

Operationalizing AIOps at Massive Scale



Randy Burke, Telco executive with Charter, Comcast, and ATT joins Dale Skeen, CTO, co-founder of Vitria Technology to discuss operationalizing AI at scale and how Vitria VIA AIOps differentiates itself in the AIOps space. Charlotte Patrick, telecom industry analyst and thought leader moderated the interview session.

Charlotte: Is AIOps more important for Telcos than it is for other industries?

Randy: It's important for every industry but critical for the service provider industry because of the inherent complexity. Supporting these services encompasses the last mile, metro and backbone networks, applications, native cloud, and public cloud with hundreds of touchpoints across the ecosystem. To understand service performance and causation an AI/ML platform must be layered on top of this complexity.

Charlotte: What is holding companies back from implementing an AI/ML platform?

Randy: Some think that the underlying technology for AI or ML isn't ready for prime time but the technology is ready now.

Another barrier is the use of a domain-based approach. The beauty of AIOps is that you can stretch across the application, cloud, networks, and the services. Historically those are often managed by different organizations and not viewed holistically. You can't realize the full value of AIOps if it's too narrow of an approach.

There is also always a concern that it'll take too long to deliver and not function as advertised. It is best to use a "prove it approach". Run a trial with real live streaming data to demonstrate it delivers the expected results, on time, and at cost.

These are the three limiting areas: a technology not ready mentality, a domain approach, and the too long to deliver belief.

On the domain-based approach, it's important to pick a champion within the company that has credibility across domains. The program must have visibility at the EVP, CFO, CTO level to help cut through the silos and issues. Then for implementation, it must be measured in sprints. There is no reason that transformational results aren't achieved in 30 days and then further results layered in.

Charlotte: What are the results that you've seen implemented with these sorts of platforms? What are the metrics that matter?

Randy: To detect, learn the cause, and trigger the automated intelligence before the first customer realizes pain is the metric. Start the measurement from the very first portal or customer call interaction to the time you have the issue resolved. Get outbound messaging in front of care agents, in front of the engineers, and in front of customers before they realize they even have an impact. These are the types of metrics you should focus on to achieve, to detect and to realize an issue before the first customer call.

In addition to shortening customer pain and driving efficacy, you want to decrease the frequency of issues. Think about the number of impacts that are caused by escape defects on maintenance. When you correctly implement AI/ML, you never leave a maintenance window with unexpected impacts. You embed the platform into your test and deployment processes and should be able to achieve more than a 50% reduction in restoration time and more than a 75% reduction in escape defects.

You also need to deliver innovation faster. With an effective AI/ML platform, you're able to deliver innovation at breakneck speed. Understand customer value through rapid soaks and more quickly deploying change across the base.

You should also be driving for more than a 20% improvement year over year on overall efficacy.

Charlotte: How long does it take to realize value with AI/ML implementation? Is it incremental or is it more transformative in nature?

Randy: That's always an interesting debate. My argument is don't go down the journey if you don't want to be transformative. You should see transformative results every 30 days and then layer in value in a series of sprints. Select a specific service to start with first, then focus on causation elements and layer in federated workflows such as triggering the messaging back into the care agents and automation. You should realize quantifiable customer-impacting results every 30 days as you layer in additional systems, services, platform, and components.

Charlotte: What are the key requirements when choosing an AIOps product or a vendor?

Randy: The vendor and the product are distinctly different questions. Let's start with the platform. I always go with the prove it approach. The vendor needs to prove the platform by doing a live trial, using real data, handling the integrations, and measuring the outcomes. In 30 days from start to finish you should have the trial results done and decision made.

The product must ingest different data sets and data types in real time and handle data anomalies. The ability to adjust for data inconsistencies is a must have.

Cost effective scaling is required; you need to minimize the amount of compute and storage required via a modular approach and your overall cost model must be well thought out.

It should support cloud-based on-prem or off-prem deployments. Sometimes it's quicker to start up in an off-prem approach. But, long term, I'd rather be close to the data and not pay for pushing data to and from off-prem.

Sitting on a bus such as Kafka is a requirement. The days of a monolithic, my platform will do everything for everybody are over. You need to use a federated approach and be able to tap directly in and integrate into your workflow, tap into your scheduled maintenance, and your customer care systems. The

ability to federate within your environment quickly with easy plug-ins is mandatory.

Last you need a core AI/ML based platform that you can continue to grow on.

Now the vendor side becomes a little bit more interesting. They must demonstrate ability to meet schedule, hit cost expectations, and deliver feature functionality. Next, they need to have strong financials, a going forward vision and investment in R&D. Then there must be a relentless shared approach on the end user customer. The vendor needs to be agile. I don't want my code releases every five months or take the entire system down to do it. Last, they need to have an outcome-based mentality.

Charlotte Patrick: Tough customer. I know that you and Vitria have had a long association. Why Vitria? Could you just give me insight into that, please?

Randy: Going back to the checklist on the platform and the vendor. For the platform, VIA AIOps checks all the boxes –

- Proving the solution
- Ease of ingestion
- Cost effective scaling
- On-prem or off-prem cloud based
- Federate with systems
- True AI/ML platform
- Logical security

From the vendor perspective, my perspective is Vitria is a great partner – on cost, on feature, strong financial investment going forward, and a relentless pursuit of customer.

Another important element to consider is the importance of driving competition. When correctly implemented, you should be able to continually test and assess others in the market by simply swapping the underlying AI/ML module. Locking oneself into a vendor by using tools specific to an off prem cloud or other sticky points can be far to limiting. Sitting on top of a bus I can move things around and I can bring competition into play. Competition is a good thing.

Charlotte Patrick: Let me ask you about some of the tough parts of getting AIOps to work for you? Large data sets, multi-vendor, multi-domain, multi-stat, up and down, such a huge data set. How was that for you? Could you give me some insight into your experience to date?

Randy: I can't think of a data set that can't be ingested. The secret sauce is eloquently accommodating missing and malformed data

Dale: You must build your system and your AI around detecting those data anomalies and not throw off alerts and alarms when they occur. You take baselines of data and frequencies of polling, and you see if those match what you see in the incoming data. And if there's a mismatch there, that indicates the problem is in the data, not in the systems. You build all these safeguards into the system. Some are traditional, some are driven by AI.

Charlotte Patrick: How important and what are the differences between observability and AIOps?

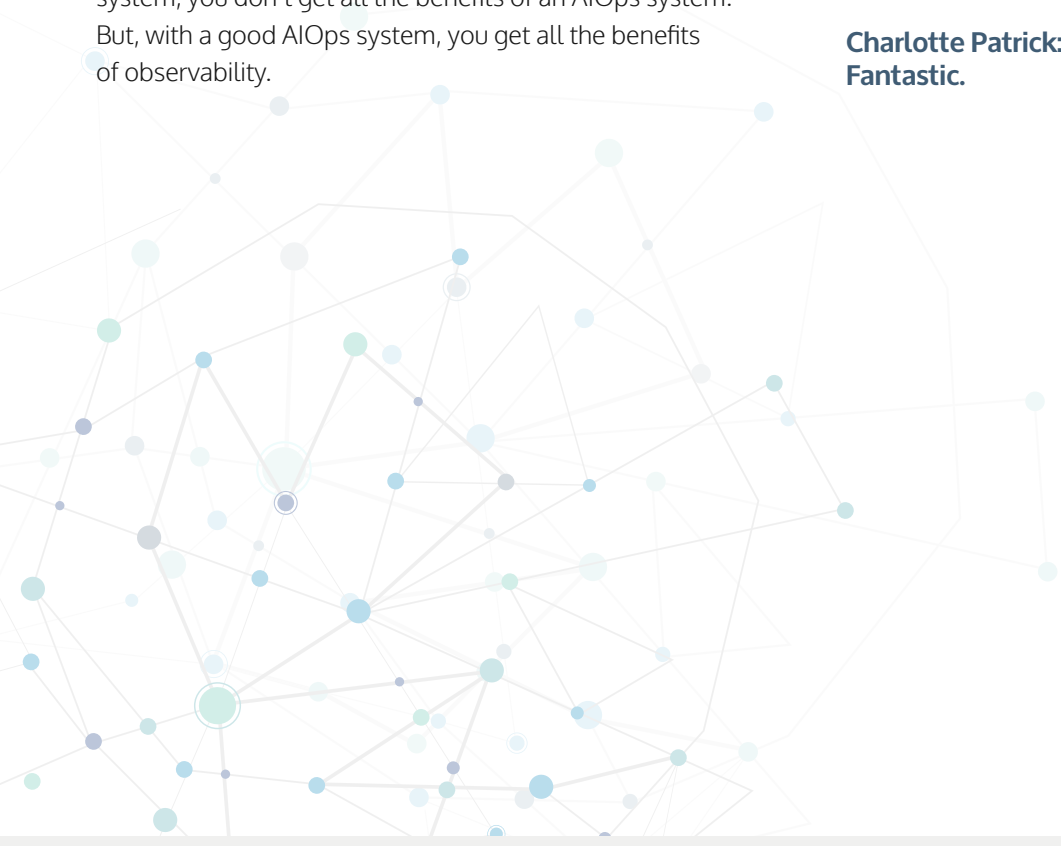
Randy: With a correctly implemented AIOps system, you should get observability for free. An AIOps system by default looks across the ecosystem. Don't buy an observability system. Go after AI/ML platform, get observability, intelligent automation, and causation. With even a great observability system, you don't get all the benefits of an AIOps system. But, with a good AIOps system, you get all the benefits of observability.

Charlotte Patrick: Dale, you mentioned your system can scale massively. Does that mean for a small company that needs a simple use case like observability that there's no benefit from using VIA?

Dale: We built the system to both scale up and scale down. We have engineered it to be elastic with an elastic architecture that's efficient and cost effective at any scale. Even if observability is the first step in your journey, perhaps, eventually you will need automation. Then it's important to be able to work with a vendor that can take you to the next step.

With observability, you can see what the problem is. With AIOps, you can then deliver the insight to be able to act properly on what's happening and even automate that. If you want to continue that journey, you need an AIOps platform, not an observability platform. With AIOps you not only see the problems, but you also gain the advantage of AIOps insights. You get AI-based correlation, causality, and the likely fix in addition to observability in an AIOps platform. And you don't get that in an observability platform.

Charlotte Patrick: I'll take the two for one deal. Fantastic.



About VIA AIOps

VIA AI powers VIA AIOps to deliver the process automation capabilities required to transform operations and dramatically lower cost. VIA delivers intelligent automation from a powerful platform that combines AI, analytics, and machine learning in real time. VIA provides Telcos with a modern operating model that enables a superior customer experience and supports a leaner, more efficient, and effective operations staff.

