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Future-Proofing Restaurant Wi-Fi

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Changing market dynamics have fueled fierce competition among QSR, Fast Casual, and Casual Dining restaurants. Guest Wi-Fi represents a strategic opportunity to differentiate the customer experience and increase business. Today, mobile apps empower customers to order food, reserve a table, and purchase gift cards. Frictionless integration with loyalty programs encourages reward redemptions, which turns occasional diners into avid fans. Many forms of in-store digital entertainment reduce the diner's perceived wait time and drive up customer satisfaction. Exclusive video content shapes the diner's perception of the restaurant brand. With so many different ways to make a meaningful business impact, Guest Wi-Fi is gaining momentum in the restaurant industry.

To fully benefit from Guest Wi-Fi, restaurants need to anticipate future requirements and design accordingly. Competitive pressures for the limited share of the diner's wallet will only increase. Poor Wi-Fi executions will hurt the restaurant's brand and ability to support future customer engagement initiatives. Restaurants with inflexible Wi-Fi technology will be at a severe disadvantage and may have to rip-and-replace their solutions. The following contains some guidance on future-proofing restaurant Wi-Fi deployments.

Scalable, Reliable Network

Consumers at home enjoy 10+ Mbps of private Internet access. In restaurants, consumers share far less Internet capacity with dozens to hundreds of other patrons. During peak times when a restaurant especially needs to reduce wait times (either for a table or for food), Guest Wi-Fi will be most congested, resulting in the worst Wi-Fi customer experience at periods of greatest business opportunity.

To solve the problem, restaurants are deploying high-speed Internet access with 10+ Mbps, 50+ Mbps, and even 100 Mbps. Restaurants with tight budgets or limited network options can offer still better performance by leveraging WAN optimization technology to virtually magnify lower-speed circuits into more suitable high-performance connections.

Given the flash crowds that may overwhelm a restaurant at any given time, congested Internet access must be strategically managed. Business-relevant mobile activity (e.g., gift card redemption, Yelp™ reviews, Instagram™ posts, etc.) must take precedence over lower priority activity (e.g., mobile shopping apps, movies, etc.). Proper management can help restaurant operators maximize the business value of even limited or congested Internet access.

HughesON™

HughesON is a suite of innovative, Cloud-friendly network and digital media solutions designed for the unique needs of distributed enterprises in industries such as retail, hospitality, and retail petroleum.

Smarter Wi-Fi

Restaurants are successful only when every part of the business executes. Similarly, a high-speed circuit alone can't guarantee a quality Guest Wi-Fi experience without an equally robust restaurant Wi-Fi infrastructure.

Restaurants are challenging environments for Wi-Fi. Kitchen machinery (e.g., microwaves, fans, phones, etc.), particularly as they age, are known culprits of Wi-Fi interference. Existing enterprise Wi-Fi deployments within the restaurant, as well as neighboring Guest Wi-Fi networks also interfere. Restaurant operators should consider the benefits (and risks) of consolidating Enterprise and Guest Wi-Fi networks within the restaurants.

Regardless, all Wi-Fi technologies are not created equal. Smarter Wi-Fi solutions can dynamically detect congested Wi-Fi channels and switch to alternate channels with more network availability. To limit interference, smarter Wi-Fi technologies will automatically adjust their power levels to maximize Wi-Fi coverage while minimizing Inter-Access Point Wi-Fi interference. They can also scan the Wi-Fi radio spectrum for unexpected sources of interference. For instance, an old microwave that consistently disconnects the Guest Wi-Fi users every time it's used must be quickly identified and replaced to maintain a quality customer experience.

Robust Wi-Fi

Restaurants have many ways of stressing the performance of a Wi-Fi network. Increasing numbers of diners are using Wi-Fi with an expanding number of devices (e.g., phones, watches, tablets, health trackers, etc.). This will drive "user density per AP." Many devices will support multiple connections for running multiple applications simultaneously. This will drive "simultaneous sessions per AP." In addition, the diner's growing interest in gaming and video entertainment will further drive "aggregate data throughput per AP." Together, these three market trends represent a significant stress on the performance of any restaurant Guest Wi-Fi network.

While many Wi-Fi solutions may produce similar performance results when "tested" by a few users, the real differentiation will emerge in "performance under duress," peak-busy situations.

Wi-Fi Content Management

With restaurant Wi-Fi, "Content is king" rings true from many levels. Wi-Fi solutions vary dramatically in their ability to fully leverage "content" to maximize the business opportunity.

Content Control: The first priority is to keep illegal content from entering the restaurant. Diners are often quite adept at bypassing generic DNS filters in order to access sometimes inappropriate "content." Restaurant operators should leverage strong Web content filtering services to prevent these kinds of experiences from damaging its brand. Filtering services proactively identify and block the many forms of inappropriate content, thus protecting the restaurant from liability lawsuits by angry parents.

Mobile Application Management: To control an application in a Wi-Fi network environment, one must first be able to identify the application. Not all mobile restaurant applications are equally profitable. A sommelier app may represent a much greater upsell opportunity than an apparel retailer's mobile shopping app. Giving the sommelier app priority over the customer who is clothes shopping online while dining will benefit the restaurant's bottom line.

Wi-Fi technologies vary significantly in their ability to profile and characterize mobile applications. While some solutions provide basic white list/black list filtering capabilities, others can conduct "deep packet inspections" to dynamically identify strategic mobile applications and prioritize traffic accordingly.

Social Wi-Fi Advantage

Guest Wi-Fi not only provides an opportunity to enhance the customer's experience, it will also give restaurant operators insights about their customers.

Mobile Browsing: By correlating mobile browsing behavior (e.g., top websites, search terms, etc.) with Limited Time Offer (LTO) transactions, restaurant operators may be able to gain real-time market intelligence regarding consumers' evolving food preferences.

Social Media: We live in a world with too many passwords. One way to reduce the "friction" of Guest Wi-Fi access is to let customers use other credentials from social media services (e.g., Facebook®, LinkedIn®, Twitter®, Instagram®, Google+®, etc.). When the customer is willing, the restaurant operator has an

even greater opportunity to learn about their customers' preferences.

Social Media login is a key area where Wi-Fi solutions may impose limitations on a brand's ability to know its consumers. Some Guest Wi-Fi solutions can support one or two social media logins, while others can support Guest Wi-Fi logins via more than 20 social media services.

Given the volatile popularity of social media, the more social media logins that are supported translates into greater likelihood the diner will participate. For example, a diner who may not be willing to use their Facebook login in exchange for Guest Wi-Fi (because the Facebook profile is too personal) may still be willing to use their less-revealing profile via Yahoo login credentials. The more options a diner has, the more likely they are to participate. The more likely diners are to participate, the more consumer insight the restaurant owner is able to gather.

Mobile App Integration

As a restaurant's mobile application improves the dining experience, new features such as mobile gift cards, loyalty redemption and mobile payments may be incorporated.

Many location-based marketing (LBM) initiatives may require integration with the restaurant Wi-Fi solution in order to align messaging with the customer's state of mind (e.g., entering the restaurant vs. sitting at the bar waiting for a table). Guest Wi-Fi architectures vary dramatically in their ability to support integration with third-party applications. Some will have a clean API for integration, whereas others will require significant workarounds to accommodate basic data exchanges.

Summary

Guest Wi-Fi solutions represent a strategic opportunity for restaurant operators to differentiate the customer's experience and dramatically improve business results. Given the volatile evolution of competitive market pressures and Wi-Fi technology, it is advantageous for operators to give careful consideration to future-proofing their Guest Wi-Fi deployments. Guest Wi-Fi has evolved from a simple matter of Internet access into a complex offering that is capable of intelligently managing overwhelming guest needs with limited Internet access, while providing profitable customer insight.

About Hughes

Hughes Network Systems, LLC (Hughes) is the world's leading satellite broadband provider to home and office sold under the HughesNet® brand with over 1 million users in North America. Hughes also provides HughesON™ managed network solutions to enterprise and government through innovative wireline and wireless network technologies. To date, Hughes has shipped more than 4 million systems to customers in over 100 countries. Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite operations and digital TV solutions. For additional information about Hughes, please visit www.hughes.com.

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