Assuring the Enterprise in the Digital Era

Digital transformation (DX) trends and new business models for the data-centric economy

Challenges and Drivers

Knowing what's happening on the network is important; knowing why it's happening is the new imperative for the digital enterprise.

Table of Contents

Overview

The business world is undergoing a seismic shift in business process and customer experience brought on by the rapid evolution of technology and connectivity. A new generation of companies have emerged that are relying on new technologies, innovative services and continually evolving business models. As the forces of change continue to accelerate and enterprise agility becomes more software-centric and unified, today's forward-thinking businesses need to recognize a simple, universal truth: digital transformation (DX) is leading the charge toward the future.

Based on this truth, NETSCOUT® sought to identify market insights on the business challenges involved in DX. Hence, in March 2017, NETSCOUT commissioned Vanson Bourne, an independent global research firm, to research DX readiness and its immediate impact on global businesses.

Vanson Bourne surveyed 400 IT and business decision makers in the U.S., UK, Germany, and France on the challenges they face, their preparedness, market position, and what they hope to achieve. The survey looked at the attitudes held toward the pace of digital change across several key industries. Respondents' industries spanned energy, oil/gas and utilities, financial services (including capital markets), manufacturing and production, private healthcare, retail and distribution, public sector and other commercial sectors. This study is referenced throughout this white paper, and provides a detailed overview of the results.

While 'going digital' is a major undertaking, assuring the delivery of business services that are always available and always working is what bonds the customer to the organization over time.

Although DX is a journey some organizations have already begun, many have yet to start. In order to compete and keep up with the connected world of digital business, the enterprise has to discard the traditional mind-set in order to realize new digital approaches in customer engagement and business growth. And whatever the IT environment or architecture, establishing an agile, automated operational environment with continuous monitoring and real-time analysis of the network will ensure the business remains relevant in today's and tomorrow's digital world. Only through smart data and superior analytics can the digital business innovate with confidence within a world of continual change.

Enterprise DX Readiness – The Path to Success

With a digital economy that extends across all industry boundaries, today's enterprise must constantly adapt to rapidly changing market conditions and demands, especially when confronted by the new breed of 'born-in-the-cloud' start-ups that are unencumbered by legacy systems and conventions. Many successful businesses will be defined by their ability to transform their business model to fully participate in new, digital markets.

The drivers for DX

Faced with escalating levels of interconnectivity and service inter-dependencies that now exist, the priority for the digitally transforming enterprise is to leverage information in order to gain insight into service delivery, operations and business performance. Clearly, enterprises are aware of the need for DX. **Almost eight in ten (79%) survey respondents believe that DX is an urgent requirement for their organization, and they are also clear on the drivers.**

Technology drivers: The main areas that respondents stated are either completely essential or very important to their organization's DX strategy include:

- Cloud (85%)
- Mobility (82%)
- Internet of Things (73%)
- Machine learning (65%)

A similar number reported that the most common technology objectives of 2017, and where DX can help achieve these objectives are:

- Improved IT security (59%)
- Real-time analytics to assure consistent service delivery (56%)
- Increased reliance on cloud solutions (44%)

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Moreover, **90% of respondents reported that their organization has already either fully or partially focused on, or has implemented, IT security** as part of its DX strategy.

Economic drivers: From a strategic viewpoint, the top three business objectives and priorities for organizations considering DX in 2017 include:

- Developing new products and initiatives
- Improving visibility and efficiency of operations
- Expanding into new markets

The majority of executives polled also stated that their organization measures ROI on technological/IT investments. More than half measured ROI by looking at operational efficiency, customer experience, security benefits, and financial returns.

Eight in ten organizations that measure ROI on technological/IT investments such as mobility, artificial intelligence/robotics and machine learning expect that cloud solutions, and IT security would have a positive ROI.

Business leadership: Among organizations who are either fully or partially focused on, or planning to focus on at least one DX area in the next three years, half of the respondents agreed the main stakeholders driving DX expenditure decisions were the chief technology officer or chief executive officer, while a smaller number believed the chief information officer was the major stakeholder.

79% percent of companies believe DX is an urgent requirement for their organization.

Within these organizations, the overall share of IT **budget spend on DX**, on average, was expected **to increase from 29% in 2017 to 34% in 2020**. However, **41% of respondents reported that their organization needs to invest more** to ensure DX is a success. It is believed that **an average of 4% of additional budget** would be required to ensure any transformation is successful.

It becomes clear that translating real-time smart data into actionable insights is of huge strategic value to the enterprise, both in terms of productivity and revenue, as it will be a key enabler of successful DX.

The importance of business assurance: One of the major keys to DX success is the ability to achieve business assurance. NETSCOUT's Business Assurance solution helps IT organizations control and manage the chaos in production environments. Business Assurance is a powerful combination of service assurance, cybersecurity, and business intelligence solutions that provide unmatched visibility into the applications and services that drive DX. NETSCOUT's Business Assurance solutions allow organizations to gain insight into existing service performance and security issues end-to-end across applications, compute, network, and storage workloads on-premises and in hybrid cloud environments. The results are high levels of availability, reliability, and responsiveness of digital services.

DX Pillars of Innovation

There is no single technology that makes an organization "digital." Rather, DX entails the confluence of several key enabling technologies to change the way businesses operate and introduce new ways of interacting with customers and workers. These enabling technologies include cloud; analytics and big data platforms; Internet of Things (IoT); and virtualization, among others. When combined, these technologies allow organizations to become dynamic, agile, digital businesses capable of changing direction quickly to catch new market trends.

Virtual devices, tangible benefits

As a foundational technology of DX, virtualization that includes virtual machines (VMs), software-defined data centers (SDDC), and software-defined networking (SDN), has already helped many companies move to a blend of virtual and physical IT infrastructure – the new hybrid dimension. It's also clear that virtualization is a key element of DX, with **81% of research respondents identifying it as either completely essential or very important to their organization's DX strategy.**

Providing complete freedom of choice to expand and scale at a pace to suit the business, the software-defined infrastructure, comprised of both physical and virtual devices, can protect legacy investment, while providing the enterprise with service agility, cost optimization, and the responsive, operational flexibility needed to become disruptive.

To deploy virtualization with confidence and ensure a flawless user experience, as with any network, 360° visibility of service traffic is necessary. It is essential to have a service assurance solution that extends into the virtual computing environment and seamlessly interconnects with any physical or legacy network infrastructure.

Complete visibility is key to virtualization success: NETSCOUT's Network Functions Virtualization (NFV) Service Assurance solution helps organizations manage this complex and dynamic environment with correlated, end-to-end, 360° visibility across the entire network. Our nGenius® family of products include virtual, COTS-based software and appliance-based instrumentation that provides a single view across virtual, physical and hybrid environments, making it possible to pinpoint the exact location of an issue, wherever it occurs.

NETSCOUT's patented Adaptive Service Intelligence™ (ASI) technology analyzes wire data in real time for valuable insights into the performance of virtualized services. ASI's multi-dimensional smart data ensures high-performance and cost effective NFV service delivery – and is the most valuable data source for virtual machine orchestration.

Cloud first

Many enterprises now find themselves on an accelerated modernization path, trying to maintain and even extend their lead as other digital and data-driven organizations challenge their status. For a large number of established businesses, such as those in manufacturing, healthcare, financial services, public sector, energy and retail, this is more challenging because they have legacy systems and applications that cannot be virtualized or migrated to the cloud, yet have customers who have come to expect the flawless delivery of digital services. Furthermore, due to Governance, Risk Management, and Compliance (GRC) regulatory requirements, some digital assets must stay on-premises, making the road ahead more complicated than simply migrating infrastructure and applications to the cloud.

When managed properly, the cloud migration helps companies increase infrastructure provisioning agility with no additional capital expenses, and quickly deploy and scale new services driven by customer demand. This is an important consideration for line-of-business (LOB) heads, CIOs and IT personnel, who plan, execute, manage, and champion cloud initiatives. Enterprises must also remember that successful cloud-based innovation is not only about delivering transformational customer and business services - it is about delivering them well. In the connected world, assuring the quality of the enterprise service delivery infrastructure, the applications that utilize it and their respective interdependencies all become mission-critical.

As part of any cloud migration strategy, an enterprise also needs to recognize how it is liable to lose visibility and control over the quality of end-to-end service delivery. This is particularly true in a hybrid cloud, where the vast number of interdependencies across the entire service stack, including applications, networks, computes, service enablers and databases could present significant challenges. And as more companies adopt this cloud platform, it is essential to retain a holistic view of service quality, independent of the cloud provider. Businesses require visibility into all the interconnecting system components, service interdependencies and the IT infrastructure, both physical and virtual.

While cloud providers may offer certain assurances and SLAs to suggest the platform, the infrastructure or service they offer is of high quality. A "trust but verify" approach is imperative when so much is at stake.

All cloud-based assets should therefore be treated like any other IT resource. As an enterprise becomes increasingly dependent on the cloud to support key aspects of its digital business strategy, it needs complete visibility into all the on-premises and cloud-based systems in operation. Making this a reality, however, depends on pervasive instrumentation, and smart data for insights into the operational impact of all cloud services and applications.

Organizations must gain insight into existing service performance baselines to migrate applications, compute, network, and storage workloads to the cloud with confidence. Quickly detecting and resolving service issues without modifying their existing workflows in hybrid cloud environments are essential. In this way, enterprises will be able to consistently maintain business agility and assure high levels of availability, reliability, and responsiveness across all digital services and platforms.

A solution in plain sight: NETSCOUT's nGeniusONE Service Assurance solution provides holistic visibility across the entire service delivery infrastructure from the wireless edge to the core to the data center and into the cloud. This is achieved by continuous end-to-end monitoring and analysis of the traffic and application data flowing over hybrid cloud environments. The analysis of the monitored data provides end-to-end service-level visibility in hybrid cloud environments that simplify the complexity, mitigate risks, accelerate business agility and promote operational excellence.

Internet of Things

There's growing demand for ubiquitous and continuous monitoring of the next generation of autonomous devices. The ever-growing network of embedded, online devices, or Internet of Things, is already changing the world. Whether it's low-powered sensors in the home that manage light and heat; devices that automate the factory floor; wireless implants that monitor an out-patient's vital signs or hospital devices that automatically coordinate and exchange medical records.

Like cloud and virtualization, IoT is also a big part of DX with **73% of research respondents identifying it as either completely essential or very important to their organization's DX strategy**.However, the value of IoT is not just in the ever-growing list of connected IP devices, but also in the autonomous machine-to-machine (M2M) communication that occurs between these and other internet-enabled devices and systems. In many cases, industrial IoT's business value is focused on machine learning that provides actionable intelligence.

Estimates vary for the growth of IoT devices, with some analysts forecasting growth to reach 21 billion by the year 2020. Others state the number is closer to 50 billion devices. Moreover, other estimates predict that IoT will produce more than 400 Zettabytes of data per day (400 trillion gigabytes), with that amount reached within just a couple of years. As IoT devices become more commonplace, the network infrastructure must handle the data streaming in from these devices, in addition to the ordinary traffic associated with desktop and mobile users. Complicating the picture is the fact that IoT devices don't use any single networking technology to achieve their connectivity; some are 4G, others use Ethernet, while still more are Bluetooth-enabled and, before long, 5G.

The growth of connected devices also means that systems that transport and deliver digital services are only set to become larger, more pervasive, and increasingly complex. IT departments are coming to the realization that service assurance must be a central part of the IoT solution mix. In addition to all the machines, applications, users and 'things' on the network, they are going to need an unobstructed view of their entire IT infrastructure to maintain digital business assurance.

Supporting the burgeoning growth of IoT: NETSCOUT's nGeniusONE Service Assurance platform ensures the interoperability of IoT platforms, protocols, applications and services with real-time insights into device, network and cloud behavior. Our best-in-class service triage approach gives early warning to configuration, timing and latency issues, which translates into fewer user complaints and faster problem solving. NETSCOUT is keenly focused on machine learning and is actively working toward solutions to support these developing technologies.

The New Front Line for the Enterprise

Digitally-focused companies have quickly learned that business decisions within a data-driven economy should be built on speed and business insights achieved through big data-driven visibility across physical, virtual and hybrid environments. Being able to rapidly access, identify, and analyze key business metrics within their IT infrastructure is delivering vital competitive advantages. Digital companies have come to recognize the importance of comprehensively leveraging all their data sources, including network and application traffic.

Where Data Meets the Enterprise

Unlike many of today's information-driven start-ups, the traditional enterprise doesn't have a blank canvas on which to build an IT strategy. Rather, such companies must also manage legacy infrastructure and applications that cannot easily be web-enabled or virtualized. Successful DX isn't only concerned with delivering innovative services, but it's also about operating and assuring services in any IT environment. Achieving high-quality service delivery becomes a mission-critical business activity in the digital economy. The customer experience is everything; where user loyalty and preference are critical objectives.

The value of IoT is not just in the ever-growing list of connected IP devices, but also in the autonomous machine-to-machine communication that occurs between these and other internet-enabled devices and systems.

With contact centers often the initial, and sometimes the only touchpoint for customers interacting with a business, ensuring a high-quality communication experience enhances the relationship, protects revenue, and improves customer perceptions. The contact center is the company. Yet, with enterprises deploying increasingly sophisticated unified communications (UC) technologies to provide voice, video, instant messaging and conferencing capabilities, managing a converged IT infrastructure is a complex issue. Operating a multi-platform, multi-vendor IT environment can quickly cause an enterprise to lose sight of service vulnerabilities. When so much business activity relies on the effective operation of networks, it's vital to have pervasive instrumentation for comprehensive visibility. Service performance issues need to be addressed and resolved quickly and effectively.

Ensuring a flawless user experience across all platforms and any IT environment requires a combination of visibility, knowledge, and speed. The only way to get there is through smart data, providing the foundation for unprecedented insights into service performance and security. This is achieved by continuous end-to-end monitoring and analysis of the traffic data flowing over the entire IT infrastructure, virtual or physical, across cloud environments or within the enterprise. The IT organization can then quickly respond to the business by detecting and isolating service delivery issues and remedying any anomalies that may pose a problem to business performance.

Smart data is a game changer for the digital enterprise.

Managing the quality of each new service, application or device adopted across the business, and translating smart data into actionable insights provides tremendous strategic value to the enterprise. It enables every new element in the IT infrastructure that supports the digital value chain to be accounted for, and aligned with, an enterprise-wide DX strategy.
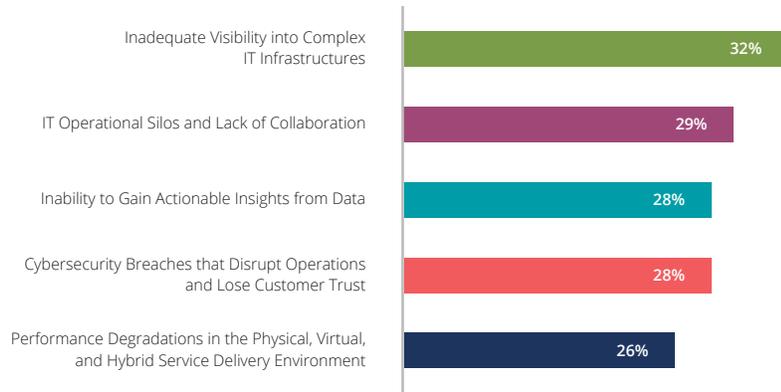
While DX may feel like uncharted territory, service assurance provides the peace of mind for the digital enterprise and the means to drive up value and growth.

Assuring UC deployment success: NETSCOUT solutions support new service rollouts and ongoing UC service management for enterprise communication and call center environments. NETSCOUT's vendor independent solutions operate with a broad complement of vendors, helping to consolidate UC service management for highly complex, multi-location, multi-vendor environments.

Data is key to simplifying complexity

More than half of respondents from organizations which are either fully or partially focused on at least one DX area within the next three years agreed that the IT department will lead the implementation. **87% view the IT department as a key contributor to overall business strategy and success, while department and business unit leaders will also impact these decisions.**

Most respondents also stated that their organization had encountered IT challenges when trying to digitally transform, as outlined in the chart below:

Challenge	Percentage
Inadequate Visibility into Complex IT Infrastructures	32%
IT Operational Silos and Lack of Collaboration	29%
Inability to Gain Actionable Insights from Data	28%
Cybersecurity Breaches that Disrupt Operations and Lose Customer Trust	28%
Performance Degradations in the Physical, Virtual, and Hybrid Service Delivery Environment	26%

93% of respondents felt that their organization has encountered business challenges when trying to transform.

Faced with escalating levels of interconnectivity and service inter-dependency that now exist within the always-connected world, the priority for the digitally transforming enterprise is to leverage information to gain insight into service delivery, operations, and business performance.

From our research, we learned that most companies understand the drivers for DX. DX is not merely about building new digital applications; it's about automation, removing some or even the entire human element, adding efficiencies, and reducing costs. This can't be done effectively without data. Smart data is the foundation for all these drivers.

In our connected world, much of today's business focus is on building and sustaining competitive advantage across a continually evolving, digital landscape. Spanning every customer, employee and stakeholder engagement channel, digital technology continues to influence and shape all aspects of business. While some see DX as the integration of new technologies into an existing business model, the reality is more profound and far-reaching. DX has the potential to completely redefine the business, and management is well advised to embrace a new way of thinking with a shift in mind-set that looks at the entire business and how it operates. For some organizations, adopting a transformative agenda can be challenging, but above all, DX should be seen in the context of doing business in the digital era.

Transforming role of smart data

Within today's complex IT environment, speed becomes a central, foundational element for an effective DX strategy, with the automation of services, workflows and processes accelerating new ways of doing business. Service innovation and successful business outcomes now depend on the uninterrupted and secure flow of smart data throughout the enterprise, ensuring end-to-end service performance and pervasive 360° visibility of traffic flows across physical, virtual and hybrid IT environments. This is where the enterprise gains value and operational peace of mind. But to get there, companies need smart data to simplify the complex nature of applications and services, in real time, all the time. Service assurance based on smart data is critical to the enterprise – combining application assurance and network assurance, while also incorporating both passive and pervasive monitoring to ensure the most accurate insights are gathered and can be actioned in real time.

Faced with escalating levels of interconnectivity and service inter-dependency that now exist within the always-connected world, the priority for the digitally transforming enterprise is to leverage information to gain insight into service delivery, operations and business performance.

With no let-up in the pace of technological innovation, DX can have far-reaching implications for the enterprise.

Turning data into actionable smart data: In order to support DX initiatives, IT organizations need business analytics powered by smart data that is well-structured, contextual, available in real time, and based on end-to-end pervasive visibility across the entire enterprise. Since every action and transaction traverses the enterprise through traffic flows, a.k.a. wire-data, it is the best source of information to glean actionable insight from in today's connected world.

NETSCOUT's patented ASI technology generates smart data based on software-centric pervasive instrumentation of traffic-flows that are collected and processed at the source – from physical and virtual (SDN/NFV) infrastructure on-premises, software-defined data centers and hybrid cloud environments - to produce service contextual metadata in real time. This allows IT to gain critical insights into service delivery, business operations and other vital business performance indicators.

DX is Impacting All Sectors

There's no escaping that DX is now a central focus within the enterprise. IDC recently stated:[1] "Every (growing) enterprise, regardless of age or industry, must become 'digital native' in the way its executives and employees think, what they produce, and how they operate." There's no doubt that the pace of transformation has been rapid, but the rate of change is only likely to accelerate. The impact of DX is being felt across a wide range of market segments, including manufacturing, healthcare, financial services, public sector, energy and retail.

Financial Services

Our research revealed that the main impacts of the increasing pace of change on the financial services industry are identified as competition is now global (54%) and new products need to reach the market as fast as possible (54%). New capabilities in this market, often driven by agile fintech companies, have engendered an expectation in the consumer's mind, especially among today's millennials. They all want services delivered quickly and flawlessly, every time. Financial services organizations that rely upon the immediacy of data in both customer and financial transactions are being compelled to integrate web, mobile, phone and in-person services, and innovate like never before.

Manufacturing

Faced with the challenge of managing global demand with facilities spread around the world, the manufacturing sector has a long history of leveraging technological innovation in every corner of operations. With the increasing pace of change in the connected world, the **manufacturing and production sector is under more pressure for new products to reach the market as fast as possible, with 63% of sector respondents citing this as an impact point**. For most large-scale manufacturers, with vastly complex processes and deeply integrated supply chains, DX is enabling them to more easily adapt to changing business requirements while evolving the inter-connectivity between people, machines and products in unprecedented ways.

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[1] IDC press release, IDC Sees the Dawn of the DX Economy and the Rise of the Digital-Native Enterprise, Nov. 1 2016

Healthcare

DX is driving many advances within the healthcare industry. Numerous providers are now improving patient care by adopting a variety of applications that rely on trouble-free, real-time access to information in their IT environment. BYOD initiatives, Wi-Fi expansion, secure email systems, unified communications and voice over IP (VoIP) coupled with telemedicine are all, or will be, inextricably linked in the healthcare service-delivery chain. This presents a real challenge as network resources are stretched to capacity. As a result of this transition, the adoption of new digital services continues to drive the industry's critical need for service assurance both now and into the future.

Public Sector

DX initiatives are being adopted by many public sector organizations across the globe. The U.S. is transforming the way the federal government deals with its citizens. Similarly, the UK has a program to introduce various digital services which focus on easier access to citizen-facing services and information. Government IT organizations are being asked to deliver maximum benefit with minimal risk, which can be achieved by proactively monitoring and analyzing the inherently complex services in a cost-effective manner. The goal is to optimize infrastructure assets to drastically reduce CapEx and OpEx spending, but without compromising the end-user experience of citizens, employees and contractors.

Energy and Utilities

The energy industry's reliance on real-time data includes the intelligence captured by remote line sensors and other connected equipment installed along the network grid. Using industry standard supervisory control and data acquisition (SCADA) control protocols, web-enabled sensors provide a stream of operational data for the energy company, enabling it to regulate voltage levels, review efficiency, and manage routing and generation. In a market where switching suppliers is actively encouraged, the benefits of a data-driven network extend to supporting engineers in the field. Ensuring a fast response to repairs and upgrades by providing real-time information to an engineer's mobile device while on site is another aspect of DX that's helping to maintain a positive customer experience, and protect revenues.inherently complex services in a cost-effective manner. The goal is to optimize infrastructure assets to drastically reduce CapEx and OpEx spending, but without compromising the end-user experience of citizens, employees and contractors.
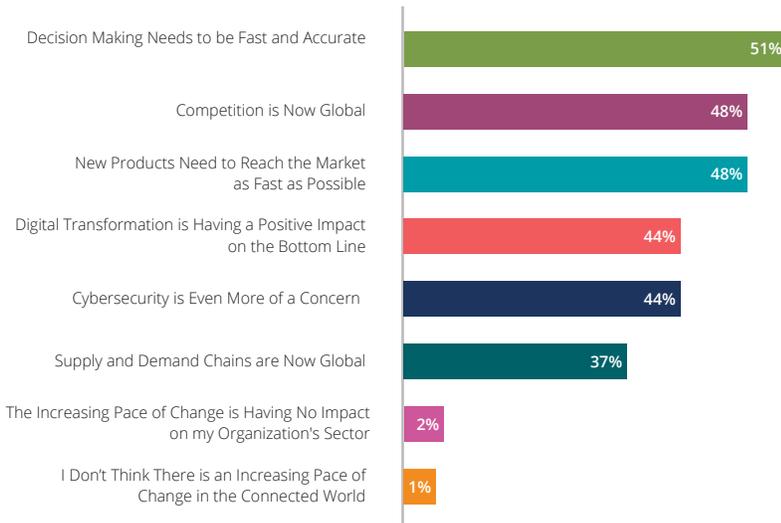
Retail

Delivering a great retail experience requires end-to-end availability, fast connections, and reliable data delivery. **Speed is also of the essence with 52% of retail respondents stating the need to reach the market as soon as possible – because of the increasing pace of change**. While automating operational processes can increase productivity and accuracy, powering it requires an increasingly complex cloud services ecosystem. And having end-to-end visibility of their entire IT environment, with solutions that deliver real-time, actionable intelligence to identify and resolve network service disruptions, means retailers can confidently exploit new digital innovations and provide a seamless and targeted customer experience, every time.

Conclusions: Driven to transform in the connected world

There can be little doubt that DX is impacting the way business is done today and the extensive influence it will continue to have in the future. Per the IT and business decision makers in NETSCOUT's market analysis, almost all stated that **their organization is being driven to transform digitally, with 79% believing it to be an urgent requirement.** Unsurprisingly, nearly all recognized the available opportunities for their organization in the connected world.

Keeping up with the increasing pace of change

- 99% recognized an increasing pace of change in the connected world today
- 97% said that it is having a direct impact on their organization's sector
- 51% agreed that the pace of change was increasing the need to make faster and more accurate decisions, compete globally and reach markets as fast as possible

Category	Percentage
Decision Making Needs to be Fast and Accurate	51%
Competition is Now Global	48%
New Products Need to Reach the Market as Fast as Possible	48%
Digital Transformation is Having a Positive Impact on the Bottom Line	44%
Cybersecurity is Even More of a Concern	44%
Supply and Demand Chains are Now Global	37%
The Increasing Pace of Change is Having No Impact on my Organization's Sector	2%
I Don't Think There is an Increasing Pace of Change in the Connected World	1%

With competition within the digital economy:

- 23% felt that their organization was leading the way due to DX in their industry
- 40% believed they were ahead due to DX, but not leading in their industry

New models

New data-centric enterprise models will revolve around business needs, capabilities and availability as they relate to DX strategies. Advancements in technology spanning cloud, analytics, unified communications, and mobile technologies continue to reshape the customer experience and open the door to new business opportunities. IT leadership is therefore under pressure to shorten the time required to provision new services, find ways to reduce CAPEX and OPEX, while pulling the many disparate initiatives and resources together.

Across different industries, that pressure comes from maintaining legacy IT systems, migrating to virtual architectures and supporting the emergence of new technologies and other critical enterprise functions. It also means discovering better, smarter ways to enable the business. The speed and data capacity of today's foundational technologies grow ever faster. Wi-Fi is approaching data rates of 100GB, Communications Service Providers (CSPs) are moving towards 5G standards, and routers will soon be able to handle terabytes of data. When you combine this with the pervasive use of virtualization technologies in the cloud, IT must adopt a technology strategy that allows it to react quickly and evolve.

Everything needs to be steered towards achieving a consolidated, seamless, and structured DX program.

Every new connection, every new system upgrade, and every third-party or custom application added to an existing IT infrastructure – physical or virtual - increases the complexity of not only service delivery, but the scale of the infrastructure, and ultimate corporate risk. To accomplish the ambitious goals of DX, the IT organization will need a strong focus on service assurance.

Everything is connected

One of the main priorities for the enterprise is to understand the complexity of their IT infrastructure, where everything is interconnected. At this point, smart data is foundational and service assurance becomes integral. Many enterprises seem to realize the value of data and the key drivers for DX. **81% of respondents believed continuous monitoring and real-time analysis of critical digital infrastructure are required to protect their competitive position.**

The bottom line is that DX is a journey and getting there requires pervasive instrumentation that continuously processes traffic flows in real time to deliver complete insight across the entire service stack, including applications, infrastructure and their respective interdependencies. With every action and transaction traversing the network, the enterprise will only achieve its digital objectives by having a real time and historic view of all business services and its infrastructure.

Service assurance is of immense, strategic value when embarking on a DX strategy. For every enterprise in every industry, there is a need to ensure that the right initiatives and processes are in place to guarantee customers have a flawless user experience, every time.

With service performance and availability as critical metrics for every business, providing data-driven, real-time actionable intelligence and end-to-end operational visibility of the entire IT infrastructure is the first step to successfully navigating the DX landscape.

With every action and transaction traversing the network, the enterprise will only achieve its digital objectives by having a real-time and historic view of all business services and its infrastructure.

About NETSCOUT

Today's corporate enterprise is a rich and complex array of applications, services, software, and hardware. Your business and reputation rely on the "Always On" availability of these systems and services. At NETSCOUT, we are in the business of keeping all those discrete pieces running in harmony and without interruption.

As a leading technology provider, we are delivering next-generation business assurance solutions. We know traffic data is the singular source of truth when it comes to dealing with resource constraints, disparate tools, IT silos, outdated processes, network complexity, and exponential data growth. NETSCOUT's nGeniusONE® Service Assurance platform with Adaptive Service Intelligence (ASI) technology enables top-down service management and traffic-based intelligence across complex, converged IT environments. With our platform, you gain essential visibility into the relationships and interrelated nature of the entire IT environment to effectively triage service issues.

ASI technology continuously monitors the service delivery environment to identify performance issues and provides insight into network-based security threats, helping teams to quickly resolve issues that can cause business disruptions or impact user experience. ASI is at the core of everything we do, from the nGeniusONE Service Assurance platform to our security assurance solutions; Arbor Advanced DDoS and Advanced Threat solutions. Application assurance is key to transforming the data center, and with the introduction of software appliances, ASI technology allows deeper visibility into the interactions of the different components of modern applications. This is the case whether they run in the data center or in multi-cloud environments, and this service intelligence is also the basis for building and discovering new insights into operations, including security and system planning.

In an increasingly complex, vulnerable and connected world, our service assurance and security assurance solutions, with smart data technology, enables top-down service management and traffic-based intelligence across complex, converged IT environments, providing extraordinary performance, service quality and operational excellence. With NETSCOUT, you gain the confidence to operate, innovate and compete at the highest level.

Contact us to learn more: https://www.netscout.com/company/contact-us

NETSCOUT®

Corporate Headquarters	**Sales Information**	**Product Support**
NETSCOUT Systems, Inc.	Toll Free US: 800-309-4804	Toll Free US: 888-357-7667
Westford, MA 01886-4105	(International numbers below)	(International numbers below)
Phone: +1 978-614-4000		
www.netscout.com		

NETSCOUT offers sales, support, and services in over 32 countries. Global addresses, and international numbers are listed on the NETSCOUT website at: www.netscout.com/company/contact-us