City of Roanoke

City of Roanoke Deploys Outdoor Gigabit Wi-Fi from Aerohive

About City of Roanoke

The City of Roanoke, Virginia is located halfway between New York and Atlanta and one of the region's largest metropolitan regions. Nestled in a beautiful valley setting, the diverse city is a hub of transportation, finance and industry for the southwestern part of the state. The City manages a total budget of over $270M and is one of the largest employers in the county.

Named a Top Digital City for 14 consecutive years, many consider it a perfectly sized town, with big-city amenities without the traffic and traditional metropolitan challenges. Its almost 100,000 residents enjoy many outdoor activities in the heart of the Blue Ridge Mountains and a high quality of life.

Challenge

The City of Roanoke had a legacy Nortel wireless network in place, but several years ago was eligible for a municipal upgrade that prompted the IT team to evaluate Wi-Fi solutions. The IT team needed to provide indoor and outdoor wireless access for a variety of city services and departments, and the legacy solution used at that time was trusted and familiar, but not providing the access the City needed, especially for crucial functionality like Police Department security operations.

The City needed to break away from the controller model and sought a solution that would provide flexibility and a variety of features. In addition, the City was pleased to offer a "StarCam", giving residents a view from the top of Mill Mountain, one of the highest points in the City. It was a very popular feature but the feed was unreliable which caused a large volume of local complaints.

Aerohive Solution

After evaluating several vendors, Aerohive was selected and first deployed in the main municipal building. Aerohive equipment has now been expanded to the courthouse, Public Works Department, administrative building, Social Services and Police Departments. The City has a network of 12 sites that are connected on a fiber ring and eventually the new Wi-Fi solution will be deployed at all these sites.

The City chose Aerohive AP230 and AP330 access points and uses HiveManager on site for network management. The HiveManager virtual appliance functionality enables other departments to share the City's network, while remaining politically separate.

To resolve its StarCam dilemma, the City deployed an Aerohive AP170 outdoor point and its great reliability led the IT team to purchase Aerohive AP1130 802.11ac outdoor access points to enable security operations for the Police Department over outdoor mesh. Having firewall and other features built-in directly to the access point was an attractive security and management feature.

The outdoor APs are used for police vehicles. Data and video footage from dashcams are wirelessly uploaded from police parking garages, with communications restricted to the video server. Other City benefits include enabling the Fire-EMS Department to use laptops in ambulances, upload records and receive information for emergency calls directly from the station.

Why Aerohive Was Selected

- Outdoor mesh capabilities enable increased efficiency and security for emergency departments.
- Network management with HiveManager is flexible and allows other departments to connect and share it virtually.
- Planning tools make deployment smooth and simple.
- Simplified guest and BYOD access.