



WHITEPAPER: AUTONOMOUS AIOPS FOR MANAGED SERVICE PROVIDERS

Transform Your Agent and Customer Experiences



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Introduction

In today's business landscape, Managed Service Providers (MSPs) must be able to operate efficiently while improving productivity and agent retention. At the same time, their customers' revenue model hinges on an automated digital infrastructure, facilitating informed decision-making and streamlined reporting.

MSPs are turning to Artificial Intelligence for IT Operations (AIOps) to transcend traditional operational limitations. The potential for AI across IT operations is just now peaking. Whether it's about aggregated real-time intelligence, actionable incident predictions or self-driving intelligent automation, the objective for AIOps is to drive down the number of low value decisions that humans must make in a day.

This pivotal shift is not just about keeping pace with technological advancements; **it's about redefining operational efficiency so there is more time for human ingenuity** – for both agents and customers.

However, selecting the right AIOps platform can be challenging. While most AIOps platforms boast machine learning capabilities, their architecture remains dependent on a rules-based approach, whether it's the use of topology, CMDB or conditional logic. Use of machine learning (ML) across AIOps platforms today is minimal. While generative AI has garnered attention in many AIOps platforms, it addresses only a specific subset of use cases – and is not a 'one size fits all' solution.



The imperative to integrate AI into the DNA of IT operations remains. **AI platforms that are purpose built for self-healing IT operations can unlock unprecedented levels of efficiency, scalability and service quality.**

Over the last decade, there has been skepticism about AI due to the lack of explainability of how ML algorithms work. The next generation of AIOps platforms must have a synergistic, easy to consume approach for its users.

This paper will outline key capabilities that MSPs should evaluate in their AIOps solutions when it comes to improving their agent and customer experience, including:

- AI-driven Incident Response and Remediation
- Reducing Noise
- Shifting Left
- Chat Ops
- Personalized Service Delivery

We will also cover how Grok, an Autonomous AIOps platform, can help MSPs achieve powerful outcomes for their agent and customer experience.

Reduce Noise with Incident Compression

Through advanced analytics and machine learning, AI can analyze vast amounts of data to detect anomalies or patterns indicative of potential incidents. There are two key ways AIOps solutions can reduce the volume of tickets:

Incident Prevention

AI plays a crucial role in proactively preventing incidents before they occur. By analyzing historical data, AI algorithms can predict potential failures or vulnerabilities within the IT infrastructure. These predictive analytics enable organizations to implement preventive measures, such as system updates, patches, or configuration changes, to mitigate risks and minimize the likelihood of future incidents.

Furthermore, AI-driven anomaly detection continuously monitors system behavior, identifying deviations from normal patterns and preemptively addressing potential issues before they escalate into major incidents.

Elimination of Duplicate Tickets

AIOps solutions can identify and group events that share a common underlying cause. This means that when multiple events occur because of the same issue, AI can recognize the connection and group them together. By doing so, Managed Service Providers (MSPs) can avoid dealing with duplicate incidents, saving time and resources. Achieving this requires sophisticated AI-driven data processing and correlation techniques.

Challenge with AIOps and Observability Solutions Today

Most AIOps solutions today utilize rules-based or ML-enhanced correlation methods, falling short of the potential for incident reduction. To maximize incident reduction, AIOps platforms must be capable of rapidly ingesting diverse types of data, such as logs, metrics, and events across operational silos – and then transforming the data for optimal use across a sequence of [self-updating, self-learning ML](#).

These solutions also rely on preprogrammed thresholds that may miss early warning signs (due to suppression of non-critical alarms) or produce false positives. And using anomalies to detect incidents further limits the ability to eliminate duplicate tickets. (While anomalies can indicate deviations from normal behavior, they may not always capture the full context of an issue, leading to false positives.) As a result, limited use of ML leads to a modest reduction in tickets and reduced accuracy of pinpointing root cause.



Grok Uses a Cognitive Learning Architecture

Grok's Cognitive Learning Architecture is rooted in a blended approach of neuroscience principles and advanced ML techniques. As a result, it can autonomously learn and adapt to any unique and complex IT environment. In other words, Grok does not require predefined rules or preprogrammed ML definitions. As an outcome of its model sequencing and training, it will learn which events are tied to an underlying root cause and group related events into a detection.

Unlike other solutions, Grok employs anomaly detection as an early warning indicator – and as a preceding step to its (unsupervised and supervised) ML algorithms. To distinguish between a benign anomaly and genuine threat, Grok first processes anomalies as part of its data transformation and then employs a sequence of unsupervised and supervised machine learning algorithms to determine whether detected anomalies are 'bad'. (i.e. Tied to an emerging incident).



75%

Ticket Reduction
through Incident Prevention
& Elimination of Duplicate
Tickets



95%

95% Accuracy in
Pinpointing Root Cause



AI-Driven Incident Response & Remediation

The cornerstone of AIOps' value proposition lies in its ability to automate mundane tasks that traditionally consume considerable time and resources. Through the application of machine learning and low-code automation (e.g. runbooks), intelligent automation involves better incident response with proactive detection of issues, automatic ticket routing, and ticket creation with embedded actionable insights. While many AIOps solutions today offer the low-code automation to fix recurring tasks before a ticket is raised, only Grok offers self-driven Ai automation.

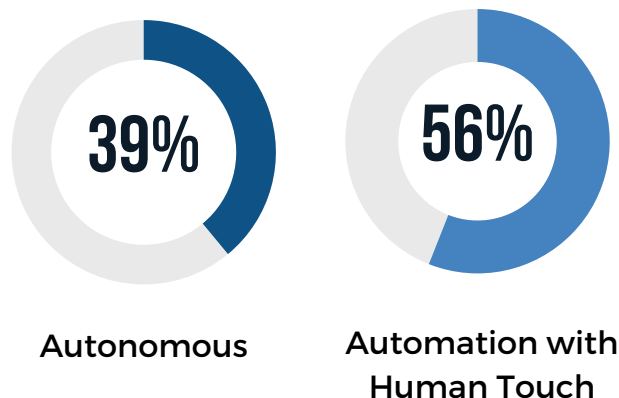
Self-Driven Automation Pipeline with Grok

As an outcome of compressing and grouping anomalies and events into detections, Grok will:

- Dynamically maintain an automation pipeline that recommends remediations, in order of priority.
- Prioritize remediations based on impact and frequency of occurrence.
- Model expert decision making to design and run remediations.
- Inform engineers if running a remediation is required and/or a problem ticket is warranted.

And while many AIOps platforms boast intelligent automation, deployments often require offline or manual analysis to determine which use cases require the most repetitive work or frequently occur. Most automations require predefined conditional logic, which requires significant time and investment up front. In contrast, Grok observes, learns, prioritizes and constructs the recommended remediations with their sequence of actions that are likely to work. Grok also:

Long-Term Incident Management
Goals for Enterprises*



- Recommends a set of automated remediations to run which are prioritized by their likelihood of fixing the issue.
- Enables operators to trigger low-code automations from Grok or their preferred ITSM tool.
- Gives operators the option to run alternate automated remediations if the first fix is unsuccessful. In parallel, Grok learns which automated remediations are most effective and builds observations into model training.

Intelligent Ticketing with Grok

For remediations that are more nuanced and can't be resolved without human intervention, Grok offers intelligent ticketing. Grok automatically creates and opens tickets with relevant context, then routes them to the appropriate team with the appropriate severity. Within each ticket, Grok presents recommended fixes and real-time diagnostic results, reducing manual effort for Level 1 agents.

Shift Left and Empower Level 1

Another key objective of AIOps solutions is to empower Level One (L1) Agents to fix more issues so that engineers or other resources with specialized skills can focus on innovation. As an extension of intelligent automation and by leveraging AI-driven analytics and predictive capabilities, MSPs can detect potential problems early, reducing downtime and enhancing service reliability.

Grok's platform not only provides actionable predictions hours in advance of an emerging issue but also empowers IT Ops teams to swiftly resolve issues. Grok's guiding principles include:

- **Eliminating repetitive tasks** to prioritize innovation,
- **Issue resolution at Level 0** or with less experienced staff
- **Learning from institutional expertise** and historical data for comprehensive problem-solving.



"Grok has significantly improved our Managed Service business and the service we provide to our customers. Grok has worked with our team to create a world-class solution that has radically impacted our business"



Harness Tribal Knowledge with ChatOps

ChatOps capabilities enable IT Ops teams to work effectively, turning chat platforms into a dynamic workspace that enhances operational capabilities and team agility.

A pivotal feature involves optimizing communication and automating mundane tasks for IT Ops teams, seamlessly integrating with their chosen collaboration platforms. This includes interfacing with incident management tools for status updates, incident handling, escalations, and expediting issue resolution with automated remediation.

Leveraging Language Understanding Models (LLM), AI can decipher user requests and execute commands, minimizing manual intervention.

Grok streamlines IT operations through seamless integration with platforms like Slack and Microsoft Teams. Beyond delivering alerts for predictions and detections, it empowers users to investigate and implement fixes directly within these channels.

Grok intelligently enriches incidents with the relevant context and prioritization, ensuring that teams are alerted to critical issues promptly. Its flexible configuration allows for tailored notifications based on specific conditions, optimizing the response to critical alarms and new tickets.

Additionally, Grok manages ticket escalations while its two-way communication feature fosters direct interaction with the tool, resulting in team collaboration for advanced investigations.



Personalized Service Delivery

By integrating AIOps into their operations, MSPs are not just optimizing their workflows—they're setting new benchmarks for service delivery in the IT sector. This transformation goes beyond operational efficiency; [it's about offering unparalleled reliability and responsiveness](#) that meet the evolving needs of businesses in the digital age.

As MSPs continue to harness the power of AIOps, they are well-positioned to lead in the provision of cutting-edge, reliable IT services. AIOps can further enable MSP to deliver strategic value for their customers with a personalized approach to their services. Beyond intelligent remediation and predictive maintenance,

AIOps platforms that are based on machine learning at the heart of its architecture offer:

- [Performance Optimization](#): AIOps tools leverage data analysis to pinpoint performance bottlenecks and areas for improvement in an enterprise's IT setup. This deep understanding allows MSPs to fine-tune their services, ensuring they precisely match each customer's unique requirements, leading to smoother operations and enhanced productivity.
- [Customized Insights and Reporting](#): AIOps platforms gather data and generate insights tailored to the specific needs of each customer. These insights encompass performance, security, and compliance metrics, empowering MSPs to offer personalized recommendations and guidance. This customized approach strengthens the customer-provider relationship, as clients receive actionable information aligned with their strategic objectives.
- [Scalability and Efficiency](#): AIOps enables MSPs to efficiently scale their services as customer demands evolve. By automating routine tasks, MSPs can allocate resources strategically, focusing efforts on high-value activities that directly contribute to meeting the customer's business objectives. This efficiency ensures that MSPs remain agile and responsive, adapting seamlessly to changing customer needs while delivering consistent, high-quality service.

Personalized Services, Powered by Self-Learning, Adaptive AI

Groks excels in autonomously learning and analyzing each customer's unique IT systems. Grok enables not just data segregation but also distinct processing pipelines for each customer tenant, facilitating deployment and training of AI models tailored to individual data.

To enable MSPs to deliver personalized services while reducing costs, Grok intelligently:

- Reveals underutilized or bottlenecked resources for each specific customer environment
- Migrates workloads to more cost-effective environments
- Distributes workloads – without the additional offline resource analysis and planning that is typically involved with observability and rules-based AIOps platforms.
- Optimizes capacity and resources – Grok offers a predictive, data-driven strategy, allowing MSPs to anticipate future demand, scale resources accordingly, and avoid over-provisioning.





About Grok AIOps

As the only Autonomous AIOps Platform, Grok seamlessly integrates neuroscience principles with advanced machine learning techniques. Our solution ensures continuous self-learning, operating on a plug-and-play model. Currently deployed in leading Managed Service Providers and in over 1,000 customer environments, our platform stands as a testament to its reliability and effectiveness.

Learn More at: www.grokstream.com

