Winning with Wireless in the Hospitality Market
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EXECUTIVE SUMMARY

Today’s technology savvy consumers bring their smartphones, laptops, and tablets with them wherever they go, whether on business or at leisure. They expect ready access to high speed internet and internet-enabled applications so they can check email, access work files, upload photos, engage on social media sites, watch movies, or listen to music. According to a recent survey of travelers’ attitudes on WiFi, 70% connect to wireless at hotels and 59% connect to wireless at restaurants.¹ Hotels without wireless are at high risk of losing revenue from missed bookings and dissatisfied guests, as underscored by a recent Forrester report finding that 94% of business travelers believe WiFi is an important amenity when choosing accommodations and the latest Hotel.com survey finding that the most important in-room amenity to travelers is WiFi.²

Although hotel and restaurant owners have concerns about the cost and complexity of deploying and/or upgrading wireless networks, WiFi is critical to supporting the widespread adoption of BYOD (Bring Your Own Device) and can also be leveraged to create differentiated services that drive incremental revenue, enhance the guest experience, and increase customer loyalty while reducing costs and enabling operational efficiencies.

This white paper is intended to help business and IT decision makers in small and medium-sized hotels/motels and restaurants understand the benefits, challenges, and best practices for deploying wireless in the hospitality industry.

TRENDS IMPACTING THE HOSPITALITY INDUSTRY

The state of the hospitality industry is looking brighter, boosted by an improving economy, growth in real disposable income, and moderate levels of inflation projected. As an example, US. consumer confidence rose to its highest level in 2014 in more than six years. Steady economic growth will bring an increase in guest room demand and restaurant traffic as consumer confidence continues to build.

In a study of business and leisure travelers conducted by Forrester, wireless service was the top amenity desired at all hotels by 90% of respondents.³ More than 80% of all travelers in the survey checked into hotels with smartphones and laptops. Tablet usage among U.S. travelers is also surging: 44% currently own one and an additional 40% plan to purchase one by the end of 2014.⁴

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Figure 1: Most Important Hotel Amenities

<table>
<thead>
<tr>
<th>Amenity</th>
<th>Percentage</th>
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</thead>
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<tr>
<td>Wi-Fi</td>
<td>90%</td>
</tr>
<tr>
<td>Lots of power outlets</td>
<td>52%</td>
</tr>
<tr>
<td>Room controls, lights, music, temperature</td>
<td>46%</td>
</tr>
<tr>
<td>A simple alarm clock</td>
<td>42%</td>
</tr>
<tr>
<td>A simple telephone for room service, front desk, etc.</td>
<td>42%</td>
</tr>
<tr>
<td>Television shows on demand</td>
<td>39%</td>
</tr>
<tr>
<td>Biometric safe</td>
<td>34%</td>
</tr>
<tr>
<td>Subscription services: Hulu, Netflix</td>
<td>34%</td>
</tr>
<tr>
<td>Adjustable desk and chair with universal charging plugins</td>
<td>31%</td>
</tr>
<tr>
<td>Voice activated lights, curtains, temperature</td>
<td>30%</td>
</tr>
<tr>
<td>Wired internet cable</td>
<td>26%</td>
</tr>
<tr>
<td>Connections that allow guests to play their own media</td>
<td>24%</td>
</tr>
<tr>
<td>Closed captioning in multiple languages</td>
<td>17%</td>
</tr>
<tr>
<td>Internet-enabled telephone capable ad ads, valet, maps, local attractions, etc.</td>
<td>11%</td>
</tr>
<tr>
<td>In-room messaging</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: Forrester Consulting, April 2013
Although Baby Boomers (people born between the years 1946 and 1964) are currently the strongest market segment for the hospitality industry, Millennials, defined as those between the ages of 16 and 34, will become more important to hotels and restaurants within the next five to ten years as they enter their peak earning years. In 2012, the Census Bureau estimated that there were approximately 70 million Millennials residing in the U.S. Half of all Millennials now own a laptop, smartphone and tablet.\(^5\)

![Figure 2: U.S. Device Ownership by Generation](image)

Given the rebound of the economy and the rising tide of constantly connected Millennials, the hospitality industry must invest in technology now to succeed in the competitive environment that lies ahead. According to the 2014 Lodging Technology Study, keeping pace with guest expectations has replaced insufficient budgets as the top IT challenge for hotel executives. Although the average annual IT budget per hotel location has doubled to $290,000 (2.8% of revenue) vs. last year, the average budget for upscale, mid-scale, and economy hotels is still modest in comparison to luxury hotel IT budgets. When asked about their top business goals for investing in technology, hotel executives ranked driving more revenue, enhancing guest services and improving operational efficiency as most important.\(^6\)

Restaurant executives surveyed across all segments (fast food, family/casual, and fine dining) indicate that they plan to increase their investments in technology beginning in 2014 and continuing through 2016.\(^7\) Although nearly 60% of restaurant executives participating in the survey indicate that insufficient budgets are still the most important issue impacting IT performance, 1 in 3 say they cannot keep pace with the technology expectations of their guests.\(^8\) The average annual corporate IT budget for restaurants is estimated to be $1.3 million this year, with business efficiency, employee productivity, and customer engagement/guest loyalty being the top three objectives driving technology investments.\(^9\)

![Figure 3: 2014 IT Budgets by Hospitality Segment](image)
BENEFITS & CHALLENGES OF WIFI IN HOSPITALITY

With guests bringing new/multiple mobile devices into hotels and restaurants, the hospitality industry is realigning technology goals and IT budgets to focus on providing the infrastructure needed to support these devices. According to a survey conducted by Hospitality Technology, more than two thirds of hotels plan to add bandwidth this year in order to address guest expectations. Hotels have increased IT budget allocations to 17.3% for networking/bandwidth/connectivity and restaurants have increased their IT budget allocations to 15% in restaurants for network and telecom in 2014.10

Beyond addressing critical connectivity needs, investing in wireless can help hotels and restaurants develop new and differentiated service offerings that can help meet critical business objectives such as increasing revenue and customer loyalty while improving operational efficiencies. A few examples of the applications enabled by WiFi that can greatly enhance the guest experience and generate incremental revenues for the hospitality industry are outlined below.

- **Tiered WiFi pricing** - restaurants and hotels have the option of offering free WiFi to guests who just want to use the internet to check emails or surf the web, but can choose to charge an incremental fee to support guests who want to engage in higher bandwidth activities such as viewing movies, streaming music, or video calling

- **Location-based advertising** - hotels or restaurants can send personalized promotional messages to upsell/cross sell guests within range of their establishments

- **Mobile food/beverage orders** - the ability for wait staff to take orders in restaurants using WiFi enabled devices can greatly reduce errors and increase speed of order entry, while hotels that can take orders anywhere guests want refreshment can drive higher revenues and customer satisfaction

- **Digital menus** - in addition to making it easier for customers to view and select items, using tablets for menus and ordering supplant the cost and hassle of printing paper menus as dishes are changed or replaced

- **Expanded guest registration and check-out** - using WiFi enabled devices or kiosks, hotel staff can check guests in and out from multiple locations onsite, eliminating bottlenecks and customer frustration at the front desk

- **Connected property management** - equipping hotel staff with mobile devices so they can communicate with property management systems for access to real-time information across functions such as the front desk, housekeeping, porter service, room service, and concierge service can increase efficiency and accelerate customer response times

- **Personalized guest services** - customer loyalty can be won by hotels that can deliver customized in-room services such as lighting, heating, and entertainment set in advance of arrival based on customer preferences

- **Digital room keys** - using QR codes on mobile phones in lieu of physical cards/keys for room access has the potential to reduce loss and theft, resulting in enhanced guest safety and lower operational costs

- **Wireless asset tracking** - capital investments in items such as room service carts, laptops, and projectors for meeting rooms in hotels can be tracked via WiFi applications, increasing productivity and reducing equipment loss

Despite the growing recognition that WiFi is a must-have for the hospitality industry, most small to mid-sized hotels, motels, and restaurants still struggle with constrained budgets and a lack of dedicated IT staff. While there are a myriad of options available, finding a simple, reliable, and affordable WiFi solution is a major challenge.

31% of hotels say guests expect greater tech advancement than they can reasonably keep pace with.
BEST PRACTICES FOR DEPLOYING WIFI

Whether hotels or restaurants are upgrading their wireless network or are starting from scratch, there are several important factors to consider when planning a WiFi deployment. For example, hotels that have implemented a standalone access point (AP) in an area such as the lobby and are looking to expand WiFi coverage in other areas such as restaurants or guestrooms may simply think to add more access points. However, adding more standalone APs will create signal interference, resulting in a significant management issue and a poor customer experience. A wireless controller with a centralized network management system (NMS) that optimizes all AP settings is the key to ensuring maximum coverage quality throughout the property.

The placement, number, and type of APs used are also important strategic decisions to make when planning a wireless implementation. It’s important to assess the anticipated bandwidth traffic and number of devices that can potentially be attached to the network in various locations throughout the property. An onsite or remote survey should be conducted to identify and troubleshoot any forms of potential interference from existing WiFi or other sources such as walls or building materials. The survey report will include information such as recommendations for AP location, type of APs and controllers, and signal strength heat maps. In areas such as business centers of hotels, it is critical to use high end access points that are designed to support more clients and traffic. A high end AP can manage throughputs of up to 1 Gigabit (1000 megabits) per second vs. low end APs that only have 100 megabit uplink capacities at the Ethernet port. In addition, there are some areas such as hotel hallways where it may be impossible to deploy APs. Wall mounted access points offer a sleek design and can be installed without any technical skills/knowledge. Figure 4 shows a typical wireless deployment for a conference room and guest rooms within a hotel.

![Figure 4: Example of Hotel Wireless Deployment](image)

**WNDAP660**: high end dual band access point to cover high density conference areas  
**WN370**: wall mount access point for in-room coverage  
**PoE switch**: provides Power over Ethernet to access points  
**WC7600**: centralized wireless controller for single point of management
Patrons of small to mid-sized restaurants and hotels/motels have the same expectations for quality and reliability of WiFi service as guests in luxury hotels and fine dining establishments. However, ease of use and cost effectiveness are critical considerations for small to mid-sized establishments. Below is a check list of core features and attributes designed for decision makers in small to mid-sized hospitality sites to use when evaluating solutions from various wireless vendors:

- Medium usage capacity for hundreds of clients
- Controller for centralized management
- Wireless isolation to protect corporate assets and clients on the network
- Basic firewall
- WPA2-PSK authentication (uses a plain-English passphrase to generate unique encryption keys)
- 2 SSIDs (1 open for guests, 1 for staff with security)
- Per user rate limiting to cap throughput/bandwidth per user
- Seamless roaming to avoid dropped connections when guests move between APs
- Guest captive portal /web redirect for custom branding
- Onsite (or remote) wireless site survey and planning services
- Ease of installation and configuration
- Interoperability with ecosystem vendors such as hotel billing servers

**CONCLUSION**

WiFi in restaurants and hotels, once considered a luxury, is now table stakes in order to compete for guest room and restaurant revenues. As Millennials surpass Baby Boomers in spending power, providing reliable and ubiquitous wireless coverage to support BYOD and develop enhanced guest services will become even more critical.

Although the upswing in the economy has given way to an overall increase in IT budgets for the hospitality industry, most small and mid-sized hotels, motels, and restaurants still face significant challenges upgrading or deploying wireless networks with limited access to IT staff and capital. Feature rich solutions, designed for large scale hotels and restaurants, are often too complex and costly for most small to medium hospitality sites. Careful consideration should be given to selecting a WiFi solution that will deliver the fast, easy to use, reliable, and secure connectivity that guests demand, but one that is also affordable and easy to use for hospitality site owners/operators with limited resources.

Ubiquitous and wireless coverage is a must have for both customer retention and revenue generation, as evidenced by the numerous reports citing WiFi as one of the top decision factors for hotel selection. Winning in hospitality with wireless means going beyond meeting basic connectivity needs and developing WiFi-based applications and services to target and engage guests in new ways that drive brand loyalty, customer satisfaction, and higher margins.
ABOUT NETGEAR

NETGEAR is a global networking company that delivers innovative products to consumers, small businesses, and service providers. Its recently expanded line of ProSAFE ® business-class wireless products include two new products specifically designed to offer easy-to-deploy access for small to mid-sized hospitality facilities. Our simple, reliable, and affordable solutions to support BYOD adoption and new wireless connectivity applications in multi-tenant sites such as small and medium sized hotels, motels, and restaurants have been expanded to include:

- ProSAFE WC7600 Premium Wireless Controller – supports centralized management for the complete range of NETGEAR business-grade ProSAFE Managed Access Points
- ProSAFE WN370 Wall Mount Access Point with PoE – offers a compact form factor specifically designed to enable wired and wireless connectivity in mid-sized multi-tenant sites

Whether you are in the exploration, project definition, implementation, or expansion stage for WiFi, NETGEAR can provide guidance and advice to help design robust, secure, flexible and cost effective wireless networks through our extensive and experienced reseller network. For more information, go to www.netgear.com.

ABOUT DEBRA CHIN

Debra joined Palmer Research in 2006 as Senior Vice President. Her background includes over 15 years of experience in executive level marketing and research positions for leading consumer packaged goods and high tech companies. She holds an MBA from Columbia Business School and a BSE in Economics from the Wharton School of Business. Founded in 2001, Palmer Research delivers the information and intelligence IT decision makers and high tech companies need to better understand market dynamics and meet their business objectives. The company is located in Los Altos, CA. For more information, go to www.palmerresearchgroup.com.

Footnotes:
1 “Survey of Traveler’s Attitudes on WiFi Security, Privacy and Access”, PhoCusWright and Hotspot Shield, Nov. 2013
2 “Winning Customers’ Hearts Starts With a Great Guest WiFi Service”, Forrester, June 2013, Hotels.com 2014
3 ibid
4 “Survey of Traveler’s Attitudes on WiFi Security, Privacy and Access”, PhoCusWright and Hotspot Shield, Nov. 2013
5 Digital Democracy Survey, Deloitte 2013
6 ibid
7 HT Restaurant Technology Study 2014
8 ibid
9 ibid
10 HT Restaurant Technology Study 2014, HT Lodging Industry Study 2014

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