Installation Proposal to Support AES Monitoring Services

Prepared for
City of Camas

GUARDIAN SECURITY
LIFE AND PROPERTY PROTECTION

City of Camas

Installation Proposal for:

AES platform monitoring

Guardian Security is committed to entering into a long term partnership with The City of Camas that allows Guardian to provide and showcase our expertise in the world of AES monitoring and central station notification and dispatch services. The following proposal is based on a time and material model and includes a not to exceed amount for the project based upon the scope outlined in this proposal.
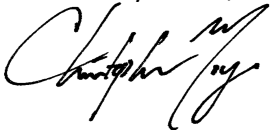
Below are the Key components we feel like we have addressed within our proposal:

- Lower Cost Alarm management and monitoring solutions
- Reporting and access to see all the same alarm monitoring data we see.
- Stronger more reliable AES network for your systems
- Better alarm management tools and software
- Confidence in your after hours support service provider
- A commitment of continued support to the City of Camas in their management of Life & Property protection

In short, we are committed to giving you better service, superior technology and the best value you will find.

If you act on this proposal, we believe we will make a real difference in your alarm monitoring, after hours dispatch needs , and can be great partners with the City of Camas for years to come.

Sincerely Yours,

Christopher Moye
Guardian Security / Northwest Alarm Monitoring

AES Mesh Network Monitoring and Support Services

Guardian Security is proud to have the opportunity to showcase our expertise and over 20 of experience in AES mesh radio network monitoring. Our end goal is to ensure quality of signalization and proper network coverage for end user subscribers combined with the necessary network support. Based upon the City of Camas, current network configuration we are believe that we are uniquely situated in both our experience and technical offerings to provide an alternative to your current AES monitoring provider.
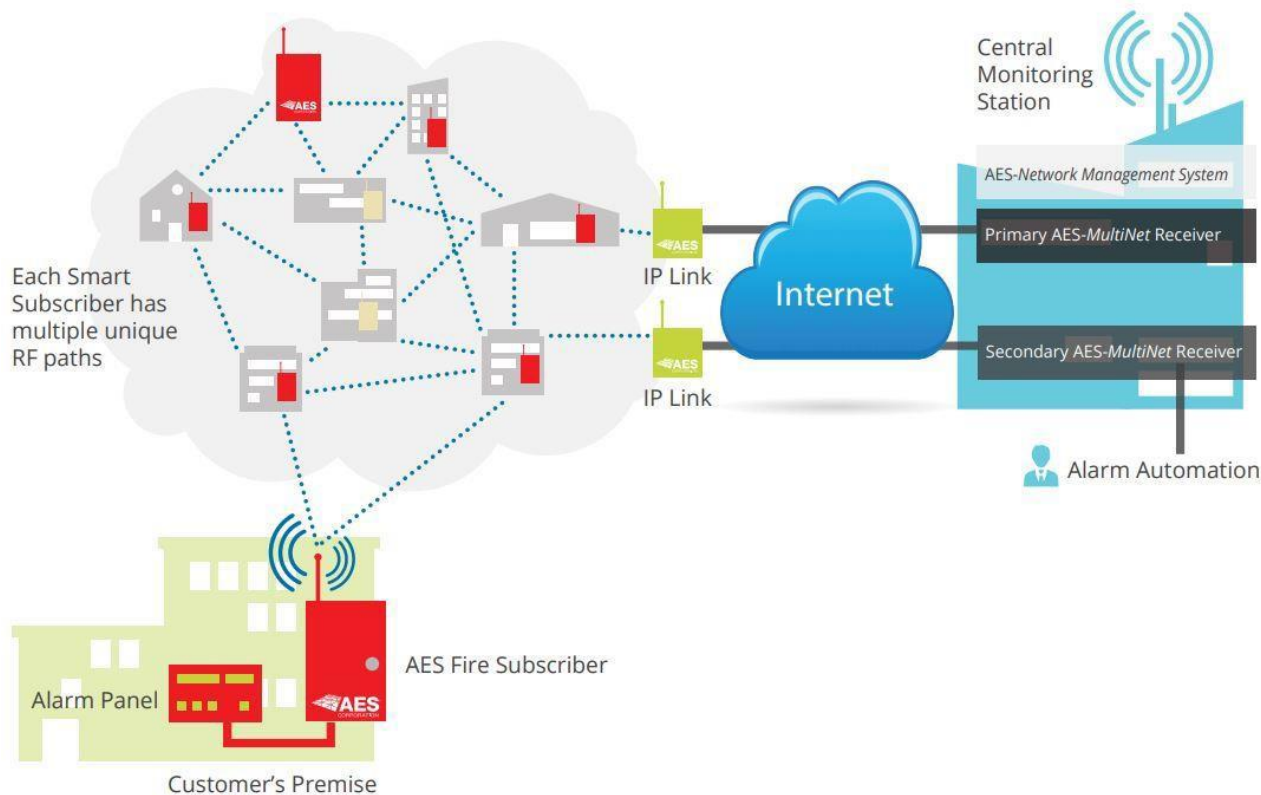

Direct Network Management:

Unlike Guardian Security, most Central Station alarm monitoring is conducted by a third party. An alarm company will contract with a Central Station for monitoring services, which they in turn resell to their customers. This means that hundreds of Alarm companies, all with their own best practices and levels of technical expertise are putting AES radios on the Central Station's network, making the network difficult to manage successfully and difficult to ensure and guarantee reliability. Most central stations do not have field technicians to support their AES and put the burden of maintenance and network reliability on the Alarm companies. As the alarm companies do not own the AES network there is little financial or technical investment to ensure the reliability and maintenance of the network.

Network Strength & Redundancy:

Guardian Security has developed our AES network over the last 20 years with a focus on ensuring triple redundancy in our private AES network. This has been achieved historically by constant and consistent monitoring of weak spots within our own network through our unique network monitoring tools and leveraging IP links to ensure the quality of signalization. Unlike many third party central stations Guardian owns, operates, provides maintenance and network health analysis of our own network without having to leverage third party alarm companies or dealers. In ensuring our model of triple redundancy Guardian has put in place two backup

AES remote central stations complete with AES receivers at our Bellingham and Yakima offices, to support our Central Station located in Seattle, we can continue to confidently expand our AES network and offerings to our end user subscribers. IP links are a critical component to having a healthy AES network and managing the network traffic. Paired with our remote IP links we also utilize the Hybrid AES radios, 7177 Hybrid 2.0 models) which provide dual functionality in providing monitoring to our end user subscribers while also acting as a network bridge in conjunction with our IP links, effectively extending coverage to harder to reach remote areas.

IP Links: A major component of the AES Multi-net receiver system, 7170 RF/IP remote receivers (IP LINKS), connects AES radio networks across a broad geographic area to Central Station creating an effective solution to multiply the transceiver capacity within Guardian's network to reach the more remote locations as well as expand the total geographic coverage.
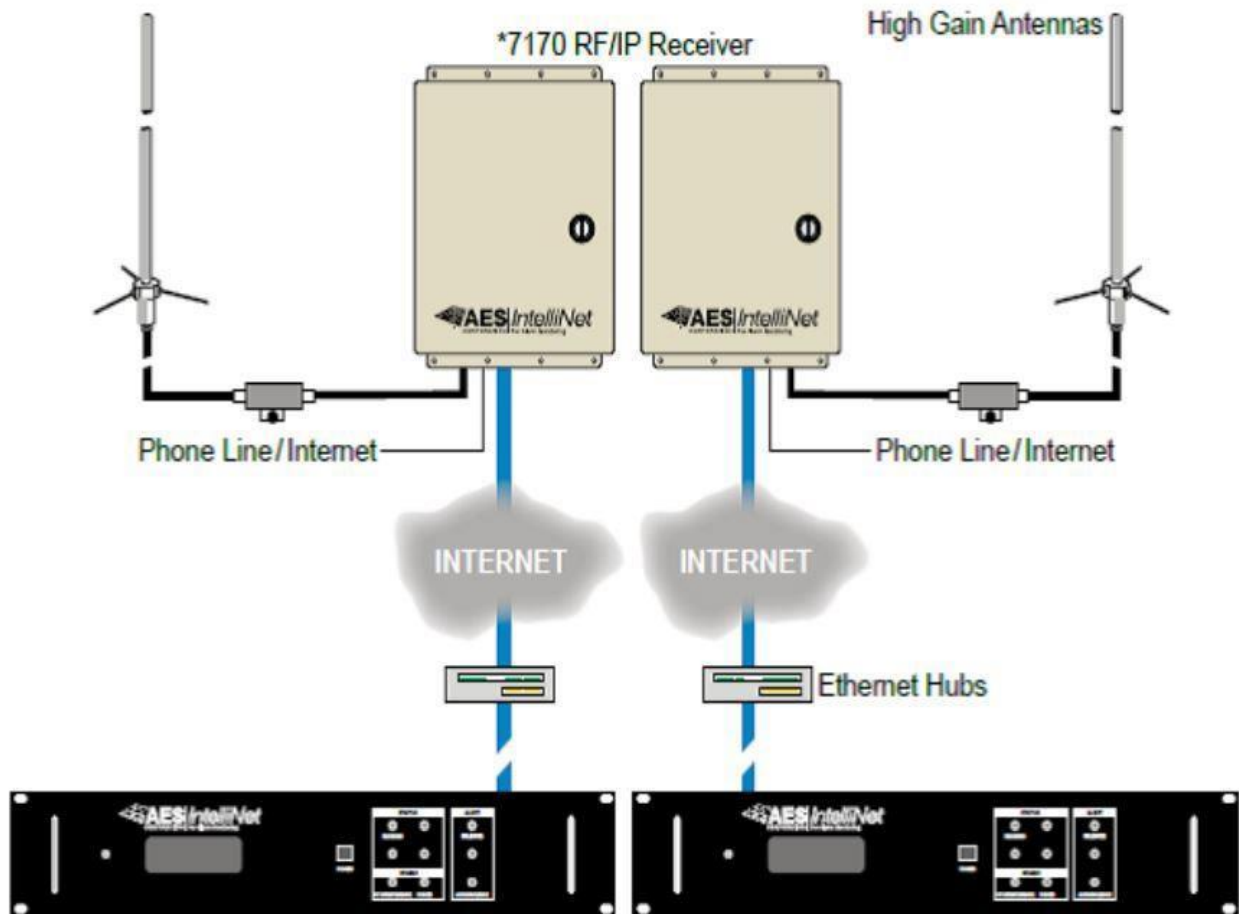
The IP links we utilize are all capable of transmitting the network signals to our central station via IP connectivity. Guardian has taken this several steps further. We utilize and retain ownership of our IP addresses and have the ability to seamlessly transfer our IP links from one service provider to another in a few clicks of a mouse from a remote location.

In addition to the IP retransmission of the signals we also have failsafe roll over cellular transmission means, utilizing cradle points, direct to our central station. This ensures in the event of any telecommunication failures that we have a solid backup transmission pathway. To create the triple redundancy in just our IP links alone, we utilize two cradle points for each IP link, leveraging two separate cellular carriers to help transport the signal.

In short, if our IP providers lose, cancel or drop service coverage we can quickly move our IP link transmission to another IP provider within moments. If both IP providers are down our IP links will seamlessly rollover to cellular transmission. If one of our cellular providers goes down we can seamlessly rollover to a backup provider.

Hybrid Radios: The 7177 Hybrid AES radio is a great option in remote areas to help bridge the gaps in the network and ensure that our network connectivity remains constant. In the event of weak signal strength these hybrid AES radios will also transmit to the signal through the internet direct to one of our strategically located IP links. We also utilize these radios when we have an AES radio on our network that is experiencing a high volume of peer or retransmission traffic. This helps to ensure that the signals do not backup and are seamlessly transmitted through IP to our central station.

Setup, Configuration and Pricing:

We expect that the entire process described below can take place over the course of 45 days from acceptance of this proposal. We would like to treat this as one large project and deploy our tech(s) to Camas to complete the project over the course of a two weeks.

To bring the current pump station AES accounts on to Guardian's network will first require the deployment of a dedicated IP link. Preliminarily we have designated the Wastewater Treatment plant as the best location. To deploy an IP link effectively the site needs to have emergency backup power, and availability for telephony and network infrastructure from the telco providers.

The next step in deployment will be to test each of the existing AES communicators for the pump stations and assess signal strength for the Camas network. If signal strength is not at the level that matches our best practices we will then select additional sites to deploy a hybrid AES radio communicator that functions as an alarm communicator and IP link. This will bolster the overall strength of the network but is only needed if the desired signal strength cannot be achieved. Guardian will bear the cost of upgrading any of the existing radios with a Hybrid AES/IP link radio on an as needed basis. While this is all taking place Guardian will setup all of the AES accounts, current and future (as needed), in our Central Station. Once the network strength has been solidified we will cut-over the existing AES radios to the Guardian network.

Non-existing AES accounts: for any of the additional accounts the City of Camas would like to have monitored via AES, we will initiate site surveys and data gathering upon acceptance of this proposal. We will build out the accounts and install needs into a single project and address the new AES installations as part of the previous two steps. The below sections is an example of how we manage the individual AES installations currently:

Phase 1: Planning and engineering

Many of the below steps will be conducted simultaneously to ensure expedient and efficient installations.

- Schedule project management meeting with City of Camas appropriate points of contact to review process and timeline requirements.
- Site surveys at each location to answer and/or address the following:
    - Location of radio installation within facility.
    - Panel types and capabilities for wireless AES monitoring
    - Location and availability of dedicated power supply
    - Quality of signal strength at the panel and assess need for remote antennas utilizing AES network connectivity tools.
    - What ancillary devices will be required per fire code (smoke above the panel etc)
- Securing and assigning equipment required for each radio installation.
- Data Entry for the future accounts to ensure that each account/site is ready in advance of installation
- Reviewing the existing call out list with City of Camas. appropriate staff and making updates/changes as required.
- Permitting
- Filing of prevailing wage intents

Phase 2: Installation

- Work with City of Camas electrician to coordinate the installation of dedicated outlets in advance of communicator installation.
- Installation of AES radios
    - Connect to fire panel
    - Install smoke detector above the panel/radio
      Install protective security outlet covers
      Assess signal strength
    - Install antennas as needed
      Send test signals
    - Perform initial Q&A testing based upon NFPA 72 acceptance forms

Phase 3: Close out, final inspections, training

- Coordinate with AHJ for all required permit inspections and acceptance tests
- Provide required permitting documentation onsite
- Provide training on remote access to online web portal for monitoring accounts
- Provide all installation closeout documents

Installation Pricing

AES Equipment Sales:

We will provide all of the AES equipment at cost plus 12%
Example Pricing: *(doesn't include higher gain antennas or power supplies)*

Non-UL AES radio subscriber:	**$362.00/unit**
UL Fire AES radio subscriber:	**$705.00/unit**

AES Install Labor:

Each AES radio installation is a little different but on average it takes about 4 hours onsite.

Travel Rate:	(~~$185/hr~~) **$115.00/hour**
Install Rate:	(~~$185/hr~~) **$149.00/hour**

City of Camas Responsible for any permit costs and for providing 120VAC power where needed.

Each AES radio will require an outlet for power and on any UL fire accounts a dedicated outlet off the fire alarm system dedicated power will be required. Installation pricing does not include any local required permitting. Guardian will facilitate the permitting submittal process and final inspections and will pass through bill for the cost of the permit. We have estimated this cost in the following matrices.

The following and attached pricing matrices are intended for budget purposes on this project and are based upon information provided to Guardian from City of Camas and limited site surveys conducted by Guardian team. We believe based upon the available information that this is an accurate portrayal of the costs associated with this project. We will only bill for the time spent and equipment used and if that number comes in under the estimated amount then there will exist cost savings for the City of Camas.

Installation Fees to Guardian for this project are estimated to be: $21,146.00

As this is a time and materials based project, we will provide a Guaranteed Maximum Installation Price from Guardian Security for the scope defined in this proposal:

GMAX pricing: $27,500.00

Notes and Exclusions:

- All systems are considered to be in operational condition and any work to repair, troubleshoot customer owned fire and security systems to complete the scope of this project will be billed as a change order to the project
- All panels are to be "unlocked" by integrator responsible or the lock out codes are to be provided to Guardian, prior to onsite installation work
- Customer to help provide zone/points lists from current monitoring agency in advance of installation
- If quality of signalization at any site in this proposal is lower than the required threshold, we will install an AES hybrid radio that will communicate on the wireless network AS WELL AS through an IP connection. Customer to provide connections at location of AES installation.
    - If an external antenna is required to facilitate quality of installation
      Guardian will work with City of Camas staff to install in the least obtrusive location and manner. Any core drilling, drywall patch and repair, man – lifts etc are not included in the cost of this proposal and will be billed in addition as a change order.
- Customer to provide any required dedicated outlets at location of installation
- Any proprietary panel programming and associated costs, required to facilitate the installation, are/is the responsibility of the City of Camas.

					City of Camas Pump/Lift Stations Estimated Install Costs					
Site:	Equipment Fees	Permit Fees	Install Hours	Install Rate	Install Labor Subtotal	Travel Hours	Travel Rate	Travel Labor Subtotal	Site Total
Brady Road Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Camas Meadows Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Crown View Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Fisher Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Grand Ridge Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
(HARL) Hills at Round Lake	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Hillshire Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Hunters Ridge Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
LaCamas Creek Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
LaCamas Meadows Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
LaCamas Shores Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Larkspur Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Lower South Prune Hill	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Main Pump Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Oak Park Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
One Stop Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Parker Estates Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Prune Hill Park Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Stone Leaf Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Sunningdale Gardens Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Two Creeks Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
West Camas Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Winchester Hills 1 Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Winchester Hills 2 Station	$0.00	$0.00	1.5	$149.00	$223.50	1.50	$115.00	$172.50	$396.00
Wastewater Treatment Plant	$0.00	$0.00	2	$149.00	$298.00	1.50	$115.00	$172.50	$470.50
(Sub-account)　232nd Ave Station	$0.00	$0.00	0	$149.00	$0.00	0.00	$115.00	$0.00	$0.00
(Sub-account)　Goodwin Rd Station	$0.00	$0.00	0	$149.00	$0.00	0.00	$115.00	$0.00	$0.00
(Sub-account)　Ledbetter Rd Station	$0.00	$0.00	0	$149.00	$0.00	0.00	$115.00	$0.00	$0.00
TOTALS:	$0.00	$0.00	$38.00	$4,172.00	$5,662.00	37.5		$4,312.50	$9,974.50

Site:	Panel Type:	Equipment Fees	Permit Fees	Install Hours	Install Rate	Install Labor Subtotal	Travel Hours	Travel Rate	Travel Labor Subtotal	Site Total
City Hall / Fire Station #41	Simplex 4010 (Dial	$705.00	$424.00	5	$149.00	$ 745.00	1.50	$115.00	$172.50	$2,046.50
Public Library	EST 2	$965.00	$424.00	4	$149.00	$ 596.00	1.50	$115.00	$172.50	$2,157.50
Operations Center	Radionics 9112	$890.00	$424.00	5	$149.00	$ 745.00	1.50	$115.00	$172.50	$2,231.50
Police Department	Radionics D9124	$705.00	$424.00	4	$149.00	$ 596.00	1.50	$115.00	$172.50	$1,897.50
Fire Station #43	Silent Knight 5208	$0.00	$0.00	2	$149.00	$ 298.00	1.50	$115.00	$172.50	$470.50
Lacamas Lake Lodge	Notifier NFS-50	$0.00	$0.00	2	$149.00	$ 298.00	1.50	$115.00	$172.50	$470.50
Fire Station #42	Simplex 4005	$705.00	$424.00	4	$149.00	$ 596.00	1.50	$115.00	$172.50	$1,897.50
TOTALS:		$3,970.00	$2,120.00	26	$1,043.00	$3,874.00	10.5		$1,207.50	$11,171.50

Camas City Sites- Estimated AES Install Costs