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#### Introduction

The world of enterprise IT is changing at an alarming speed. It can often feel like a tornado has swept across the IT industry . The walls of the physical data centre are blurring as businesses embrace the cloud in its many forms. In today's modern world , enterprise IT can include private on premises clouds, hosted private clouds, and a mix of public cloud services; this is the result of changes in global and local business landscapes. Companies across a wide variety of industries are trying to harness the virtually unlimited opportunities of big data, mobility, and AI to improve customer experiences and work environments.

For business units and end users, this shift to the (hybrid) cloud era is good news. The ease of roll out, management and scalability, helps companies maintain their competitive edge. However, the cloud era also brings its very own set of challenges.

For example, the need to get applications up and running swiftly is generating increased expectations on IT to provide resources on demand to develop quality assurance and production teams. Other challenges include:

- Delivering policy-driven governance throughout your cloud ecosystem to ensure that
  resources are properly allocated and efficiently utilised, Designing and implementing a
  granular application-level security strategy to meet compliance requirements and mitigate
  the risk of data breaches.
- Making sure that resources are reliable and ready to perform in a manner that's in line with
  the service expectations of your customers and partners. Modern consumers and business
  partners expect consistency across all channels and touchpoints, regardless of when, where
  and how they interact with you. They also want to receive personalised offers based on databased insights and expect a seamless brand experience.

To meet these challenges, a good and agile cloud management strategy is indispensable. In this whitepaper we will show you why and how cloud management enables you to reap all the benefits of modern cloud technology.

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# Why and when you need cloud management

Cloud management provides you with a suite of products, tools and strategies that carefully monitor and manage cloud environments. These often take the form of a dedicated cloud management platform (CMP) that includes solutions like self-service interfaces, external enterprise management systems, system image provisioning, metering and billing services, and workload optimisation services. Cloud management platforms and tools are often available as SaaS or on-premises solutions.

Cloud management has many benefits, especially if you have a complex and hybrid cloud environment.

#### **Managing costs**

Many cloud management platforms possess cost management capabilities. These allow you to rightsize resource consumptions with actual workloads. The software allows you to monitor your needs in the fields of CPU capability, storage, and I/O and adjust them to actual workloads. Using this method prevents you from paying for resources that you don't use. This makes budgeting for cloud management easier and helps organisations avoid wastages; as well as streamlining consumption and optimising IT spend.

#### Improving security

Companies that have large and complex cloud ecosystems face ever increasing security challenges. Areas of vulnerability grow larger, whilst the number of dependencies between applications and other components of your cloud environment continue to increase. Cloud management enables you to identify and fix vulnerabilities on both the infrastructure and application level.

A comprehensive cloud management platform allows you to perform advanced risk assessment and auditing, but also containment and remediation. Add to that the ability to generate detailed reports, and you have an end-to-end solution that allows you to take threat protection to a higher level; ensuring you meet all the necessary security and compliance requirements.

#### Streamline cloud operations

Cloud management gives you the opportunity to streamline your cloud operations. This enables admins to:

- Automate routine tasks
- Set up automated actions that respond to certain triggers or events
- Regularly carry out performance and health checks
- Orchestrate the cloud infrastructure and services
- Run various analytics and/or create templates

Cloud management makes all this possible.

## Respond quicker to new technology and market challenges

Dedicated cloud management allows you to quickly adopt new technology, while at the same time minimising technical debt. It enables you to identify strategic priorities and focus on business objectives while maintaining operational excellence along the way.

"Cloud management has many benefits, especially if you have a complex and hybrid cloud environment."

# What are the benefits of using VMware cloud management?

To keep up with the growing demands of your business, having a unified platform for managing different cloud environments is an absolute must. A modern CMP does more than just manage your in house private clouds and the associated infrastructure - it helps you manage the mix of private and public cloud services in an increasingly hybrid world.

VMware cloud management combines the following features to deliver a fully optimised and unified cloud management experience:

- VMware delivers the industry's most complete solution for managing a heterogeneous hybrid cloud.
  - VMware's CMP supports companies addressing cloud management requirements related to Day One and Day Two IT operations for compute, storage, network, and applicationlevel resources across a hybrid and heterogeneous IT environment.
  - Unified management of public, private and hybrid cloud resources becomes the standard if you opt for VMware cloud management.
- VMware offers the consistency and flexibility of a single control plane to manage any cloud, infrastructure, and application architecture on-premises or as a service.
- VMware's cloud management solutions allow you to manage risks and control your multicloud environment by simplifying financial management, managing security, and automating compliance.

### Three tips to start with cloud management

Starting out with cloud management can be an overwhelming concept, especially if you are dealing with a hybrid cloud environment. The following three tips will give you a head start!

## 1. Plan your cloud purchase and design your hybrid infrastructure

Adopting and running a hybrid cloud comes with some big questions. How can I manage workloads across public and private cloud environments? And what about edge environments? How do I ensure cost efficiency? And how do I drive the best performance, uptime and compliance for my apps and containers in a new environment?

The first thing you need to do to answer these questions is to determine how much and what type of cloud infrastructure you need. A tool like vRealize Cloud Management will allow you to compare different solutions and scenarios to find the best fit for your organisation and business needs.

## 2. Deploy your workloads in the hybrid cloud

Deploying workloads and creating a modern set of hybrid cloud services is the next step in successfully shaping your cloud management strategy. vRealize Cloud Management provides a rich set of infrastructure-as-code capabilities that help build out a flexible and modern stack of cloud services.

"Adopting and running a hybrid cloud comes with some big questions."

# 3. Create a solid framework for tracking performance, costs, and security

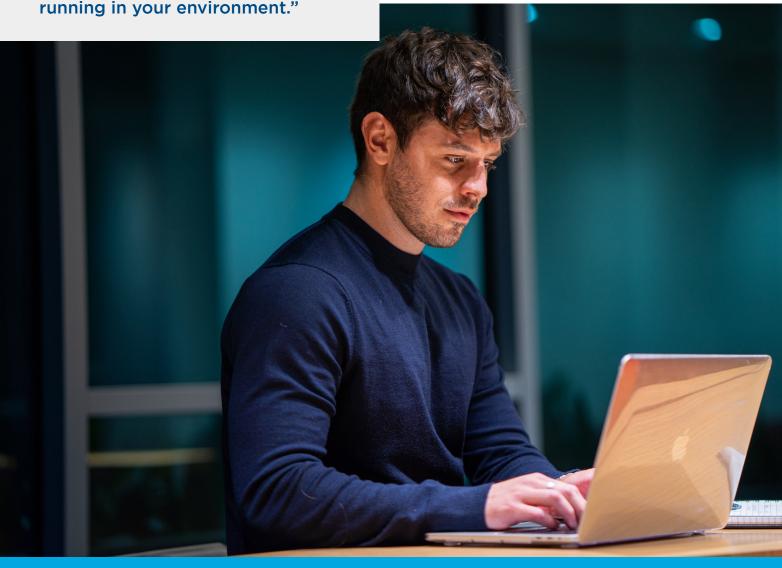
From the start, it is vitally important to build a solid framework that allows you to effectively track the costs, performance, security, and compliance level of your hybrid cloud environment. You'll need to know:

- What is the capacity remaining across CPU, memory and storage?
- Are there any upcoming capacity shortcomings?
- How healthy are my VMs or containers?
- Are there any pressing security issues?
   And if yes, how can I resolve them?

"A good cloud management solution gives you visibility into the performance, cost efficiency and security level of the workloads, infrastructure, and applications running in your environment."

A good cloud management solution gives you visibility into the performance, cost efficiency and security level of the workloads, infrastructure, and applications running in your environment. VMware cloud management does this in a number of ways:

- Out-of-the-box dashboards allow you to view the health of your VMs or containers across CPU, memory, storage and network and look for problems.
- Tracking the costs of your hybrid cloud data centres through configurable cost drivers and the integration of bills from hybrid clouds such as VMware Cloud on AWS.
- Chargeback reports based on user-defined pricing rate cards.
- VMware cloud management shows the capacity remaining across CPU, memory and storage and sends you alerts. This results in proactive notifications of upcoming capacity shortcomings and recommendations for how much (more) hardware you need.



### What can Global Knowledge do for you?

A good cloud management solution is an absolute must for organisations that want to reap the many potential benefits of a hybrid cloud environment. VMware offers the basics and many additional functionalities that you need to streamline and implement cloud management.

Would you like to get acquainted with the fascinating world of VMware cloud management? Global Knowledge can be your guide. For example, our two-day course 'VMware Cloud Foundation: Plan and Deploy' prepares students for a successful deployment. This course explains how to design and size your infrastructure for the management components and workload domains in preparing for VMware Cloud Foundation deployment.

Are you already working with VMware cloud management solutions? And do you want to keep up with the latest news about VMware? Then be sure to read the latest news **here**. For further questions, additional course information or expert advice you can contact us at 0118 912 1929 or **info@globalknowledge.co.uk**.

**CONTACT US**