Increase agility and responsiveness with network automation

Achieving reliable, security-focused, and consistent application deployment

As organizations modernize and move applications to cloud environments, managing network traffic, access control, and application security becomes more complex. This becomes increasingly true when applications are deployed across hybrid cloud environments.

No matter where applications are deployed, businesses still need to provide application delivery services such as identity and access management, web application firewalls, and Transmission Control Protocol (TCP) optimization to ensure that their applications remain responsive, protected, and available in production environments.

IT teams overburdened with manually updating, integrating data, and maintaining compliance and security are turning to network automation to ensure infrastructure can adapt quickly to changing traffic demands, effectively manage access controls, while at the same time protecting applications, data, and networks in line with regulatory requirements.

Automate installation and deployment across networks and devices

By automating the management of F5 BIG-IP devices, Red Hat® Ansible® Automation Platform helps customers create highly stable, scalable, and responsive application environments through its powerful network-automation capabilities.

Unlike other automation tools, Red Hat Ansible Automation Platform makes it efficient and user-friendly to manage configurations on the F5 BIG-IP platform, because its agentless architecture does not require any additional software to be installed on the BIG-IP device.

Automated traffic management through load balancing

F5's BIG-IP provides advanced load balancer and traffic management capabilities. When combined with the automation capabilities of Red Hat Ansible Automation Platform, organizations can achieve reliable, efficient, and scalable application delivery that ensures consistency and reduces errors by automating the configuration and deployment of BIG-IP solutions.

Administrators can create playbooks that automate the deployment of new instances, adjust traffic policies as patterns change, apply configuration changes across all environments, and coordinate down-time and maintenance windows to maintain uninterrupted service.

Advanced security through automated web application firewall (WAF) deployment and config

By automating the deployment of F5 Advanced WAF and BIG-IP Application Security Manager, Red Hat Ansible Automation Platform ensures a consistent and standardized configuration across environments. Event-Driven Ansible can improve operational efficiency and reduce security risk by proactively reacting to threats and taking protective measures, helping to increase mean time to resolution and ultimately freeing up limited resources.

Plus, as new infrastructure is deployed, Red Hat Ansible Automation Platform can help scale WAF to where it is needed, whether on-premise or in a cloud environment. Red Hat Ansible Automation Platform can be used as a source of truth by providing automated documentation for audits and regulatory compliance.

Streamlined secure sockets layer and transport layer security (SSL/TLS) termination to enhance server performance

Red Hat Ansible Automation Platform automates and manages SSl/TLS configuration centrally through F5 to centrally manage and scale application delivery. This includes the renewal of SSL certificates, enforcement of strong cipher suites, and implementation of best practices. Red Hat Ansible Automation Platform can also orchestrate rollouts of new certificates or changes to SSL/TLS configurations, helping to maintain application availability and security.

Comprehensive access control, enhancing compliance and audit controls

Together, F5 Access Policy Manager (APM) and Red Hat Ansible Automation Platform automate the deployment, configuration, and management of a robust access control and authentication solution to ensure security policies are consistently applied. In addition, Red Hat Ansible Automation Platform can also automate the configuration of SSO through F5 APM, so users have a seamless experience across different applications while maintaining strong security controls.

Figure 1. Red Hat Ansible Automation Platform can manage F5 devices in both private and public cloud environments.
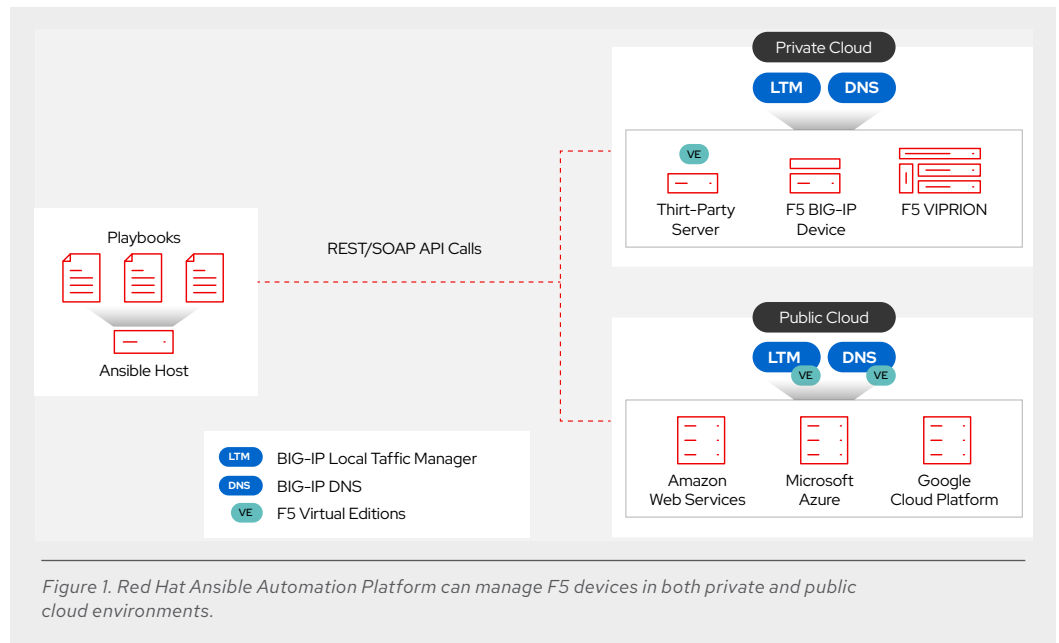
Deploy applications and infrastructure with the speed of automation

Together, Red Hat Ansible Automation Platform and F5 BIG-IP devices allow organizations to cut deployment times and significantly reduce the resources required to manage modern infrastructures. As a result, they achieve a more agile and responsive IT infrastructure that can:

▸ Speed up the response to changing traffic demands by automating the scaling of load balancers, leading to improved application availability, scalability and reduced latency.

▸ Strengthen security by automating the deployment of and updates to web application firewalls, which increases application availability, ensures regulatory compliance, and improves customer trust.

▸ Effectively manage access controls across their entire IT infrastructure, to ensure security-proven access, a streamlined user experience, with full audit and compliance capabilities.

▸ Ensure network security, reliability, and compliance with automated SSL/TLS certificate management, which improves server performance, simplifies certification management, and enhances security.

Discover how to accelerate innovation and reduce risk

Learn more about how you can build environments, apply security policies, and streamline operations with Red Hat Ansible Automation Platform and F5 BIG-IP.

▸ Read the Event-Driven Automation and Security with F5 blog and solution e-book .

▸ Watch the reducing complexity for security-focused applications at scale video.

▸ Contact us for a network-automation demonstration.

About Red Hat

Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with award-winning support, training, and consulting services.