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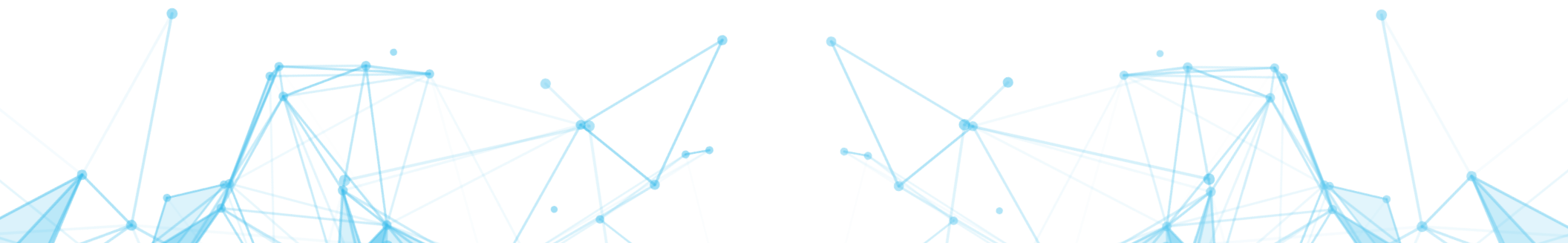
A Buyer's Guide to Enterprise Kubernetes Solutions

Comparison of VMware Tanzu, Google Anthos, Red Hat OpenShift, Rancher, and Platform9 Managed Kubernetes

In just a few years, Kubernetes has rapidly emerged as the de-facto open-source standard for container orchestration. Numerous Kubernetes products have emerged recently making it difficult to compare their offerings. This guide identifies 19 technical and operational capabilities to consider while evaluating various vendor offerings. It then provides a summary and a detailed comparison of these capabilities for five leading solutions in this market: VMware Tanzu, Google Anthos, Red Hat OpenShift, Rancher, and Platform9 Managed Kubernetes.

Before we dive into a detailed comparison of the 19 capabilities, let's take a higher level view of how these solutions compare when considered along two critical dimensions that impact enterprises the most: operational complexity and lock-in.
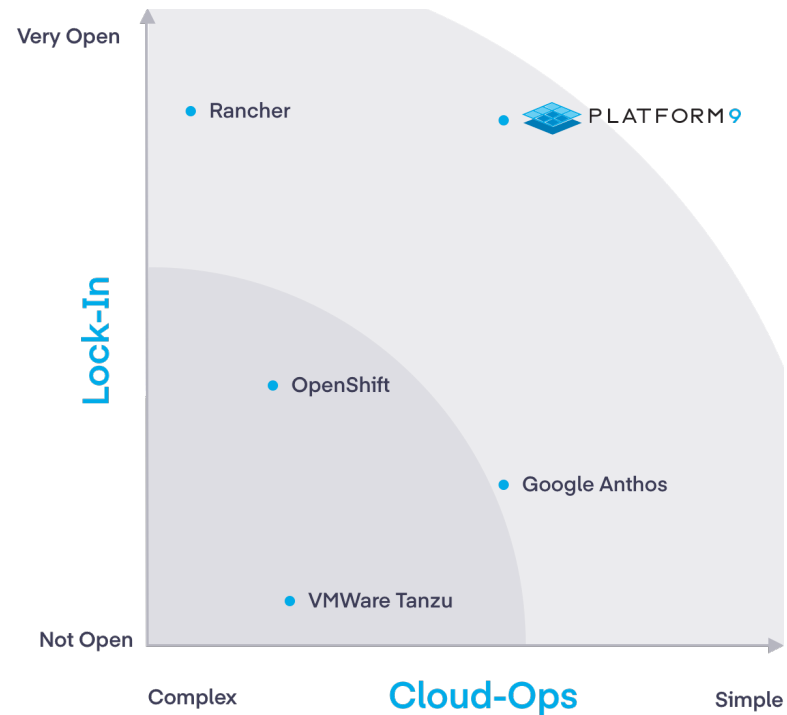
Freedom from Operational Complexity

For large-scale production usage and distributed cluster management, Kubernetes remains a very complex platform from an operational standpoint. Here are few factors that add to this complexity:

- The Kubernetes open source ecosystem is constantly evolving, with different complementary services (e.g Prometheus, Istio, Fluentd) maturing at different rates. This can be hard to track without dedicated engineering resources.

- Day 2 operations are extremely challenging. Monitoring, troubleshooting, security patching, SLA management, and upgrades are not trivial.

- High caliber Kubernetes talent is hard to hire and retain. Attrition must be closely controlled.

Platform9 and Google Anthos provide a fully-managed SaaS experience that rivals the agility and ease-of-use of public clouds. On the other hand, Rancher, OpenShift, and Tanzu require that you self-manage everything and deal with all the challenges mentioned above yourself.

Freedom from lock-in

Lock-in comes in several forms:

- Increasing license costs once the initial ELA expires

- Requirement of multiple other proprietary products that are bundled with the Kubernetes offering increasing cost and complexity of operations and support

- Incompatibility with upstream open source Kubernetes versions

- Inflexibility to run any infrastructure (e.g. Bare Metal, any Operating system, any cloud) of customer's choice

- Requirement for system integration and professional services to implement large-scale deployments for hundreds of clusters. This challenge is magnified if you have edge use cases.

Platform9 and Rancher have the least lock-in considering the above factors. VMware Tanzu requires use of many other products (such as NSX or vSAN and others) to complete the solution. Google Anthos runs only on VMware on-premises. Red Hat OpenShift locks you into the Red Hat Enterprise Linux operating system and their Kubernetes is not fully compatible with the upstream open source version.

Nineteen (19) detailed capabilities to consider while evaluating an enterprise Kubernetes platform

1. Provisioning of Kubernetes Clusters, High Availability and Healing
Kubernetes does not offer deployment of highly available clusters out of box and must be configured by the Kubernetes administrator. It is recommended that at least three master nodes are configured behind a load balancing solution with integrated or independent clustered deployment of etcd that stores all the cluster state information. Any high availability solution must also account for failure scenarios and auto-repair and recovery.

2. Deployment Model(s) Supported
The deployment model of a Kubernetes solution defines how it will integrate within your enterprise environment and what level of support service level agreement (SLA) it can provide for day 2 operations. The top three deployment models for Kubernetes solutions are:

• Traditional on-premises deployment - users download and deploy Kubernetes on their infrastructure on their own or using professional services and support from a vendor

• Hosted Kubernetes as a service (KaaS) - A vendor will offer Kubernetes as a service on top of infrastructure that's hosted by the provider

• Hybrid Cloud Kubernetes as a Service - Kubernetes is offered as a service on the infrastructure of your choice, your own infrastructure or public cloud

3. Prere uisites and Operating System Requirements
The pre-requisites of an enterprise Kubernetes solution define what infrastructure requirements you need to satisfy before you can get up and running with Kubernetes. Some solutions require an expensive licensing purchase of underlying infrastructure, such as a hypervisor, or an investment in a hosted Kubernetes solution.

4. Monitoring and Operations Management
A production Kubernetes cluster must be monitored at all times to handle any issues and outages without severely affecting cluster and application availability to users. An enterprise Kubernetes solution must provide this capability out of box.

5. Cluster Upgrades
Kubernetes has a large community of contributors and a new version is available every 3 months. An enterprise-class solution will support rolling upgrades of clusters, such that the cluster and the cluster API is always available even while the cluster is being upgraded. Additionally, it will provide the ability to rollback to previous stable version upon failure.

6. Multi-cluster Management
A single Kubernetes cluster can scale horizontally to support large sets of workloads. However, running Kubernetes in production requires being able to run multiple Kubernetes clusters, as you will want to fully isolate your dev/test/staging applications from production applications by deploying them on a separate cluster.

7. Multi-tenancy, Role-based Access Control and Single Sign-on Support
Kubernetes supports multi-tenancy at the cluster level using the namespace abstraction. However, in a multi-cluster environment, you need a higher level multi-tenancy abstraction to supplement Kubernetes multi-tenancy and provide the right level of isolation across different teams of users. It should integrate with Single-Sign On (SSO) solutions most commonly used by enterprises such as Active Directory or ADFS, Okta, and other popular SAML providers.

8. Load Balancing
Kubernetes automatically load balances requests to application services inside of a Kubernetes cluster. However, some services need to be exposed externally for consumption by outside clients. Kubernetes does not provide an out-of-the box load balancing solution for that type of services. An enterprise Kubernetes product should include a robust external load balancing solution, or integrate seamlessly with existing commercial load balancers.

9. Private Registry Support and Image Management
Running containerized applications on Kubernetes clusters requires having access to a container registry where your application images will be stored. A large enterprise organization will typically want a secure private container registry to store their proprietary application images. An enterprise Kubernetes solution should provide image management capability out of box.

10. Hybrid Cloud Integrations and APIs
Every enterprise today wants to build a cloud neutral strategy by investing in multiple cloud solutions. Having multiple private and/or public clouds as part of your cloud strategy ensures that you aren't getting locked into a single provider with no leverage on pricing, to have high availability across your infrastructure overall, and to satisfy your unique business policies.

11. Enterprise Grade User Experience
Enterprise grade user experience is all about having a polished user interface that enables enterprises to manage their hybrid environments though a single UI. This delivers complete visibility simplifying communications across the environment. This UI should allow operations that span multiple clusters: for example, globally searching for workloads of a specific type or tagged with a specific label across all clusters running on different regions, data centers and cloud providers.

12. Application Lifecycle Management - Application Catalog
Application catalog provides easy one-click deployment for a set of pre-packaged applications on top of Kubernetes. It also provides end users a vehicle to build and publish their own applications via the catalog for others in their team or their organization to deploy in a one click manner. The application catalog enables organizations to standardize on a set of application deployment recipes or blueprints, avoiding sprawl of configurations.

13. Production Grade Service Level Agreements (SLA)
As more and more organizations are running their business on Kubernetes, IT must ensure that it can support the SLAs that the business requires. IT must ensure that Kubernetes is available to developers and the business to support key initiatives. Most organizations require 99.9% uptime.

14. Ease of Setup, Installation, Continuous
Use, Management, and Maintenance
A successful Kubernetes platform must be easy to implement and maintain so organizations can leverage containers continuously. This alone is a major barrier that many organizations do not overcome.

15. Networking Support and Integrations Networking integration is a critical component of running Kubernetes clusters in production and at scale. An enterprise will typically want Kubernetes to integrate with a Software-Defined-Networking (SDN) solution
of their choice that they currently standardize on or a container native solution such as Calico or Weave that gives them more options around isolation.

16. Storage Support and Integrations
Similar to networking, integration with enterprise grade storage is an essential component of running Kubernetes clusters in production. Kubernetes provides an abstraction called Persistent Volumes to hold data persisted by stateful applications. It is important for a Enterprise Kubernetes product to map PVs to an actual highly-available storage technology. Enterprises will typically want their Kubernetes deployment to integrate with storage solutions that they have already deployed such as NetApp, Pure, SolidFire, etc. or they may want to integrate with a container native storage technology such as Portworx.

17. Self Service Provisioning
Developers must have self-service access to one or more Kubernetes clusters with right levels of isolation in place so only members with right privileges can access production workloads.

18. Built-in CI/CD Support
One of the most critical workloads run by the developers is Continuous Integration / Continuous Delivery. A robust CI / CD pipeline is critical to ensure agile development and rapid delivery of new software releases to customers.

19. Free Managed Service Plan
Not every company is ready to go into production right away. Kubernetes is still new and companies need the room to start free, learn, test, and then scale to production on their terms. A 100% free managed service gives users the freedom to start at zero cost and grow at their own pace into more supported options.

Comparison Scoreboard

The following summary score card table covers all the 19 technical and operational categories and the pie charts indicate the level of completeness of the corresponding capability in the five products being compared.

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Provisioning of Kubernetes Clusters	●	●	●	●	●
High Availability and Healing	◔	◐	◔	◐	◔
Deployment Model(s) Supported	●	◐	◔	◐	◐
Breadth of Operating Systems Supported	●	●	◔	●	●
Monitoring and Operations Management	●	◔	◐	◐	◐
Cluster Upgrades	●	●	◐	◔	◔

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Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Multi-Cluster Management	●	●	◕	●	●
Multi-Tenancy, Role-Based Access Control, and Single Sign-On Support	●	●	◑	◔	●
Private Registry Support and Image Management	◔	◔	◑	◑	◔
Hybrid Cloud Integrations and APIs	●	◔	◔	●	●
User Interface and Experience	●	●	●	●	◔

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Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Support for automated application deployments	●	●	◕	◕	◐
Production Grade Service Level Agreement	●	◔	◕	◕	◔
Ease of Setup, Installation, Continuous Use, Management, and Maintenance	●	●	◐	◐	◐
Networking Support and Integrations	●	●	●	◔	●
Storage Support and Integrations	●	●	●	◔	●

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Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Self-Service Provisioning	●	●	●	●	◔
Support for CI/CD integrations	◔	●	◐	◐	◔
Free Managed Service Plan	●	○	◔	○	○

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Provisioning of Kubernetes Clusters	Fully automated provisioning of clusters on any infrastructure: on-premises, public clouds, or at the edge	Fully automated provisioning of clusters (except imported clusters)	Fully automated provisioning of clusters	Fully automated provisioning of clusters	Fully automated provisioning of clusters
High Availability and Healing	• Built-in support for highly available clusters out-of-the-box • Multi-master for H/A • Built-in etcd high availability support • Etcd recovery is scheduled for release	• Leverages native Kubernetes features to deliver HA and healing	• The default HAProxy load balancer can be used to create a multi-master and multi-etcd cluster environment – with etcd nodes either forming their own cluster or deployed on the same node as the master	• Uses Kubernetes Cluster API to detect and correct failed nodes • Supports multiple masters and automated failover between masters	• Leverages native Kubernetes features to deliver HA and healing • Supports a variety of resilient load balancer options • Supports multi-master deployments

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat Open Shif	VMWare Tanzu Kubernetes Grid	Google Anthos
Deployment Model(s) Supported	• Platform9's unique remotely-hosted SaaS-managed offering means that customers can run their upstream open source Kubernetes clusters on any infrastructure: » on-premises, » VMware, » public clouds or » at the edge. • Platform9 remotely handles all the complex monitoring, alerting, upgrading, and SLA management	• Can be deployed on-premises or in all the major public clouds	• Public cloud (OpenShift Online) • SaaS-managed (OpenShift Dedicated) • Hybrid cloud (OpenShift Container Platform)	• Can be deployed on-premises or in all the major public clouds • Supports clusters running on public clouds, vSphere and certain bare-metal infrastructure • Control plane can be hosted on-premises or in the public cloud	• Can manage Kubernetes clusters running on-premises and in Google Cloud and AWS (Azure support is in preview mode) • However, clusters must be managed through GKE
Prerequisites and Operating Systems Supported	• Supports all popular enterprise Linux distributions » Red Hat » CentOS » Ubuntu	• Supports all popular enterprise Linux distributions » Red Hat » CentOS » Ubuntu • Also offers support for RancherOS, a lightweight Linux distribution for container hosting	Works only with Red Hat Enterprise Linux (a RHEL subscription is required and bundled into OpenShift)	• Supports » Red Hat » CentOS » Ubuntu » Amazon Linux » Photon OS	• Supports all popular enterprise Linux distributions » Red Hat » CentOS » Ubuntu

Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Monitoring and Operations Management	• 24 x 7 live monitoring • 99.9% guaranteed SLA • Proactive repair • Automated email notifications for any issues • Automated support ticket creation and triaging of issues • Out-of-the-box automated deploy Prometheus and Grafana	• Performs health checks on all Kubernetes clusters, and presents resource con- sumption sta- tistics • Sends cluster-level alerts for Kubernetes system components (e.g., etcd, DNS, etc.) Customizableresource alerts such as CPU, memory etc. • Traditional support ticketing process for issues • Automatically deploys and configures Prometheus and Grafana for monitoring	• Diagnostic tools via command line for health statistics • Prometheus and Grafana for environment health monitoring and visualization	• No built-in monitoring integrations, but compatible with Prometheus and other Grafana • Traditional support ticketing process for issues	• Uses Google Cloud's Cloud Logging and Cloud Monitoring platforms by default to monitor clusters • Prometheus and Grafana may also be used • However, Cloud Logging and Cloud Monitoring are required if customers seek official support
Cluster Upgrades	• Fully automated cluster upgrades delivered seamlessly, with no interruption to the environment • Zero-downtime upgrade • Multi-version support so don't need to upgrades all clusters at the same time	• Providers an easy built-in cluster upgrade experience • Upgrade one cluster at a time or multiple clusters simultaneously	• Can be automated with Ansible playbooks, or performed manually	• Uses Kubernetes Cluster API to automate upgrades	• Clusters can be upgraded manually or automatically using methods supported by GKE

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Multi-cluster Management	• Built in multi-cluster support. Create any number of clusters • Admins can manage multiple clusters across different regions, data centers and clouds	• Provides unified management of multiple clusters • Build clusters on public cloud providers like GKE, EKS, AKS or on data centers • Able to discover and manage existing, pre-created clusters	• A typical deployment creates a single Kubernetes cluster that is designed to scale up to 2000 nodes and 120,000 pods • All users of that deployment are expected to share that single cluster and achieve isolation via a combination of Kubernetes namespaces, and OpenShift multi-tenancy • Starting with OpenShift 4, multiple clusters can be managed through Red Hat's hybrid cloud console	• Supports multi-cluster management and configuration • Clusters can span a range of on-premises or multi- cloud infrastructure	• Supports multi-cluster management and configuration • Clusters can span a range of on-premises or multi- cloud infrastructure

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Multi-tenancy, Role-based Access Control, and Single Sign-on Support	• Support for multi-region management • Built in multi-tenancy support • Kubernetes RBAC is fully supported • Full support for Single-Sign On (SSO). Integrate with a SAML- based provider that your organization uses such as Okta, ADFS, Ping Identity, etc.	• Provides centralized authentication (GitHub, AD/ LDAP, SAML, etc.) across Rancher or cloud Kubernetes services • Allows admins to define Kubernetes RBAC policies and network and pod security policies centrally and apply them across any cluster	• Delivers multi-tenancy through projects, called Kubernetes namespaces • Kubernetes RBAC is utilized to define granular access policies for users • There is no cross cluster multi-tenancy	• Extends Kubernetes RBAC with additional roles • Users and groups can be managed through VMware Cloud Services • Single sign-on not available by default but can be set up using a plugin	• Uses native Kubernetes RBAC • RBAC settings can be managed centrally through Anthos Config Management • Full support for multi-tenant clusters
Private Registry Support and Image Management	• Does not provide out of the box support for private registries • Registries and secrets required to authenticate with the registries need to be managed by the customer separately	• Does not provide out-of-the-box support for private registry deployment. Users have to deploy their own public or private registries. However, Rancher can pull images automatically from private registries once they are configured • Does support storing of secrets required to pull images from private registries	• Relies primarily on built-in OpenShift registry. Can be used with third-party registries such as Docker Hub, but images must be imported manually on the command line	• No built-in private registry. Primarily designed for integration with private registries through VMware Harbor • Non-VMware registries also supported	• No built-in registry service • Compatible with all standard Docker registries

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Hybrid Cloud Integrations and APIs	• Includes the most native integration with all major private data center/private cloud offerings and major public cloud providers • Linux/KVM, OpenStack • Clusters on public clouds are created with the public cloud's IaaS layer to provide a native Kubernetes cluster experience	• Automates cluster creation on bare metal servers, VMware, or any IaaS cloud • Clusters on IaaS clouds are created with cloud-specific version of Kubernetes (EKS for Amazon AWS cloud, AKS for Azure cloud, etc.) • Rancher is subject to any limitations the cloud providers expose around versioning, update, HA, etc.	• OpenShift Container Platform supports deployment on hybrid and multi-cloud environment. However, all infrastructure must be provisioned with RHEL	• Supports hybrid infrastructure built using a range of public clouds, private data centers and operating systems • Strong integration with other VMware products and APIs • Heat templates available for deploying Tanzu on top of VMware Integrated OpenStack	• Supports hybrid infrastructure built using a range of public clouds, private data centers and operating systems • However, requires use of Google Cloud services (GKE) for infrastructure management (even if clusters are deployed on other clouds or on-premises)
User Interface and Experience	• Provides an enterprise class UI and user experience • The UI provides a single pane of glass across bare metal, virtualized and containerized workloads • Unify all your data centers, private/edge clouds, and public clouds under single UI	• Includes an intuitive UI that makes it easy for users to deploy services on Kubernetes and get complete visibility • Common configuration options directly from the UI for defining scheduling rules, health checks, ingress controllers, secrets, storage and other key configuration choices are offered.	• Provides a native UI that enables management of your Kubernetes resources and the catalog	• Provides a native UI (Mission Control) that offers management and monitoring functionality for multiple clusters	• Provides a management dashboard as part of Google Cloud Console

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Support for automated application deployments	• Administrators can provide users access to applications that are private to the organization • Support for managed apps	• Built-in application catalog that is populated with public Helm chart applications • Offers 'Rancher certified' applications provided in the catalog that are tested and certified by Rancher	• Application lifecycles can be managed through either OpenShift Ansible Broker or application templates (the latter support Rails, Django, Node.js, CakePHP, and Dancer)	• Built-in application catalog that is populated with public Helm chart applications • Compatible with Open Service Broker API for deploying services	• Applications can be deployed from Google Cloud Platform Marketplace • Applications can also be deployed using Helm charts or similar techniques using Anthos Config Management repos; however, this requires some manual setup
Production Grade Service Level Agreement	• Platform9 contractually promises 99.9% cluster uptime and high availability • Provides self healing, problem resolution through the service	• Provides a traditional enterprise class support model. Guaranteed response times depend on incident severity (determined by customer) and support plan tier • Troubleshooting is handled via support tickets • Customers drive manual upgrades and any issues require support team engagement	• 99.5% uptime for fully- managed clusters (OpenShift Dedicated) • Troubleshooting is handled via support tickets • Customers drive manual upgrades and any issues require support team engagement	• Provides a traditional enterprise class support model. Guaranteed response times depend on incident severity (determined by customer) and support plan tier • Troubleshooting is handled via support tickets • Customers drive manual upgrades and any issues require support team engagement	• No advertised SLA for Anthos service • GKE clusters have 99.5% uptime guarantee

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Ease of Setup, Installation, Continuous Use, Management, and Maintenance	• Fully automated deployment and easy UI-driven wizard gets Kubernetes clusters running in a few minutes • Create a simple Kubernetes cluster using on-prem servers, VMs or public cloud resources in minutes • Manage clusters with one-click UI-based upgrades and trouble-shooting	• Simple setup: Run a single docker command on a Linux machine and you are up and running • Provides an intuitive UI to help with rest of the setup and Kubernetes cluster creation	• Installing and configuring OpenShift is a manual process that is Ansible-based • Several Ansible playbooks are required during the installation	Requires setup of multiple tools. Manual setup and configuration process	• Requires setup of multiple tools. Manual setup and configuration process. • However, the Migrate for Anthos tool is available to simplify migration of existing containerized applications into Anthos-managed clusters
Networking Support and Integrations	• Provides full CNI support • Integrates OOB with Flannel, and Calico	• Rancher provides CNI support • Out-of-the-box support provided for Canal, Calico, and Flannel	• OpenShift provides CNI support and can integrate with any CNI based SDN • By default OpenShift SDN is deployed, which configures an overlay network using Open vSwitch (OVS) • Out-of-the-box third-party CNI plugins supported: Flannel, Nuage and Kuryr	• Designed for use with Antrea, a CNI- compatible plugin based on Open vSwitch	• Works with networking options supported by GKE (Flannel, Calico) • Requires Cloud VPN or Interconnect on Google Cloud if connecting on-premises clusters to Anthos

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Storage Support and Integrations	• Supports integration with any flexvolume drivers • Integrates with any Cinder-supported storage backend (NetApp, Pure Storage, etc.) • Compatibility with all CSI- compliant backends	• Supports integration with network- based persistent storage using the Kubernetes persistent volume framework • Supports a wide variety of persistent storage endpoints such as NFS, GlusterFS, OpenStack Cinder, FlexVolume, VMware vSphere etc.	• Supports integration with network-based persistent storage using the Kubernetes persistent volume framework • Supports a wide variety of persistent storage endpoints such as NFS, GlusterFS, OpenStack Cinder, FlexVolume, VMware vSphere etc.	• "Opinionated" storage solution through integration with vSphere via Project Pacific	• Compatible with GKE-supported storage solutions (standard Kubernetes volumes and certain GCP storage services) • Storage add-ons can be deployed through Google Cloud Platform Marketplace
Self Service Provisioning	• Complete self-service provisioning enabled via Platform9's UI • Users log into the UI as part of a specific Tenant (e.g., dev/test/production) and are able to access clusters provided they have been granted access • Quick deployment of pods, deployments and services via a wizard	• Provides a complete self- service provisioning UI for end users and admins to create workloads on top of Kubernetes	• Provides a self-service UI (OpenShift Web Console) that is separate from the default Kubernetes dashboard UI to enable self-service for developers and administrators	• Provides a self-service UI (Mission Control) for managing workloads and policies across clusters.	• Basic self-service options are available through the Anthos dashboard in Google Cloud Console

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Detailed Comparison Table

Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Support for CI/ CD integrations	• Provides Spinnaker and Jenkins via the Helm application catalog	• Includes integrated CI/ CD, making it easy for teams using Kubernetes to quickly integrate it with their development, testing and release management process • Users can easily point Rancher at any git repo and it will automatically run builds on Kubernetes, deploy test environments, and move product	• Pipelines and build strategies simplify the creation and automation of dev/test and production pipelines • Ships out-of- the-box with a Jenkins build strategy and client plugin to create a Jenkins pipeline. However, the setup to create and configure production pipelines is manual and time-consuming • The pipeline build configuration creates a Jenkins master pod (if one doesn't exist) and then automatically creates slave pods to scale jobs & assign different pods for jobs with different runtimes	• Designed especially for integration with VMware Concourse CI/CD • Also compatible with most major third-party CI/ CD toolchains (Jenkins, GitLab, etc.)	• Any CI/CD tools that are compatible with GKE can deploy to clusters managed via Anthos • Cloud Build is Google Cloud's native CI/CD solution, but most major third-party tools are supported as well

Detailed Comparison Table

| Product	Platform9 Managed Kubernetes (Enterprise)	Rancher	Red Hat OpenShift	VMWare Tanzu Kubernetes Grid	Google Anthos
Free Managed Service Plan	• PMKFT is available here • It's free forever up to 20 nodes capacity, Slack support, and critical alerts capability	• No advertised free tier. • Demo available upon request.	• OpenShift Online Starter Plan available for free. Only runs on public clouds and not on private infrastructure. Sign up here.	• No advertised free tier. • Free trial available here.	• No advertised free trial • Can be used free of cost for testing (not production) purposes with up to 100 vCPUs. This policy is valid up to June 30, 2020.

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Platform9 Managed Kubernetes (PMK)

Platform9 Managed Kubernetes is the industry's only SaaS-managed Kubernetes offering that runs anywhere: public clouds, on-premises, and the edge. It delivers all the benefits and capabilities of Kubernetes, while managing updates, upgrades, and management of Kubernetes.

With PMK, DevOps, ITOps, Platform Engineering, and cloud architects can enjoy the freedom to:

- Use any infrastructure of their choice

- Provide a robust SLA-backed self-service Kubernetes platform to their developers

- Deploy to multiple locations at scale: data centers, edge, or multiple public clouds

- Avoid day-2 operational complexities of monitoring, upgrades, security patching etc.

- Use upstream open source Kubernetes versions and not be locked into any proprietary stack.

Avoid the constraints of lack of skills, time, and cost to build and operate a Kubernetes platform yourself. Experience the SaaS managed difference and check out for yourself how easy it is to deploy, manage and scale your Kubernetes infrastructure, anywhere with our live sandbox: https://platform9.com/sandbox/kubernetes/
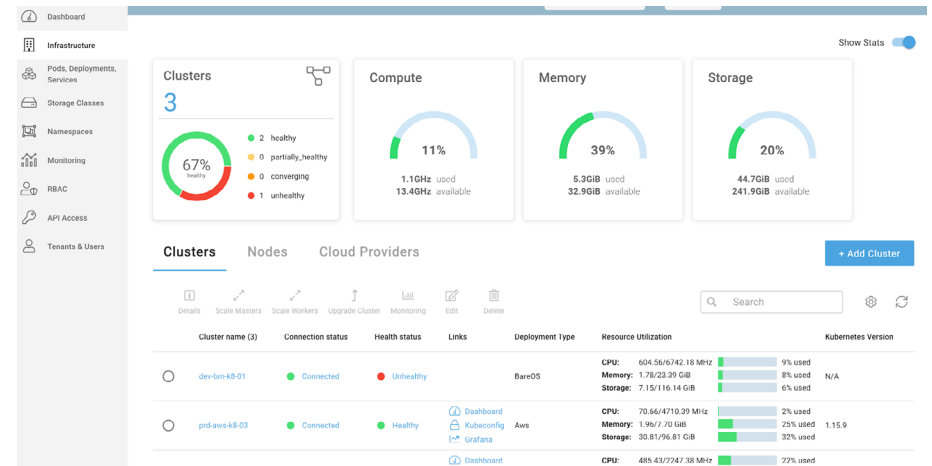
Once in the sandbox, you can choose to deploy a cluster for free on your laptop, data center, or on AWS or Azure. Give it a spin.

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Freedom in Cloud Computing

Platform9.com/contact

Headquarters
2465 Latham Street
Suite 110
Mountain View, CA 94040
650-898-7369
info@platform9.com

About Platform9: Platform9 enables freedom in cloud computing for enterprises that need the ability to run private, edge or hybrid clouds. Our SaaS-managed cloud platform makes it easy to operate and scale clouds based on open-source standards such as Kubernetes and OpenStack; while supporting any infrastructure running on-premises or at the edge. Enterprises such as S&P Global, Kingfisher Retail, Cadence Design, Juniper Networks and Autodesk are using Platform9 to easily manage large scale private and edge clouds. The company is headquartered in Mountain View, CA and is backed by Redpoint Ventures, Menlo Ventures, Canvas Ventures, NGP Capital, Mubadala Capital and HPE Pathfinder.