



Technology in Hospitality

Hospitality Industry

The hospitality industry is comprised of a wide range of sectors including hotels, casinos, sports stadiums, convention centers, amusement parks and large public venues. This Industry is a competitive environment where consumer expectations have never been higher. Savvy operators strive to provide the highest level of guest experience possible. And, regardless of whether the service being rendered is for leisure or business opportunities, as a major component of that experience, these hospitality vendors must provide technology-enhanced guest services.

In the past, hospitality operations were comprised of independent management systems. Today, these systems are converging to operate under a single common network, a benefit of which is a high level of operational and cost efficiencies for the operator. As an example, IHS Markit states, whereas commercial buildings are renovated once every 25-30 years, hotels are generally retrofitted with updated equipment in less than 10-year intervals. To stay ahead of the curve, the hospitality industry is investing substantial resources into smart building technologies.

The hospitality sector, through converged Ethernet applications, can now begin to completely integrate safety and security systems, energy management, network operations, property management and guestroom and building automation.

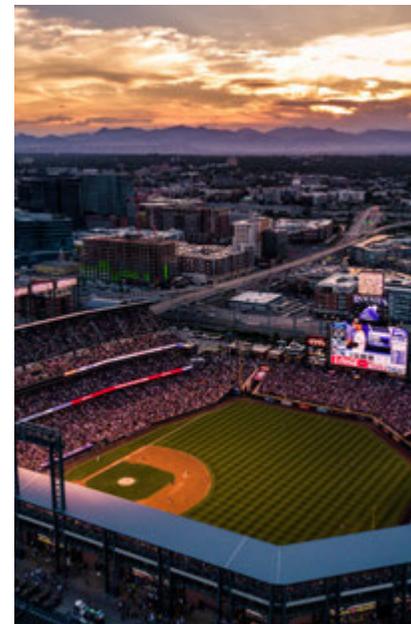
IHS Markit projects the global “Smart” hospitality market will reach \$44.38 billion (USD) by the year 2026, up from \$7.76 billion in 2018. Achieving a compound annual growth rate (CAGR) of 24.3%.

A fundamental component of an Ethernet-based management system is the physical layer governed by ANSI/TIA-568.2-D and ANSI/TIA-568.3-D, the standards for Balanced Twisted Pair Structured Cabling and Optical Fiber Cabling. These standards specify the performance for the network’s “nervous system”, the cabled network that connects all end devices to the network electronics.

Hospitality network management professionals are choosing 10 Gigabit Ethernet as the forward-looking high-speed data protocol for today’s and future applications. Leading the product selection option is Category 6A cabling, the only copper cable specifically designed to support a 10 Gigabit data rate. Combined with fiber optic cabling in the backbone, 10 Gigabit Ethernet provides a total solution in which all applications can operate over a common network.

To accommodate the convergence of multiple applications, Hitachi offers a variety of 10 Gigabit cable options perfectly suited for the demanding hospitality environment. The first choice made by specifiers is Hitachi’s enhanced Category 6A 10G-XE cable. The 10G-XE cable, when tested in a high EMI/RFI environment, showed zero link loss, providing the performance of a fully shielded cable while being easily terminated with unshielded connectivity. 10G-XE is not only intended for high speed backbone connections but also is the choice for high speed Wi-Fi guest services. 10G-XE supports both current and future Wi-Fi needs including high-speed Wi-Fi IEEE 802.11ac @ 1.3Gbps (Wi-Fi 5) and Wi-Fi IEEE 802.11ax (Wi-Fi 6) @ 10Gbps. BICSI, a leading network infrastructure association, recommends two Category 6A cables to each Wi-Fi access point.

Hitachi’s family of Category 6A products support a wide range of Power Over Ethernet (PoE) applications up to 100 Watts, in accordance with the IEEE 802.3bt standard. Hitachi’s Category 6A cables support other demanding applications including digital video for entertainment, video conferencing, digital signage and high-resolution CCTV security surveillance cameras with PTZ. And in accordance with the Software-Defined Video over Ethernet (SDVoE) association, Hitachi’s recently released Cat 6A S/FTP “low skew” cable carries uncompressed 4K IP video transmission with less than 10 nanoseconds skew, a requirement for excellent digital video clarity.



For those wet environment applications and only available from Hitachi is DryBit™ Category 6 and 6A cable with dual indoor/outdoor ratings, both for a plenum environment and wet locations. These wet locations could include moisture-laden guest areas such as spas and pools or any ground floor location where cables running into the floor or below grade in the floor can be susceptible to contact with ground water. DryBit eliminates the traditionally required transition connection point from non-rated outside plant cable to in-building NEC flame-rated cable. By enabling a continuous run of one single cable, Drybit eliminates a potential failure point, simplifying installation and reducing costs.

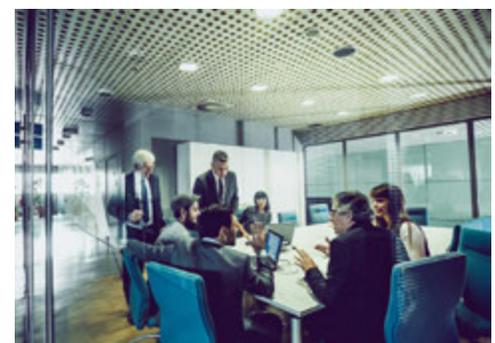
Casinos present a uniquely demanding environment for structured cabling. This type of operation presents a high EMI/RFI environment that also requires error free data for digital CCTV security surveillance and financial related transmissions. To satisfy these requirements, Hitachi offers high performance Category 6A shielded cables that isolate data transmissions from ambient electronic noise. And, like most Hitachi shielded cables, the Category 6A cable utilize a single foil shield making it easy to terminate.

For connections to broadband devices beyond 100 meters, Hitachi's extended distance Power+™ Composite Copper/Fiber cables provide remote power to distant devices while also delivering 10G data rates. This is very useful in applications such as guest parking garages where CCTV surveillance cameras and Wi-Fi guest service are located beyond 100 meters. Power+ Composite cable can extend the network reach up to 10,000 feet. And, like the Drybit cable, the Power+ cables are suited for outdoor use and have a plenum rating, allowing them to be used both outdoors and in virtually any indoor space.

In addition to converged networks and taking the role of a telephone service provider for critically important guest services, hospitality operations now must extend cellular phone services into areas with unreliable coverage and in large stadium venues where many thousands of users will be accessing their smart phones. Extending cellular coverage is accomplished with a Power+ Composite copper (for power) and fiber (for data) solution linking high frequency multi-carrier multi-node cellular Distributed Antenna Systems (DAS) and small cell single node antennas.

Completing the cabling solution, Hitachi's offers a large selection of fiber optic cables that can be used to link data rooms within a building or link buildings from one to another. These cable designs include indoor/outdoor and armored cables to ensure that no matter what path the cable takes, they are safely protected. Hitachi's indoor/outdoor fiber optic cables are tight buffered and gel-free making them an easy to terminate option for below grade and aerial applications. These indoor/outdoor cables are available with plenum and riser ratings, which makes them ideal for going directly from outdoor environments to indoor spaces with no transition necessary. They are available with multimode optical fiber, including OM4 optical fiber which can accommodate 10 Gigabit Ethernet up to 550 meters and singlemode fiber, which can support 10 Gigabit Ethernet data rates and faster up to 10,000 meters.

If planning new construction, or retro-fitting an existing facility or doing a network upgrade, consider a cable infrastructure that will reliably deliver the highest level of guest experience. Choose cables made by Hitachi Cable America in Manchester, New Hampshire.





Hitachi Cable America Inc.

Located in Manchester, New Hampshire, Hitachi Cable America's (HCA) 300,000 square-foot facility produces over 4,500 unique cable constructions. HCA has been manufacturing cables at this facility since 1986 and operates 24/7 to supply demand. In addition to producing network related cables, HCA builds cables for the medical industry, the cellular phone industry, industrial applications, supercomputing and more.

Products from Hitachi Cable America Include:

- Category 5e, 6 & 6A Cables
- Category 7, 7A & 8 Cables
- Fiber Optic Cables (indoor, outdoor & armored)
- NanoCore™ Micro Distribution Fiber Optic Cables
- Industrial Ethernet Cables
- Coaxial & Mini-coaxial Cables
- Distributed Antenna System Cables
- Round & Ribbon Electronic Cables
- ChannelFlex Flat Robotic Cables



HCA is proud to use Corning Optical Glass in all standard fiber optic cable constructions.



For more information about Open System Architecture, please contact us.

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