

The Path to Becoming an Agile Operator

By Jesse Cryderman

To the outsider, telecommunications is typified by two things: acronyms and Y chromosomes. To the insider, there's so much more. There are buzzwords, like CEM and cloud and Big Data. Each of these feeds into a tech trend that is shaping telecom and its future, but also forms the basis for a lot of marketing fluff. One word that matters more than ever and hasn't been exploited—yet—is agility. We often talk about “accelerating innovation with new services” or “faster time to market,” but what we really mean is the ability to move quickly and change directions easily. Hashtag: agility.

In today's competitive climate, network operators must be more agile than ever to navigate the fast-changing digital services landscape. In the past, agility meant releasing a handful of new offerings from a cache of legacy capabilities on telecom timelines—every 12 to 18 months. It meant finding new ways to engage with a customer base with relatively static demands at well-defined end points.

Today, agility has taken on a whole new meaning. Operators must deliver new digital service offerings to nomadic users with fickle tastes on cloud timelines. It means the ability to [trial an OTT video service](#) in a new market to ascertain whether or not it can compete with the market leaders before a national roll-out. It means adopting [Silicon Valley's](#) fail fast mentality and freemium service models. In fact, in a world where connectivity is becoming a commodity, agility is the new competitive differentiator.

There are many tools and strategies available on the market that can help operators become more agile, and truly compete with Google, Facebook, and Amazon. There are also some good examples from leading operators who exemplify agility. In the quest to become an agile operator, there are some best practices that can effectively guide companies through the transformation process.



Network agility

To reliably deliver complex products and services, operators have to optimize network performance and manage their infrastructure in real time – dealing with on-the-fly customer service changes flawlessly and

immediately. It can be done, but operators must add new technologies like Software Defined Networking (SDN) and Network Function Virtualization (NFV) into their infrastructures. These technologies enable real-time infrastructure network programmability, quick

reassembly of virtualized network functionality and more efficient use of cloud resources.

At the same time, operators need an efficient, effective way to manage the resulting hybrid network of physical and virtual elements. This way they can smoothly migrate to a fully next generation infrastructure in the future, and quickly roll out and activate networks, today and in the future. A key element of this management is pervasive visibility— that is the ability to see into all elements of the network, applications, and services in real-time. As more and more services “go virtual,” and more and more functions migrate to the cloud, this becomes increasingly important.

Service agility

Operators must keep pace with the customer's increasing

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A graphic for a survey by Pipeline Market Research. It features a dark blue background with a yellow horizontal band. The text reads: 'Pipeline MARKET RESEARCH', 'GLOBAL SURVEY', 'BUSINESS TRANSFORMATION PRIORITIES', 'TELL US. WE'RE LISTENING.', and 'TAKE THE SURVEY'. There are also some decorative icons like a circle and arrows.

demand for new, more innovative products. To personalize them according to customer wishes, and to launch and deliver them without service problems. They need to take a catalog-driven, component-based approach to product development and third-party collaboration. One that puts marketing – instead of IT – much more in control. This lets you securely expose your systems to more effectively collaborate with OTT players, content owners and other partners, expanding your service ecosystem and developing new business models. You'll also want to turn up these services on demand with dynamic charging and billing for each user instance, whether for mobile services, IPTV, cloud, or any other service mash-up.

Pervasive visibility

Without total visibility into networks, devices, and services, it's very difficult to choose the right path. This becomes even more difficult when you figure in the prevalent third-party service landscape, migration to the cloud, and network virtualization.

Oracle Communications is one vendor that is focused on delivering full network visibility and combining it with Big Data and analytics capabilities to enable operators to be more agile. This is especially true since the company integrated Acme Packet and Tekelec product sets into its OSS/BSS portfolio. Doug Suriano, senior vice president and general manager of

Oracle Communications, told Pipeline that the goal is to drive down new service roll-out timelines from "6 months to 6 days to 6 minutes." Suriano explained that Oracle Communications is "very much focused on pulling the IT side of the business into the core network. Where we sit in the network, we have full visibility. Marrying the IT experience with the network is a killer combination."

Other vendors that leverage their capabilities to offer pervasive visibility come from a DPI legacy, like NetScout and Fluke Networks, or a network equipment legacy, like Ericsson, Cisco, and Nokia Networks.

Leveraging the API

Two new ways of delivering communications services have emerged that exhibit great potential: communication APIs and WebRTC.

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In contrast to application- or device-based communication, WebRTC is browser-based, and requires less development time, no specialized hardware, and no downloading on the client side. WebRTC is already being used for customer service in a variety of industries, including telecom. Agile operators will embrace WebRTC as they transform, either with in-house solutions or with partners like KANDY from GENBAND.

The API story is slightly different, although related to WebRTC. Essentially, by exposing communication APIs



to the developer community, agile operators can dramatically increase their new service development and launch speed. They can even move into new areas, like digital lifestyle management. Comverse, for example, offers a mobile API gateway to

serve as the bridge between devices or sensors and an IoT cloud. "This bypasses the usual problem service providers face, which is to build or buy an interface or app for each new device or service," says Mohan Palat, director of digital services for mobile operators at Comverse.

Business customers present another challenge that can handily be solved with APIs. The enterprise and SMB market is hot, and many CSPs are focusing their efforts on these customers. There's only one problem: typical CSPs cannot keep up with business customers' needs and demands. Take a ride-sharing company like Uber, for example. Uber activates tens of thousands of new numbers per month for its partner drivers in thousands of global locations. Simply put, typical telecom development times are way too protracted to serve the needs of cloud-generation businesses.

"SIP trunking takes provisioning time with a typical carrier,"

says Venky Balasubramanian, co-founder of Plivo. “Our cloud-based API platform for voice and SMS transforms telecom into a business advantage for customers— it drives quality up and drives cost down. We reduce setup time for new customers from 6 months to 60 seconds.”

Operator Examples

Some network operators are moving faster than others, and rolling out innovative solutions while laying the groundwork for future enhancements. Comcast’s Xfinity X1 platform offers a good example. Cable operators lost points when they couldn’t natively integrate web-based content with their bread-and-butter pay-TV and on-demand video. Xfinity X1 started by enabling these sorts of integrated experiences. Then Comcast leveraged X1 to bring two new services to market: Stream, its own OTT video service, and Xfinity Games, a gaming platform created with Electronic Arts.

AT&T, like many operators, is rapidly preparing its network for the future and making it extremely agile with the power of virtualization (SDN and NFV). Domain 2.0 is AT&T’s network roadmap for the future, and it’s all about bringing the agility of the cloud to the network itself. According to AT&T, “Domain 2.0 is a transformative initiative, both internal and external, to enable AT&T network services and infrastructure to be used, provisioned, and orchestrated as is typical of cloud services in data centers.”

How does this impact service agility? “AT&T services will increasingly become cloud-centric workloads,” writes AT&T in its Domain 2.0 Vision whitepaper. “Starting in data centers (DC) and at the network edges – networking services, capabilities, and business policies will be instantiated as needed over the aforementioned common infrastructure.”

Organizational change

Becoming an agile operator is difficult due to the sheer size and often glued-together nature of many large CSPs. As a result of mergers and acquisitions, as well as outmoded workplace philosophy, many CSPs are simply too siloed and fragmented to make quick moves possible. Two ways to break out of this without breaking the mold entirely are by embracing external developer communities and financing innovation incubators.

CSPs are also financed on different standards of success, as compared to their Silicon Valley competitors. The measure of success for a company like Facebook is closely associated with the number of users in the network, not necessarily gross revenue. Although it will be many years before this changes, it is important to note that boardrooms in Silicon Valley pivot on different metrics than

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telecom boardrooms.

Agility is the new differentiator

Moving quickly has always been important in business, so why all the fuss now? Agility matters because its definition has undergone monumental change in the past ten years. Telecom timelines today simply can’t keep up with the cloud generation, traditional networks are by nature relatively inflexible, and telecom structures are too siloed and massive. At the same time, connectivity is becoming commoditized. Agility is the new differentiator, and it is crucial that operators embrace the strategies in this article to remain relevant and profitable.