

Highly responsive IT with event-driven automation

Using event-driven architecture to automate IT service delivery can prevent costly unplanned downtime, providing better user experiences and allowing IT teams more time to work on high-value initiatives.

Executive summary

IT service tickets are also called “trouble” tickets, which seems fitting. As enterprises of all types and sizes turn to their IT departments to advance their digital business capabilities, endless requests and alerts about infrastructure and software issues can demand and overwhelm IT teams’ time and attention. With increasing complexity in their systems, enterprises face a greater likelihood of issues with connectivity, software compatibility, security disruptions, and data access glitches—all resulting in service tickets. Event-driven automation allows IT teams to deliver more responsive service because incidents can automatically be detected and remediated instead of being handled manually or relying on users to report issues via tickets.

The high cost of traditional IT service operations

IT administrators often receive a series of inquiries when users cannot log into their applications, followed by service tickets, thus creating workflows with multiple tickets for a single issue. Even a simple router reboot or power outage at a remote site could result in multiple service tickets that take half or more of an administrator’s day to address. Automating these workflows can free up staff to work on higher-priority service requests, which—ultimately—reduces costs. Organizations can potentially spend hundreds of thousands a month handling IT service tickets manually. Relying on manual intervention for IT service delivery may also result in lower end-user or customer satisfaction due to increased average first response times.

Among other expenses, the time agents and administrators spend actively addressing a service issue can be costly. IT administrators—faced with tight budgets, overworked staff, and demanding business stakeholders—can struggle to deliver IT services that fulfill high expectations and demand. IT teams need to close service tickets quickly, continuously improve service, and reduce the cost of IT operations. Adding self-learning intelligence and automation into the process can help them meet these challenges. Inefficient IT service management often has direct financial and organizational consequences, including poor customer and end-user experiences, along with stress and overwork for IT staff and a lack of visibility into ongoing and likely persistent IT issues.

Improve IT service delivery with event-driven problem resolution

Imagine a system that detects and prevents a problem, and—if a problem is detected or reported—automatically routes the information to appropriate staff, while informing end-users or customers that the issue is being addressed. Rather than being inundated with hundreds of tickets for the same problem, administrators and staff would receive a single notification—along with suggestions for remedies—if the system has not already automatically addressed the issue.

By employing an event-driven architecture with Red Hat Ansible Automation Platform, a financial institution's IT service department was able to automate 30% of these requests, saving more than US\$500,000 a year in IT ticketing costs.

Such a scenario is possible with event-driven automation, which streamlines service ticket processes and reduces redundancy by consolidating service requests into manageable tasks. Using event-driven IT automation can substantially reduce the time-to-resolution, improve customer and end user experiences, and increase visibility into system issues through metrics and analytics. And, as needed, IT administrators can resolve incidents with partially or fully automated processes. For example, basic issues—such as resetting passwords or adding additional compute capacity—could be automatically corrected based on predefined rules. The amount of automation that is appropriate can vary, depending on the complexity of the issue at hand and the IT team's needs. With more complex issues—such as system slowdowns or outages—sensors can detect anomalies in the network and trigger alerts or responses in real time through automated decision-making that uses predefined business rules. These rules can be set up to address and rectify problems before they affect end users, route incoming messages to appropriate teams, or offer guidance on next best actions for resolving issues.

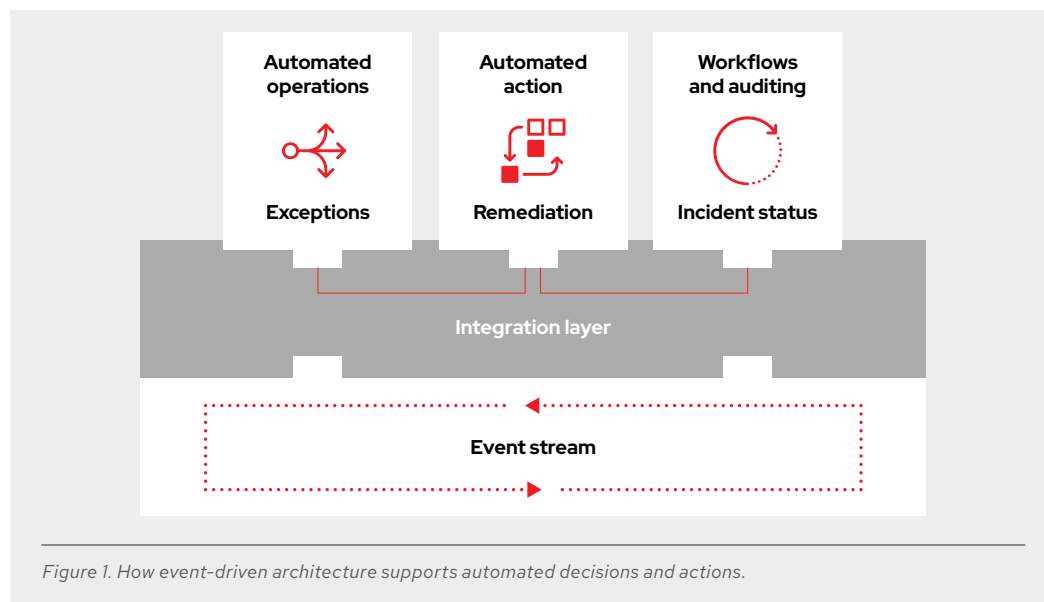
Case study: A large, global financial institution

The IT service department of a large, global financial institution was receiving thousands of infrastructure service tickets each day, which was costing US\$10 per ticket to manually resolve, requiring valuable time from systems and network administrators. These tickets came from customers encountering slow response times when trying to access account information, as well as from internal employees, whose essential business applications and services were experiencing periodic, unplanned downtime.

The financial institution also had access to significant amounts of ticket data pertaining to the network, software versions, and uptime. With this data, the company was able to make targeted investments in equipment and software to develop event-driven architecture to automate IT service delivery. This prevented costly downtime, ensuring consistent speed of services used by customers. By employing a rules-based, event-driven architecture, the institution was able to automate responses to 30% of IT service requests, saving more than US\$500,000 a year in IT ticketing costs. Automated responses to IT service issues led to better user experiences, freed IT staff to work on more strategic projects, and resulted in less unplanned downtime.

Deploying automated problem resolution with Red Hat Ansible Automation Platform and event-driven IT automation

Thousands of organizations use Red Hat® Ansible® Automation Platform as the foundation for building and operating automation services at scale. Ansible Automation Platform gives enterprises a composable, collaborative, and trusted execution environment for automating a variety of IT use cases. Ansible's simple automation language makes it easier for IT teams to share, vet, and manage automation content. Teams can jumpstart automation projects more quickly through trusted, certified, and reusable content with access to Ansible Content Collections. And with Red Hat Application Services, organizations can extend Ansible Automation Platform to detect incidents and remediate issues in real time, streamlining IT service management and achieving faster resolutions. As a result, IT staff can spend more time on higher priorities. Event-driven automation architecture allows automated IT services to act on incidents or services requests in real time using available data on the current state of systems. IT service automation can also incorporate artificial intelligence (AI) models that predict next best actions and improve service delivery using decision logic and rules to remediate or act on the "ticket." This allows IT administrators to set how much and when automation is implemented.






Learn more

Red Hat works with enterprises across the globe to meet their most pressing infrastructure and operations challenges. Red Hat solutions have allowed customers to drastically reduce operating costs – while improving resiliency and security – for their existing infrastructure. Providing the flexibility to add automated decisions and new AI models as operational requirements change over time, an open architecture, built and managed with Red Hat Ansible Automation Platform, allows enterprises to take advantage of the full benefits of event-driven automation. Reach out to your Red Hat representative to learn more about how Red Hat can help your organization advance its automation strategy and enjoy the benefits of real-time incident remediation and automated IT service delivery.



About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. [A trusted adviser to the Fortune 500](#), Red Hat provides [award-winning](#) support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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