Hybrid Cloud Management

Micro Focus® Hybrid Cloud Management (HCM) is a unified automation framework which allows IT to aggregate cloud services; design, deploy, manage and govern hybrid resources, orchestrate IT processes and provide cloud and cost governance.

## Hybrid Cloud Management for the Digital Enterprise

Micro Focus Hybrid Cloud Management (HCM) is a unified solution for enterprise multi-cloud management. HCM allows IT to quickly aggregate and broker a select set of cloud services for users. HCM enables IT to design, deploy, manage and govern the full range of hybrid resource services, from simple images through architected, tiered environments. HCM flexibly automates the deployment of production-ready deployments, along with Day Two lifecycle actions. HCM enables IT to maximize efficiency by orchestrating repetitive IT processes via integrations and a massive content library. HCM helps bring visibility and governance to public cloud spending across large organizations. Finally HCM helps automate the Operations side of DevOps, providing on-demand access to resources.

Aggregate public cloud services or use VMware templates as building-block components for service designs. Create complex service designs to run on any cloud with the drag and drop designer using components for containers, VMs, databases, networking, and middleware. Orchestrate any process or automation tool with the industry's most powerful orchestrator and content library. Design 'drag-and-drop' or 'infrastructure as code' orchestration flows to orchestrate automation tools, integrate with any vendor technology, or automate any task in the datacenter on applications and infrastructure. Use the integrated CI/CD Application Release Automation pipeline to continuously deliver applications and infrastructure with customizable stage gate actions such as approvals, security scans, execution of scripts, or deployment of infrastructure. Publish any service design to the multi-tenant consumer

Key Use Cases

- **Hybrid IT Delivery**—provision and manage IT services across any cloud, container or infrastructure with a unified hybrid and multi-cloud management platform

- **IT Process Orchestration**—automate end to end IT process with a proven, enterprise-grade orchestration engine that provides extensive out-of-the-box content and open APIs to integrate across traditional and hybrid IT ecosystems, teams and tools

- **Application Release Automation**—automate infrastructure and application deployment through all application lifecycle stages with fully customizable stage gates and a complete CI/CD pipeline to support DevOps

- **Cloud Service Brokering and Governance**—aggregate public cloud services and hybrid cloud service designs, publish offerings into catalogs, broker service offerings through a centralized self-service portal

Figure 1. Orchestrate IT processes to design, deliver and manage hybrid IT services
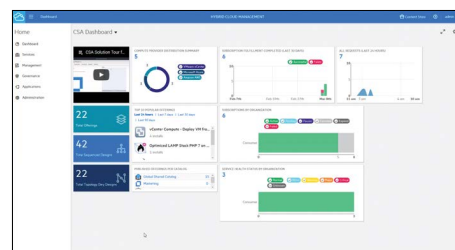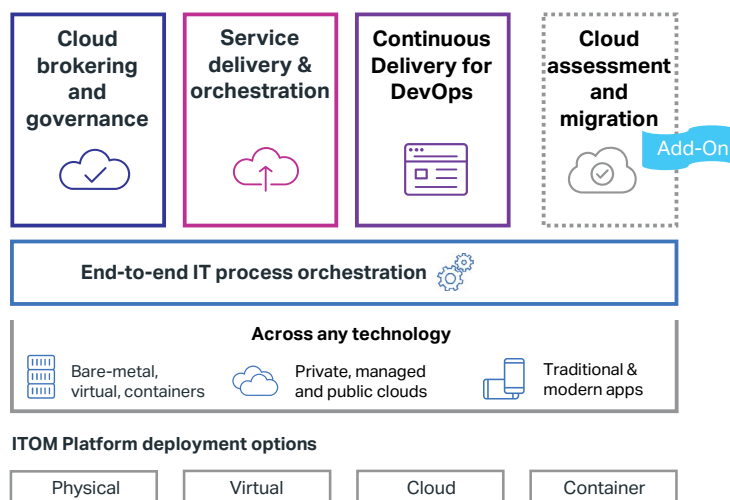
Figure 2. Customizable resource dashboard shows deployment and subscription information across the hybrid-cloud infrastructure

market place portal or select them as deployment stage gate actions in the ARA pipeline.

Key Features

Adaptive Service Designs

Design hybrid-cloud service designs with the drag and drop designer. Deploy and manage applications, and infrastructure on any platform—public or private. Create designs from simple infrastructure offerings to complex, hybrid multi-tier designs with on-premise, cloud, and container components. Services can be designed once and deployed to any cloud. These designs can be used as part of the Application Release Orchestration pipeline or published to multi-tenant organization consumer catalogs. As part of the service design, Administrators are able to define consumer modifiable properties, such as size of instances or deployment location.

Service Aggregation, Brokering with Cost Governance

Aggregate services from public cloud providers such as Amazon or Azure—or use the industry's first and only solution to aggregate VMware image templates. Configure these providers and use the brokering feature to browse all available services. Compare prices by region, or provider. Select, create offerings, and publish best-fit services to multi-tenant organization consumer catalogs or use in the ARO pipeline. Administrators are able to track and manage subscription usage, resource consumption and public cloud spend with governance policies.

Powerful Self-Service Portal

Aggregated public and private cloud services, or services designed with the service designer are published to catalogs which are assigned to organizations. Organizations can be configured to integrate with LDAP services. Users across your organization can browse and subscribe to the catalog services administrators have published. At checkout, consumers select configuration options based on the service design properties Administrators have made available. Once a subscription is made, consumers are able to manage their own subscriptions, access consoles, or view resource performance statistics for services in the stack. Administrators have visibility into all subscriptions, and resources consumed with key features like cloud spend reporting, predictive capacity modeling, resource consumption with right-sizing recommendations, and subscription owner information—across all organizations.

Built-In Application Release Orchestration

Enable DevOps and continuous delivery with built-in, fully customizable, automated stage gates with customized conditional gate actions. Empower development and testing teams to subscribe to required platform services as needed—straight from the release pipeline. Track service usage and costs across applications in development, testing and production environments. Integrate the application release pipeline with Fortify Static Code Analyzer to identify security vulnerabilities in your source code early in the software development lifecycle. The HCM ARA pipeline can be integrated with Serena release control. Plan large scale releases with Serena and use HCM ARA to perform the CICD actions.

Workload and Cost Analytics

Optimize workload placement, and continuously improve your cloud service delivery through the use of cloud analytics, capacity planning and showback reporting.

Master-Level Orchestrator

Orchestrate complete IT actions and processes across silos including the direction of third party automation and orchestration tools. Automate IT processes easily with the intuitive workflow designer and execution engine. Accelerate development and enable infrastructure as code with text authoring.

Out-of-Box Integrations and Open APIs

Leverage the extensive content library of over 8000 out-of-box operations and workflows. Access the "app store style" library to consume the latest content packs. Use wizards and open APIs to quickly create custom integrations.

Database and Middlware Automation

Provide DBaaS (database as a service), PaaS (platform as a service), and XaaS (anything as a service). Out-of-box content packs provide workflows and operations that you can include in your service designs and publish in your catalog to automatically provision and configure databases and middleware. This built-in intelligence is based on industry standards, vendor best practices, and real-world experience.

Automation for SAP HANA

SAP-focused content accelerates service delivery and orchestration in support of SAP installations. Automate key SAP administration, maintenance, provisioning, and daily processes.

Modern Cloud-Native Architecture

Minimize implementation and upgrade efforts with pre-integrated, containerized components based on open-source Docker containers and Kubernetes technologies. Deploy the HCM suite quickly, and easily scale out as necessary. Get access to new features frequently with quarterly updates that are easy to apply.

Add PlateSpin® for Workload Migration

Safely migrate complex workloads from anywhere-to-anywhere with least amount of risk and cost. Automate testing to ensure a successful migration with near-zero downtime at cutover. A highly scalable solution—migrate between multiple physical, virtual, and cloud servers rapidly and reliably.

Key Benefits

Accelerate Time to Market

Accelerate delivery of hybrid IT services by reducing manual, error-prone tasks. Improve

speed and agility by orchestrating processes across domains, systems, and teams. Services that used to take days and weeks to deliver can now be available in hours or minutes which will ultimately accelerate your release process.

Improve Efficiency and Productivity

Leverage unified management of multiple clouds, environments and technologies for faster, more efficient delivery of infrastructure and platform services. Orchestrate IT processes across IT silos to reduce errors and increase productivity.

Increase Investment in Innovation

Allocate more budget and resources to innovation. Developers can spend more time writing code and less time requesting, waiting

for, or configuring environments and troubleshooting deployment issues. QA teams can spend more time testing and less time trying to find and configure test environments. And IT teams can focus on innovation rather than troubleshooting.
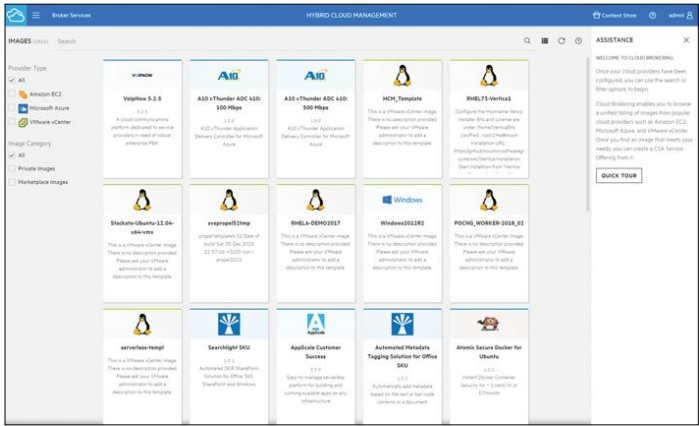
Flexible Resource Automation from Adaptive Service Designs and a Master Orchestrator

Streamline user interaction with IT with a centralized, self-service portal designed to enhance the user experience. Create flexible, attribute-based catalog offerings that accommodate variations in a single catalog entry which decreases the number of services in the catalog and simplifies both the user and administrator experience.

Learn more at
www.microfocus.com/hybridcloud

Supported Technologies

Cloud and Infrastructure Providers
- Amazon Web Services
- Ansible
- Chef
- Forman
- Google Cloud Platform
- HPE Insight Control
- HPE Oneview
- Micro Focus Server Automation
- Microsoft Azure
- OpenStack
- Puppet
- SaltStack
- VMware
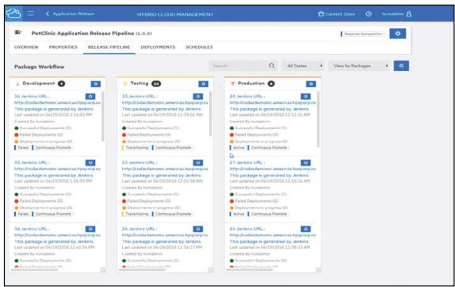
Continuous Integration
- Atlassian Bamboo
- Jenkins

Containers
- Docker
- Kubernetes
- Marathon
- Red Hat OpenShift

Additional Content
- Database: Microsoft SQL, Oracle, PostgreSQL
- Middleware: Jboss, Oracle WebLogic, WebSphere
- Monitoring: Micro Focus OpsBridge, Nagios, PushOver, Zabbix
- Network: A10, Cisco Nexus, NetScaler, F5, Micro Focus Netwok Automation, VMware NSX
- Service Management: Micro Focus ITSMA, Remedy, ServiceNow
- Storage: 3Par, Huawei OceanStor, Micro Focus Storage Operations Manager, NetApp

The above is a partial list of integrations including some of our latest and most popular content. For a complete listing of all content with functionality descriptions, visit the Micro Focus ITOM Marketplace for Hybrid Cloud Management.

Figure 3. Adaptive multitier application service design shown in the service designer

Figure 4. Aggregated AWS, Azure, and VMware templates shown in the cloud brokering screen

Figure 5. Application shown in the Application Release Orchestration CI/CD pipeline

Server	Item	Minimum Requirements	Recommended Requirements
Master nodes	RAM	24 GB	32 GB
	Processor	16 cores	16 cores
	Free disk space	150 GB (not including space for the NFS server)	150 GB (not including space for the NFS server)
Worker nodes	RAM	32 GB	32 GB
	Processor	16 cores	16 cores
	Free disk space	150 GB	150 GB

Figure 6. Platform hardware sizing

Hybrid Cloud Management Features and Capabilities	HCM Express Cloud Service Brokering and Governance	HCM Premium Hybrid IT Delivery and Orchestration	HCM Ultimate Continuous Delivery and Deployment
Hybrid Cloud Governance			
Public cloud account /access management	Yes	Yes	Yes
Reporting and analytics	Yes	Yes	Yes
Policy based governance, quota management		Yes	Yes
Hybrid IT Service Delivery and Brokering			
Self-service portal and ChatOps	Yes	Yes	Yes
Aggregation and brokering	Yes	Yes	Yes
Service design and delivery (including DB/MW as a service)		Yes	Yes
IT Process Orchestration			
Automation and orchestration with content library		Yes	Yes
Application Release Orchestration			
Continuous Delivery			Yes
Continuous Deployment			Yes

Figure 7. Hybrid Cloud Management editions support key use cases

Operating System	Version	Platform
Red Hat Enterprise Linux	7.2, 7.3, 7.4	x86-64
CentOS	7.2, 7.3, 7.4	x86-64
Oracle Linux	7.3	x86-64

Figure 8. Supported operating systems

HCM supports Vertica version 9.0.1 for reporting and analytics.

The Vertica version included with HCM is qualified with the following operating systems:

- Red Hat Enterprise Linux 7.3
- CentOS 7.3

Database	Version
Microsoft SQL Database	2012, 2012 Cluster, 2014, 2016
Oracle Database	12c R1 Standard Edition, 12c R1 Enterprise Edition, 12c R1 RAC, 12c R2 RAC
External PostgreSQL Database	Add-On

Figure 9. Supported databases

Item	Recommended Requirements
RAM	16 GB
Processor	8 cores
Free disk space	150 GB

Figure 10. NFS server sizing

Contact us at:
www.microfocus.com

Like what you read? Share it.

MICRO FOCUS®