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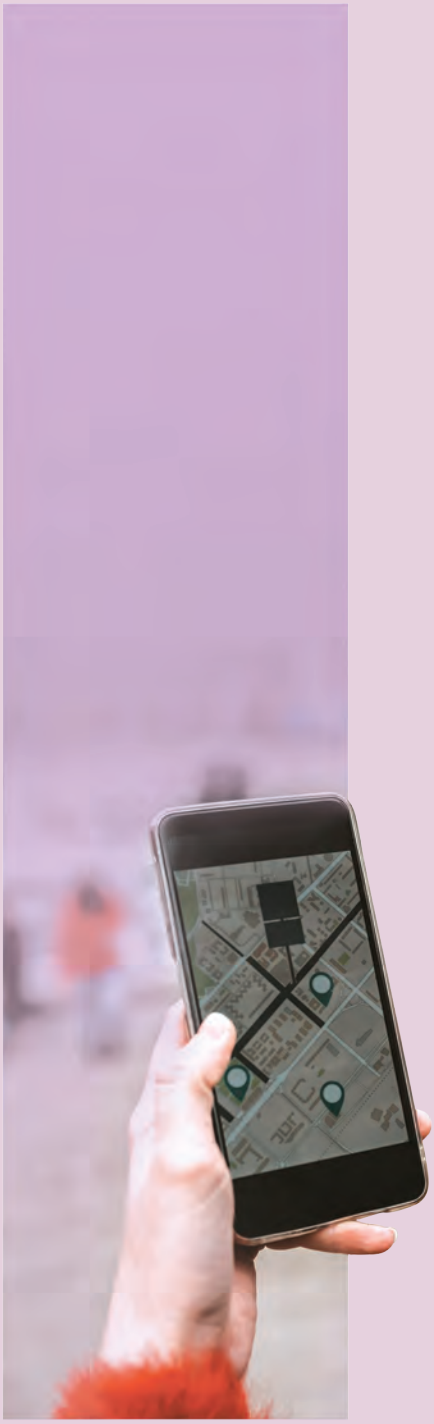

# 3 GUIDING STEPS TO TELECOM'S DIGITAL FUTURE

New digital business models are taking over the traditional telecommunications sector. But it's not easy to get digital transformation right. Telecom companies that want to lead the way must apply the right processes, technologies and practices to succeed.

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Traditional telecom companies have, since their inception, built networks that allow customers to connect quickly all over the world and at any time. The same amazing networks also allow competitors and upstarts to create profits that in past times would have flowed to the network owner, effectively pushing incumbents to the sidelines with faster, friendlier over-the-top offerings. These digital organizations are now building new businesses by delivering services for customers that many telecom companies have been doing for decades, but these organizations are now just doing it better.

This places great pressure on traditional telecom companies in terms of revenue and customer base.

The way customers engage with organizations is becoming more and more digitally enabled, and the way they select, use, configure and manage their communications services is no different. For this reason, telecom companies everywhere have recognized the need to advance into a digital future to better serve their customers or to operate their businesses in a better way.

Many think that digital transformation is about building technology and automating processes, but this is just a minor part of digitization. Going digital means a lot more than just new technologies. For telecom companies to deliver true digital transformation outcomes, the following three fundamental areas must come together:

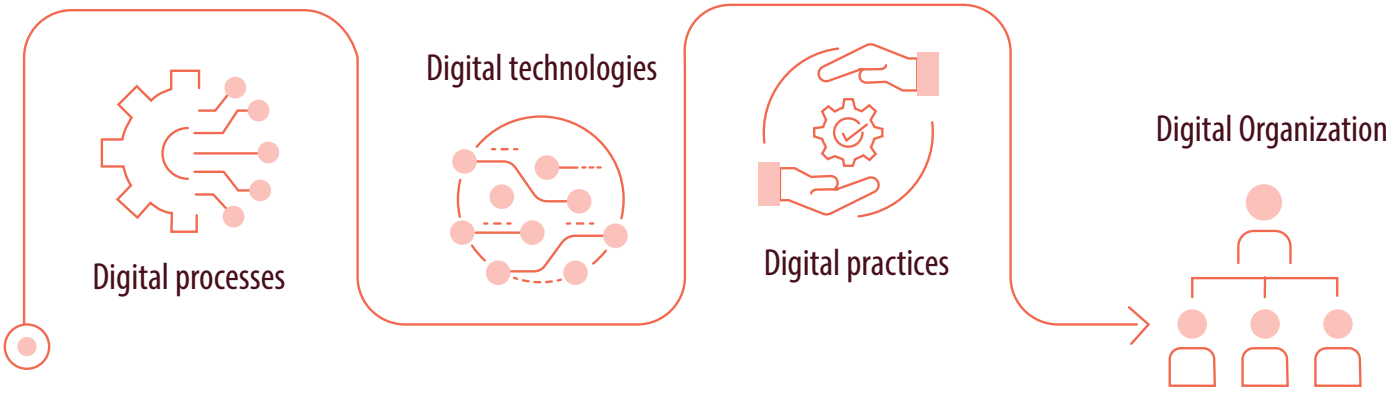
**Digital processes:** The course of action that allows a customer or business process to serve. Digital processes are the front end of any digitization program.

**Digital technologies:** The tools, platforms and other technologies that come together to enable the processes to operate in a better way. Choosing the right technologies to develop every process is essential.

**Digital practices:** The way the organization works to create great digital assets using digital technologies to enable digital processes to serve their customers.

Digital processes on their own will bring about some benefits; introduction of new, modern technologies will drive some improvements; and applying digital practices will in some way bring faster decisions and efficiencies. But only when these three elements come together does transformation occur and an organization truly digitizes itself, allowing it to better serve customers and improve operations (Figure 1).

Figure 1. Digital processes, digital technologies and practices together create truly digital organizations




Source: Infosys

## Step 1: Put the user at the center with digital processes

Digital processes define the experience by users inside and outside the organization. Customers are no longer satisfied with technology that solves problems. They expect processes to be easy to work with, intuitive and simple. To become a fully digital organization, companies must first reevaluate how they can make the experience of interaction something that customers will want.

Consider Uber. The actual processes required for a customer to request, receive and then fulfill their transport request are complex; what the customer sees and experiences, however, is completely different. For the customer, that interaction is simple, engaging and quick. Before mobile-aided ride-hailing, people who wished to go somewhere would have to call a cab company and give their details. The cab company would then check the availability of cabs and quote a fare, which would not always be a reasonable one. There was no way to talk to the driver or track the cab. If there were no cabs, the person would have to repeat the process with other providers. Cash payments were cumbersome.

But with Uber, the customer just has to enter the destination. The nearest cars for hire, estimated time of arrival, approximate cost and types of cars all immediately appear on the screen. Even the travel experience is effortless, with digital payments, tracking and ratings feedback.

> Successful process transformation means reimagining the process to create outcome-oriented, useful services

Transforming the process is not about making progressive changes to improve the product or automating the process. Rather, it is about reimagining the process to deliver useful, outcome-oriented services and experiences.

In 2016, T-Mobile customers and customer service representatives were not happy.1 Though T-Mobile had taken some steps, such as automating balance inquiry and bill payment, its Net Promoter Score was 43%.

In the next two years, the U.S. mobile phone provider redefined its service organization, with customer happiness as a main goal.

T-Mobile restructured its service teams and changed its method of handling customer calls. Service executives were now equipped to address customer complaints without needing to transfer the calls, because the company made knowledge from different sources easily accessible on their computers. These interfaces enabled service executives to better help their customers. Analytics helped by identifying patterns in problems and recommending possible solutions that helped the service reps address customer problems more effectively.

In just two years, T-Mobile reduced customer churn by 25%, cut call transfers by 71% and decreased service agent attrition by 48%. It did this by redefining its service organization.

The starting point for any digital organization should be solving a user problem or seizing an opportunity to make something better. Organizations like Uber took a service that has been in existence for hundreds of years and made it better. T-Mobile used digital tools to refocus its customer service processes on the customer, which made for happier users and employees.

> A digital organization should start with solving user problems or bagging opportunities for improvement

The next step on this digital journey is to evaluate what technologies can best help in building these processes.

## Step 2: Evaluate and use digital technologies

Companies can choose from an ever-expanding universe of technologies. If we consider the Uber example again, the actual process of finding a driver, allocating the driver, keeping track of their position, completing the drive request, confirming payment and undertaking a rating is a rather complex link-up of many things, all coming together.

With the advance of cloud platforms, mobile networks, internet networks, data storage and other modern-day platforms, digital assets can be created to undertake business and customer serving processes. Software tools and applications like artificial intelligence/machine learning, chatbots, and a range of other software-enabled technologies come to life, responding intuitively and evolving with time. For example, Verizon uses AI-based machines to provide better, round-the-clock assistance to customers via multiple channels such as social media, emails and chat services.

Another ML-based tool provides guidance to the agents so they can deliver better service.[2]

But digital transformation does not just mean accumulating lots of technology. All companies are well served by digital technology, but that does not mean companies need all technologies today to enable their processes so they can better serve their customers or their business. The aim should be to use the technologies most suitable for the processes that the company plans to deliver.

Consider the case of Vodafone, which made use of augmented reality to address customer complaints faster. Generally, whenever telecom customers face any issues, they call the customer service agents, who dispatch field engineers to the location to investigate the problem. In a quarter of cases, field engineers would have to do follow-up visits. Vodafone decided to reinvent this process with the help of augmented reality technology.[3] When customers faced any issues, they could just show the problem to the agents through videos on their mobile phones. This way, the service agents could sort out most of the issues without actually having to send a field service engineer. Even if the field agents had to be sent, their work was made easier since the issue would have been identified already from the video call. This reduced the dispatch rates, hence reducing costs and increasing both employee and customer satisfaction.

It is important to remember, though, that just redefining processes and using the right technology brings only some benefit. True, there will be improvements. But to ensure that innovation is scalable and sustainable, the way a firm builds these digital assets to enable processes becomes crucial. The practices the firms apply and the way those practices work are what really differentiate between digital optimization and digital transformation.

# Step 3: Follow the right digital practices

Digital practices are the set of practices or behaviors that organizations apply to create digital assets that enable processes in an efficient and quick way. Following the right digital practices is essential to creating scalable, faster and cost-effective solutions. This is the most difficult part of any digital transformation, because it is a shift in the way people and organizations have traditionally functioned.

This third step can be broken down further into three behaviors:

- Develop an agile maturity software practice that ensures business and technology sections are aligned and work together to bring digital assets to life.
- Create the momentum via superior digital leadership.
- Learn continuously, and build that habit into the way things are done.

In a mature, agile software practice, people with varied expertise across the organization come together in teams to build digital assets and then implement these initiatives continuously for the benefit of the customer. These teams are able to prioritize what needs to be done and then deliver these digital assets.

## Develop an agile maturity software practice

Long product development cycles, lengthy product changes, and delays to service improvements and fixes do not allow organizations to respond to competition or better serve their customers. Organizations that adopt agile, mature software practices to continuously develop prototypes and deliver new functionalities are much better positioned in their market. The teams should work like entrepreneurial cells, with expertise from all sectors, equipped to make the best decision for the customer and the business.

All large telecom companies today operate with both legacy and new digital platforms, yet the same practices cannot be applied to all systems. A telecom company in Asia, for example, built practices with different levels of agile software model adoption, a move that was specific to the business need. The low-maturity-level practice followed the traditional way of working and was used for legacy platforms. Higher-maturity-level practices that were very disciplined and agile were applied more for the building and care of the organization's strategic digital assets.

Many companies that build agile teams just bring together people from technology teams (such as testing and development). The experience and product layers remain missing or unengaged. To build great digital assets and useful experiences, these teams should be as close to the market as possible, getting customer feedback at every step of the design, build, create and deployment phases. Until this is done, they are just optimizing the way of working — not truly transforming it.

## Create the momentum via superior digital leadership

Digital leadership is the most critical success factor in scaling digital practices, shifting to digital behaviors and adopting digital practices. Leaders make greatness happen in the context of digital transformation in the same way they cultivate greatness in any organization. Digital leaders are at the forefront in transforming to digital, and their leadership traits must be present within and across the organization, from technology and finance to HR to the business and product areas.

Digital leaders are different from traditional leaders, and not every leader is a digital leader. Several distinguishing traits separate the two. These include 1) understanding digital technologies and their application; 2) taking risks; 3) allowing mistakes to be made; 4) facilitating dispersed decision-making; and 5) coaching.

## Learn continuously

Inspiring continuous learning is a digital practice that itself spurs innovation. Setting up the right digital practices is not the work of a single day. Strong digital practices are built on the pillars of continuous collaboration, experimentation, failures, successes and learnings.

In a digital transformation journey with people working together under strong leadership, continuously learning and improving, it becomes obvious progress is what's important – not perfection. Plans to build perfect digital assets in one shot, as a part of one big project, are not practical. By the time the "perfect" product is built, customers have already moved on, and competitors have taken a leading position. Progress is demonstrated when a solution is built as a minimum viable product and shared with users, and after feedback is collected. Then the company can improve the product with every new version, incorporating the suggested insights. The creation cycles should be short and very close to the market, benefiting from a continuous feedback mechanism that enables continuous improvement of the product.

Continuous learning is also important for the employees who develop the solutions. A large telecom company based in South Asia set up agile teams in hubs in India, local to its operation. The company localized on-site coaches and implemented online learning platforms to enable employees to constantly upskill themselves in areas of technology, leadership and practices. Soon, learning became part of how the employees worked every day, and they applied what they learned in the work they did.

## When digital processes, technology and practices come together

In 2016, one of Australia's leading telecom companies was witnessing a rapid change in the environment. Smaller, nimbler digital natives were competing strongly, regulations were driving different market models, and ongoing cost pressures and changing customer needs were placing pressures on the company's traditional business. This telecom company wanted to deliver a better interaction experience to its customers, exploit new market opportunities and better operate its existing business. Objectives around product delivery, product innovation, and customer experience required a digital transformation that brought together process, technology and digital practice.

The company partnered with Infosys to remodel its digital practice. Together, the company and Infosys identified digital tools, digital platforms and a digital practice that was built on mature, agile software delivery processes. In a very short time frame, the company began developing products faster and developed a culture of minimum viable products in order to foster innovation and respond to changing customer needs.

Infosys' agile and DevOps coaches helped educate the telecom company's teams. Agile governance offices were set up to monitor the progress and actively engage with the customers. Business metrics were defined to ensure that teams were aligned with the ultimate business goals. Teams of Infosys and telecom company employees worked in collaborative mode rather than in an outsourcing model. An academy was set up to upskill employees in the newly adopted digital technologies and mentor them in the new way of working.

Over the course of two years, two-thirds of the teams developed into agile teams. A maturity model was established to assess improvements and deliver ongoing improvements. Deployment cycle times reduced by 90%, and time from ideation to implementation reduced by 70% — from months to weeks to minutes. Deployment times reduced by 85%, from hours to minutes. Customer satisfaction scores improved drastically, and costs to deliver digital assets were reduced by up to 40%.

This is one example where processes were redefined, the right technology was applied and right practices, i.e., the way of working, were put in place to enable digital processes that could better serve customers. Without all three — processes, technologies and practices — coming together, firms can achieve, at best, digital optimization rather than digital transformation.

Telecom firms need to transform customer experiences by adopting digital practices to create great digital assets, on top of digital technologies that enable digital processes to better serve customers and better operate their business.

Those large telecom companies that get this transformation right, and are able to better deliver products and services for their customers, will be better positioned to compete and grow in a challenging market by turning digital proficiency into profits.

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