

The DevOps Culture In Telecom: Integrating Development and Operations

By: Tim Young

The rise and growing prominence of the DevOps culture in recent years has been hard to miss. This collaborative union of development, operations, and quality assurance professionals in order to develop and deliver products and services quickly has gone from theoretical to ubiquitous in relatively short order.



It's an approach that's [not without its detractors](#). Objections range from "it's a mish-mash of ill-defined buzzwords" to "it doesn't scale" to "it's only worth doing in a handful of industries."

On the other hand, at least one recent report reminds us that DevOps is still pretty new. Analytics firm Logz.io released the findings of its [DevOps Pulse 2017](#) survey a few days ago, and the results show that half of the 700 tech companies surveyed either haven't fully implemented DevOps or only did so in the last year. Furthermore, of those companies that had implemented DevOps, 42 percent said implementation took more than a year.

So this whole thing's about time-to-market, but it doesn't happen overnight. It's a matter of overall approach — a culture change.

And we know full well that it isn't for everyone. More to our point, there's been a great deal of discussion about whether DevOps culture is useful, or even possible, for CSPs.

And that's a relevant question, because they're certainly trying. AT&T's shift to DevOps made [a great deal of news](#) two years ago, and T-Mobile made DevOps and the rapid speed it facilitates a part of its "Un-Carrier" philosophy around that same time. Verizon, likewise, has made DevOps a part of its approach, with an eye on speed and flexibility.



"At the end of the day it's about enabling business agility by improving time to value," said Ross Clanton, director of global technology services at Verizon. "Getting from business ideas to prioritizing, designing, building and delivering those ideas so they add value to customers as quickly as possible is really what it's all about."

One of the knocks against DevOps practices in the context of CSPs is the massive complexity of communications networks and technology. But Clanton notes that the complex technology ecosystems that CSPs have are all the more reason to introduce DevOps practices.

I had my suspicions that DevOps may be practiced in out-of-the-way corners of CSPs' environments, insulated from the main business lines and network operations, but Clanton insists that the implementation of this culture is far reaching.

“We have over 1,000 teams at Verizon practicing DevOps to some degree,” said Clanton. “These teams have all seen significant improvements in their deployment frequency and overall time to value, with most able to deploy/release changes to their applications weekly or even daily.”

The goal is continuous integration, delivery, release, and deployment. Continuous everything. And, as written earlier this year in the [Ericsson Technology Review](#), the DevOps approach balances the competing desires of rapid change and stability, and has an important role to play in the rise of 5G. With an ultra-fast time-to-market expectation, widely distributed resources, and sky-high service quality demands, 5G is a challenge that requires the sort of massive culture shift that DevOps proposes.

Can that shift be done in a world of communications giants never before known for their progressive, malleable culture or business approaches? Ross Clanton thinks so.

“Culture is the most important aspect of DevOps transformation, but I don't think cultural challenges are unique to CSPs,” Clanton said. “Verizon absolutely has the desire to make DevOps work at a large scale and we are investing in the cultural changes needed to ensure it is successful.”

These efforts, Clanton notes, include “events and activities inside the company as well as those externally to focus on strengthening our tech community, building stronger collaboration and sharing horizontally across the company.”

These cultural shifts are important, but it's important to note that one of the more tangible elements of the DevOps approach is a massive effort to automate processes. A [recent blog post](#) by Don Jones of PluralSight notes that “obsessive automation” is one of the telltale signs that you are on a real DevOps team.

The advertisement features a dark blue header with the Pipeline Market Research logo. Below this is a yellow banner with the text 'CUSTOM RESEARCH REPORTS AND SURVEYS'. Underneath is another dark blue banner with the text 'LEVERAGING THE COLLECTIVE KNOWLEDGE OF THE GLOBAL MARKETPLACE'. A red button with white text 'GET PRICING & DETAILS' is centered below. At the bottom, a grey bar contains the text 'Click this ad for more information' with a line and circles on either side.

“They know that the job of DevOps is to provide the smoothest, safest, fastest and most reliable path between the developers’ keyboards and a production deployment,” Jones writes, “so that each new coding sprint can quickly result in a tested production deployment.”

Automation is the key to smoothing out that path, and in many ways, that automation can be its own reward. Even without the broader culture shifts that DevOps culture brings about, the automation alone can increase efficiency and reduce time-to-market. The automation that the DevOps push brings about is a net gain, even if the wider culture shift proves untenable.

Are we at a stage where we can be justified in declaring it so? Ross Clanton and the Verizon team don't seem to think so. And judging by a quick scan of the job boards, the hiring departments at nearly every major carrier don't seem to think so.

With significant DevOps adoption currently underway, we will be able to see just whether these big organizations can learn to really bend.