

The logo for VIA AIOps is centered in the upper half of the page. It consists of a white circle containing the text 'VIA' in a bold, blue, sans-serif font, with 'AIOps' in a smaller, blue, sans-serif font below it. This central circle is partially overlapped by two larger, semi-transparent circles: one in a darker blue and one in a lighter teal. The background of the entire page is a dark blue gradient, overlaid with a pattern of various gear icons in different shades of blue. Each gear contains a white icon representing a different business or technical concept, such as a bar chart, a calendar, a clock, a pie chart, a clipboard, a pencil, and a presentation screen with an upward-trending arrow.

VIA
AIOps

AIOps Buyer's Guide

**Deliver Better Customer Experiences
by Transforming Fault and
Performance Management Processes**

This Buyer's Guide is for large companies that want to improve the digitalized services they deliver to their customers by minimizing the number of customer-impacting performance events and rapidly resolving service-related incidents.

For our purposes we define digitized services as services delivered on demand to millions of subscribers. Businesses like cable operators, video conferencing/meeting platforms and communication service providers. It also includes businesses touching customers with applications for telehealth, banking, investment services and insurance claims processing. These types of businesses require a solution provided by a new breed of AIOps application. These types of businesses have one thing in common - the customers pay for and expect consistently excellent service without interruption.

In this Guide, we define an AIOps application as one which enhances and sustains the customer experience by dramatically improving the fault, performance, and change management processes and tying these processes directly to the customer experience.

By using the Guide, we believe you will be better able to:

- ✓ Document the needs of your business,
- ✓ Define the product capabilities that will meet your needs,
- ✓ Narrow your search for vendors in order to improve the return on your AIOps investment, and
- ✓ Sustain improved performance as the business and operations environment evolves over time.

LET'S GET STARTED

AIOps - A working definition

AIOps, automated Intelligence to augment IT operations is a relatively new product category and is a term used to describe a lot of different capabilities. AIOps capabilities include advanced analysis, machine learning, and automation. All of these capabilities support the identification and resolution of service impacting events and incidents. Some of these AIOps functions have been added to legacy solutions to enhance performance and outcomes. Automated operations platforms, network management platforms, application performance management and service desk solutions have been improved with the addition of algorithms and machine learning. AIOps increases staff productivity through automation and improves service performance by reducing mean time to repair (MTTR).

What do AIOps applications have in common?

AIOps uses a conglomeration of various AI strategies, including aggregation, analytics, algorithms, automation and orchestration, machine learning and visualization. Depending on the use case, the data comes from log files, monitoring tools, help desk ticketing systems and other sources - even unstructured human data from customer support chat and messaging. With all this data, AIOps requires big data technologies that aggregate and organize the output from all systems into a useful form. Analytics techniques can interpret the raw information to create new data and metadata. Analytics reduce noise and spot trends and patterns which enables the AIOps application to identify and isolate problems.

Analytics requires algorithms to codify organizational expertise, business policies and service processes. Capable AIOps applications come with algorithms and models that are configurable and extensible to solve for a variety of use cases. The algorithms and models provide the foundation for capturing behaviours and activities. An extensible AIOps application evolves over time, as the data and the environment changes.

Automation Actions are a desirable outcome from implementing an AIOps application. Automated functions are triggered by advanced analytics and machine learning and can support a range of activities based on their ability to integrate with other service management systems.

Finally, most AIOps application provide a **variety of visualization techniques** like human-readable dashboards, reports, graphics and other output. Humans rely on visualizations to formulate insights beyond the scope of the AIOps application.

*IN THIS GUIDE, WE ARE FOCUSING ON THE NEW GENERATION OF
AIOps APPLICATIONS - THOSE APPLICATIONS BUILT FOR PURPOSE TO
IMPROVE EFFECTIVENESS AND EFFICIENCY OF SERVICE DELIVERY TO
LARGE NUMBERS OF EXTERNAL CUSTOMERS.*

Not all AIOps applications are created equal

Businesses generating revenue by acquiring new customers and achieving profitability by retaining these customers demand speed and automation made possible through the implementation of an AIOps application. Day by day, hour by hour at breakneck speed, the operations organization in these businesses have one goal: **know about a problem, fix the problem before the business is impacted and before the customer realizes there is a problem**. Generating revenue is top of mind but not without an eye on the cost of operations. These businesses should be considering **the new generation of AIOps applications designed to change the way Service Operations works to find, fix and prevent service related issues, performance problems, and customer-impacting events**.

The systems and applications in a large enterprise produce increasingly greater volumes of streaming and batch data from inside and outside the enterprise. By providing operations with greater insights from the data and enabling isolated functions to share the data, organizations expect to reduce the time staff members spend responding to mundane, routine, and everyday alerts. The best outcome is improved availability and performance of all IT operational assets that impact business performance.

In this Guide we are focusing on applying AIOps to monitor and manage across all the operational functions to **improve the customers' service experience**. In these types of businesses, operations' key performance indicators (KPIs) and metrics are heavily influenced by the external customers' experience. A positive customer experience requires functional silos to work seamlessly together to detect and respond to issues. The new generation AIOps application must be able to correlate critical data coming from isolated service layers across applications, technologies, and organizational functions. To optimize service operations and dramatically improve the customer experience in today's complex operating environment requires seeing and reacting to the interplay across elements in the service ecosystem. Not only focusing on signals and anomalies coming from IT elements or independently from the application or network but looking across these and understanding their impact on the overall performance of the service and the customer experience.

**OPERATIONS HAS ONE GOAL:
KNOW ABOUT A PROBLEM, FIX A
PROBLEM, BEFORE THE CUSTOMER
REALIZES THERE IS A PROBLEM.**

What are your business needs?

There are as many use cases for AIOps as there are vendors. The market is crowded with claims:

- Reduce the noise
- Manage the managers from one pane of glass
- Expand beyond IT infrastructure - more data improves visibility
- Use analytics to correlate signals within silos to automate response and reduce the need to increase staff

WHAT ARE YOUR BUSINESS NEEDS?

Tune out the claims and focus on your business needs.

What some businesses are saying.

- We want to begin by improving our fault management processes across the service ecosystem to accelerate time to resolve and then to implement AIOps in the transformation of our performance management and change management processes.
- We are spending millions of dollars but can't measure the customer experience impact of service incidents and performance related events. Is there a better way to spend the dollars?
- We want to accelerate remediation - but where we see the real payoff is preventing issues from occurring in the first place.
- Competition for customers is fierce. We want to avoid high churn rates. Competitors offer short term attractive pricing and if the offer comes when the customer is having a service problem or waiting a long time for repairs - well, timing is everything.
- We need more collaboration across functional and technology domains; finger pointing is not productive especially while the customer is waiting for a fix.
- We have a high change environment and changes cause unintentional breakage. Problems occurring during change are having an impact on service performance and our customers.
- Our industry relies on our ability to acquire new customers, get them engaged as quickly as possible. We want an AIOps solution that improves time to new service.

AIOps can transform how you manage, collaborate and measure success - but it's not a cure all for every problem. Take the time to discuss your business needs with vendors to clarify your expectations and understand the implications of adopting AIOps to fulfill your needs.

**DISCUSS YOUR BUSINESS NEEDS
WITH VENDORS TO CLARIFY YOUR
EXPECTATIONS AND UNDERSTAND
THE IMPLICATIONS OF ADOPTING
AIOps TO FULFILL YOUR NEEDS**

HOW WILL YOU USE AIOps?

Assess your business needs

Like many other organizations you may have invested in several point products. Unfortunately, too many monitors generating too much data can mask the root cause. With limited visibility, isolated functional teams are flying blind and fighting fires often chasing symptoms instead of finding and fixing the cause. There's never enough time for proactive root cause analysis. The new generation AIOps applications cross correlate signals across the technology stack and service layers to determine the root cause of performance impacting events and service related incidents. Correlation improves collaboration across operational teams and this has a positive impact on the customer's service experience.

How would you describe the state of operations in your organization?

- Each operations team is specialized. There is limited collaboration during incident identification and response.
- Interconnected systems and interdependent applications make determination of causation problematic and delays resolution time
- Reactive workflow - meaning the customer opens a trouble ticket that kicks off a workflow to correct the problem without operations digging deep to understand the root cause.
- The business is agile, continuously innovating and releasing updates but operations is unable to keep pace with change.

Now consider what would you like to be able to do with an AIOps application?

Detect failures early - **BEFORE the customer experiences a service outage** or complains about service degradation.

Triangulate multiple alerts from the network, an application and the infrastructure indicating the **same root cause problem**.

- Identify root cause, key symptoms and affected population of a service-impacting issues.

Detect, triage, and mitigate negative customer impact caused by **change management**.

- Sustain optimal performance over time with dynamic adjustments made to performance baselines across billions of dimensions and metrics.
- Introduce new applications, hardware, or software upgrades without risk.
- Enable continuous innovation and deployment while limiting unintended and unexpected problems.
- Easily integrate AIOps with existing service management systems and enable automated response.

HOW WILL YOU INTEGRATE NEXT GEN AIOPS?

PRODUCT EVALUATION

Product evaluation

Use this checklist to compare and contrast the capabilities of AIOps applications

Core product capabilities

Noise reduction:

- Automates signal detection and reduces false positives
- Assigns severity
- Correlates to customer experience markers
- Correlates to 3rd party events / alarms
- Determine if events and signals are related and if they should be treated together or separately

Fix Automation:

- Automates ticketing, notification and escalation
- Automates scripts to remediate issue
- Prescribes actions to orchestrators
- Automates decision support / next-best-action

Collaboration and Ease of use:

- Ingests streaming data in real time at internet speeds
- Works with existing monitoring tools; and accepts data in standard and nonstandard formats
- Integrates with existing workflows and collaboration tools
- Deploys on prem or in any major cloud

Event Correlation:

- Visibility across entire ecosystem including APM, NPMD, IPM, change management
- Learned and taught topology and ontology mapping capability
- Correlates anomalous behaviour across the ecosystem
- Correlates incidents to change management events
- Detects exact matches, previously learned and previously unknown behaviors, and related behaviors/ fuzzy matching
- Autonomous root cause and impact analysis

Analytics:

- Automatically selects baseline and anomaly detection models
- Automatically discovers infrastructure dependency
- Provides predictive analytics

Questions to ask about deployment



What is the level of effort for the deployment?

What was time to value for existing customers?

Total cost of ownership - how many dedicated resources does the application require in production?

How flexible is the application - what is the cost of change?

PRODUCT EVALUATION

Once you have a good understanding of what the product can do, the questions on this page will help you clarify how you will use the AIOps application and determine if it will integrate with your current topology of monitoring tools and service management systems..

Two questions you want answers to during your evaluation are:



How do we work - what are the work processes and flows? Will the AIOps application have a positive impact on workflows and processes?

Is the AIOps application built to integrate with the tools we already own and use?

How we work – facts to consider:

Number of operations staff _____

How many external customers are you supporting/time zones? _____

How many teams do you have in each of these time zone silos? _____

Do you have separate teams supporting fault and performance management?
Is your fault management system integrated across the technology stack? _____

How are they organized now - how would you like to see them collaborating? _____

How many events/ alerts you are generating today, _____

Frequency of change (e.g., CI/CD, code changes, sw updates) (minutes, hours, days/weeks) _____

What service operations tools and management systems do we rely on?

An effective AIOps application will integrate with core technology in your business. Some will be data sources and others will be systems for action. Take an inventory of what you have today. An effective AIOps solution will add value to your investments.

Are there any tools you use today that can be removed after implementing AIOps?

TOOLS FOR DEPLOYMENT: Chef, Puppet other

APPLICATION SERVICES: DataDog, New Relic, Dynatrace

NETWORK: Solarwinds, Riverbed, Netscout

ON PREMISE INFRASTRUCTURE: Science Logic, Zenoss

CLOUD INFRASTRUCTURE: Datadog, Azure X, AWS CloudWatch, Wavefront

LOG FILES: Splunk, Sumlogic

How will you know its working?

The following improvements are quantifiable. Evaluate how the AIOps application will achieve measurable improvements in the following areas to ensure the best return on your investment.

- Accelerated time to detect and resolve performance related issues
- Improved collaboration across operational teams supporting different applications and technology layers
- Reduction in the cost of the fault management and performance management processes
- Reduction in the number of customer support contacts
- Reduction in the number of “no-fault-found” trouble tickets
- Reduction in the number of on-site technical visits to business and home service customers
- Cost avoidance of adding to the operations and customer support staff
- Increased Net Promoter scores
- Increased customer retention and reduced churn rate
- Reduction in the number of problems marked as “operator error”
- Lowered license fees by eliminating redundant tools

Key Performance Indicators (KPIs): Determine if the products you are evaluating will have an impact on your KPIs

- Improvement in mean time to detect (MTTD), mean time to acknowledge (MTTA) and mean time to resolve (MTTR)
- Reduction in ticket volumes, number of incidents by severity levels, number of people involved in resolving incidents
- Reduction in the number of incidents repeated during a month
- Reduction in the number of customers impacted by identified incidents for one day

FINAL STEP – PLAN A HANDS-ON EXPERIENCE

Orchestrate the evaluation

Talk to the vendor and review:

- Core functional areas you want to improve.
- Product capabilities you need.
- What's needed to evaluate and review the application?
 - Timeframe required
 - Training needed for evaluation

Final: Evaluation checklist

- Where** will eval take place?
- Which** data sources will be tested?
- What** outputs will be available?
- Who** will participate in evaluation?
- Timeframe** for evaluation

READY TO TAKE THE NEXT STEP?

Share your product evaluation checklist and assessment of your business needs
with a VIA AIOps expert by visiting
<https://www.vitria.com/aiops-buyers-guide-product-evaluation-review>

About VIA AIOps

VIA AIOps is the next generation AIOps application. We understand the operational requirements of large businesses where digital services to external customers are core to revenue and profitability. VIA AIOps is ideal for these businesses and differs from first generation AIOps platforms in three ways:



1

First, we provide expansive **total ecosystem observability**. VIA ingests high volumes of data, coming at high speeds, from any source, batch or streaming. Instead of looking at each component of the infrastructure in silos - we look across the silos at the **whole service supply chain**. *We provide visibility to what is causal, symptomatic, and impactful.* We do this across silos so we can automate response. We monitor all signals across all layers.

2

Second, we change outcomes with **explanatory AI**. VIA provides augmented intelligence - the combination of human and machine analytics. VIA's **analytics as a service** architecture enables what-if analyses and generates visual explanations of all analyses and actions. VIA automates signal detection, ontology mapping and cross correlation.

3

Third, VIA AIOps provides **experience assurance** through identification and prioritization of true business and customer impacting incidents, which improves the customer experience:

- *Automates root cause* and impact analysis
- *Cross correlates signals* to reduce noise and prioritize actions
- *Correlates change management* events with customer reported trouble tickets
- *Prescribes remedial action*
- *Prevents* the same events from impacting service in the future

Unlike first generation AIOps applications which remain largely siloed, VIA operates and correlates across silos, improving automation and operational collaboration. Monitors gather the data, but VIA transforms data into actionable intelligence to isolate the root cause of service impacting issues. VIA AIOps deploys in minutes, leverages the whole of your operational data, proving value in as little as a day. We know that every ecosystem is unique and our flexible system model adapts with it at the speed of change. VIA deploys on-prem or in any major cloud environment.

Experience VIA AIOps to understand how customers have quantified millions of dollars in value.



Review the results of your self-assessment for next generation AIOps
<https://www.vitria.com/aiops-buyers-guide-product-evaluation-review>

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.

Discover more at <http://www.vitria.com>

