



Simplifying Fault Management

Fault Management Challenges

With the complex web of interconnected systems composed of virtual and physical infrastructure, internal and public networks and interdependent applications, fault management is a constant challenge. Traditional fault management relies upon siloed monitoring tools that each address a separate layer within the technology stack. Each monitoring system generates volumes of alarms. Service Reliability Engineers (SRE) review the alarms and determine if a ticket should be opened. Interrelated issues across systems result in multiple tickets being opened and separate teams taking actions that may not be addressing the true root cause, wasting time and resources. When it is finally determined that the seemingly independent issues may be related, a cross-functional team is formed to determine the true root cause and engage the appropriate fix-agent or task to resolve the issue. While this traditional fault management process plays out, customer frustration climbs. This slow, labor intensive process is no longer effective. It is too time consuming and too costly.

In order to reduce the time to detect issues, accelerate resolution, and reduce cost, signals across the operating environment from the IT elements, to the network and the application must be ingested, correlated and analyzed. Effective fault management requires noise reduction across service layers, automation to reduce the level of human intervention, and integration with existing processes and management systems.

VIA AIOps by Vitria dramatically improves fault management and service assurance across the technology stack and between applications, optimizing operations and improving the customer experience.

VIA AIOps: Effective Fault Management

VIA AIOps improves the customer experience and reduces cost by lowering the time to detect incidents and accelerating time to resolve them. It's a next generation AIOps application that acts across the entire incident pipeline from observation, to analysis and action. VIA delivers automated analysis and remediation of service and customer impacting incidents across all layers of service delivery.



Automatic Discovery of Dependencies

VIA is topology-aware and can ingest dependency models or learn relationships. Physical and logical hierarchies can be modeled or learned through signal correlation and dimension discovery analysis. This is accomplished by: real-time enrichment from network controllers, distributed traces, signal correlation, and other machine learning techniques.

Discovered dependencies and enrichments are then added to the system model to support topology-enabled algorithms. This contextualized topology enables VIA AIOps to separate symptoms from the root cause and supports the identification of the next best action.

Dynamic Baselines with Seasonality Adjustments

The VIA analytics engine determines automatically the correct algorithm to use on the data in order to generate baselines and detect signals. Unsupervised machine learning and stochastic models generate baselines for all dimensions. Algorithms account for intraday seasonality in source data enabling faster time to detect as compared to simple threshold setting algorithms. Baselines dynamically change through continuous learning as new data is ingested in order to sustain optimal baselines across billions of dimensions and metrics.

AI Correlation and Affinity Analysis

AI-powered correlation and affinity analysis uses chronology and contextualized topologies to determine if events and signals are related and if they should be treated together or separately. Correlation groups are then analyzed and scored to determine the severity of the issue and the relative scope of impact. Most importantly, the grouped signals are categorized as probable root cause versus key symptom, and the impacted population is determined.

Integration with Existing Service Management Systems

The VIA action framework enables the prescription of actions based on the probable cause and impacted populations. VIA can direct the opening, closing or updating of a ticket in an incident management system like ServiceNow or Remedy or engage the right fix agents through systems like PagerDuty or xMatters. Alternatively, SREs and DevOps engineers can execute scripts or initiate GitLab pipelines directly from the UI.

Flexible Deployment Options

VIA AIOps can be deployed on-prem or in private or public cloud and sized to fit your needs.

VIA AIOps: Service Performance Improved and Operational Cost Lowered

Once you've implemented VIA, slow, labor intensive workflows are a thing of the past. Waste is reduced by addressing the root cause quickly instead of chasing symptoms and taking actions that do not fix the problem. VIA lowers cost while accelerating both the time to detect and the time to resolve service incidents across the entire ecosystem.

Organizations that have implemented VIA AIOps have experienced:

- **18% fewer** customer support contacts annually
- **25% reduction** in augmented staff
- **22% lower** tool license cost
- **12% fewer** technician visits

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.

