

# Migrate to Microsoft Azure using Red Hat Ansible Automation Platform



# Automate your cloud resource life cycles

Red Hat Ansible Automation Platform lets you automate complete cloud workflows. With Microsoft Azure, you can:

- Manage load balancers.
- Administer PostgreSQL databases.
- Maintain virtual machines.
- Administer network stacks and interfaces.
- Manage resource groups.
- Maintain security groups.

Read this overview to learn more about these use cases.

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# Migrate and manage workloads across hybrid cloud environments

Deploying business-critical applications in cloud environments is now the norm. Even so, migrating to the cloud and managing workloads and resources across hybrid cloud environments can be daunting, time-consuming, and error-prone when performed manually. Cloud automation—applying IT automation to cloud technologies—can help you move to and manage cloud environments more efficiently at scale.

Cloud automation lets you streamline complete workflows to manage IT life cycles across your environment. Orchestrate cloud resources by automatically setting up and migrating the environments, systems, and applications that your business needs. Operationalize ongoing cloud processes by automating the Day 1 and Day 2 tasks that keep your environments running. Govern cloud environments by applying and enforcing policies at scale to ensure that all elements run according to business requirements.

Red Hat® Ansible® Automation Platform on Microsoft Azure lets you orchestrate, operationalize, and govern workloads and resources across your entire environment—including private clouds, on-site datacenters, and edge locations—to provide a consistent automation experience.

# Orchestrate your Microsoft Azure environment with Ansible Automation Platform

A unified automation platform that works with your cloud provider and other technologies in your IT environment is central to effective cloud workflow migration and management. Ansible Automation Platform on Microsoft Azure speeds migration of your existing applications to Microsoft Azure and then simplifies IT workload and resource management across your hybrid cloud environment.

Ansible Automation Platform is an enterprise IT automation solution that includes everything needed to build, deploy, and manage automation at scale. A simple automation language lets you create advanced workflows and share and manage automation assets across your organization. Integration with native Azure services like Azure Active Directory (AD) and Azure Virtual Machines (VM), along with Ansible Content Collections for Azure, helps reduce the time it takes to get started. The power of cloud computing combined with the convenience of a managed offering lets you deploy the platform with minimal setup and automate Azure resources right away.

As part of Ansible Automation Platform, Event-Driven Ansible lets you automate IT actions in response to events observed in your environment via user-defined, rule-based constructs. It receives notifications from third-party tools, decides which actions to take based on your rules, and then responds automatically using your Ansible Playbooks. With Event-Driven Ansible, you can create end-to-end, fully automated workflows for a broad array of complex use cases across your IT landscape.





To ensure consistent, security-focused operations, Red Hat manages, maintains, and supports Ansible Automation Platform so you can focus on deploying efficient and scalable automation strategies. Expert help is always available when you need it. The service is billed with your other Azure services for simplified procurement and full visibility into costs. And you can use your existing Microsoft Azure Consumption Commitment (MACC) to purchase Ansible Automation Platform on Microsoft Azure.

# Simplify automation with Red Hat Ansible Certified Content

The Ansible Certified Content Collection for Microsoft Azure integrates Ansible Automation Platform and Microsoft Azure so you can automatically manage your entire deployment across IT domains and technologies. Available via Ansible automation hub, this precomposed content includes modules, roles, plug-ins, and documentation for automating many common Microsoft Azure operations-like Azure resource creation, Azure VM management, and Azure deployment monitoring-directly from Ansible Automation Platform. Use this collection to build advanced automation workflows based on trusted content developed, tested, and supported by Red Hat and Microsoft. And because Red Hat maintains and releases the direct-to-user automation assets in all Red Hat Ansible Certified Content collections separately from main product releases, you can get started with the latest features and content without delay.

#### Get started faster with Ansible validated content

Ansible validated content for Microsoft Azure provides expert guidance for building automation workflows across your Microsoft Azure environment. Delivered as playbooks, roles, and documentation, Ansible validated content offers customizable, opinionated use cases based on Red Hat Ansible Certified Content. Red Hat curates and tests all Ansible validated content. Content can be loaded into a private automation hub—a repository for storing and controlling access to your automation assets.

Here are some examples of the many use cases that you can customize and automate with Ansible validated content for Microsoft Azure.

#### **Manage Azure Load Balancers**

With the azure\_load\_balancer\_with\_public\_ip role, you can use detailed controls to consistently deploy, configure, and retire Azure Load Balancers. Configure easy-to-understand options like load balancing rules and probe definitions. Ansible Automation Platform provisions and sets up new load balancers, or reconfigures or retires existing instances based on your settings.

# **Administer Azure PostgreSQL Databases**

Using the azure manage postgresql role, you can create and delete databases on a PostgreSQL server in your Microsoft Azure environment. Set simple options like Azure resource group database instances, and Ansible Automation Platform automatically manages your database instances using the configurations you provide.

#### **Maintain Azure Virtual Machines**

To help manage your Azure VMs, the azure virtual machine with public ip role lets you deploy, power cycle, and retire Microsoft Azure infrastructure. Provide information about the target VM and operation, and Ansible Automation Platform automatically creates, deletes, powers on and off, deallocates, or restarts VMs using your defined configuration.



Learn more about Red Hat Ansible Certified Content.



Access validated content and playbook examples for Microsoft Azure automation workflows.



Read the Automate your hybrid cloud at scale e-book to learn more about building complete, automated hybrid cloud workflows.

## **Manage Azure Network Interfaces**

The azure\_manage\_network\_interface role helps you deploy, configure, and retire Azure Network Interfaces simply and efficiently. Define network interface details along with an operation, and Ansible Automation Platform creates and configures, reconfigures, or deletes network interfaces according to your specification.

# **Administer Azure networking stacks**

With the azure\_manage\_networking\_stack role, you can efficiently administer your Azure networking stacks, including virtual networks and subnets. Define simple options like names, regions, and security groups, and Ansible Automation Platform creates or deletes Azure networking stacks and resource groups, based on your currently deployed Azure infrastructure.

## **Manage Azure Resource Groups**

Using the azure\_manage\_resource\_group role, you can manage all of your Azure Resource Groups from 1 automated workflow, helping to speed common maintenance tasks. Specify information like the Azure Resource Group name and region, and Ansible Automation Platform creates or deletes the group, based on your settings.

#### **Maintain Azure Security Groups**

The azure\_manage\_security\_group role lets you maintain your Azure Security Groups quickly and efficiently. Configure the role options, and Ansible Automation Platform creates or deletes Azure Security Groups, or adds and removes rules from an existing group.

#### Learn more

Discover more about using Ansible Automation Platform to automate your Microsoft Azure deployment and hybrid cloud environments. Read about Ansible Automation Platform and Microsoft Azure integrations, and experiment with a wide variety of use cases in an interactive lab.



#### **About Red Hat**

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. A trusted adviser to the Fortune 500, Red Hat provides award-winning support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.



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