

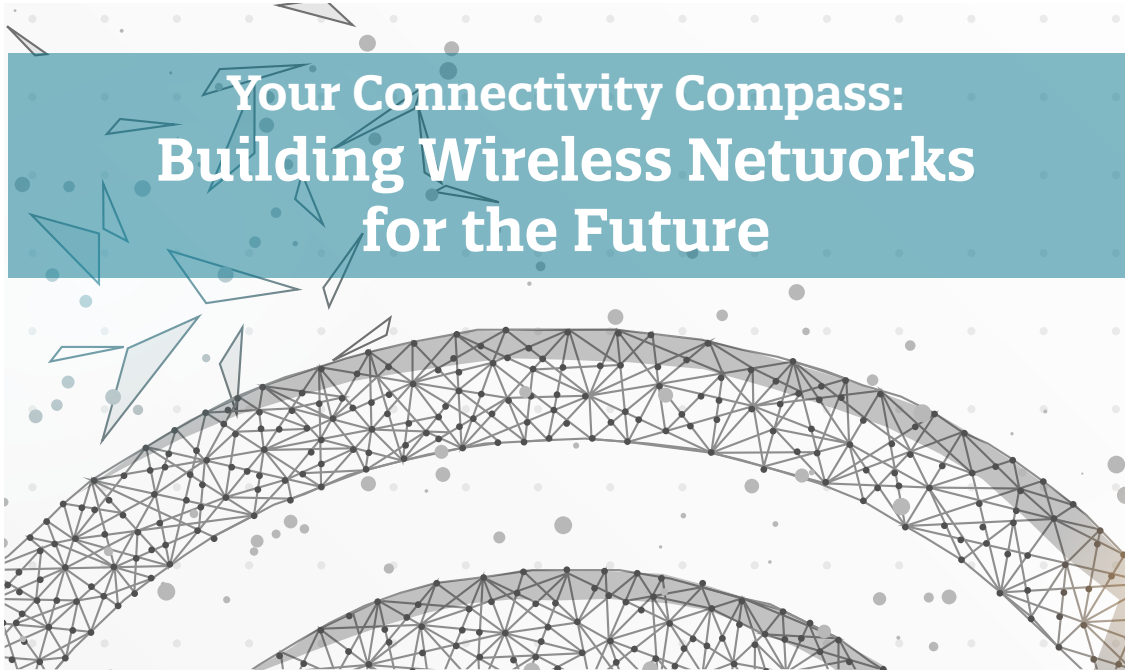
Your Connectivity Compass: Building Wireless Networks for the Future

By Bianca Lopez and Evita Ma

Data usage in the hospitality environment has skyrocketed, and continues to grow every year, making a robust broadband network crucial to guest services and back-of-the-house operations. This report serves as a detailed guide on network topology and provides essential knowledge in network deployment for decision-makers. Further, this report examines how hospitality professionals can work with their wireless solutions providers beyond the installation process to optimize their networks.



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Raising the Connectivity Baseline in the Hospitality Industry

Many businesses in the hospitality industry are still awakening to the boundless opportunities of connectivity available today. Wireless technology allows travelers to leave a connected home only to venture out into a connected world. Hotels, clubs and event spaces have the heavy responsibility of keeping that line of connectivity unbroken during a guest's experience.



Although technological developments in wireless technology continue to move more rapidly than ever, the gears of the industry-wide technology adoption cycle are slow to turn on average. Before leveraging the cutting-edge tools of modern robotics, artificial intelligence, or IOT, it is crucial to for hospitality businesses to build on a foundation of strong, adaptable wireless infrastructure. While it may seem simple, implementing said infrastructure is one of the most frustrating hurdles that businesses must overcome to earn guest satisfaction. The reasons are primarily cost and downtime, as well as simply finding a solution that works for their individual needs.

There is a silver lining. The purpose of this report is to guide readers back to the drawing board to envision, build and leverage wireless networks that will serve both staff and guests for years to come. Fortunately, business decision-makers do not have to be network engineers to achieve this. After many exciting interviews with technology experts, the HFTP Foundation is confident that by sharing innovative ideas and welcoming new solutions, businesses in the hospitality industry can turn the occasional bleak headlines and negative reviews in to satisfied, loyal guests.

Lucinda Hart, CAE, MBA

Executive Director
HFTP Foundation



The HFTP Foundation is the newly-established philanthropic arm of Hospitality Financial and Technology Professionals (HFTP®). The foundation assists HFTP in securing nonprofit funding for hospitality and travel industry-related research, educational projects and scholarships. The HFTP Foundation oversees the three HFTP Research Centers — Americas, Asia and the Middle East.



About the Report

This report is a product of collaboration between the HFTP Research Centers and several experts in the field of network connectivity. The information herein has been partially derived from one-on-one interviews between the researchers and several expert consultants.

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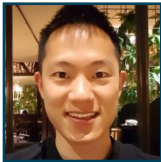
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There are many hotels, airports, clubs and event spaces providing guests with outstanding wireless access and capabilities. Unfortunately, prevalent public opinion regarding wireless offerings in the hospitality industry tends to doubt the coverage and turnaround for resolving connectivity issues in these spaces. In an era where we seldom look up from our phone screens, seamless connectivity is the bare minimum for every lodging business, regardless of scale. However, as universal connectivity has increasingly become a necessity in our daily lives, many take for granted the intricate local infrastructure that it takes to support our daily usage.

Until it becomes imperative for a lodging business to upgrade its network, the vigorous demands of daily operations often take priority for decision-makers, sometimes letting the state of wireless network infrastructure sit on the back burner. Even if the enterprise stands to benefit from an upgrade in wireless systems, the upgrade must present a return on investment that outweighs the disruption to daily business that it causes, as well as the capital expenses it incurs. Over time, these hurdles converge to slow the adoption cycle of new technologies in the industry overall, as the basic infrastructure to support them may be lacking.

Between groundbreaking developments in cloud computing, automation, robotics, AI and business intelligence software, data usage in hospitality enterprises has skyrocketed, and continues to grow every year. The variety of devices in use today that require Wi-Fi and/or mobile data is staggering. Personal gadgets that guests travel with, such as smartphones, laptop computers, tablets and smart watches, are merely the tip of the iceberg. The ever-expanding Internet of Things (IoT) encompasses all manner of devices from security cameras and smart in-room appliances, vending machines and even automobiles. These devices can only make life easier with the right infrastructure to support them.

There is no one-size-fits-all connectivity solution, and your investment will vary depending on the size of your property, its different functions and how far into the future an enterprise wishes to plan for, among other considerations. The following report is split into two sections to best promote forward growth in your enterprise's overall connectivity efforts: the first section illustrates the basics of network topology and provide crucial knowledge in network deployment for decision-makers, and the second examines how hospitality professionals can work with their wireless solutions providers beyond the installation process to optimize their networks.



Understanding The Basics of Wireless

To make the right investment toward superior connectivity, decision-makers must, at a minimum, understand the basic topology of the physical product they are paying for. Even for those who are not specifically required to work with IT on a daily basis, it is a good idea for any hospitality enterprise owner, operator or management professional with a say in the IT budget to understand the essential units and terms surrounding connectivity solutions.

Although we rely on using the internet daily, it is not uncommon for connectivity terms like *Wi-Fi*, *data* and *broadband* to be used incorrectly. The term *broadband* refers to high-speed Internet that is always on, and encompasses all forms of internet service except for the old dial-up connection. Since dial-up is relatively obsolete nowadays, *broadband* and *internet* are often used interchangeably.

Internet Speed

Devices connected to the internet send data to each other in units called packets. Packets contain information in the form of bits or bytes. Internet speed is measured by the volume of these packets transferred over a connection over a specific amount of time (bits or bytes per second). The most frequently used units of measurement used by Internet Service Providers (ISPs) to advertise speeds are kilobits per second (Kbps), megabits per second (Mbps) and gigabits per second (Gbps). Speed can also be measured in kilobytes per second (KBps), megabytes per second (MBps) and gigabytes per second (GBps), but these are used less frequently because a byte contains eight bits, which makes units of measurement using bytes seem smaller at first glance to the untrained eye.

INTERNET SPEED CONVERSION CHART

Note: bps = bits per second • Bps = Bytes per second | 8 bits = 1 byte

	bps	Bps	Kbps	KBps	Mbps	MBps	Gbps	GBps
1Kbps	1,000	125	1	.125	.001	.000125	.000001	.000000125
1KBps	8,000	1,000	8	1	.008	.001	.000008	.000001
1Mbps	1M	125,000	1,000	125	1	.125	.001	.000125
1MBps	8M	1M	8,000	1,000	8	1	.008	.001
1Gbps	1B	125M	1M	125,000	1,000	125	1	.125
1GBps	8B	1B	8M	1M	8,000	1,000	8	1

Source: HighSpeedInternet — <https://www.highspeedinternet.com/resources/the-consumers-guide-to-internet-speed>

Each connection has both an **upload speed** and a **download speed**. The download speed is the speed at which data travels from a remote location on the internet to your device. Conversely, upload speed is the speed at which data travels from your device to a remote location.

Internet speed is not to be confused with latency. **Latency** is the time required for a signal to travel to the Internet Service Provider’s (ISP) server and back. Lower latency is better than higher latency.

Bandwidth is another term that is often confused with internet speed. **Bandwidth** refers to the full capacity of an internet connection. The bandwidth essentially caps the speed of how quickly your internet connection can transfer information, which is why ISPs advertise their internet services have “up to” a certain speed.

There are many ways that devices access the internet. Two of the most prevalent are wired broadband and mobile broadband. In many situations, they work together to provide the best connection possible. The following section will delineate the different types of wired broadband connections.



Types of Wired Broadband Connections

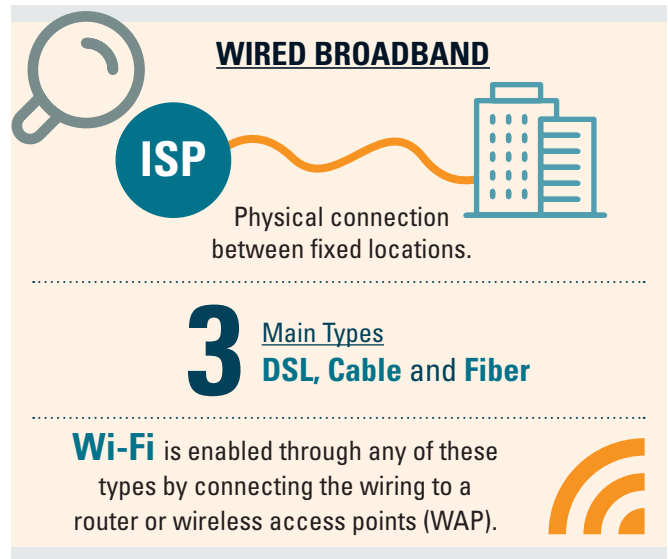
Wired broadband involves a physical connection between the fixed location of the ISP facility and the home or business in question. The three main types of wired broadband connections are achieved through a digital subscriber line (DSL), cable and fiber. Wi-Fi is simply enabled through any of these connections by connecting the wiring to a router or wireless access point (WAP or simply AP). Ironically, enabling wireless connectivity entails the elaborate installation of a large amount of wires. While fiber provides the overall fastest and most reliable connection, it is possible to achieve good results from DSL or cable. There are many different names used for these three types of wired broadband connections, sometimes dependent on the specific design application or services included.

DSL is based on technology that was originally developed to transmit voice: it transfers data using the preexisting *twisted pair* copper telephone lines connected to any given building. This is why telephone companies, which deployed huge networks of this type of cabling over the last century and a half, are the primary providers of all DSL services. According to the FCC, DSL connections can transmit data at speeds ranging from several hundred Kbps to millions of bits per second (Mbps). DSL transmission technologies themselves can be further broken down into two main types: Asymmetrical (ADSL), which is primarily used in homes, and Symmetrical (SDSL), which is used commercially. The asymmetry referenced in the name refers to the difference in the speed of data transmission between the downstream and upstream. ADSLs tend to provide faster speeds in the downstream direction, which means the end user can download data (files, web pages, etc.) from a web server faster than they can upload data. This is why, for example, it typically takes home users dramatically less time to stream a video from the internet than it takes to upload one.

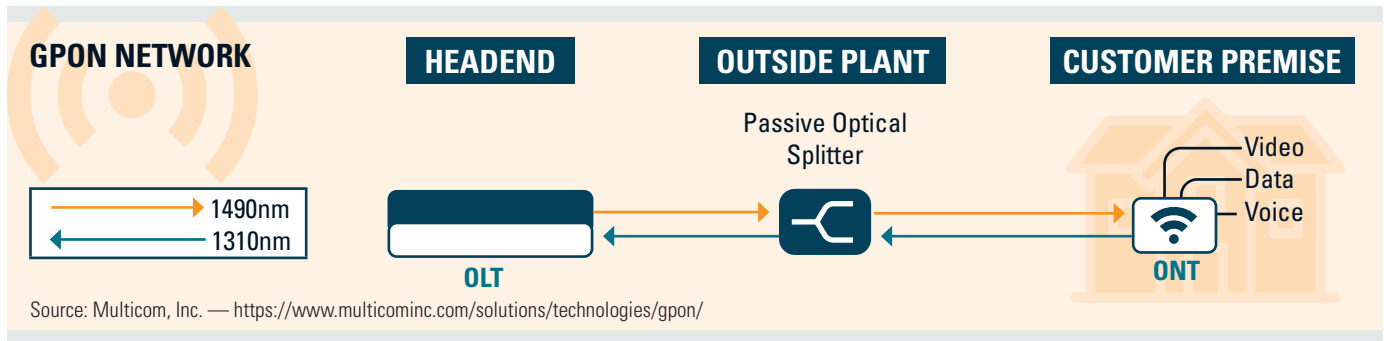
On the other hand, businesses like hospitality enterprises generate huge amounts of data that must be uploaded to a web server, and thus require upstream bandwidth that is roughly equal to the downstream. One advantage of DSL lines is that they are dedicated, which means that the user is not competing with other users in the same neighborhood for bandwidth.

Cable high-speed internet service is so-called for the coaxial cables through which it transmits data to a cable modem, which in turn connects to a computer or wireless router. These are the same cables that send pictures and sound to televisions. They enable transmission speeds of 1.5 Mbps or more. One issue with cable lines is that they are not dedicated, but rather shared with other subscribers in the surrounding neighborhood, which may lead to lower performance during peak hours of usage.

Fiber connections, usually deployed in the form of Fiber to the Room (FTTR) are currently the best technological solutions to deliver a superior connectivity experience in hospitality. FTTR is based on the deployment of local passive fiber optic cables straight to the rooms of a hotel. This system eliminates intermediate tech closets that would be necessary to place intermittently on different floors of a building if copper or coaxial cables were being used. For the support of communications services by these networks, the use of GPON (Gigabit Passive Optical Networks) is often recommended for deployment by top quality service providers. Unlike cable or DSL, which each can offer only two services in one cable, GPON enables telephone, TV, mobile data and Wi-Fi services all in one. The difference in bandwidth between GPON and SDSL is staggering: GPON enables up to 2.5 Gbps downstream, compared to SDSL's highest offering of 45 Mbps.



GPON networks connect one single feeding fiber from the ISP to serve the entire premises.



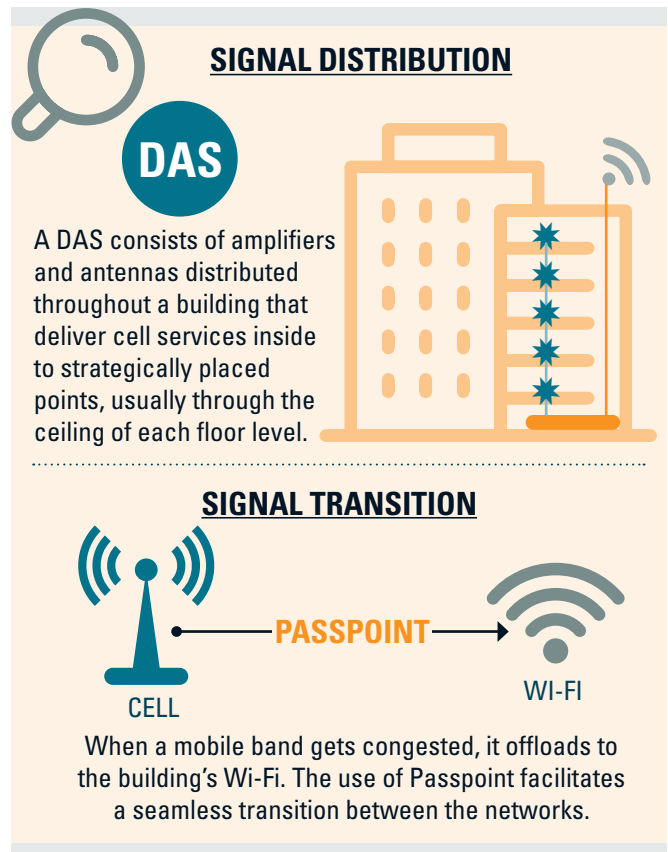
When it comes to cost, fiber solutions can present significant savings. Although the installation of GPON is expensive on a small scale, it often can present a better bargain in capital expenditures for larger properties as it allows for the reduction of channeling, cabling, network electronics and technical rooms. However, the most significant savings come in the long term over operational expenditures. Because they rely on the passive transmission of light signals through fiber optic cables rather than on electricity, GPON architecture dramatically reduces the costs of energy, air conditioning, maintenance and network operation.

After installation, any of these types of wired broadband connections should be combined with a high-level bandwidth management service to achieve excellent connectivity.

Distributed Antenna Systems (DAS) and Passpoint

Since the mobile revolution, mobile broadband has become one of the modes of connectivity that we rely on most. According to the wireless solutions company Zinwave, mobile internet usage for the average U.S. adult has quadrupled over the past five years. But it is not just our cell phone usage that makes us rely on mobile broadband: thousands of devices, from security cameras to ATM machines, communicate over a mobile broadband connection. These connections originate from the signals distributed from cell towers. The radio signals sent out from cell towers are not easily able to penetrate many building materials like concrete, steel or reflective glass. That means that cell signals mostly live outside, yet today 80 percent of cellular usage is generated or initiated indoors. So how does that signal get inside large buildings? Furthermore, how can a signal provide an adequate connection for guests if the nearest cell tower is far away? Historically, hotels have invested in distributed antenna systems (DAS) to solve this problem, but Wi-Fi Certified Passpoint® presents a new alternative to building a costly DAS.

A DAS consists of amplifiers and antennas distributed throughout a building that deliver cell service inside to strategically placed points, usually through the ceiling of each floor level. They are an enterprise-grade solution that produces a strong, reliable mobile broadband connection while supporting multiple cell carriers and frequencies. Without a DAS system, the signal must not only penetrate a building before it reaches guests; it must also be shared between all users who





subscribe to the service of any given cell tower, which can degrade the quality of service. The latter is why you may experience poor connectivity in a crowd even when you see five bars on your cell phone — all the people who use the same cell carrier are trying to send data over that frequency at once, and the cell tower can only handle so much traffic (this is called signal degradation). As mentioned previously, the installation of GPON infrastructure can be used to build a DAS that can also support Wi-Fi, among other services. Although they used to be more cost prohibitive, Fiber-based DAS are becoming more affordable and easier to install as the market adjusts to demand, but DAS is still very costly.

When a DAS is installed, Wi-Fi is used for DAS *offloading*, meaning it takes over the signal when traffic on the mobile band gets too congested. While guests expect to have to provide authentication for hotel Wi-Fi manually, they want cellular connectivity that does not require any action on their part. This is where Passpoint comes in: it eliminates the need for users to find and authenticate a network and request connection to the access point by automating the process, which allows seamless transition from the mobile network to Wi-Fi hotspot networks. Passpoint is supported by most enterprise-grade APs themselves.

Features supported by Passpoint:

- Mobile data offload
- Wi-Fi roaming across mobile network carriers and internet service providers (ISPs)
- Wi-Fi calling
- Device provisioning and credential management for private networks

Overview of Wi-Fi Infrastructure and Topology

Wi-Fi may have become ubiquitous since the “Bring Your Own Device (BYOD)” movement, but Wi-Fi networks are still trickier to effectively implement than wired networks because they are naturally prone to interference, and there are instances in which mobile broadband is actually faster. There are two reasons for this: first, because Wi-Fi signals must travel through the air rather than through cables, and second, because some of the frequency bands within which Wi-Fi operates are part of the unlicensed spectrum. Mobile carriers purchase the rights to their frequency, making devices operating within that band impervious to interference from outsiders. In contrast, Wi-Fi devices within unlicensed bands must compete to communicate, as well as with any other device operating in the same frequency, such as Bluetooth devices or cordless phones.

As previously mentioned, Wi-Fi is enabled through the installation of strategically placed wireless access points (WAPs, though more commonly abbreviated to simply APs). These are hardware devices that allow Wi-Fi capable devices to connect to the wired network. An AP can either connect in turn to a router, or be built into the router itself. Through their wired connection, they support the connection of multiple wireless devices.

The Institute of Electrical and Electronics Engineers (IEEE) is the governing body that creates the wireless data standards for APs and routers. These standards are updated over time as the need arises for faster wireless connections. 802.11ax, also known as Wi-Fi 6, is the latest of these standards, released in 2019. An AP released by Ruckus in September of 2019 is one of the first to conform to Wi-Fi 6 standards. Most recently manufactured APs conform to the previous IEEE 802.11 standard. It is recommended that these devices have, at a maximum, 10–25 clients.

Performance Factors

There is more to fast internet speeds than bandwidth. While your bandwidth describes the maximum data transfer rate of your internet connection, the latency describes the delay, or how long it takes data to transfer. Setting up the APs to provide even, strong coverage and avoid interference as much as possible is the primary task of service providers. Latency becomes important when thinking about guests using the internet for video calls or gaming. Low latency is needed for both to ensure that these applications stay in sync. Bandwidth and latency are both influenced by your network hardware.



Inadequate planning is often the costliest factor in Wi-Fi deployment, because it can necessitate network redesigns in the future. Before your property is ready for installation of Wi-Fi services, you and your service installation partner will work together to perform a site survey of the entire property in order to identify factors in coverage. One of the main reasons for this process is to determine the optimal number and placement of access points (APs) that help ensure even, strong coverage across the property.

Interference is always the biggest factor to downgrade the Wi-Fi performance. The largest source of interference for the wireless system in a hotel is from Wi-Fi itself, internally and externally. Internal interference, for instance, includes ISP and third-party contractor's Wi-Fi, and external interference includes Wi-Fi from surrounding buildings or smart city Wi-Fi.

Finally, some building materials are worthy of extra attention during the survey. Metal objects such as chrome and silvered mirrors will reduce the signal dramatically. Granite, pressboard and ceramic tile barriers will also weaken the signal at a significant level. This is the reason why even decorations, in addition to the layout, should be accounted for. In addition to customer behaviors and room size, facility features such as capacity and power are also vital. Fast speed and high throughput will support high-quality VoIP, video streaming, in-room technologies and guest devices. It is worth noting that when it comes to the coverage area of an AP, "larger" does not always mean "better." Power, transmission mode, receiver sensitivity and the placement of adjacent APs will all affect performance. Thus, hoteliers need to be careful to check an AP's capabilities and review the configuration when choosing a hardware supplier. Besides these, there are several other factors to take into consideration while conducting a site survey.

Wi-Fi Site Survey Considerations:

- What are the different functions of separate areas?
- Who are the target users in those areas, and what are their behaviors?
- How many users will occupy that area at once?
- What types of devices are they likely to be using?
- How much time will they spend in these areas?

When possible, these questions should be answered based on historical data. An accurate property floor plan will aid in recognizing and planning the coverage area, to include guest rooms, lobbies, restaurants, ballrooms, outdoor spaces, back offices, fitness facilities, etc. There are many free and low-cost digital simulation programs available online that IT staff may use to get a head start on gathering the necessary information for a site survey, and having this material ready may be useful to your solutions provider when deploying the network.

Hotel Wi-Fi Considerations, Area by Area

Rooms

The in-room Wi-Fi needs of guests varies with their behavior. Business travelers might be out of the room throughout most of the day, only using the internet in mornings and evenings for checking emails, VoIP or video conferencing. Leisure guests tend to enjoy more entertainment activities such as gaming (lower latency needed) and video streaming (more bandwidth needed). Nowadays, it is typical for each guest room to have a dedicated AP. Guests can enjoy the internet connection anywhere with a Wi-Fi signal. Although normally it is not necessary to have another AP in the bathroom, this area must be covered and the signal must be guaranteed to satisfy customer needs. Suites, normally larger than the standard room in size, could require more APs depending on the situation and management determination.



Coverage: 1 AP per room

Guests expectations and in-room tech rely on a strong signal. More APs may be needed for larger rooms such as suites.



Common Areas

Restaurants, lobbies and ballrooms are considered common areas, and serve many guests at one time, unlike guest rooms. There can be a hundred guests connecting to the wireless network at the same time. E-services have become prevalent these days, such as using mobile devices/apps to check in, order a drink or send a service request. Therefore, keeping tabs on internet coverage of the common areas in a hotel will make a difference in improving guest satisfaction.

Operation performance, layout and customer behaviors in a restaurant will influence the decision-making process when deploying a Wi-Fi network. The total number of customers for a day, size of the outlet, restaurant types (fine dining/buffet/fast food, etc.) and other needs from guests (mobile ordering, e-checking, etc.) will all be worth taking into consideration. Restaurants will typically require APs that are specifically designed for high client density.

The lobby can be examined separately and divided into three zones, front desk, lobby bar/café and other lounge areas. The front desk is often packed with guests checking in and out, and will require high-performance APs to support the high client density. The lobby bar/café may have a higher guest turnover rate than a full service restaurant. Guests may also be more likely to use their personal computers at these more casual locations than at a sit-down restaurant, and will therefore require higher capability APs to support higher data use. Other lounge areas will depend on an analysis of customer needs and would be determined by management on a case by case basis, as each hotel is different.

Ballrooms can be a somewhat unpredictable and complicated space because of their ceiling height, size and high client density when there is an event. Open spaces and high ceilings call for high capacity APs. If there is an event with over 1,000 guests, additional APs may be needed to support such high volume; however, too many APs will cause interference. To avoid interference, sometimes you may need to narrow down the coverage area of each AP. This does not mean adopting lower-performance APs, high-performance APs can still better serve the ballroom with these adjustments. In general, the maximum number of clients and the ballroom layout are the two major concerns. If the ballroom is out-of-date or irregularly shaped and cannot be renovated in a short time to satisfy the pressing needs, a temporary AP placement plan might be the best solution to serve the large event as a plan B.

Outdoors

Outdoor guest areas at hotels tend to be complex environments with high background noise. Ambient noise coming from satellites, radar, cell phone towers, rain, wind and steel dust will all impede the signal transmission. Outdoor APs must therefore conform to the IP68 standard (waterproof and dustproof), which can keep APs safe and working properly. A special onsite survey is recommended before deploying an outdoor network. Moreover, the function of each zone should be assessed to determine its connectivity needs. For example, a small path/aisle usually serves as a gateway where guests walk through the path instead of staying for a long time, and so regular outdoor APs are enough. In contrast, high-density APs are imperative in spaces used for weddings and outdoor dining.

Back Office

For the back office, managers may need employees connected to a wireless network instead of an internal LAN. However, more and more cloud-based, service optimization enterprise solutions are being created and adopted by hotels now. These technologies can enhance staff communication and improve operational efficiency, and will of course depend on Wi-Fi to perform. When it comes to deploying a network in office areas of the hotel, security, stability and coverage are primary concerns.



Coverage:
High-performance APs, quantity depends on usage
Common areas are multi-purpose, and an assessment will determine broadband needs.



Coverage:
Outdoor APs conforming to the IP68 standard
These areas have high background noise and environmental hazards. Thus, rugged APs are recommended.



Coverage:
Robust network
Back office operations work from cloud-based solutions that depend on Wi-Fi. These networks need to be secure and stable.



Working With Service Providers Beyond Installation

Achieving excellent connectivity is a multi-team effort, and many companies offer services in more than one area. When it comes to wireless networks, the companies at the bottom of the connectivity pyramid are the mobile carriers and the ISPs. These are analogous to the municipalities that own our water and electricity. Hospitality enterprises partner with solutions providers to help design and deploy Wi-Fi networks and DAS. These companies may also offer High Speed Internet Access (HSIA) management and support solutions, guest management software, user analytics and technical support services. The solutions providers may work with proprietary hardware, but more often they will use hardware purchased from an independent manufacturer while building your network. Lastly, you and your solutions provider may partner with an outside contractor to assist with installation of the wiring on your property, especially when it comes to new builds and significant renovations.

Because it can be overwhelming for decision-makers to understand the requirements for a new installation or upgrade of existing connectivity infrastructure up front, the best way to begin a conversation with a solutions provider about your needs is to build backwards: where do you see your enterprise 10 years from now? Where do you plan on expanding? Construction add-ons to your property, IoT devices you plan on rolling into guestrooms, and increased usage of your meetings and event spaces are all examples of future developments that will add to connectivity traffic. These possibilities will need to be considered before you and your service provider establish a plan. Regardless of the size or scale of your enterprise, there are two primary requirements for a superior connectivity experience: first, it must meet guest and staff expectations today, and second, it must be designed to allow operators to seamlessly escalate with new services as they appear tomorrow.

Between finite IT budgets and the collision of different areas of expertise, it is no secret that the relationships between hospitality clients and service providers can sometimes resemble a tug-of-war. In the course of research interviews, expert contributors on the telecommunications and wireless vendor side were asked to identify common pain points involving connectivity among hospitality clients. Multiple service providers voiced that they have seen clients hesitate to adopt innovative technologies that are well-suited to their enterprise due to a misguided perception of the associated risks, which leads to a cycle of repeatedly investing in legacy technologies. In short, this is part of a greater issue of a slow adoption cycle of new technologies overall in the hospitality industry.

The technologies needed to support the spectrum of guest services differ radically across hospitality properties, and are continuously evolving. Hotels that specialize in conference events will have niche coverage and capacity needs requiring specific equipment. Likewise, resorts and other properties with outdoor amenities require specialty devices like rugged equipment and point-to-point radios. However, these unique challenges are sometimes not addressed adequately when devising a network plan due to a client's perception of risk and how much they are willing to take on. One key example of this conundrum is in IoT applications. Because there are a lack of enterprise-suited capabilities from many network hardware manufacturers for areas such as voice recognition, smart lighting, access controls, etc., many IoT devices have been harder to deploy in hospitality environments than expected. This is despite how ubiquitous they have become in our homes. This leads to continued investment in legacy technologies rather than in their cutting-edge counterparts and the solutions providers who can integrate them into an enterprise.

Solutions providers are key stakeholders when it comes to guest satisfaction related to these devices, as they are the ones who most often provide the resources to fix any associated issues



VENDOR PARTNERS

For a network installation to succeed, design it to accommodate updates and new services as they are developed; thus leaving room to adapt to technological change. **A key to keeping your network current, is to maintain a relationship with vendor partners.** Solution providers are knowledgeable about current trends and issues, and continually develop new tools to help maintain and improve service. An ongoing partnership will keep you familiar with optimal, new solutions.





as they arise. When you use another company's software for inbound incident tracking, capacity utilization and device connection counts, they track these figures through their support centers. As such, they are in the best position to help customize and improve service over time, which will not only reduce costs over the lifetime of the network, but will also help deliver the latest IoT applications or other features through software integrations with a wider market of network hardware companies. Thus, investing more in legacy hardware devices rather than in solution and service providers sometimes cheats hospitality enterprises out of a partnership that is capable of guiding an enterprise into the connected future. The better solution is to find a balance between your investment in hardware versus software and support for your wireless network.

When choosing a vendor, consider the following key points:

- What software is this vendor offering me that will support the network over time?
- What is the up-front cost for any software I am purchasing ?
- If I need to pay for a subscription with this provider for software upgrades, what will that add to my operational expenditures/cost of ownership?
- Who is responsible for training my employees on how to use this new software? Does training incur an additional cost?
- Can the software be attuned to my enterprise's needs, or is it one-size-fits all? If so, will this product work for our property?

When weighing proposals between solutions providers, hoteliers should consider what the relationship will look like over time. Rather than simply judging a service provider by the notoriety of the brand names they have worked with in the past, decision-makers should also consider the level of continued involvement that the provider offers during the lifetime of the networks they have deployed. Overall, a provider with a proven history of long-term, adaptive involvement with their clients is always the best route to go.

Conclusion

Achieving superior connectivity requires extensive collaboration between hospitality enterprise decision-makers, installation experts, and service providers. The days when strong Wi-Fi and mobile broadband connections were optional are long past. This is because we rely on our devices more than ever, and those devices are using a lot more data than they used to. Fiber to the room solutions are becoming more common in hospitality enterprises, and can increase property value and decrease utility expenses for different property types. However, establishing a universal baseline of connectivity in the hospitality industry is not as simple as everyone installing FTTR — and that option is simply not available for many enterprises, either due to prohibitive cost or fiber simply not being available in that geographic area. Those on the hospitality side must stay up to date on all the current uses and applications of connectivity technology while keeping an eye on the future of their enterprise in order to make the best investment today. Furthermore, it is important to pick a service provider who will be involved in the long-term success of your networks by providing regular feedback and making necessary adjustments. ●