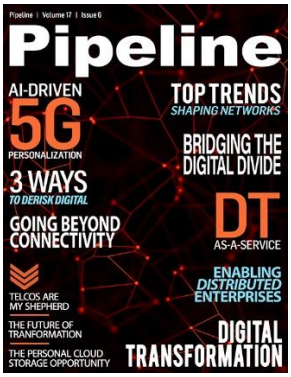

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The Future of Digital Transformation

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Digital transformation is not a new concept, but it's not static either. It is a living and evolving process, adapting to new emerging technologies that relate to the ecosystem to which it is being applied. While conversations around digital transformation increased over the last decade, its origins can be traced back to IT transformations 30 years ago, when organizations started computerizing and digitizing activities and processes. Since then, digital transformation has experienced a continual evolution. Today, telecoms are facing emerging markets and new technologies like 5G, IoT and edge computing. Meanwhile, cost pressures are also high. As a result, digital and full BSS transformations are being reimagined to align with these factors and the future.

To best support new technologies and markets, a new digital transformation approach is vital. Methodologies available now are more dynamic, agile and extensive to better enable rapidly changing markets and the unknowns of tomorrow. This reinvention requires forfeiting the traditional, full-blown digital transformation approach and legacy business models, solutions and products. The type of transformation thinking that got us to where we are is now limiting us, and the cloud is becoming the primary vehicle for transporting organizations to what's next.

Given today's economic conditions and technological evolution, many full digital transformation projects become obsolete before completion. Telecoms can no longer afford the duration, cost and opportunities lost as a result of tedious, cumbersome and risky full digital transformation projects. Simply put, these projects cannot keep pace with real-time advances and access to pay-as-you-go infrastructures and solutions of the cloud that offer service providers exponential growth and easier access to new business lines and markets.

Technology not for technology's sake

CSPs are learning to carefully navigate new technology, avoiding adoption for the sake of technology as they assess more appropriately the value that technology brings to their customers and business as criteria for selection. Support system transformation is about delivering a solution that provides the underlying agility to also deliver innovative consumer business models and enable competitive differentiation to the CSP. Transformation is enabled through enablement technology such as the cloud.

5G won't wait

5G is an inflection point for the telecom market, and it's amplifying the trajectory of cloud-scale connectivity. It provides ubiquitous coverage agnostic to the endpoint (for example, people, devices, and objects). It also provides characteristics like low latency, which enables new services such as multi-player gaming and streaming video on demand. This enables the realization of new business models, service offerings and revenue streams. 5G will trigger or enable the opportunity for telecom providers to take a bigger role in the digital ecosystem as a global "payment broker" provider for connecting people and payments in new ways, and the cloud is a co-catalyst to this opportunity.

Cloud is also impacting service velocity and cost structure. As it increases the capability to design, test and deliver services and better meet the evolving market demands, cost structures will shift from CAPEX to OPEX. To meet the need to scale or fail fast, the OPEX cost structure will afford service providers improved reaction time that is optimal in the fast-paced, rapidly changing market while reducing the financial risks.

SaaS as catalyst?

SaaS-based solutions provide an evolutionary roadmap to digital transformation compared to the traditional, full digital transformation strategies that have been adopted in the past. The SaaS model offers a more flexible, agile and less-risky approach. The strategy allows for a stepped approach to test specific use cases, KPIs and measure alignment with an organization's future strategy while not affecting the existing core revenue-generating business. This flexibility also helps build a growing and expandible foundation for opportunities such as a partner ecosystem, edge and future unknowns.

While seemingly counterintuitive, a more gradual approach by leveraging new cloud-based technologies results in increased speed capabilities. Faster experimentation, testing, launching, time-to-value, ability to strategically address specific needs and use cases (as in specific lines of business, segments, offerings, and so on) are the benefits. Also, it's achieved with less risk than undertaking a full digital transformation. Then, if successful, the complete ecosystem can gradually be migrated.

Agile development is advanced with the introduction of continuous integration and deployment (CI/CD), and CI/CD is truly realized with the delivery of a cloud-native solution. The transformation of the software delivery lifecycle has a game-changing impact on R&D and, more importantly, on innovation acceleration. The ability to roll in and out new features in production with immediate feedback and next to no risk, while controlling the velocity of the change introduction, paves the way for unlocking the CSP's reservation to innovate and move at pace with new business offerings. This is the essence of successful digital transformation.

For example, recently Truphone deployed a cloud-native online charging system (OCS) into production and was servicing consumers in under five months, one-fourth the industry standard. This was then succeeded by continuous biweekly delivery cycles introducing new functionalities. Included in this were an automation testing framework and CI/CD Kubernetes-based pipeline; shrinking time and costs to test and introducing confidence to support faster time-to-market solutions.

The gradual approach speeds up time-to-launch and time-to-value. Since it is not the whole ecosystem being transformed at one time, service providers can strategically evaluate, pinpoint and select what is needed, migrated and deployed. With the cloud, the ramp-up and time-to-value is typically one to four months to have a live and configured system.

Transforming digital transformation

What does a reimagined full digital transformation look like in practice and application? As service providers transition to the cloud to enable increased connectivity, 5G, IoT, edge and prepare for emerging opportunities, cloud technology begins to prove its superiority in the concept stage. The ability to start small, test and then expand new functionality and capabilities is what new digital transformation is about.

Inherently, it carries less risk, cost, time and commitment. It's more experimental, leading to increased innovation, exploration and discovery. Cloud-based transformation avoids full transformation in favor of identifying a new use case and putting it in parallel to the core BSS. The approach offers a full, generic version that can be installed and configured to specific needs. It also provides the opportunity for further identification, development and honing of the use case through testing.

Cloud also enables transformation through sandbox environments linking the service provider and vendor for rapidly testing and validating new functionalities. Sandboxing experimentation allows for trying out, evaluating and building up new functionalities based on specific customer needs. It allows CSPs greater influence on the feature definition and requirements during the process. Once it's determined how a functionality will work and that it can be repeated, a quality gate is established, and clusters can be spun up for scaling.

The sandbox approach encourages the agility and flexibility needed, especially when unknown opportunities or technologies present themselves and require a rapid response. When you don't know your requirements in advance, cloud-native technology provides the agility and ability to roll out new functionalities and pods relatively quickly because of its automation, testing and tools. Another advantage is for teams to quickly spin up individual sandboxes to explore, test, coordinate, compare and analyze theories in parallel in the same cloud environment. The ubiquitous access is an advantage over having to deploy this environment on premises.

Likewise, a cloud environment allows for canary deployments to roll out new test features and functionalities. It impacts teams and their processes, approaches, mitigation actions, risk reduction, monitoring and support. Canary deployments provide ideal, early detection test environments for measuring KPIs, recovery times, availability, and so on.

A Tier 1 Asian operator that serves more than 320 million prepaid and postpaid subscribers in an aggressive market recently realized the benefits of the cloud. These conditions require continuous innovation, and its software must quickly enable the roll out of new services. New KPIs were created and achieved, such as improved operations for time to market including hot patch reduction from 250 to 20 minutes and new functionality rollout releases from 15 to 2.5 hours.

True alignment accelerates true transformation

The opportunity for digital transformation has never been more aligned to the business needs of the CSP than today. SaaS-based solutions accelerate this transformation, minimizing financial exposure. They enable a springboard from which the CSP can accelerate new, innovative solutions to market, quickly adapt to change in market conditions, and ultimately grow their business.