

RED HAT CLOUDFORMS MANAGEMENT FOR MICROSOFT AZURE

DATASHEET

INTRODUCTION

Organizations today must integrate their traditional IT environments with cloud-native environments like Microsoft Azure. Using public clouds gives organizations tremendous benefits, but at the same time introduces significant risks. For example, idle virtual machines (VMs) can rack up large bills very quickly, and extreme care must be taken to properly and securely configure VMs.

Red Hat® CloudForms gives IT operations teams the visibility and control they require to use the public cloud in a secure and responsible way, while improving service delivery times. Red Hat CloudForms' self-service catalog, combined with full life-cycle management, ensures cloud deployments are standardized and reduces the need for end users to directly access Azure accounts. It also ensures that requests are within defined quotas and detects idle VMs, reducing VM sprawl.

Finally, Red Hat CloudForms automatically discovers and tracks the usage of Azure resources. This allows it to bring existing Azure deployments under management without requiring process changes. Once under management, Red Hat CloudForms continuously monitors the Azure environment, tracking the life cycle and usage of each resource, and identifying idle or high-cost VMs. It can then provide detailed chargeback reports that can be used to help manage Azure costs.

SELF-SERVICE WITH COMPLETE LIFE-CYCLE MANAGEMENT

Red Hat CloudForms offers a self-service catalog populated with workloads defined by the IT team. Multiple catalogs can be created, providing a different experience for the various users or departments in the business. Requests made through the self-service catalog by end users are checked against established user or group resource quotas and routed for management approval where required.

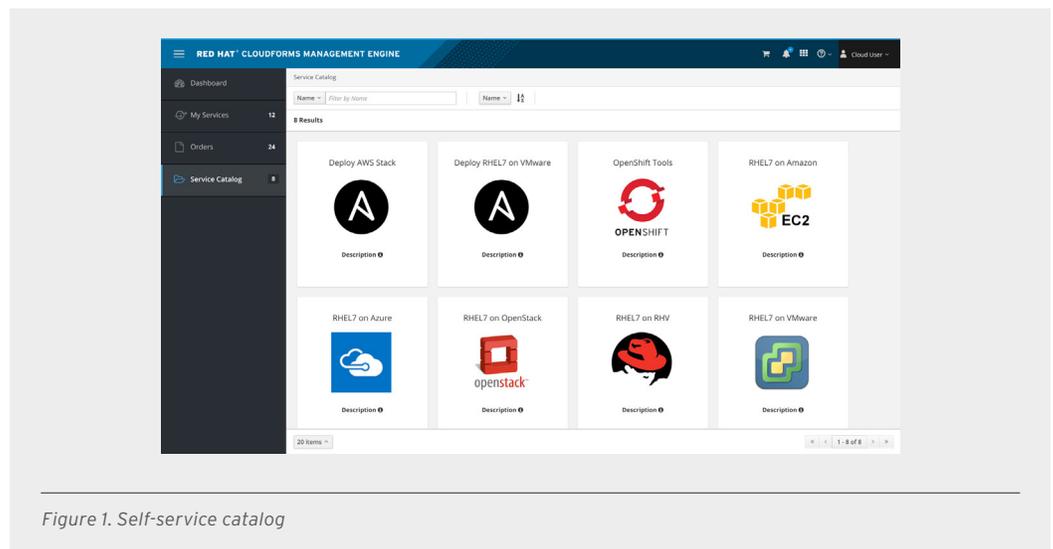


Figure 1. Self-service catalog



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When a workload is requested and approved, Red Hat CloudForms provisions the appropriate VM or orchestration template into the Azure environment and configures it as needed for the specific workload. Configuration can be done using Ansible playbooks or third-party configuration management solutions. This provides the IT department with a level of control over the VM and its configuration, which is critical to ensuring the security of applications and data. Finally, Red Hat CloudForms offers life-cycle management, allowing “day-2 operations” and full control over VM retirement.

POLICY AND COMPLIANCE ENFORCEMENT

Once Red Hat CloudForms is connected to Azure, it automatically builds an inventory by discovering existing resources that it controls. This inventory is updated continuously, allowing Red Hat CloudForms to detect new resources quickly, even if those resources are provisioned outside of Red Hat CloudForms.

Using this comprehensive view of the Azure environment, Red Hat CloudForms can visualize relationships between VMs, track a particular VM’s genealogy, and flag VMs that have been modified from a previously captured state. Red Hat CloudForms can receive instance events and then take actions based on those events. This capability is driven by Red Hat CloudForms’ policy and compliance engine, which defines conditions and the specific actions to take when encountered. Actions may be anything from raising an alert to automatically remediating the issue. Red Hat CloudForms also captures metrics and triggers alerts whenever a metric crosses a threshold or goes beyond normal operating range.

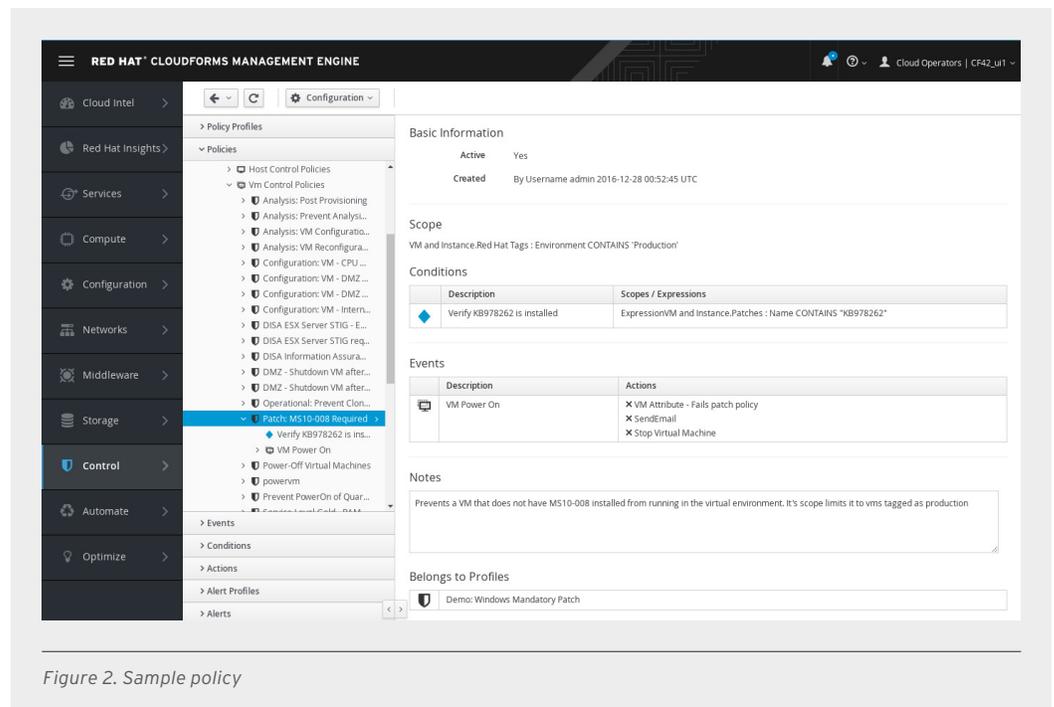


Figure 2. Sample policy

OPERATIONAL EFFICIENCY

With Red Hat CloudForms' comprehensive view of the Azure environment, IT operations can gain greater insight and budgetary control. By capturing events and resource usage over time, Red Hat CloudForms provides utilization reports for expense tracking and chargeback to the users or departments. Red Hat CloudForms can reduce unnecessary Azure expenses by tracking VMs and automatically triggering retirement processes when a VM goes unused for an extended period of time.

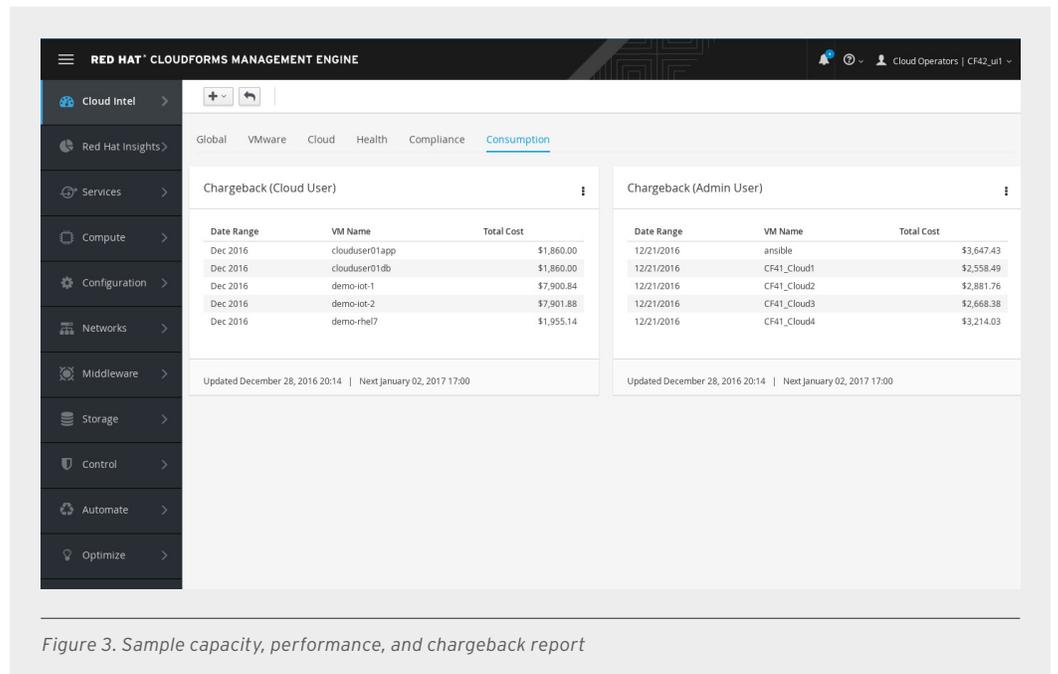


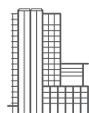
Figure 3. Sample capacity, performance, and chargeback report

CONCLUSION

Red Hat CloudForms offers a complete management platform for both traditional, on-premise infrastructure and Microsoft Azure, providing the same self-service capability, policy enforcement, and comprehensive operational insights across both environments. Red Hat CloudForms allows organizations to securely and responsibly use the public cloud by maintaining control over costs, implementing governance, and enforcing compliance.

CLOUDFORMS CAPABILITIES FOR MICROSOFT AZURE

Supported application programming interface (API)	Azure Resource Manager
Supported services	Virtual machines, load balancer
Discoverable resources	VM, template, availability zone, flavor, security group, image, cloud network, subnet, floating IP, network port, load balancer
Continuous discovery	Yes, including resources provisioned outside of Red Hat CloudForms
Event capture	Yes, real-time
Metrics capture	Instance count, instance utilization, central processing unit (CPU), memory, disk input/output, network input/output
SmartState analysis	Yes, discover contents of virtual machines without an agent
Provisioning	Individual or orchestration template to VM
VM customization	Yes, using Cloud-Init
Service orchestration	Using Ansible playbooks, Azure templates, Red Hat CloudForms service bundles, or Ruby
Policy enforcement	Virtual machine enforcement
Compliance check	Virtual machine compliance
Optimization	Find idle VMs, unassigned VMs
Reporting	Utilization, trending, performance
Chargeback	Yes
Troubleshooting	Instance drift comparison, relationship tracking
Proxy support	Yes



ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.



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