Automate the migration and operation of VMs with Red Hat

Choose an automation platform built for enterprise needs

"Consider Red Hat Ansible Automation Platform for its comprehensive capabilities and broad support in accelerating automation maturity and bringing in multiple upstream community projects for enterprise scale. This wide adoption, high growth rate, and support for open standards mean enterprises can be confident when selecting Ansible Automation Platform."

-IDC Marketscape excerpt[1]

Deliver reliable virtualization automation in uncertain times

Changes in the virtualization space have disrupted the IT strategies of many enterprises, with some looking to reduce their dependence on traditional virtualization technology.

The combination of Red Hat® OpenShift® Virtualization and Red Hat Ansible® Automation Platform is uniquely positioned to help enterprises accelerate the migration of their virtual machines (VMs) from traditional virtualization technology to a platform that simplifies management and provides a pathway to application and infrastructure modernization—all without requiring application refactoring.

OpenShift Virtualization—a feature of Red Hat OpenShift included with self-managed Red Hat OpenShift and Red Hat OpenShift Service on AWS—provides a unified hybrid cloud application platform that supports VMs alongside containerized workloads, to allow customers to preserve their existing virtualization investments.

OpenShift Virtualization simplifies workload management while also delivering consistency across an entire IT ecosystem, including on premise, hybrid and multicloud environments, and even to the edge of a network.

When used with Ansible Automation Platform—which includes all of the tooling needed for building, deploying, and managing end-to-end automation at scale—organizations can accelerate the migration of their VMs, while also reducing the potential for human error and improving consistency throughout migration and ongoing VM workload management.

Support VMs from migration to Day 2 operations and beyond

With OpenShift Virtualization providing the computing and storage capabilities, and Ansible Automation Platform automating the orchestration of VMs and surrounding IT infrastructure, organizations can support their VMs all the way from migration through to Day 2 operations, and far into the future as IT and business needs change.

Accelerate and scale migration of VMs off of traditional technology

Traditionally, the migration of VMs to a new environment is a manual process, with each VM treated as a unique workload that requires a number of steps to successfully migrate. This can quickly add up to an untenable level of manual effort when you scale up to the thousands of VMs that many enterprises operate.

Using the Migration Toolkit for Virtualization (MTV) available through OpenShift Virtualization, in combination with the infrastructure as code (IaC) or configuration as code (CaC) methodologies of Ansible Automation Platform, customers can address pre- and post-processing needs, while replacing the usual repetitive, manual, and time-consuming tasks with automated workflows (such as inventorying all existing and replacement hardware, networks, VM introspection, cluster deployment, and more).

Automate efficiently and consistently with advanced automation capabilities

Event-Driven Ansible:
Automatically configure the details of VMs to specific job templates whenever they are provisioned, and integrate with an ITSM to automate ticket creation and any required remediation, with event-driven automation capabilities included in Ansible Automation Platform.

Ansible Lightspeed:
Create, adopt, and maintain automation content more efficiently with generative artificial intelligence (gen AI) capabilities included in Ansible Automation Platform that produce automotion code from natural language prompts.

Ansible policy as code:
Enforce both internal and externally-mandated policies more efficiently—during the creation of automation and as it is used—with automated policy as code (PaC) capabilities available on Ansible Automation Platform.

Orchestrate VMs with existing IT infrastructure

Bringing traditional, cloud-native, and virtual infrastructure together can provide opportunity for increased IT flexibility and application innovation, but when done without the right automation capabilities, it can also create overly complex IT environments.

Using Ansible Automation Platform as the IT automation "glue" to coordinate and manage these hybrid IT environments significantly decreases management complexity and automates orchestration of VMs with essential IT components, including networks, cloud services, database services, IT service management (ITSM) tooling, and more.

Automate Day 2 operations across the entire IT environment

Following migration to OpenShift Virtualization, organizations still need to efficiently and consistently manage the Day 2 operations of their Linux® and Windows VMs (including compliance, patching, and configuration management). They also need to access both cloud-native and virtualized applications in an automated fashion that supports infrastructure visibility, operations, and automated troubleshooting.

The combination of Ansible Automation Platform and OpenShift Virtualization allows the automation of many Day 2 tasks that help manage the entire VM lifecycle. This Includes provisioning and deprovisioning of VMs and resources (such as memory, storage, vCPU allocation, network adapter settings, migration, tags, and more), agent install and removal, operating system and application patching, business continuity, and more.

Start your journey to modern virtualization

Explore this video playlist to learn more about migrating, managing, and scaling VMs with OpenShift Virtualization and Ansible Automation Platform.

Visit Red Hat Developer Hub to get hands-on experience in the Developer Sandbox.

Speak to a Red Hatter today to discuss how the Red Hat portfolio can support your existing virtualization investments and provide a pathway to modernization.

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