Hybrid Cloud Management X (HCMX)

HCMX provides comprehensive automation for accelerating hybrid cloud application and infrastructure delivery as well as for lifecycle management. It improves operational efficiency, ensures compliance using policy-based controls, and comes with cloud cost optimization capabilities to help reduce the overall spend. HCMX is available as SaaS, and can also be deployed on-premises or in the public cloud (AWS, Microsoft Azure, or Google Cloud).

**Product Highlights**

Today, managing a hybrid IT estate is a complex and difficult task. One that presents a need for simplification and acceleration of the delivery of resources to end users. HCMX orchestrates deployment of applications and services while providing end users with a unified self-service portal for on-demand consumption of cloud and on-premise resources. Modern user experience includes AI-based search and virtual agents with natural language understanding. These serve as alternative approaches to catalog browsing and provide guidance to help end users quickly find IT approved offerings. Prior to deployment, blueprint capabilities enable IT to design deployment-ready full stack environments using a graphical user interface. A powerful orchestration engine automates "day 2" actions for lifecycle management processes, thereby minimizing manual IT effort, while ensuring compliance and security. Built on a flexible, containerized architecture, HCMX governs over complex IT estates that span across public and private clouds as well as virtual and bare-metal servers. It serves as a "fit-in" solution to the organizations' infrastructure and does not require retooling of the pre-existing software portfolio. To help with informed decision making, HCMX also provides cloud cost monitoring and optimization analytics.

**Key Features**

**Provisioning and Management of Clouds**

Fulfillment orchestration is powered by an orchestration engine which automates workflow processes and minimizes manual work for both fulfillment ("day 1") and maintenance ("day 2"), including change requests. A service offering can be customized with fields, forms, business rules, processes and notifications. For maximum flexibility, manual and automated workflow steps can be injected into the built-in fulfillment process. An intuitive, graphical designer eliminates the need for coding skills while creating custom automation workflows.

Thousands of out-of-the-box operation workflows and 300+ application components help with creating custom automations.

Multi-cloud aggregation (over 10,000 images from AWS, Azure, GCP, vCenter) allow you to create a single centralized IT catalog in what could very well be the very fastest way possible. IT admins can very easily and quickly use the search field to find and make cloud offerings available to end-users—e.g., developers. The cost configuration matrix table allows IT to easily select and facilitate IT approved consumption of resources that fit the budget.

**Key Benefits**

- Minimized manual work—comprehensive automation of provisioning and maintenance
- Optimized public cloud spend—detailed spend reports and optimization recommendations
- Compliance throughout—governance controls that help eliminate cloud crawl and bring a peace of mind
- Empowered end users—a single, unified self-service portal and catalog for all services

**Quick View**

- Lifecycle orchestration: a powerful orchestration engine automates fulfillment and maintenance actions.
- Wide breadth of coverage: integration with public cloud services (AWS, Azure, GCP), support for private cloud and VM offerings, as well as for traditional physical servers
- Governance guardrails: access controls and other governance rules for assuring compliant usage of cloud services throughout the hybrid IT ecosystem.
- Reusable service designs: A single blueprint design automates the fulfillment of a large variety of requests
- Cloud cost governance: comprehensive reports can be filtered by accounts, products, tags and business rules. Included are auto-generated, cost savings recommendations.
Integrated configuration management database (CMDB) visualizes relationships between configuration items and assists in automation processes including root cause analysis.

Breadth of Coverage and Integrations
Extensive public cloud support—services can be deployed on major public cloud targets, including Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP).
Private cloud support—Powerful results for private and public cloud provisioning in multi-cloud environments come from two levels of abstraction—at the design level, and at the execution level, where deployment-time choices allow for automated, yet flexible fulfillment.

VMware deployments, containers, and traditional physical servers are also supported, allowing IT teams to fully leverage their existing IT estate regardless of its composition.

Integrations with third party software. 150+ integration capsules enable interconnectivity with a variety of commonly used third party software systems.

Reusable Service Designs
HCMX service designs can represent both complex hybrid services and simple on-prem environments.

A single design automates the fulfillment of a large variety of requests. This is made possible by the on-the-fly selection of parameters and options at the time of deployment, meeting non-standard requests, which would otherwise require a separate design or a template. A single design can replace approximately ten times the amount of VM templates normally required with most other solutions on the market. As a result, the catalog is smaller and easier to maintain.

Cloud agnostic designs allow on-demand deployment to the cloud environment of choice.

Dynamic, Rule-Based Governance
Governance based on rules and customizable task plan for both manual and automated tasks—from a single point of control. IT admins can configure access controls and other rules to trigger customized and automated workflows based on end-user input, or based on business process, or compliance policy.

Same service can thus have distinct compliance aspects, for respective sub-organizations within an enterprise. This helps set tailored rules and preserve autonomy and governance flexibility of individual departments.

Cost Governance and Optimization
Detailed billing reports with powerful filtering capabilities allow for analysis of public cloud costs incurred by individual departments (showback). Spend breakdown can be achieved by parsing the data across a variety of parameters, including custom business rules and AWS and Azure tags. Interactive charts allow IT to come alongside business teams and developers to help optimize spending. In addition, HCMX enables chargeback to the business, by exporting billing data.

Public cloud costs are continuously optimized via built-in insights describing reserved instance utilization. Recommendations are generated, allowing IT to benefit from cost-effective, reservation-based prices and avoid overspending on on-demand instances. Besides purchase recommendations, reserved instance management includes coverage planning and alerting for expiring reservations.

HCMX cloud spend controls alert stakeholders as soon as costs go out of control, with spend ceilings for public cloud accounts and subscriptions:
- Set spend thresholds for public cloud accounts
- Alert/Auto-notify users when spent is close to or exceeds the threshold
- Apply filters that can be saved and reused, saving time and helping standardize reporting
- Automatically discover all cloud accounts—making it easy to view, manage, and set cloud spend limits across all clouds and subscriptions.

HCMX’s financial module includes budget management. It maps subscription chargebacks to cost centers and allows financial managers to easily track and compare the spending to allocated business budgets. In the expense lines you can track the financial transactions between cost centers. When a subscription is requested and fulfilled, then the consuming cost center gets debited, and the IT cost center gets credited. Navigating to subscriptions also allows us to view the projected expenses. This is based on the duration of subscriptions, which allows for making accurate budget predictions. Visual charts help track used vs. allocated budgets over time so that adjustments can be made, further helping the organization make cost-effective decisions; not only on a one-time basis but dynamically and consistently even over bumper, non-standard periods of time when lowering or raising specific budgets is crucial for optimal business performance.

Modern User Experience and Service Consumption
A centralized, self-service portal with a modern consumer experience ensures that end users can easily navigate, find and consume enterprise-compliant offerings, without training.

Smart virtual agents leverage natural language understanding (NLU) to provide automated 24x7 assistance to end users. As an alternative to catalog browsing, smart virtual agents can assist users to quickly identify, request and consume services they look for. When technical support is needed, virtual agents can step in and guide users to the appropriate solution.
Native mobile applications for Android and iOS complement the web service portal with a streamlined, native, interface that focuses on key tasks that need to be managed on-the-go. Smart search uses both structured and unstructured data within and outside the system and provides a context-relevant information to users.

Customizable dashboard can be enhanced by custom widgets to visualize key performance indicators.

Multitenancy allows independent instances with full ownership and security to operate in a shared environment. A single unit installation can securely service multiple end user organizations.

Multi-level approval workflows allow various stakeholders to approve service requests from the context of their focus area.

Service request management promotes transparency by allowing end users to view and track their request status.

Subscription lifecycle management promotes agility by allowing end users to easily modify their subscriptions according to changing business needs.

Low Total Cost of Ownership
HCMX is built on an extensible ITOM platform that leverages open source technologies including Kubernetes and Docker.

Flexible deployment on target of choice. HCMX is available where you want: as SaaS, on-prem, or in the cloud. Supported are Microsoft’s Azure Kubernetes Service (AKS), Amazon’s Elastic Kubernetes Service (EKS), and Google Kubernetes Engine (GKE).

Codeless configuration based on out-of-the-box best practices. It does not require developer skills and provides faster time to value. Use the Studio App to for example: modify and provide additional tools to enhance the existing applications; create supporting tables to be used within existing (or new) applications; create new user-defined process-based applications through workflows, data models, forms, business rules, notifications, reports, custom actions, and more.

Seamless upgrades. Automated upgrades allow customers to stay on the latest version with minimal effort and minimal downtime.

Add IT Service and Asset Management capabilities. Micro Focus HCMX can optionally be complemented IT Service Management (ITSM) as well as Asset Management, via an easy, turn-key installation and licensing of SMAX, to unlock a complete ESM (Enterprise Service Management) solution. Synergistic features and capabilities of HCMX and SMAX are achieved as they share the same foundational architecture. The main synergistic features and benefits include:

- Unified request management including ticketing, helpdesk, and fulfillment of cloud services
- Unified end user portal with clearly distinguished service catalog sections for easy navigation
- Management and maintenance for what would usually be multiple tools, cut down to one solution

Learn more at microfocus.com/hybridcloud

Figure 1. HCMX end-user portal view