Seize Opportunities for Modern IT Operations

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PACKETPUSHERS

VIA AIOps

Greg Ferro, Tech Analyst and Network Architect at Packet Pushers,

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Chris Menier, President of Vitria VIA AIOps

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Chris Menier, President of Vitria VIA AIOps

With today's technology, IT operation's strategic objective should be to know and address service impacting issues before their customers report a problem.

Service providers, whether they be internet, mobile, cable, phone, third party IT services or organizations delivering IT to their own large enterprise shouldn't allow users of their service to be "canaries in a coal mine". The ability to discover issues and problems before the user calls the support desk is key to improving user experience and becoming more efficient and effective. Scaling the operations staff is not the answer. You need to use technology that delivers more intelligence and more automation.

Value of VIA AIOps

Service Operations Management teams need complete awareness of service performance impacts across the application, network, cloud and in house infrastructure domains to rapidly detect, triage, and resolve incidents. VIA AIOps provides the full stack observability and process automation for Incident Management that intercepts all the noise before it hits the Incident Management system. This noise drives work, work that can be automated. VIA identifies issues within and across service-delivery domains automatically, with all the relevant information required to take the right action. And, overtime, prescribed actions can be sent directly to an orchestrator or an automation framework.

Using existing telemetry

VIA can ingest data directly from end devices including telemetry in various formats such as gNMI and MDT, as well as traps and syslog. Alternatively, VIA can leverage investments that the enterprise has already made by ingesting that telemetry from applications like ThousandEyes, Netscout, RabbitMQ, or Amazon Kinesis.

Chris Menier states: "Vitria, the company behind AIOps was founded over 25 years ago. It's always had a model driven computing framework. And that evolved to business process management, business process automation, which gave Vitria a ton of experience in workflow automation, complex event processing, and operational intelligence. As a result, we've gotten very good at ingesting and normalizing data from various sources and enterprise tools."

VIA's flexible ingestion framework will normalize two different types of data. One is a discrete event that happens in isolation, such as a syslog. These are deduplicated, noise reduced. The second is detecting anomalies in time-series. And it doesn't matter if these counters are 16-bit, 32-bit, continuous counters, gauges, etc. VIA AIOps normalizes them in an abstraction layer that allows the user to easily view them in a UI like you would in the individual tools themselves. This framework, however, is a means to an end; it's not the full value of the product. The value comes with the correlation and analysis, the understanding of the interplay of telemetry across the domains.

Transforming operations – Reducing cost, accelerating resolution, improving effectiveness

Chris Menier believes looking for that single pane of glass is chasing the wrong problem. According to Chris, "You can't keep up with the speed of complexity that's entering the enterprise IT space by just having a bigger dashboard or something with more red dots in it. "

 "We'd like to think of ourselves as the first pane of glass. This is where things come together. We sit on top of that infrastructure, we're the unifying layer, the analytics and correlation engine in the operations flow. And often, what we're giving you is that fully triaged incident. The cloud folks want to have their view and the security folks want to have their view. You're going to need that for some lower-level triage. But when you're locked into that view,

you don't understand the interplay. You don't know if something that's happening from the security side is impacting your cloud infrastructure. You don't want multiple teams solving the same problem. So, if you simply create a dashboard with all the views on it, then you still need someone to visually line these things up. It doesn't scale.

"You've got hybrid clouds, you've got off-prem clouds, you've got on-prem clouds, you've probably got a new cloud or an urgent cloud on your on-prem. You've got applications in containers, in VMs, you may even have some native bare metal. VIA AIOps can work across all of those to see what's happening. "

Greg Ferro, Packet Pushers Heavy Networking team

Automated process workflow

VIA ingests fault and time series data from across different domains and enriches that data in three ways: inventory, topology and service dependency. Inventory includes dimensions such as the make & model, firmware and data center location. Topology can be learned by VIA or 'taught' through integrations with a CMDB or other reference models, and lastly, service dependencies of various entities and network links. With this enrichment VIA noise reduces faults, detects anomalies in time-series data, and correlates these signals into Incidents. And with VIA, anomaly detection is not limited to simple threshold crossing. Instead, VIA leverages machine learning and stochastic models to reduce false positives.

Using a combination of VIA and human intelligence users also gain value in automating remediation processes. Labelling issues found is the first step and then applying business policy for taught and learned corrective action is where the additional and final piece of the VIA AIOps value is found.

Quantifying the ROI

Through A/B tests, the companies that have implemented VIA AIOps can quickly quantify results. Our customers have measured MTTR across services where VIA has and doesn't have observability.

This allowed for accurate measurement of outage time reduction from detection, triage, action and remediation such as a 40% reduction in MTTR for outages and an 80% reduction for service impairments. No more guessing whether AIOps is adding value in your operations.

Scaling the solution

Chris Menier reports, "We've built this from the ground up for massive scale and we've proven it in some of the largest, most complex networks in the world." Johna Till Johnson adds, "This is for very large complex enterprises, whether they're service providers or hyperscalers, or end user enterprises that also have a reasonable amount of investment in the instrumentation and telemetry piece because your solution delivers greater value the more inputs it gets fed with."

Click here if you'd like to listen to the full audio interview with Chris Menier.

About VIA AIOps

VIA AIOps delivers the Full-Stack observability capabilities needed to transform operations and markedly lower cost. VIA's real-time analytics, artificial intelligence and machine learning provide the intelligent automation required to achieve a new service assurance operating model and a new way of working. This new operational model significantly reduces costs, enables superior customer experience, and provides augmented intelligence to support a leaner, more efficient and effective operational staff.