

Executive Summary

The Fifth Annual State of the Network survey includes input from 163 respondents who manage their organizations' network, systems, and applications. The survey identifies how emerging technology trends and challenges will impact future service delivery and IT operations management. A summary of results follows.

Key Technology Statistics

Video Computing

- 55% have implemented a video-based solution, 70% will within a year
- 24% believe video traffic will consume more than half of all bandwidth in 12 months

Cloud Computing

- 60% have rolled out cloud infrastructure
- Within a year, more than 60% anticipate half of their apps will run in the cloud
- More than 25% achieved improved availability and end-user experience

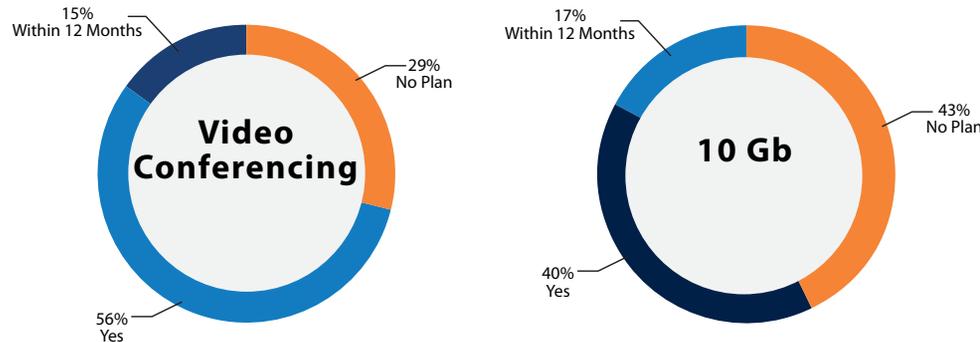
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- Over the next two years, more than one-third of respondents expect bandwidth consumption to increase by more than 50%
- 41% stated network and application delay issues took more than an hour to resolve
- 73% consider latency the best metric to quantify video performance

Emerging Technologies

After many false starts, survey results strongly suggest that video has finally gone mainstream in the enterprise. A close second is 10 Gb network deployments, driven in part by video's huge bandwidth demands. These two technologies will be like virtualization and VoIP in the past, the next major inflection points to impact IT resource management.

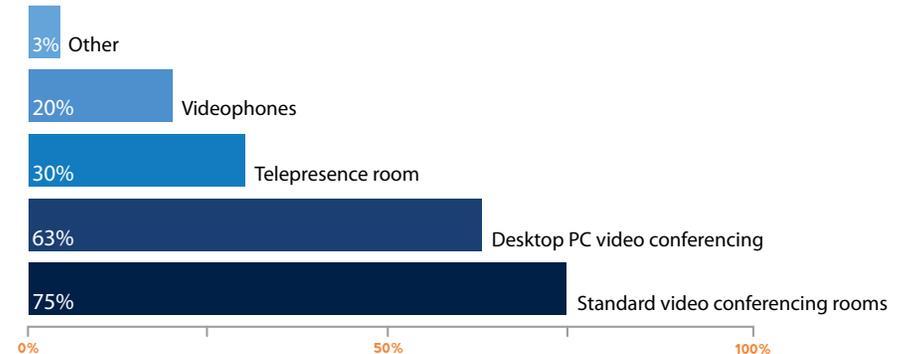
Video and 10 Gb Deployment Strategies



Video Conferencing

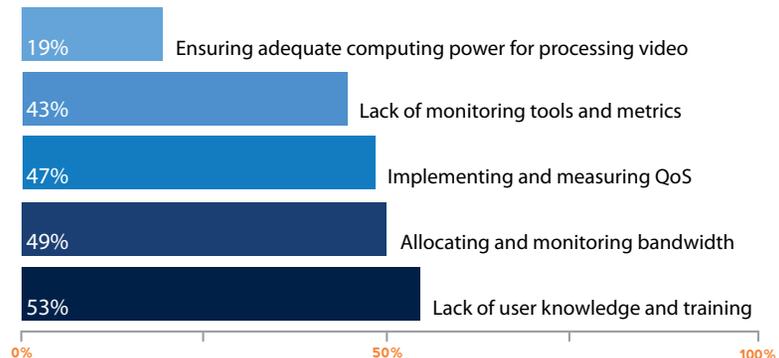
Standard video conferencing is currently the most popular, with more than 75% deployment, followed closely by desktop video at nearly 63%. Given the higher costs, it's not surprising that telepresence has a lower implementation rate, approximately 30%. Interestingly, video phones also showed a substantial amount of enterprise focus, with 20% reporting their rollout.

Video in the Enterprise



While video has clearly been embraced, several challenges were noted that may slow rollouts. Lack of user knowledge and training were viewed as the biggest concerns, followed by bandwidth and monitoring tools. Each of these concerns speaks to the importance of ensuring adequate resources are in place before moving forward with large scale deployments.

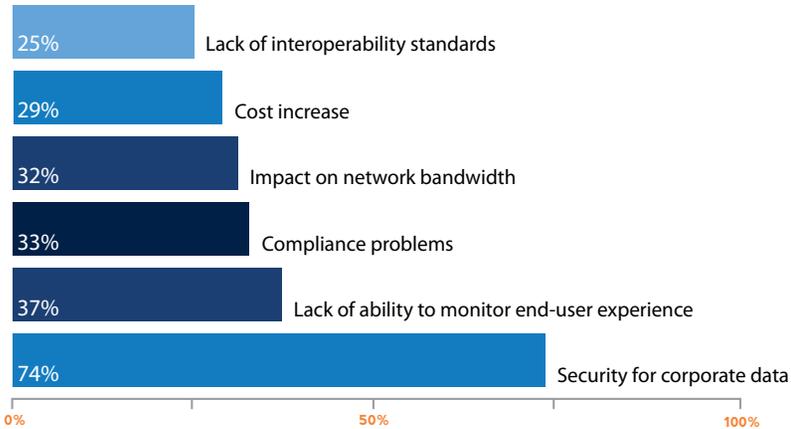
The Challenges of Video



Cloud Computing

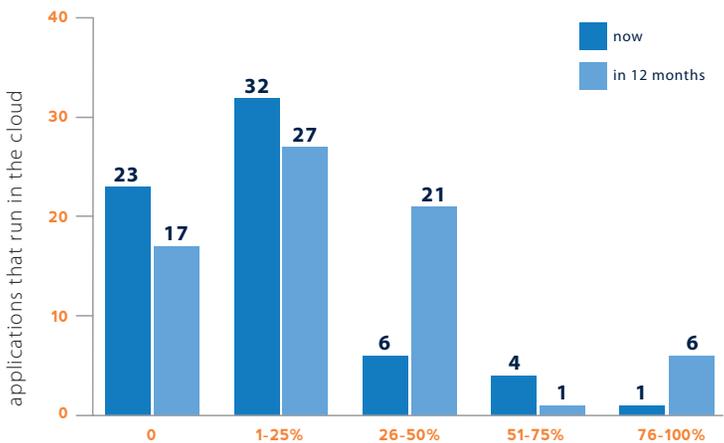
Overall cloud adoption since the previous survey has changed little. Consistent with last year's findings, cloud implementation remains steady with deployments by 60% of organizations. Network Instruments considers the apparent slowing of adoption primarily related to the recent high visibility breaches at various cloud providers and ongoing struggles to effectively track and manage these resources. These particular security concerns were clear in our responses, as seen below.

Cloud Deployment Threats



Nevertheless, it's important to note that for those who have adopted the cloud paradigm, many are shifting an increasing amount of their applications to this environment. This suggests that whatever their misgivings, respondents consider the benefits of implementing cloud infrastructure (such as reduced capital expenditures) to outweigh any downside exposure.

Cloud Application Deployments

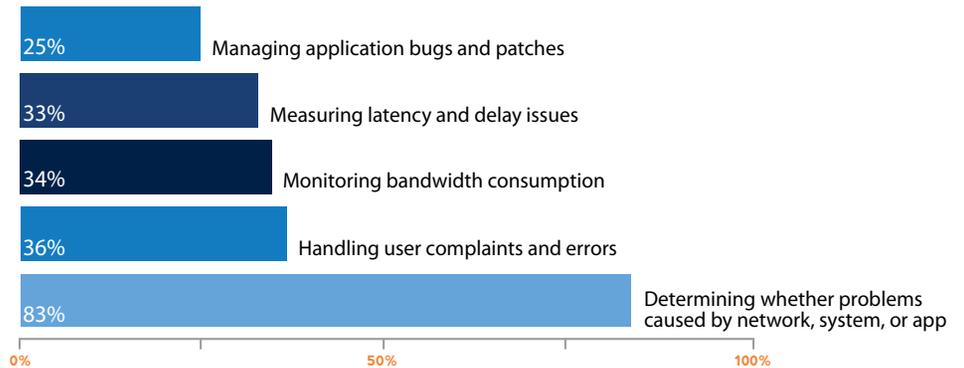


Significantly improved application availability and end-user experience were two advantages highlighted in the survey. Network Instruments considers these results tangible validation of cloud's promise to the enterprise.

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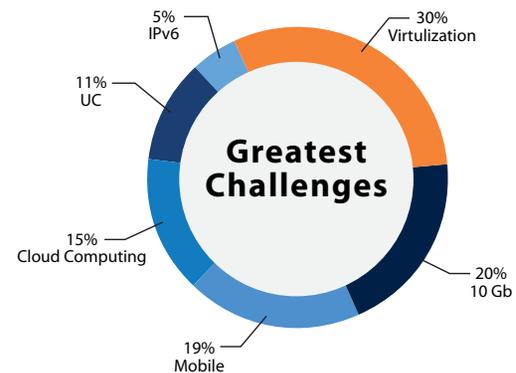
Monitoring and managing IT operations to attain acceptable performance remains an ongoing challenge. As applications become more complex and tiered, the ability to resolve service delivery issues grows. With 83% of respondents expressing difficulty in determining whether the problem is tied to network, systems, or applications, it's clear that an understanding of applications remains a challenge.

Application Troubleshooting Anxiety



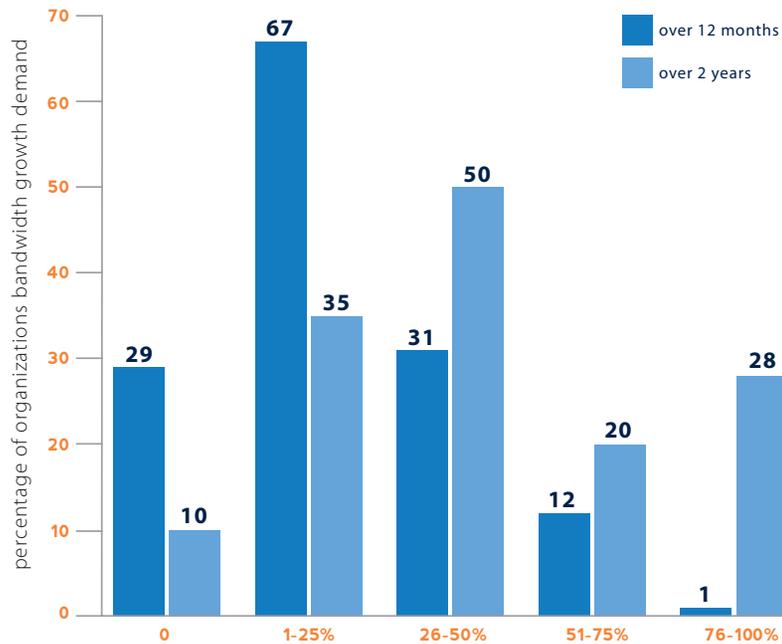
Given its pervasiveness, it was somewhat surprising that virtualization continues to be the largest monitoring challenge for organizations. The next greatest were 10 Gb and mobile devices, with more than one-in-five calling these two their biggest challenges, yet another indicator these deployments are quickly ramping.

Emerging Technology Headaches



It's also worth noting that increased network bandwidth demands show few signs of abating. Nearly 70% of respondents suggested traffic amounts will increase between 25% and 50% in the next 12 months.

Bandwidth Surge



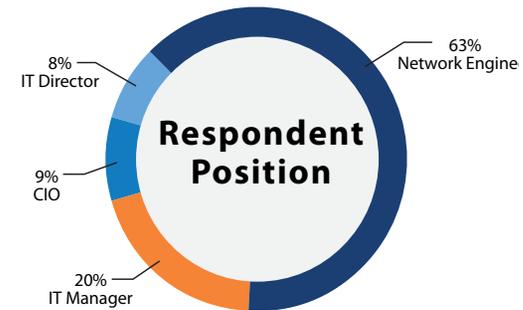
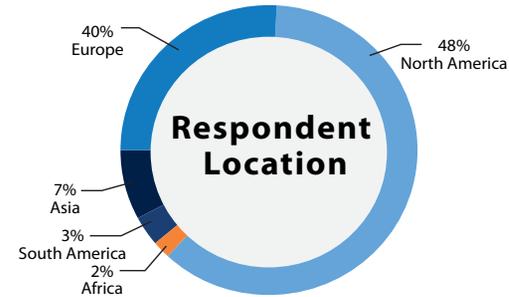
In summary, Network Instruments' survey results again show that technological innovations such as virtualization, 10 Gb, and cloud continue to outpace the ability of those responsible to fully monitor and manage the capabilities. Unless addressed, this will likely cause delayed or extended rollouts and increased costs. More troubling, it may result in reduced overall service quality and degraded end-user experience, either of which can have material implications for the acceptance and ultimate success of these promising technologies.

Research and Methodology

Study questions were designed based upon interviews with network professionals and IT analysts. Results were compiled from the insights of 163 respondents, including network engineers, IT directors, and CIOs in North America, Asia, Europe, Africa, and South America. In addition to geographic diversity, the study population was evenly distributed among networks and business verticals of different sizes. Responses were collected from October 22, 2011 to January 3, 2012 via online surveys.

For more information about the study's methodology or the results, contact Stephen Brown at sbrown@networkinstruments.com.

Respondent Location



About Network Instruments

Network Instruments, a leading provider of performance management and troubleshooting solutions since 1994, helps organizations ensure the delivery of business-critical applications. The company's platform of management and reporting products provides comprehensive visibility into networks and applications to optimize performance and speed troubleshooting. Network Instruments achieved profitability in its first quarter and has posted revenue growth every year since its founding — without any external funding. Headquartered in Minneapolis, the company has sales offices and distributors worldwide.

For more information, please visit www.networkinstruments.com.