



Digital Transformation in Telecommunications and Cable Industries

Chris Menier, a transformation strategist with Vitria, discusses digital operations and the role of emerging technologies like AI and analytics in successfully enabling digital transformation.

Why is digital transformation important to the Telecommunications and Cable Sector?

Operators that have successfully implemented digital transformation programs have lowered their operating cost, improved their subscriber experience, and enhanced the productivity of their operating staff. Operators who do not implement digital transformation are unlikely to be able to retain their client base and sustain their profit margins.

In order to remain competitive, the NSPs, the Telecommunications and the cable operators need to update their internal systems and often their skill sets as well. Digital operations platforms including analytics and AI are becoming key elements of digital transformation programs at the NSPs.

Maintaining revenue per user (RPU) is a real challenge for network service providers. How can digital transformation help them improve their RPU?

There is high demand in this sector to improve the customer experience. Customers rely on internet connectivity and their mobile devices, now more than ever. To maintain and grow their RPU, operators need to introduce new revenue generating services and enable the subscribers to get the services that they want across their devices, as fast as they can.

How can we apply digital operations to fight subscriber churn?

The key is in the subscriber experience. Successful companies who've implemented digital operations understand their subscribers and have deep knowledge of what their experience is like in real time. They understand

how changes in the network may impact that experience and are able to react to prevent adverse subscriber experience. This is extremely important.

Vitria's VIA platform brings together real time data about how the customer is interacting with the services, how the network is performing, how infrastructure changes may be impacting that service and provides visibility to that data by delivering actionable insights to the network operations staff in order that they can take immediate action. If operations sees that the service is suffering they're able to react to it and they don't have to rely on the customer to call and inform them that service is broken or degraded.

So, you're indicating a significant shift in the industry from optimizing technology and processes, to optimizing the consumer experience. What are the implications of this from an operations perspective?

The Telecommunication and Cable sector is now focusing on providing their customers with a more personalized service, particularly with mobile devices. To accomplish this, service providers must be much more agile. They need to be able to capture massive amounts of data, adapt to the introduction of new software releases and new devices/configurations while continuing to deliver high quality services.

The Vitria VIA platform is able to respond to this complexity. Ingesting streaming data and automatically detecting changes within the subscriber populations. By monitoring behavior changes and their impact on the subscriber experience, we can quickly alert on behavioral changes and the impact to the subscriber so that action can be taken quickly to rectify concerns and issues. For example, a group of subscribers downloaded some new software, and this is what happened to their experience.

Are you finding that the data that you are helping to make available has a market, has people on the receiving end that can actually act on it and take the steps necessary to make better business decisions?

Yes, this insight is helping to break down not just data silos but organizational silos as well. One of the large cable operators in North America had gone through a project of trying to understand the impact of network changes on the customer experience. A care organization with which we discussed the customer experience insights said we don't want you to show that to the network folks because they're going to see that we're unnecessarily sending technicians to people's homes to fix network problems we should have recognized. When we met with the network folks they said please don't show that to the care organization, we don't want them to see that when we touch the network we're impacting the customer service call volume that they're experiencing. And so, what successful companies are doing and what this company did was rise above that and put the subscriber as the key focus and take those insights they hadn't seen before and start to take actions on them. It's given both functional groups in the organization real time visibility and a common pane of glass if you will, to take decisive actions.

How do you work with telecommunications and cable companies to design, develop and deploy effective digital transformation and digital operation strategies?

It starts with the concept of a journey to digital operations excellence. The journey takes time and typically progresses through five stages. The first stage is real time operations visibility and the last is predicting failures before they occur. We like to understand where the operator is on their digital operations journey and take stock of their digital assets including the systems, infrastructure, and the data attributes. Understanding this, we map out a set of use cases based on the current reality within that organization. Given scarce resources and legacy systems, most organizations need to evolve before they can digitally transform.

You mentioned 5 steps. Can you walk us through each one of them so that we have a clear idea of what people should be thinking of as they develop and design their digital transformation journey?

The first step is real time operational visibility. This involves taking data from different systems across different functional groups and putting it together to determine the customer experience, how a network is performing, and how new devices are performing in the network. Organizations need to be able to visualize in real time the key performance indicators of their entire operation.

The second is advanced anomaly detection. Anomaly detection has been around for a long time, but often it just creates more noise. Advanced anomaly detection is determining the root cause within a sea of this time series and behavioral data. To hone in on the cause and fix the problem immediately.

With real time operational visibility and advanced anomaly detection, we've built a foundation. Now in the third stage, we can focus on dynamic populations and the change management process. This is when a population group, which can be a group of subscribers or groups of entities like devices, make a common change and how that change impacts their service.

The fourth stage looks at incidence lifecycle automation. The available data is correlated and enriched in a way that anomalies can be detected, patterns of change can be identified, and automation can be implemented to fix issues reducing the level or necessity of human involvement.

The final stage is dynamically predicting failures. The ability to read the signals and understand the fingerprints of a failure or service impacting experience before it occurs to implement proactive maintenance measures.



About Vitria Technology

Vitria VIA IoT Analytics Platform empowers enterprise and industrial customers to analyze faster, act smarter, and achieve better outcomes in their IoT and business operations. The company has a history of success in streaming analytics, business process management, enterprise application integration, and operational intelligence.

Vitria is now a leading player in the rapidly growing IoT (Internet of Things) analytics market. Customers include Fortune 500 companies and enterprises across a wide range of industries, including finance, manufacturing, telecommunications, utilities, retail and more. For more information, visit www.vitria.com.