

Hotel Business Review

Technology

Top Eight Network Technologies to Invest in for “Hotels of the Future”

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Mr. Stokes

Poll hotel guests on which amenity is most important to them and chances are they'll vote for connectivity. But it's more than just raw Internet access they expect these days. In this new always-connected age, guests want easy and persistent access to all things digital that can enhance their experience, both within and outside the premises.

It's a big reason why hoteliers are now spending as much time and resources on network technology and applications as they are on the quality of their linens and food service. Hotel customers expect the same online convenience and customization they have in their homes. And with seemingly every traveler equipped with laptops, iPads, and smart phones, they also expect their hotel to be place of ubiquitous connectivity.

Indeed, according to Scot Campbell, chief information officer for MGM Mirage, the core of a hotel's 'cool' factor is technology. Campbell says that "we are building rooms where everything is on a network."⁽¹⁾ Installing new technologies will give hotels a competitive edge with travelers for whom digital devices have become just another normal bodily appendage of sorts.

This "hotel of the future" is as much an information management center as it is a place to have a good night's sleep. Managing that type of critical information flow is not easy. It will require a network that is:

- Always available – Once the hotel experience becomes network dependent it will be more important than ever to make sure that network is always available.
- High performance – The network will need to be as fast and reliable as flipping a page on a hotel directory or making a phone call.
- Safe and secure – With so much information passing through the network, customers will demand complete security in how information is categorized, processed, and stored.

While there are many tantalizing new applications hotels can invest in to take advantage of ubiquitous connectivity, we see the following eight technologies delivering the best ROI and competitive advantage.

1. Digital check-in

What is common now at airports will soon be common at hotels. Guests will be able to check-in from a kiosk or a touch-screen display in the lobby, just as passengers do in an airport concourse. At the self-serve check-in you will be able to see your hotel room and upgrade it to a larger room or a different floor or a different view, if you want. You will also be able to order services (like wake-up calls) and make special service requests.

2. Secure, reliable and scalable Wi-Fi connections throughout

Wi-Fi has become a standard amenity. It's becoming a determining factor on where guests choose to stay. But few guests would say they're happy with the current sign-up and security concerns of hotel Wi-Fi. The push now is to make Wi-Fi easier, more reliable, and secure—all the while being compliant with Payment Card Industry (PCI) and other Federal and state law enforcement requirements (e.g. the Communications Assistance to Law Enforcement Act). Secure and flawlessly managed connectivity throughout the premises will be mandatory. And with the exponential growth of rich media flowing through the Internet, hotels will begin packaging Wi-Fi in tiers to accommodate someone who just wants to check email and the news, as well as the person who wants to run multiple video and audio streams in his or her hotel room. One method of dealing with the increased demand for bandwidth is with load-balancing and channel-steering Access Points (APs). This type of solution can isolate slower devices, pooling them on common APs while shifting traffic from an overloaded AP to one that has available cycles. They can also scan the network for an inoperable AP and increase output on surrounding APs to close any detected coverage gaps. This type of intelligent solution also can scan the network for rogue wireless intruders, which is a PCI compliance requirement.

3. The smartphone operated hotel

Smartphones will serve multiple functions for the future traveler. Just as smartphones are now replacing paper boarding passes for air travel, they will also soon replace the traditional room key. Room numbers and entry codes will be sent directly to cellphones for easy, keyless entry. Not only is this a solution to guests losing their keys, it also prevents serious security risks that come with magnetic key strips that store personal information, such as social security and credit card numbers. And without keys to return, guests can check out using their phones.

Smartphones will also be the vehicle to both book hotel stays, and process receipts and paperwork. For example, Marriott Hotels booked \$1 million in revenues in the first 100 days after the launch of its mobile website in 2009. Mobile bookings were particularly important in supporting last minute bookings and moving expiring inventory, as about one-third of the mobile bookings were for same-night stays.

And soon-to-come Near Field Communications (NFC) technology will bring close proximity mobile payments to everything from NFC-enabled vending machines to mini-bars, using your smartphone.

4. The television as in-room control center

Augmenting the mobile device, the hotel room's television or flat panel display will become the traveler's control center, eventually

obsoleting the traditional telephone. It will be everything from the customer's alarm clock to his/her entertainment center and source for hotel information. For example, the in-room display will help find and book everything from restaurant reservations to show tickets, and double as an online hotel shopping center where customers can buy branded items and have them shipped and waiting when they arrive home. The in-room display will even allow customers to set preferences for lighting and temperature.

5. Guest sensors

Energy efficiency is important—both to the environmentally conscious consumer, as well as the economically conscious hotel manager. The majority of hotels in the future will have room sensors that detect when people are in the room and when they are not. When the room is empty, hotel room settings will adjust—from lighting to cooling—to make sure that the hotel is not wasting energy and money. For example, The Aria Resort & Casino in Las Vegas has already installed this technology in all its guest rooms. Not coincidentally, the Aria has received the highest certification from Leadership in Energy and Environmental Design (LEED), and 5 Green Keys from the Green-Key Eco Rating Program.

6. Restaurant display ordering

Just as the flat panel display will be the travelers' control panel inside the room, hotels will increasingly use these displays to assist travelers throughout their stay. This will be particularly true at hotel restaurants. Touch screen ordering in hotel restaurants will soon be a standard option. Using touch screens in restaurants increases the efficiency of staff, and being able to use dynamic graphics and displays enables the chef to promote specials and upsell on orders. This is already available in places like the Rydges World Square Hotel in Sydney, Australia where they have, "scrapped paper menus in favor of the touch-screen tablet, empowering diners to browse what's available, order food and drinks, view photos of each dish, detail how they'd like their steak cooked, and learn which wines go best with each dish."

7. Digital employee communications

The hotel network is just as important to internal hotel operations as it is to customer-facing applications. Hotels will increasingly use digital learning to keep employees informed about everything from shift responsibilities, to updates on occupancy rates, to the next wave of convention attendees and security needs. They can also be taught procedures and company policies through podcasts downloaded to their phones or iPods.

Hotel brands—including Hilton Garden Inn, Aloft, Homewood Suites, and SpringHill Suites—are using devices like iPods and Sony PlayStations as training tools for staff. This has proven to be a great way to train employees while cutting costs. Homewood Suites is using interactive DVDs and videos as a key training tool. These 20-minute audio and video modules can be viewed in the hotel or on mobile devices, and because they are video-based, they are inexpensive to update and translate into languages other than English. High employee turnover rates are part of the hospitality industry, so having an efficient, consistent training solution is critical. Having one with flexible localization capabilities is that much better.

8. Multiple data streams, running through multiple networks that can be both secure and shared

All these new technologies and mobile devices will significantly increase demands on the network requiring additional capacity. Each of these data streams will need to be highly available—that is, a hotel cannot afford to have the system 'go down'. Network performance will have to be optimal as travelers will expect transactions to happen in real-time. And most importantly, all this data will need to be secure. PCI compliance requires a high level of security for each transaction. Information needs to be able to flow securely and efficiently with built-in redundancy. Self-configuring VPNs and firewalls using intelligent routers will make the whole process (network headache) of becoming and remaining PCI compliant much easier.

Conclusion

According to iProspect, a search engine marketing firm, two thirds of consumers begin their shopping experience—including hotel shopping experience—online(3). Almost universally, consumers are using technology to research and book accommodations and then rate their experience afterwards. That's why hotels nationwide are racing to install new technologies that will give them a competitive edge with both leisure and business travelers. A key part of competing in the new marketplace is having the technical capability to capture every consumer touch-point opportunity on the hotel grounds—from the time they step into the lobby, to the time they leave for the next destination.

References:

- (1) <http://tinyurl.com/3ayphbf>
- (2) <http://tinyurl.com/26goaae>
- (3) http://www.iprospect.com/about/researchstudy_2010_retailsearch.htm

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