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Realizing Business Value by Moving to a Digital Workplace

EXECUTIVE SUMMARY

Cloud, mobility, Big Data, and social business have transformed the role of technology in the enterprise. These technologies, which make up what IDC refers to as the 3rd Platform, are giving rise to the "digital workplace," where unified wired and wireless network infrastructure emerges as the new normal as users migrate to secure enterprise-grade WiFi for primary network access. The result is that traditional barriers with regard to time and place are obliterated for nearly every horizontal function of the enterprise. Enterprise workers have more ubiquitous access to corporate applications, customers, and data through mobile devices, leading to faster innovation and deeper customer engagement.

Moving to the digital workplace inherently changes the way networks need to be designed and managed. Networks that were once optimized for wired desktop connections must be reimagined for the digital era, where wireless shifts to become the predominant access method versus its traditional complementary role. This evolution in the network requires thoughtful examination to better understand resource requirements in terms of initial monetary investment, labor, time, and change management. While the technical promise of delivering a digital workplace to both internal and external stakeholders can be realized in the here and now, the business value of making this network transition needs further articulation.

This IDC Business Value white paper aims to quantify the benefits of the network as it pertains to the network enabling a more mobile ecosystem (i.e., the digital workplace). Aruba, a Hewlett Packard Enterprise company, takes a mobile-first approach to creating the foundation for the digital workplace with integrated solutions built upon the latest wired technologies (multi-GbE) and wireless solutions (802.11ac) as well as advances in network management and security. IDC interviewed six customers that have deployed Aruba networking solutions and found that these organizations have achieved strong value by extending and improving

Business Value Highlights

360%
Five-year ROI

9 months
Breakeven point

2,844 hours
Additional productive time per 100 users

30%
More efficient network-related IT operations per 100 users

77%
Less unplanned downtime

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wireless access in a cost-effective manner. IDC projects that on average, these organizations will achieve a five-year return on investment (ROI) of 360% in the Aruba networking solutions as a result of:

- **Making employees more productive** by extending wireless network access, improving network performance, and enabling greater use of applications on mobile devices
- **Experiencing fewer network outages** that cost users productive time and interrupt business operations
- **Providing a cost-effective wireless infrastructure** that requires fewer network switches
- **Enabling more efficient IT staff operations** in the context of providing more extensive and higher-value wireless network services to their organizations

Situation Overview

The Mobile Workforce Drives Changes in Expectations

The meteoric rise of enterprise mobility has led to a surge in what IDC calls the "mobile workforce"— a group of tech-savvy workers who rely on mobile, cloud, and social technologies for every aspect of their work and personal lives. Evidence to support this trend includes the continuing proliferation of smart mobile device form factors and capabilities and the skyrocketing popularity and mobile orientation of cloud-hosted business applications. One could argue the demands of the 3rd Platform and the resultant rise of the mobile workforce directly led to the swift ascent of the 802.11ac WLAN standard. Wave 1 802.11ac has a theoretical maximum data rate of 1.3Gbps, truly enabling a nondisruptive migration of wired workloads to wireless and in turn satiating expectations of the mobile workforce. Wave 2 802.11ac just became available and can provide throughput of over 3Gbps. While the need for and benefit of this increased throughput are apparent, it is not clear that every enterprise has upgraded its network infrastructure to adopt the new capabilities and continue to meet and anticipate the significant and growing demands of the mobile workforce.

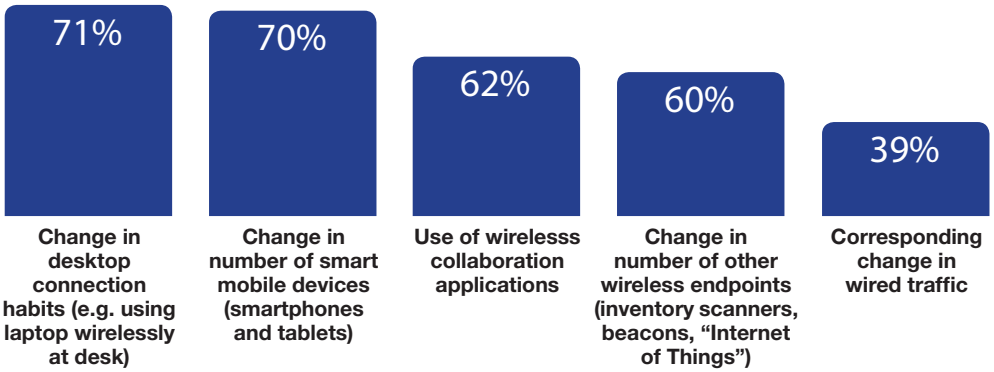
Perhaps even more striking is that 70% of respondents see a majority of their network traffic over the WLAN.

IDC's research validates an increasing preference to move to wireless devices for applications and mission-critical functions. A recent IDC survey of United States–based network managers reveals that over 87% are seeing a year-over-year increase in WLAN traffic, with 31% stating that they have seen a drastic increase. Perhaps even more striking is that 70% of respondents see a *majority* of their network traffic over the WLAN. Mobility joins IoT, wireless collaboration, and other wireless use cases as drivers of increased WLAN attachment (see Figure 1).

FIGURE 1

Drivers of WLAN Traffic

Q. What factors are leading to your organization's change in wireless traffic?



Source: IDC, 2016

Changing the Trajectory — Helping the Network Anticipate Versus React

The time is now for enterprises to evaluate whether their access network is optimized for wired connectivity or whether it is prepared for the mobile workforce. While wireless was once viewed as a "nice to have" for ancillary uses such as guest and conference room access, IDC acknowledges that work once performed on wired connections is steadily and irreversibly moving to wireless. Despite this reality, many organizations have not yet adapted their styles or upgraded their infrastructures accordingly. This reactive approach has the potential to lead to dire consequences. Enterprises that are not proactively optimizing their wireless infrastructure are at risk of being stuck in a cycle of reactive half-measures while losing out on valuable business opportunities. This will continue and accelerate unless a conscious effort is made to change trajectory.

IT must challenge its mindset and think "wireless first" during refresh cycles.

IT must challenge its mindset and think "wireless first" during refresh cycles. The nature of work is changing: Collaborative working, nonroutine schedules, and a workforce that expects to work anytime, anywhere are becoming the norm. Couple these new norms with the rise of the mobile cloud network that is being driven by smart mobile devices and cloud-hosted applications — and the enterprise's transition to a "wireless first" mindset becomes even more heightened. Whatever actions employees are

taking on mobile devices likely involve accessing information in a cloud datacenter. The network is extending far beyond its original function as a plumbing utility, connecting mobile devices and applications to the cloud; the network's intelligence is enabling new business value beyond just transporting data. Tapping into metadata about the network, such as location information, helps businesses create a new generation of context-aware applications. Static and outdated network paradigms not only inhibit but also fundamentally break the mobile cloud model and prevent the transition to what IDC has termed *the digital workplace*.

The Future Is Now — The Digital Workplace

While perhaps aspirational in prior years, the digital workplace is available in the here and now; it has become a kind of prerequisite for fulfilling the core needs of the mobile workforce.

The digital workplace is an infrastructure strategy designed to accommodate the increased preference for enterprise mobility. The strategy is characterized by enterprise IT's increased adoption of wireless technologies. The enterprise network is undergoing a period of reoptimization; wired connections are being rationalized as wireless is emerging as the preferred network access method. This requires a more efficient switching infrastructure, with an eventual shift to multigigabit connections in this mobility-oriented network architecture. This is a major shift in thinking from the old network status quo, where the network was built around Ethernet-connected devices and the wireless network was simply an overlay to the network. While perhaps aspirational in prior years, the digital workplace is available in the here and now; it has become a kind of prerequisite for fulfilling the core needs of the mobile workforce, and organizations are adjusting their physical and technology designs to attract and retain top talent as well as boost worker productivity.

Making the Case for a Mobile-First Enterprise

The potential productivity improvements, cost savings, and revenue boost from moving to a mobile-first enterprise make for a compelling story for many, but for others, internal hurdles remain that prevent forward motion in this regard. Organizational processes can be deeply ingrained, and there can be internal resistance to the learning and re-architecting activity that is part of adopting a new networking paradigm. Moreover, some may simply fear the possible downtime that could result from a new network implementation. These are legitimate concerns; however, IDC believes it is necessary to take a 360-degree view of the opportunities that a wireless-first network can lead to as well as the risks of falling behind in a digital world.

Consider the following benefits:

Optimization of business processes/productivity

- **Productivity.** Wired-centric networking leads to a more stationary workforce that is constrained by the limits of the desktop. Mobility eliminates the traditional barriers of time and location, allowing employees to work "untethered."
- **Efficiency.** Optimizing for wireless can also transform many back-end processes, eliminating traditional processes and further increasing productivity.
- **Cost.** Strategically integrating and optimizing mobility infrastructure in the greater network landscape can lead to favorable ROI outcomes (explored in more detail in the sections that follow).

Opportunities to greatly enhance business effectiveness/ competitiveness

- **Competitive advantage.** The physical constraints inherent in a desktop-centric workplace inhibit enterprise agility in optimizing processes and communications to best meet customer needs. Also, as customers increasingly interact with businesses through mobile platforms and digital applications, there are more opportunities to introduce digitized products and services that can serve as true competitive differentiators.
- **Attracting and retaining talent.** If an organization's technology is perceived to be behind the times, the more fervent users of mobility will have apprehensions about joining the company. Being optimized for wireless can be the tipping point for attracting "mobile generation" talent.
- **Innovation.** Mobility enables collaboration; collaboration fosters innovation.
- **Dedicated mobility strategy.** By having a dedicated mobility infrastructure and corresponding policies, enterprise IT can proactively mitigate many of the risks inherent in allowing mobility, such as nonsecure access of enterprise applications, and avoid the serious consequences of noncompliance with industry-related information security protocols.

Aruba's Digital Workplace Solution

Overview

Aruba's mobile-first approach optimizes for the digital workplace, with an integrated wired and wireless access layer portfolio, secure IoT support, and advancements in network management, location technology, and security solutions. Powered by networking technology, Aruba's solutions dynamically manage performance optimization, trigger security actions that used to require manual IT intervention, power indoor location-based services,

and automate deployment of networking equipment at scale. Software solutions within the portfolio are designed with a multivendor infrastructure in mind. Deployment options are flexible, with controller-based, controllerless, and cloud-managed delivery models that can scale with the business all running on the same access hardware infrastructure. Gigabit WiFi is the foundation of the digital workplace, and Aruba's 802.11ac portfolio of Wave 1 and Wave 2 devices delivers enterprise-grade, stable wireless solutions, while Aruba Smart Rate technology on the wired LAN ensures optimization of the access points (see Figure 2).

Aruba delivers IT solutions that empower organizations to serve and derive maximum value from the mobile workforce. A proven innovator in wireless networking technology, Aruba provides the tools to enable the future today through the digital workplace. By offering an integrated solution that spans the access layer to the datacenter, Aruba is enabling the mobile cloud network of the future.

FIGURE 2

Aruba's Mobile-First Campus Product Line

Source: Aruba, 2016

The Business Value of Aruba Networking Solutions

Study Demographics

IDC interviewed six organizations that are providing wireless network services with Aruba networking solutions. Interviews were designed to obtain qualitative and quantitative information about the organizations' use of Aruba networking solutions. Interviewed

organizations represent a mix of 3 companies and 3 educational institutions and are providing wireless network services to disparate work and learning environments, with an average of 15 site or branch locations (see Table 1).

TABLE 1

Demographics of Interviewed Organizations Using Aruba Networks

	Average	Median
Number of employees	2,135	600
Number of IT staff	98	16
Number of IT users	2,099	581
Number of students (three schools)	3,203	2,500
Number of sites	15	7
Countries	United States and Belgium	
Industries	Engineering, education, healthcare, electronic design automation	

Source: IDC, 2016

Interviewed organizations reported that they are providing wireless services at all of their sites and to the majority of their employees with Aruba. All six organizations were already providing wireless access, meaning that they have extended and upgraded their wireless networking environments with Aruba versus rip-and-replace scenarios. Table 2 provides an overview of the environments that these organizations are now covering with their Aruba networking solutions.

TABLE 2

Aruba Network Environments of Interviewed Organizations

	Average	Median
Number of sites with Aruba	15	7
Number of users on Aruba	2,031	581
Number of applications on Aruba	143	75
Number of access points with Aruba	501	366

Source: IDC, 2016

IDC projects that on average, these organizations will achieve benefits with Aruba worth $126,906 per year per 100 users over five years.

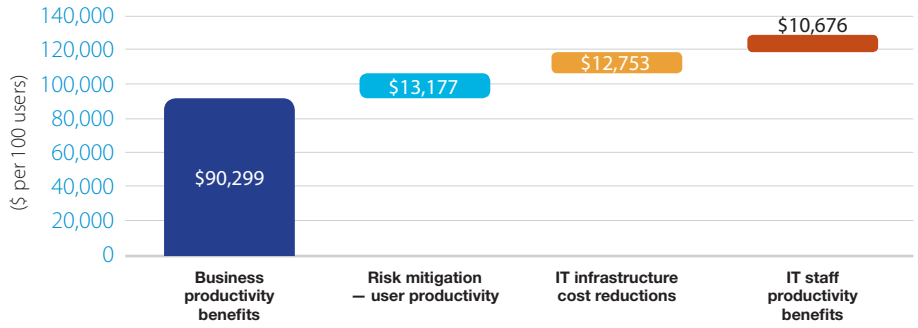
Business Value Analysis

Organizations interviewed for this study reported achieving substantial value with Aruba supporting enterprise mobility. In particular, organizations noted that employees have become much more productive as a result of better access to wireless and improved wireless network performance. These organizations also noted that they have benefited from staff efficiencies and cost savings related to their network environments even as they have extended the functionality of wireless. IDC projects that on average, these organizations will achieve benefits with Aruba worth $126,906 per year per 100 users over five years ($2.58 million per organization) in the following areas (see Figure 3):

- **Business productivity benefits.** Employees are more productive as a result of greater mobility, improved ability to use wireless to perform their jobs, and improved application performance. IDC calculates that these productivity benefits will have an average annual value of $90,299 per 100 users over five years ($1.83 million per organization).
- **Risk mitigation — user productivity benefits.** Employees lose less productive time because their work and business operations are interrupted with wireless network outages less frequently and for less time. IDC projects that these organizations will save productive time worth an annual average of $13,177 per 100 users over five years ($0.27 million per organization).
- **IT infrastructure cost reductions.** Organizations benefit from not needing as much network hardware — particularly network switches — and from the associated cost savings in areas such as maintenance, power, and facilities. IDC estimates the value of these cost savings at $12,753 per year per 100 users over five years ($0.26 million per organization).
- **IT staff productivity benefits.** IT teams provide higher-quality wireless services to more users more efficiently and expend substantially less time on user support related to network problems. IDC projects that these time savings and efficiencies will be worth an annual average of $10,676 per 100 users over five years ($0.22 million per organization).

FIGURE 3

Average Annual Benefits



Average annual benefits: $126,906

Source: IDC, 2016

Business Productivity Benefits of Mobility with Aruba

Interviewed organizations reported that they have leveraged their Aruba network environments to make their mobile ecosystems better support how their employees work. As a result, they are benefiting from higher employee productivity and have made mobility a more integral component of their day-to-day operations.

Aruba's Impact on Mobility

Creating a mobile ecosystem begins with having ubiquitous wireless network access and strong network performance. Interviewed organizations reported that they have extended and deepened enterprise mobility and better positioned their wireless networks to drive operational efficiencies. As Table 3 shows, these organizations attribute significant efficiencies and improvements in their wireless networking environments to Aruba, including:

- **Supporting 37% more wireless users**, with almost all employees at these organizations now having wireless access
- **Increasing the reliance on wireless access points** because of the cost-effectiveness and ease of extending wireless environments with Aruba, which translates to improved wireless coverage and performance
- I**ncreasing mobile application utilization** by more than two times, suggesting that employees are making greater use of mobile applications to support how they work

- **Enabling much higher rates of BYOD use**, important especially for employees who are accustomed to using and want to use their own devices for work-related purposes
- **Providing better quality wireless experience** by nearly quadrupling the average bandwidth available to internal users, leading to significant improvements in application performance and positioning wireless as a proven alternative to wired connections

I think in the last year with Aruba, the utilization rate has probably gone to around 90% from 20% because we're pointing people more to shared resources such as SharePoint. It's been a dramatic shift."

Interviewed organizations clearly articulated the value of Aruba in driving enterprise mobility. An IT manager at a hospital explained: *"The main thing is that we now have full coverage everyplace in the hospital … that's the big difference for the users. Also, the [users] have a much faster wireless network now — more than five times faster."* An IT manager at an engineering company described the impact on application utilization rate at his organization: *"I think in the last year with Aruba, the utilization rate has probably gone to around 90% from 20% because we're pointing people more to shared resources such as SharePoint. It's been a dramatic shift."*

TABLE 3

KPIs Related to Wireless Networking Access with Aruba

	Before Aruba	With Aruba	Difference	Change (%)
Number of mobile users	1,485	2,031	546	37
Number of wireless access points	160	504	344	215
Mobile application utilization rate (%)	28	60	32	116
Mobile business apps (%)	75	86	11	14
Number of mobile business apps	135	143	8	6
BYOD (%)	28	68	40	145
Intra-organizational bandwidth (Mbps)	220	868	648	294

Source: IDC, 2016

Aruba's Impact on Employee Productivity

IDC calculates that on average, each user on Aruba networks at these organizations is gaining 28 hours of productive time per year.

Interviewed organizations have leveraged Aruba networking solutions to increase the productivity of their workforces through greater mobility. With more extensive wireless connectivity, improved network performance, and higher mobile application penetration, employees at these organizations are able to do their jobs better and more efficiently. IDC calculates that on average, each user on Aruba networks at these organizations is gaining 28 hours of productive time per year (see Table 4).

TABLE 4

User Productivity Metrics with Aruba – Employee Impact

Employee productivity impact	Average
Average number of productive hours gained per user per year	28
FTE impact	31
Overall operational efficiency (%)	1.5%

Source: IDC, 2016

Interviewed organizations provided a number of specific examples of how they have enabled their employees to be more productive by driving mobility deeper into their operations with Aruba networking solutions:

"Now, we can help patients much faster. Before, the doctors needed to go to a nurse station to see patients' medical records, and now they can do it at the bed of the patients."

- **Ability to do work without being tethered to a workstation.** A hospital described how by extending wireless network access and improving network performance with Aruba, its doctors and nurses access patient information bedside rather than going to workstations, saving time and enabling better patient experiences: *"Now, we can help patients much faster. Before, the doctors needed to go to a nurse station to see patients' medical records, and now they can do it at the bed of the patients."*
- **Enablement of mobile workflows.** A school discussed the benefit of mobility in terms of its principals and administrators being able to perform evaluations remotely: *"Our principals can now perform teacher evaluations more efficiently because they can go into a classroom to observe and have a strong signal to use their mobile devices to carry out these evaluations."*
- **Digitization of operations.** A software and engineering company noted that Aruba has helped it digitize operations in key departments such as marketing, HR, and research and development by increasing the utilization of application features that support users in these departments.
- **Network reliability.** A school commented on how Aruba has enabled it to administer online student testing: *"Aruba is a much more stable system. We use wireless for student assessments online, and we were having issues where students were being dropped ... it was causing a lot of issues … kids would be booted out of testing, and you have to get them back in, and if you have 30 kids in a lab and they are all getting kicked out … it's a huge time saver to have such a functional network."*

In addition to delivering these types of benefits for employees, Aruba has helped these organizations create environments that better support their missions and constituents, especially the schools interviewed for the study. For example, a university interviewed for the study explained

Being able to have more access, better access … just to allow [students] to do simple things like study from their car, before they go run in and take a test. Those [are] things that the students have identified as enjoying that we didn't have before."

that it had little choice but to improve its wireless environment if it hoped to remain attractive to potential students: *"We usually saw it from the side of [prospective] students coming to campus, and if the wireless connectivity was terrible, they might leave and say it's not worth it and go somewhere else. There was evidence that this was happening."* The university also attributed improvements to the overall student experience to Aruba: *"Wireless with Aruba has definitely improve[d] the educational experience as well. Being able to have more access, better access … just to allow [students] to do simple things like study from their car, before they go run in and take a test. Those [are] things that the students have identified as enjoying that we didn't have before."* Meanwhile, the two primary schools interviewed for the study mentioned their migration to Aruba as an enabler of their efforts to move to one-to-one device environments, with one school noting that *"[i]t would have been impossible to do one to one with a wired environment."*

Aruba's Impact on Onboarding Users

Interviewed organizations also reported that Aruba has made it easier and less time consuming for them to onboard new users onto their wireless networks. The creation of user profiles and user networks is simplified, meaning that less staff time is required to complete these tasks and new users have full wireless access sooner. The hospital interviewed for the study described how this helps enable its employees: *"I think that new hires are fully productive [sooner] with Aruba … before it took much more time because staff handling onboarding needed to manage all the applications, and there were several steps. I would say [it now takes] one week versus two weeks per new employee with around 200 new employees per year.* In addition to user productivity gains attributable to having earlier wireless access, these efficiencies also carry through to third parties seeking to access the organizations' wireless networks, including contingent employees, partners, or even visiting parents at the interviewed university (see Table 5).

TABLE 5

User Productivity Metrics with Aruba — Onboarding

Onboarding Impact	Before Aruba	With Aruba	Difference	Change (%)
Number of users impacted	92	92		
Time to onboard — hours (staff)	1.7	1.1	0.6	35
Time to onboard — hours (user)	29.1	15.3	13.8	47
Productivity impact (%)	27.5	27.5		
Total hours impact	734	387	348	47
FTE impact	0.39	0.21	0.18	47

Source: IDC, 2016

Risk Mitigation — User Productivity Benefits

Aruba customers are experiencing fewer wireless network disruptions and outages and are resolving them faster when they do occur. According to interviewed organizations, their wireless networks are now more robust and resilient, which reduces the frequency of outages by an average of 47% (see Table 6). In addition, these organizations are able to resolve outages faster in their Aruba environments; one organization explained that it can isolate problems more readily and efficiently instead of having to work its way through log files. Minimizing the impact of wireless network downtime not only saves productive time of employees but also minimizes operational disruptions. One interviewed company explained: *"We haven't had any network downtime with Aruba. Before, it happened about two to three times per month for 20–30 minutes, impacting all of our users. About 30% of these users couldn't do anything else during these outages."*

TABLE 6

Network Unplanned Downtime with Aruba

	Before Aruba	With Aruba	Difference	Change (%)
Unplanned downtime instances per year	6.9	3.7	3.2	47
MTTR (hours)	2.1	1.1	1.0	46
Productive hours lost per user to unplanned downtime	5.4	1.3	4.2	77
Productive hours lost per 100 users to unplanned downtime	543	125	418	77
Equivalent FTEs	5.9	1.4	4.5	77

Source: IDC, 2016

In addition, several interviewed organizations mentioned improved security as a core benefit of Aruba. They attributed their improved security posture to visibility and the ability to create user profiles and networks with Aruba. The university said: *"When someone joins the network, we can now see the device. We can see their user name, so we can identify who it is and what device they are using . . . . It just gives us better insight into who exactly is on our network."*

IT Infrastructure Cost Reductions

Interviewed organizations also reported that Aruba is cost effective compared with both their previous wireless network environments and other solutions they considered. In particular, they have leveraged efficiencies in architecting to reduce the number of network switches required by an average of 31%, even as they have expanded wireless network

coverage to more users and provided an improved user experience. Efficiencies in switches are attributable to consolidating on higher-capability switches with more ports and being able to consolidate edge switch environments because of efficiencies with Aruba. Interviewed organizations are also benefiting from savings in terms of power and facilities (16% on average) attributable to more efficient network hardware environments, and they have minimized or eliminated substantial maintenance costs for their previous network environments.

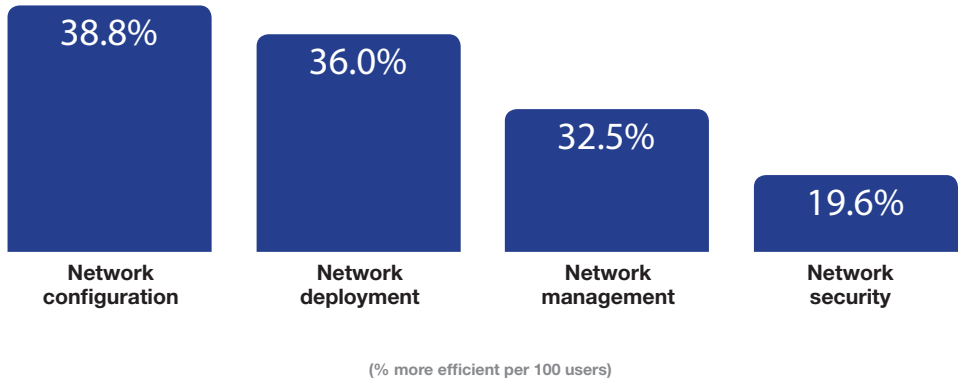
IT Staff Productivity Benefits

"To do what we're doing now with Aruba, we'd need five more people on our IT networking team because we've grown from 120 to 600 users overnight."

Interviewed organizations reported that moving to Aruba has enabled them to provide wireless network services more efficiently. Despite providing wireless network services to 37% more users, they have not needed to increase the size of their IT networking staffs to accommodate this increase in functionality. IDC calculates that these organizations require an average of 30% less IT staff time per 100 users with Aruba for network management, network security, network deployment, and network configuration (see Figure 4). Interviewed organizations attributed these efficiencies to Aruba via leveraging centralized management capabilities, being able to deploy more granular wireless network services in less time, and creating and modifying user and network profiles with ease. The engineering company described the efficiency as it has ramped up its mobile user count: *"To do what we're doing now with Aruba, we'd need five more people on our IT networking team because we've grown from 120 to 600 users overnight. This gives you an idea of the scale of change that we've accomplished."*

FIGURE 4

IT Staff Productivity Efficiencies with Aruba



Source: IDC, 2016

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In addition to the network-related staff efficiencies, interviewed organizations have benefited from needing to spend less time — 60% on average — supporting users of their wireless networks. In large part, this is the result of improved network reliability and performance, but it also has to do with being able to get new users onto their networks faster and minimizing problems and frustrations related to the network onboarding process with Aruba.

ROI Analysis

IDC interviewed six organizations providing wireless network services with Aruba networking solutions and recorded their results to inform this study's analysis. IDC used the following three-step method for conducting its ROI analysis:

- **Gathered quantitative benefit information during the interviews using a before-and-after assessment.** In this study, the benefits included employee and IT staff productivity gains, increased revenue and other operational benefits, and infrastructure-related cost reductions.
- **Created a complete investment (five-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using Aruba as a platform for providing wireless network access and can include additional costs related to migrations, planning, consulting, configuration or maintenance, and staff or user training.
- **Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments for the organizations' use of Aruba over a five-year period. ROI is the ratio of the net present value (NPV) and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

Table 7 presents IDC's analysis of the average discounted benefits, average discounted investment, and return on investment for interviewed organizations investment in and use of Aruba networking solutions. IDC projects that, on average, these organizations will invest $98,054 per 100 users (discounted) over five years in Aruba ($2.0 million per organization). IDC calculates that in return, these organizations will achieve business benefits with a discounted value of $450,845 per 100 users over five years ($9.2 million per organization). This would result in a five-year ROI of 360% with breakeven in their investment occurring in an average of nine months

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TABLE 7

Five-Year ROI Analysis

	Per Organization	Per 100 Users
Discounted benefit	$9.2 million	$450,845
Discounted investment	$2.0 million	$98,054
Net present value (NPV)	$7.2 million	$352,791
Return on investment (ROI)	360%	360%
Payback period	9 months	9 months
Discount rate	12%	12%

Source: IDC, 2016

Challenges and Opportunities

Despite the many demonstrated benefits of the digital workplace, there may be substantial challenges for organizations. In some organizations, there is tremendous hesitation to transmit data wirelessly because of regulations and protocols (often vertical specific) around data security. While security protections for WLAN have reached relative parity with those for wired Ethernet, there can be regulatory as well as psychological barriers to allowing sensitive data to travel over a wireless connection. Overcoming the internal psychological barriers requires a dedicated change management effort.

To that end, IDC acknowledges that technology transitions, especially far-reaching changes such as digital transformation, can cause discomfort. While the digital workplace is embraced by many, some employees may find the transition difficult and, in some cases, may even be threatened by it because of the learning curve or fear of job displacement. Demonstrating tangible benefits with regard to the roles of these employees is critical. However, many organizations and employees already recognize the tremendous benefit and future potential of the digital workplace and the mobile cloud. Opportunities such as increased productivity, reduced downtime, and organizational agility make transitioning to the digital workplace a worthy and necessary consideration for enterprises of all sizes.

Summary And Conclusion

Technology in the workplace is rapidly evolving and fundamentally changing how employees work and interact with each other and customers to achieve business outcomes. Trends such as cloud, mobility, Big Data, and social business are converging to create the "digital workplace," which is characterized by employees demanding access to corporate applications regardless of their location and the device they are using. As a result, organizations face increasing expectations to provide a consistent and robust user experience whether on wired or wireless networks.

Organizations using Aruba are succeeding in leveraging opportunities to improve their business operations associated with transitioning to the "digital workplace," including increased productivity, reduced downtime, and greater organizational agility.

This IDC study demonstrates that organizations can realize substantial business value by investing in extending and improving wireless access with Aruba networking solutions. Specifically, interviewed organizations extracted tangible benefits from making employees more productive by extending network access and providing improved network performance. Further, the organizations that have deployed Aruba reported that they experience fewer business operation disruptions from network-related outages and, as a result, can devote less IT staff time on a per-100-user basis to supporting wireless network access. Ultimately, the organizations using Aruba are succeeding in leveraging opportunities to improve their business operations associated with transitioning to the "digital workplace," including increased productivity, reduced downtime, and greater organizational agility.

Appendix

IDC's standard ROI methodology was utilized for this project. This methodology is based on gathering data from current users of Aruba as the foundation for the model. Based on these interviews, IDC performs a three-step process to calculate the ROI and payback period:

- Measure the savings from reduced IT costs (staff, hardware, software, maintenance, and IT support), increased user productivity, and improved revenue over the term of the deployment.
- Ascertain the investment made in deploying the solution and the associated migration, training, and support costs.
- Project the costs and savings over a five-year period and calculate the ROI and payback for the deployed solution.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings.
- Downtime values are a product of the number of hours of downtime multiplied by the number of users affected.
- The impact of unplanned downtime is quantified in terms of impaired end-user productivity and lost revenue.
- Lost productivity is a product of downtime multiplied by burdened salary.
- Lost revenue is a product of downtime multiplied by the average revenue generated per hour.
- The net present value of the five-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.

Because every hour of downtime does not equate to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. As part of our assessment, we asked each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. IDC then taxes the revenue at that rate.

Further, because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may not be exact due to rounding.

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