
HPE OpsRamp Enhancements

STEVE MCDOWELL, CHIEF ANALYST
6/28/24

CONTEXT

Hewlett Packard Enterprises introduced [several enhancements](#) to its OpsRamp solution at its recent HPE Discover event in Las Vegas that bolster its autonomous IT operations vision.

These updates include:

1. **Operations Copilot:** This innovative feature harnesses generative AI to convert machine data into actionable insights through intuitive dashboards. Operations Copilot integrates observability signals with a conversational AI assistant, enabling real-time problem detection, prediction, and remediation.
2. **Full-Stack AI Workload-to-Infrastructure Observability:** OpsRamp extends its observability capabilities to AI infrastructure and workloads, including NVIDIA GPUs, DGX Systems, and Mellanox InfiniBand. This integration provides visibility into AI system performance, health, and security posture, enhancing operational oversight and efficiency.
3. **Application Observability:** OpsRamp enhances workload observability, enabling real-time performance optimization for traditional and cloud-native applications. The platform accelerates root cause analysis by integrating logs, metrics, and traces, supported by AI-driven analytics for informed decision-making.
4. **Network Observability:** OpsRamp introduces full-stack network observability, ensuring 100% visibility across software-defined and virtual networks, storage areas, and WiFi/LAN/WAN infrastructure. This comprehensive network management suite enhances troubleshooting and optimization capabilities within a unified platform.

Let's take a deeper look into each.

NEW: OPERATIONS COPILOT

Operations Copilot integrates generative AI technologies with observability signals specific to IT environments. It transforms complex machine data into actionable

insights through intuitive and contextual dashboards. This AI-driven assistant aims to detect, predict, and remediate IT issues in near real-time, converting large datasets into human-friendly formats.

OpsRamp's operations copilot: Maximize ops productivity

“Show me all resources with critical alerts”

Assist human operators to quickly **identify, predict, and solve** problems

Enable developers and operators to unlock the power of **full-stack observability**

Transform IT Ops to proactive, **reducing to time resolve issues or avoiding them altogether**

AI-generated custom dashboard

Unified data + Full-stack observability + Hybrid / multi-cloud

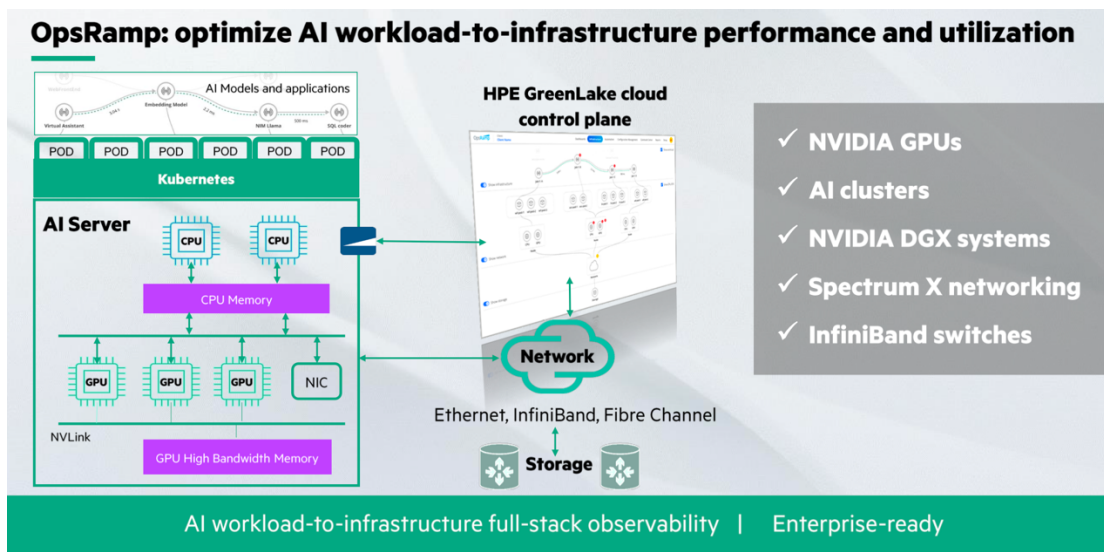
KEY FEATURES

1. **Generative AI-Based Assistant:** Operations Copilot leverages generative AI models developed by OpsRamp. These models analyze and interpret telemetry data from various sources across hybrid cloud environments.
2. **Real-time Insights:** Operations Copilot provides immediate insights into IT performance and incidents by processing and contextualizing observability signals. This capability helps IT teams to swiftly identify root causes, understand trends, and predict potential issues before they escalate.
3. **Contextual Dashboards:** The AI-driven assistant dynamically generates contextual dashboards tailored to specific operational needs. These dashboards display relevant information in a visually intuitive manner, facilitating quick decision-making and proactive management of IT operations.
4. **Automation Integration:** Operations Copilot is integrated with OpsRamp's automation framework. This integration enables automated responses to the AI assistant's insights and recommendations. It streamlines workflows by automating routine tasks and orchestrating incident resolution processes.
5. **Support for IT Governance:** Beyond operational efficiency, Operations Copilot supports IT governance by ensuring compliance with organizational policies and regulatory requirements. It enhances visibility and control over IT environments, effectively aligning operations with business objectives.

NEW: AI-TO-INFRASTRUCTURE OBSERVABILITY

OpsRamp has introduced new capabilities for AI-to-infrastructure observability, enhancing its ability to monitor and manage AI workloads within the broader context of infrastructure operations.

OpsRamp's AI-to-Infrastructure Observability extends its observability framework to encompass AI-specific infrastructure components. This includes integrating specialized hardware and software environments crucial for AI operations, such as NVIDIA GPUs, DGX Systems, Mellanox InfiniBand, and Spectrum Ethernet switches.



MONITORING AND METRICS

1. **Comprehensive Visibility:** OpsRamp provides visibility into the health, performance, and utilization of AI infrastructure components. It monitors key metrics such as availability, usage, power consumption, and more, offering a holistic view of AI system operations.
2. **Security Integration:** OpsRamp integrates with security solutions like CrowdStrike to protect AI infrastructure against vulnerabilities and potential threats. This integration enhances security posture visibility within the OpsRamp platform, overlaying security insights with infrastructure performance data.

OPERATIONAL INSIGHTS

1. **Unified Service Map:** OpsRamp consolidates AI workload and infrastructure performance data into a unified service map. This visualization tool provides a comprehensive view of the entire AI ecosystem, from application workloads to underlying infrastructure components.

2. **Performance Optimization:** OpsRamp enables IT teams to optimize performance and resource allocation by correlating AI workload metrics with infrastructure data. This capability supports efficiently scaling and managing AI deployments, ensuring they meet performance expectations while controlling costs.

INTEGRATION WITH HPE EZMERAL

OpsRamp's integration with HPE Ezmeral extends observability capabilities to encompass AI workload-to-infrastructure relationships within HPE's Private Cloud for AI environments. This integration facilitates collaborative visibility and management across development, operations, and SRE teams, enhancing operational efficiency and agility.

NEW: APPLICATION OBSERVABILITY CAPABILITIES

OpsRamp has introduced enhanced Application Observability capabilities aimed at providing detailed insights into application performance across both traditional and cloud-native environments.

KEY FEATURES

1. **Real-Time Performance Monitoring:** OpsRamp's Application Observability enables real-time monitoring of application performance metrics. It collects and analyzes response times, error rates, throughput, and resource utilization to provide a comprehensive view of application health and behavior.
2. **End-to-End Visibility:** The platform integrates logs, metrics, and application traces into a unified dashboard. This holistic approach allows IT and DevOps teams to trace transactions across distributed microservices architectures, facilitating root cause analysis and troubleshooting.
3. **APM Integration:** OpsRamp supports integration with Application Performance Monitoring (APM) tools and frameworks, including OpenTelemetry (OTel). This integration enhances data collection capabilities, ensuring that all relevant telemetry signals are captured for in-depth analysis.
4. **AI-Driven Insights:** OpsRamp converts telemetry data into actionable insights by leveraging AI and machine learning algorithms. It identifies patterns, anomalies, and trends within application performance metrics, enabling proactive management and optimization of application environments.
5. **Auto-Instrumentation:** OpsRamp incorporates eBPF-based auto-instrumentation for applications. This feature automatically generates telemetry signals (metrics, logs, traces) in OTel format, simplifying the setup and configuration of observability across diverse application stacks.


INTEGRATION AND SUPPORT

OpsRamp's Application Observability capabilities support a wide range of applications, from legacy systems to modern cloud-native architectures. The platform's flexibility allows for seamless integration with existing APM tools and infrastructure management frameworks, ensuring compatibility and ease of deployment across diverse IT environments.

NEW: NETWORK OBSERVABILITY

OpsRamp has recently enhanced its network observability capabilities to provide comprehensive visibility and management across hybrid IT environments, from applications to the edge.

Network Observability: Optimize performance, enhance security
 Software-defined networks, storage area networks, Wi-Fi, LAN, and WAN



<p>Network Performance Management</p> <ul style="list-style-type: none"> Netflow Metrics, OTEL eBPF 	<p>Network Topology Management</p> <ul style="list-style-type: none"> Hybrid, Virtual Layer 2,3 & Storage Path Analysis – Links, Neighbors 	<p>Network Configuration Management</p> <ul style="list-style-type: none"> Discovery Inventory Rules, Policies and Compliance
---	--	---

KEY FEATURES

1. **Full-Stack Network Visibility:** OpsRamp now offers full-stack observability of network environments, including software-defined networks (SDN), virtual networks, storage area networks (SAN), and traditional LAN/WAN infrastructures. This holistic approach ensures that IT teams have complete visibility into network flows, traces, logs, events, and performance metrics.
2. **Unified Platform Integration:** Network observability is seamlessly integrated into OpsRamp's unified application and infrastructure monitoring platform. This integration enables IT teams to correlate network performance with application behavior and infrastructure health, facilitating faster troubleshooting and optimization.
3. **Performance Management Tools:** OpsRamp provides network performance management tools that enable proactive monitoring and management of

network resources. These tools include capabilities for network configuration management, topology mapping, and real-time performance analytics.

4. **Security Monitoring:** OpsRamp's network observability enhancements include security monitoring features to detect and respond to network security incidents. Integration with security tools allows for identifying anomalies and vulnerabilities within the network infrastructure, enhancing overall security posture.

INTEGRATION AND DEPLOYMENT

OpsRamp's network observability enhancements are available as part of its unified IT operations management platform. The platform supports integration with third-party network monitoring tools and infrastructure management solutions, ensuring compatibility and ease of deployment across enterprise IT environments.

ANALYSIS

Modern enterprises operate in hybrid, distributed, and dynamic environments where users, applications, and data are pervasive. The shift towards AI-native workloads adds complexity, demanding efficient management of observability data to ensure governance, performance, and compliance. Addressing these challenges requires a transformative approach to IT operations management.

HPE's OpsRamp updates directly address these needs, strengthening HPE's position as a leader in autonomous IT operations management. As a standalone SaaS service and integrated into HPE's broader offerings, OpsRamp empowers enterprises to navigate complex IT landscapes effectively. That HPE has been able to execute with such speed, delivering a steady cadence of updates to the platform, speaks to the company's focus and recognition of the importance of observability in the modern enterprise.

Demonstrated Delivery & Innovation: 12 months after OpsRamp acquisition

+

a Hewlett Packard Enterprise company

Discover | Monitor | Remediate

HPE Portfolio Integration

- Integrated Solution into HPE GreenLake Platform for management & governance
- Available as part of HPE Complete Care IT Ops, Managed Services and HPE GreenLake Flex Solutions
- Integrations with HPE Compute, Storage and Aruba networking

HPE Sustainability Insights Center (SIC)

- OpsRamp provides multi-vendor data to SIC

Cloud native observability across hybrid cloud

- Distributed Tracing (OpenTelemetry)
- Log based application discovery
- Alert definition via PromQL

User Experience 2.0

- Dashboards, Service Maps, Topology, Alerts, Metrics
- 15 New Reporting Apps

The new network observability capabilities are particularly notable. They equip HPE with a solid baseline set of observability features as it prepares for its looming acquisition of Juniper while also providing a competitive buffer against Cisco's evolution of Splunk along similar vectors. This is nice work by HPE's OpsWorks team.

OpsRamp equips organizations to proactively manage operational challenges, optimize resource utilization, and drive innovation across hybrid cloud environments by integrating AI-driven analytics, unified observability, and intelligent automation.