HOTEL CONNECTIVITY
SHOWCASE 2017

HOSPITALITY
TECHNOLOGY
HT
SMARTER HOTELS
& RESTAURANTS

Alcatel·Lucent Enterprise   COMCAST BUSINESS   Extreme Connect Beyond the Network

The Connected Hotel

One out of five hoteliers say increasing bandwidth is a top priority for technology investments and overall strategy.

According to *Hospitality Technology's 2017 Lodging Technology Study,* 45% of hotel operators are planning to upgrade guest Wi-Fi and 21% say enhancing bandwidth is a top strategic goal. With 89% of guests being influenced to book a hotel based on the hotel offering free Wi-Fi, connectivity is an area that demands a hotel's attention. As guests and the workforce become increasingly tethered to mobile devices, hotels must enable mobility and constant connectivity both in-room and across-property. In this executive roundtable, experts weigh in on what operators must keep in mind when architecting a robust network.

HT Bolstering bandwidth to provide guests and operations with enough connectivity is a common battle cry for hotels, but merely providing more bandwidth is no longer enough. How can network providers help operators provide digital, personalized experiences that guests crave?

BRAMS: Deployment and maintenance of purpose-built network infrastructure cannot be dismissed. It is a critical first step to ensure adequate bandwidth is delivered to guests and it is the foundation for delivering a personalized digital experience. How the network is designed contributes to this experience: for example, in-room AP implementations are ideal for providing guests the best Wi-Fi experience while also preparing properties for the demands of the future. A reliable and secure network builds trust (and in turn increased usage) among guests; otherwise those value-added services are useless. Access needs to be seamless and intuitive. Convenience is key for guests, and any bottlenecks in service impacts the experience, the brand, and of course, guest satisfaction scores.

FARONI: A high throughput connectivity is important but it does not stop there. Operators need to think about other aspects like connectivity anywhere on the property (guestroom, lobby, health center, pools) with a consistent and personalized experience. Also, aspects like guest privacy, cyber security, easy connectivity of multiple personal devices and access to personal streaming content, must be considered. With the latest IoT in-room technology, personalization has no limits. Solutions are available to remember the guest preferences and automatically adjust lighting, temperature, preferred TV channel, music and so on.

HEITOR FARONI
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YELDELL: In today's connected environment, hotel operators need to keep up and get ahead of evolving guest expectations. It is not enough to throw the "same old" bandwidth at new challenges. It is time to rethink how to make every connection smarter to support a growing host of tech-based guest services. IT managers have done a great job of "doing more with less," but new software-defined technologies can create a more intelligent network foundation.

HT **Do you believe running systems in the cloud is becoming the de facto way of doing business? Why or why not and how do you recommend hotels leverage the cloud for network and communications systems?**

FARONI: The cloud provides many benefits and there is a clear growth in cloud provided services and applications. It also depends on the type of hotel. Small, family owned or boutique hotels can still host some of the services on premise, however for large chains, the cloud is the most effective strategy moving forward. It helps create a consistent guest experience on any property, it is easier to manage and in many cases provides a lower TCO. Having data in the cloud facilitates analytics and the use of AI to obtain valuable business insights, for instance, better understanding guest behavioral trends.

YELDELL: With more and more business applications and data moving to-and-from the cloud, it's becoming the new normal in terms of business as usual. Hotel operators should consider how both their data and voice communications can effectively support and leverage cloud-based systems and services — from big data delivering more personalized guest services to modern voice systems that deliver more intelligent communications features for guests and speed business operations.

HT **What best practices do you recommend for existing properties that must retrofit networking solutions to legacy systems to bolster connectivity? For new construction, what must operators keep in mind when planning networks?**

BRAMS: Brands, properties and the strategic managed service providers they work with (HSIAs) should leverage a solution that is infrastructure agnostic. What does this mean? It means working with an IT manufacturer that has the ability to deliver a purpose-built network solution for any property — and across the property's physical footprint (in-room,

high-density conference spaces, hallway, outdoor) — regardless of the existing network infrastructure. For retrofitted implementations, the ability to install a Wi-Fi network over VDSL or Cat 3 bolsters bandwidth using existing telephone wiring but with significant cost savings — all without disrupting the guest experience or day-to-day operations. For new construction projects, consider an IT manufacturer and provider that delivers quality in-room Wi-Fi connectivity over Ethernet.

FARONI: Existing properties must plan to gradually upgrade infrastructure, doing it in phases: WLAN, LAN access, Core & WAN. Leverage the latest 802.11ac technology for your WLAN, multigigabit for the LAN access (avoiding bottlenecks and simplifying the cabling), and 10+ Gbps at the core. If a cabling upgrade is difficult, consider using wireless mesh technology. New properties should have a solid fiber and Cat6 Ethernet cabling. In this case you have the advantage to do all previous recommendations at once. Include connectivity and PoE for all wireless APs and for IoT devices. Don't forget hardened network equipment for connectivity in outdoor areas (parking lots, swimming pool, recreational areas, etc.).

YELDELL: Take a fresh look at broadband. It's faster than ever and becoming more widely available up to a Gig. It used to be that properties were willing to pay a premium for more dedicated, legacy connections. In the digital age, that premium connection can come with a burden, since broadband can now better support today's applications built for the Internet. Broadband can become even smarter when combined with software-defined networking technologies across a distributed enterprise network.

"It is time to rethink how to make every connection smarter to support a growing host of tech-based guest services. IT managers have done a great job of 'doing more with less,' but new software-defined technologies can create a more intelligent network foundation."

**— Regan Yeldell, Sr. Dir. Marketing & Events,
   Comcast Business Solutions**

HT Thinking in terms of security, what precautions must be taken and what should operators be looking for in a network solution provider to ensure guest and property data remains safe?

FARONI: The increased adoption of IoT devices (building management, in-room technology) is also increasing the exposure to cyber attacks. Network virtualization technologies like IoT Containment help hotels create virtually isolated environments that can be assigned to each IoT system. In this containment, fine-tuned security rules can be enforced, providing a more effective prevention of attacks while preventing security breaches from spreading. Furthermore, these techniques enable the utilization of a single converged network for everything, resulting in operational simplification and CAPEX savings.

"[The cloud] helps create a consistent guest experience on any property, it is easier to manage and in many cases provides a lower TCO. Having data in the cloud facilitates analytics and the use of AI to obtain valuable business insights, for instance, better understanding guest behavioral trends."

— Heitor Faroni, Director Solutions Marketing,
Network Business Division, Alcatel-Lucent Enterprise

HT How does today's always-connected guest impact network strategies?

BRAMS: Purpose-built Wi-Fi is critical in supporting guest expectations and key functions of the business, but it doesn't stop at connectivity. Data gathered from mobile engagements is now an invaluable asset and will soon be a necessity. Wi-Fi analytics provides visibility into network and application performance for guests, allowing properties to easily identify and address potential inferences that would negatively impact the mobile experience onsite. Analytics also delivers detailed, actionable intelligence related to guests and their mobile engagement behaviors back to the business, and is an effective way to ensure a positive guest experience (and is an integral part of improving guest satisfaction scores).

HT What network technology or strategy do you think will be integral to creating future-proof — or at least — future-ready networks?

BRAMS: Wi-Fi usage and bandwidth consumption will only increase in the next five to ten years, as well as business' reliance on the network to support and enable critical assets and activities. This is already happening, but the philosophical shift of how guests view the availability of Wi-Fi will continue to cause hotels to reevaluate service offerings to guests. Historically, hotels could charge an exorbitant amount of money for Internet access. That practice is shifting as guest expectations have shifted, especially as hotels and brands strive to incentivize increased adoption, usage of loyalty apps and delivery of value-added promotions and services. The underlying onsite goal is to increase guest engagement and brand loyalty; Wi-Fi connectivity is the catalyst to make this happen.

FARONI: Connectivity with plenty of bandwidth will be everywhere, from the time guests step onto the shuttle to all corners of the property. I envision the guest experience being more personalized with immediate recognition of individuals as they enter the hotel. Rooms will automatically adjust to meet guest preferences and all the in-room technology controlled by voice commands combined with AI. Building management (air conditioning, lighting, etc.) will be automated, efficient and eco-friendly.

My advice is to start right now building the network infrastructure, which will be the foundation of a hotel's digital evolution. Things to consider are: high performance; pervasive Wi-Fi with 802.11ac wave 2; ruggedized network devices for outdoor connectivity; IoT friendly capabilities like simple device onboarding and containerization; intelligent networks that can dynamically adapt to changing traffic patterns caused by guest and employee mobility; comprehensive analytics, including application visibility; multi-layer cyber-security approach; and openness to integration with other intelligent systems.

YELDELL: Software-defined networking is going to be the future of the wide area network and in supporting more cloud-based business. By making every connection smarter, businesses that are early adopters of SD-WAN will be able to unleash the power of virtualized networks to take advantage of new business opportunities. No longer will companies be constrained by costly, limited bandwidth — instead, they will be able to move more nimbly and serve customers more effectively in today's connected economy. **HT**

X1 | Comcast Business

Comcast Business offers Data, Video, and Voice solutions for the hospitality industry.

At a Glance: What is the technology/solution type?
X1 for Business

What are the top 5 most innovative features of this tool/application?

- More than 80 all-HD channels delivered over IP

- Easy to use program guide offers streamlined navigation and provides one-click access to a variety of entertainment options

- Free Video on Demand

- Ability to pause and rewind TV

X1 for Business will be available in 2018

COMCAST
BUSINESS

business.comcast.com/ hospitality

Connect your guests to the comforts of home.

From the first visit to your website, to check-in to checkout, your guests' expectations are changing, and connectivity is at the heart of every guest experience. Today's hoteliers have a wide variety of technology-based strategies and tools available to enhance the full continuum of the guest experience.

WiFi is a key driver of guest loyalty and satisfaction. Free, fast and reliable WiFi throughout the property lets guests watch their own programming, listen to their own music, play their own games, get business done, and connect with friends, family and social networks.

Cloud services accessed through mobile devices allow hotel staff and resources to be dedicated to core guest services without being tied to the front desk. The cloud also lets hotels capitalize on the Internet of Things (IoT) to manage and control property security, mechanical and lighting systems, signage, in-room and food-and-beverage appliances, and more.

To enable and optimize these tools and strategies, hotel operators need the right kind of network infrastructure — one that is speedy, secure and scalable enough to meet future applications that are just coming to the drawing board.

Advanced connectivity via robust networks solutions give hotels access to new software and services that help them run their business more efficiently and cost-effectively. They also make it possible for hotels to meet and exceed the expectations of today's modern travelers by creating positive experiences from the moment they consider a visit to the time they walk out the door, planning their next stay.

At Comcast Business, we support hospitality innovation and new guest experiences via the nation's largest IP network, advanced data and voice services, and state-of-the-art in-room entertainment.

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Extreme Networks

At a Glance: What is the technology/solution type?
Wireless Networking for Hospitality

Organization:
- Hospitality-Specific Business Unit
- Complete Organizational Alignment and Support
- Critical and Strategic Investment for Company

Solutions:
- Purpose-built Hospitality Network Solutions
- Longest Tenure, 100% In-Sourced Support Model
- 95% Customer Satisfaction Rating
- Industry Best Reference-Ability

Partner:
- Dedicated Resource for HSIA Partners
- Premium Pricing Structure and Approval Process for Hospitality Partners
- Support and Enablement of Partner Testing and Compatibility

What are the top 5 most innovative features of this tool/application?
- Patented line power over phone line along with Broadband VDSL
- Edge Intelligent APs that make local decisions that impact the guest experience
- Selection of value-added services to provide location and roaming authentication

Existing customers for this technology include:
- Metro Toronto Convention Centre
- Eldorado Resort and Casino
- Best Western

Extreme®
Connect Beyond the Network

EXTREME NETWORKS
extremenetworks.com

At Home Wireless Experience for Hotel Guests

Extreme's hospitality business is a critical, strategic part of the company's overall success. For this reason, we have an entire team dedicated to driving success and support in the vertical, as well as complete organizational alignment across the company, from engineering to PLM to sales and marketing. This approach ensures all the requests and needs of our customers and partners are heard and met; this also ensures our solutions are purposely built to address the unique technological requirements driving IT-investment in hospitality today.

Our 'Premier hospitality Solution Offering' is comprised of everything a brand or property needs to deliver a high-quality, reliable network experience for your customers and for your business. This includes:

• **Wireless:** Every hotel guest deserves the at-home Wi-Fi experience. No matter what the guest brings or what they do, Extreme's wireless portfolio delivers personal wireless right in the guest room. Regardless whether the deployment is a retrofit of an existing property or an install for a new construction project, Extreme has a wide range of APs for any infrastructure requirement, including both APs supported by Ethernet (Cat 5/Cat 6) and supported by VDSL (Cat 3). To ensure complete coverage and ample capacity across the property, our APs deliver high-quality connectivity for every area of a property: inside the guestroom, in hallway and small spaces, in large high-density areas, as well as outdoor settings.

• **Network Management:** delivers deep visibility into every aspect of the wireless network, including the devices connected to it and the applications being utilized. Designed from the ground up to track and record at very granular levels, the platform's key network provides a view of device health, bandwidth usage, application usage, and more — offering a basis for monitoring, analyzing, and troubleshooting the most complex scenarios.

• **Switching:** Competitively priced and feature-rich, our hospitality switching products are ideal for both larger, distributed properties or smaller environments. With a unique set of management options, Extreme switches are a cost-effective choice to supply high-quality connectivity for wired, wireless, and guest facing devices.

Alcatel-Lucent OmniAccess Stellar WLAN solution for hospitality

At a Glance: What is the technology/solution type?
Wireless LAN, WiFi

What are the top 5 most innovative features of this tool/application?

• **Simplicity and performance:** High-speed Wi-Fi with the best radio coverage, controller-less architecture with distributed intelligence between AP's for better performance, high availability and scalability, yet simple to deploy with automatic management of new access points

• **User centricity and security:** Easy connectivity, excellent and secure user experience for guests, staff and contractors with differentiated services, comprehensive multi-layer security approach, smart analytics

• **Flexible deployment models:** Wi-Fi Express (no Network Manage-ment System), Wi-Fi Enterprise with on-premise NMS and Wi-Fi Enterprise with cloud management – all sharing the same set of AP's

• **IoT readiness:** Unique IoT containment technology, securely and automatically connect IoT devices; separate virtual networks with specific QoS and security rules, while sharing a single converged physical network.

• **Affordability and low TCO:** Simple management features and built-in intelligent capabilities

Existing customers for this technology include:

• Khoory Inn Dubai, UAE
• RIU Hotels, Spain
• Radisson Blu, Qatar
• Winn Hotel, Sweden,
• White Swan Hotel, China

Alcatel·Lucent Ⓐ
Enterprise

https://www.al-enterprise.com/en/stellar-mobility-wifi

Hardworking Wi-Fi at the heart of your hotel

Alcatel-Lucent OmniAccess Stellar WLAN solution for the hospitality sector

Efficiency
Your guests and employees can roam around your premises without compromising their connectivity! The enterprise-grade solution supports multiple access points, managed from a single interface.
· Latest 802.11ac technology offers the high performance your guests and employees need
· Distributed intelligent architecture offers extra reliability and scalability
· Unified Policy Authentication Manager (UPAM) ensures consistent experience everywhere
· Employee secure authentication
· Guest access self-registration, social login authentication
· User/device based policy enforcement
· Extensive captive portal customization

Security
Payment and data security are safe with the OmniAccess Stellar WLAN solution. Exceptional security controls enable you to deploy and manage secure guest and internal networks through the same access points:
· Secure Network Access Control (NAC) with Unified Access technology for both wired and wireless devices
· Smart Analytics technology offers application monitoring and enforcement
· IoT Containment option to secure and segregate the connection of IoT systems, guests and employees

Simplicity
Designed to simplify IT management/operations and enable automatic on-boarding of user and IoT devices to support the automated room and an improved experience in hotel spaces (casinos, fitness centers, restaurants…).
· Automated deployment
· Automated devices onboarding based on pre-defined profiles
· Easy discovery of Apple and DLNA compatible devices
· Easy to scale: automatic management of new access points
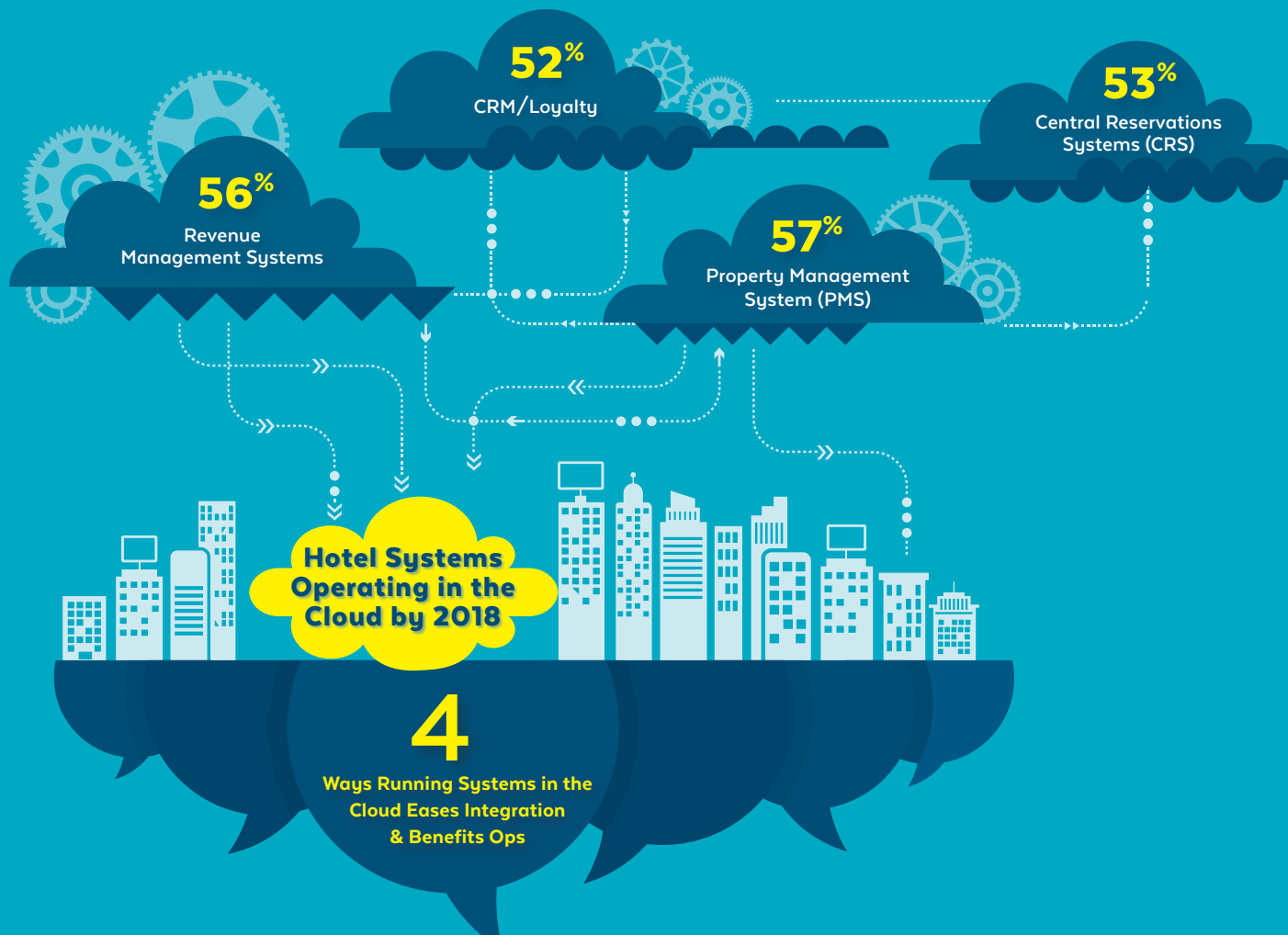
Affordability and low TCO
Simple management features with cost-effective AP's and built-in intelligent capabilities.
· On-premise or cloud-based management options
· Two deployment modes to better fit your specific needs: Wi-Fi Express and Wi-Fi Enterprise
· Wizard configuration tool
The OmniAccess Stellar WLAN portfolio, with a choice of entry level, mid range and high end indoor and outdoor access points, can grow with your wireless LAN needs.

Integration Made Easy With the Cloud

One out of four hoteliers name systems integration a top challenge.
HT **charts the benefits of running systems above property to ease integration woes.**

52%
CRM/Loyalty

53%
Central Reservations Systems (CRS)

56%
Revenue Management Systems

57%
Property Management System (PMS)

Hotel Systems Operating in the Cloud by 2018

4
Ways Running Systems in the Cloud Eases Integration & Benefits Ops

1. Faster Integration
Cloud helps in faster integration of PMS and CRS systems and bringing properties online more swiftly.

2. No Hardware to Maintain & Continuous Software Updates
Cloud-based service gets regularly updated, creating a future-ready and nimble infrastructure.

3. Data Security
Cloud PMS and POS systems offer a platform for frequent security updates to match the threats of the future.

4. Run the Business, Don't Worry About IT
Focus more on hotel operations rather than IT-related issues. Hotels can save on commodity IT spend, by moving or hosting hotel applications onto an automated, secure & scalable hybrid cloud.