

# Getting down to business with APIs: It's not all about the tech



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API-based digital transformation is a powerful engine that can help communication service providers (CSPs) drive the digital economy that's coalescing from rapid technological disruption. But, it's not just a question of getting the tech right. Business strategies need to be placed front and center with IT strategies built-in as business drivers, not bolted on as a support tool.

By Mohammad Alakhras



## The answer is in the data

**H** eavy investment in IT is great, but it misses the target if CSPs aren't capitalizing on their vast data assets. Rather than deploying technology conventionally – on time, to plan, and within budget – IT projects should instead look at how people create and use information, how CSPs can change the way people use technology, and which tech to choose and why.

Most importantly, IT and business strategies should be joined in a way that makes IT the driver of change, not just a support system for business.

Most CSPs are formulating IT strategies to digitize their business and enable collaborative and cross-channel engagement with customers, suppliers, and employees. Social media is a key feature here, with B2C habits continuing to enter the B2B domain, as suppliers and partners seek to engage digitally.

Openness and accessibility is also a big part of the digital shift. For example, CSPs need to integrate procurement into supplier relationships to reduce manual processes, better track invoices, and develop portals to manage inventory in real time through collaborative forecasting. In a way that may threaten conventional thinkers, this type of collaboration includes controlled access to various internal information systems, possible temporary access to the workforce and IT assets of partner enterprises, and perhaps crowd sourcing.

Selective access to required systems and services would then help forge a more open ecosystem. But, those at the top need to have an IT mindset for it to happen.

## The will of the C-suite

When business executives are keen to push the digital agenda and work harmoniously with IT teams, transformation is more fluid and the creation of digital units smoother. Conversely, companies where the IT and business relationship is patchy tend to be hamstrung by complex IT architectures, poorly integrated data, and fewer tech-enabled processes. In the paper *Driving Innovation and Agility* through an API Strategy, Accenture mentions that slow change is in part because digital opportunities are slow to reach and be accepted by senior management.

If CXOs have the will, then APIs can come into play. By exposing data, business processes, and other services with APIs, organizations can create compelling new business platforms that support internal and external users and partners. Flexible APIs can create major channels into CSPs' business domains that can be driven from anywhere. They can provide mobile, web, and other client interfaces as a flexible layer on top of APIs so customers can integrate directly into core systems. Ecosystems can then emerge that repurpose, resell, and re-bundle partner assets to reach new audiences that an

organization could never reach alone.

## Tenacity and time

Transformation can be a long and painful process that can take years, even decades. Simply investing in technology alone is insufficient and doesn't tend to play out well, while uncertainty about their future role causes many employees to resist change.

Digital strategy and governance, including API initiatives, need to be part of a coherent company strategy that meets business needs and is free from conflicting objectives between departments. It must also consider the skills needed by the company's workforce and the technical maturity required to integrate processes with customers, suppliers, and partners. CSPs can then choose the capacity and extent of digitization and coordinate its implementation.

## API-based digital transformation

Transformation based on APIs is an overarching process in which technology creates opportunities by underpinning certain business drivers. Pursuing these opportunities causes both incremental and radical changes in existing business models and creates new ones, ranging from new internal processes to cross-industry collaboration.

As part of the API-based digital transformation process, certain questions need to be asked: What are the business drivers? What will the new business models look like? What are the challenges and limits? How can CSPs monetize network assets with telecom APIs?

Mobile and cloud are major tools for API-based digital transformation. They can respond to different user segments with the right applications, cutting

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innovation costs and increasing the convenience for developers, partners, and internal and external users to access enterprise assets on an API platform.

By allowing others to build applications that integrate their own captive data and processes, enterprises will see new applications using their services in new and previously unforeseen contexts. However, large successful CSPs often find it hard to have a common view of customers or products because of internal silos that have their own systems, data definitions, and business processes.

An advanced approach to customer engagement or process optimization cannot occur without a common view. Web-based companies are better able to gain an advantage through analytics and personalization compared with traditional businesses that just use unified data and processes.

## The challenges

The major bottlenecks are disparate IT and business strategies, a restrictive culture and mindset, and an ad hoc API set that sits apart from a coherent digital strategy. Others include not defining which APIs serve near or non-core businesses, miscorrelating APIs with revenues and profits, and a lack of critical mass that leads to fragmented, non-standard APIs.

Many CSPs don't capitalize on IT investment because they find it hard to adjust their approach and their IT functions aren't set up to accommodate new ideas. Moreover, communication with sales and marketing departments tends to be patchy.

To counter this, CIOs need to know what drives business, how business processes work, and how this fits in with IT. Huawei Rotating CEO Eric Xu believes that, "The value and positioning of CIOs should be redefined... CIOs should become CI<sup>3</sup>Os, with the I<sup>3</sup> representing innovation, interconnection, and information." The right innovations could then help integrate IT and business, and enable cross-functional strategies.

## More than tech

API strategies embody an architectural approach that can execute software-driven strategies where interfaces are regarded as self-service, one-to-many, and reusable. However, a big difference exists between an ad hoc set of APIs and a carefully curated and managed set. The latter needs to fully embrace the stages of strategy, governance, design, build and operation.

Any digital shift must balance existing assets, processes, systems, and operations. Service Oriented Architecture (SOA) is the best option for underpinning

the reusability of API systems. However, since SOA itself is actually built upon legacy systems, problems include:

SOA services are dependable and stable, but slow to change.

SOA services focus inwards and promote reusability, making them coarse grained and complex.

SOA service outputs are standardized, but they can't be modified quickly and they're open to interpretation.

SOA services cannot keep pace with innovations and short iterations in app development.

## The remedy

To generate profits, CSPs need to identify which APIs can add value by enabling new applications and services. They can expose these to the developer community, bundle them into different business models, and offer them at the right price.

For example, third-party companies can develop applications and services for smart phones and tablets that enrich their products by tapping into CSPs' network APIs. Providing richer and more convenient apps for consumers drives revenues first for the third-party and then for the CSP.

AT&T, for example, successfully runs an API platform that lets app developers, software vendors, and XaaS service providers do things like create VAS, embed APIs into software and native systems to provide a customized experience, and build services on the AT&T platform. Telefonica launched its API platform BlueVia through its digital division, attracting its first carrier partner – Telenor – back in 2012. BlueVia is open for developers to incorporate different carrier-based

actions like messaging and billing into mobile apps. Both initiatives seem to enjoy a degree of success, though it's not fully clear how developer outreach and media attention correlate with revenue and profits.

## Standardization has its flaws

CSPs are drawn towards standardized APIs because the cost of proprietary APIs is too high. This isn't necessarily a bad thing: If GSMA's 800 or so carrier members developed their own APIs, for example, total fragmentation would occur. That said, standardization is slow, so what's available doesn't generally represent the newest, most innovative ideas because the tendency is to go for the lowest common denominator.

Unfortunately, cross-operator, cross-border common API exposure requires agreement on syntax and the semantics of programming interfaces, as well as a support infrastructure that needs to be defined, implemented, deployed, and operated. CSPs would also require their own platforms, which would be a complex, investment-heavy undertaking. They would, of course, also need to take cyber security very seriously.

## The bottom line

For CSPs, succeeding at API-based digital transformation depends more on organizational, cultural, and behavioral factors than it does technical issues. Technological reductionism doesn't work because even the best tech choices aren't necessarily a silver bullet against business challenges. Business modeling prior to implementing APIs ensure that an API initiative is a business strategy rather than a tech one, with clear business results set.

API implementation is thus best performed as a long-term, continuous, and iterative process with incremental steps and a coherent IT-driven business strategy. [www](#)