

The Computer History Museum

Taking a Firetide Instant Network Where None Has Gone Before



Organization

The Computer History Museum,
Mountain View, CA
www.computerhistory.org

Industry

Nonprofit, Education

Challenge

Major sections of the Museum needed Ethernet connections, but firebreaks of steel and sheetrock made wiring cost prohibitive.

Solution

In less than one day, the Computer History Museum installed a Firetide Wireless Instant Network and immediately provided Ethernet ports and network coverage for the front area of the building as well as the lobby, auditorium, and exhibit areas. The Firetide HotPoint wireless mesh routers integrated seamlessly with the existing wired LAN to provide total building coverage under one network. The Firetide routers also enabled the deployment of Wi-Fi access points throughout the museum to provide network access for museum visitors and event attendees.

Hardware

Five Firetide HotPoint wireless mesh routers.



The Computer History Museum collects artifacts from the information age, preserving items such as the Cray-1 supercomputer and the original Apple I computer, together with a comprehensive collection of culturally-defining related advertising, marketing, and documentation materials. However, when the Museum moved into a recently vacated Silicon Valley office building, the one thing lacking was Ethernet cable where they needed it. Rather than installing more cable, the Museum decided to make a little history of its own by setting up a Firetide™ Wireless Instant Network™. Now the Museum provides network access to staff, event attendees, and museum visitors alike, anywhere within the 120,000-square-foot facility.

One would think that in Mountain View, California, the middle of Silicon Valley, network wiring wouldn't be a problem. And it wasn't a problem in part of the Museum's building. The last tenant had begun re-wiring the building before abruptly moving out, but in major sections of the facility, wires leading nowhere still hung from the ceiling. Physically imposing firebreaks, designed to burn for two hours before collapsing, separated major portions of the building. Running Ethernet through the firebreaks' multiple layers of steel and sheet rock was cost-prohibitive, especially for a nonprofit organization.

Large, Open Spaces for Gathering, Meeting, and Learning

The Computer History Museum facilities include a large warehouse, auditorium, lobby, conference rooms, and second-floor administrative offices. The administrative offices are wired with Fast Ethernet, which connects network switches and



approximately 50 workstations.

"Providing Internet access to Museum visitors and event attendees is a requirement for a computer museum," grinned Mike Walton, Director of

Case Study: The Computer History Museum



Information Technology for the Museum. “In addition to the Museum’s regular exhibits, we host conferences, meetings, and events. For example, we host a vintage computer festival and attendees want to have wireless access while they’re here in the auditorium and exhibit space.”

Finding a way to deliver wireless access to the building’s lobby and meeting spaces was a challenge. Standard wireless networking gear had encountered significant interference and was unable to get a signal through the building’s steel-and-concrete floors. After exploring other alternatives, the Museum learned about FireTide Wireless Instant Networking™. Based on FireTide HotPoint wireless mesh routers, a wireless network can be deployed quickly, enabling wireless connectivity for standard networking devices such as computers, printers, and Ethernet switches as well as eliminating costly backhaul wiring for wireless access points and Hotspots.

Hot New Spots

In less than one day, Walton installed five HotPoint wireless mesh routers, which immediately provided wireless access to the front of the building, lobby, auditorium and exhibit areas. Installing the routers was as simple as plugging them into a power source. Patented FireTide technology allows the HotPoint routers to find each other automatically and form a mesh network, and multi-hop routing allows the network to extend to any distance. If a HotPoint router is removed or moved to a different location, the network will automatically heal itself and reroute packets accordingly without disrupting the rest of the network or requiring rebooting. The existing LAN easily connected with the FireTide Instant Network because there is no need for special drivers, interfaces or device configurations.

“The FireTide Instant Network is a perfect fit for providing network connectivity where there wasn’t any,” said Walton. “Even in spaces that I was concerned about reaching, the FireTide devices were able to blast through interference and get through floors to provide coverage. The network was easy to set up. When I needed to move a couple of nodes, I just unplugged them, carried them to the new spot and plugged them in. Everything worked fine.”

Exhibit A—Wired/Wireless Integration

The new FireTide Instant Network provides network support for the Museum staff as part of the Museum’s internal LAN. Instead of having to manage two separate, parallel networks, Walton sees one big network. The FireTide network integrates seamlessly with the Fast Ethernet wired network and extends it to previously un-networked areas of the building.

“We now offer wireless access to Museum visitors, friends of the Museum, event attendees, Board members and Trustees,” said Walton. “Our visitors are busy people who want to be in continuous communication. Anyone who visits or attends an event here can now have immediate access to the Web, email, and their corporate network if necessary.”

Exhibit B—To Be Announced

Walton sees the possibilities for new wireless applications within the Museum itself. Wireless connectivity to the Museum’s own network will allow visitors to tap into actual exhibit information. For example, Visible Storage is an online sample of the Museum’s collection, giving the viewer access to the items in the exhibit space with accompanying photos, explanations, and other materials. This can be expanded to include all of the Museum’s holdings, and to deliver audio guides, interactive Web experiences, or multimedia presentations on desktop computers and mobile devices.

At an institution geared to featuring the Information Age’s pioneering spirit, it seems appropriate to do a little innovating on its own behalf. The Computer History Museum has stepped forward boldly, taking Wireless Instant Networking where none has gone before.

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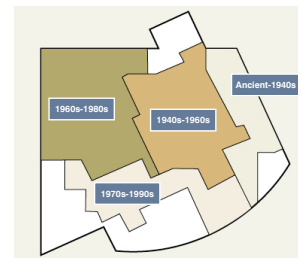


Exhibit area floor plan

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CS-TCHM-030304