

Simplify the Deployment of Cloud Services to Propel Your Digital Transformation

Many enterprises are looking to the cloud to deliver the foundational agility, speed, and scalability necessary to successfully execute their digital transformations—from creating value through accelerated delivery of applications, platform and infrastructure services to improving the customer experience, ensuring compliance, and reducing costs by automating backend fulfillment processes. However, to deliver across those capabilities and cut down on the immense complexity associated with the management of hybrid and multi-cloud environments, you will need the right cloud management tools.

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The Cloud Is at the Heart of Digital Transformations—Driving the Need for Effective Cloud Management

To keep up with the pace of innovation, organizations across the globe are transforming digitally. Radical rethinking of how organizations use technology has again seen its rise in 2020. Yet the idea of transformation can be daunting as it raises serious concerns around complexity and cost. The reality, however, is that if done strategically and with the right solutions and guidance, businesses can evolve and transform almost seamlessly—while using their existing infrastructure and investments as they modernize.

The ultimate objective of transformation initiatives is to modernize and build agility, simplicity, and scalability into your infrastructure. This is why cloud initiatives, which enable these advantages, are often at the forefront of digital transformations.



¹ Gartner IT Infrastructure, Operations & Cloud Strategies Conference 2020

Every organization's IT estate is unique, typically a mix of on-premises as well as cloud platforms and resources. In addition to being hybrid (having both private and public cloud environments), 81% of enterprise organizations use more than just one public cloud provider.¹

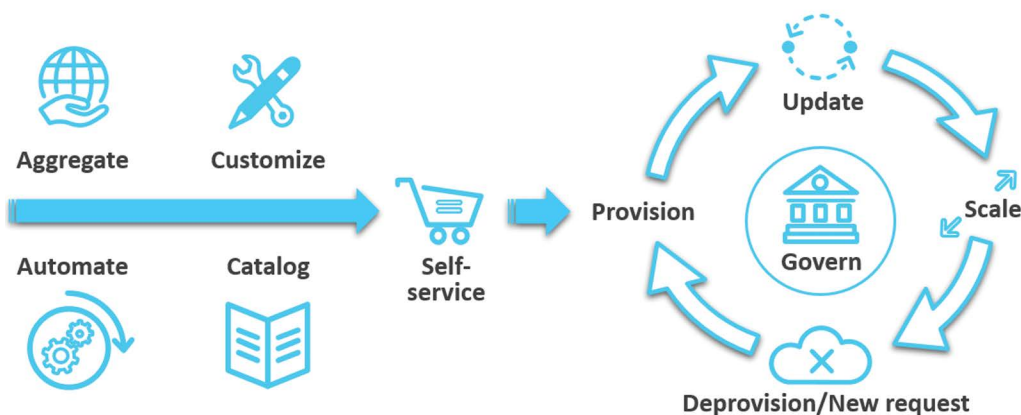
Complex hybrid, multi-cloud IT ecosystems like this are important to serving your business' objectives, but they can also bring on management challenges. This has led to a rising demand for effective cloud management solutions in recent years.

Scope of Cloud Management Solutions

The process of building out, deploying, maintaining, and deprovisioning services in a complex multi-cloud environment can be cumbersome and time-consuming. In addition, entire organization can be bogged down with inefficient end-user experience, poor governance, and an overbearing IT budget. This is where cloud management tools can fill in the gaps to ensure the effective operation and management of cloud resources, creating a consistent mechanism for aggregating cloud images into a single catalog and provisioning services (e.g., applications, infrastructure services, full-stack environments), as well as increasing transparency for cost management and compliance. Cloud management provides a layer of simplicity, with which IT can interact, over an otherwise complex technology ecosystem.

With the right cloud management solutions and tools, you can roll out infrastructure resources and services faster, thus speeding up the development of internal software and modern applications without compromising quality or performance, and simplifying end-user consumption without relinquishing IT control. However, to realize the power to transform to its fullest potential, a careful evaluation, and subsequent selection, of cloud management solutions is critical.

MANAGEMENT OF CLOUD AND ON-PREMISES SERVICES



POWERED BY END-TO-END ORCHESTRATION

Figure 1. Cloud management solutions can provide enterprises with comprehensive service lifecycle management.

Avoid Cloud Management Pitfalls

As you undergo your digital transformation, with cloud management as the underpinning, keep in mind that there is a right and wrong way to move forward. Particular pitfalls that you should watch out for and avoid as you evaluate different hybrid, multi-cloud management solutions include:

- **One-dimensional orchestration:** Automation is key. And while most solutions provide a certain level of automation, these levels vary based on the depth and the flexibility with which automation is provided. It can come with more or fewer options to customize, and with different abilities to integrate with automation tools that already exist in your environment. Avoiding siloed approaches lacking in integrations with your existing tools is critical to maximizing business performance. If you can't automate various provisioning and management tasks across complex hybrid IT environment, you will significantly slow down your ability to produce internal software, respond to changes, and effectively manage Day 2 operations.
- **Customization limitations:** If customizing business-tailored solutions is time consuming, void of automation assistance, or includes only a narrow array of supported technologies and third-party software, your enterprise can lose unprecedented amounts of time and resources in the building phase or you limit your employees (e.g., developers) with solutions that eventually become outdated.
- **Poor UI:** Skill silos within an organization can wreak havoc in your technology sectors. An intuitive UI for IT teams dedicated to building automation and service designs (i.e., blueprints), can make all the difference when it comes to sharing or transferring crucial knowledge and enabling others—getting them up-to-speed. Without capabilities that enable graphical coding, drag and drop designing, and an ability to toggle between graphical and textual authoring, skills gaps may grow within your organization. By using rich UIs, enterprises more easily capture and retain knowledge—allowing not only subject matter experts, but also other members and newer hires, to adequately handle essential everyday tasks by getting up to speed substantially faster.
- **Mediocre governance:** Not all cloud management platforms are created equal, and governance is often a clear differentiator. Make sure you have a comprehensive solution with strong overall governance—from managing volatile public cloud costs to protecting from IT vulnerabilities related to organization-wide compliance and IT control. If these capabilities are not found in your cloud management solution of choice, they should be fully addressed by acquiring separate tools that meet these IT requirements.

What to Look for in a Cloud Management Solution

Wherever you are in the transformation process—just starting out or many years in with a complex cloud environment—choosing the right cloud management platform is critical. We've already talked through which pitfalls to avoid. Now, let's expand on what is needed to forge your pathway to thriving with cloud.

First, what are businesses and IT departments trying to achieve with the multi-cloud approach that has become the norm? In an IDG survey,² 49% of them are looking for the best-of-breed platform and service options, which results in the freedom of flexibility and choice. 41% cited cost savings or cost optimization. Among the top challenges, respondents cited difficulties with regard to controlling public cloud costs, ensuring proper governance, and having adequate in-house multi-cloud expertise.

With this information in mind, let's describe point by point, the capabilities to look for in cloud management. Everything from simplifying the multi-cloud and on-premises fulfillment process with appropriate automation, personalization, and service consumption, to governance control and cloud cost optimization.

Here are the key capabilities of a quality cloud management solution that enterprises should consider:

Robust and Flexible Orchestration

In the process of automating cloud fulfillment, look for a solution that is both robust and flexible. A powerful orchestrator can streamline and simplify service deployment and maintenance. But you also want to make sure it will allow you to tailor customized offerings that will best fit your business. Limited automation capabilities can leave IT administrators with a lot of additional—and unnecessary—manual work.

- A **robust solution** will simplify end-to-end fulfillment and maintenance even for complex cloud environments. Look for orchestration capabilities that extend across the entire lifecycle—from image aggregation and deployment to management and deprovisioning—and across multiple technology providers like AWS, Azure, Google Cloud, VMware, and other applications and infrastructure services that may already exist within your IT estate. Next, look for a product that delivers plug-and-play simplicity—one that easily integrates with your existing infrastructure and doesn't require a lot of retooling on the back end. The IT user interface should factor into your decision too, as mentioned in the previous section. You can immensely simplify your experience with a visual designer that graphically displays your scripts and their respective flows.
- A **flexible solution** delivers automation with composable, modular elements, that allow you to automate and customize at the same time. When you're creating scripts, you don't want to get locked into a situation where one script fulfills only one request and is difficult to tweak. Instead, look for a solution that gives you selectable options. This flexibility speeds up time to fulfillment and cuts down on a lot of unnecessary rework as you don't have to start from scratch every time you build out a new design or flow. Instead, use one design to accommodate many different requests. This ultimately leads to fewer scripts—and a much leaner catalog—which is easier to maintain long term.

To reach the fullest potential of your digital transformation, a careful evaluation and subsequent selection of cloud management solution is critical.

² IDG Cloud Computing Survey, 2020

Cloud management solution can fill in the gaps to ensure the effective operation and management of cloud resources, creating a consistent mechanism for provisioning services (e.g., applications, infrastructure services, full-stack environments), as well as increasing transparency for compliance and cost management.

Customized Hybrid Cloud Service Blueprints

Flexibility lends itself to customization. Creating custom designs (blueprints) in a timely fashion, at low costs can be difficult, which is why many enterprises default to the easier, yet frequently more costly, public cloud. The more you can shape your cloud environment with custom, business-tailored solutions, the more effective your business is likely to be.

An effective cloud management solution should let you customize scripts with context-sensitive parameters at the time of deployment and throughout the lifecycle.

The ability to easily add service parameters based on different clouds (e.g., AWS or Azure) or add rules based on different inputs or user roles makes it that much easier to create dynamically customized cloud services closely aligned with your business and end-user requirements. And of course, graphical drag-and-drop functionality, along with an app-like library of items to select from is incredibly useful when you're designing service blueprints.

Simple End-User Consumption

When looking for the right cloud management platform, consider the importance of empowering your end users with a sense of control and ease of use. A self-service portal provides them with the freedom to request resources from a large list of items in the catalog and make modifications to their subscriptions without having to consult IT or experience long delays.

Currently, many IT admins are overburdened with time-consuming and sometimes painful internal "customer support." You can alleviate this burden and appease frustrated end users with a self service portal and an built-in chatbot that can answer simple queries and provide guidance to end-users in the self-provisioning process. That makes it easier for internal users to receive as well as modify company-approved resources. This autonomy accelerates the end-user experience and frees IT from having to continually field routine questions.

Comprehensive Governance—including Cloud Cost Management

With self-service capabilities, you must also consider strong governance—to more easily address compliance concerns and keep runaway cloud costs under control.

- **Easily address compliance.** Enterprises know how important it is to stay in compliance with government and industry regulations. Every company has their own set of IT standards based on the industry. But beyond that, internal compliance measures, while sometime less pressing than legal ones, are often even more relevant to business performance. Shadow IT or security loopholes that may arise from a lack of IT guardrails are not at all uncommon. Look for a cloud management solution that makes it easy to inject rules and policies, enforce approvals, and address compliance on the fly. A cloud management solution that integrates governance delivers a distinct advantage because you don't have to seek out third-party tools.

- **Manage cloud costs.** As IT becomes more accountable for budgets and tracking spending, a solution that offers detailed reporting can help you identify ways to drive down public cloud costs and other expenses. A quality cloud management solution should offer detailed visibility into your entire cloud spend and allow filtering to gain deeper insights. Detailed reporting can help you shut down resources not in use, identify when to take advantage of discounts, and adjust allowable instance sizes and types. In addition, ability to optimize costs with recommendations for cloud usage, as well as capabilities around budget management, alerts, expense line reports, and more, are strong signs that will bolster the case for advanced cloud cost management.
- **Store, maintain, and display configuration items.** Besides dashboards for tracking consumption, usage, and other hybrid IT metrics, you want to ensure company-wide IT compliance with a complete view of all configuration items (CIs) and their dependencies. This includes storing and maintaining relationships between them, which can provide you with the information needed to make better business decisions and run efficient IT processes. For example, during disruptive events, impact and root cause analysis can easily be performed, helping IT quickly bring resources to the desired optimal state. Without such capabilities, you either need an additional tool for effective configuration management—or you will risk having scattered data, increased complexity, and longer times to resolution.

Micro Focus HCMX Delivers on All Fronts

One solution on the market today that actively addresses these criteria is Micro Focus Hybrid Cloud Management X (HCMX). HCMX is a Kubernetes-based, fully containerized cloud management solution—deployable in the cloud or on premises—that allows enterprises to leverage all the benefits of multi and hybrid cloud for drawback-free digital transformation.

Effective Orchestration Expands IT's Capabilities

HCMX delivers flexible, end-to-end automation for both service delivery and maintenance. Our proven orchestration engine automates the execution of processes associated with each service request, helping to minimize manual effort and reduce errors. A library of over 8,000 out-of-the-box operations and workflows enables custom automation and immediate productivity. You can save time automating virtually all repetitive IT actions.

More than 150 integrations with widely used third-party software should have you covered. HCMX delivers plug-and-play simplicity—and helps you avoid re-tooling work. HCMX includes a rich visual designer that makes it easy to update or modify scripts. Or you can toggle back and forth between code and the visual designer, depending on your preference.

Customize Business-Tailored IT Services

Micro Focus HCMX delivers the flexibility that makes it so much easier to customize services for your requirements.

First, aggregate on-demand from over 10,000 AWS, Azure, and VM services. Simply go to our marketplace, then download and integrate specific solutions into HCMX. Next, add service options or parameters to define and execute rules for different end-users. Incorporate rules into a task plan that triggers a variety of automated workflows, based on parameters you've set, and results in a dynamically customized cloud service offering.

A single blueprint design can be reused to automate the fulfillment of a wide variety of requests. Simply select or inject service options or parameters into the fulfillment process. Scripts are also composable, which means you can just as easily remove parts of particular scripts or flows as you can add to them.



Figure 2. HCMX visual workspace (adaptive, reusable blueprint designs)

Self-Service Portal Empowers End Users and Frees Up IT

In addition to flexible automation and service customization, HCMX radically simplifies end user consumption. End users can browse the service catalog that IT created, and they can independently request company-approved resources—using a self-service portal—for their specific projects and needs.

White Paper

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HCMX allows users to modify services or subscriptions. For example, they can add VMs or additional RAM, if needed, or de-provision resources.

HCMX is also unique in that it embeds AI-based smart search and 24/7 virtual agent capabilities to help end users find the resources they need and get questions answered along the way. This saves valuable end-user time and frees up IT teams as well. Boost productivity across the board and empower end users who can do a lot more simply and intuitively on their own.

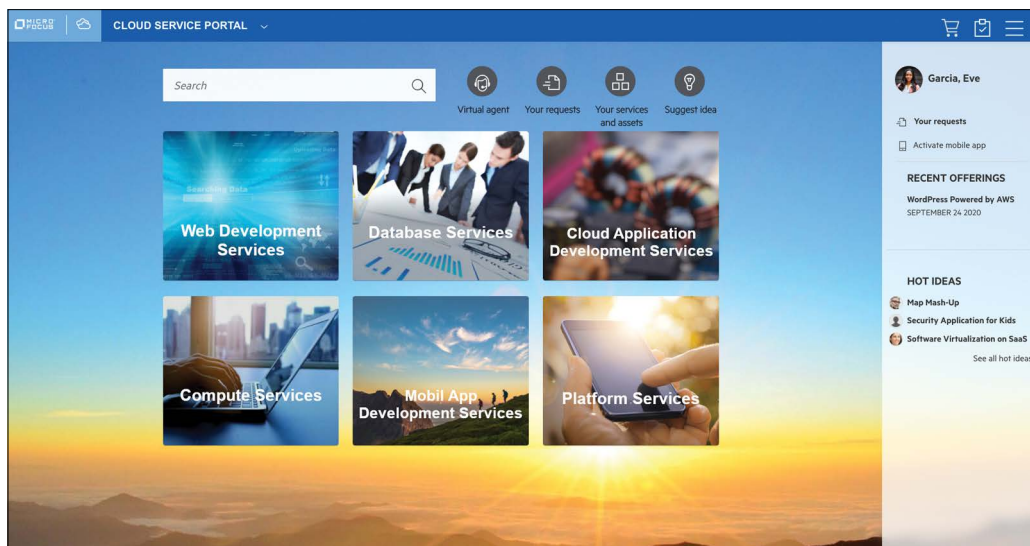


Figure 3. HCMX AI-based end-user portal: a one-stop place to order, consume, and manage services

Comprehensive Governance

- **Configure consumption guardrails that dynamically adjust themselves.** With HCMX, enterprises can easily assign dynamic, context-sensitive rules based on different users and use cases. Enterprises can also create a task plan with embedded policies and rules, which is triggered according to specific inputs. For example, with the HCMX graphical task plan, you can inject automated or manual actions into the fulfillment process, making sure all IT services are compliant with your company's standards and budgets. These actions can also be used to configure advanced, multi-level approval flows for service requests.
- **Built-in Universal CMDB** enables a bird's eye view of all configuration items and allows for easy management and root cause analysis actions when necessary.

A recent Forrester analyst report ranked Micro Focus HCMX as a leader and states that HCMX “is a good fit for large enterprises that require highly complex environment management.”³

- **Reduce public cloud costs.** Of course, public cloud overspend is another issue concerning cloud usage. With HCMX’s built-in governance and reporting, IT can, from a central portal, get a complete overview of all cloud costs. HCMX provides detailed reporting, budget alerts, and more. It also enables both showback and chargeback. This granular perspective helps IT track costs for the business, make informed decisions about adjustments, and thus optimize spend over time. Further, it helps you lower your cloud spend via built-in insights that describe reserved instance utilization and provide auto-generated recommendations.

Extend Beyond the Cloud, to Enterprise Service Management

With HCMX, customers can merge cloud management capabilities with IT service management by opting for a turnkey activation of Micro Focus Service Management Automation X (SMAX). Both HCMX and SMAX share a foundational architecture and technology elements. By using them together, you can combine cloud management and IT service management (ITSM) under one enterprise service management (ESM) umbrella—a single implementation for your entire business. In this way, you can increase IT and end-user satisfaction through unified management that enables a consistent and engaging experience while reducing IT costs along the way.

Take Control of Your Hybrid Cloud Environment to Accelerate Transformation and Drive Your Business Forward

It would be nice if the cloud came in a one-size-fits-all, easy-to-manage package. The reality is that no hybrid IT is alike. Most organizations have a hybrid, multi-cloud level of complexity. Each is different and, truthfully, you want yours to be unique—reflecting your specific needs, resources, and goals. Tailoring your cloud environment to fit the needs of your specific business is what ultimately helps your business and your people be most effective.

Of course, the more complex your cloud environment, the more difficult it is to manage. Or at least that’s the assumption. At Micro Focus, however, we strongly believe that you can take the complexity out of cloud management. A recent Forrester analyst report ranked Micro Focus HCMX as a leader and states that HCMX “is a good fit for large enterprises that require highly complex environment management.”³ With powerful orchestration, flexible automation, simple yet smart self-service, and comprehensive governance, you can absolutely take control of your cloud—and your digital transformation.

³ The Forrester Wave™: Hybrid Cloud Management, Q4 2020

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