



Assuring the Enterprise in the Digital Era – Retail

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



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

Table of Contents

Digital transformation is changing the game	3
Gaining end-to-end visibility of the entire IT environment	3
The rapid pace of change	5
About NETSCOUT	6

Digital transformation is changing the game

The business world is undergoing a seismic shift in business process and customer experience brought on by the rapid evolution of technology and connectivity. 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 towards the pace of digital change across several key industries, including the retail sector.

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.

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

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.

Gaining end-to-end visibility of the entire IT environment

E-commerce may have started the digital shopping experience, but new transformation technologies are now providing a fully personalized, interactive experience, and firmly putting control in the hands of the customer.

As the digital economy expands the number of customer channels, the manner in which retailers will soon be able to do business would have been unimaginable even 10 years ago. Take inventory, for example; while retailers can display the widest inventory on websites and mobile apps, they are now able to take orders and simply instruct suppliers to fulfil the order by shipping products directly to the customers. Offering the widest range of products now doesn't mean storing inventory in warehouses, a trend pioneered by the likes of Amazon, which has now spread, allowing even the smallest retailer to benefit from economies of scale and maximize margins by lowering shipping and inventory management costs.

The adoption of new digital service channels is another acknowledgement of the new reality in retailing. With the cloud eliminating the middleman, customers can now have an immediate, global view of pricing and shipping timeframes from multiple retailers and manufacturers for the products they want. This aspect of disintermediation has long been a cornerstone of e-commerce, but in today's digital era, the level of transparency within the retail environment is several orders of magnitude higher, transforming traditional supply chain management, order fulfilment, and billing in the process.

Among all digital technologies impacting the retail sector, Internet of Things (IoT) is promising to radically reshape the customer's in-store experience.

The cloud doesn't just eliminate the middleman in warehousing and vendor relations. Beyond improving cross-channel connections, many pure-play online retailers are also now extending brand-driven digital experiences and rolling out 'click & collect' delivery models. The combination of location-specific delivery options, self-service lockers and a flawless digital transactional, omni-channel experience is an example of where retailers can continue to blur the lines between virtual and physical stores. Powered by the cloud, the customer experience should be seamless and personalized, no matter how and where they shop. The goal is to make sure fulfilment isn't compromised anywhere along the value path.

Transformation is being felt across the retail landscape as more and more businesses exploit all the cross-channel connections, especially in the area of targeted marketing. Among all digital technologies impacting the retail sector, IoT is promising to radically influence the customer's in-store experience. Combined with local resources for processing data, retailers are increasingly embracing IoT to connect immediately with customers, collect and interpret data in real time and deliver personalized pricing, promotions, and recommendations.

By using proximity technology, retailers can enable smartphones to become 'location aware,' allowing them to push coupons, special offers, recommendations or other messages direct to the customer when they pass the store or enter through the door. Smart shopping with smart pricing and smart inventory is the just latest step in providing personalized customer engagement and building advantage straight into the shopping mall.

However, despite this clear shift in the sector, our research suggests that the retail industry doesn't hold the impact of DX in as high a regard as others sectors. Indeed, only 23% of retail respondents said their industry is particularly susceptible to changing business models.

Understandably, marrying this level of data-intensive functionality with new infrastructure adds more complexity to the IT environment. Performance degradation happens, especially as more 'things' (software, systems, devices, etc.) are added to the service delivery path. Database errors, quality-of-service (QoS) misconfigurations, DNS issues, failed micro-services and a lot more can take place anywhere along the digital value chain. Getting ahead of these issues before they become business problems requires an understanding of all the service interdependencies and relationships.

Using new digital channels, as many retailers have done, has literally put far more power in the hands of customers. At a minimum, however, delivering a great experience requires end-to-end availability, fast connections, and reliable data delivery. Speed is also of the essence with 52% of retail respondents to our research stating they need to reach the market as soon as possible – as a consequence of the increasing pace of change. For most retailers, there are several key applications that will directly impact the bottom line if there is downtime or degradation on the network or with applications. These can range from the point-of-sale, where assistants are unable to authorize credit cards or provide gift cards, to failing to complete an online purchase due to a disconnection with the retailer's distributed inventory management system. In addition, maintaining full Payment Card Industry (PCI) compliance of sensitive customer financial information over the network and assuring the quality of voice over IP (VoIP) and collaboration services to stores, to managing successful customer interactions with call centers have become mission-critical.

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.

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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.

The rapid pace of change

Although DX is a journey some organizations have already begun, while many have yet to start. To be competitive and keep up with the connected world of digital business, more and more enterprises are seeing the value in discarding the 'old' mindset in order to realize new digital approaches in customer engagement and business growth. Fueled by the exponential growth in mobile devices, high speed broadband, 4G and connected 'things,' our increasingly interconnected world is going to place ever growing demands on the data-driven business.

Harnessing intelligence from the data, or smart data, within this digital landscape is therefore paramount. It will enable the transformation needed for staying ahead of the unfolding trends and disruptions that face many businesses. **Nearly six in ten (59%) research respondents agree that the pace of digital change is accelerating uncontrollably** and as organizations strive to meet ever higher customer expectations and stave off competition, digital transformation strategies will help many define a new business future.

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 retail organization. Since every action and transaction traverses the operation through traffic flows, a.k.a. wire-data, it is the best source of information to glean actionable insight from in this digitally connected world.

NETSCOUT's patented Adaptive Service Intelligence™ (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 (SDDC) 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.

About NETSCOUT

Today's retail operation 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>



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