Get started with infrastructure visibility for Google Cloud

Understanding the need for hybrid cloud automation

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

- 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 simpler now that it is available in the Google Cloud Marketplace—and ready to deploy directly within Google Cloud.

Before moving into entry-level use cases, it is imperative that you first learn the basics of Ansible Automation Platform and its important functions—such as 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 knowing 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 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 moving onto more complex use cases with longer-term value.

There are several read-only infrastructure visibility use cases to help organizations start their automation journey, including:

- **Retrieving information about infrastructure.** Retrieve status and configuration data in less time using services available from Google Cloud and Red Hat Ansible Certified Content Collections. This can be done for a variety of services, including Google Compute Engine and Google Virtual Private Cloud. Learn how to retrieve infrastructure data on Google Cloud. Try it in this lab.

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

- **Creating 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 and can be scheduled to ensure the host information is always up to date. Learn how to set up dynamic inventories in Google Cloud.
- **Creating 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.
- **Monitoring resource limits.** Control cloud sprawl and overprovisioning and ensure availability of resources by monitoring resource limits across your hybrid cloud. This can be done by implementing Ansible Playbooks that retrieve data points from various instances—such as maximum central processing unit (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 have been reached or are close to being reached.
  - Learn to retrieve structured data about Google Compute instances.
  - Learn to retrieve structured data about the cloud-native service Google Kubernetes Engine (GKE).

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.

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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