



To: Mayor and Council

From: Dylan Mulfinger

Subject: Phone and IT Infrastructure Upgrade

Date: 10/25/2021

City Hall needs to move its server out of the vault to make the final upgrades to City Hall. This requires updating the switches and routers. This project has triggered a connectivity study and shows where other upgrades need to occur. One major portion of this project is upgrading the current phone system. The phone system is old and breaks frequently. I wish to upgrade the city to Voice Over IP (VOIP). This internet-based phone system allows for the city to be better connected and have a better call quality. City Hall and each department needs new switches for this system and new ethernet lines into offices.

Part of the proposed plan is to connect the fire station and City Hall. This will allow for one internet service for both buildings, this would reduce cost. We also plan to run several new connections in the fire station to allow for better accessibility of ethernet ports. The City is connected with conduit to the station, a wire just needs fished. The Fire Station would be on the same phone system after this upgrade.

Public works is running on old copper and is not connected to the parks department. The new proposed system would run ethernet to both buildings and make the utility shop a hub. Each building would go to the new phone system. Each building would get new switches and better routers. The new routers would offer better protection than some of the current routers.

We would switch the police from their current VOIP to the system the city council approves.

This project has been in the works for years. The City Administrator plans to bring all quotes to council in November and be ready for a vote. All funding has been set aside through franchise fees and utility funding. This would be a much needed major improvement for the city's it infrastructure.



We have prepared a quote for you

Infrastructure project

Quote # 067508
Version 1

Prepared for:

City of Oelwein

Dylan Mulfinger
DMulfinger@cityofuelwein.org

Down Payment

Description	Price	Qty	Ext. Price
A down payment of 50% will be required on all purchases with a total of \$10,000 or greater. After approval of quote, an invoice for the down payment amount will be sent, orders will be placed after invoice is paid.			

Ruckus Wireless

Description	Price	Qty	Ext. Price
Ruckus R550 Access Point Ruckus R550 - Wireless access point - ZigBee, 802.11ax - Bluetooth, ZigBee, Wi-Fi - Dual Band - DC power / PoE The R550 access point (AP) with the Wi-Fi 6 (802.11 ax) technology delivers the ideal combination of increased capacity, improved coverage and affordability in dense environments. The R550 is the mid-range dual-band, dual-concurrent AP that supports four spatial streams (2x2:2 in 2.4GHz/5GHz). The R550 supports peak data rates of up to 1774 Mbps and efficiently manages up to 512 clients connections.	\$798.00	3	\$2,394.00
WatchDog Support - R550 Ruckus Partner Premium Support - Extended service agreement - advance parts replacement - 1 year - shipment - response time: NBD	\$67.00	3	\$201.00
Ruckus Cloud Wi-Fi - Subscription license (3 years) 24X7 Technical Support (phone, chat, email), Automatic Firmware Updates	\$215.00	3	\$645.00
Ruckus PoE Injector	\$60.00	3	\$180.00

Subtotal: **\$3,420.00**

Extreme Switching

Description	Price	Qty	Ext. Price
Extreme Networks 220 - 12p L2 - 12 x 10/100/1000 (PoE+) + 2 x 10 Gigabit SFP - PoE+ (123 W) - Stackable	\$1,010.00	4	\$4,040.00
ExtremeWorks - 4 Hour 4 Hour Advanced Hardware Replacement - extended service agreement - 1 year - 12 Port PoE	\$120.00	4	\$480.00

Extreme Switching

Description	Price	Qty	Ext. Price
Extreme Networks 220 - 48p L3 - 48 x 10/100/1000 (PoE+) + 4 x 10 Gigabit SFP+ - PoE+ (370 W) - Stackable	\$3,035.00	2	\$6,070.00
ExtremeWorks - 4 Hour 4 Hour Advanced Hardware Replacement - extended service agreement - 1 year - 48 Port PoE	\$380.00	2	\$760.00
StarTech.com 3m Fiber Optic Cable - Multimode Duplex 50/125 - OFNP Plenum - LC/LC - OM2 - LC to LC Fiber Patch Cable	\$28.00	6	\$168.00
Extreme Networks SFP Transceiver Module GigE - 1000Base-SX / LC multi- mode	\$490.00	6	\$2,940.00
Patch cable - RJ-45 (M) to RJ-45 (M) - 2 ft - UTP - CAT 6 - molded, snagless, stranded - blue	\$2.50	100	\$250.00

Subtotal: **\$14,708.00**

SonicWALL Firewall

Description	Price	Qty	Ext. Price
SonicWALL TZ370 - 3 Year Advanced Protection Edition 3 year subscription includes: <ul style="list-style-type: none"> • Capture Advanced Threat Protection • Gateway Anti-Virus • Anti-Spyware • Intrusion Prevention • Application Firewall Service • Content Filtering Services • Comprehensive Anti-Spam • NSM Essential with Management & 7-Day Reporting and 24x7 Support with firmware 500 Mbps Capable	\$1,675.00	2	\$3,350.00

Subtotal: **\$3,350.00**

Services

Description	Price	Qty	Ext. Price
Project Scope See Separate Statement of Work Document	\$10,500.00	1	\$10,500.00
Big Leaf Summary of Charges (billed directly from Big Leaf) Big Leaf Contract - \$199/month - quantity 2 City Hall & Utility Building Campus One Time Setup Fee - \$379 - waived on 36 month term (vs 12 month term) - quantity 2 City Hall & Utility Building Campus One Time Setup Fee for Rack Mount - \$45 - quantity 2 City Hall & Utility Building Campus			

Subtotal: **\$10,500.00**

Infrastructure project

Prepared by:

Cedar Valley
Susan
(319) 433-3743
susan.perkins@bergankdv.com

Prepared for:

City of Oelwein
20 2nd Ave SW
Oelwein, IA 50662
Dylan Mulfinger
DMulfinger@cityofuelwein.org
(712) 870-0617

Quote Information:

Quote #: 067508
Version: 1
Delivery Date: 10/20/2021
Expiration Date: 11/30/2021

Quote Summary

Description	Amount
Ruckus Wireless	\$3,420.00
Extreme Switching	\$14,708.00
SonicWALL Firewall	\$3,350.00
Services	\$10,500.00

Please DO NOT pay from quote. An invoice will be generated after authorization. Total: **\$31,978.00**

Payment Options

Description	Periods	Payments	Amount
GreatAmerica			
36 Months	Monthly	36	\$994.84
48 Months	Monthly	48	\$773.23

Taxes, shipping, handling and other fees may apply. We reserve the right to cancel orders arising from pricing or other errors.

Signature

Date

Terms and Approval

By signing and returning this Quotation, I authorize BerganKDV to order the above products. I also agree, upon delivery of the above products, to pay BerganKDV any and all amounts due. Unless explicitly specified in the above quotation details, labor hours required to deliver, install, configure, and/or support the above products is not included in the quoted price. In some cases, an amount will be due prior to ordering. Additional shipping charges may apply. Prices are subject to change without notice.

WARRANTIES AND DISCLAIMERS

A) Limitation of liability. BerganKDV shall not be liable to client under any circumstances for client's loss of the use of its network or related systems. In no event shall vendor be liable to customer for any indirect, special or consequential damages or loss profits arising out of or related to this agreement or the performance of services hereunder or any breach thereof even if vendor has been advised of the possibility thereof. Vendor's liability to customer hereunder, if any, shall in no event exceed the total amount paid to the vendor hereunder. In no event shall vendor be liable to customer for any damages resulting from or relate to any failure or delay of vendor in the performance of services hereunder.

B) Negation of Warranty. Vendor does not warrant the services performed hereunder or the accuracy or correctness of the results of the services, and there are no warranties, express or implied, including, but limited to warranties of the merchantability or fitness for any particular purpose.

INDEMNIFICATION

City of Oelwein hereby agrees to indemnify and defend at its sole expense: BerganKDV, its employees, agents, representatives, directors and shareholders, from and against any and all claims arising out of or based upon City of Oelwein use of all services, software or hardware provided or serviced hereunder, including, but not limited to, claims based on software licensing violations, copyright infringement, trademark infringement and patent infringement. In addition, City of Oelwein agrees to pay any judgment and costs associated with such claim.

RETURNS

Eligible returns must be made with 15 days in the original packaging in like new condition. There may be shipping costs as well as 20% restocking fee on items that can be returned. BerganKDV reserves the right to deny any returns or exchanges. Check with your account manager for details.

City of Oelwein Infrastructure Project

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1.0 Project Description

BerganKDV will assist with preparing the infrastructure at several of the different department buildings for the new voice over ip system that will be getting installed.

City Hall:

BerganKDV will support the client with getting cabling and server equipment relocated in the City Hall building so it is centrally located in a properly cooled and physically secure location. The new server room will be back in the old Police Department evidence room.

Fire Department:

BerganKDV will support the client with connecting the Fire Department to City Hall by leveraging new fiber optic cabling between the two buildings. BerganKDV will assist with installing a new network switch in the Fire Department basement that will terminate the fiber. This will allow the Fire Department to utilize the redundant internet services that will be installed at City Hall.

Utilities-Park-Streets Departments:

BerganKDV will support the Client with installing a new SonicWall firewall at the Utilities building to provide connectivity back to City Hall using a site-to-site vpn tunnel. BerganKDV will assist client with installing new network switches in each building to terminate new fiber that will replace the existing copper that is used to connect the buildings currently. BerganKDV will install a wireless access point in each of the buildings to provide wireless connectivity for user machines.

Wastewater Department:

BerganKDV will support the client with installing a new SonicWall firewall at the Wastewater building to provide connectivity back to City Hall using a site-to-site vpn tunnel. The new firewall will provide additional next-generation firewall security features like Intrusion Prevention, Gateway AV, Anti-Malware, and botnet protection that are equivalent to what other departments are currently using for securing their internet perimeter (City Hall, Police Department, etc).

1.1 Services

BerganKDV will provide a Project Implementation Specialist, to ensure project activities are delivered, tracked and managed successfully.

1.2 Project Duration

BerganKDV and Client, who will jointly manage this project, will together develop timelines for an Anticipated Schedule during Project Kick-Off meeting. Any dates, deadlines, timelines or schedules contained in the Anticipated Schedule, in this SOW or otherwise, are estimates only, and the Parties will not rely on them for purposes other than initial planning.

1.3 Scope – Project Tasks

The project scope will consist of the following items to be performed *remotely* and *onsite*. BergankKDV will manage and deliver the following project tasks, as part of the engagement. Project fixed labor cost will be \$10,500.00:

City Hall Infrastructure Work – 15 hours

- Move rolling rack with servers from Copy Room to new Server Closet
- Configure and install [2] new 48 Port POE switches in new Server Closet Rack
- Patch in new data runs.
- Relocate firewall into new server closet, re-connect internet carrier.
- Configure and deploy SD-WAN appliance for City Hall
- Assist with setting up 2nd Internet provider and add it into SD-WAN appliance
- Verify network and internet connectivity are restored after servers and network equipment is online in the new data closet.

Fire Department Infrastructure Work – 6 hours

- Install new Network Switch in new data rack in basement.
- Terminate fiber between City Hall and the Fire Department into switches.
- Patch fire department workstations into new network switch.
- Confirm network and internet connectivity on Fire Department workstations.

Utilities-Park-Streets Infrastructure Work – 20 hours

- Configure and deploy new network switches (1 switch per building).
- Terminate fiber between buildings and test connectivity.
- Configure and deploy new firewall in Utilities Building. Create a vpn tunnel back to City Hall.
- Configure and deploy new wireless Aps in buildings (1 WAP per building).
- Patch in workstations into new network switches using new network cabling.
- Verify workstations have network and internet connectivity.
- Configure and deploy SD-WAN appliance for Utilities-Park-Streets department internet services.
- Assist with setting up 2nd Internet provider and add it into SD-WAN appliance in Utilities Department.

Wastewater Department Infrastructure Work – 6 hours

- Configure and deploy new firewall in Wastewater Building. Create a vpn tunnel back to City Hall.

Project Management – 6 hours

- Vendor Management for the project
- Travel

1.4 Out of Scope Services

BergankDV is responsible to perform only the Services described in this Statement of Work Agreement in paragraph 3.3. Any additional services discussed or implied not defined explicitly by this SOW will be considered out of Scope. BergankDV has provided a project fee price we believe to be accurate based on the discovery performed. If key information was not available or unknown during the project discovery phase and impacts the SOW, it will result in additional fees for out of scope project work. Out of scope project work will be billed at an hourly rate of \$175.00/hr.

1.5 Completion Criteria

BergankDV has completed its responsibilities to this Statement of Work when the above deliverables in Section 3.3 are completed.

1.6 Client Responsibilities

The client agrees to:

- Identify a technical resource to work with the Service Provider's Project Implementation Specialist.
- Use reasonable efforts to communicate regularly with Service Provider and provide timely feedback.
- Provide the appropriate Administrative access to systems and/or access to the appropriate equipment in a timely manner.
- Provide the appropriate access to stakeholders, technical/systems and business subject matter experts, functional owners, and decision makers in a timely manner.
- Make reasonably available pre-existing third-party design specifications, application code and documentation as reasonably requested by Service Provider.
- Take commercially reasonable efforts to execute all assigned tasks promptly as reasonably requested by Service Provider throughout the engagement.

1.7 Key Assumptions

General Assumptions

- All work will be performed during normal business hours, Monday through Friday, 8 a.m. to 5 p.m. CST, except holidays unless otherwise agreed to in advance.
- All tasks will be performed over a consecutive timeframe unless otherwise agreed to by all parties.
- User's endpoint systems will be available on conversion day. Any systems not available on conversion day will be handled on a service ticket outside of the project scope.
- The level of effort reflects a fixed price and this SOW represents a fixed price.
- Service Provider services will be delivered in US English only.
- Service Provider will conduct this project remotely at various Service Provider locations as needed, based on a mutually agreeable schedule determined during the project.
- For any work that may be performed at Client's facility, access will be provided to Service Provider resources to the necessary systems, workspace, and Internet access.
- Additional work beyond the level of effort described in this SOW will be subject to the Scope Change process and may be subject to additional costs.
- If schedules are delayed due to lack of timely information, deliverable reviews, access, equipment, training attendance, or other necessary resource or cooperation not the fault of the Service Provider team, then said delay may require an equitable adjustment to the Services under this contract.
- Variable Travel costs such as airfare and lodging are not included as a part of this statement of work. Any applicable variable travel costs will be submitted after project acceptance once a project workplan has been completed during the initial project kickoff call. Average technician overnight lodging expenses are \$200/night. A "point in time" travel cost estimate can be submitted upon request.

Fire Department Assumptions

- BergankKDV will provide an estimate from one of your preferred electrician/low-voltage vendors for connecting the Fire Department back to City Hall with fiber optic cabling.
- One location in each building will be used to mount the new switch along with a fiber termination panel, and a UPS. New cabling may be needed for end user systems based on where the rack is placed. BergankKDV will work with the low-voltage cabling provider to select the best position for the rack based on proximity to end-user systems and where we have adequate power and ventilation.
- Low voltage vendor will provide the wall-mount racks, punch down panels, fiber termination panels and fiber patch cables. BergankKDV will help provide the low-voltage vendor with required specs so they can provide a quote to the City.

Utilities-Park-Streets Departments Assumptions

- Customer will take care of replacing existing copper cabling with new fiber to connect the buildings together. BerganKDV can provide an estimate from one of your preferred electrician/low-voltage vendors upon request.
- Adding workstations to the existing domain, backup configuration, application work, readdressing hosts is all outside the scope of this project. BerganKDV would be happy to create a statement of work around these items upon request. The intent of this statement of work is to cover infrastructure hardware and service labor to implement infrastructure items.
- One location in each building will be used to mount the new switch along with a fiber termination panel, and a UPS. New cabling may be needed for end user systems based on where the rack is placed. BerganKDV will work with the low-voltage cabling provider to select the best position for the rack based on proximity to end-user systems and where we have adequate power and ventilation.
- Low voltage vendor will provide the wall-mount racks, punch down panels, fiber termination panels and fiber patch cables. BerganKDV will help provide the low-voltage vendor with required specs so they can provide a quote to the City.

Administrative Department/City Hall Assumptions

- A small rack will be installed in the new server closet that will be used to mount the new switch along with a fiber termination panel, and a UPS. New cabling may be needed for end user systems based on where the rack is placed.
- The existing rolling rack will be utilized in the new server room and we will cross connect the server rack to the switching that will be installed in the wall rack inside the new server room.
- Low voltage vendor will provide the wall-mount racks, punch down panels, fiber termination panels and fiber patch cables. BerganKDV will help provide the low-voltage vendor with required specs so they can provide a quote to the City.
- Low voltage vendor will take care of running any new cabling for any new wireless access points and end user systems if it is deemed necessary. Low voltage vendor will be responsible for mounting new access points and wall racks. Low voltage vendor will be responsible for providing adequate power for rack locations.

Date	September 8, 2021
Proposal #	208355-01
Customer ID	103253

CAT 6 CABLE INSTALL

Billing Information

City of Oelwein
20 2nd Ave SW
Oelwein IA 50662
319-283-5440

Service at

City of Oelwein
20 2nd Ave SW
Oelwein IA 50662
319-283-5440

307158

CITY HALL

INSTALL CAT 6 HOMERUN	ü
WALL MOUNT RACK 20U	ü
APC SMART-UPS C SMC1000-2UC UPS	ü
INCLUDED IN THIS OPTION WILL BE THE INSTALLATION OF (2) CAT 6 CABLES TO EACH OF THE (18) LOCATIONS MARKED ON THE MAP. THE CABLES WILL BE RAN TO THE NEW SERVER ROOM THAT IS MARKED ON THE MAP. WE WILL PROVIDE A U20 RACK AND A UPS. ALL MATERIAL AND LABOR HAVE BEEN INCLUDED TO INSTALL THE ABOVE.	ü
WARRANTY: 1 YEAR	
Total	\$ 18,300.00

307349

FIRE STATION

INSTALL CAT 6 HOMERUN	ü
WALL MOUNT RACK 20U	ü
APC SMART-UPS C SMC1000-2UC UPS	ü
INCLUDED IN THIS OPTION WILL BE THE INSTALLATION OF (1) CAT 6 CABLE TO EACH OF THE (5) LOCATIONS CURRENTLY. THE CABLES WILL BE RAN TO THE MECHANICAL ROOM. WE WILL PROVIDE A U20 RACK AND A UPS. ALL MATERIAL AND LABOR HAVE BEEN INCLUDED TO INSTALL THE ABOVE.	ü
WARRANTY: 1 YEAR	
Total	\$ 5,950.00

~~KEN'S ELECTRIC, INC.~~

841 1st Ave SE
Oelwein, IA 50662
319-283-4221

Ken's Electric, Inc.

841 1st Ave SE
Oelwein IA 50662
319-283-4221

Date	September 8, 2021
Proposal #	208355-01
Customer ID	103253

307350

CITY SHOP

INSTALL CAT 6 HOMERUN	ü
WALL MOUNT RACK 20U	ü
APC SMART-UPS C SMC1000-2UC UPS	ü
INCLUDED IN THIS OPTION WILL BE THE INSTALLATION OF CAT 6 CABLES IN EACH OF THE (3) CITY SHOP BUILDINGS FOR (6) TOTAL CAT 6 LOCATIONS. THE CABLES WILL BE RAN TO EACH SPECIFIC AREA IN EACH BUILDING. WE WILL PROVIDE A U20 RACK AND A UPS. ALL MATERIAL AND LABOR HAVE BEEN INCLUDED TO INSTALL THE ABOVE. WARRANTY: 1 YEAR	ü
Total	\$ 8,350.00

TERMS

50% UPON ACCEPTANCE OF THIS PROPOSAL, 50% UPON COMPLETION OF THE PROJECT. THIS PROPOSAL IS VALID FOR 30 DAYS.

Accepted Option: _____

_____ Date

Acceptance (Customer)

_____ Date

Approval (Company)

Quotation

MAXIMUM SIGHT & SOUND
4017 UNIVERSITY AVE
WATERLOO, IA 50701

Quote Number
CITY HALL

Quote Date
Sep 24, 2021

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Quoted to:

CITY OF OELWEIN
20 2ND AVE SW
OELWEIN, IA 50662

Customer ID	Good Thru	Payment Terms	Sales Rep
CITY OF OELWEIN	10/24/21	Net 10 Days	

Quantity	Item	Description	Unit Price	Extension
36.00		CITY HALL CAT 6 RUNS TWO TO EACH LOCATION MARKED ON MAP WIRE MOLDING WHERE NEEDED		
1.00		WALL RACK U15 CITY HALL		
1.00		RACK MOUNTED UPS		
1.00		ALL MATERIALS AND LABOR TO INSTALL	14,200.00	14,200.00
			Subtotal	14,200.00
			Sales Tax	
			Freight	
			Total	14,200.00

Quotation

MAXIMUM SIGHT & SOUND
 4017 UNIVERSITY AVE
 WATERLOO, IA 50701

Quote Number
 7900

Quote Date
 Oct 14, 2021

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Quoted to:

CITY OF OELWEIN
 20 2nd Ave SW
 OELWEIN, IA 50662

Customer ID	Good Thru	Payment Terms	Sales Rep
OELWEIN CITY OF	11/13/21	Net 10 Days	

Quantity	Item	Description	Unit Price	Extension
1.00		DIRECTIONAL BORE FROM FIRESTATION TO CITY HALL USING 1-1/2 INCH POLY DUCT		
1.00		VIBRATORY PLOW FROM CITY GARAGE TO MAINTENANCE BUILDING 1-1/2 POLY DUCT		
1.00		VIBRATORY PLOW FROM MAINTENANCE BUILDING TO SMALL MAINTENANCE BUILDING 1-1/2 INCH POLY DUCT		
6.00		COMFIT DURALINE COUPLINGS		
1.00		LOCATE UTILITIES		
1.00		BORE CREW MOBILIZATION CHARGE		
600.00		1-1/2 HDPE DUCT		
3.00		MULTIMODE FIBER RUNS 550-375-275		
1,200.00		MULTIMODE 6 STRAND PRE TERMINATED ARMOUR FIBER		
6.00		RACK MOUNT AND FIBER ENCLOSURES		
			Subtotal	Continued
			Sales Tax	Continued
			Freight	
			Total	Continued

Quotation

MAXIMUM SIGHT & SOUND
4017 UNIVERSITY AVE
WATERLOO, IA 50701

Quote Number
7900

Quote Date
Oct 14, 2021

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Quoted to:

CITY OF OELWEIN
20 2nd Ave SW
OELWEIN, IA 50662

Customer ID	Good Thru	Payment Terms	Sales Rep
OELWEIN CITY OF	11/13/21	Net 10 Days	

Quantity	Item	Description	Unit Price	Extension
1.00		ALL LABOR AND MATERIALS TO RUN FIBER TO 3 LOCATIONS AND TERMINATE AT WALL RACKS	22,254.00	22,254.00
			Subtotal	22,254.00
			Sales Tax	1,557.78
			Freight	
			Total	23,811.78

WEST UNION TRENCHING

800 Highway 150 South, West Union, IA 52175
563-422-5900 - www.bore4u.com

Estimate

Date	Estimate #
10/20/2021	21076

City of Oelwein
20 2nd Ave SW
Oelwein, IA 50662

Qty	Description	Rate	Total
	Project Location: City Hall / City Maintenance Shop Project details: Interconnect fiber build		
180	Rod existing 3" duct / pull 6 ct. fiber	1.00	180.00
250	6-fiber multimode	1.40	350.00
2	Clearfield XPAK 6 PORT SC/APC	115.00	230.00
2	Mounting panels for XPAC cassettes	188.00	376.00
4.5	Splicing for termination panels (hours)	100.00	450.00
630	Directional drill 1.25" duct (labor & material)	8.50	5,355.00
1	Hoffman 16x16x6 exterior wall mount pull box	68.00	68.00
1	Set 17x30x24 pull box	750.00	750.00
1	Building entrances (labor/material)	800.00	800.00
2	Clearfield XPAK 6 PORT SC/APC	115.00	230.00
1	Clearfield XPAK 12 PORT SC/APC	236.00	236.00
3	Mounting panels for XPAK cassettes	188.00	564.00
630	Pull 6 ct. fiber in duct	0.75	472.50
850	6-fiber multimode	1.40	1,190.00
8	Splicing for termination panels (hours)	100.00	800.00
Total			\$12,051.50