

Cloud-Based, Distributed
WiFi Management.
Effortless and Affordable

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MOBILITY MEANS BUSINESS

Everyone is aware that smart phones are a basic tool for business travelers, but their popularity now extends far beyond business. According to the leading travel web site, TripAdvisor®, 85 percent of U.S. travelers take their smart phones with them on vacation.¹

A 2014 study conducted by NETGEAR® in the UK² indicates that many in the hospitality industry – particularly those operating boutique hotels – do not grasp the importance of WiFi to their guests. Thirty-three percent of leisure travelers say they would not return to a hotel that offered inadequate wireless access. This figure rises to 67 percent for business travelers. In contrast, the same study indicates that 43 percent of owners and operators of hospitality venues believe that lack of WiFi is “a price worth paying” for the total experience they offer. In other words, there is a significant underestimation of WiFi’s significance to today’s travelers – one that could seriously hurt bookings over time.

The importance of WiFi for restaurants and cafes may also be underestimated. In an academic research project published in the Journal of Foodservice Business Research, 70 percent of the respondents either agreed or strongly agreed that they preferred restaurants and cafés with a WiFi hotspot.³

While the numbers are not as dramatic for retail outlets, it’s clear that in-store WiFi can increase sales. A recent study by digital marketing consultants Acquity Group⁴ indicated that:

- 50 percent of smartphone owners would feel more confident making a major purchase in a store with WiFi access.
- 30 percent would be more likely to browse additional items not on their list.
- 20 percent would spend longer in the store.

The conclusion to be drawn from all this research is simple: WiFi access has a positive effect on business, and lack of WiFi hurts. Given this reality, finding the most efficient and least costly way to deliver high quality WiFi has become a significant issue, both for businesses that already provide it and those who are considering it. Cloud-based management is one of fastest growing IT services. There are several reasons why the cloud makes more sense for SMBs.

Figure 1: WiFi That’s Poor or Absent Drives People Away



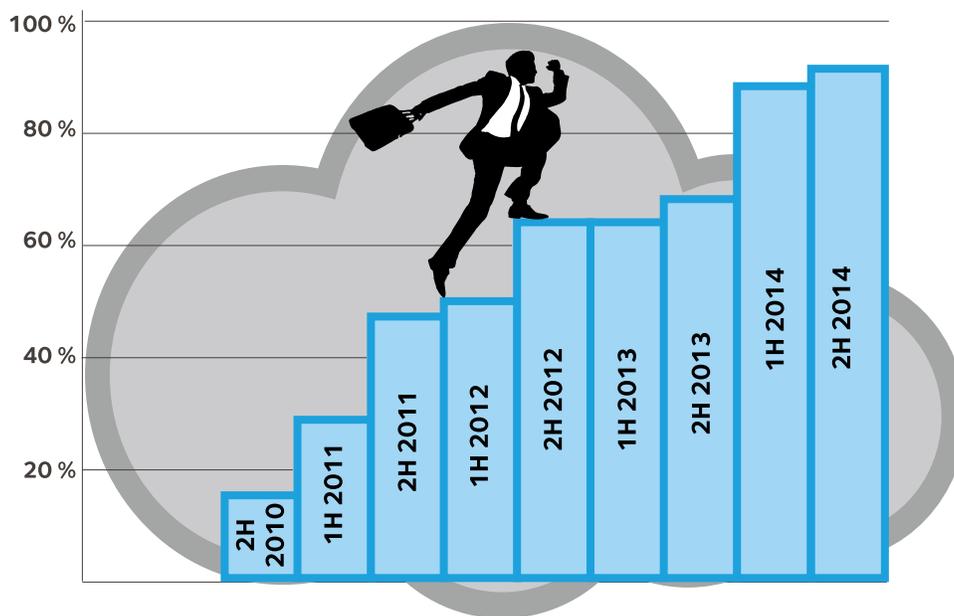
CLOUD SOLUTIONS ARE COST-EFFECTIVE

With a cloud solution, SMBs typically do not need to acquire their own infrastructure, nor hire the IT expertise to manage it. When new security patches are required or when hardware or underlying operating systems need to be upgraded, the cloud solution handles everything transparently, with no involvement by the end user (or VAR). Instead of requiring upfront capital expenditures, cloud-based solutions fall into the operating expense category. Companies with cloud-based solutions have metered, pay-as-you-go business models, so SMBs don't end up paying for capacity they won't use. Finally, the cloud offers easy scalability over time when businesses grow and more capacity is needed.

These advantages have led to increasing adoption of cloud as an alternative to on-premise solutions by SMBs. According to IDC, 77 percent of SMBs with between 50 and 99 employees have adopted cloud solutions for at least some of their needs.⁵

Concerns about cloud – notably its security – have considerably diminished.⁶ Major cloud vendors have demonstrated that they deploy the most sophisticated anti-malware technology, and that they employ teams of experts whose only responsibility is maintaining security – not the case with SMBs. For these reasons, data in the cloud may well be safer than data residing in on-premise systems.

Figure 2: Cloud Adoption Is Growing Rapidly Among SMBs



Almost 90 percent of small and mid-sized businesses now use the cloud for some of their applications.

THE WiFi MANAGEMENT CHALLENGE

All these characteristics of cloud solutions make it ideal for managing WiFi access points (APs) for many SMBs. APs do need managing. At minimum, each AP needs to be configured before it can function in any given environment. The more complex the deployment, the more management required. Two alternative deployment modes have been used to meet management challenges.

The first is a stand-alone deployment. This is a set-it-and-forget-it approach. It's suitable where there's only a single AP and there is no heavy need to review logs or monitor AP status.

The second deployment mode utilizes a hardware-based solution – a wireless controller – to centrally manage the multiple APs that might be deployed, for example, in a hospital or college dormitory. In an environment where there are multiple mobile clients (smart phones, tablets, etc.) and their locations vary from hour to hour, wireless controllers can vastly improve quality of service. The features that enable this include:

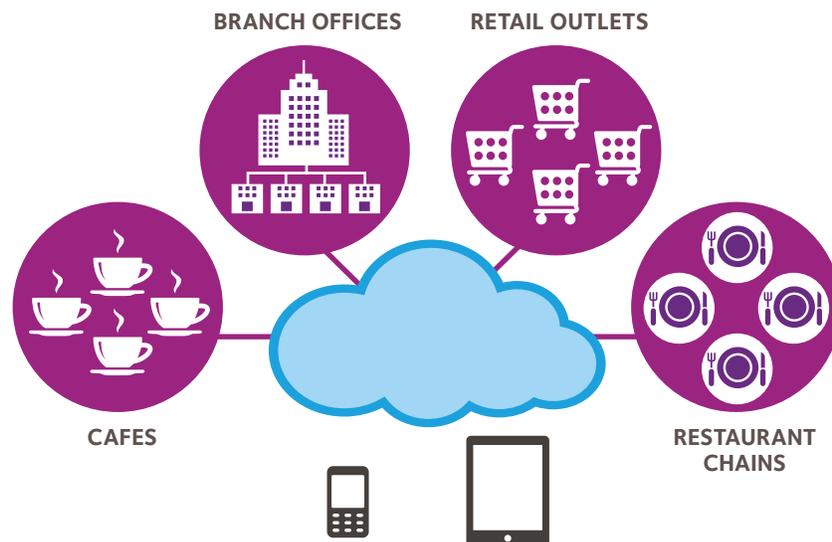
- automatic channel management to minimize interference.
- automated power control to optimize each AP's transmit power based on coverage requirements.
- traffic prioritization to adjust bandwidth based on usage requirements (voice vs. video vs. less demanding "medium priority" uses).
- load balancing, including redirection of traffic to lightly-loaded neighboring APs and automatic "hole" detection and coverage (by neighboring APs) if an AP fails.

The cloud-based approach now available is ideal for physically dispersed locations, from a technical and financial perspective.

These features are all important for delivering the high quality of WiFi service that people have come to expect in public places – the quality level that, for example, prompts vacation travelers to choose one destination over another.

These features haven't been available for organizations with multiple dispersed locations that operate only a few APs per site. For these businesses, the stand-alone approach results in poor quality of service, and the controller-based approach is too expensive, requiring one controller per site.

Figure 3: Cloud-Based WiFi Management Makes Sense



Cloud-based solutions cost less while ensuring good service for businesses with dispersed physical locations.

THE NEW CLOUD-BASED ALTERNATIVE

The cloud-based approach that VARs can now make available is ideal for organizations with physically dispersed locations, both from a technical and a financial perspective. Most functions previously handled by physical controllers are executed in the cloud.

This means retail and restaurant chains and other organizations with numerous branch offices don't need to buy, install and maintain extra hardware. It also means that an organization's entire WiFi infrastructure can be managed from any location, with the need for truck rolls reduced virtually to zero.

Finally, cloud-based solutions feature pay-as-you-go operating models, allowing organizations to pay only for the capacity they need, with virtually unlimited scalability. The benefits include:

- **Quality of service.** Full network visibility on a 24/7 basis. Users can deliver enterprise quality WiFi service regardless of when they access the network or how conditions may change during their session.
- **Reliability and resiliency.** High levels of built-in server and storage redundancy within the cloud ensures continuity of service. If the connection with the cloud is interrupted, smart phones and tablets will continue to function normally and access points will maintain current sessions. Only centralized configuration and other administrative actions are temporarily disabled.
- **Multiple access options.** Organizations have a range of choices as to how they'll offer WiFi to customers. Access can be provided to anyone within range of an AP, controlled by a voucher code or user name plus password, as well as based on a flat fee or actual time online. This flexibility enables rapid adjustment to the competitive environment, with consistent service to meet evolving customer expectations.
- **Simplified deployment.** With cloud solutions, deploying new APs is a plug-and-play operation that can be performed by employees with little or no IT training. Once plugged in, the APs automatically communicate with the cloud to receive their configuration instructions.
- **Simplified management.** Administrators can access the system through any compatible web browser. Centralized status monitoring and control of all deployed APs no matter where they are located is provided via a single dashboard.

These features are all important for delivering the high quality of WiFi service that people have come to expect in public places – the quality level that, for example, prompts vacation travelers to choose one destination over another. These features haven't been available for organizations with multiple dispersed locations that operate only a few APs per site. For these businesses, the stand-alone approach results in poor quality of service, and the controller-based approach is too expensive, requiring one controller per site.

CONVENIENCE WITHOUT COMPLEXITY

Restaurateurs, hospitality managers, retailers and those with heavy customer traffic and multiple branches don't want to invest in complicated and costly WiFi networks. Their prime focus is on delivering positive business outcomes, where the role of IT should be as an enabler to achieve growth objectives. Cloud-based technology and pay-as-you-go licensing structures eliminate the all the complexity and much of the cost of providing customers with the mobile access they have come to expect.

ABOUT MICHAEL STEVENS

Michael Stevens has over twenty years experience in business and technology writing, having worked as both a journalist and marketing consultant. His focus is enterprise technology – cloud computing, data center management, enterprise applications and IT security. He is also the author of *Fortuna*, a high tech thriller available on amazon.com. Stevens is a Phi Beta Kappa graduate of the University of California at Berkeley. He is fluent in several European languages.

ABOUT NETGEAR

NETGEAR is a global networking company that delivers innovative products to consumers, small businesses, and service providers. Released in the summer of 2015, Business Central is a secure, cloud-based IT service platform designed to provide small to mid-sized organizations with an affordable way to establish, provision and manage key IT networking services. Using Business Central Wireless Manager, organizations can manage their entire WiFi network across multiple borders, cities, buildings and floors, securely through the cloud. Anytime, anywhere. Business Central complements NETGEAR's recently expanded line of ProSAFE® business-class on-premise wireless controllers products, the ProSAFE WC9500, WC7600 and WC7520.

- ProSAFE WC9500 Premium Wireless Controller – supports centralized management of 200 APs per controller and is complemented by an extensive range of NETGEAR business-grade ProSAFE Managed Access Points
- ProSAFE WC7600 and WC7520 Premium Wireless Controller – supports centralized management of up to 50 APs per controller and is complemented by an extensive range of NETGEAR business-grade ProSAFE Managed Access Points

Footnotes:

¹ <http://ir.tripadvisor.com/releasedetail.cfm?releaseid=808058>

² <http://www.businessrevieweurope.eu/marketing/18/InfographicHospitality-Sector-Losing-Out-from-Poor-WiFi-Provision>

³ <http://www.restaurantnews.com/why-WiFi-is-a-major-win-for-your-bar-or-restaurant/>

⁴ <https://www.acquitygroup.com/news-and-ideas/news/article/detail/acquity-group-study-consumers-value-in-store-wi-fi-rich-content-and-mobile-experience-over-loyalty-programs>

⁵ <http://www.hrlab.com/michael-faucette.php>

⁶ <http://www.forbes.com/sites/joemckendrick/2014/04/03/cloud-security-fears-diminish-with-experience-survey-shows/>