

DON'T SHORT-CIRCUIT TRANSFORMATION EFFORTS: 3 STEPS TO MAXIMIZE ROI

When it comes to digital transformation, a recent survey shows that some IT leaders may be “talking the talk” rather than “walking the walk.” Take these three steps to maximize transformation ROI.

New survey data reveals that many IT decision makers believe they have already or shortly will have made their most significant investments to achieve their digital transformation goals. That finite view runs counter to the philosophy that transformation is an ongoing journey; not to mention other data indicating that we're still in the early stages of the effort.

Nearly all IT decision makers recently surveyed by IDG Research Services view digital transformation as a top priority – an amazing 90% put it in their top 10 list. More than half view this as a top 3 priority, and almost 20% say it is their number one focus.

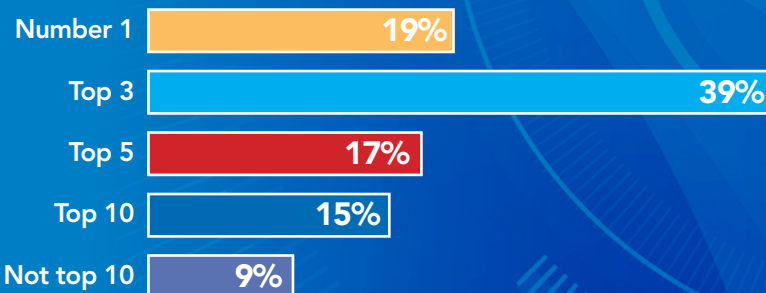
On the surface, it appears that key IT leaders are marching in lockstep with top business leaders. According to

Gartner, growth and digital transformation are the top business priorities for CEOs in 2017; and more than half believe digital improvements have already increased profits. The rationale behind the effort is compelling: Market research firm **IDC estimates** the economic value of DX to be \$20 trillion or more than 20% of global GDP.

But when we look below the surface, there are troubling indications that many IT leaders are overly optimistic in their views on how much progress they have made to achieve transformation goals.

Priority of Digital Transformation

Among all your other initiatives, where does digital transformation fit in in terms of priority allocation?



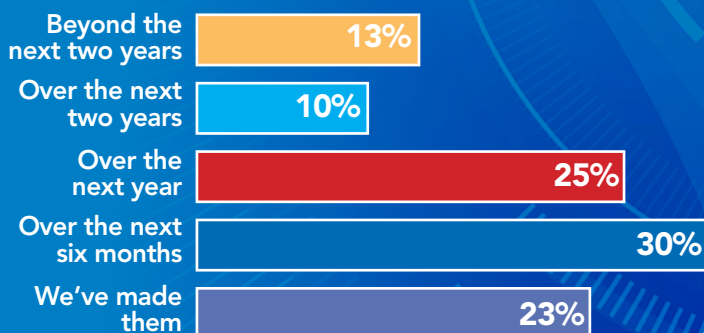
SOURCE: IDG RESEARCH SERVICES, MAY 2017

The IDG survey suggests that many ITDMs believe they are further along the transformation path than seems reasonable, with 78% stating they will have made their most significant investments within the next year – in fact, almost one in five believes they have already passed that stage. IDC, on the other hand, says that less than 5% of companies are fully transformed and two-thirds are still in the early stages.

That disparity is a warning signal that some IT leaders are “talking the talk” more than they are “walking the

Timeframe for Most Significant Investment in Digital Transformation

Which of the following best describes when you intend to make your most significant investment in digital transformation?



SOURCE: IDG RESEARCH SERVICES, MAY 2017

walk." The danger is that IT leaders in their efforts to align with business priorities will apply the new terminology to business-as-usual activities, resulting in missed opportunities and dashed expectations that characterize the Trough of Disillusionment in Gartner's famed **hype cycle**.

State of technology belies confidence

When it comes to technology innovation, we certainly can't deny its widespread embrace. Many companies are making great strides in cloud adoption. The **2016 IDG Enterprise Cloud Computing Survey** reveals that 70% of surveyed organizations have at least one application or part of their IT infrastructure in the cloud; another 17% plan to do so within the next year or so. Additionally, cloud will account for 28% of IT budgets in 2017, on average.

In fact, enterprises are using multiple clouds. According to RightScale's **2017 State of the Cloud** report, enterprises are running applications in an average of 1.8 public clouds and 2.3 private clouds. Furthermore, they're experimenting with an additional 1.8 public clouds and 2.1 private clouds.

This multi-cloud reality encompasses an increasingly diverse mix of public and private clouds, virtual machines, and services providers. That extends far

beyond the original architectural design of enterprise networks built primarily for controlling the internal network. Wide area network (WAN) capabilities are layered atop this architecture to connect disparate hubs, such as with costly Multiprotocol Label Switching (MPLS) devices, or with broadband virtual private networks (VPNs) for remote offices and individual workers. Meanwhile, growing use of mobile and Internet of Things (IoT) devices is vastly expanding the number of endpoints for which the enterprise must provide and manage access.

"Enterprises are still very reliant on MPLS technology," says Jeff Lewis, vice president of Data Product Management with Comcast Business Services. "That MPLS solution is probably the antithesis of digital transformation because its restrictive capacity limits usage and inhibits enterprises doing more with their branch offices."

In addition to requiring specialized hardware, **Network World** points out, "MPLS doesn't work well with cloud or SaaS, so companies who would want to use cloud resources have to use public internet alongside MPLS to do so. Costwise, it is hard to justify sustaining both options for every branch, especially the smaller and more remote offices."

"The SD-WAN concept is very analogous to IP PBXs versus hosted Centrex or hosted VoIP – do you want to deploy a box that you have to operate, manage, configure, and upgrade?" he asks. "With SDN and SD-WAN we are pulling all that complexity into our network and presenting customers with an interface that allows customers to control

78%

say they will have made their most significant investments within the next year

the experience so they don't have to take over responsibility for integration and usability."

Consistent drivers propel transformation effort

There is wide agreement on the goals of digital transformation. However, the IDG survey indicates a

SOFTWARE DEFINING TRANSFORMATION

Relatively few enterprises have made substantial progress in migrating to dynamic, intelligent networks that are considered essential to the transformation effort. In part, this may reflect difficulties in maintaining performance across the disparate network elements in a hybrid infrastructure.

That type of flexibility has long been the promise of software-defined networking (SDN). But, according to *Network World's State of the Network 2017*, just 18% of survey respondents have deployed SDN; 10% are in a pilot stage and another 27% have it "on their radar" or are actively researching.

Comcast's Lewis says that enterprises want to avoid the complexity of SDN and are looking for carriers to incorporate service orchestration such as auto-configuration and automated bandwidth adjustment into their networks. "Enterprises really couldn't care less about SDN as a category; they're more interested in the service. They are more interested in it in the context of the carrier model and how that carrier embraces and uses SDN to deliver their virtualized services to the end customer."

Another increasingly popular software-defined technology is SD-WAN, which applies virtualization to move much of the branch connectivity function into the cloud. The economic advantages of SD-WAN are compelling, but Lewis argues that early deployments have benefitted from vendor "white glove" implementations that can't be sustained as the market expands.

"The SD-WAN concept is very analogous to IP PBXs versus hosted Centrex or hosted VoIP — do you want to deploy a box that you have to operate, manage, configure, and upgrade?" he asks. "With SDN and SD-WAN, we are pulling all that complexity into our network and presenting customers with an interface that allows customers to control the experience so they don't have to take over responsibility for integration and usability."

bias toward operational efficiencies — the traditional motivation for IT investments — rather than the more transformational aspects.

A total of 60% of survey respondents are focused on operational efficiency, and for almost half of those that is the primary focus. Customer experience investments are more transformational, and they are the focus of 57%. But those who are looking to enable new business models dip to 42%, and the segment seeking innovation agility is even lower at 37%. Those numbers are a further indicator that a minority of respondents have embraced the full potential of the transformation effort, while others are simply adopting the language of transformation to do business as usual.

"Many in our opinion are not thinking about the fully orchestrated environment involving a multitude of services delivered across what should be a well-orchestrated SDN environment," says Lewis. "Some have really been lulled into complacency thinking [they] really got all they need with MPLS, which is still heavily dominated by the T1 or 2T1 model."

He contends many enterprises are looking to leverage SD-WAN as a Band-Aid approach to make their broadband links somewhat more effective and efficient, so they can afford more bandwidth. "If they are simply trying to augment MPLS networks, I'd argue that is not moving along the continuum of fully digital transforming their entire business."

Modernize to maximize ROI

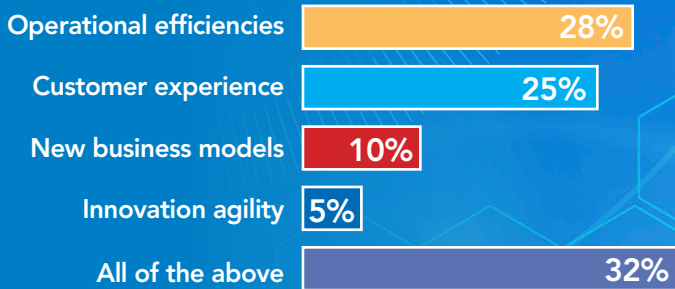
To fully realize digital transformation goals and maximize ROI, enterprises must modernize their legacy networks, or risk being outpaced by existing competitors and disruptive upstarts. They'll be hampered in their ability to quickly start, scale and even discontinue business opportunities.

Wide area networking is a key element of digital business, and the sooner organizations make the switch from old legacy switches to software-defined systems, the sooner they'll be able to maximize the full potential of transformation.

As enterprise applications continue to migrate to the cloud and as users become more mobile, bringing more devices onto the network, the WAN serving distributed

Primary Focus in Digital Transformation Initiatives

On which of the following are your digital transformation initiatives primarily focused?



SOURCE: IDG RESEARCH SERVICES, MAY 2017

enterprises needs to evolve to support these heightened application requirements.

"With more applications being delivered from the cloud and more users demanding anytime, anywhere access to applications, the network delivering these applications and data must evolve," **IDC analysts** say. "The WAN needs to address new application-specific requirements—such as performance, security, reliability, and availability—for the new generation of mobile cloud apps, which are designed to provide more real-time insights and actionable decisions as expected in a digitally driven enterprise."

In a published interview, **Rohit Mehra**, VP of network infrastructure at IDC, emphasized that the stakes for IT decision makers are high: "Software-defined networking and more broadly, network virtualization, is here to stay," Mehra said. "It's making inroads into the mainstream, whether it's the data center, the WAN as in SD-WAN, or even the broader campus environments," he said, adding, "The question for enterprise IT is really what's the right time for them to embrace it, because you don't want to be a digital resister for too long."

Three steps to align reality with aspirations

To fully embrace the digital transformation effort and justify network modernization, IT decision makers can focus on three key areas that will maximize ROI:

- **Automation:** As Jon Oltsik, ESG senior principal analyst, points out in a **CSO article**, "Enterprise networks are a series of moving parts, and these parts continue to move faster and faster all the time. You just can't keep up with the pace with limited cybersecurity and network operations personnel, and you certainly can't keep up by managing network security operations on a box-by-box, CLI-by-CLI basis." Without automation, enterprise networks are doomed to fail in the face of growing complexity, scaled operations, and access management of a magnitude of connected devices that will dwarf the capacities of mortals.

- **Dynamic bandwidth:** Fixed bandwidth infrastructure is the antithesis of the digitally transformed business. Agile businesses must be able to adapt to changing business opportunities on the fly, and can't allow provisioning lags to slow them down. Business priorities can change day-by-day, and IT needs to be able to allocate network resources accordingly. A branch office may need vastly greater bandwidth for a relatively short period and any delay in procuring and provisioning dedicated connectivity appliances could result in disappointed customers and lost opportunities.

- **Migration to software-defined networking:** Move quickly, but choose wisely. SDN and SD-WAN each can help fulfill digital transformation expectations, but it is critical to find solutions that provide full service orchestration. Simply layering on point solutions with new capabilities may end up obscuring critical choke points in the network and limit the enterprise's ability to fully utilize multiple applications, as needed, when needed.

Bottom line

An enterprise cannot digitally transform through half measures. In an era of digital disruption, time is of the essence and it's essential that IT decision makers recognize and address the limitations of outmoded networks.

For more information on enterprise network options, visit <https://business.comcast.com/sdn>.