



Harvard Square

Aerohive Brings Flawless Outdoor Wi-Fi to Harvard Square

Challenges

- Upgrade existing outdoor Wi-Fi solution
- Build reliable, resilient network
- Design network with enough capacity to meet user demands, with option for effortless expansion
- Ensure optimal network performance within budget and with minimal maintenance

Results

- Visitors to Harvard Square enjoy free outdoor Wi-Fi with no glitches
- Enterprise-grade network deployed without high costs and complexities
- Cloud-enabled network management ensures optimal performance and easy administration

About Harvard Square

Harvard Square, located in the heart of Cambridge, Massachusetts, welcomes over eight million visitors each year, offering a world-renowned shopping, dining, cultural and academic location.

In 1910, a group of businessmen formed the Harvard Square Business Association (HSBA), in order to encourage commerce in the square during busy subway station construction that was disrupting local business. From its inception, and throughout its history, Harvard Square has been on the forefront of adapting to the times and bringing technology to the square, demonstrated by its installation in 1914 of 53 electric street lamps so businesses could remain open longer.

Fast forward to today, its deployment of free outdoor public Wi-Fi remains true to its mission to encourage commerce in the square, while preserving its rich history and tradition. At its web

site, harvardsquare.com, its pages chronicle its rich history and advertise the latest events, news and activity.

The Challenge

In 2007, Denise Jillson, Executive Director for the Harvard Square Business Association, began discussions with the City of Cambridge to bring Wi-Fi to the Square. She believed it was a necessity to provide to the many visitors, and Harvard Square was one of the first communities to adopt and implement free public outdoor Wi-Fi the following year.

The initial deployment used Meraki equipment. Several years into the deployment, Ms. Jillson and her team began to notice a decline in the connectivity of the network. Capacity and throughput levels weren't adequate under the current solution to handle an explosion of devices, and there was an urgent need for increased power to handle a greater number of users.

Based on the desire for higher throughput the Harvard Business Association chose to upgrade to Aerohive technology. The vision and goal of the new upgrade was to deploy a Wi-Fi network capable and resilient enough to enable visitors to sit in the heart of the Square on every corner and use applications like Skype to engage with people from all over the world.

"Go to Harvard Square and you'll see why we chose Aerohive. If you go to another municipal Wi-Fi deployment with different solutions, you'll see the difference – there's no comparison for the end user. Aerohive just works better."

— **Brendan Burroughs**
CEO, One World WiFi

The Solution

That is when the HSBA turned to Brendan Burroughs at One World WiFi, a local wireless network integrator with deep knowledge of municipal deployments, who had recently completed an outdoor deployment at neighboring Central Square using Aerohive solutions. Brendan conducted an analysis of the current network and mapped out a new design, taking into account many variables of the outdoor space, such as the height of buildings and layout of the streets, problematic foliage in the park, as well as the need to deploy a solution able to withstand the harsh New England winters. Harvard Square covers 44 acres, one million square feet of space and is home to 360 business locations so the network needed to be designed for today and any expansion in the future.

As Denise Jillson of the HSBA states, "Aerohive proved to deliver the best connectivity and performance among all the providers we considered. Ensuring a robust network was of utmost importance, and coupled with its good price point, no single points of failure and stellar customer service, Aerohive was clearly the best solution for Harvard Square."

Harvard Square chose Aerohive's AP170 and AP350 access points (APs) for durability and reliability. The AP170 is an enterprise-grade, high performance MIMO solution, specially designed for outdoor high-bandwidth-demand wireless deployments, and able to handle not only a influx of users, but the harsh climate as well. The AP350 provides the best range among Aerohive APs and is designed for high bandwidth demand. The band steering features built into the firmware are very important to Harvard Square and municipal networks in particular, urging users to move to 5GHz channels whenever possible, ensuring optimal network performance and efficiency.

In addition to the APs, One World WiFi uses Aerohive's HiveManager Online, part of its cloud services platform, to administer and monitor the network. HiveManager offers real-time topology, performance and client information to simplify troubleshooting, capacity planning and security remediation of networks. Because it is not essential to the flow of traffic, losing connectivity to HiveManager will not affect any control or data forwarding features of the Harvard Square network.

As Brendan Burroughs explains, "Aerohive's HiveManager Online solution means I don't need additional employees to monitor a network, and with cloud-managed solutions, I'm able to grow my business because I can administer networks remotely, prioritizing changes based on feedback from HiveManager Online, and making tweaks seamlessly and without complexity from anywhere in the world."

The Results

As part of the Wi-Fi upgrade in the Square, the HSBA partnered with Google to help sponsor the rollout of the new solution. Users are directed to Google products and services such as Google+ and Play Store. Before the official rollout, members of the team tested the network, sat in the square, set up a Skype account and video conference, walking around the Square as they chatted.

Since the rollout, the HSBA has seen an increase in the number of unique visitors on the network, but most importantly witnessed flawless network performance and connectivity.

"Go to Harvard Square and you'll see why we chose Aerohive. If you go to another municipal Wi-Fi deployment with different solutions you'll see the difference - there's no comparison for the end user. Aerohive just works better," confirmed Brendan Burroughs, CEO of One World WiFi. "With minimal configuration and headache, along with excellent customer service, Aerohive is my top choice for municipal deployments."

Room to Grow

Looking ahead, the HSBA is considering broadening the network to a larger area of the Square and is confident the initial phase has provided a strong backbone with room for expansion.

Harvard Square lies in the heart of Cambridge, a city that proudly boasts being the most opinionated zip code in the nation. All of that opining translates to activity you can witness in the Square: public discourse, bustling bookstores, the Out of Town News kiosk. And chances are, dialogue is happening on a myriad of mobile devices from tourists and commuters alike, demonstrating the network will only continue to grow in years to come.



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

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