2 Station Alert Controllers at the stations designated as recipients within the "Dispatch" alert data message.



- 13. The Phoenix G2 Station Alert Controller at each recipient station shall perform the programmed "Dispatch" alert.
- 14. The Phoenix G2 Communication Gateway shall compose and send a Delivery Status Message with acknowledgement entries for the station(s) successfully processing the alerts, and negative acknowledgements for the stations that do not.
- 15. The Interface shall receive and process the Delivery Status Message by creating Activity Log entries referencing the stations and units attempted to be alerted and whether the alert was successful or failed.
- 16. The Interface shall receive and process the Delivery Status Message by creating Incident Comment entries referencing the stations attempted to be alerted and whether the alert was successful or failed (optional for alert failure entries to be Notification Comment).

4.4 "Move-Up" Notification

4.4.1 Summary

Upon an Enterprise CAD unit assignment to station event, the Interface shall determine if alert criteria are met and generate a "Move Up" alert data message to the Phoenix G2 Communications Gateway that identifies station to be alerted. The "Move Up" alert data message will also contain the new station assignment. The Phoenix G2 Communications Gateway shall process the alerts to the Phoenix G2 Alerting System components at the "current" (assigned station prior to move up) station. The Phoenix G2 Alerting System shall reply with a Delivery Status Message indicating which alerts were successfully processed and acknowledged, and which alerts failed. The Interface will provide feedback of the delivery status to the Enterprise CAD System.

4.4.2 Workflow Details

- 1. From Enterprise CAD, the Dispatcher changes a unit status to "Assigned to Station/Post" and selects a station other that the "current" assigned station for that unit.
- 2. Alternatively, the Dispatcher may use an Enterprise CAD Powerline command for a "Move Up" or "Cancel Move Up" (back the "home" station), which generally results in a status change to "Assign to Post/Station".
- 3. By background Enterprise CAD System processes, the Interface is made aware of the status change event, including the units involved, and begins to process as a possible alert.
- 4. The Interface shall lookup the Enterprise CAD Agency involved in the event.
- 5. When the interface is not configured to process alerts for the identified Enterprise CAD Agency (3.1.2.e), the Interface shall cease further alert processing of the event.
- The Interface shall lookup the Current Station for the unit involved in the event.
- 7. The Interface shall determine if the previous status of the unit was In Quarters.
- 8. When the Interface is configured to only alert stations for units that had a previous status of In Quarters (3.1.2.q), the Interface shall identify whether the unit was in a status of In



- Quarters prior to the event, and only consider their "current" assigned stations for station alerts destination.
- 9. When the Interface is configured to alert stations regardless of the units' status prior to the Move Up event (3.1.2.g), the Interface shall identify the unit's "current" assigned stations as station alert destination.
- 10. The Interface shall compose the "Move Up" alert data message (3.1.2.b), with recipient stations to be alerted, and send it to the Phoenix G2 Communications Gateway.
- 11. The Phoenix G2 Communications Gateway shall route the alert to the Phoenix G2 Station Alert Controllers at the stations designated as recipients within the "Move Up" Alert Message.
- 12. The Phoenix G2 Station Alert Controller at each recipient station shall perform the programmed "Move Up" alert.
- 13. The Phoenix G2 Communication Gateway shall compose and send a Delivery Status Message with acknowledgement entries for the station(s) successfully processing the alerts, and negative acknowledgements for the stations that do not.
- 14. The Interface shall receive and process the Delivery Status Message by creating Activity Log entries referencing the stations and units attempted to be alerted and whether the alert was successful or failed.

4.5 Test Alert Command

4.5.1 Summary

The Station Alerting Interface shall process an Enterprise CAD PowerLine command action with a station parameter to generate an alert at a single station, a list of stations, or all stations of a single agency, without the need to create an incident and assign units to the incident in Enterprise CAD. The alert shall be based on a predetermined programmed response from the Phoenix G2 Station Alerting System to alert the stations identified by the Interface in the "Test" alert data message.

4.5.2 Workflow Details

- 1. From Enterprise CAD, the Dispatcher enters a Powerline command defined with an "Alert Stations" action, appended with a parameter specifying an Enterprise CAD station code, list of station codes, or a value indicating all stations from a specified Enterprise CAD agency to be alerted.
- 2. The Powerline command entry shall be logged as an entry in the Enterprise CAD Activity Log, indicating the command and parameters entered; the Enterprise CAD workstation, and the Enterprise CAD user entering the command.
- 3. When the "Alert Stations" Powerline command parameter contains an invalid station code or agency identifier, the Dispatcher shall receive feedback that the parameter value is invalid.
- 4. When the "Alert Stations" Powerline command parameter matches valid Enterprise CAD station codes, the Interface shall compose a predefined "Test" alert data message, indicating the stations as the recipients of the alert.



- 5. When the "Alert Stations" Powerline command parameter indicates a valid Enterprise CAD agency as the parameter, the Interface shall compose the "Test" alert data message, referencing all Interface-managed stations (3.1.2.f) belonging to the agency as the recipients of the alert.
- 6. The Interface shall compose the "Test" alert data message (3.1.2.c) and send it to the Phoenix G2 Communications Gateway.
- 7. The Phoenix G2 Communications Gateway shall route the alert to the Phoenix G2 Station Alert Controllers at the stations designated as recipients within the "Test" alert data message.
- 8. The Phoenix G2 Station Alert Controller at each recipient station shall perform the programmed "Test" alert.
- 9. The Phoenix G2 Communication Gateway shall compose and send a Delivery Status Message with acknowledgement entries for the station(s) successfully processing the alerts, and negative acknowledgements for the stations that do not.
- 10. The Interface shall received and process the Delivery Status Message by creating Activity Log entries referencing the stations and units attempted to be alerted and whether the alert was successful or failed.



5 Glossary

Term	Definition
CentralSquare	CentralSquare Technologies
Administrator	Client System/Agency/Interface Administrator
Dispatcher	Enterprise CAD user that assigns units to incidents, monitors dispatch events to verify expected response from field units, and interprets the feedback provided by the Interface
Interface	The software module described herein
Enterprise CAD	The CentralSquare Computer Aided Dispatch software product
Users	Customer personnel who perform dispatcher and call-taking functions
Phoenix G2 Alerting System™	A fully integrated zone station alerting system used to initiate remote notification from a central command point.
Phoenix G2 Communication Gateway™	The Phoenix G2 Alerting System™ central component that provides interface to CAD systems, transmits alerts to stations, and provides backup manual alert capability. Typically located at the Dispatch Communications Center.
Phoenix G2 Station Alert Controller™	Remote Station-based component of the Phoenix G2 Alerting System™ that receives alerts from the Phoenix G2 Communication Gateway™ and activates various audible, visible, and relay devices.
Dispatch Event	The assignment of an on-duty unit to an incident within the Enterprise CAD System.



6 Implementation Tasks and Assumptions

The IRD process will be to submit a copy of this document for customer review. If functionality beyond the existing functionality of this standard interface is required, the customer will work with CentralSquare to develop detailed changed control(s) to be approved by both the customer and CentralSquare. Functionality defined by the change control process may result in additional costs to the customer, and extend the time required for implementation.



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