



# Digital Transformation in the Network Service Providers

Mark Wyman, Senior Vice President for Application Development with Windstream and Chris Menier, Vice President and Transformation Strategist at Vitria, a real-time analytics platform provider for Digital Transformation and Artificial Intelligence answer questions regarding digital transformation objectives, initiatives and challenges in the Network Service provider market.

## How are network service providers changing and improving the way they engage with their customers? And how is that affecting customer engagement?

For both residential and business customers, Windstream is now an all-digital service provider all on, all the time, leveraging cloud services, IOT, and related technologies. Customers expect their network service provider to know when there is an issue that's impacting them. They expect their service provider to be up to date in terms of technologies and to expand and differentiate their services.

The amount of data that Windstream collects about our customer's experience, and the health and status of our network has grown exponentially. And, our objective is to leverage this data to optimize the customer experience and provide excellent service. It is transforming how we operate day-to-day and where and how we invest in IT and network technologies.

## Chris, how are Network Service Providers using data to improve their operations?

To truly optimize their operations and leverage all the data available, NSPs need to break down internal silos within their business. They need to understand how the operation side of the business is impacting service delivery and how everything impacts the consumer experience. The only way to do that is through data and turning that data into business insights and then making relevant data available not just to the internal operations teams but even sometimes the consumers themselves in real time.

## How has that played out for Windstream in terms of developing a new culture or a new way of thinking about how data should be aggregated, analyzed, processed to achieve the objectives you outlined previously?

The older technologies are all shifting to become IP centric and IP enabled. This allows us to leverage that IP address and the information around it in order to share data across applications and make it accessible to customers via websites, via mobile applications, via chat, and via robotics operation of tasks. It allows customers to reach out to us by IVR or other means. But it's got to be ubiquitous. It's got to be consistent and it's got to be accurate. So, we are working very hard to leverage an incredible amount of data with the valuable information it contains so that we can empower customers and also use this information to know the health of our services at all times. It's a very big transition from the legacy TDM (Time-division multiplexing) world where the customer really had to typically call us with problems. Today, customers expect and want to be empowered and like to remain in control.

## What was the change management process Windstream used to move to a more integrated IP environment?

Although our vendor technology partners have been key in supporting the migration from their older technologies to IP, SDWAN and UCaaS cloud solutions, we've been driving change through our architect teams and our design teams. We have a mandate from our senior leadership to be on the cutting edge. Windstream wants to be on the leading edge for new services that empower customers and let them have self-control. The only way we can do that is to shift our energies and focus to SDWAN, UCaaS, big data based solutions, and to leverage AI and automations wherever we can.

**Chris, from your perspective, what do you think service providers should prioritize in order to make the biggest impact to their operations and move in the right strategic direction?**

I believe it starts with just fundamentally understanding what your business is capable of today and then putting a plan together that makes sense that you can implement incrementally. We are in the nascent days of AI and many other technologies. Don't be in search for the silver bullet. There isn't a silver bullet algorithm out there.

You really need to look at an analytics platform solution that provides you with the agility to navigate through this transformation journey. The data at carrier A is going to be different than carrier B's data. The services that you're looking to roll out and the prioritization of those services whether it's SDWAN or UCaaS are going to take a different path than your peers in the marketplace. You need to select an agile analytics platform that allow you to start quickly but also enables you to customize for your specific use cases and your specific data sets. You need a solution that is able to address multiple use cases and provides the flexibility to easily change as the data and market demands. Otherwise, you are likely to find yourself with replicated tools and suboptimal performance.

**Mark, would you like to add any additional insight?**

Yes, I would. Windstream has a tremendous amount of data, but we need to do something intelligent with it. You need to know what data among the terabytes and terabytes of information available you should care about. What data impacts a customer? What data impacts the operation, orders, billing, and accuracy across the board? Where and what do you look at first, that's critical. We're leveraging tools from Vitria, other providers and home grown applications to isolate and make sure we're working on the most important things and to drive improvements and deliver key solutions to customers that work and work well.

**How different is the skill sets that you need today to make sense of this enormous quantity of data? Have you had to bring in resources from outside and hire new talent? How has Windstream skilled up to understand this much more complex environment?**

We are growing some of our own talent and have brought additional talent in-house. Skills in database architecture and new technologies like Hadoop are needed. We are also recruiting very highly skilled data scientists and data analysts. These are skills we weren't recruiting for 10, 15, 20 years ago. These data scientist help us determine what is most important, what is valuable, what is insightful and what is actionable as well.

**Chris, how well prepared is the network service provider community? How ready are they to attract the best and the brightest and address the challenges that exist in competing for this talent in the market across industries?**

A key driver for the NSPs to recruit the best talent is the fact that they're a bit more mature than some other industries in terms of data infrastructure, data warehousing, data lakes and so on. NSPs also have interesting use cases and a tremendous amount of data which is the lifeblood of a data scientist. There is also another question. Do you try to take a subject matter expert and make them a data scientist, or do you try to teach the subject matter expertise to the data scientists? I know that in order to have success in analytics you have to allow for ease of collaboration between a business process subject matter expert and the data scientist. You need an agile environment, an agile platform that allows your subject matter experts to engage easily with your data scientist.

I think about an antidote in a NOC. It was a Tuesday at 10 o'clock in the morning and I was looking at a red alarm on this person's screen and asking why they weren't reacting. He said, "well it's Tuesday at 10 AM," and clearly, I was confused and didn't understand what he meant. Then, he told me that this alarm related to a public service station that plays a PowerPoint slide with no sound, so a no sound alarm from that channel happens every Tuesday at 10 am. That's not something that a data scientist is necessarily going to pick up in data. So, enabling collaboration between subject matter experts and data scientist provides the human intelligence combined with the artificial intelligence to get some of the best answers. Having that collaboration is also what is going to drive the best and brightest to telecommunications, to the NSP space.

**Mark, could you give us your perspectives on how Windstream doesn't get lost in the data. How do you retain the customer centric focus in your transformation process?**

Customers want to be empowered. They want to be able to make their own decisions. New technologies, like SDWAN gives them the ability to make decisions on how they want to configure their services. We need to allow customers to make decisions and give them the ability and tools to make the changes they want. We need to ensure that the data is accurate and that they can make changes in whatever mode they want to. This could be via a portal, via a mobile app, or other means. The ability to empower customers is driving what we're trying to do daily. It starts with data, but our overall objective is to provide customers the best solutions we can and let them make decisions.

**Chris, do you find with NSPs there is a strategic focus on ensuring that their data gathering, and their data analytics are geared to the mission of empowering the customer?**

Customer experience ranks as one of the highest areas of focus in the NSP space. Recently I met with one of my contacts at a large Network Service Provider who is responsible for customer operations. I asked what their key metrics were going to be next year. Previously, they had been looking at things like average handle time and first call resolution. He indicated his only metric is customer experience. This might entail setting up new portals, new methods for customer contact, introducing new services or notifying the customer of an issue. They don't care if it takes an hour to resolve a customer need. They don't care if a customer wants to connect with them to do that via their mobile devices, via browser, via phone call, or stopping in at one of their retail stores. They want to solve the customer problem quickly and provide the customer the method of contact based on their preference. He advised me that he was throwing the old metrics out the window and using a single metric, customer experience. That resonated with me as a consumer of services, that's exactly what I want my executive focused on at my network service provider.

**Mark, at Windstream do you see customer experience as a way to organize the key metrics that you're going to be measuring your performance against? Does that represent a different perspective from a few years ago?**

Customer experience has always been important but now it's an imperative. From our CEO on down, having accurate data that can be used to support customers, install services, troubleshoot services, do all the day to day tasks that are require to provide high quality services is essential. It's imperative to make our data as accurate as we can.

**What would you say are the keys to funding transformational changes, migrating from the old world, which is generating revenues and high margins and then allocating resources to less mature environments? How do you begin to transition resources to move towards the future while still funding the core activities that are bringing in revenues today in your environment?**

You just have to do it. We have to transition to keep ourselves competitive and show ourselves to be leaders to consumers and to our partners. We need to be very focused on the future. What products we are going to be selling. What services we should be delivering. What consumers, large enterprise, and carriers need so that they will choose and remain with Windstream. We need to focus and contribute our energies on the future while we keep the legacy alive as long as it makes sense while moving more and more towards future products and services.

**Chris, what is the best scenario for the network service provider community to successfully make it through their digital transformation journey in a way that keeps them relevant, keeps them solid, keeps them profitable?**

Digital transformation will be focused on the customers and their experience while investing in and evolving the underlying technologies that will future proof the organization. The best scenario is to move rapidly but start in those bite sized chunks that are going to return value to the customers and to the organization quickly.

At Vitria with our VIA platform, we've purposely combined a low code development platform with solution templates to accelerate transformation to digital operations. We recommend starting with breaking down organizational and data silos and moving to dynamic failure prediction. Our mission is to empower organizations to evolve their digital operations on a singular, open platform that will grow and scale with them. A platform that integrates with the technologies we've spoken about and can adapt to changes as markets and processes evolve over time.



**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](http://www.vitria.com).