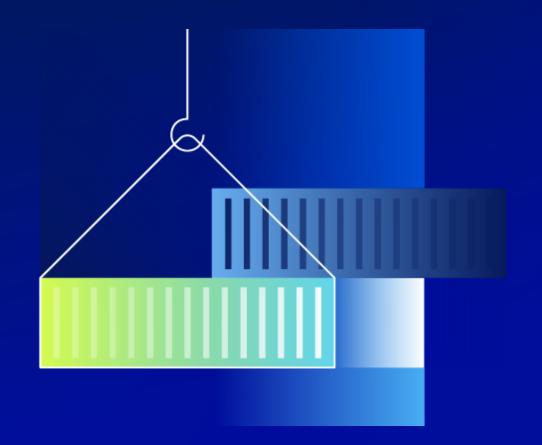


7 Reasons Why Rancher is the Enterprise Container Management Platform You Need



# Introduction

Containerisation, microservices architectures, hybrid cloud and multi-cloud infrastructure, along with other technologies, have all produced major paradigm changes in modern software development and operations.

These are not niche trends. Gartner predicts that by 2027, over 90% of G2000 organisations will utilise container management tools for their hybrid environments – a significant increase from less than 20% in 2023.

This has created a wealth of transformative opportunities for businesses across virtually every industry, but brings with it considerable complexity for enterprise IT. That's why there's a clear link between the growing number and scale of containerised applications in production, and the widespread adoption of

orchestration like Kubernetes. tools Organisations are turning to Kubernetes to automate. scale and manage their containerised workloads across environments - but soon find that these various platforms and tools can come with significant learning curves and operational overheads. Several upstream Kubernetes distributions are also hampered by inconsistent security practices and a lack of centralised visibility.

You need an enterprise platform that blends powerful container management capabilities with operational simplicity – delivering on

the promise of containerisation across clouds and on-premises environments, without overcomplicating matters by saddling developers with unnecessary innovation.

In this eBook, we'll examine seven reasons why Rancher is the enterprise container management platform of choice: harnessing the power of containerisation and orchestration in a way that streamlines both initial implementation and Day 2 operations (and beyond).





# **Streamlined Installation**

An enterprise container management platform should minimise the barriers to implementation and fast-track time to value. Deployment should be measured in minutes, not hours - or even days.

However, upstream Kubernetes distributions can require a lot of heavy lifting to get up and running and optimised. Managed Rancher Service prioritises quick and easy installation to get you up and operating across any certified Kubernetes (K8s) distribution, from cloud to datacentre all the way to the edge. All you need for deployment is a CNCF-compliant Kubernetes cluster and Helm.

Rancher's intuitive UI enables teams to install and begin operating their clusters immediately, with a minimal learning curve. It uses a logic-based design to simplify Kubernetes concepts and workflows so that teams can begin using it without extensive upfront training.



#### Common Kubernetes Challenges

Kubernetes has become the de facto choice for container orchestration thanks to its powerful automation and management capabilities. However, it has also developed a reputation for being complex. Survey research has identified the most common challenges, including:

- 50% of businesses run their clusters in four or more environments (clouds, datacentres, edge, etc.)
- 45% of vulnerabilities occur during the application lifecycle stages. with 49% occurring at runtime
- Over half of organisations report feeling "locked in" to certain vendors (specific statistic not provided)\*

An enterprise container management platform should alleviate – not exacerbate – these issues.

\*Source: Spectrocloud

#2 Simplified
Day 2 operations

#3 Run Anywhere #4 Shared Tools & Services #5 Consistent Security #6 Advanced Monitoring #7 Boost Productivity Conclusion



The Kubernetes learning curve is indeed steep – the platform's reputation for cloud native power is matched by its reputation for complexity. Many teams come to this realisation on Day 2 – once the real work of managing and scaling their production clusters begins. There can be a significant gap between the effort required to manage a single cluster in a test or dev environment and manage a multi-cluster deployment in production.

A logical UI with developer-friendly features can simplify not only the setup, but ongoing cluster operations and management. Rancher surfaces Kubernetes' capabilities via its intuitive interface and API – users don't even need to know where Kubernetes is actually running. Rancher is also platform-agnostic, running seamlessly across each of the public cloud's major distributions. Rancher's API extends all of its capabilities to where developers need them. The API allows Rancher to be integrated into CI/CD pipelines, making it simpler for developers to use. Essentially, everything you can do in the native UI can be done in a browser, facilitating further automation.

Rancher built and incorporated Fleet to tame the operational complexity of managing multiple clusters. Fleet is an open-source project that integrates GitOps workflows at serious scale. It can handle up to 1 million clusters in production.



Containerisation has gone mainstream because it is so well-suited for the distributed nature of today's applications and computing environments. While enterprises certainly still manage various legacy systems, their IT portfolios have expanded to include microservices-based applications and other cloud native development.

IT teams are increasingly managing multiple clouds and traditional bare metal infrastructures to support their various applications and services. This trend is continuously expanding, as edge computing matures and emerging architectures extend well beyond the datacentre or even a public cloud.

But to unlock the potential of containerisation in such diverse environments, you need an enterprise container management platform that is open, agile and flexible – and that can truly run your workloads anywhere. That's Rancher, which offers the best support on the market for multi-cluster management across edge, public cloud, bare metal, OpenStack and vSphere environments



#### Multi-cloud management made easy

Managed Rancher Service also enables full lifecycle management across all major public cloud-managed services and any CNCF-compliant Kubernetes distribution, including:

- **EKS** (Amazon Web Service)
- AKS (Microsoft Azure)
- **GKE** (Google Cloud Platform)
- Digital Ocean
- OVHcloud Managed Kubernetes services

And you can even create self managed clusters on RKE2/K3S with:

- OVHcloud Public Cloud
- Amazon EC2
- Azure
- Digital Ocean
- Openstack





#### **Shared Tools & Services**

Too many organisations end up with a patchwork of tooling and services as their cloud footprint expands. Your enterprise container management platform should enable standardised, easy-to-deploy tools and services for developers and other users via a centralised app catalog. It also needs easy integration with CI/CD pipelines, GitOps methodologies, and automation tools like Ansible and Terraform. A standard, shared app catalog minimises tool sprawl and integration issues while ensuring ready access to reliable, reusable patterns for developers and other users across your IT estate.

The centralised catalog is also extremely beneficial when it's adopted by any organisation new to Kubernetes and other cloud-native technologies. The best way to encourage use (and reuse) is to make it easy, and that's what Rancher does.

#### In addition to its intuitive UI, Rancher features:

- Central application catalog with form-based installation via Helm or Managed Private Registry
- Built-in ability to provision with configuration management tools (like Ansible and Terraform)
- Standardised monitoring and logging tools across all your environments
- Integrations with leading CI/CD tools and pipelines
- Integrated service mesh support
- And many more enterprise-ready capabilities



# A stunning – and overwhelming – landscape

The cloud native universe has exploded with a stunning array of platforms, tools, and services. It's an embarrassment of riches for today's DevOps teams, but end users need help narrowing down the overwhelming menu. The CNCF Landscape includes:

- **1102** "cards" representing the vast number of cloud native tools and projects.
- **65** options just for cloud native storage
- **56** database solutions
- 50 CI/CD tools
- 17 projects just for scheduling and orchestration

Source: CNCF Landscape





The raw Kubernetes project has many native security controls, such as role-based access control (RBAC) for fine-grained control over your users, policies, and environments. However, K8s security controls must be properly configured, optimised, and integrated for your unique environment and requirements. It's not a turnkey solution. This is table stakes for a comprehensive enterprise container management platform. Rancher includes robust capabilities and integrations for strong, consistent security and compliance – a must in today's dynamic environments.

#### This includes:

- Active Directory and LDAP support, plus integrations with OAuth providers like GitHub and SAML providers like Okta and Keycloak.
- OVHcloud SSO and uIAM
- Simplified policy creation and enforcement with <u>Kubewarden</u>.
- Robust RBAC integration and support.
- Configurable adherence to industry-standard CIS Security Benchmarks.



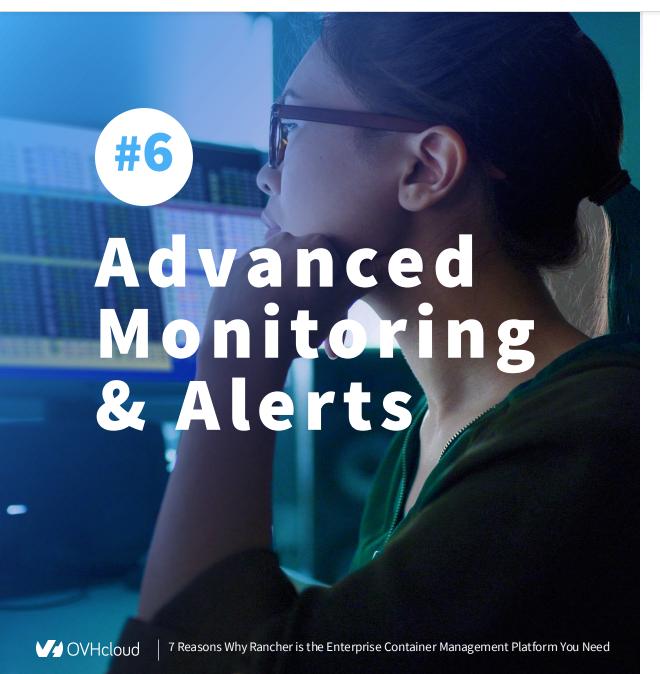
# The Four "Cs" of Cloud Native Security

The Kubernetes open source project points to the 'four Cs' approach which, paired with the traditional defence-in-depth strategy, can be a useful way to think about cloud native security. This involves ensuring a layered or multi-dimensional security posture that covers:

- Cloud
- Cluster
- Container
- Code

Source: CNCF Landscape





A lack of centralised visibility is one of the biggest trade-offs teams encounter as their multi-cloud and/or hybrid cloud footprint expands. The inherently distributed, fast-moving nature of running containerised workloads across hybrid cloud and multi-cloud environments creates observability and monitoring challenges that can turn into downtime and other production incidents. Your platform needs advanced monitoring, alerts, and other capabilities to ensure optimal system performance and resilience.

Rancher ships with basic <u>monitoring</u> turned on by default, and the UI makes it extremely easy to turn on advanced monitoring. With a single click, admins can deploy Prometheus and Grafana at the project and cluster level for advanced monitoring capabilities, and analytics to ensure system health.

Both the default basic and optional advanced monitoring include alerts for critical cluster components, with support for Slack, PagerDuty, WeChat, email, or any webhook targets. Rancher also recently updated its <u>logging capabilities</u> and includes external log shipping.



# Boost productivity, cut complexity with OVHcloud Managed Rancher Service



#### No lock-In, just innovation

OVHcloud's open-source Rancher platform frees you from vendor lock-in, giving your team the flexibility to choose the best solutions. Adapt quickly, boost agility, and manage any CNCF-certified Kubernetes distribution to keep your systems secure and future-proof.



## **Experience the best price for performance**

We believe in prices that are fair, transparent and predictable. Enjoy freedom from vendor lock-in and scale at your own pace – start with pay-as-you-go for flexibility, then switch to Savings Plans to save more. Adapt your infrastructure easily while maximising cost efficiency.



### **Secure containers** on Kubernetes

OVHcloud's Managed Rancher Service gives operators everything they need to orchestrate containerised applications consistently and securely across any infrastructure, in multiple environments...and to do it easily and quickly.



### Your one-stop support solution

Our solution, developed with SUSE and powered by OVHcloud, is dedicated to supporting your cloudnative projects. You benefit from seamless integration and comprehensive support through a single point of contact, ensuring your infrastructure needs are fully met.



# Conclusion

Built to support multi-cluster management across any environment, Managed Rancher Service empowers teams to scale and innovate freely without vendor lock-in.

Managed Rancher Service is transforming enterprise Kubernetes management, offering you the flexibility to handle multi-cluster environments with ease. Designed to work seamlessly across public and private clouds, onpremises, and edge deployments, Managed Rancher Service provides a unified platform that removes the complexity that often comes with Kubernetes, allowing teams to focus on delivering value faster.

Security and control are paramount, especially for sensitive or regulated industries. Managed Rancher Service upholds robust, ISO-certified security standards (ISO 27001, 27017, 27018, and 27701), ensuring that data and applications are

managed with the highest level of protection. Full control over infrastructure is maintained without compromising security, enabling smooth operations across Kubernetes clusters.

With centralised monitoring, advanced alerting. integrations and like Prometheus and Grafana, Managed Rancher Service provides essential tools to optimise system health performance. The platform handles the operational demands of deployments, updates, and security, allowing teams to concentrate on driving innovation and achieving business goals. Managed Rancher Service also offers the freedom to scale architecture without vendor lock-In.

Full support for any CNCF-certified Kubernetes distribution gives you the flexibility to adapt and evolve infrastructure on individual terms. Flexible pay-as-you-go options and savings plans allow organisations to maximise agility and control costs as they grow.

Combining simplicity, security, and scalability, Managed Rancher Service empowers organisations to harness the full potential of Kubernetes. Managed Rancher Service, powered by OVHcloud, is built for enterprises ready to drive the next wave of innovation in containerised applications – offering a platform that grows with the business.



Learn more about OVHcloud Managed Rancher Service



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