

THE EVOLUTION OF NETWORK SERVICES

A new IDG Research Services survey reveals what enterprises need to do to shift their network from a utility to a strategic asset.



Enterprises are becoming increasingly aware of the importance of their networks—how what used to be considered a tactical necessity has evolved into a strategic asset. They now recognize that high-performance services are core to their business strategy—that is, their ability to quickly share data internally, distribute data externally and collaborate globally.

A new IDG Research Services study sponsored by Comcast Business verifies this shift in perspective in enlightened enterprises and how quickly that shift has taken place. In an analogous 2011 survey, only 38 percent of the participating IT leaders perceived their network as a strategic asset. In 2015 that percentage jumped to nearly half: 49 percent now view the network as being strategic, even transformational. Not surprisingly, the corresponding numbers went down. Whereas 27 percent of the respondents in 2011 thought of the network as a tactical asset, only 18 percent do in 2015.

What has changed? For starters, enterprise technology needs have matured at an increasingly rapid pace and networks are the backbone of support to meet those needs.

According to the survey results, a variety of issues contribute to the demand for high-perfor-

mance network services. It's no surprise that software applications have grown and become more bandwidth-intensive, an issue cited by 78 percent of the respondents. At the same time, mobile demands on networks have grown as well, with more smartphone apps consuming more network bandwidth.

Enterprises are simultaneously taking advantage of the benefits of virtualization—the ability to run applications almost anywhere, whether in a private or public cloud, and to scale them up or down with impunity. Whereas 60 percent of the respondents cited virtualization as a demand on their network, interestingly an even greater percentage—70 percent—cited the impact of business continuity on their network. Virtualization, of course, provides the ability to move data across the network quickly, making backup and continuity even easier than before. Clearly, the advantages of a strategic network underpin multiple capabilities.

How Enterprises Are Using Their Networks Today

One of the reasons for this evolving attitude toward networks may be enterprises' increased standardization on Ethernet: It's used for data or workflow 62 percent of the time. According to survey respondents, they derive multiple benefits from using Ethernet: it's cost-effective, scalable, secure and easy to support. All those capabilities in concert improve enterprises' ability to meet user needs.

Ethernet is also used for connecting to external clouds—though in such a scenario, it's used for the cloud only 22 percent of the time. Although dedicated links are available for cloud connections, enterprises are more likely to use traditional Internet connections for the cloud: 48 percent of the time, according to the respondents. They also use Internet connections for data 46 percent of the time.

Other technology options include T1/T3,



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Comcast Business offers a variety of Ethernet networking services for enterprises, including network connections across multiple locations, dedicated Internet connections, virtual private networks and private connections for bandwidth-intensive applications.

MPLS and frame relay, but those are used less frequently, in part because of expense, additional management requirements or performance issues. Ethernet offers standardized capabilities at higher bandwidth rates, reducing the need for other, faster networking technologies. It's important to understand the underlying connection types of the services themselves. Common options include fiber, copper and hybrid fiber-coaxial cable. Fiber delivers the highest performance, scalability and recovery capabilities but is available in fewer geographical areas than the other two. Ethernet has the advantage of being provisioned over all three connection types.

Satisfaction—or Lack of It—with Enterprise Networks

One looming question remains, however: Are enterprises satisfied with their networks? In many areas, according to the survey results, IT leaders are highly satisfied with them. Three-quarters of the respondents reported that their organization has a high level of satisfaction with the reliability of their current network service platforms, whereas 58 percent believe that their network gives them increased productivity and 52 percent feel that their network gives them increased efficiency.

Perhaps not surprisingly, though, there is some dissatisfaction. As networks have become more strategic, respondents report that they have become more costly. They indicate the least satisfaction with their networks in the area of costs. Only 36 percent believe that their network lowers their TCO or reduces their operational expenses.

This lack of satisfaction means that enterprises will have to think carefully about how they invest in their efforts to make the network even more strategic.

Going Forward

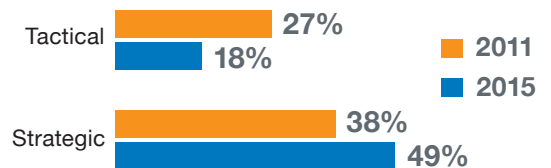
With networks overwhelmingly considered strategic, how can enterprises use the technology they have as a foundation, making them even more transformational? One method is to apply the value of virtualization to the network itself, through the use of software-defined networks (SDN) or network function virtualization (NFV). Whether by deploying these technologies themselves or by taking advantage of service provider capabilities, enterprises can use virtualization to scale networking

usage easily (especially between data centers and clouds) and also to orchestrate services between and across them.

Scalability and flexibility are key as enterprises move to add (or increase) cloud, web and mobility access over their network. Although most users connect to cloud applications over the Internet, enterprises also have the relatively new option of using a private connection. This ability will evolve further as connection interfaces between providers are standardized. Whichever way they connect, enterprises need to think about how they can add those applications over Ethernet while still maintaining

Networks: Strategic or Tactical?

An increasing number of IT leaders today perceive their networks as a strategic asset



Source: IDG Research Services surveys 2011 and 2015.

visibility into the applications themselves. That is, they need to be able to answer questions such as these about each application: How is it performing? How critical is it? How should it be secured?

Understanding all these issues will help enterprises future-proof their network. Certainly, adding more bandwidth is a logical option, but equally important is understanding how that bandwidth will be used. What kinds of applications will the business demand? Are real-time applications necessary for increased collaboration, or will asynchronous communication tools suffice? What kind of security and mobile demands will the business face?

All of these questions feed into a key method for network deployment: As enterprises evolve their expectations of the network from tactical to strategic, they need to better link the applications to the network itself. By applying the concept of “class of service” to the applications, enterprises gain a clear sense of which applications require which class of service, so they can route network applications and traffic streams as dictated by their needs—whether based on the business need, the time of day, the level of security or other considerations. When the network becomes strategic, so too must its management. ■



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