

Vitria VIA AIOps 3.0 Reaffirms Commitment to Continued Improvement in Customer Assurance



Marc Austin, Head of Strategy and Growth for Crosswork Network Automation at Cisco and **Chris Menier**, General Manager of VIA AIOps for Vitria discuss the latest VIA release with **Charlotte Patrick**, Telecom Industry Thought Leader.

Charlotte: Cisco and Vitria have been working together for a couple of years, what does Cisco see as the key differentiators of VIA from the other AIOps players? Why did you decide to work with Vitria?

Marc: Cisco is in the business of providing infrastructure to mass scale networks, including automation software, to large service providers, hyperscalers so that they can automate the operations of a 5G network. We resell Vitria as part of our automated assurance solution for those networks including: 5G transport, 5G mobile packet core, and 5G RAN. Automated assurance for those three different domains, and sometimes, all three of them together in the same solution.

There are several players in the AIOps space. And a lot of those players are addressing IT data center operations. The complexity of managing performance and faults in a public service provider is significantly more complex, and more difficult, and requires much more scale. What sets Vitria apart from other AIOps players is their focus on the service provider market segment, and a focus on network operations improvement. Having a partner who's focused on network performance and fault management and delivering customer value for Cisco customers is what sets Vitria apart.

What types of projects have you worked on?

Marc: Major 5G service providers in the United States are building out and expanding, making sure that there's an assurance solution in place for that. In some cases, with the Service providers in the MEAR region, it's constrained just to the mobile packet core, but probably will expand to transport or RAN as well. We are also facing similar projects in Asia Pacific.

We do get bleed over into enterprise accounts as well, who want to use VIA for data center applications. VIA AIOps is flexible enough where it can flex into those other environments.

Could you just talk to us a little bit about what the new release of VIA offers customers?

Chris: Absolutely. The theme for this latest release version was openness. And openness as it relates to VIA entails how data gets into VIA, how we integrate into existing workflows, as well as how actions are defined. Because in the end, really what we're pushing towards is automation.

We also double down on the concept of being service aware, seeing everything through the lens of the customer. We've added integrations into work processes. Our objective is to be non-disruptive, integrate with workflows,

and make them smarter and more reactive. We've put a lot of effort into providing out of the box deployments that don't require a lot of manual configurations, so algorithms are ready to go as soon as data starts hitting VIA.

We've also improved the UI to support multiple personas across various types of use cases. Personas may be SREs, network operations analysts, or even business folks who want to see the value that VIA is creating. Custom dashboards supporting multiple personas can now be built in minutes.

And then finally, we made it simpler to use, not just from the UI perspective, but even from the installation, the operations, the ongoing care and feeding.

These are some of the major features that we're bringing into this new release.

You claim out of the box deployment. Could you clarify what that means and give us some time scales for a typical deployment?

Chris: We want to add value day one. Within the first hour of powering up, we ingest our own logs, faults, and performance data around our infrastructure, around our software, so the user can see that VIA AIOps is working. They can see how the analytics are performing. From there, we want users to get their data streaming into VIA.

A three-to-six-week soak period for tuning and configuration is needed to learn from the out of the box algorithms and see if any tuning or tweaking needs to be done to conform to the operational best practices.

Out of the box day one, you're going to start seeing some results, you're going to be seeing your data analyzed in a completely different way. But really, after that several week period, you should start pushing on the automation.

What's new in analytics and AI in this new release?

Chris: One of VIA's differentiations is our ontology-based approach. It goes beyond your basic enrichment or your set data schemas, the tags, or dimensions. We enrich with three main categories of information: Inventory, things like entity type, and make, and model, and those sorts of things; topology, understanding where it lives, so we can understand neighbors, connecting points,

node edges and endpoints; and finally, the service dependency side. Are there services running over these entities? If so and it does fail, what services are impacted? This approach allows us to correlate across the entire service delivery ecosystem. And that's what allows us to get to probable root cause. Otherwise, you're just doing noise reduction and not getting to the root cause.

We coupled this ontology approach with what we call affinity. Think of affinity like similarity. It's a way of asking VIA if two signals detected might be correlated. And once we correlate them together, we're taking a combination of artificial intelligence and human intelligence to constantly inform those affinity algorithms and improve the accuracy.

Once we've understood that these things are related. What might be the cause versus just the symptoms? We allow human intelligence to continue to improve the algorithm and get us to the best probable root cause and the impact.

In this version, we just continued to invest in the analytics, not just adding more algorithms, but simplifying it by helping to explain how it goes through that entire pipeline.

How are customers catching issues that previously were more difficult to detect? Could you just talk a little bit about what it's like in practice?

Marc: Customers typically have a whole lot of different assurance or tools at their disposal. They've got legacy systems that are monitoring performance of a network element or doing fault management. The main thing that VIA brings to the table is aggregating the details and correlating through their ontology approach so that you have a macro view of the performance baseline, any anomalies, and any root cause related to it. When you have all of that correlated and analyzed in the way the VIA does it, it reduces the mean time to resolve issues significantly.

Last month, we were talking about new ML initiatives around digital fingerprinting and in model learning. Could you just talk us through what they do and how they're being used?

Chris: We tie digital fingerprints to model learning capabilities. For example, a user can reject VIA's suggestion, and if rejected, this will inform future suggested actions. VIA also detects that an incident reopened or that maintenance was needed sometime later. We see this in change management all the time. We touch the network, things break. Learning those patterns, tying those

incident management and change management systems for continuous learning improves the whole automation process. Digital fingerprinting builds the trust that a suggested action is the right action, and when that happens you can flip that automation switch.

Marc mentioned the reduction in MTTR, the mean time to restore. We're seeing this in action. At some of the largest carriers we're reducing the MTTR by up to 40% or full scale outages and 80% when we're talking about impairments. Why is it so much bigger on the impairment side? Those are harder to find issues. Those nuanced issues can bubble to the top and degrade service.

What features have been added to better integrate with existing processes?

Chris: One of the ways we speed up deployment and adoption is by integrating with existing workflows and collaboration tools. If a team is collaborating using WebEx, we're going to integrate with WebEx and not give them a new queue that they must manage. If a team is used to having a system like ServiceNow, or any other incident management system, we're going to integrate with that system as well.

We've worked on deep linking into other tools to reduce that swivel chair action significantly and integrating directly with the tools and systems already being used. Customers can start getting value out of VIA immediately versus having to reeducate or re-architect workflow processes.

What does Cisco expect to see as the key benefits for the VIA AIOps new version for its users?

Marc: This concept of ontology that Chris was describing is important. If you already know the network environment that you're plugging into and how to make sense out of the data structures that are coming from network elements or from other network assurance tools, you're going to be able to enrich and correlate that data much more quickly. So, what does that mean? It means that your cost of our implementation is going to go down and you're going to get to market faster. So smaller statements of work, quicker time to market, is very valuable. We've been working on a reference architecture for transport network assurance where VIA is tightly integrated into the other Crosswork Automation applications in our Crosswork Automation suite, so that it's an out of the box transport assurance reference architecture that includes the VIA ontology.

Thank you. These are interesting topics and much needed with 5G network assurance.

About VIA AIOps

VIA AIOps is a next generation AIOps application that enables intelligent automation across all layers of service delivery to improve the customer experience and optimize operations. VIA AIOps provides total ecosystem observability, and explanatory AI to increase confidence in automation. VIA AIOps delivers noise reduction, correlation, and intelligent automation across operational silos to enhance customer experience and reduce operational cost by enabling more rapid issue detection, mitigation and resolution.

