Digital Transformation 2.0:
New Technologies, New Opportunities

Industry historically has run on the concept of "If it ain't broke, don't fix it." Companies that had found success with a process or technology were content to maintain their status quo, and it wasn't until they started falling behind their competition that they considered making a change. Digital transformation changed that, as organizations increasingly embraced technology to push ahead of their competitors and be more proactive in the decisions that impact their business.

In the first iteration of digital transformation, companies looked beyond the status quo to find technologies that would help drive their business forward. In the process, it became evident that digital transformation was not one-size-fits-all. Rather, it included different drivers, different technologies, different processes and different mindsets for each market, each industry and each company.

In the second iteration of digital transformation—digital transformation 2.0—organizations are expanding their efforts to create even more opportunities and address new challenges. Those drivers, technologies, processes and mindsets that drove digital transformation 1.0 have evolved. As such, so must the organization's tools to address those changes.

Instead of trying to retrofit new business opportunities into existing architectural constructs, the time is now for IT leaders to reimagine their networks to meet new business requirements and evolving customer expectations.

The Drivers for Transformation

For every organization of every size, the initial transformation to a digital-centric company was not simply a necessary move to keep up with the competition; it was critical to ensuring their business runs most efficiently, ensuring employees have what they need to do their jobs with the goal of not just meeting but exceeding customer expectations.

Companies of all sizes understand the impact of digital transformation and are investing major dollars to implement or expand their digital transformation initiatives. By the end of 2019, spending on digital transformation initiatives is predicted to reach $1.7 trillion worldwide.[1]

Indeed, digital transformation has impacted every facet of business, starting with higher productivity. At a macro level, digital transformation is a driver in an expected increase in global labor productivity, which has hovered at less than 1 percent in the wake of the 2008 recession.[2] Of the expected increase to 2 percent, more than half will be derived from digital transformation.[3]

As part of that, IDC predicts that by 2020, 25 percent

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of Global 2000 companies will have developed digital training programs and digital cooperatives to better compete for new employees and retain current ones.[4]

CIOs in 11 of the 15 industries that took part in a recent Gartner survey ranked digital business/digital transformation among their top three business priorities for 2018.[5]

DT2.0: An Evolution

The first wave of digital transformation leveled the playing field by showing organizations how technology could help them work smarter and more efficiently. Cloud, mobile, big data and social were the cornerstones on which many digital transformations were built, providing a platform for organizations to achieve greater operational efficiencies, better business insights and deeper customer engagements.

Digital transformation 2.0 takes those benefits even further, utilizing the technologies and processes adopted in the first wave to address today's challenges and provide new benefits, leading to a new level of opportunity for organizations. Technologies including artificial intelligence, machine learning, blockchain and IoT are driving organizations to continue their digital transformation journey to reap even greater rewards.

In today's digital-centric environment, automation, analytics and artificial intelligence increasingly are the must-have technologies for companies to compete. Such technologies can help organizations provide better and higher levels of customer service and enhance the overall customer experience, enabling employees to focus less on routine tasks and more on activities that have a more direct and meaningful impact on the bottom line.

Such scenarios are becoming the norm as companies look to reduce the amount of human interaction needed to perform reactive tasks and increase the amount of activities to further the business, such as finding new customers or promoting new products and services.

Artificial Intelligence: Like Humans Do, and Then Some

Artificial intelligence has moved well beyond the realm of science fiction to provide real benefits to an organization by improving upon the human experience. For example, AI systems can analyze the data collected by multiple systems within an organization for trends that could point to fraudulent financial transactions. Artificial intelligence also could help developers as they build new applications by continuously scanning code for errors or anomalies that would degrade the user experience.

Artificial intelligence not only can help companies work smarter and more efficiently, but also enable them to pivot faster to meet changing market conditions. Analytics and artificial intelligence can spot trends that have the potential to impact business—from changing weather patterns affecting the retail space to shifting social sentiment toward certain handbag styles, for example—enabling a company to change direction or address situations proactively.

Blockchain: The Next Wave in Transaction Processing

Blockchain may not be the most interesting new technology on the block, associated more with cryptocurrency than with corporate records-keeping. But blockchain offers a level of security and interaction, and its distributed ledger structure proposes to make it a faster, safer alternative to traditional records-keeping. For example, blockchain-based smart contracts— contracts that could be partially or fully executed or enforced without human interaction—has been suggested as a more efficient method of collecting and disbursing escrow funds.[6]

Other industries, too, are exploring the benefits of blockchain technology as a driver for increased efficiencies. In the healthcare sector, for example, blockchain can be used in clinical trials to share data securely to regulators and trail sponsors, such as patient demographics and trial results. In addition,

blockchain technology could be used to managed and track regulated data such as informed consent across myriad systems.[7]

Blockchain is still a nascent technology, but as more organizations understand its power and potential to transform transactional processing—and perhaps other tasks yet undiscovered—blockchain will become a fundamental part of the digital transformation stack.

IoT: Beyond Smart Devices

IoT is moving beyond the concept of being able to manage things intelligently—or having them manage themselves—to focus on the data that such devices collect. It is this data from connected devices that provide a more holistic view into how organizations can better address customer needs and increase their operational efficiencies in all areas of the business.

For example, worldwide delivery service UPS connected everything in the delivery pipeline, from the trucks, to the handheld devices used by drivers, to the bulkheads and even the packages themselves. The company is using the data collected to streamline its services through optimization of driving routes, which has reduced accidents, vehicle breakdowns and lost packages. As a result, UPS is now saving as much as $400 million per year.[8]

Building the Infrastructure for Digital Transformation 2.0

DT 2.0 can't be sustained on legacy network and IT architecture. To reap the benefits of emerging technologies, companies need sufficient bandwidth as well as smart, software-defined architecture to enable more capacity, flexibility and control of business applications running across an enterprise—from headquarters to the edges at the branch level—to enable better operations, improved and new customer and employee experiences.

As organizations strive to move into the second phase of digital transformation, they need an environment that supports digital transformation from every point on the network. Hybrid cloud and network environments, SD-WAN and high-speed broadband are just some of the technologies that can enable companies to better manage their business applications across all locations, while networking components such as WiFi and unified communications can ensure employees can work anytime, anywhere, with no impact on productivity.

No digital transformation happens overnight, regardless of how far down the path organizations are already. To help them as they move deeper into digital transformation without overly stressing their

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current network and to help streamline processes for IT managers, managed services can help tie disparate systems together and "fill in the gaps" as companies update their current infrastructure and after networks have been upgraded.

Working with a network service provider can help IT leaders reimagine how to build a modern network and IT infrastructure that's capable of handling the all aspects of digital transformation 2.0.   By working with a network services provider, organizations can leverage virtual and physical private Ethernet connectivity to assure there are no issues regarding network performance and availability for critical applications at all company locations. They also can receive all or some of their most critical connectivity functions as a managed service, including managed connectivity, WiFi, security, voice and business continuity, among others.

Conclusion

The first wave of digital transformation enabled organizations to utilize technology to work smarter and more efficiently. The technologies that drove such transformations—cloud, mobile, big data and social—provided a platform for organizations to achieve greater operational efficiencies, better business insights and deeper customer engagements.

In the second iteration of digital transformation, organizations are building upon the foundation laid with their digital transformation 1.0 efforts to create even more opportunities and address new challenges.

To learn more about how Comcast Business can help, click here.

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