MINUTES
Cheshire County Commissioners Meeting
Wednesday March 20, 2019 08:30AM
County Hall Building
Stillman Rogers Conference
12 Court Street, Keene, NH 03431

Present: Commissioners, Charles (Chuck) Weed, John (Jack) Wozmak and Robert (Bob) Englund
Staff: County Administrator Coates, Finance Director Trombly, IT Director Hummel, Assistant County Administrator Bouchard
Guest(s):

At 8:31AM The Chairman opened the meeting and recognized Director Trombly who discussed Master Agenda Item #659: Chairman's signature on Engagement letter for Bond Council Services and TAN Sale date update. Following a short discussion of the letter the Chair signed the document. Trombly said that the TAN sale will occur on Tuesday April 30, 2019 and the closing documentation will be signed on May 8th.

A discussion of the annual budget process and the calendar vs fiscal budgeting cycle was reviewed at length and the pros and cons of each budgeting cycle was reviewed. No action to change from the calendar cycle is anticipated in the immediate future.

Administrator Coates was then recognized for the Weekly Operations report.

Coates said that the 2019 Delegation Budget meeting on Monday night went well and the budget passed as presented. He said that the Integrated Delivery Network (IDN) staff will be invited back to present on the program and its current status to the Delegation later in the year with August being the mostly likely time frame.

A discussion of how the funding for the IDN is run by the State and how it has transitioned over the past few years was covered. The potential end date for funding of 2022 arose and a sustainability plan will need to explored in the very near term. The discussion continued around the organizational structure of the IDN's and how they operate in each region was covered.

IT Director Hummel was then recognized to discuss Master Agenda Item #660: Information Technology Department - Semi-Annual Review. Hummel presented the following report:

IT Department Semi-Annual Status Report

Staffing & Workload

Despite a competitive job market, the IT Department is fully staffed. He said that the primary technician for the Sheriff campus, just observed his one-year anniversary. The newest member of the staff who was hired in October to administer the systems at the HOC, is coming up on the 6-month mark of his employment.

All staff is fully involved in a full range of activities from routine monitoring and maintenance to active research and development.

MINUTES
Cheshire County Commissioners Meeting
Wednesday March 20, 2019 08:30AM
County Hall Building
Stillman Rogers Conference
12 Court Street, Keene, NH 03431

Notable Events

Maplewood

1. In September, a small sewage leak above the newly constructed Maplewood server room damaged several monitors, an IP phone, and some keyboards and mice. The affected equipment was rendered non-functional and had to be discarded.
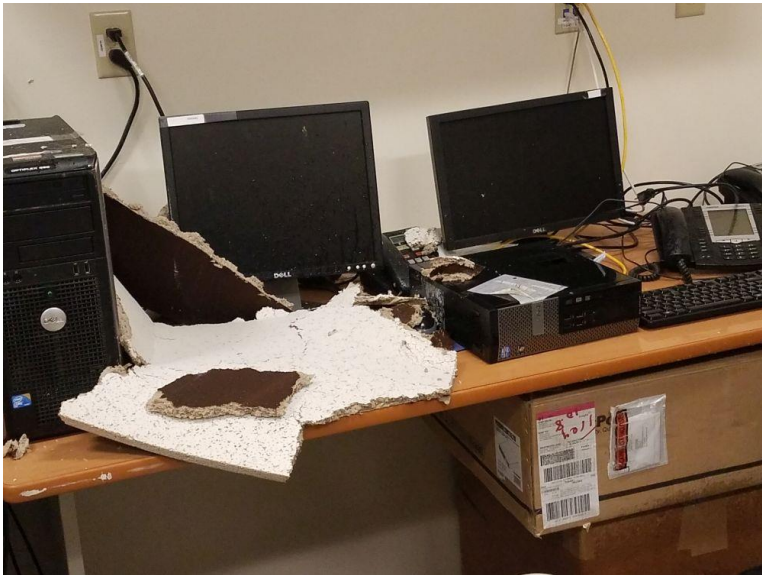
2. The cable-television firm that supplies Maplewood with its fail-over Internet connection, experienced a major system malfunction in January. This malfunction caused their Internet connection to flood Maplewood's network infrastructure with "junk" traffic. Because the traffic volume was so high, Maplewood users experienced problems getting to and using normal network services. IT staff were able to identify the problem and reconfigure the network topology to prevent the problem from affecting our internal network.

3. To support the construction project, the contractor requested access to our network for an Internet-based security camera. These devices are inherently insecure, however, and connecting them to the Maplewood network would be inappropriate. To accommodate this request, The IT Department programmed the infrastructure to isolate the camera on its own network while providing full access to the contractor.

MINUTES
Cheshire County Commissioners Meeting
Wednesday March 20, 2019 08:30AM
County Hall Building
Stillman Rogers Conference
12 Court Street, Keene, NH 03431

Department of Corrections

1. The NH VINE (Victim Information and Notification Everyday) program implementation required that the county provide a third-party vendor an interface through which it could access the internal inmate management system (IMS). The IT Department added infrastructure and programming to support a secure connection for this program while prohibiting access to the remainder of our secure network.

2. To increase the availability of the recently-upgraded computer-controlled security system, we have integrated a backup/restore system into the secure network to create and manage periodic centralized backups. Doing so enables any security workstation to be restored while still deployed, bringing the security system into compliance with our standard of "30 minute or less" for restoration. This recovery option was not available prior to the upgrade.

County-wide

1. Our anti-virus software vendor pushed out an update in January that caused some disruption to services. An unusual combination of circumstances caused the anti-virus service to block the website that is assigned to our email server. As a result, no one could access email for approximately 45 minutes. IT staff quickly identified the problem, added an exception for our mail site, and updated the affected workstations.

Infrastructure

Cheshire County operates a completely virtualized server environment. The advantages of this include more efficient use of resources, reduced maintenance, centralized management, and standardization. In addition, virtualized servers can be backed up, restored, and moved with an ease that is not possible with physical servers.

The fiber-based, high-speed, encrypted connections that link each campus have been performing without issue. Later this year, in anticipation of migration of our telephone services, we will be upgrading the speed of these connections. We continue to advance the design of our independent "management network," our channel of access to our internal network structure in the event that the primary connections fail.

Security Event Management

We continue to experience external threats at a significant rate; there is no expectation that this will change. Our "public" interfaces (firewalls, web services, email, file-sharing, and public-facing equipment) are subject to constant probing and directed attacks. In 2018, we increased our "attack surface" by putting several new outward-facing services (mail server and file drop box) into production. To date in 2019, no successful breaches of our data network were detected or observed.

MINUTES
Cheshire County Commissioners Meeting
Wednesday March 20, 2019 08:30AM
County Hall Building
Stillman Rogers Conference
12 Court Street, Keene, NH 03431

As our IT environment has grown more distributed and complex it has also become proportionally more difficult to monitor. Every device in our network –switches, firewalls, wireless access points, PC, servers, and the applications running on them – generates messages. These messages range from routine to emergent. The messages we're most interested in concern security events.

Interesting security events include:
- An actor trying to access to system using brute-force password guesses
- Connecting an unauthorized system into the network
- High-volume email for spamming
- Unauthorized or illegal use of public WIFI

They also include less-obvious situations, such as deviations from normal patterns.

To support our mission of providing data security, we have invested significant effort into building our Security Information and Event Management (SIEM) system over the past six months. An SIEM system is a group of complex technologies that work together to provide an overview into our infrastructure. It provides aggregation, correlation, analysis, monitoring, alerting, and reporting.

Off-the-shelf commercial SIEM systems can be purchased at significant cost – hundreds of thousands of dollars, for one that matches our infrastructure. Rather than purchase, the IT Department has built its own system using software that is available to the County at no cost. The hardware and software systems deployed in the county were designed and configured, from the start, to support eventual integration with an SIEM system.

Our most significant exposure is the end users – the final line of defense against a breach. In some cases, simply opening an email or browsing a website can be enough to download malware or viruses that could impact security. Our actions to prevent unauthorized exfiltration or loss of data have increased to match the threat level. End users have also been increasingly vigilant by reporting many "phishing" attempts and email scams to the IT department, allowing us to pro-actively block them.

All workstations now host a program that resolves all domain requests (website names) through an encrypted channel to our URL-filtering and malware blocking service. This protection is in place both on campus for desktop computers as well as when the user is using a laptop off-campus.

Our "whitelisting" policy, which allows only authorized programs to execute on a workstation, has significantly reduced our exposure to malicious programs being installed or executed.

We have implemented "geo-blocking" on our firewalls to block incoming traffic from entire countries or regions of the world. The reduction in brute-force attacks from blocked areas has been significant. Attacks from bad actors that are launched from US-based servers, however, are not prevented by geo-blocking.

MINUTES
Cheshire County Commissioners Meeting
Wednesday March 20, 2019 08:30AM
County Hall Building
Stillman Rogers Conference
12 Court Street, Keene, NH 03431

Availability, Continuity of Business, and Disaster Survivability Statement

A primary responsibility of the IT Department is to ensure the availability of computing resources to all County departments when and where required and to ensure the County's continuity of business. Our contingency planning statement is:

Cheshire County has a comprehensive business continuity program in place which is reviewed, updated, and tested regularly. The program provides for continuation of client services within minutes in most cases.

Here are a few examples of what might occur if Cheshire County were to experience a business disruption of varying magnitude:

- *If one of our virtual servers were to become unavailable for any reason, a replica of that server would be started on a partner host.*
- *If an entire virtual host was to become unavailable, such as in a hardware-related failure, the entire workload of virtual servers would be failed-over to a partner host.*
- *If an entire campus data center were to become unavailable, all critical workloads are replicated to hosts on other campuses and would be started on those cross-site hosts.*
- *All operational data is archived daily and stored in at least two physically diverse locations. These archives are "live" and are available to run for reference purposes.*

Current IT Department Projects

1. Secure File Share

The County's new in-house secure file exchange service was placed into production at the end of August. This service allows employees and designated external users to share files securely without the need for external providers such as Dropbox. This service was built and deployed by in-house staff without external cost. We are currently working with selected County employees to train and deploy the system.

The system was engineered with the possibility of extending use to towns and agencies within the Cheshire County area. This could be part of an offered service leading to backup, disaster recovery, and archiving services. Provisioning this would require an investment at the County level but could be recouped by fees.

2. Video Conferencing

A feature of our system is the ability to provide secure point-to-point video conferencing, both inside and outside of the county network. This capability is still in the testing phase as we ensure its usability and security.

MINUTES
Cheshire County Commissioners Meeting
Wednesday March 20, 2019 08:30AM
County Hall Building
Stillman Rogers Conference
12 Court Street, Keene, NH 03431

2. Telephone System Replacement

The new telephone system design project is progressing into the breadboard phase. Several trial systems have been deployed to demonstrate voice mail, inter-campus direct dialing, and other advanced features.

3. Sheriff/Dispatch Emergency Trailer

IT is beginning the engineering design phase of our project to fully integrate the Dispatch emergency operations trailer with the County network by casting the trailer as a "fifth campus." This will provide access to county file and computer resources as well as leverage the upcoming phone system redesign. IT is working to provide these capabilities both in a tethered configuration (at the Department of Corrections) and untethered (emergency deployment). This effort is to support the Sheriff Department's objective of enabling the trailer to either supplement or replace the dispatch center in both emergent and other circumstances.

Respectfully Submitted,

Robert L. Hummel
Director of Information Technology

Coates then resumed his Weekly Operations report:

Coates said that the dedication of rooms policy that was discussed at last week meeting does not seem exist in other counties that he has contacted so far. He said that the local school district does have a policy for this issue and he has requested a copy.

The said that as has been done for the past few years, Annual Report dedication will recognize staff members who have done their job with dedication for a number of years.

Coates then said that a contract with the Dead River company for the installation of propane tanks at the nursing home has been signed at very favorable rates. He outlined that one of the elements of the contract is the installation and purchase of the propane tanks over a five-year period that will then allow the County to open the propane contract to all bidders.

Coates said that the registration and rooms for the Commissioners to attend the Primex Risk Management Summit conference on May 15-16 has been completed.

He discussed that he had spoken with Representative Weber concerning the 10% cap increase under 167:18-a County Reimbursement of Funds; Limitations on Payments. The previous increases have been on the order of 2% and all of the proposed increase would fall on the county property taxpayers with an anticipated charge of over $600,000.00.

MINUTES
Cheshire County Commissioners Meeting
Wednesday March 20, 2019 08:30AM
County Hall Building
Stillman Rogers Conference
12 Court Street, Keene, NH 03431

A discussion concerning state funding for human services and the property taxes increases was discussed.

Coates said that on April 2nd the Mayor of Keene will hold a meeting for the members of the County Delegation and others to review pending legislative issues. The meeting will begin at 6:00PM

Old Business: A discussion of a response letter that was drafted in answer to a letter received concerning safety and policy concerns at the nursing home was reviewed in-depth.

New Business: None

The Weekly Census was then reviewed. A discussion concerning the department of corrections and nursing home overall census was covered.

The Weekly Manifest was then reviewed, and **Commissioner Wozmak moved to accept the Manifest as presented and was seconded by Commissioner Weed, upon vote the motion passed unanimously.**

The minutes of March 13, 2018 were then reviewed Commissioner Wozmak moved to accept the minutes as amended and was seconded by Commissioner Weed. Upon vote the motion passed unanimously.

The calendar was then reviewed.

Commissioner Wozmak said that he would be absent next week due to a prior commitment.

General Discussion: None

At 11:53AM there being no further business to discuss, Commissioner Weed moved to adjourn the meeting. The motion to adjourn was seconded by Commissioner Wozmak and upon vote the motion passed unanimously.

Respectfully Submitted,

R. Englund, Clerk