Get started with infrastructure visibility for your hybrid cloud

Understanding the need for hybrid cloud automation

A report examining the state of cloud in today's business landscape[1] found:

- 80% of organizations have a hybrid cloud strategy.

- 77% of organizations identify managing multiple clouds as a challenge.

- Only 25% of organizations currently use a multicloud management tool.

Manage the complexity of hybrid cloud with automation

Automation platforms designed for hybrid cloud environments—such as Red Hat® Ansible® Automation Platform—let your organization orchestrate, operationalize, and govern its IT environments under a single set of processes, policies, and management tools to improve consistency, scalability, and speed, and reduce human error.

Setting up Ansible Automation Platform has never been as simple with it available in Amazon Web Services (AWS) Marketplace, Google Cloud Marketplace, and Microsoft Azure Marketplace—and ready to deploy directly within their respective cloud.

But even before moving into entry-level use cases, it is imperative that you first learn the basics of Ansible Automation Platform and discover how to use important functions of the platform—such as the automation controller—through Red Hat's self-paced labs.

Understand your hybrid cloud use with Ansible Automation Platform

One vital pillar of hybrid cloud management is infrastructure visibility and how to use that visibility to better understand and manage your organization's cloud environment.

Using Ansible Automation Platform, your organization can enact several read-only operations that provide insight into what is running on your clouds and deliver immediate value without the risk of use cases that require production changes.

Ansible Automation Platform makes it possible to aggregate information from your various environments and cloud services into a single, customizable management interface to help you understand your entire cloud environment.

Through this unified management interface, you can use that information to create inventories and data reports to better inform your hybrid cloud management decisions.

Where to start with infrastructure visibility use cases

Red Hat recommends new users to follow a "crawl, walk, run" strategy. You should first try out simpler, less risky automation use cases that can deliver immediate value, before later moving onto more complex use cases with longer-term value.

1 "2022 State of the Cloud Report." Flexera, accessed March 2023.

Brief   Get started with infrastructure visibility for your hybrid cloud

There are several read-only infrastructure visibility use cases that are perfect for an organization looking to start their automation journey, including:

▸ **Retrieve information about infrastructure.** Retrieve status and configuration data in less time using services available from each respective cloud provider and Red Hat Ansible Certified Content Collections. This can be done for a variety of services, including virtual machines (such as Amazon Elastic Compute Cloud instances, Google Cloud Compute Engine instances, and Microsoft Azure Virtual Machines), virtual private clouds (such as Amazon Virtual Private Clouds, Google Cloud Virtual Private Clouds, and Microsoft Azure Virtual Networks), and more.

  ▸ Learn how to retrieve infrastructure data on AWS, Google Cloud, and Microsoft Azure.

▸ **Create dynamic inventories.** Create dynamic inventory lists that Ansible Automation Platform automatically updates by dynamically retrieving host details. This helps you better manage and configure instances within the constantly evolving infrastructure of a public cloud. This process can be scheduled to ensure the host information is always up to date.

  ▸ Learn how to set up dynamic inventories in AWS, Google Cloud Platform, and Microsoft Azure.

▸ **Create customized reports.** Export inventories or other data reports in a range of file formats—including HTML, markdown, and CSV—with flexible data outputs to fit your needs.

  ▸ Learn how to template in Ansible Automation Platform.

▸ **Monitor resource limits.** Control cloud sprawl and overprovisioning and ensure availability of resources by monitoring your resource limits across your hybrid cloud. This can be done by implementing Ansible playbooks that retrieve data points from your various instances—such as maximum CPU usage, maximum memory usage, and storage consumption—to better understand your system health and resource usage. Automated alerts can be set up to notify you when those limits are hit or close to being hit.

  ▸ Learn to retrieve structured data about virtual machines, including:

    ▸ AWS Elastic Compute Cloud instances

    ▸ Google Cloud Compute Engine instances

    ▸ Microsoft Azure Virtual Machines

  ▸ Learn to retrieve structured data about cloud-native services, including:

    ▸ AWS Elastic Kubernetes Service

    ▸ Google Cloud Container Cluster

    ▸ Azure Kubernetes Service Info

These use cases are a good starting point for any organization at the beginning of its automation journey, but these are not the only entry-level use cases. Explore more options in these interactive labs for Ansible Automation Platform.

Learn where to start with infrastructure visibility

Try Red Hat's self-paced infrastructure visibility lab at no cost to learn more.

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.

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