

Hershey Entertainment & Resorts



Hershey Entertainment & Resorts Sweetens Network Connectivity, Capacity and Resiliency with BridgeWave's High-Speed, Reliable Gigabit Wireless Links

Hershey Entertainment & Resorts (HE&R), a privately held company, was founded in 1927. The group comprises the world-class theme park Hersheypark; ZooAmerica; Dutch Wonderland amusement park; Giant Center, a state-of-the-art sports and concert arena; Hersheypark Arena and Hersheypark Stadium; and the Star Pavilion, an open amphitheater. Additionally, the group includes The Hotel Hershey, The Spa At The Hotel Hershey, Hershey Lodge, Hershey Country Club and Hershey Links.

As a leader in the hospitality and entertainment industries, HE&R embraces state-of-the-art technology -- including high-speed networking -- to facilitate voice, data and video traffic among various properties. The company also provides ubiquitous Internet access to hotel, lodge and convention guests while employing various wireless technologies, including Wi-Fi, to support ticket scanning applications at its

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Andy Bomboy Director, Network and Communications Services Hersbey Entertainment & Resorts theme parks. Additionally, Hershey has relied on point-to-point wireless for the past decade as a cost-effective means for linking hard-to-reach areas and point-of-sale, especially within the theme parks.

According to Andy Bomboy, director of network and communications services for HE&R, a six-person network and communications services staff oversees telephony and the network infrastructure that links about 20 sites to the company's wide-area network (WAN). The group is also responsible for a growing number of converged networking services, including IP video surveillance, Voice over IP (VoIP), two-way VHF and sound over Ethernet.

THE CHALLENGE

The network team was tasked with extending the corporate network to integrate the headquarters of the nonprofit M.S. Hershey Foundation and two foundation properties, Hershey Theatre and Hershey Gardens. The foundation's office is located across the street from HE&R's corporate headquarters -- less than 300 feet away. The theater is less than 700 feet from HE&R headquarters; the gardens posed the biggest challenge, as that attraction is approximately one mile away.

Initial connectivity requirements appeared fairly straightforward, yet various challenges arose as the team sought a solution that could meet growth projections, including:



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- Substantial bandwidth was required to support IP video surveillance, VoIP and data traffic.
- Low-latency network links were needed to ensure quality video and voice transmission.
- Metro Ethernet was deemed too costly with recurring fees of up to \$3,500 per month for 10-to-100 Mbps connectivity.
- Installing multiple T1 lines, priced at \$500 per month, wouldn't provide sufficient bandwidth for increased traffic.
- Private fiber was ruled out due to rights-of-way issues, while the installation and operating costs of leased fiber proved too expensive.

"We tried to forecast where we'd be in five years and realized a high-capacity network solution would meet our needs while ensuring Quality of Service (QoS)," explains Bomboy. "A server consolidation project at headquarters intensified the immediate need for a resilient link to provide an alternate, fault-tolerant network path."

THE SOLUTION

After ruling out costly and bandwidth-constrained landline alternatives, HE&R examined a variety of wireless options. While lower-speed point-to-point wireless links were deployed throughout the network, it was apparent they wouldn't provide enough bandwidth to serve as primary network connections.

During a regional ITEC digital technology show, Bomboy was introduced to BridgeWave Communications, the leading supplier of gigabit wireless solutions. NWN Corporation, HE&R's long-time integrator, spoke highly of BridgeWave's GigE links, as did others in the industry, including BCI Communications, a provider of wireless planning, deployment and network build-out services.

"We heard a lot of positive reports about the performance and reliability of BridgeWave's gigabit wireless links," Bomboy recalls. "Still, we were concerned about how the radios would perform in heavy rain, so we reviewed the rain-fade calculations for our area and decided to test a link to see if it could achieve 'five nines' availability."





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In August 2007, Hershey deployed a BridgeWave GE60 link to carry traffic from Hershey Theatre to the network operations center at corporate headquarters. In particular, the team wanted to test the radio's ability to carry voice traffic reliably, since an automatic call distributor (ACD) application supported a call center that handled ticket sales.

"Thanks to ultra-low latency performance on the BridgeWave link, sound quality was great and the deployment was a big success by the first month," says Bomboy.

HE&R continued to test the first BridgeWave link while obtaining buy-in from corporate executives, network support staff and employees. HE&R's IT director was presented with an ROI of less than two years for four BridgeWave links when compared to leased-line alternatives. Next, call-center employees and network support staff gave the link high marks for quality and reliability.

After four months, everyone was in agreement that BridgeWave's gigabit wireless technology would be ideal for connecting all the foundation sites to Hershey's corporate network.

"The first link literally sold itself," says Bomboy. "It passed the true test of link reliability during our rainy fall season, so we moved forward with the remaining implementations."

Assisted by NWN and BCI, HE&R installed another BridgeWave GE60 between the foundation's main office and corporate headquarters along with a BridgeWave AR80 that traversed the mile between Hershey Gardens and headquarters. For this longer-distance deployment, HE&R leveraged BridgeWave's unique AdaptRateTM feature, which can momentarily switch transmission speeds from GigE down to 100 Mbps to maintain high-speed connectivity even during periods of severe downpours.

Furthermore, BridgeWave's AdaptPathTM capability was employed to proactively switch traffic to a secondary, lower-capacity wireless link, ensuring 100 percent network availability, even during the most severe cloudbursts.

"Pairing BridgeWave's AdaptRate and AdaptPath technologies gives us confidence that our longer-distance gigabit connection will deliver the same exceptional network availability as we've experienced with our shorter-range links," says Bomboy. "The actual performance and availability of the long-distance link has been indistinguishable from the shorter two links."

THE BENEFITS

Robust performance on the BridgeWave links easily accommodates HE&R's current requirements for voice, video and data communications, including an AS/400 ticketing application. HE&R also is poised to extend its video surveillance application to other properties thanks to the BridgeWave radio's substantial network capacity and jitter-free transmission.



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"With BridgeWave's high-capacity gigabit wireless links, we can put a much beavier load on our network while having sufficient bandwidth for the next five to seven years," notes Bomboy. "To that end, we'll continue to leverage our initial investment in gigabit wireless technology to connect more sites, add point-of-sale applications and deploy innovative solutions like sound-over-Ethernet applications."

HE&R also praises NWN and BCI for simplified, trouble-free installation. "On average, NWN and BCI deployed each radio link in about a day and the entire process was completely integrated and seamless," says Bomboy. "The work of this highly professional, efficient and knowledgeable team is second to none, which made this project a great experience."

In addition to using gigabit wireless to extend its corporate network, HE&R has taken advantage of BridgeWave's virtual fiber to create an alternate network path between The Hotel Hershey and Hershey Lodge. The two sites, which are connected to the network core at the Hersheypark Arena via leased fiber, support business-critical credit-card circuits. Using BridgeWave's AR80X extended range product, HE&R covers the 2.5 miles between sites to provide a resilient link with different ingress and egress points to the each respective switch room.

"BridgeWave's extended range radio provides essential network redundancy much more cost effectively than leased-line fiber while protecting against 'backhoe fade' or other disruptions to the primary paths," adds Bomboy.



HE&R is so satisfied with its BridgeWave links that additional links are under consideration, including one next year to connect the clubhouse at Hershey Links to Giant Center.

"We now see point-to-point gigabit wireless as a core IT infrastructure technology," Bomboy concludes. "The benefits of gigabit wireless for reliability, performance and ease of implementation make BridgeWave's products an ideal connectivity option for adding new properties and increasing network resiliency."



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CUSTOMER: Hershey Entertainment & Resorts

INDUSTRY: Hospitality, Recreation and Entertainment

CHALLENGES:

- Additional locations required connection to the corporate WAN but leased-line alternatives were costly or bandwidth constrained.
- Substantial bandwidth was required to support VoIP, data and IP video surveillance applications.
- Low-latency links were required to ensure quality voice and video transmission.

SOLUTION: BridgeWave GE60, AR80 and AR80X wireless links.

CHANNEL PARTNERS: BCI Communications Inc., a nationwide, full-service vendor to the wireless community (www.bcisites.com), and NWN Corp., provider of a complete range of networking services and solutions (www.nwnit.com).

BENEFITS:

- Flawless, reliable performance eased network extension to incorporate additional properties.
- "Virtual fiber" creates an economical resilient link between two primary sites to support vital credit-card processing circuits.
- Sufficient bandwidth for connecting additional properties while accommodating ever-increasing video surveillance and point-of-sale applications.
- Complete ROI in less than two years.



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