

# Bridging hybrid cloud environments

Integration of Red Hat Advanced Cluster Management for Kubernetes with Red Hat Ansible Automation Platform

# 97%

of enterprises expect to take advantage of connected hybrid and multi-cloud infrastructure.<sup>1</sup>

IDC's research shows that worldwide, 97% of enterprises expect to take advantage of connected hybrid and multi-cloud infrastructure spanning both on-premises resources and one or more public cloud platforms to support these cloud-native applications.<sup>1</sup>

Moreover, 71% of organizations recognize the need for consistent cross-cloud management and automation to ensure effective application performance and business operations.<sup>1</sup>

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of organizations recognize the need for consistent cross-cloud management and automation.<sup>1</sup>

## The challenge:

As the adoption of containers and Kubernetes increases to drive application modernization, IT organizations must find ways to easily deploy and manage multiple Kubernetes clusters across regions, both residing in the public cloud and on-premise, and all the way to the edge.

How do you connect modern containerized environments, including cloud-native applications and infrastructure, to your traditional IT systems and application services such as storage, networking, load balancer, firewall, monitoring, and configuration management databases (CMDBs)?

## The solution:

### Through automation.

The integration of Red Hat® Ansible® Automation Platform with Red Hat Advanced Cluster Management helps customers operationalize their Red Hat OpenShift® environments and connect the containerized environment with traditional IT environments.

With this integration, users can invoke Red Hat Ansible automation using Red Hat Cluster Management before or after key life cycle actions such as creating and updating applications and clusters.

Red Hat Ansible Automation Platform

Red Hat Advanced Cluster Management for Kubernetes

Red Hat OpenShift

## How the integration works:

### Cluster life cycle integration:

When deploying or updating a cluster, you may need to perform day zero operations such as configuring:

- ▶ Cloud-defined storage
- ▶ Network firewall rules
- ▶ Infrastructure prerequisites like static IP addresses

After the cluster is created, you may need to perform day one operations such as:

- ▶ Automatically updating network components like firewalls and load balancers to enable flexible scaling and updates of the CMDB

All of this can be automated using the Red Hat Ansible integration with Red Hat Advanced Cluster Management for Kubernetes.

### Application life cycle management integration:

When deploying a new application or updating an existing one, you may need to trigger an IT service management (ITSM) change request. After the application is created, you may need to:

- ▶ Configure a load balancer
- ▶ Update a database
- ▶ Open a port on a firewall
- ▶ Send a notification

All of this can be automated using the Red Hat Ansible integration with Red Hat Advanced Cluster Management for Kubernetes.

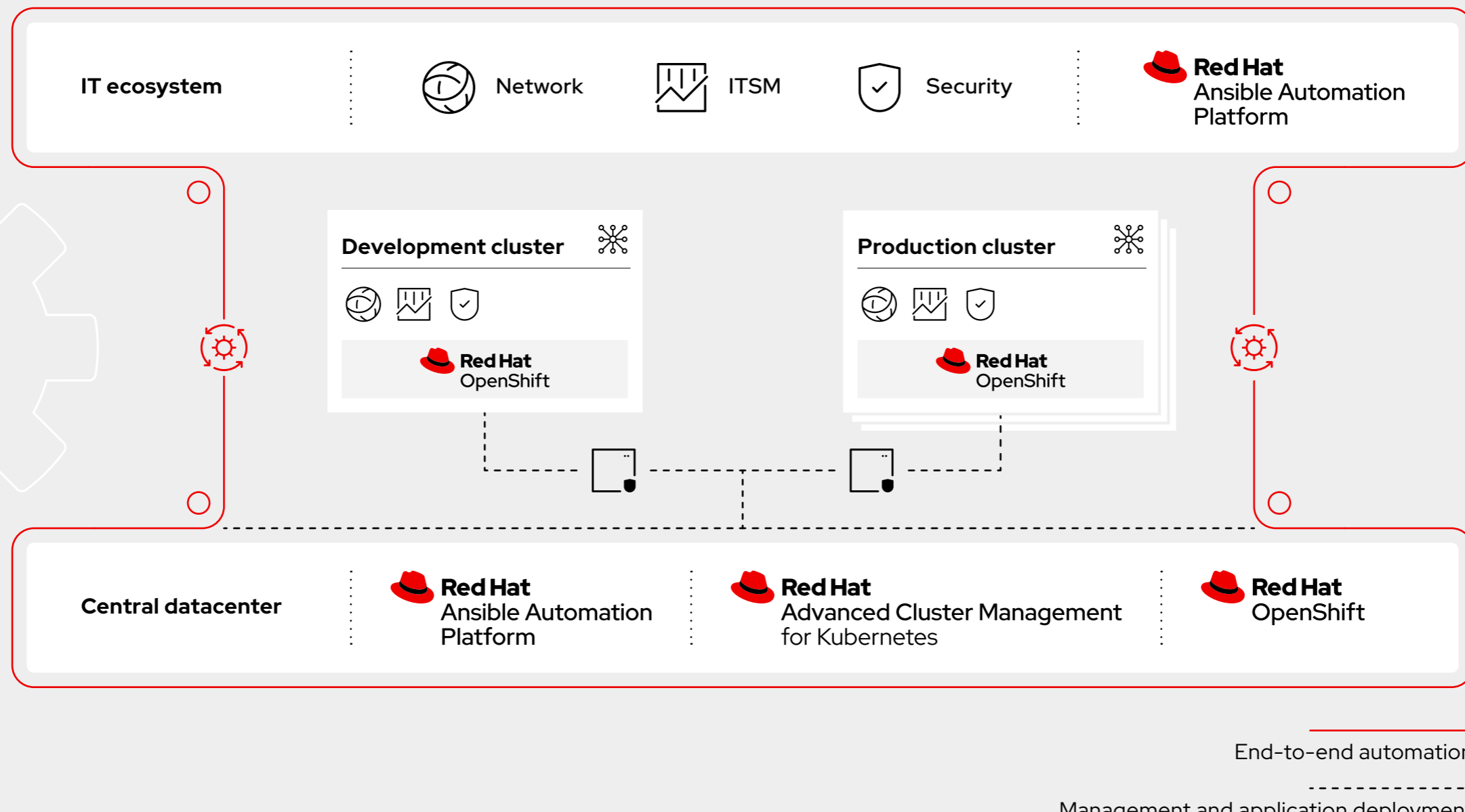
### Governance and risk integration:

When scanning clusters for compliance, you may need to:

- ▶ Remediate non-compliant conditions
- ▶ Audit clusters to ensure there are no policy violations

By configuring and invoking a Red Hat Ansible playbook, you can automatically remediate the non-compliant conditions detected by Red Hat Advanced Cluster Management and gather audit information about the clusters for analysis to promote proactive policy measures.

## Use case: Policy and governance



To learn more about Red Hat Advanced Cluster Management for Kubernetes, visit [redhat.com/clustermanagement](https://redhat.com/clustermanagement).

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