

# Enterprise IT at the Crossroads

As the confluence of digital disruptors—such as cloud and mobile—drive transformative change at many companies, Enterprise IT faces some high-stakes decisions.



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# 2014 presents both opportunity + challenge



## when it comes to enterprise IT.

As the digital revolution wrought by the convergence of social, mobile, cloud and data—what IDC calls the 3rd Platform—continues to fundamentally reshape the IT landscape, companies must quickly move to embrace this transformative shift. With the stakes so high, companies cannot afford to wait, and yet many must make these vital decisions amid continuing pressure to keep costs down and increase operational efficiency.

Streamlining today's infrastructure while exploring the staggering potential of next-generation Enterprise IT demands the ability to work across functions and infrastructures—a skill set increasingly held by those in Network IT. Working in one of the central facets of corporate technology, many network IT professionals find themselves in the thick of some game-changing projects. According to Network World's 2014 State of the Network study, network IT professionals are increasingly involved in a widening array of technology areas—on average, eight different purchase areas, led by LANs (73%), servers (64%), and security (63%).

"Network IT has a seat at the IT decision-making table because the network is at the core," says John Dix, editor-in-chief of Network World. "Companies know not to make IT decisions without considering how to leverage the network, or how the network is impacted."

That influence is not insignificant, as research firm IDC estimates that worldwide IT spending will grow five percent year over year to \$2.1 trillion in 2014. **And as the transformative effects of cloud, mobile, social, and data gain ground, network IT will become even**

**more crucial**, as companies shift from traditional data-center-based enterprise IT to a model where IT serves as a service broker of sorts. According to an Ovum research note entitled, "2014 Trends to Watch: Data Center Technology," "pressure will increase on CIOs in 2014 to provide IT services

more aligned with business needs, and deliver them when the business needs them at a price that is flexible enough to cope should the business landscape change

quickly. The corporate data center is at the heart of this IT service delivery, and it has competing trends that all share the same ultimate benefit: the simplification of operational management to enable IT to deliver new services faster, more efficiently, and more reliably."



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## Priorities, Investment and an Improved Budgetary Picture

This new digital paradigm will increasingly depend on network technologies to deliver its promised productivity and agility improvements, presenting Network IT with both vast potential and serious challenges, a dilemma neatly illustrated by the top IT priorities in the State of the Network study. Respondents agree that decreasing operational costs is the top priority this year; with 54% reporting that decreasing operation costs was the top business objective and 55% percent reporting that lowering IT operation costs by consolidation and simplification was the top technology priority.

However, the remaining top IT priorities all involved IT investments. For example, increasing or enabling mobility—through such efforts as Bring Your Own Device (BYOD) programs and consumer technology projects—were top priorities for 40% of respondents. Implementing resource-sharing technologies such as cloud computing was a top priority for 40% of respondents, and investments to boost end-user workforce productivity garnered interest from 43%. Meanwhile, the second-most important initiative was improving security and risk management (50%), perhaps reflecting the effect of trends like mobile and cloud, which increase enterprise security risk.

### Top IT Priorities Around Key Investment Areas

50%	Improving Security and Risk Management
43%	Investments to Boost End-user Workforce Productivity
40%	Increasing or Enabling Mobility - Through Efforts such as Bring Your Own Device & Consumer Technology Projects
40%	Implementing Resource-sharing Technologies such as Cloud Computing

The good news is that many in network IT are likely to have some financial leeway, as the State of the Network study found that budgets may be improving. Nearly 30% of respondents expect their budgets to increase over the next twelve months, compared to 20% last year. Meanwhile, nearly half of respondents (47%) expect their budgets to remain the same over the next year. Those predicting budget improvements say they expect an average increase of 16% in funding.

## Enterprise IT Transformation: Laying the Groundwork

With all of this in mind, how does network IT prepare for change and invest wisely? Just over half (51%) of respondents said that their IT organization is actively preparing for changes from new technologies like Gigabit WiFi and software-defined networking (SDN), and nearly 50% look to emerging technologies to pool resources and drive up utilization. In particular, **the following technology trends will prove vital to helping network IT increase operational efficiency while laying the groundwork for Enterprise IT's transformation.**

### SDN technology

SDN, which adds a software layer to allow network administrators to centrally control and shape network traffic, tops the list of high-impact trends for many companies, as 42% of State of the Network respondents report that it tops their research list.

**“It's still early days, but there's a lot of interest in [SDN] and we can expect big things to come,”** says Dix.

Nearly a third (30%) of State of the Network respondents have employed nascent SDN technology, and those numbers will explode, as 46% said that they will implement SDN within the next three years. The leading benefits that respondents had either achieved or anticipated from SDN were increased network flexibility (38%), simplified network operation and management (29%), faster network (26%), improved ability to automate network functions (24%), and increased customization of the network (24%). More than a third (36%) of respondents agreed that SDN could radically change their organizations for the better. However, the technology is still emerging, and the market is

**46%**  
will implement  
Software-defined  
Networking (SDN)  
by 2017.

fragmented. “While technologies such as VMware’s NSX will see pilot projects proliferate in 2014/15, the real new insight will be gaining an understanding of the unknown benefits and challenges of SDN,” notes Roy Illsley, principal analyst, Infrastructure Solutions at Ovum.

## Reinvented Infrastructure

As well as improving efficiency, consolidation efforts help **companies prepare for important infrastructural changes. In turn, this helps IT respond to business demand, as many companies have started exploring the technologies necessary to build next-generation infrastructures**, such as software-defined data centers.

“**Converged infrastructure and software-defined networks are leading to the emergence of the software-defined data center (SDDC) as the new organizational model for intelligent infrastructure management – as a result, technology infrastructure will be able to deliver blazing fast performance on a variety of workloads, all at an affordable cost and level of complexity.**”

“TOP TECHNOLOGY TRENDS FOR 2014 AND BEYOND”  
-FORRESTER

Converged infrastructure technologies, which combine server, storage, and network subsystems in a pre-integrated package that includes management, let IT allocate resources faster in response to business demand. Ovum’s Illsley expects to see this trend continue to gain momentum in 2014. “The market in converged infrastructure

solutions will continue to grow, and Ovum expects to see more workload-specific applications delivered using this technology,” he says. Moreover, “The whole concept of a software defined data center will become more of a reality as SDN begins to gain traction and becomes more widespread.”

## Mobility and Cloud

The fact is, mobile computing is ubiquitous already, and soon will become the primary connective method for consumers and workers alike. The ‘Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update’ projects that global mobile data traffic will increase 18-fold between 2011 and 2016. As a result, mobile computing systems must rise to the demand, and network IT must continue to search for the tools, middleware and application development platforms

necessary to ensure that their infrastructure can support this explosive growth. For example, a third of the State of the Network respondents said they have rolled out WiFi network expansion, and the same percentage has implemented Gigabit WiFi. In fact, **nearly half (47%) of respondents agreed that Gigabit WiFi will be critical to their organizations’ ability to keep up with the demand for wireless access.**

According to the Forrester report, while cloud is a game changing technology, its success is limited by how quickly traditional applications can be redesigned to take advantage of the cloud.

## Application Re-invention for the Cloud

**Implementation of tools to optimize application performance**

**32%**  
On Our Radar

**7%**  
Piloting

**21%**  
Achieved/  
Implemented

**Infrastructure-as-a-Service**

**55%**  
Active Interest

**32%**  
On Our Radar

**Application migration to SaaS**

**51%**  
Active Plans

## Security

According to the Global State of Information Security Survey 2014 released by CIO, CSO, and PwC, security incidents last year increased 33%, even as new security practices were implemented. Average losses are up 23% over last year, and big liabilities are increasing faster than smaller losses. Respondents reporting losses of \$10 million-plus is up 75% from 2011. Moreover, while heavily consumerized technologies such as mobile, cloud, and social represent the next era of corporate computing; they also represent a security risk. Notes the Global State of Information Security Survey, “Smart phones, tablets, and the “bring your own device” trend have elevated security risks. Yet efforts to implement mobile security programs do not show significant gains over last year, and continue to trail the proliferating use of mobile devices.” In fact, 30% of respondents to the State of the Network study tapped security as their top network challenge.

Clearly, security strategies need a reboot, and many companies have responded by moving from a 'perimeter defense' framework to rapid response, prioritizing technologies that can help gain a better understanding of threats across the enterprise as well as improve security for mobile devices. For example, 27% of State of the Network respondents have already either piloted or implemented access security for BYOD programs, and another 41% are actively researching it. Meanwhile, nearly a third (32%) of respondents are researching enterprise mobility management technology.

In response, network security technology is rapidly moving from stand-alone products to high-performance united threat management (UTM) platforms, says Jeff Wilson, principal security analyst at Infonetics Research. Cloud adds another wrinkle—users want security products that work across the entire corporate infrastructure. "One aspect of the integration story I've been hearing involves radically improving the efficacy of products by connecting to some sort of threat cloud, so you need to know how to take security into the cloud, too," says Wilson.

## Data center consolidation

Companies continue to look for efficiencies in the data center and network in a number of areas, implementing a number of data center consolidation techniques to reduce cost and complexities. Server consolidation is the most widespread, according to the State of the Network study, as 44% have already implemented such a project, with another nine percent in the pilot stage. In fact, server consolidation far outweighed all other network and data center initiatives in terms of actual implementation. Respondents reported other efficiency-oriented projects, although at a lower percentage. For example, between 23% and 24% have implemented data center storage efficiencies, application centralization, or storage virtualization.

## Conclusion

As IT moves from the current enterprise IT framework to a more service-based model designed to rapidly respond to business demands, it's clear that both opportunities and challenges abound. For those who successfully tackle this transformative process, however, the pay off will be enormous.

### ABOUT THE STATE OF THE NETWORK RESEARCH

Network World's State of the Network research was conducted online among members of Network World's Tech Connections Panel and among visitors to NetworkWorld.com. Results are based on 282 IT purchase influencer respondents.

This research focuses on technology implementation objectives and how leading objectives are influencing IT organizations' plans with respect to those objectives. The goal of the study is to help tech marketers inform their product development, marketing and messaging strategies, specifically relating to emerging technologies that impact the network, as well as to pinpoint where IT executives and professionals are with initiatives within existing and emerging technologies.

## Contact Information:

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