CIO CONFIDENTIAL:

IT Leaders Speak

Candid conversations and survey research reveal what's on the minds of enterprise IT leaders — and what will advance their digital transformations.

Table of Contents

Transformation: Advancing the mandate of the IT organization in the enterprise

Across the enterprise, we've been talking about "digital transformation" for years now, whether that's the move to the cloud or digitizing every aspect of business. And definitions of digital transformation vary widely based on where IT organizations are in their transformation journeys.

Zayo provides network infrastructure and technology solutions for the largest and most innovative companies in the world, and we work closely with our customer partners — IT leaders across every business sector. That's why we wanted to hear from the types of IT leaders we serve, seeking to understand:

- What are the business pressures IT leaders face?
- Where are companies in their digital transformations?
- How can network infrastructure and connectivity solutions serve those transformations?
- What technologies will IT organizations be investing in most heavily in the near and long term?
- How can IT position itself as a strategic driver of innovation?

Zayo held 15 in-depth, off-the-record interviews with CIOs and enterprise IT leaders across a range of sectors, and, in partnership with NewtonX, we conducted anonymous survey research with 50 more IT leaders.

The result:
An unvarnished picture of how IT leaders think about transformation, their role in the enterprise, and the way forward for IT.

Findings at a glance

Top areas in mind

Security

Supply chain issues

Digital transformation journeys

2/3
Organizations in early stages

86%
Organizations currently in a digital transformation

Leaders who feel their network **infrastructure is ready** to make the best use of emerging technologies

Infrastructure transitions

Multi-cloud is growing from **10% to 31%**

Public cloud is growing from **8% to 20%**

Top business pressures

57%
Grow revenue

43%
Improving or digitizing the customer experience

#1 enabler of sucesss in digital transformations

Greater alignment between the digital transformation owners and the business

Top investments

- Cloud computing & robot process automation **continue** to be investments
- Invested growth in **AI** (including ML, DL, NLP), the second largest after cloud computing

Respondents who said **IT maturity is NOT strategic or transformative**, but reactive or focus on optimizations

— Under pressure

IT's challenges mirror that of the enterprise

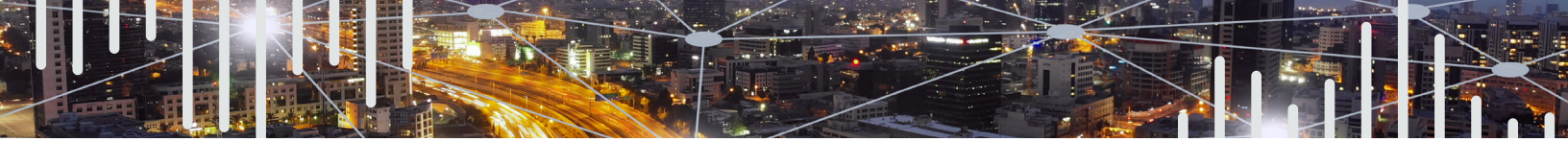
We've emerged from the COVID crisis — and the financial, hybrid work, and business continuity challenges it brought to the enterprise — with new resilience and momentum for digital transformation. Yet we're moving into an economic downturn, continued supply chain disruptions, and geopolitical turmoil in certain corners of the globe. Those general business headwinds exert their own pressures on the IT organization.

Top 3 business pressures noted in the survey research:

Grow revenue

Improve and digitize the customer experience

Maintain security against threats



Our conversations and the survey results found consistent themes regarding the business pressures IT leaders face:

Cost reduction
IT is seen as a cost center, continually expected to do more with less as businesses respond to economic pressures.

Talent, talent, talent
A common theme was “brain drain” in the IT org, whether it was the challenge of acquiring and retaining talent or the cost of training teams on legacy systems.

Security
Security is a stated priority of the C- suite, creating an opportunity (and a mandate) for greater investment. Respondents noted the creation of DevSecOps and InfoSec teams.

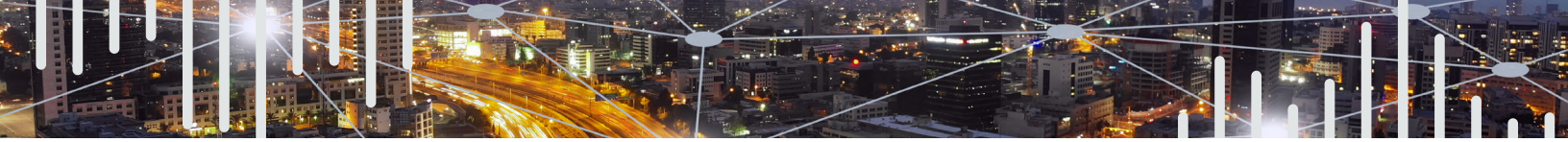
Pressure to innovate
Technology is seen as a way to create business differentiation, particularly in the realms of end user and employee experiences.

Inability to innovate because of business realities
The regulatory environment, security requirements, legacy systems, and supply chain issues were cited as holding back IT orgs.

Revenue growth
While “reduce cost/grow revenue” are dual sides of the same coin, more strategic IT orgs are positioning themselves as strategic drivers of the business, finding ways not just to reduce IT cost, but increase margin, improve differentiation through end-user experiences, and grow revenue for the business overall.

Business continuity
Security/cyberthreats are part of a larger urgency to keep the organization up and running, which includes managing proliferating endpoints, being able to scale and move workloads amid unforeseen circumstances, and maintaining business-critical applications.

> *“We haven’t seen a reduction in capital spend, which we did ramp up under the premise of digital transformation. It’s more, how do we do more for less, with an eye towards preserving the margin pressure that we are starting to see.*
>
> CIO/CTO, FORTUNE 1000 BUSINESS TECHNOLOGY PROVIDER



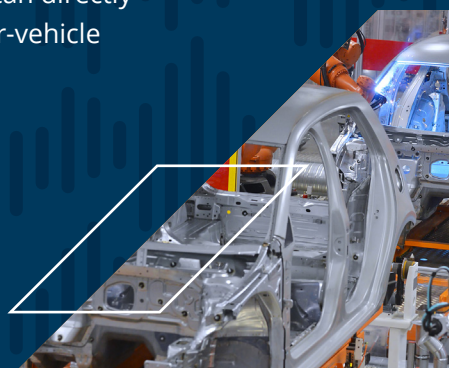
> *We are 100% a cost center, but with IT infrastructure moving things to cloud, we have a new focus on customer experience. That's a revenue driver."*
>
> CIO, FORTUNE 1000 AUTOMOTIVE MANUFACTURER AND RETAILER

The CIO of a large bank thinks about business continuity in terms of resources and scale: *"Business continuity is anything and everything from resource allocation to nearly instant ability to scale up in terms of resources. Running a parallel infrastructure that's 75 to 80% idle most of the time, outside of business continuity times, is very, very expensive. The idea is really we need to have a playbook and the resources available through our SLAs to be able to scale up as fast as we can."*

CASE STUDY

Small wins point to bigger victories

The CIO of an automotive manufacturer and retailer described a recent success as identifying a cost reduction that his organization could spearhead: fleet vehicle inspections. By implementing digital vehicle inspections using IoT sensors and advanced analytics, the company was able to improve accuracy and reduce inspection cost. "This was a fantastic project where the business is seeing technology that can directly impact revenue — 10 to 15 to 20% more improvement on a per-vehicle inspection ticket basis is not small," says the CIO.



— Are we there yet?

The state of digital transformation in the enterprise

The term “digital transformation” has been in use since as early as the 1970s, but it gained meaningful traction ten years ago, when the enterprise set about using technology to improve business capabilities, operational efficiencies, and, ultimately, customer experiences at scale.

According to Gartner, the transformation journey is taking large enterprises at least twice as long and costing twice as much as they originally anticipated. Yet many of those journeys were accelerated by the pandemic — and show no signs of slowing. Microsoft CEO Satya Nadella wrote in his 2021 shareholder letter that “digital transformation that was projected to happen over the next 10 years is happening today.”

All respondents in our survey indicated a digital transformation either on the horizon or underway, with 86% saying they were currently undertaking a transformation initiative. Nearly half (43%) said they were in an early-stage execution, followed by late-stage execution (20%).

86%

of respondents said their organization is currently undertaking a digital transformation

Unpacking the dimensions of digital transformation

The baseline definition — and likely starting point — for digital transformation is migrating applications to the cloud, yet respondents described that as being a consistent challenge, with the "lift and shift" approach of migrating without modernizing to a cloud native architect as being a costly and incomplete approach.

A transportation industry CIO describes the cloud-readiness (or lack thereof) of the many interconnected third-party systems supporting his fleet of buses as a barrier. "Taking their on-prem design solution and throwing it in the cloud doesn't really get us much. In fact, we can figure that probably actually cost us more in some cases. Nonetheless, we've certainly been adopting cloud as it makes sense."

The technology business lead at one the country's largest IT consulting firms provides this framework for how he encourages his clients to think of digital transformation:

1. Migrating from monolithic applications toward microservices in the cloud
2. Using digital to automate processes or enable greater self-service
3. Improving UX/UI front-end for users, whether those are customers using outward facing systems or employees using internal systems
4. The infusion of analytics and AI throughout the business

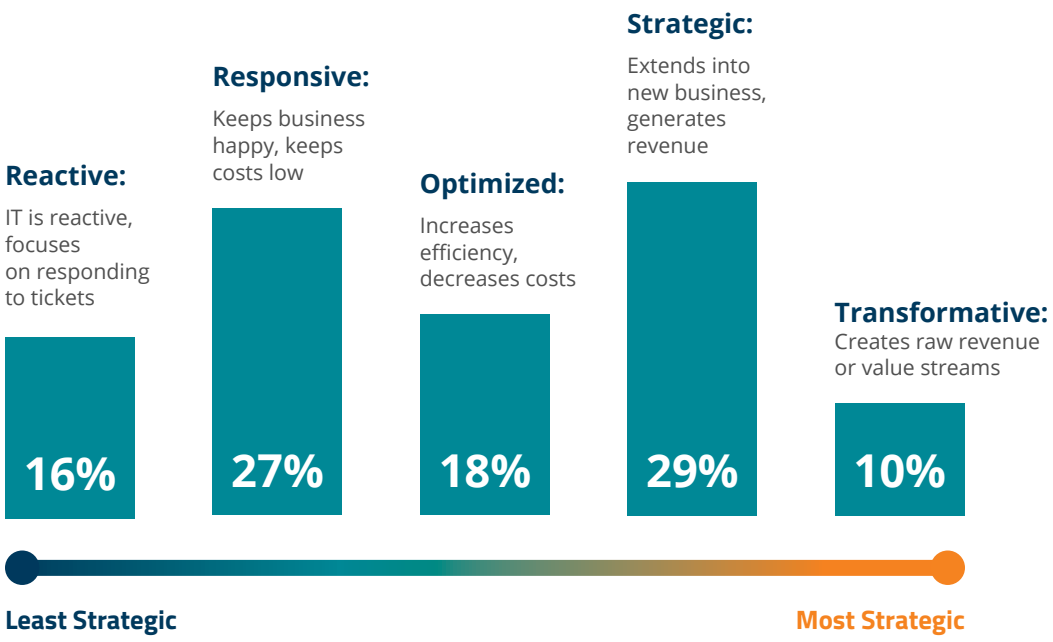
"While the first might seem the most important or critical to a digital transformation, it may be easier to 'digitize' incrementally around the edges," he says.

> *"While the first might seem the most important or critical to a digital transformation, it may be easier to 'digitize' incrementally around the edges.*
>
> TECHNOLOGY LEAD, MAJOR IT CONSULTING FIRM

— A seat at the table

IT works to grow its strategic role

IT leaders face the twin pressures of being 1) seen largely as a cost center, while also 2) charged with driving innovation. When asked to characterize their IT organization's "maturity," more than 60% of respondents said their IT maturity is NOT strategic or transformative but is instead stuck reacting to business and customer issues or executing incremental process improvements.



Organizational factors create the greatest friction

When asked what was needed to make IT more strategic — and help digital transformations have greater success — IT leaders cited a range of organizational factors.

The top 5 factors to make IT successful are centered around the management system:

- Greater alignment between IT and business
- Customer-centric culture
- IT being viewed as a strategic partner (vs. a blocker)
- Demonstrating value to senior leadership
- Consistent set of KPIs across the organization

> *Increasingly, IT needs to have a seat at the table with business. The expectation is for IT to deliver solutions that are more outcome-centric. Where before platforms had been controlled by the business units, it's now with IT to ensure that those platforms have been modernized and running efficiently. Today IT and business are going hand in hand.*
>
> TECHNOLOGY BUSINESS LEAD, MAJOR IT CONSULTING FIRM

The CIO of an automotive manufacturer describes the difficulty of something as seemingly simple as updating the firmware of the robotics that perform key tasks on the factory floor. “The guys that run the line never want me to update anything because it creates downtime for them. My response is, this firmware is going to go out sooner than later, and an update prevents an unplanned outage. That’s the kind of fight I have every day.”

Key opportunities for IT to align itself more closely with business:

Business continuity planning —
understanding which workloads, applications, and processes are most critical to the business, and developing strategies to support their uptime — can create greater alignment.

Digitizing and improving end-user experiences,
whether for employees or customers, positions IT as a driver of innovation and differentiation.

Process automation
and other efficiency-finding solutions demonstrate the business value IT can deliver.

— A strong foundation?

IT organizations and “infrastructure transformation”

One key element underpinning the IT organization and its ability to execute digital transformation amid the many pressures it faces: infrastructure — both IT infrastructure, broadly and, more specifically, network infrastructure.

When asked about infrastructure, only 40% of leaders feel their IT infrastructure is ready to make the best use of emerging technologies, citing:

- **Tech debt** (legacy technology, outdated architecture, etc.)
- **Change management:** resistance to change, not willing to fail fast
- **Inflexibility:** lack of nimbleness, vendor lock-in, required cloud migration
- **Policies:** architectural, security policy, regulatory requirements
- **Resourcing:** lack of IT talent with know-how of emerging solution architecture
- **Complexity:** too many applications to rationalize

40%

of IT leaders feel their **infrastructure is ready** for emerging technologies

Multi-cloud is growing
from 10% to 31%

Public cloud is growing
from 8% to 20%

When asked specifically about their network infrastructure — the hardware and software, systems, and devices that enable computing and communication between users, services, applications, and processes on the network — respondents focused on the cloud.

While 69% of leaders said their current infrastructure is **hybrid on-premise and cloud**, they expect this to change dramatically as it is replaced by multi-cloud (growing from 10% to 31%) and public cloud (growing from 8% to 20%). Private cloud/colocation remains steady at 14-16%.

A CTO/CIO at a business technology company described his organization as being in the midst of an "infrastructure transformation": *"One dimension is the movement of the data centers to cloud. It's a question of not just the migration of the workloads from data center to cloud, but also making sure that we develop that new muscle in the organization: how do we leverage cloud to create the agility outcomes we want while still managing the cost? While still creating an architecture that will have things like DevOps and site reliability, engineering, and innovation — without running into security challenges?"*

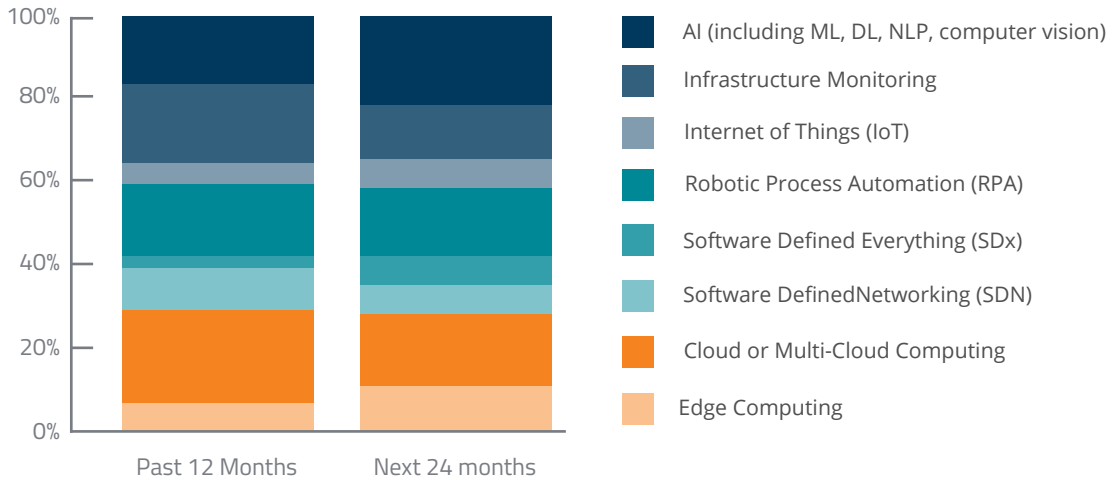
> *"What you don't want to do is just migrate from the VMs that you had in the data center to the VMs in the cloud. What's holding us back from a very meaningful migration is determining which platforms we retire. Which ones do we re-host? Which ones do we modernize completely? It's a huge challenge.*
>
> CIO/CTO, BUSINESS TECHNOLOGY SERVICES PROVIDER

— The way forward

IT leaders turn to future technology focus

Infrastructure monitoring and cloud computing represent the top areas of investment for the previous year — no surprise given the state of cloud migration expressed by our respondents.

Shift in Investment Areas from the past 12 months to the next two years



> *"There is an increasing focus on absolute zero downtime. That brings in the need to have a lot of AI, automation, and proactive monitoring not just on the infrastructure but down to the process level."*
>
> TECH BUSINESS LEAD, IT CONSULTANCY

Looking ahead, respondents predict investment growth in AI and edge computing, with infrastructure monitoring and cloud computing shrinking. Investments in robotic process automation are expected to hold steady into the next 24 months, while IoT is expected to grow somewhat.

Interestingly, SDN is expected to decrease, while SDx will grow — keeping the "software-defined" category of investment steady into the next two years.

Underscoring that point, our in-depth interviews revealed keen interest in more refined approaches to network monitoring, introducing greater automation and further levels of intelligent monitoring at the process, workload, and application levels.

Most popular areas IT Leaders invest in are:

- Artificial Intelligence
- Infrastructure Monitoring
- Cloud or Multi-Cloud Computing
- Robotic Processing Automation

> *We're moving to bespoke infrastructure monitoring, where you don't have to filter multiple signals that may not be relevant to your monitoring solution. You may not be sensitive to certain aspects of network downtime or network noise, but you are very sensitive to network latency.*
>
> CIO, FINANCIAL SERVICES FIRM

— Industry lens

Varying business drivers, varying IT pressures

We surveyed and interviewed enterprise IT leaders across financial services, healthcare, media and entertainment, retail and wholesale, transportation and logistics, technology, and manufacturing. Some common themes emerged for each sector.

Healthcare

Still recovering from COVID, healthcare is constrained by regulations, security concerns, and decreasing margins. Yet there's pressure to innovate: patients have high end-user expectations, and the role of data and analytics is expected to grow.

Transportation and logistics

The complexities of fleet management, with its many sensors and endpoints, combined with the role of data in demand planning and supply chain management, make the industry ripe for disruption.

Media and entertainment

The content experience is king in an always-on, on-demand media landscape; network performance is directly tied to end-user experience.

Financial services

Financial services is a confluence of many industry challenges: the slim competitive edges that require uptime and network performance, the difficulty connecting multiple sites, and the demand to deliver exceptional end-user experiences.

Technology

Legacy tech companies are being disrupted by nimbler competitors. Emerging companies have to build for scale — without accruing the technical debt that's holding their predecessors back.

Manufacturing

Shrinking margins create downward pressure to explore automation and IoT. The proliferation of endpoints creates both opportunity and complexity . Highly connected — and inconsistent — production environments create challenges.

Retail

Customer experiences are competitive differentiators that drive innovation in an omnichannel world. Smart supply management and demand planning can protect margins.

> *"Industries with the greatest margin pressures and the highest end-user experience expectations are the most motivated to innovate."*
>
> TECHNOLOGY LEAD, IT CONSULTING COMPANY

— Work in progress

IT leaders transform the enterprise and their organizations simultaneously

Digital transformation remains both a journey and a priority for IT leaders. The move to the cloud is the most pressing and dramatic aspect of transformation (unsurprisingly, cloud spending will hold steady in the next 24 months) — yet there's opportunity to "innovate around the edges," increasing the digitization of customer and employee experiences and introducing data and automation wherever possible.

All organizations are looking ahead to AI and automation, with more sophisticated IT leaders sharpening their focus on performance monitoring at the application and business process level.

And while investments in the tech stack and the network are key, when it comes to advancing digital transformation and IT leadership, organizational/cultural factors are as important as network infrastructure and technology.

The winning combination?
Successful digital transformations start with the right foundation of infrastructure, organizational design, and mindset, with the right technology investments in trusted partners layered on top.

About Zayo

Zayo is the leading global communications infrastructure platform, delivering a range of solutions, including **fiber & transport**, **packet**, and **Edge Network Solutions**. Zayo owns and operates a Tier 1 IP backbone spanning 134,000 miles across North America and Europe. By providing this mission-critical bandwidth to its category-leading customers across the wireless, hyperscale, media, tech, and finance industries, Zayo is fueling the innovations that are transforming society. For more information, visit **https://zayo.com**.

About NewtonX

NewtonX is a B2B research and intelligence company that connects companies with subject matter experts for consultations, group workshops, and full-scale surveys.

zayo