Not All Cloud Solutions Are Created Equal: Extracting Value From Wireless Cloud Management

Introduction

With the rise of the mobile workforce, information workers are utilizing an ever-increasing number of mobile devices to enhance their business competitiveness in serving the fluid nature of the mobile customer. The wireless edge is the new engagement model for businesses.

While wireless LAN (WLAN) solutions might have been "nice-to-have" in previous years, the business has pushed mobility to the top of strategic network and telecommunications initiatives. The new wireless edge needs to be ubiquitous, flexible, and constantly available while in alignment with each business' cost structure.

Forrester has started to see infrastructure and operations (I&O) decision-makers turn to Wi-Fi-management-as-a-service from a cloud platform to evolve WLAN into a primary connection method across the entire business. In December 2013, Aruba Networks commissioned Forrester Consulting to develop and field a survey to explore the extent of this trend, the rationale behind it, and key considerations for I&O decision-makers when they look for cloud-based wireless solutions.

Business Competitiveness Is Built On WLAN And SaaS

In the age of the customer, businesses are reinventing themselves to systematically understand and serve increasingly powerful and dynamic customers that demand unique experiences and products. Compute platforms, work environments, and the employees themselves can no longer be static and tethered to a rigid set of IT controls on what can or can't be used by employees to get their job done. Basically, the lockdown desktop is dead. Employees have to be unshackled from their desk so they can be quick to respond to their customers' needs. Both customers and employees now expect that information, services, and social media will be available to them — in context — on any device, at their time of need.

And business leaders are taking note: Today, 77% of business decision-makers believe that creating a comprehensive mobile and tablet strategy for customers and partners is a moderate, high, or critical priority for their
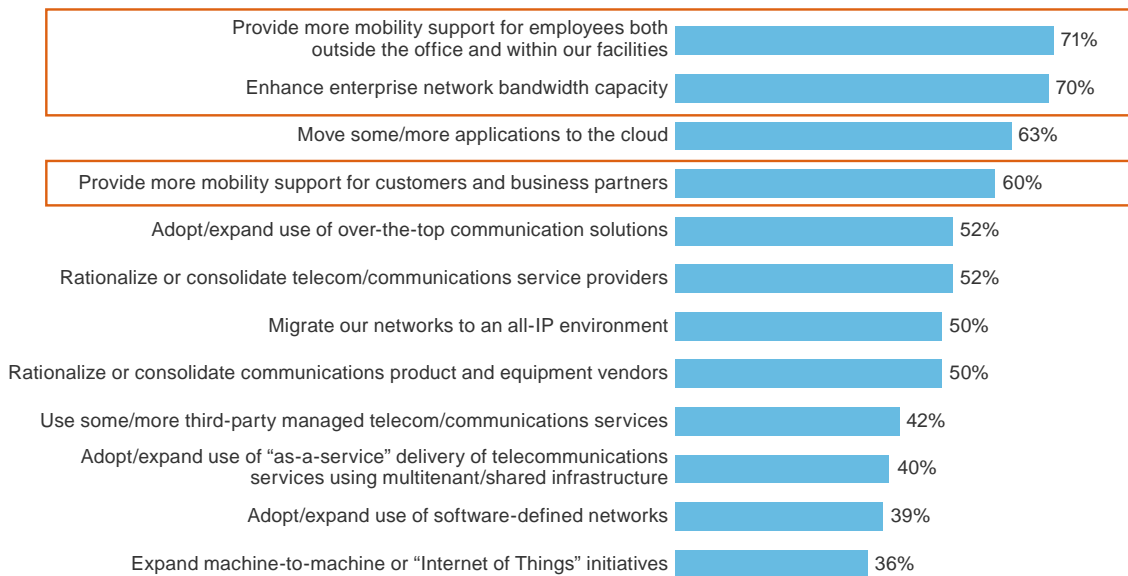
company.[1] Consequently, information technology (IT) decision-makers placed mobility at the top of their IT priority list (see Figure 1).

I&O professionals haven't turned to mobile carriers. By a two-to-one margin over other technologies, 82% of network and telecom decision-makers have either already implemented or are planning to implement or expand WLAN capabilities (see Figure 2). Wi-Fi lays the foundation for mobility beyond just smartphones and tablets. Laptops, handsets, point-of-sale machines, and other devices enable a dynamic business that can only be polished and enhanced through ubiquitous technology like Wi-Fi.

Just as mobility enables agility and quick responsiveness, software-as-a-service (SaaS) complements mobile devices with a set of applications that can be leveraged whenever a business, business unit, line of business, department, or employee needs them. The drivers of cloud have evolved beyond cost savings. IT decision-makers at firms leveraging SaaS highly rank three benefits that basically boil down to agility and speed (see Figure 3).

FIGURE 1

Mobility Is A Top Priority

"Which of the following initiatives are likely to be your firm's top strategic network and telecommunications priorities during the next 12 months?"
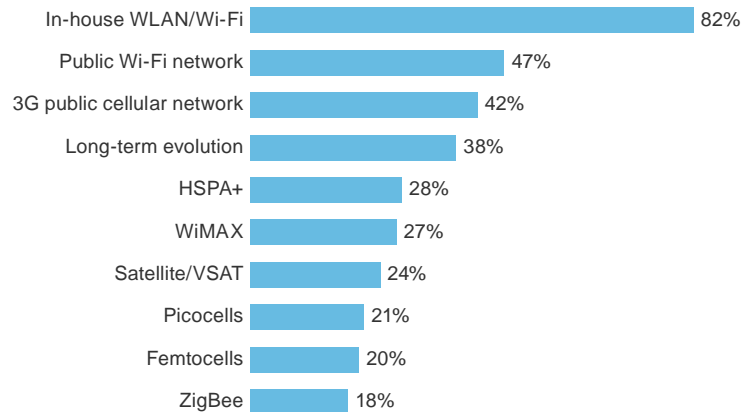(High or critical priority)

Initiative	%
Provide more mobility support for employees both outside the office and within our facilities	71%
Enhance enterprise network bandwidth capacity	70%
Move some/more applications to the cloud	63%
Provide more mobility support for customers and business partners	60%
Adopt/expand use of over-the-top communication solutions	52%
Rationalize or consolidate telecom/communications service providers	52%
Migrate our networks to an all-IP environment	50%
Rationalize or consolidate communications product and equipment vendors	50%
Use some/more third-party managed telecom/communications services	42%
Adopt/expand use of "as-a-service" delivery of telecommunications services using multitenant/shared infrastructure	40%
Adopt/expand use of software-defined networks	39%
Expand machine-to-machine or "Internet of Things" initiatives	36%

Base: 2,144 IT decision-makers

Source: Forrsights Networks And Telecommunications Survey, Q1 2013, Forrester Research, Inc.

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FIGURE 2

Organizations Are Increasingly Implementing Or Expanding Use Of In-House WLAN/Wi-Fi

"What are your firm's plans to adopt the following mobile and wireless network technologies/services?"
(Planning/implemented/expanding)

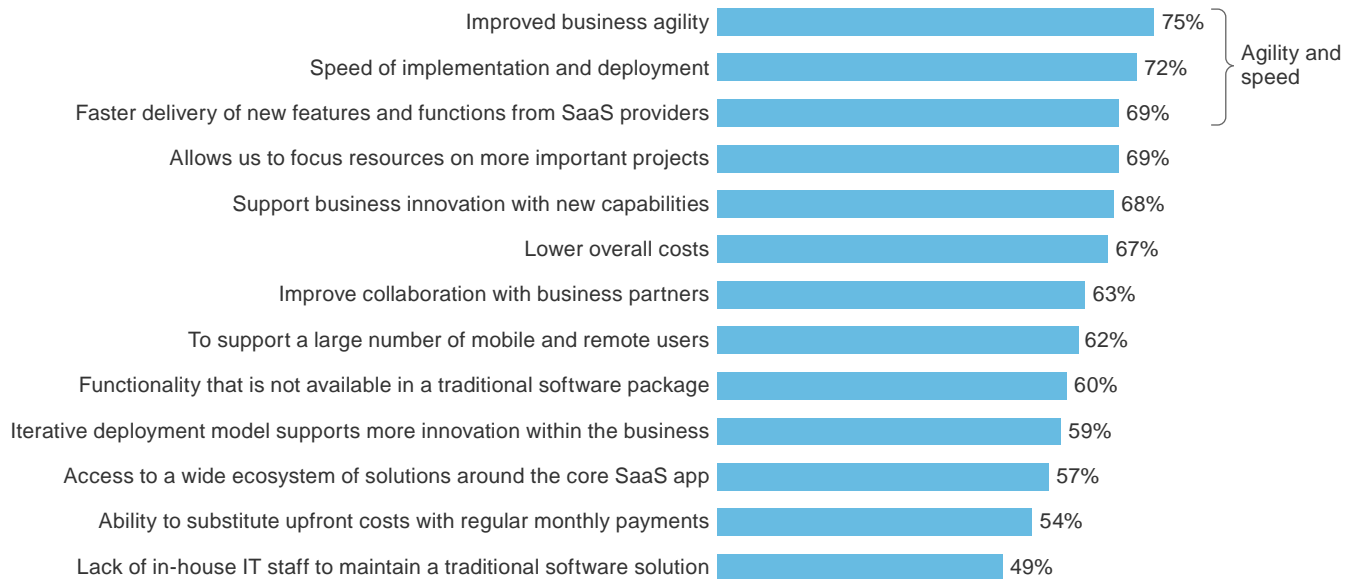| Technology	Percentage
In-house WLAN/Wi-Fi	82%
Public Wi-Fi network	47%
3G public cellular network	42%
Long-term evolution	38%
HSPA+	28%
WiMAX	27%
Satellite/VSAT	24%
Picocells	21%
Femtocells	20%
ZigBee	18%

Base: 2,258 mobile telecommunications decision-makers in companies with more than 20 employees

Source: Forrsights Mobility Survey, Q2 2013, Forrester Research, Inc.

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FIGURE 3
Software-As-A-Service (SaaS) Helps Enable Flexibility And Networking Speed

"How important were the following benefits in your firm's decision to use SaaS?"

Benefit	Percentage
Improved business agility	75%
Speed of implementation and deployment	72%
Faster delivery of new features and functions from SaaS providers	69%
Allows us to focus resources on more important projects	69%
Support business innovation with new capabilities	68%
Lower overall costs	67%
Improve collaboration with business partners	63%
To support a large number of mobile and remote users	62%
Functionality that is not available in a traditional software package	60%
Iterative deployment model supports more innovation within the business	59%
Access to a wide ecosystem of solutions around the core SaaS app	57%
Ability to substitute upfront costs with regular monthly payments	54%
Lack of in-house IT staff to maintain a traditional software solution	49%

(The top three — Improved business agility, Speed of implementation and deployment, Faster delivery of new features and functions from SaaS providers — are bracketed as "Agility and speed")

Base: 1,417 software decision-makers at firms who are using or planning to use SaaS
Source: Forrsights Software Survey, Q4 2013, Forrester Research, Inc.

Fear Of The Unknown Hinders Organizations

Cloud services provide businesses with irresistible benefits. Adopting infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), or software-as-a-service (SaaS) can reduce internal labor costs and increase speed of deployment associated with operation, maintenance, and upgrades, which has recently led to the emergence of cloud-based management systems.
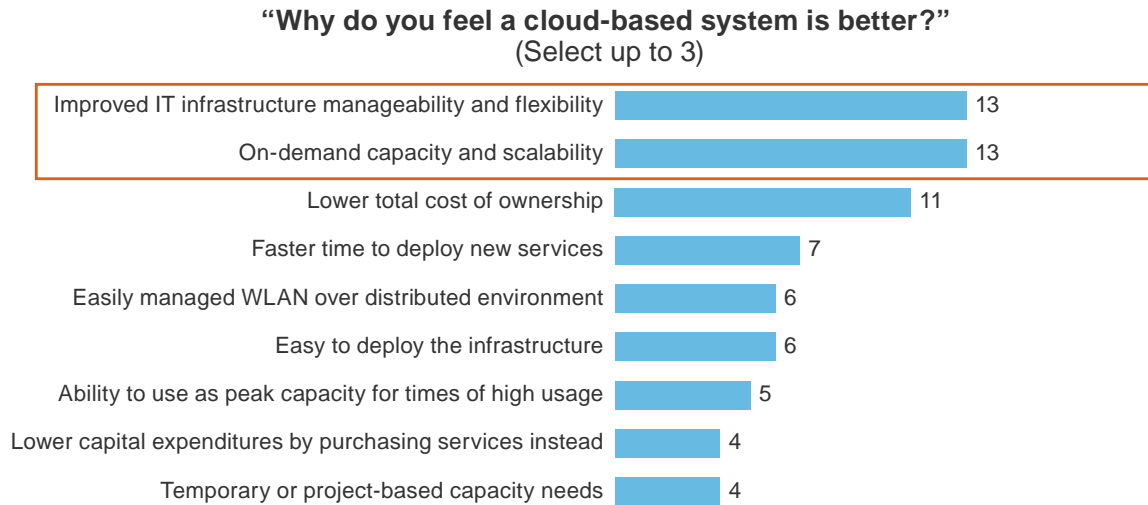
More than half of IT decision-makers surveyed indicated that a wireless management system hosted in the cloud is a better option than a traditional solution hosted on-site; fifty-seven percent of those respondents indicated cloud-based systems give them flexibility and on-demand capacity and scalability (see Figure 4). This provides them with a vehicle

to catch up to the explosion of mobile devices almost simultaneously across all their locations. With a single global management system, the access points can almost simultaneously find their management station.

Despite all the benefits that wireless cloud management can bring organizations, fear blurs the capabilities that should be top of mind when considering cloud solutions. For example, 60% of the respondents who don't believe a cloud-based system is a better option than on-site point to security concerns as the primary barrier to consideration of a cloud option (see Figure 5). With today's solutions this may be unfounded, as those who believe cloud is a better option also place having secure and dedicated cloud environment as the second most important characteristic.
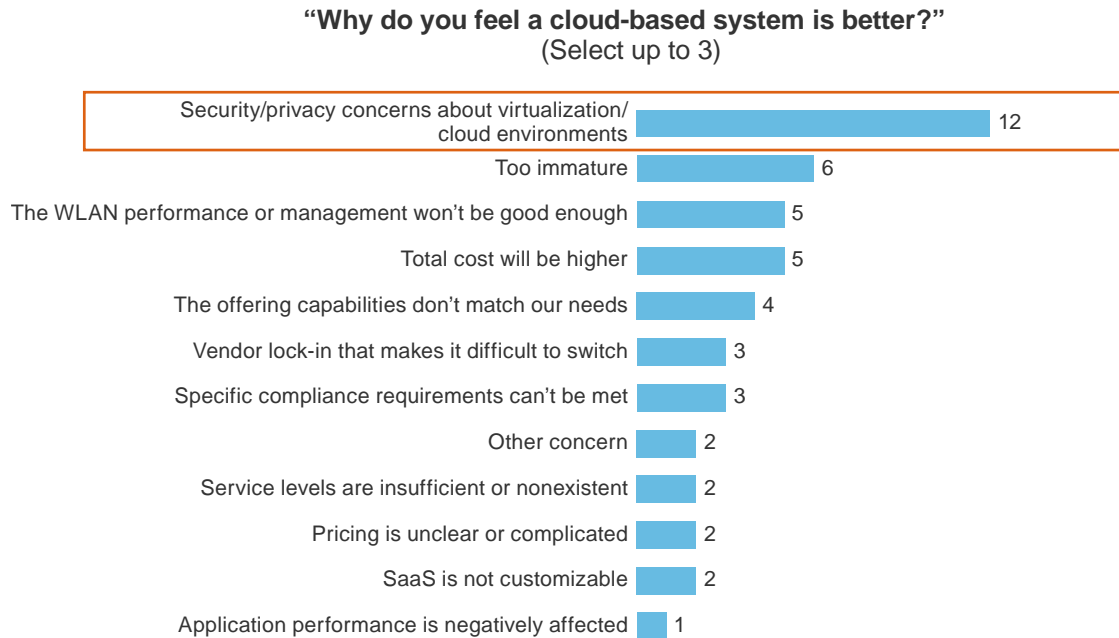
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FIGURE 4

Cloud-Based Management Systems Align With Business Requirements And Cycles

"Why do you feel a cloud-based system is better?"
(Select up to 3)

Reason	Value
Improved IT infrastructure manageability and flexibility	13
On-demand capacity and scalability	13
Lower total cost of ownership	11
Faster time to deploy new services	7
Easily managed WLAN over distributed environment	6
Easy to deploy the infrastructure	6
Ability to use as peak capacity for times of high usage	5
Lower capital expenditures by purchasing services instead	4
Temporary or project-based capacity needs	4

Base: 23 IT decision-makers who believe that a wireless management system hosted in cloud is better than a traditional solution hosted on-site

Source: A commissioned study conducted by Forrester Consulting on behalf of Aruba Networks, December 2013

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FIGURE 5
Fear Hampers Organizations From Examining All Options

"Why do you feel a cloud-based system is better?"
(Select up to 3)

Security/privacy concerns about virtualization/ cloud environments	12
Too immature	6
The WLAN performance or management won't be good enough	5
Total cost will be higher	5
The offering capabilities don't match our needs	4
Vendor lock-in that makes it difficult to switch	3
Specific compliance requirements can't be met	3
Other concern	2
Service levels are insufficient or nonexistent	2
Pricing is unclear or complicated	2
SaaS is not customizable	2
Application performance is negatively affected	1

Base: 20 US IT decision-makers who believe that traditional on-premises wireless management solutions are better than cloud-based
(multiple responses accepted)
Source: A commissioned study conducted by Forrester Consulting on behalf of Aruba Networks, December 2013

Best Of Breed

While security should be an element of consideration, SaaS is now mainstream with more than half of organizations leveraging or expanding their cloud investments. Forrester's clients that have used cloud services place emphasis on other components of their strategy. Basically, cloud platforms introduce new considerations and eliminate other characteristics of on-site solutions.

Companies that successfully incorporate cloud platforms drive their teams to create a composite wireless strategy, which includes on-site and cloud services. Management in the cloud shifts the emphasis from purely designing, deploying, and managing network resources to providing, measuring, and using portfolios of services. I&O organizations, therefore, are concerned with bolstering their provisioning, scaling, failover, and wireless recovery capabilities to supplement these services.

Instead of just focusing on the security of the cloud solution (a vendor selection criteria for 65% of survey respondents),

78% of infrastructure and operations professionals put high performance at the top of their list (see Figure 6). This is an important aspect as not all wireless solutions are created equal.
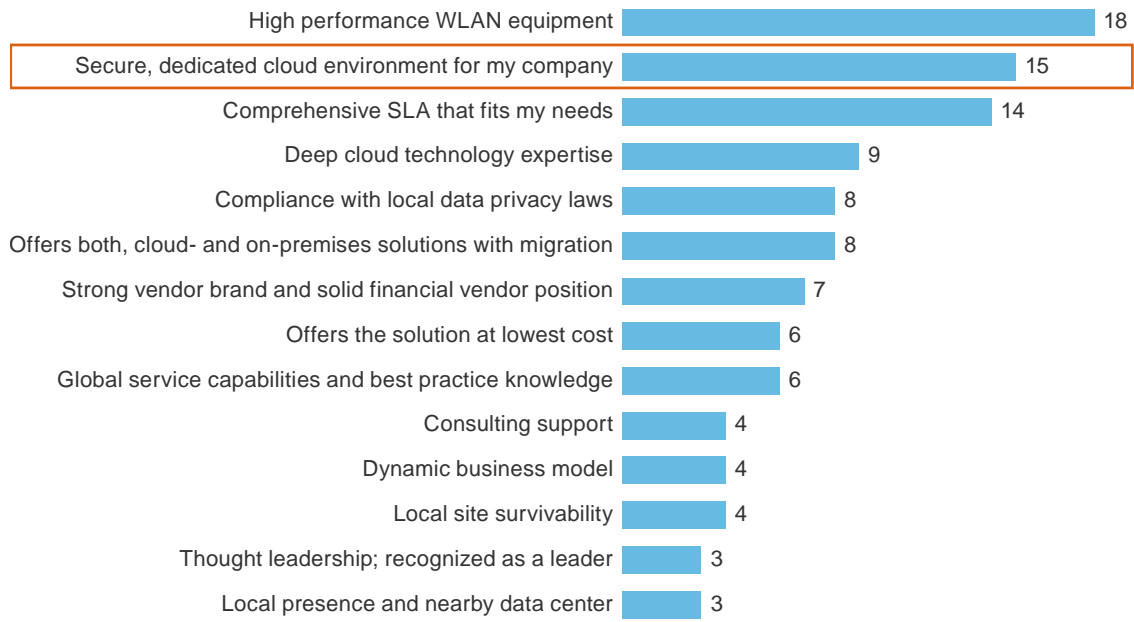
Taking the lessons learned from other teams leveraging cloud infrastructures, I&O professionals will follow what has been successful in deploying other cloud platforms and look to see if the wireless solution can:

› Deliver a consistent experience across on a multi-service and multi-location platform.

› Meet criteria for reliability and security.

› Adapt to a dynamic, mobile work environment.

› Maintain operations during disruptions.

› Sustain a hybrid environment of on-site components and cloud aspects as the organization transitions or uses the best of both capabilities.

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FIGURE 6

High Performance WLAN, Security, And Support Are Top Considerations Of Cloud Solutions

"When selecting a cloud hosted WLAN solutions, what are your top five criteria?"

Criteria	Value
High performance WLAN equipment	18
Secure, dedicated cloud environment for my company	15
Comprehensive SLA that fits my needs	14
Deep cloud technology expertise	9
Compliance with local data privacy laws	8
Offers both, cloud- and on-premises solutions with migration	8
Strong vendor brand and solid financial vendor position	7
Offers the solution at lowest cost	6
Global service capabilities and best practice knowledge	6
Consulting support	4
Dynamic business model	4
Local site survivability	4
Thought leadership; recognized as a leader	3
Local presence and nearby data center	3

Base: 23 IT decision-makers who believe that a wireless management system hosted in the cloud is better than a traditional on-site solution
(multiple responses accepted)

Source: A commissioned study conducted by Forrester Consulting on behalf of Aruba Networks, December 2013

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Conclusion

Far too many IT organizations have traditionally been hyper-focused on a few elements that keep them from obtaining the real value from solutions. In an era where time is always of the essence, the networking team must think and work differently. Successful mobile engagement initiatives will require a sophisticated, resilient, consistent, and high performing platform that can serve the business. Successful infrastructure organizations that have embraced the value that cloud platforms can bring to the business and augmented their current services with them have pushed aside fears about security. They look for partners that understand the current environment, assess compatibility with emerging technologies, and provide training to employees. These new shared environments are outside of the complete control of the team's technology management administrators. They present new challenges that must be accounted for, and that only a partner with on-site and cloud experience can deliver.

Methodology

This Technology Adoption Profile was commissioned by Aruba Networks. To create this profile, Forrester leveraged its Forrsights Networks And Telecommunications Survey, Q1 2013, Forrsights Mobility Survey, Q2 2013, and Forrsights Software Survey, Q4 2013. Forrester Consulting supplemented this data with custom survey questions asked of US enterprise IT leaders (managers and above in title) with responsibility for Wi-Fi decision-making at organizations supporting multiple branch offices. The auxiliary custom survey was conducted in December 2013. For more information on Forrester's data panel and Tech Industry Consulting services, visit www.forrester.com.

Endnotes

[1] Source: Forrsights Budgets And Priorities Survey, Q4 2013, Forrester Research, Inc.

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