



# City of Williamsburg

## Aerohive Enables Comprehensive Mobility for City of Williamsburg

### Challenges

- Move away from costly and cumbersome controller-based network
- Deploy reliable Wi-Fi across all city buildings and facilities
- Enable remote employees and facilities to connect to corporate network
- Monitor and control network with robust features in cloud-based environment

### Results

- All city facilities using unified wireless network solution from Aerohive
- Branch routers give remote employees and IT staff greater efficiency and corporate network accessibility
- Enterprise-class features allow City to distinguish BYOD and corporate-owned devices
- Cloud-based network management provides flexibility and control

### About City of Williamsburg

As one of America's first planned cities founded in 1699, Williamsburg has a rich and deep history that attracts millions of visitors each year. From its inception as the center of political, economic, religious and social life in Virginia, it is known internationally as the foremost center for the preservation and interpretation of American colonial history. It is home to The Colonial Williamsburg Foundation and The College of William & Mary, the second oldest university in the nation and a leading research institution.

The City itself has a population under 15,000, but its six to eight million visitors each year keep the city vibrant and full of life. The city is known as the "smallest city with the biggest international address".

### Challenges

The City of Williamsburg had an existing Cisco wireless solution in place for approximately seven years, but every access point had its own configuration, without an overall master configuration, making it cumbersome at best to manage. The City wanted to move away from a controller environment for simplified and cost-effective management.

The catalyst for evaluating a new wireless architecture came when City Council members were issued iPads. The driver for going digital was to save on printing costs. Members received 'packets' for every meeting and the City was printing over 50,000 pieces of paper each year for these monthly meetings alone, so the need to move over to digital formats was imperative. Once the mobile devices were in place, the City realized how lacking the wireless network was and that it needed a change.

The City received funding to overhaul the wireless network, equipping each of its eight facilities for full wireless coverage. Workforces are increasingly more mobile and staff needed to be able to use mobile devices in everyday workplace operations. Residents expected to access Wi-Fi in city buildings and public services facilities, and BYOD was also forcing the City to upgrade. Other public places in the City, such as Merchant's Square in the heart of downtown, had offered free Wi-Fi for many years and the City needed to follow suit.

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—Mark Barham

Director of Information Technology

## The Solution

The City evaluated Meraki, Cisco and Meru, before discovering Aerohive and realizing its solution was ideal. The superior service from Aerohive was a leading factor for the City to choose Aerohive for its network architecture. In addition, its neighbor, The College of William & Mary, had already deployed Aerohive with great success (read case study here <http://www.aerohive.com/resources/college-william-mary>).

The City deployed Aerohive AP121 and AP330 access points, as well as Aerohive BR100 and BR200 routers. The City is also considering Aerohive switches in the near future. HiveManager Online is used to manage and control the network through the cloud, a huge boon for a city with distributed office locations and off-site and remote employees. The City has found the dashboard and interface highly intuitive and easy to manage.

The City of Williamsburg has two separate networks, one for employees and another guest network for public use, with limitations on bandwidth for certain applications. Branch routers are located in key staff members' homes, as well as used by IT staff to work from home remotely.

A key feature for the City was Aerohive's RADIUS server capability pointing back to the City's active directory for employee authentication. This was a paramount security consideration for the employee network, and ensures business continuity for the City even if the WAN connection is down.

Aerohive AP170 access points are located at the City's water treatment plant to bridge back to the corporate network to report telemetry data, crucial for water management. Access points are also now located at the transportation center to enable commuters waiting for Amtrak or Greyhound to connect to Wi-Fi.

Building inspectors use mobile devices to download daily 'tickets' and instructions, using iPads to collect data in the field and uploading information to the corporate databases.

Employees in local Waller Mill Park, managed by Parks & Recreation, are now using Aerohive branch routers to connect back to the corporate network. Similarly, the caretaker at the city-owned Cedar Grove Cemetery uses an Aerohive BR200 for IP phone functionality.

## Results

The Aerohive solution has paved a path to greater mobility for employees and the public alike. Now, visitors and residents can access Wi-Fi from any government building, and the City received generous praise when it added wireless at the train and bus depot for commuters as they wait. Expectations for 'Wi-Fi everywhere' have been met. Remote employees are now able to connect to the corporate network, and by switching to VoIP phones, the City has saved considerable cost. At sporting events, users can now connect to guest Wi-Fi during volleyball games or softball tournaments run by Parks & Recreation.

Moving away from a controller-based solution has given the City flexibility for scaling the wireless network in the future within budget. Managing its network through HiveManager Online has allowed the IT team to easily monitor and control the network, with greater understanding and visibility in a single pane of glass. "The ability to configure everything in the cloud has been tremendous for the City of Williamsburg," states Mark Barham, Director of Information Technology. "Combining superior technology and outstanding customer support has opened many avenues to mobility and the ability to better serve our residents, businesses and visitors."

Since deploying Aerohive, the City of Williamsburg has had no reliability or connectivity issues it experienced in the past. While some employees, such as those at the Waller Mill Park, were experiencing dial-up like conditions, they are now able to connect to the corporate network remotely with no issues.

Customers and residents are better served since remote employees are now able to connect to the corporate network. Inquiries at the cemetery can be handled more efficiently and the water treatment facility can respond to any issues or emergencies in real time, with a complete picture of the facility enabled by Aerohive technology.

The City recently launched a single mobile app to serve the entire city, called Williamsburg Wayfinder, giving residents, businesses and visitors easy access to contact government and city officials and report community issues for resolution. With robust Wi-Fi, the City can now respond faster and more easily.

## Gateway for Mobility

The City of Williamsburg will continue to explore and expand its Wi-Fi capabilities. Without constraints for a controller-based solution, the City has more freedom to use Aerohive's features to enable greater mobility for the entire city.

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The City is currently testing Aerohive's Client Management in its production environment, and once implemented, will give the City a much broader view and differentiation between BYOD and city-issued corporate devices to influence its configuration and policies.

The City expects to use Bonjour Gateway in the coming year to manage its Apple devices, including enabling wireless video and presentation capabilities through Apple TVs in its conference rooms and sophisticated emergency operation center.

Branch routers potentially could be mounted in city vehicles, including fire trucks and ambulances, to allow employees to use laptops and other devices in the field.



Contact us today to learn how your organization can benefit from Aerohive wireless LAN architecture.

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