

# 5 practical AlOps use cases

### Transform observability data into operational value with Red Hat

Bridge the gap between Al insights and automated action using <u>Red Hat® Ansible® Automation Platform</u>. IT operations teams can use this checklist of AlOps use cases to prioritize and create intelligent remediation workflows that turn observability data into operational value.

## Self-healing infrastructure

## Deploy automation that responds to common alerts from your monitoring systems.

Events from observability platforms trigger Event-Driven Ansible (a component of the Ansible Automation Platform), which uses Al for event analysis and solution recommendations. Red Hat Ansible Lightspeed generates an appropriate automation solution to remediate identified issues, creating a complete self-healing infrastructure loop.

For example, when central processing unit (CPU) usage spikes, memory runs low, or network services fail, Ansible Automation Platform can restart services, clear logs, reallocate resources, or scale infrastructure. By automating responses to observability data, organizations can:

- Automate incident response and remediation before incidents escalate.
- ▶ Reduce mean time to resolution (MTTR).
- Improve system reliability through consistent and repeatable remediation processes.

### 2 Ticket enrichment for support teams

# Synchronize events and AI recommendations with ticketing and tracking.

Add context to IT service management (ITSM) tickets with Red Hat analytics tools (or other third-party solutions) that interpret unknown events for IT infrastructure engineers. Augmenting tickets with these AI services helps bridge the gap between raw observability data and actionable insights, ensuring support teams have the context they need to resolve issues quickly and limit downtime. Ticket enrichment helps organizations:

- Provide automated preliminary analysis and priority scoring before tickets enter the queue.
- Expedite MTTR.
- Fast-track services requests.
- Reduce manual investigation time with root cause analysis.

### **3** Cost and resource optimization

#### Automatically discover and implement optimizations for nodes, clusters, and projects attached to an Al persona.

Red Hat analytics tools provide AI workload-aware optimization advice across all infrastructure, with automated implementation. By removing the burden of manual AI infrastructure management, organizations can:

- Reduce operational overhead by automating repetitive Al infrastructure tuning tasks (including resizing and reducing resource sprawl), so IT teams can focus on strategic initiatives and higher-value work.
- Improve system reliability by automating optimization patterns and configurations that prevent common AI workload performance issues—before they impact users.
- Accelerate Al deployment cycles and streamline the path from Al model development to production by automating infrastructure provisioning and optimization tasks.

# **4** Automated configuration drift detection and correction

## Continuously monitor system configurations against desired state baselines.

Configuration drift is one of the most common sources of security vulnerabilities and operational instability in modern IT environments. While traditional monitoring can detect when configurations change, Al-powered analysis goes beyond deviation alerts and provides context about risk, impact, and remediation priorities.

When drift is detected, Ansible Automation Platform can:

- ▶ Prioritize corrections based on risk and business impact.
- Predict cascading effects before applying automated fixes.
- Distinguish critical threats from benign configuration changes using pattern analysis.
- Apply patches with smart scheduling, accounting for system dependencies and maintenance windows.

# **5** Policy enforcement and compliance

## Safeguard AI with policy enforcement before automation runs.

When Al makes an inference and initiates automation, <u>policy enforcement</u> validates it against specified policies. These policies are stored externally and applied to the job template, inventory, or <u>Ansible organization</u>. A human decision maker controls when and where they will be applied.

Aligning event-driven, automated actions with internal policies means organizations can:

- ▶ Ensure Al and automation will function within the boundaries of policies you control and design.
- Maintain compliance and auditability.
- Improve confidence in AI outcomes.

#### **Learn more**

Visit the <u>Al automation use case page</u> to discover more about how Red Hat Ansible Automation Platform can help you maximize ROI from observability and AlOps tools.

If AI is to be operationalized successfully, IT automation must be integrated from the start. Download the e-book: <u>Unlock the full</u> potential of AIOps with automation.



#### About Red Hat

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