Digital Transformation: Leveraging Technology to Reveal New Opportunities
The term “digital transformation” describes the profound and rapid transformation of business activities, processes, capabilities and models that are required to fully leverage the opportunities presented by the proliferation of digital technologies and their associated impact on society.

Digital transformation is about using technology to improve the experience of connected customers, increase employee efficiency, encourage innovation and accelerate decision making. Fundamentally, digital transformation is about changing the way people work by modernizing their processes and ways to communicate and provides organizations with the opportunity to change and improve their industry.

For most companies, the objective of a digital transformation is to bring simplicity, mobility, collaboration, agility, innovation and efficiency to their operations. In addition to technology improvements, digital transformation is also about transforming organizational structures and business models. And the desired results, for businesses, are improved revenue models and increased profitability.
INTRODUCTION

“Digital transformation” is a term that has been used to describe the profound and rapid transformation of business activities, processes, capabilities and models that fully leverage the opportunities presented by advancements in digital technology and their impact on society.

Digital transformation typically involves the modernization of every facet of an organization – from back office operations to customer interactions – with the end goal of connecting multiple, disparate processes. Changing the fundamental nature of an organization, how they work and how they deliver products and services to consumers, a digital transformation is about changing the way people work by modernizing their processes and communications tools. It is about using technology as a tool to improve the experience of connected customers, increase employee efficiency, encourage innovation and accelerate decision making.

For most companies, the objective of a digital transformation is to bring mobility, simplicity, collaboration, agility, innovation and efficiency to their operations. In addition to technology improvements, digital transformation is also about transforming organizational structures and business models. And the desired results are improved revenue models and increased profitability, while offering consumers more options and making it easier to do business with these companies.
DIGITAL TRANSFORMATION STARTS WITH A STRATEGY, BUT MUST BE SUPPORTED BY TECHNOLOGY

A digital enterprise is any organization that uses technology as a competitive advantage in its internal and external operations. A digital transformation is a journey that must start with a clearly-defined strategy that fully leverages the opportunities presented by new technology. The development of the strategy should involve a variety of stakeholders and the creation of a roadmap that considers many different business objectives.

A 2016 study by Gartner found that two-thirds (66 percent) of companies engaged in a digital transformation expect to generate more revenue from their operations. Nearly half (48 percent) predict that more business will arrive through digital channels. Other reasons cited for a digital transformation include empowering employees with modern tools and reducing costs, cited by 40 and 39 percent, respectively.

When surveyed about the importance of digitization to their organization, most enterprises’ strategic goals were focused on five areas:

- Improving the customer experience
- Increasing employee efficiency
- Encouraging innovation
- Accelerating decision making
- Transforming the business

ALE provides its customers and partners with a four-part roadmap that will guide their digital transformation strategy.

**Connect everything**

One of the primary objectives of a digital transformation is to connect everything – people, processes, and things – both inside and outside the enterprise’s borders. There is an opportunity to shape the digital business of tomorrow, providing the foundation for success, by delivering technologies that make everything connect; from people-to-people, machine-to-machine and people-to-machine. To be successful, these technologies need smart networks that are high-performing, reliable, secure and automated.

Everything changes when everything is connected. Business is now everywhere, thanks to collaborative communications embedded in tools; whether in the office, at home or on the move.

For enterprises, one of their strategic goals is to increase employee efficiency. This can be achieved with powerful new connected communication platforms, offering tools that are simple, borderless and available any time. These platforms are supported by powerful and reliable networks that automate and secure the on-boarding of business users and guarantee a higher quality experience.

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Deploy analytics

By effectively mining and analyzing the vast amounts of data available to enterprises, valuable insights can be gained about customers’ experiences, preferences and predicted behaviors. Insights gathered from analytics can drive strategic initiatives to guarantee the quality of service, improve retention rates and provide customers with lifetime value thus improving customer loyalty. Real-time capabilities allow enterprises to react quickly to changing conditions and enable timely interaction with customers. With the right information, sales incentives and upgrade offers can also be offered to the right customer at the right time, such as proposing pro-active maintenance of their existing services or offering new adapted services.

Analytics can also be used to track the use of products, providing insights into which customers are most (and least) active. This information can be used to upsell premium services to active customers and to provide additional information, such as case studies, customer testimonials, promotions and incentives, to the least active customers in order to get them to buy. Least active customers are also more likely to consider moving to a competitor. Analytics can be used to be more pro-active and re-engage with customers, avoiding loss of existing customer business.

For enterprises, one of the key strategic goals is to improve the customer experience. This can be achieved using native smart analytics that provide better insights into understanding their customers, in addition to employees, stakeholders and business partners.

Roll out new business models

In some cases, the technology associated with a digital transformation results in the introduction of new business models, such as “freemium.” The freemium business model is gaining a lot of traction and involves providing a basic product (or service) for free. Typically, a premium version of the same product or service is also available for a fee, which includes additional features and functionality.

The objective of the freemium model is to introduce a new product, allowing customers to gain familiarity, then upselling the more powerful version of the product. This model also allows the creator of the product to create user communities and to collect data about the product, which can be used to make product improvements and to create targeted upsell offers.

Two other business models that are gaining traction are communications platform as a service (CPaaS) and unified communications as a service (UCaaS).
Communications platform as a service (CPaaS)

Communications platform as a service (CPaaS) allows companies to lease entire elements of their communications infrastructure, such as a private branch exchange (PBX) or data center, using a cloud model. Companies that own the infrastructure – typically communications service providers (CSPs) – offer access to the infrastructure and charge based on the resources used. This is known as a consumption model.

For companies that own the platform, CPaaS provides an opportunity to generate additional revenue from existing assets and to build relationships with enterprises who want to expand beyond traditional telephony applications.

CPaaS allows enterprises to build custom applications, without the overhead cost associated with owning the platform. Because CPaaS is a cloud-based platform, it enables developers to build real-time communications features (for example, voice, video, and messaging) into their own applications, based on the back-end infrastructure and interfaces of the existing platform or infrastructure.

Unified communications as a service (UCaaS)

Similar to CPaaS, unified communications as a service (UCaaS) offers unified communications (UC) services – such as instant messaging, presence information, voice, single number reachability, web and video conferencing, and desktop and data sharing – all in the cloud.

Network on Demand (NoD)

Using the same business model approach as CPaaS and UCaaS, companies can also benefit from a complete refresh of their network infrastructure with Network on Demand. Indeed, with the increasing user mobility, with the proliferation of IoT devices and with more and more services going to the cloud, enterprise networks are under pressure and need to evolve to address these digital transformation challenges. However, many enterprises haven’t planned a proper budget for such network infrastructure upgrade or refreshment.

The recently introduced Alcatel-Lucent Enterprise Network on Demand offer addresses this challenge. It is a unique consumption-based offer for the market. It offers a complete network infrastructure solution, from the core LAN to LAN access and WLAN, with all the same technologies, capabilities and services as a solution bought through a traditional upfront investment. Network on Demand offers two payment models: 1) A unique consumption based model where the customer is charged only for the number of daily user connections on his network, addressing customers who have seasonal network use, and 2) A monthly fixed fees model, similar to a lease model, for accurate total cost prediction.
A foundation for innovation

To benefit from the many advantages associated with digital transformation, it is ideal to have a single foundation that allows for all platforms to be integrated. Alcatel-Lucent Rainbow™ is that platform, a hybrid-cloud solution that features an open and powerful architecture that provides highly functional communication and collaboration services for all market segments.

Alcatel-Lucent Enterprise has created open application programming interfaces (APIs) for the Rainbow platform, allowing developers to integrate new applications for existing communications systems, leveraging existing capabilities such as telephony, presence, call control, and telephony multi-site federation (enables cross-organization communications). A detailed software development kit (SDK) is also available, in addition to applications that have already been developed by ALE.

The latest network technologies and services also support enterprises that embrace the digital transformation. Automated unified network configuration guarantees the best user experience across the networks and sites of the enterprise, while guaranteeing the highest level of security.

Innovative Wi-Fi network design with a distributed intelligence architecture enables enterprises to upgrade to a high-speed wireless network to address the growing needs of their employees and guests, while offering them the possibility of easily scaling at their own pace.

Smart network analytics provides enterprises with: 1) Technical data to manage maintenance pro-actively and anticipate network expansion needs, and 2) Usage data to help enterprises make the right business decisions. Indoor, location-based services enable enterprises and vertical industries to benefit from new user efficiency, with automated services for security and improved emergency management; for collaboration uses with automated room booking and wayfinding, and for assets with tracking capabilities.

Two of the strategic goals for enterprises are to encourage innovation and accelerate decision making. Collaboration within, and beyond, the organization can encourage innovation. Context-aware applications, equipped with geo-location services, traditional outdoor as well as indoor applications, and supported by big data analytics solutions, can accelerate decision making.
USE CASES

One of the biggest risks for companies as they — and their competitors — complete their digital transformation is intermediation. Intermediation is when you lose direct contact with your customers due to the involvement of a third party, for example, Hotels.com. These third parties provide the bookings for hotel clients instead of the hotel directly. This can change the fundamental nature of the relationship between a customer and the products and services being purchased or consumed. It can also have a significant impact on the profitability of the company who had previously had the direct relationship with the customer.

The sections that follow provide some examples of industries that have suffered intermediation caused by the digital transformation and how Alcatel-Lucent Enterprise solutions have helped them to change their business model.

Hospitality

The travel and tourism industry has spent many years building strong brands that resonate with consumers. In the 1990s, companies like Expedia and Booking.com inserted themselves as intermediaries, offering consumers the ability to compare hotel prices in a particular city — regardless of the brand. These sites have gained significant traction in recent years and, in 2016, Expedia’s annual revenue reached $8.77 billion (USD), up from $2.54 billion (USD) in 2007. Some third-party booking applications charge up to 25 per cent in referral fees; a cost borne mostly by the hotel, representing a significant threat to their profitability.

Many hotels and resorts are responding with more competitive pricing for customers that book directly, more aggressive membership programs and by launching consumer applications. These last two initiatives enable facilities to collect customer data, which allows them to make direct offers and have more control over the customer relationship.

ALE is working with a large hotel chain in China that operates 100,000 rooms across a number of properties. With a new mobile app — developed using APIs from the Alcatel-Lucent Rainbow™ cloud platform — consumers can book hotel rooms directly with the hotel. The app also features an easy-to-use communications tool, integrated into the app, which allows hotel personnel to report when a room needs to be cleaned, to monitor the delivery and quality of the housekeeping services, then notify the front desk when the room is prepared for a guest.

This company has leveraged its 70-million-member loyalty program and, as a result, their mobile app has been downloaded more than 20 million times. They now use the application to send promotional offers, to advertise other hotel services to guests and to create other upsell opportunities. In the future, they can expand the capabilities of the app to enable guests to book a table in the hotel restaurant, order a taxi, book a spa treatment or order room service.

In addition, the app has improved the company’s operations, allowing them to optimize processes, save money and make rooms available to guests more quickly. Most importantly, it has removed the temptation for customers to use third-party booking services, which can be more expensive and can result in customers missing special offers, such as loyalty rewards, room upgrades and more flexibility with last-minute cancellations.

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4 https://www.marketforonlinehotelsbookings.com
Financial institutions

For banks and investment companies, maintaining a close relationship with customers is vital. Providing them with top-notch customer service and gathering data — enabling advisors to propose the right offers to the right customers at the right time — allows for the creation of a unique relationship that builds strong loyalty.

ALE worked with a large bank in Spain (with more than 500,000 customers) to develop a mobile app — using Alcatel-Lucent Rainbow APIs — which is fully integrated with their web portal. Both platforms allow high-value customers to gain immediate access to a personal advisor, interacting with either voice, video or text over a secure, authenticated connection.

This provides customers with the ability to engage easily with the right bank personnel, regardless of the device they are using. For the bank, they can be comfortable in the knowledge that they are providing their customers with superior service while avoiding the potential loss of their customer to another intermediation platform and which might allow them to invest directly in the market without the benefit of a highly-trained financial advisor.

Healthcare

The healthcare industry is undergoing a major digital transformation as access to patient electronic medical records (EMR) is increasingly the standard and new use cases and applications are being introduced every day, improving the patient care pathway both in hospitals and while at home. In addition, the expected growth of IoT in healthcare is estimated to be $117B by 2020.5 This transformation and IoT are enabling hospitals and clinics to quickly access information from their mobile devices to locate clinicians and track assets, such as infusion pumps, computers on wheels, heart rate monitors, and more which can save time and lives, as well as offer better personalized care for patients.

This digital transformation can be seen in a US hospital that has implemented an Alcatel-Lucent Enterprise converged campus solution. This solution provides a seamless wired and wireless network which has enabled expanded network capabilities, such as electronic billing, reducing the complexity of their infrastructure and of their operational costs while increasing patient safety by making patient information and EMRs available from anywhere in the hospital, at any time.

SUMMARY

The term “digital transformation” has been used to describe the profound and rapid transformation of business activities, processes, capabilities and models that are required to fully leverage the opportunities (and challenges) presented by digital technologies.

Digital transformation typically involves the modernization of every facet of an organization – from back office operations to customer interactions – with the end goal of connecting multiple, disparate processes. Changing the fundamental nature of an organization, a digital transformation is about changing the way people work by modernizing their processes and ways they communicate to deliver the best customer experience possible. It is about using technology as a tool to keep customers engaged, increase employee efficiency, encourage innovation and accelerate decision making. The desired results are happy and loyal customers, which result in improved revenue models and increased profitability for the business.