

Technology Update
Abingdon-Avon 276 Board of Education
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Along with the normal day to day technology related tasks the tech department has been very busy completing multiple projects throughout the district. Some of these projects include a new district-wide IP phone system, new intercom (paging) system at Abingdon-Avon High School and assisting and overseeing the replacement of the video surveillance security system for AAHS, HGS and AES.

IP Phone System

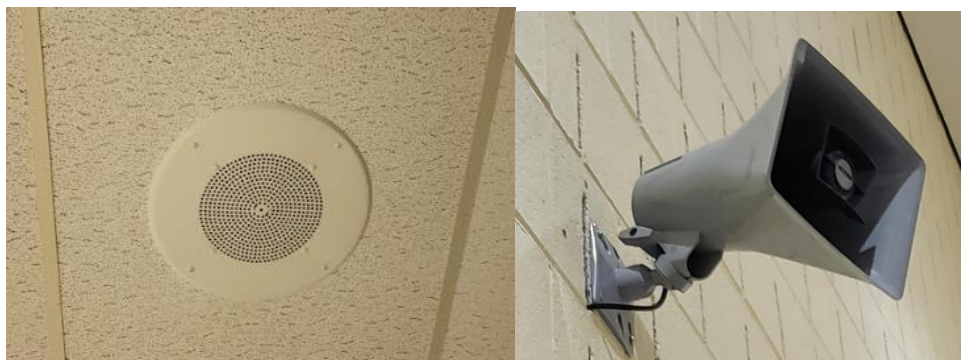


The new IP phone system is now fully functional district wide. This required the configuration and installation of 4 PBX servers (2 main and 2 backup), 147 desk phones, along with all associated wiring and gateways. All buildings within the district can now call any other phone in Abingdon or Avon by simply dialing a 3-digit extension eliminating the need to use an outside line for calls within the district. Voicemail is available at each extension. When a caller leaves a voicemail it is immediately sent to the email address associated with that user so it can be retrieved from not only at the phone but from virtually anywhere. The existence of in-house IP based phone system allows for many more options and more flexibility throughout the system. For example, we now have the ability to adjust dialing so that if a building is temporarily without phone service (due to external line problems with the service provider) that building's call can failover to another building's available external phone lines.

In preparation for the new phone system we had to evaluate the existing data wiring in each building since the IP based phones use the same network as all computer data systems. We determined that AAMS and AES needed to be updated for optimal phone performance. During the past summer we replaced all the network cabling (approximately 15,000 feet) in AES and relocated the network switch and server rack. Federal E-rate funds were used to purchase materials for the AES update. Although we did not update the cabling in AAMS, we have not yet noticed too many issues with our phone service in that building.

The technology department completed the IP phone upgrade which included connecting and repairing the paging systems in all buildings at a total cost to the district of \$21,536.45. Before considering doing all the IP phone upgrade in-house, we did get a bid from an external vendor. That bid came in at approximately \$75,000 which did not include the upgrade to the cabling at AES or connecting and repairing the intercom system within each building. It also did not include the extensive network management configurations that are required to run an IP based phone system on the same physical network as the computer data. Aside from the obvious financial advantage to doing this work in-house, maintaining the system can be done locally without incurring a service charge for issues and/or extension additions or moves.

Paging System



The Tech department has recently finished the total replacement of the intercom system at the high school. The intercom coverage at AAHS has been spotty for quite some time. During the past summer roof work it really got to the point that it was not reliable at all. We replaced all wiring (3,500 feet), speakers (68), and horns (7) throughout the building. We replaced broken paging horns in both boy's and girl's locker rooms. We have added a speaker horn to the Zimmer Fitness building. We also added speakers in other places that needed more coverage. Although we did repair the outdated systems at AES and HGS, we do suggest a total replacement of those systems in the near future. The old working speakers taken from AAHS can be used to replace failed speakers at AAMS. Total cost to the district for the intercom system replacement at AAHS was \$4,924.84. We did not get a bid from an external vendor to replace AAHS intercom system but a prior bid to replace the intercom system at AES came in at approximately \$28,000.

Video Surveillance Security System



The district video security system upgrade is mostly complete. This involved a new video recording server located at AAHS, replacement of a few failing cameras, the addition of 4 in the auditorium and stage, a quad imager at west door 3, and a quad imager at the bus garage. The number of camera views covering HGS was increased from 5 to 24. Video coverage is nearly 100% now for hallways and outside at HGS. The outdated analog video system at AES was upgraded and camera views were increased to 25. A new video server was installed at AES in the new server rack. The Milestone video software has been working well. It also provides a mobile app so that all views at each building can be viewed from any authorized smartphone. The video displays were update at AES, HGS and AAHS offices.

E-Sports



Thanks to the Twister Program at AAHS Atown now has their own E-Sports Team! We have rebuilt a few of the best of our old computers to build an E-sports lab for the Twister program. We have a temporary E-Sports lab set up in room 8 at AAHS. The E-sports team is coached by Gary Cameron and Sean Foster.



The E-Sports Team recently took a trip to Carl Sandburg College to visit and play a scrimmage in their gaming arena. They found Carl Sandburg's team is made up of 20 student athletes. Scholarships opportunities are available for students who participate in E-Sports.