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Town of East Montpelier Infrastructure Upgrade

Quote # 000096
Version 1

Prepared for:

Town of East Montpelier

Bruce Johnson
eastmontadmin@comcast.net

Friday, March 08, 2019

Town of East Montpelier
Bruce Johnson
40 Kelton Rd
PO Box 157
East Montpelier, VT 05651
eastmontadmin@comcast.net

Dear Bruce,

rbTech exists to help our customers make informed choices about technology that finds a reasonable and sane balance between cost, complexity, and performance. To that end, rbTechnologies is pleased to present our proposal for server and network upgrades to enhance the efficiency and security of your network!

OBJECTIVE

Enhance the security and manageability of the network by upgrading your aging infrastructure with new hardware and current Windows Operating Systems. Migrate existing centralized user and configuration management (Active Directory) to new server hardware, replace aging workstations. Ensure all critical data is backed up both inside and outside the building and continue managing the infrastructure in a proactive manner.

CURRENT STATE

The Town of East Montpelier has a Windows Server running Windows 2012r2 with the Windows Server Essentials Experience deployed for workstation backups. The server is at end of life and needs replacement. The server is the central repository for all user and Company data, and is also accessed by multiple users for NEMRC and workstation backups.

Nearly all workstations are running Windows 10 Pro. Most users are running redirected folders for workstation data.

Network Infrastructure:

pfSense 4 port firewall, Gigabit managed switch with 2 new (6 months old) Engenius wireless access points: One for internal (LAN) and one for public Internet access (DMZ).

Server:

Server is running Windows 2012r2 on aging hardware that is out of warranty and end of life. The server houses the NEMRC data files.

Email is configured in the Comcast cloud and has been problematic. Email data 'lives' on each workstation, driving the requirement for workstation backups. The town has requirements for email and data archiving that we need clarity on for both the current state, and where the Town would like to be.

Workstations:

All of the workstations are running Windows 7 professional, which must be retired by January 25th, 2020. The most recent workstation was installed in 2016. Each system has Microsoft Office 2013 and is on an OEM, non-transferrable license. Some workstations are protected by a UPS of varying age.

Shared Folders:

Standard workstation folders are mapped to drive letters on the server. The mappings are configured on the local workstations, not via Group Policy.

Printers:

There are 2 multi-function printer/ scanner/ copiers, 3 local printers and 2 thermal receipt printers deployed on the network. The MFPs are accessed over the network using locally installed print drivers and scanning utilities. The local printers are connected to workstations via USB and not shared.

Remote Access:

There is no remote access to the network at this time. There is one remote user, the road foreman is using a cellular connected iPad and iPhone for all of his work and is not considered to be part of this project.

Backups:

Workstation Backups are currently run on the workstations via Windows Essentials. This creates a full, point in time backup of each workstation on the server and consumes a huge amount of storage space, and complicates the server backups.

Server backups are running via Windows Server Backup to rotated USB disks that are taken offsite by Town staff on a nightly basis.

DESIRED STATE

Network Infrastructure:

Replace aging switch. For ease of management we'll install a Ubiquiti gateway, PoE switch, and 2 access points. This is cost comparable to the existing replacement gear and provides centralized management of all networking infrastructure.

Server:

New physical server, running a current version of Microsoft Windows Server and providing the necessary services, resources and headroom for the existing and planned future line-of-business applications. Server should have sufficient battery backup power and be configured for automatic shutdown in the event of an extended power outage.

Email should be migrated to Microsoft Exchange Online (included in the O365 service). We'll need a list of exactly who in the organization needs email/ archiving/ discovery/ distribution lists etc.

Workstations:

Workstations should be under warranty, running Windows 10 Professional and Office 365. Drive mappings should be deployed via Group Policy. All workstations should have UPS power protection. Unnecessary software packages should be removed. All users should run as non-administrators.

Shared Folders:

All company data should be on the Server, and users should have consistent drive mappings to shared folders (e.g. all

network users have the N: drive for NEMRC, only members of Accounting have access or a drive mapped to the Q: drive etc.). Drive mappings should be created and automated through the Server's Group Policy based on users' security group membership.

We will configure Microsoft OneDrive on user workstations for all user data, which will effectively back up all user files and documents to the Microsoft Cloud.

Remote Access:

Remote access is not needed at this time.

Printers:

The MFP printer mapping should also be automated via Group Policy as a shared printer on the server, so that all users have uniform printer access and setups. Local printers will remain as they are.

Backups:

Deploy Veeam agent on the server for local USB backups and offsite backups to rbTech Veeam Cloud Portal.

PROJECT SCOPE OF WORK

Our recommendation is to deploy a new physical server running Windows Server 2016 Standard. The new server will be configured as the Active Directory server, all shared folders and files will be migrated, and drive mappings updated to point to the new server.

Set up Office 365 portal, user accounts and applications. Deploy archiving and retention policy as determined by the Town (see prerequisites).

Install new workstations for all users (a mix of desktop systems and laptops), migrate user data, configure all systems with Office 2016 & users Office365 accounts.

Migrate email services from Comcast to the Microsoft O365 service. Import all old email from local archives on the workstations to Office365.

Upgrade Switch, Firewall, and Access points with new Ubiquiti Unifi gear.

Any server upgrade includes configuring the system for your network (IP address, gateway etc.), creating users and groups, and shared folders. Please note that a server deployment typically does NOT include configuration or deployment of VPN or remote log-in/ access services.

PREREQUISITES

These items are considered prerequisites to the new server hardware being deployed. Prerequisites are billed on a time and materials basis, and are considered Out-of-Scope of this project:

- Determine archiving and retention policy for Town email


- Microsoft Volume Licensing Portal setup to client licensing email address.
 - We typically create a Distribution List with a licensing@YOURDOMAIN.com email address. We put key users at the client site into the list and also add licensing@rbtechvt.com so we can register software and support subscriptions on your behalf, and to your organization.
- Customer will communicate desired group memberships and printer, folder/share and mapped drive permissions.
- Power and physical space for the server(s): The new server will need a power outlet and will need to operate simultaneously with the old server for a time, which will require enough physical space for both systems.

Rubin Bennett
Owner & Senior Engineer
rbTechnologies, LLC

Products

Description	Price	Qty	Ext. Price
Intel Pedestal Server System - Xeon Quad Core Processor - 32 GB RAM - 2ea. 4 TB Hard Drives - LSI RAID Controller with CacheVault - RAID 1 Mirrored Pair - Redundant Power - 3 Year Warranty (24x7x365)	\$3,199.00	1	\$3,199.00
Microsoft Windows Server 2019 Standard - License - 16 Core - Volume - Microsoft Open License - Single Language - PC	\$972.00	1	\$972.00
Microsoft Windows Server 2019 - License - 1 User CAL - Volume - 1 Point(s) - Microsoft Open License - Single Language - PC	\$42.00	10	\$420.00
APC by Schneider Electric Smart-UPS 1500VA LCD 120V with SmartConnect - 1440 VA/1000 W - 120 V AC, 110 V AC, 127 V AC - 7 Minute Stand-by TimeTower - 8 x NEMA 5-15R	\$599.00	1	\$599.00
Lenovo ThinkStation P330 Workstation - 1 x Intel i7-8700K Hexa-core (6 Core) 3.70 GHz - 16 GB DDR4 SDRAM - 512 GB SSD - Windows 10 Pro 64-bit (English) - Tower - Raven Black - DVD-Writer - English (US) Keyboard - DisplayPort - HDMI - 9 x Total	\$1,379.00	7	\$9,653.00
Lenovo ThinkPad T480 14" LCD Notebook - Intel Core i5 (8th Gen) i5-8250U Quad-core (4 Core) 1.60 GHz - 8 GB DDR4 SDRAM - 256 GB SSD - Windows 10 Pro 64-bit (English) - 1920 x 1080 - In-plane Switching (IPS) Technology - Intel UHD Graphics 620 D	\$1,469.00	2	\$2,938.00
Lenovo ThinkPad Pro Docking Station - for Notebook - Proprietary - Docking Lenovo ThinkPad Pro Docking Station - for Notebook - Proprietary - Docking	\$269.00	2	\$538.00
Microsoft Office 365 (Plan E3) - Subscription License - 1 User - 1 Year - Volume, Microsoft Qualified - MOLP: Open Business - Single Language - PC	\$240.00	10	\$2,400.00
Ubiquiti UniFi Switch - Manageable - 2 Layer Supported - 1U High - Rack-mountable - 1 Year Limited Warranty	\$479.00	1	\$479.00
Ubiquiti UniFi Security Gateway - 3 Ports - Management Port - SlotsGigabit Ethernet - Wall Mountable, Desktop	\$169.00	1	\$169.00
Ubiquiti UniFi UAP-AC-LITE IEEE 802.11ac 867 Mbit/s Wireless Access Point - 2.40 GHz, 5 GHz - 2 x Antenna(s) - 2 x Internal Antenna(s) - MIMO Technology - 1 x Network (RJ-45) - Wall Mountable, Ceiling Mountable - 1 Pack	\$99.00	1	\$99.00

Products

Description	Price	Qty	Ext. Price
Synology DiskStation + SAN/NAS Storage System - Intel Celeron J3355 Dual-core (2 Core) 2 GHz - 2 x HDD Supported - 24 TB Supported HDD Capacity - 2 x SSD Supported - 2 GB RAM DDR3L SDRAM - Serial ATA Controller - with 2ea. NAS Enterprise 6 TB Drives 	\$739.00	1	\$739.00

Subtotal: \$22,205.00

Services

Description	Price	Qty	Ext. Price
Service - Fixed Fee Service - Phase 1 - Fixed Fee - Pre-engineering services Fixed fee labor for service or project work.	\$1,800.00	1	\$1,800.00
Service - Fixed Fee Service - Phase 2 - Fixed Fee - Security Review Fixed fee labor for service or project work.	\$200.00	1	\$200.00
Service - T&M Service - Phase 3 - T&M - Physical space prep & delivery Service or project labor billed at actual work role rates.	\$130.00	4	\$520.00
Service - T&M Service - Phase 4 - T&M - Backup configuration and testing Service or project labor billed at actual work role rates.	\$0.00	4	\$0.00
Service - T&M Service - Phase 5 - T&M - Email service configuration Service or project labor billed at actual work role rates.	\$130.00	9	\$1,170.00
Service - T&M Service - Phase 6 - T&M Workstation and Server Go-live and data migration Service or project labor billed at actual work role rates.	\$130.00	54.5	\$7,085.00
Service - T&M Service - Phase 7 - T&M - Upgrade routing, switching and Wifi Service or project labor billed at actual work role rates.	\$130.00	4	\$520.00
Service - T&M Service - Phase 8 - T&M - Final wrap-up and punchlist Service or project labor billed at actual work role rates.	\$130.00	8	\$1,040.00

Subtotal: \$12,335.00

Monthly Services

Description	Recurring	Qty	Ext. Recurring
VA1S Veeam Agent SaaS, 1 Server 1 Server license for Veeam Agent SaaS	\$13.00	1	\$13.00

Monthly Services

Description	Recurring	Qty	Ext. Recurring
Veeam Cloud Storage - 1Tb	\$500.00	1.03	\$515.00
1 T Veeam Portal storage			

Monthly Subtotal: \$528.00

Terms and Conditions

Infrastructure Upgrade Terms

A server upgrade includes configuring the system for your network (IP address, gateway etc.), creating users and groups, and shared folders. We will migrate user data and settings (“user profiles”) on the connected workstations to the point it can be reasonably and cost efficiently done. This estimate includes up to 2 hours per workstation for that data conversion/ migration work, which is more than enough in the vast majority of cases.

It’s important to note that there are some settings that are difficult to migrate and require manual reconfiguration once the workstation has been joined to the new domain: Quickbooks, Dropbox, Google Drive, etc. are examples of programs that often need extra ‘care and feeding’ when user profiles are migrated. In addition, it’s not cost effective to perform an in-depth walkthrough of every program and setting on every machine prior to the migration work, which means that there’s a possibility that there are issues that we won’t find until we’re actually in front of the machine doing the work. In rare instances, we run into issues that require significant extra time during a migration/ upgrade project.

NOTE: If we encounter an issue as described above during your project, we will open a separate ticket for the issue encountered, and advise you or our technical contact on site as to the scope and nature of the issue. With your authorization, we’ll then proceed to work that issue as a separate side project from the upgrade/ migration on a time and materials basis.

Estimates and Warranty

Estimate of Labor Costs

The labor costs outlined in this document are estimates. Actual installation will be based on time & materials with the exception of flat rate services. Our base labor rate is \$150.00 per hour for business hours (8:00am 5:00pm), with higher rates for work completed at customer request outside of those hours. We have used a discounted base rate of \$130.00 per hour in this quotation due to the scope and volume of work involved.

WARRANTY

We extend the manufacturer's warranty at our cost to include the labor required to swap out failed component for duration of manufacturer’s warranty period. Warranty excludes costs for data recovery or reprogramming network systems.

Terms and Conditions

- Pricing is valid for 30 days, and all orders are subject to product availability. In the event that quoted gear is not available at the time of order, we will work with Client to spec acceptable substitutes.

Town of East Montpelier Infrastructure Upgrade



Prepared by:

rbTechnologies, LLC
 Ruben Bennett
 802.223.4448
 rubin@rbtechvt.com

Prepared for:

Town of East Montpelier
 40 Kelton Rd
 PO Box 157
 East Montpelier, VT 05651
 Bruce Johnson
 8022233313204
 eastmontadmin@comcast.net

Quote Information:

Quote #: 000096
 Version: 1
 Delivery Date: 03/08/2019
 Expiration Date: 03/20/2019

Quote Summary

Description	Amount
Products	\$22,205.00
Services	\$12,335.00
Total:	\$34,540.00

Monthly Expenses Summary

Description	Amount
Monthly Services	\$528.00
Monthly Total:	\$528.00

Payment Options

Description	Payments	Interval	Amount
Term Options			
Prepay Software & Hardware	1	One-Time	\$22,205.00

Summary of Selected Payment Options

Description	Amount
Term Options: Prepay Software & Hardware	
Total of Payments	\$22,205.00

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

rbTechnologies, LLC

Town of East Montpelier

Signature: _____

Name: Rubin Bennett _____

Title: Owner & Senior Engineer _____

Date: 03/08/2019 _____

Signature: _____

Name: Bruce Johnson _____

Date: _____

Appendix

rbTech Project Management

Intent:

This document is intended to summarize for rbTech's project management process

Intended Audience:

Clients who have engaged us for a more involved project (server upgrades etc.)

Expectations:

- Go-live is typically 6-8 weeks from signing
- Client prerequisite work must be completed in a timely manner, usually 1-2 weeks from contract signing, or project timeframe will have to be rescheduled, resulting in significant delays (up to 6-8 weeks).
- We will check in regularly as work proceeds, typically weekly.
- We place our orders so we have your gear ready for on-site installation. This timeline is driven by availability at our vendors of the various components required to fulfil your order, as it regularly takes 3-4 weeks from order to receipt for gear.

Project Timeline:

- Immediate (upon signing and receipt of deposit):
 - Project Kick-off meeting
 - Prerequisite work is identified
 - Customer and Consultant responsibilities are outlined
 - Client prerequisite work begins
 - Client prerequisite work completed by rbTech will be treated as Out of Scope
 - rbTech will ensure proper setup of licensing (e.g. licensing email distribution list at client email provider)
 - 1 week: Parts & Software ordered
 - 2-4 weeks: On site pre-engineering, assessment and discovery is completed
 - Any additional prerequisites are identified
 - 2-4 weeks (Upon receipt of hardware & software): In house work begins (build and burn etc.)
- Upon completion of In-House work
 - On site work is scheduled
 - Go Live is scheduled
 - Training is scheduled
 - Customer billed for In-House work
- 5-6 weeks
 - Gear is delivered to client site
 - Configured
 - Powered on
- Go Live:
 - Go Live day
 - Day after go-live day for clean-up, loose ends/ general follow up
- Project completion
 - Post project meeting with internal project team
 - Post project meeting with Client
 - Finalize any issues uncovered above
- Final billing for project sent