

Infrastructure lifecycle management

Red Hat and HashiCorp together

HashiCorp Terraform and Red Hat® Ansible® Automation Platform are built to complement each other—not compete. While HashiCorp Terraform is ideal for provisioning and managing the state of cloud infrastructure, [Ansible Automation Platform](#) can automate configuration and, with [Terraform](#), manage the overall infrastructure lifecycle. Here are 5 ways Terraform and Ansible Automation Platform work better together.

1 Provision infrastructure: Day 0

Repeatable provisioning is key to addressing budget and resource constraints, while maintaining focus on security and compliance.

HashiCorp Terraform allows for rapid, repeatable provisioning of infrastructure using Infrastructure as Code (IaC).

It helps teams apply consistent policies and early-stage configuration to maintain security and compliance controls from the start. This allows organizations to:

- ▶ Define IaC to reduce manual work.
- ▶ Deploy consistent multicloud environments using modules.

2 Configure systems with efficiency, consistency, and scale: Day 1

Once infrastructure is provisioned and environment-specific configuration begins, Ansible Automation Platform provides agentless, consistent automation to help teams manage infrastructure configuration and reduce inconsistency in processes.

This may include applying operating system (OS) and service-level settings during provisioning and enforcing security and compliance safeguards.

Ansible Automation Platform streamlines the operational management of IT infrastructure of any kind, from the datacenter, across clouds, and out to the edge, providing:

- ▶ **Efficiency.** Greater efficiency makes it easier for ITOps and application teams to create and deploy via automated workflows.
- ▶ **Consistency.** Steady, reliable, and compliant performance across use cases, domains, and environments maintains a predictable environment and builds trust.
- ▶ **Scale.** The ability to quickly keep up with the needs of the business and deliver streamlined infrastructure and application performance in any environment, anywhere in the world.

3 Manage operations and lifecycle at scale: Day 2

IT activities do not stop once infrastructure is deployed. Ongoing management is required to make sure systems stay security-focused, compliant, and optimized.

After Terraform takes care of the initial provisioning and Ansible the initial configuration, Ansible Automation Platform helps teams manage complex operations at scale with easy-to-build workflows.

Ansible Automation Platform provides continuous management to:

- ▶ Automate patching, health checks, updates, drift remediation, and business continuity.
- ▶ Standardize changes across hybrid environments.
- ▶ Enforce role-based access control (RBAC) and Policy as Code (PaC).
- ▶ Scale operations, even with lean teams.

Terraform provides infrastructure optimization to:

- ▶ Allow infrastructure to respond as demand fluctuates by allowing users to dynamically provision and deprovision resources based on changing needs.
- ▶ Scale up resources during peak times and scale them down during off-peak periods, controlling costs and maintaining efficient resource utilization.
- ▶ Deprovision resources at the end of their lifecycle.

4
Respond in real time: Day 2 and beyond

Modern operations demand instant response to change.

Ansible Automation Platform handles dynamic event-driven automation—closing the loop between observability and action with [Event-Driven Ansible](#). Event-driven automation can include Terraform tasks, which can be set to run automatically based on Ansible Rulebooks.

Event-driven automation helps teams to:

- ▶ Automatically respond to alerts or thresholds.
- ▶ Integrate with monitoring, IT service management, and observability tools.
- ▶ Reduce manual tickets and escalations.
- ▶ Implement self-healing infrastructure for more efficient recovery.

Together, Terraform defines the infrastructure and Ansible Automation Platform provides real-time agility.

5
Rely on platforms built to work better together

Managing the infrastructure lifecycle with many different tools and disconnected teams leads to inefficiency, inconsistency, and risk.

Terraform and Ansible Automation Platform offer a more streamlined approach, providing 2 platforms that work in tandem to automate the full lifecycle, from provisioning and configuration to operations and event-driven response.

Instead of stitching together point solutions, teams can rely on this powerful combination to unify IaC and IT automation across all environments. Teams gain:

- ▶ Full-stack automation across the infrastructure lifecycle.
- ▶ Unified tooling for DevOps and ITOps to work from a single automation strategy.
- ▶ Lifecycle consistency across clouds, datacenters, and edge environments.
- ▶ Reduced operational complexity.
- ▶ Improved return on investment (ROI) through faster delivery, reduced downtime, and fewer manual processes.

Learn more

[Read this in-depth article](#)
to discover more about how Red Hat Ansible Automation Platform and Terraform work better together.



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