Information Technology Study Committee
Zoom Virtual Meeting
Meeting Minutes
September 29, 2020

Present: Dr. Thomas Raab, Donald White, Brian Ciccolo, Sunny Gleason, Vanessa O'Connor, Karen Waters, Matt Suckow, Tom Nee, Pam Manning, Carol Rodday
Absent: Patrick O'Brien

Meeting was called to order at 4:05 pm.

Don White made motion to accept May 21, 2020 meeting minutes as written, Brian Ciccolo seconded the motion. Voted unanimously in favor of accepting minutes as written.

Tom Raab announced that Vanessa O'Connor will be joining meetings as a non-voting member, liaison to the Board of Selectmen.

COVID-19 Updates:
Tom Raab asked Tom Nee and Karen Waters to report on improvements that have been made to the town and schools and Internet backup solutions due to COVID-19. Capital Improvements have been delayed until FY22. Originally would be placed on warrant for a special town meeting this fall, but meeting will not take place at this time.

- Tom Nee focused on remote employee usage due to COVID-19 and large capital items: servers for Hanover Fire Department (HFD) and Hanover Police Department (HPD). Also, interactive display boards for HFD, HPD, and town hall. This enabled departments to spread out meetings in different locations in town hall. Also upgraded to Opengov permitting, which bought out Viewpermit. Software is for permitting, licensing, and code enforcing. Also purchased was the large format scanner, which has not been deployed yet, determining location for set up.
- Karen Waters has been working on upgrading software on switches and firewalls, and enhancing internet connection to 1Gig and hardware to support. 500 Zoom licenses were purchased and deployed latest software on all licenses. Two Sonic interactive whiteboards have been purchased. Waiting on Chromebooks that were purchased in May 2020, and promised in July 2020.
- Don White asked about purchasing Chromebooks vs. leasing Chromebooks. Tom Raab explained Chromebooks were purchased using CARES Act funding.
- Karen Waters worked on copier leases which came due in August. A few low volume copiers were purchased to lower leasing costs. We should get another 3 or so years from them.
- Tom Raab said the biggest challenge for schools was getting technology up and running with hybrid and virtual learning. He asked Brian Ciccolo from a teacher standpoint if there are any concerns. Brian stated that overall, no issues personally with technology, incidental problems of students on Chromebooks may have their audio garbled more than students using Apple devices. The issue is only considered minor. Karen Waters

asked what version of Zoom is being used on Chromebooks. Brian will get version next time it happens. Center School had similar issue and it was Zoom version being run.
- Tom Raab discussed that the plan is to not stay hybrid for the entire year. Ultimate goal is to be in school 4 days per week. Cedar is now 4 days per week so spread out, classrooms in cafeteria, gym where technology is not the same as classroom. CARES funding to purchase interactive whiteboards.

Townwide Internet:

Tom Raab asked what would happen if internet goes down?
- Don White can see an attack on the internet infrastructure in the United States. If we lose internet do we lose telephones, cameras go down, link to Softrite goes down, all outside of our control. Don talked about getting town cabled up so critical departments can run on microwave link. If Verizon or Comcast get attacked it could be 3-4 days to get back online. What would happen to town?
- Tom Nee stated we are very dependent on internet cloud services. If any one building had an internet connection, we could run emergency services and payroll, but there is no fiber link between buildings at this time. If cabled up we could simplify the number of firewall connections to the outside world. There are low cost solutions to critical structures.
- Brian Ciccolo commented if we lose both Verizon and Comcast connection we would most likely lose cloud services as well.
- Karen Waters stated cameras are not tied to the internet, they run through servers that sit in each building, but we view through an internet connection.
- Don White stated and Sunny Gleason agreed that for small money we could have a backup system.
- Brian Ciccolo stated having a private network in town does not save us from a catastrophic event.
- Karen Waters stated we have Avaya in buildings that is currently not in use but could be up and running within one hour if we lose VOIP telephones. VOIP is completely dependent on the cloud but will accept voice messages if the building is isolated. In March teachers were set up with a virtual extension through an app. Teachers can connect extension to their cellphone for calling parents. School phone number appears as caller ID. Everyone was set up in one day.
- Karen Waters stated there are a lot of other costs associated with microwave links.
- Tom Raab assigned to Tom Nee to gather costs of microwave links.
- Karen Waters stated we would need a generator in each building in the event of loss of power. Don White stated there was a test on the HHS generator a year ago and it did not perform how they thought it would. Live test to make sure works.
- Don White discussed network security; Previously Bill Hartigan was going to set up free security test through state but it did not happen. Karen Waters reported on KnowBe4, Bill purchased in January 2020 but there has not been a chance to push it out to employees.
- Don White said Lincoln Heinemann is concerned about ransomware. Towns have had to pay large sums of money to get their data back.

- Tom Nee and Don White discussed strategies to have good backups. Softrite is supposed to perform backups. Sunny Gleason stated a backup is only as good as the most recent restore.
- Brian Ciccolo pointed out that contracts with cloud services vendors should be reviewed to make sure backup procedures meet our specifications.
- Tom Raab reported the FY21 budget has funds available for software testing. Tom Nee stated the town hall anti-virus software has released an upgrade that can be installed as the current product will become obsolete in March 2021 without it.
- Karen Waters has been upgrading firewalls in the schools recently, making sure the hardware doesn't become end of life, as that is when you have a security breach.
- Brian Ciccolo shared in addition to maintaining hardware, the majority of breaches that come in, come in through phishing attacks, employees clicking something they shouldn't. Companies test and report how to educate employees.

3-Year Capital Plan:
- Tom Raab brought the committee up to date on the 3-year Capital Plan, then going beyond to properly fund the technology budget. Capital plan changed in March 2020. All capital items were tabled to a special town meeting this fall, now postponing all to FY22 town meeting. Now is the time to look at year 2 and year 3 again.
- The laser cutter at HHS is still being supported as is WIFI upgrades at Cedar, HFD, and Council on Aging. CARES Act funding was used to upgrade COA as part of the MIH system (Mobile Integrated Health System). COA was upgraded with 4 new WiFi access points. Cedar definitely needs upgrades to gym and cafeteria as they are being used as classrooms. More devices are needed. POE small switch was purchased to support small WiFi access point. The second challenge is wiring. HPD and HFD have WiFi but it is quite old. WiFi upgrades can be added to FY22 budget.
- Tom Raab stated there was a two-pronged approach, we needed a lot done quickly. Now look at sustainable and long-term planning. Tom Nee said that HPD and HFD are equivalent to half a school. There are not that many devices, could split into multiple years.
- Karen Waters stated Cedar would need wiring and POE switches to support that. Don White feels leave the amount at $75K.
- VOIP phones at HHS are complete.
- According to Tom Nee Viewpermit software is all set and paid for. Don White asked about dog licensing module for town clerk.
- Tom Raab is removing HMS and HHS vape detectors. HMS and Cedar master clock, Tom Raab is going to try to push out to FY23. Tom Nee has not spoken to Bob Murray about it, was part of Facilities budget, now moved to Technology.
- Tom Nee reported that there are 5 essential areas at HHS that are blind spots for cameras: outside nurse office, back music hall, auditorium, back hallway of administration suite, and loading dock. This will be left on FY22 list and work will be complete next summer.

- Tom Nee stated the first VOIP telephones that were installed may need an upgrade. We may need to replace some phones. Oldest ones are 8 years old. HFD and HPD phones are 7 years old.
- Karen Waters gathered information regarding switch upgrades from Extreme Networks as to what a 7-10 year plan would look like. Maybe a couple of things need to be done immediately.

Tom Raab committed to make technology sustainable in the town budget. Have all technology in the town budget.

- Karen Waters met with Extreme Networks on August 12 and an entire assessment of the district, evaluating and analyzing and came up with a plan for upgrades for now and in the future. Currently the immediate plan was to go to 1G, in 7-10 years looking at 10G infrastructure. What will it take to get there, running fiber in buildings? HHS and Center has fiber running, Cedar and HMS do not. In order to get to 10G backbone we need to run some fiber in schools. The document is divided into each building. There is a lot of redundancy that we don't have to do. Cost either way, full redundant package or scale it back. Pricing will be better. In 2010 HHS purchased 12 switches that are now becoming end of life, with no support if something breaks down, no replacement parts. If something happens we have to purchase a new switch. Another 6 switches will reach end of life in 2023. Ongoing equipment we get 10 years out of. We have to sustain for security and stability and continue to replenish the hardware we have.
- Karen Waters will reach out to Extreme for better pricing. They will break down to stages and priority.

- Don White suggested and it was agreed to leave $230K. Don wants to go to town meeting with hard questions answered. Who determines end of life? Is it manufacturer? Have we had failures?

This committee will be meeting more frequently this fall. Committee will begin to look at FY22. State still has not finalized the FY21 budget. November-December Tom Raab will give a line item budget to the committee to make adjustments to FY22. This is preliminary.

Don White made a motion to adjourn the meeting at 5:15pm. All voted in favor.

Respectfully submitted,
Carol Rodday