Atlantic teams with HPE Aruba to provide a fast, redundant, OS-CX networking for the new Newington Town Hall with 100 Gb/S backbone connecting the police department and other vital services.

When the town of Newington, Connecticut planned to replace the town hall built in the 1950s, they reached out to Atlantic Computing to help plan a data network that would complement the new build-out. It had to be redundant, fast, and efficiently manageable. Newington personnel were looking for longevity too—a network at the head of the equipment lifecycle and capable of providing services for years to come.

"Future growth was a big consideration when we were looking at hardware and software options. We wanted to future proof, as much as possible, our technical solutions," said Steve Pollock, a Network/Application Specialist for the town of Newington.

The existing town hall had to continue operating as the new town hall was brought online. Newington's staff had to plan to extend the WAN links and core across old and new networks and run them in parallel for a time. Once the new infrastructure was passing traffic, the network staff had to shift individual WAN links and routing from old to new without disrupting police and critical town operations.

ABOUT ATLANTIC

Atlantic provides superior wireless and wired network deployments. We focus on commercial and educational WiFi, and the supporting LAN / WAN infrastructures. We've deployed many, many thousands of access points in demanding wide-area wireless networks. We've enhanced terrestrial networks, bringing layer-3 resiliency and 10 Gbit/s service to existing deployments at affordable costs. We've provided point-to-point links and wireless infrastructure to municipalities. Atlantic has installations spanning the US, and into Canada and Mexico. We have a stellar reputation. Call us first.

Paul Boutot, Newington's Chief Information Technology Officer, said, "One large challenge was that the current infrastructure had to be maintained while the new buildout was happening requiring us to run parallel networks while migrating networks, servers, and computers over to the new system. We knew of Atlantic's excellent reputation, so we reached out when we were ready to move forward. We knew Atlantic would be the technical partner we needed to deliver a reliable, efficient, and scalable solution."

Like many large undertakings, the town hall project was on a tight schedule. Aruba Networks field staff provided tremendous assistance to Atlantic and Newington in meeting the demanding timelines and managing the supply chain challenges that cropped up in the time of COVID19 to ensure that all components arrived on time.

Future Proofing Switching Infrastructure

With the enhanced capabilities of Wi-Fi 6 come greater pressure on enterprise networks. By achieving speeds of up to four times faster than previous standards, Wi-Fi 6 pushes more bandwidth to wired networks than ever before. Newington chose to deploy the latest Aruba Networks access points into the new town hall. Aruba's state-of-the-art 802.11ax APs are being fed by the new switch infrastructure using 802.11bt "Smart-Rate" ports. These provide 2.5 Gb/S of data and up to 60W of power per AP. These WiFi6 APs, with higher modulation rates, BSS Coloring and OFDMA (Orthogonal Frequency Division Multiple Access) will provide additional performance each year as more 802.11ax clients become available.

Built on Aruba's OS-CX technology, Newington's new network provides a seamlessly distributed core linked by a 100 Gb/S fiber backbone that is made redundant by multiple 25 Gb/S paths. Using multi-chassis link aggregation and dynamic routing, the network is prepared for multiple path failures with no discernible loss of service.

Keeping the End-User In Mind

Jon Warner, Systems Engineer for Aruba HPE (Hewlett Packard Enterprise) said, "We don't develop technology for technology's sake—everything we do starts and ends with our customers. And because a network is only as fast as its slowest component, we always ensure that any products we suggested, in conjunction with Atlantic's recommendation, fully supported the main goals and objectives for the new Newington Town Hall and the support of all vital town services."

Aruba's OS-CX is built on HPE custom silicon for better analytics, speed, and software-defined networking. Newington deployed Aruba's NetEdit in order to be able to configure and monitor the whole switched network from a single interface. NetEdit assures that individual switches have consistent VLAN definitions and empowers IT teams to orchestrate the configuration of multiple switches with automation and analytics to ensure deployments are consistent, conformant, and free of errors. The automation workflows allow for changes without the overhead of programming by providing a user-friendly, CLI-like interface. It efficiently provides the ability to keep past configurations, to push new configurations, and execute rollbacks for a single switch or for the whole network, all at once.

"Newington and Atlantic ... they really pushed to the newest equipment Aruba offers. Honestly? If I were going to design a fresh, new network for someone, it would be exactly as Kevin [Dowd] designed and implemented. I'd do exactly what was done because it is all cutting edge," said Jon Warner.
In summing up the project, Kevin Dowd, President of Atlantic Computing, said, "In all aspects of the new Newington Town Hall build-out, the Newington IT staff provided quiet expertise, professionalism, and competence. It is a great pleasure to work with Newington."

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