

# Buyer's Guide & Reviews

March 2023











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#### VMware Tanzu Mission Control



#### **PROS**



reviewer190 7607

"The most popular feature of VMware Tanzu Mission Control is its graphical user interface for describing network policies on the Service Mesh, which is highly integrable with other tools commonly used in supply chains such as security." [Full Review]



Vikran

"I have multiple Kubernetes environments within my environment." "TMC gives me a single pane view, which is good for managing everything." [Full Review]



Abbasi

"Tanzu Mission Control has quite a set of rich features when compared to OpenShift." [Full Review]



Devi Vara Prasad Dommeti

"A feature we find valuable is that other products can also be integrated with Mission Control." "This means that we can see the status of specific clusters, as well as view the monitoring application logs all from one point." [Full Review]



Aurelio Rodas

"VMware Tanzu Mission Control has many valuable features, such as ease of use and customization." [Full Review]



reviewer157 9479

"The multi-tenancy with the VCD is great." [Full Review]



## VMware Tanzu Mission Control



#### **CONS**



"The infrastructure is quite challenging." [Full Review]

reviewer190 7607



"Tanzu provides better manageability as compared to OCP, but when it comes to tagging it with other products, it's a bit rigid." "If I have to bring in any new product or something out of the box from a different vendor, working with Tanzu becomes a little difficult." "For example, if I want to use the F5 services, I have to add one more layer of Avi, but I don't want to do that." "If I have a list of the products that I want to use, such as for firewall services, with Tanzu, I will have to go through another layer, which creates complexity." [Full Review]



Abbasi

"We want to see a new feature that helps build more security architecture like Zero Trust Security or shifting left in Kubernetes." [Full Review]



Devi Vara Prasad Dommeti

"The disaster recovery feature could be improved to provide better tracking of issues." "I would also like to see the introduction of a dashboard view, for even further integration of all the areas that Mission Control looks at." [Full Review]



"The solution could improve by having better integration with other solutions such as HPE." [Full Review]



Aurelio Rodas

reviewer157 9479

<sup>&</sup>quot;This product doesn't have a GUI." "In order to use it properly, I need to connect it to a new GUI or build a GUI to manage it it's pretty difficult." [Full Review]



VMware Tanzu Mission Control



#### PRICING AND LICENSING ADVICE



"The solution is only for large or medium size enterprises because it is expensive." [Full Review]

reviewer190 7607



"Its pricing is very competitive." "We get around 70% or 75%, sometimes even 80%, discount on the product." "I would rate it a four out of five in terms of pricing." [Full Review]



"VMware Tanzu Mission Control is cheaper than Red Hat OpenShift." [Full Review]



Abbasi Poonawala



Devi Vara Prasad Dommeti

"I would recommend that businesses look into the full price for their requirements." "The price is high, but there are some open-source add-ons that can be used for customization while keeping costs down, although these might not be suitable for everyone." [Full Review]



"There are different licenses available." "You have to upgrade your license if you want to scale the solution more." [Full Review]

Aurelio Rodas



#### OpenShift Container Platform



#### **PROS**



"The stack in the software supply chain is one of the main reasons that we use OpenShift." "When I came to this company, we bought hardware from IBM named Bluemix, and they used ICP, which stands for IBM Cloud Private." [Full Review]



"Dashboards..." "give us all the details we need to see about the microservices." [Full Review]



"OpenShift provides tools that tell me everything I have on a container, and I can make it on-premise or on a cloud infrastructure." [Full Review]



reviewer206 0967

"The solution's security throughout the stack and the software supply chain is very reliable." "When it was on-prem, it was by default secured by our company firewalls and security tools, and now it's in the cloud, which has its security and systems in place." "This provides stability to our infrastructure." [Full Review]



Raju Polina

"The software is user-friendly and straightforward to use, which is favorable to a developer." [Full Review]



"Autoscaling is an excellent feature that makes it very simple to scale our applications as required." [Full Review]





0307

"The product is stable, reliable, and easy to use, from a well-known company, has a large volume handling capacity, and more and more organizations are moving to OpenShift." [Full Review]



#### OpenShift Container Platform



#### **CONS**



Vlado Velkovsk

"OpenShift has a pretty steep learning curve." "It's not an easy tool to use." "It's not only OpenShift but Kubernetes itself." "The good thing is that Red Hat provides specific targeted training." "There are five or six pieces of training where you can get certifications." "The licenses for OpenShift are pretty expensive, so they could be cheaper because the competition isn't sleeping, and Red Hat must take that into account." [Full Review]



Daniel Dror

"It can take 10 to 15 minutes to deploy a microservice." "The CI/CD process takes a long time, and if it's because of OCP, that is something that can be changed." [Full Review]



reviewer194 8521

"Setting up OpenShift isn't easy." "I rate it three out of ten for ease of setup." "We're deploying it in three phases." "They're in the second phase now." "The total deployment time will be five months." "We expect to complete the deployment this March." "There are 13 people on three teams working on this deployment." [Full Review]



reviewer206

"Whenever we onboard or deploy services that talk to Oracle Database, they take a lot of time to become active and serve the incoming request, so it would be good to see some improvement here." "This could be an OpenShift issue or an internal network problem within our organization." [Full Review]



Raju Polina

"I want to see more incorporation of native automation features; then, we could write a code, deploy it directly to OpenShift, and allow it to take care of the automated process." "Using this method, we could write one application and have elements copy/pasted to other applications in the development process." [Full Review]



Harish Vadlamudi

"One area for improvement is that we can't currently run Docker inside a container, as it clashes with security consents." "It would be good if we could change that." [Full Review]



reviewer206 0307

"The UI could be more user-friendly to drive tasks more effectively through the interface." [Full Review]



OpenShift Container Platform



#### PRICING AND LICENSING ADVICE



Daiu Dolina

"The pricing and licensing are handled on an upper management level, and I'm not involved in that, but I understand the solution to be somewhat pricey." [Full Review]



reviewer206 0307

"I'm an architect, so I have no involvement in the pricing and licensing of the platform." [Full Review]



Ritesh Raj

"Its price is a bit high because it's a premium product, but as long as the business is ready to pay for that, it's okay." [Full Review]



Iwona Z

"It largely depends on how much money they earn from the application being deployed; you don't normally deploy an app just for the purpose of having it." "You must constantly look into your revenue and how much you spend every container, minute, or hour of how much it is working." [Full Review]



"We currently have an annual license renewal." [Full Review]





Prasun-Nesu

"We paid for Cloud Pak for integration." "It all depends on how many VMs or how many CPUs you are using." "They do the licensing based on that." [Full Review]



"The pricing is a bit more expensive than expected." [Full Review]

<sup>0270</sup> 

## Top Reviews by Topic



VMware Tanzu Mission Control



#### **OpenShift Container Platform**

VALUABLE FEATURES



Vikram Casula

I have multiple Kubernetes environments within my environment. TMC gives me a single pane view, which is good for managing everything. The other part is that Tanzu is coming up with vRA integration. It's a vRA product for infrastructure management and virtualization. On top of it, we have VCF as well. With that, the management of all the clusters isn't a big time management task. So, the management of all the clusters becomes very easy for me, and my administrative activities are coming down. Th... [Full Review]



Abbasi Poonawala

Tanzu Mission Control has quite a set of rich features when compared to OpenShift. I like the dashboard for monitoring the Cl/CD pipeline, the entire process of releasing it into the cloud, and deploying it to the cloud. [Full Review]



Aurelio Rodas

VMware Tanzu Mission Control has many valuable features, such as ease of use and customization. The most important feature of VMware Tanzu Mission Control is the integration with vSphere because it allows easy implementation of the solution into the development cycle. Additionally, you can run the containers on the virtual machine in the same cluster. Many people in organizations need to change the monolithic way that they develop programs. However, with this solution, you are able to integrate ... [Full Review]



Vlado Velkovski

Security is the most valuable feature. If you get Vanilla Kubernetes, they lack security. Red Hat OpenShift comes in two flavors. One is OCP, OpenShift Container Platform, for which you need licenses. We're using that for production environments. For developing environments, there is the OKD Community edition of OpenShift. They're very similar because OCP uses Red Hat CoreOS certified from Red Hat, but the community edition uses Fedora CoreOS. We're trying to deploy applications to be "Kubernete... [Full Review]



Chandrashekhar NR

Some of the primary features we leverage in the platform have to do with how we manage the cluster configurations, the properties, and the auto-scalability. These are the features that definitely provide value in terms of reducing overhead for the developers. Also the Kubernetes cluster management or orchestration is provisioned through the UI and the CLI. We are using the Red Hat OpenStack OpenShift Platform. It is much faster in terms of deploying the cluster. As of now, our experience rolling... [Full Review]



Awais Afzal

The auto scalability feature, which is based on smart agendas, determined from pre-prepared rules is the most valuable feature. You can also create different routes for deployment.

Deployment types can be provided with an identifier, such as AB deployment. This really helped in rolling out releases without disrupting services for the end-users. Secondly, there is the ability to control at a granular level. For example, they can release two versions of the same service and control the traffic tow... [Full Review]

## Top Reviews by Topic



VMware Tanzu Mission Control



#### **OpenShift Container Platform**

ROOM FOR IMPROVEMENT



Vikram Casula

Tanzu provides better manageability as compared to OCP, but when it comes to tagging it with other products, it's a bit rigid. If I have to bring in any new product or something out of the box from a different vendor, working with Tanzu becomes a little difficult. For example, if I want to use the F5 services, I have to add one more layer of Avi, but I don't want to do that. If I have a list of the products that I want to use, such as for firewall services, with Tanzu, I will have to go through ... [Full Review]



Vlado Velkovski

OpenShift has a pretty steep learning curve. It's not an easy tool to use. It's not only OpenShift but Kubernetes itself. The good thing is that Red Hat provides specific targeted training. There are five or six pieces of training where you can get certifications. The licenses for OpenShift are pretty expensive, so they could be cheaper because the competition isn't sleeping, and Red Hat must take that into account. There are a few versions of OpenShift. There is the normal OpenShift and an Open... [Full Review]



Abbasi Poonawala

We want to see a new feature that helps build more security architecture like Zero Trust Security or shifting left in Kubernetes. It would help if they build something like that into the product and actually make all the containerized images deploy into the Azure Cloud in a secured manner. [Full Review]



Chandrashekhar NR

At the service level, I don't see a very granular level of security as compared with the container-based clusters. It is at the Kubernetes level, not at the service level. Also, when I compare it with the other container or Kubernetes technologies, we have pretty good documentation from OpenShift, but with the recent trend of cloud-native, fully managed serverless services, I don't see much documentation about how a customer should move from on-prem to the cloud, or what is the best way to do a ... [Full Review]



Devi Vara Prasad Dommeti

The disaster recovery feature could be improved to provide better tracking of issues. I would also like to see the introduction of a dashboard view, for even further integration of all the areas that Mission Control looks at. [Full Review]



Awais Afzal

From a networking perspective, the routing capability can be matured further. OpenShift doesn't handle restrictions on what kind of IPs are allowed, who can access them, and who cannot access them. So it is a simple matter of just using it with adequate network access, at the network level. It should be possible to whitelist IPs so that you can allow and restrict access to the API. That would be a fantastic feature. OpenShift would then encapsulate the entire security and access. This is one imp... [Full Review]

## Overview

#### SOLUTION





#### **OpenShift Container Platform**

#### **OVERVIEW**

What is VMware Tanzu Mission Control?

VMware Tanzu Mission Control is a platform that enables you to manage modern applications by providing a single control point for IT teams to more easily handle Kubernetes and run modern containerized applications across multiple clusters and clouds. Because the solution is an API-driven service, it allows you to manage all of your clusters via its API, the web-based console, or the CLI. The VMware Tanzu Mission Control console gives you the ability to...

Red Hat® OpenShift® offers a consistent hybrid cloud foundation for building and scaling containerized applications. Benefit from streamlined platform installation and upgrades from one of the enterprise Kubernetes leaders.

## SAMPLE CUSTOMERS

COMPARISONS

OpenShift Container Platform vs. VMware Tanzu Mission Control

Compared 45% of the time

Rancher Labs vs. VMware Tanzu Mission Control Compared 25% of the time

Amazon EKS vs. VMware Tanzu Mission Control Compared 8% of the time

Edenor, BMW, Ford, Argentine Ministry of Health

VMware Tanzu Mission Control vs. OpenShift **Container Platform** 

Compared 38% of the time

Amazon EKS vs. OpenShift Container Platform

Compared 25% of the time

Nutanix Kubernetes Engine NKE vs. OpenShift **Container Platform** 

Compared 13% of the time

Insurance Company ... 8%

TOP INDUSTRIES, BASED ON REVIEWERS\*

TOP INDUSTRIES, BASED ON COMPANIES

**READING REVIEWS\*** 

Government ... 9%

Comms Service Provider ... 10% Financial Services Firm ... 12%

Computer Software Company ... 19%

Government ... 9%

Government ... 8%

Comms Service Provider ... 10% Financial Services Firm ... 16% Computer Software Company ... 19%

Computer Software Company ... 15% Financial Services Firm ... 46%

201-1000 Employees ... 3% 1-200 Employees ... 13% 1001+ Employees ... 83%

1-200 Employees ... 16% 201-1000 Employees ... 12% 1001+ Employees ... 73%

REVIEWERS\*

COMPANY SIZE, BASED ON

COMPANY SIZE BASED ON COMPANIES **READING REVIEWS\*** 

1-200 Employees ... 17% 201-1000 Employees ... 13% 1001+ Employees ... 70%

<sup>\*</sup> Data is based on the aggregate profiles of PeerSpot Users researching this solution.

## Answers from the Community

#### Which is better - OpenShift Container Platform or VMware Tanzu Mission Control?

What makes one a better choice than the other?



Leah Fainchtein Buenavida

Red Hat Openshift is ideal for organizations using microservices and cloud environments. I like that the platform is auto-scalable, which saves overhead time for developers. I think Openshift can be a great alternative for a fully managed container technology that will work both on premises and in the cloud. OpenShift simplifies the management of Kubernetes clusters for our developers. It is very simple to use, so even our new hires can manage it easily. The security of RedHat is comprehensive - we don't need to worry about patching manually since we can update the entire environment together with the security patches. Some disadvantages I see in using OpenShift are that effectively using OpenShift to move from on-prem to the cloud requires a steep learning curve and there is not much documentation explaining how to do it. VMware Tanzu provides a centralized control center for Kubernetes via scalability and...

See all 1 answers >>



## Gives a single pane to manage multiple Kubernetes environments and has competitive pricing



Head Of Infrastructure & Cloud ops at a comms service provider with 10,001+ employees

Vikram Casula

#### WHAT IS OUR PRIMARY USE CASE?

We are just trying to set it up. It's very young at this point in time. We haven't done much. We're still trying to evaluate the scale and at what level it can work. We are currently working with the Tanzu product team, and we are seeing how it can be leveraged specifically for our environment.

#### WHAT IS MOST VALUABLE?

I have multiple Kubernetes environments within my environment. TMC gives me a single pane view, which is good for managing everything.

The other part is that Tanzu is coming up with vRA integration. It's a vRA product for infrastructure management and virtualization. On top of it, we have VCF as well. With that, the management of all the clusters isn't a big time management task. So, the management of all the clusters becomes very easy for me, and my administrative activities are coming down. This is something that isn't available with OpenShift.

#### WHAT NEEDS IMPROVEMENT?

Tanzu provides better manageability as compared to OCP, but when it comes to tagging it with other products, it's a bit rigid. If I have to bring in any new product or something out of the box from a different vendor, working with Tanzu becomes a little difficult. For example, if I want to use the F5 services, I have to add one more layer of Avi, but I don't want to do that. If I have a list of the products that I want to use, such as for firewall services, with Tanzu, I will have to go through another layer, which creates complexity.

The other part is that the virtualization and the database have to be at separate levels. That is another problem for me. We are a big Oracle customer. Oracle and VMware don't go very well. From a licensing point of view, it never works.

Continued		

FOR HOW LONG HAVE I USED THE SOLUTION?
It has been only two months.
WHAT DO I THINK ABOUT THE STABILITY OF THE SOLUTION?
We're in the early stages. So, I cannot comment on its stability, but I'm assuming it'll be good.
WHAT DO I THINK ABOUT THE SCALABILITY OF THE SOLUTION?
I'm yet to see its scalability.
HOW ARE CUSTOMER SERVICE AND SUPPORT?
In some of the areas, they are not that technical, but overall, they have a good amount of knowledge. They do have the knowledge, but sometimes, they struggle when it comes to a large environment. I would rate them an 8 out of 10.
HOW WOULD YOU RATE CUSTOMER SERVICE AND SUPPORT?
Positive

#### WHICH SOLUTION DID I USE PREVIOUSLY AND WHY DID I SWITCH?

We were mostly using OpenShift on the data analytics platforms. We are now replacing the open system and putting all the containers here. We have a very strong bond with VMware. We have VMware for all of our layers and the network. We have NSX, ESX, etc. 95% of the environment is completely virtualized on the VMware platform. So, we thought of spinning off another product in order to keep other scales balanced. We have about 20,000 servers and 600 large applications. We are managing a hundred petabytes of data. So, going with a single product or single vendor is always a risk for us. So, in order to mitigate that kind of risk, we wanted to have an alternative product. That's where Tanzu came into the picture. Tanzu is not yet as mature as OpenShift. They can gain that only by putting more customers into their product.

Continued from previous page

#### WHAT ABOUT THE IMPLEMENTATION TEAM?

Because this is an enterprise-level product, we hired professional services from VMware, and they're helping us with it. I would rate them a four out of five. Tanzu is not yet a mature product, and it's not present in large environments. It's not widely used at this point in time. So, the professional services team is inexperienced with large setups. They struggle in that area. For a smaller environment, they might do a very good job, but when it comes to a big environment like ours, they're struggling a little.

#### WHAT'S MY EXPERIENCE WITH PRICING, SETUP COST, AND LICENSING?

Its pricing is very competitive. We get around 70% or 75%, sometimes even 80%, discount on the product. I would rate it a four out of five in terms of pricing.

#### WHICH OTHER SOLUTIONS DID I EVALUATE?

One of the reasons why we didn't go for Rancher or any other product is that we are a big VMware virtualization customer. So, it was a natural choice for us. Otherwise, from a product point of view, personally, I would've chosen Rancher over any of the other products.

#### WHAT OTHER ADVICE DO I HAVE?

I would rate it an 8 out of 10 for now.



OpenShift Container Platform review by a real user

## Provides automation that speeds up our process by 30% and helps us achieve zero downtime



DevOps Architect at KIBS

Vlado Velkovski

#### WHAT IS OUR PRIMARY USE CASE?

I'm a DevOps Architect for our on-premises multi-cloud solution. The core business of the company I work for is clearing between all the banks in my country.

We're now in the phase of implementation of major projects for Instant Payments and Open Banking API HUB (PSD2). One of our requirements from solution providers was that the solutions should be "Kubernetes agnostic", so we can deploy the solution on OpenShift, vanilla Kubernetes, etc.

At the same time, for all newly developed in-house applications, we strongly prefer to be able to be deployed on Kubernetes too.

Since we're a small company we need to be efficient and that is why we are implementing automated releases, automatic testing, and CI/CD pipelines using seamless microservices.

When I started using OpenShift, it proved to be a very resilient platform with strengthened security. My responsibility was to build up the whole on-premise private multi-cloud. We designed a practice in GitOps manner so that the source code of all the applications, including the manifests for Kubernetes clusters and the database scripts management, are stored on our private GitHub repository that is used as a single source of truth. At the same time, we realized, that we cannot store sensitive data in GitHub like credentials to other systems, certificates, API keys, etc.

To solve this, we deployed and configured another system place for the secure storage of sensitive data - HashiCorp Vault.

Since we have two data centers, we decided to do multi-cloud deployments in a manner that we don't have one OpenShift cluster stretched across different data centers, but for each data center, we have a separate deployment where both of the OpenShift clusters are connected to the same database and the same external persistent storage. The production databases are not deployed on OpenShift.

We heavily use cloud-native CI/CD pipelines. Practically, there are two cloud-native projects that are supported by RedHat. Tekton is used for Continuous Integration and ArgoCD is used for Continuous Deployment.

Red Hat developed operators for these two tools and we embedded those tools in our day-to-day work. Whenever a developer performs a specific action on GitHub, like Pull Request, separate processes automatically start through the use of webhooks. Then, that source code is built, tested, packaged into a container, pushed to our private docker registry, and deployed to various environments depending on the GitHub branch (dev, test, prod).

We created generic CI/CD pipelines for APIs and databases and by using these pipelines we're speeding up the process of day-to-day deployments, like manually copying files and assigning privileges to various environments. Now, the rest of the staff has more time for more concrete jobs rather than repetitive tasks that are also very prone to errors. We're much more efficient now.

Our developers aren't using CodeReady workspaces and they don't have isolated environments on their laptops, but they do

have access to the OpenShift clusters in a very controlled manner since they're directly deploying the solution via these pipelines to the OpenShift platform.

We're currently using version 4.10. I have also used versions 3.10 and 3.11. We are testing deployment on OpenShift 4.12 too where the Kubernetes version is 1.25+ which brought a lot of major improvements.

#### HOW HAS IT HELPED MY ORGANIZATION?

When there are a handful of APIs and microservices, you can orchestrate them manually and use Docker Swarm. However, when there are dozens of applications consisting of hundreds of microservices, you must use tools for orchestration. That's where Kubernetes comes into play.

When I came to this company all of the deployments to various environments (dev, test, prod) were done manually.

As I said, there are two main types of deployments. One type is the deployment of databases, DB tables, new procedures, new functions, etc.

The other type is the deployment of APIs. For that deployment, my colleagues were manually building the project. They did not use any kind of SCM tool at that moment. When they got the compiled artifacts, like DLL files, they were copying those files to another team. People from that team were picking the files and manually copying them to our web servers.

For databases, it was practically the same. Developers built escrow scripts, and another team deployed the scripts and tested them on a test environment. After successful testing, the third team deployed the scripts to production.

This was a very manual, lengthy, and error-prone process where a lot of things could go wrong.

We now use our private GitHub repository for software development and version control, as well as CI/CD pipelines for both API and database deployment to each environment.

It's a very automatic and predictable process.

Deployment of a new release to the test or production environment is protected, and developers can't deploy a new version any time they want. They need to have approval from the release manager. If the release manager approves the deployment to a specific environment, the pipeline automatically picks up that information and deploys the whole solution.

This control of deployment to a specific environment (four eyes principle) is managed with policies on GitHub.

We have reports in the form of audit logs that show who did what, at what time, and in what environment and we have total control over the production environments.

We have achieved zero downtime on almost all levels, because of the way that OpenShift and the containers work. When a new container is deployed, the old one is still running. When the new one starts and all of the readiness probes work, then the old container is practically terminated. Most of the time, we don't have downtime for some of the manual work.

Using GitHub and CI/CD pipelines, we have avoided a lot of manual work and have sped up the process of deployment of new releases to various environments by at least 30%. Now, we have a more reliable process, which is automatic, and we're avoiding human-prone mistakes during this process.

OpenShift also comes with integrated monitoring. It uses internal metrics collected by Prometheus and Grafana for visualization of those metrics, but you can export all the logs and metrics from OpenShift to another system. You can also transfer the logs and metrics to Elastic Stack using filebeats, metricbeats, and auditbeats, and you can easily monitor the cluster from outside because you need to be on top of it all the time.

When everything goes down, you must intervene quickly and get information very quickly through different channels like Slack, SMS, email, Teams, or chat.

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#### WHAT IS MOST VALUABLE?

Security is the most valuable feature. If you get Vanilla Kubernetes, they lack security. Red Hat OpenShift comes in two flavors. One is OCP, OpenShift Container Platform, for which you need licenses. We're using that for production environments. For developing environments, there is the OKD Community edition of OpenShift.

They're very similar because OCP uses Red Hat CoreOS certified from Red Hat, but the community edition uses Fedora CoreOS. We're trying to deploy applications to be "Kubernetes agnostic" about the underlying infrastructure. Whatever we deploy should work on both OCP and OKD. In that pattern, we're also practically saving on licenses because we use them for the production version of OpenShift only. For development and testing, we use OKD.

Three years ago, deployment of the OpenShift cluster wasn't easy. It required a lot of knowledge of load balancers, networking, DNS and DHCP services, and virtualization. For version 3.11, OpenShift came with Docker as a container's run-time engine. From version 4, Docker was replaced with Podman, which is quite a good approach because Docker needs to run as a daemon with elevated privileges. Podman doesn't require such elevated privileges.

In the beginning, it was very difficult to install OpenShift even by following the documentation. There were some YouTube videos, but we struggled. That installation was named UPI, which stands for user provision infrastructure. That means that you need to deploy your own load balancers to configure them correctly and enter your DNS and domains. Only if everything is configured correctly, the OpenShift cluster will work.

Then, Red Hat came up with a solution. We use virtualization technologies on-premises. We do not use bare metal, so this was a very hard task on VMware, but then Red Hat from version 4.5. updated their installer to use IPI (installation provisioned infrastructure). For day-to-day jobs, we prepared one helper machine from which we can manage, deploy, destroy, and operate multiple clusters from one place. The bare installation of deploying an OpenShift cluster is now an easy task for us.

The stack in the software supply chain is one of the main reasons that we use OpenShift. When I came to this company, we bought hardware from IBM named Bluemix, and they used ICP, which stands for IBM Cloud Private.

Today, you can have Kubernetes on IBM, Amazon, Microsoft, Google, name it. You can also have different installations on various platforms like VMware and Tanzu, which are commercial products. Also, there are some open-source variations of Kubernetes like Rancher and Platform9.

At that point in time, IBM bought Red Hat. They very cleverly recognized that their product, IBM Cloud Private, was an inferior platform to Red Hat and OpenShift, and they invested a lot in Red Hat and in OpenShift. OpenShift is an enterprise-grade standard Kubernetes orchestration system for huge enterprises. There are more flavors of Kubernetes, but I believe OpenShift is practically a standard one, so whether or not you use it on the cloud or on-premises, OpenShift has a huge market share.

Vanilla Kubernetes lacks security. We have role-based access controls to tune and perform grant-level access to specific service accounts, roles and permissions. There is very good isolation between the namespaces. Practically, we have four clusters on-premises for each huge specific production grade system. Two of those clusters run several independent environments that are different from each other on the same clusters (dev, performance, smoke, test). Only production clusters are separate from those. No deployment sees another deployment, so they cannot interfere.

We connected our OpenShift platform with our LDAP, so we also have security that shows who accesses it and what permissions they can perform over the operative clusters and applications that run on them. We have a DevOps team, developers, and infrastructure guys, and there haven't been any complaints so far about the day-to-day usage of OpenShift. I believe all the aspects of security that we need are practically covered from both the user perspective and the application perspective.

Continued from previous page

#### WHAT NEEDS IMPROVEMENT?

OpenShift has a pretty steep learning curve. It's not an easy tool to use. It's not only OpenShift but Kubernetes itself. The good thing is that Red Hat provides specific targeted training. There are five or six pieces of training where you can get certifications. The licenses for OpenShift are pretty expensive, so they could be cheaper because the competition isn't sleeping, and Red Hat must take that into account.

There are a few versions of OpenShift. There is the normal OpenShift and an OpenShift Plus license. Red Hat could think of how to connect those two subscriptions because, with Red Hat Plus, you have one tool called ACM (Advanced Cluster Management), where you can manage multiple clusters from one place. We deployed this functionality by ourselves, but if you don't pay the license for Red Hat OpenShift Plus, you'll lack this functionality. If you have a multi-cloud environment and you have a lot of work to do, it would be a plus if the Red Had OpenShift Plus license came in a bundle with the regular solutions. This ACM tool should be available in the normal subscription, not just the Plus version.

There are new versions on an almost weekly basis. I found myself that the upgrading of OpenShift clusters is not a task that will successfully finish every time. It's a simple and quick, but not reliable process.

That's why we use multiple clusters. We use v4.10.3, but we want to move to v4.12.X. The upgrade process itself can fail, and we don't have backups of our OpenShift cluster because we have backups of all the Kubernetes manifests on GitHub.

We destroy the cluster, bring up a new one quickly, and apply those scripts. The upgrade itself could be more resilient for us as administrators of OpenShift to be sure that it'll succeed and not occasionally fail.

They can improve the reliability of their upgrade process. They also have implementations of some Red Hat-verified operators for a lot of products like Elasticsearch. They're good enough for development purposes, but some of the OpenShift operators still lack resilient production-grade configurations.

Red Hat says that we have a few hundred operators, but I believe that only half of them are production-grade ready at this moment. They need to work much more on those operators to become more flexible because you can deploy all of them in development mode, but when we go to production grade and want to make specific changes to the operator and configuration, we lack those possibilities.

#### FOR HOW LONG HAVE I USED THE SOLUTION?

I have used Red Hat OpenShift for three years.

#### WHAT DO I THINK ABOUT THE STABILITY OF THE SOLUTION?

There are some undocumented features and well-known bugs, and Red Hat is aware of them. I don't know why they haven't been fixed so far. Otherwise, it's a stable product. We use it in production for critical areas, since we learned how to avoid some of the known bugs. Bugzilla is a tool we use to report some of the bugs to RedHat Support.

We usually have initial scripts where we deploy the solution for a new cluster and eliminate or manually fix some of those issues. It's a stable product, but Kubernetes is a platform for making platforms. It gives us the flexibility to easily speed up our

process and not waste manual work. It can be improved in many ways, but that will take some time.

#### WHAT DO I THINK ABOUT THE SCALABILITY OF THE SOLUTION?

The scalability is the main reason why we use OpenShift. We heavily use automatic scalability because we use horizontal and vertical pod auto scalers. When we configure our OpenShift clusters in a way where we defined the required resources for each and every pod and when that pod comes to 80% of CPU or memory usage, the system automatically brings up a new pod.

It can scale up to a certain amount of pods and if there's very heavy utilization of the OpenShift cluster itself, they OpenShift automatically provisions a new worker node for you. We tested it and it works.

When it's required that the system isn't under heavy load, those nodes can be destroyed automatically. It's a very nice feature compared to the monolithic applications and automatic provisioning of the new virtual machine installation and all of the configurations and operating systems. The scalability and orchestration of many containers is the main reason why we use OpenShift.

#### HOW ARE CUSTOMER SERVICE AND SUPPORT?

We contacted support a few times, but it wasn't great. It could be improved a lot.

We contacted them about licensing. It wasn't clear whether it was being done on CPU or an entitlement level because we bought our product from IBM, but IBM bought Red Hat. Still, we struggle with the support because we report our complaints to IBM first, and then IBM redirects us to Red Hat.

About four years ago, IBM bought Red Hat. They still don't have one unified ticket system. You have to buy licenses from Red Hat separately. Although you can buy them from IBM, you need to import those licenses for Red Hat on a separate portal. It requires some overhead from us, which isn't good. There were a few times when we contacted them, and they were quite efficient, but still not enough for us to wait for the OpenShift cluster to be fixed, so we redeployed the cluster.

I would rate technical support a five out of ten.

#### HOW WOULD YOU RATE CUSTOMER SERVICE AND SUPPORT?

Neutral

#### WHICH SOLUTION DID I USE PREVIOUSLY AND WHY DID I SWITCH?

Previously we had mainly monolithic applications and a fair number of APIs running on IIS. In order to be more efficient and resilient we switched to containerized APIs running on OpenShift Kubernetes.

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#### **HOW WAS THE INITIAL SETUP?**

When we initially used ICP IBM private cloud, that platform used something called patterns. We had a pattern for the deployment of OpenShift. At that point in time, we used OpenShift 3.11. In the background, those patterns were practically Ansible scripts simulating UPI installation as IPI. Ansible is a Red Hat product for automatic infrastructure and configuration deployment.

At that time, we had user provision infrastructure, but instead of doing everything manually like provisioning load balancers, configuring them, and putting in the DNS records, those patterns were doing that for us. They were somehow simulating IPA, installation provision infrastructure. Then, we purchased a VxRail platform from Dell, and from there we can do everything on our own.

Starting from OpenShift v4.5. Red Hat, came with IPA installation for VSphere, so we can deploy OpenShift clusters quickly and efficiently on VMware with a few lines of code and a few YAML configuration changes. In the beginning, it was a hard task, but now once you prepare everything, it's a quick and easy task.

Setup depends on how well you're prepared. I prepared a small helper machine and configured it with a lot of tools, and I manage all my clusters from that machine. It has a connection to my GitHub. I have all of my repositories and Kubernetes manifest for various deployments stored on that machine too.

If you're deploying OpenShift for the first time, it can take several hours if everything goes well. When we first performed all of these prerequisites, we imported the VMware certificates and performed all the configurations, and we only needed to change very small details for the new OpenShift cluster. It's usually a few commands, and the installation itself takes approximately 40-60 minutes.

After initial installation, it takes approximately another 30-40 minutes to configure a freshly deployed OpenShift cluster. In about hour and a half, I can deploy any cluster with all the applications and configurations running, assuming that we have everything prepared, and stored on GitHub.

As I said, we rarely contact Red Hat support because we use GitOps practices. For High Availability, we always have at least two clusters in two different data centers and in case we cannot fix the cluster itself within 30 minutes we recreate it from scratch. In front of the OpenShift clusters there are few clustered load balancers. If one cluster is down, the traffic goes to another cluster.

#### WHAT OTHER ADVICE DO I HAVE?

I would rate OpenShift an eight out of ten.

My advice to new users is to try OpenShift Container Distribution. You can try to deploy some applications from source code or a Docker container. That product is free, so you don't need to pay anything. If you want to try the real thing, Red Hat offers a 60-day trial so you can install Red Hat OpenShift on-premises on a virtualization platform or on bare metal.

After each trial period, if no license is activated in the cluster you are losing the ability for upgrading the cluster. The good thing is that anybody can try it, but it's very different if you use OpenShift in the cloud or on-premises. On-premises, you can use whatever you want. You can use a few laptops and desktops or you can have a virtualization platform, but you should always check the documentation and see whether that platform is supported.

The first steps are always hard. You must go through the documentation and learn how to set it up and how to make the first installation. When you make the first installation, it's a lot easier, but it's not only the installation of OpenShift itself. It's the Day-

2 Operation activities, how to monitor the OpenShift cluster, how to deploy workloads, and how to automate the workload deployment. It's a steep learning curve, but we have seen great satisfaction from our colleagues. It's good to invest in this knowledge.

Red Hat has OpenShift.TV, which is a YouTube channel where they discuss new ideas, tips, and tricks once or twice a week. I contacted a few Red Hat ambassadors that I saw in those YouTube videos. I was surprised when I received a response from them within 24 hours. It helped me a lot.

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On-premises

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## Researched Red Hat But Chose VMware

#### Review by a real user:



Cloud Architect at a computer software company with 501-1,000 employees

reviewer1579479

#### WHAT IS OUR PRIMARY USE CASE?

We are interested in using this solution as a Container as a Service (CaaS).

#### WHAT IS MOST VALUABLE?

The multi-tenancy with the VCD is great.

#### WHAT NEEDS IMPROVEMENT?

This product doesn't have a GUI. In order to use it properly, I need to connect it to a new GUI or build a GUI to manage it — it's pretty difficult.

This solution should come in a suite including other solutions like Grafana and Prometheus.

#### FOR HOW LONG HAVE I USED THE SOLUTION?

I have only been using this solution for a couple of weeks; I am just testing it out.

#### HOW ARE CUSTOMER SERVICE AND TECHNICAL SUPPORT?

As we don't have a license, we don't receive customer support.

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HOW WAS THE INITIAL SETUP?
The initial installation could be easier — it's complex.
WHAT ABOUT THE IMPLEMENTATION TEAM?
I installed this solution by myself.
WHICH OTHER SOLUTIONS DID I EVALUATE?
Currently, I am evaluating Rancher and OpenShift.
WHAT OTHER ADVICE DO I HAVE?
At this point in time, I would give this solution a rating of seven out of ten.
WHICH DEPLOYMENT MODEL ARE YOU USING FOR THIS SOLUTION?
Public Cloud
IF PUBLIC CLOUD, PRIVATE CLOUD, OR HYBRID CLOUD, WHICH CLOUD PROVIDER DO YOU USE?
Other

## Researched VMware But Chose Red Hat

#### Review by a real user:



Corporate Engineering Manager at a consultancy with 5,001-10,000 employees

reviewer1560270

#### WHAT IS OUR PRIMARY USE CASE?

I mainly use Container Platform for hosting and orchestrating our internal application.

#### WHAT IS MOST VALUABLE?

The best feature is the management for the port life cycle, which automatically recycles, pulls, and scales up and down based on needs and requests.

#### WHAT NEEDS IMPROVEMENT?

Container Platform could be improved if we could aggregate logs out of the box instead of having to do it through integrations with other products.

#### FOR HOW LONG HAVE I USED THE SOLUTION?

I've been using OpenShift Container Platform for a year.

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WHAT DO I THINK ABOUT THE SCALABILITY OF THE SOLUTION?
Container Platform is scalable.
HOW WAS THE INITIAL SETUP?
The initial setup was easy, and deployment on the cloud took around an hour.
WHAT ABOUT THE IMPLEMENTATION TEAM?
We implemented using a vendor team.
WHAT'S MY EXPERIENCE WITH PRICING, SETUP COST, AND LICENSING?
The pricing is a bit more expensive than expected - it's moderately expensive.
WHICH OTHER SOLUTIONS DID I EVALUATE?
We also evaluated open-source Kubernetes, VMware Tanzu, and VMware.
WHAT OTHER ADVICE DO I HAVE?

I would advise anybody thinking of implementing OpenShift Container Platform to get trained before using it because there

are some tricks you need to learn hands-on. I would rate this solution seven out of ten.

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#### WHICH DEPLOYMENT MODEL ARE YOU USING FOR THIS SOLUTION?

Hybrid Cloud

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## Researched VMware But Chose Red Hat

#### Review by a real user:



CEO at Prodevans Technologies

DeepakMishra

#### WHAT IS OUR PRIMARY USE CASE?

Our company supports most of the banks in India. We use four kinds of solutions broadly categorized as UPI and IPI deployed on AWS called ROSA and on Azure called ARO.

#### WHAT IS MOST VALUABLE?

The most valuable features of OpenShift are the advanced cluster manager and advanced cluster security with the StackRox.

#### WHAT NEEDS IMPROVEMENT?

OpenShift needs to improve their container storage. In the next release of OpenShift I would also like to see simplification of Calico BGP with the container network and integration with MinIO, Portworx, and Rubrix.

#### FOR HOW LONG HAVE I USED THE SOLUTION?

I have been using OpenShift Container Platform since 2016.

than VMware.

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WHAT DO I THINK ABOUT THE STABILITY OF THE SOLUTION?
OpenShift is a stable solution.
WHAT DO I THINK ABOUT THE SCALABILITY OF THE SOLUTION?
The platform is easy to scale as it supports Windows worker node.
HOW ARE CUSTOMER SERVICE AND SUPPORT?
Technical support at Red Hat is good.
HOW WOULD YOU RATE CUSTOMER SERVICE AND SUPPORT?
Positive
HOW WAS THE INITIAL SETUP?
The initial setup of OpenShift is straightforward.
WHICH OTHER SOLUTIONS DID I EVALUATE?
When I compare the platform's deployment to other solutions like Kubernetes, OpenShift is good. When comparing with

Rancher or VMware Tanzu, OpenShift is better than both. Specifically, the support and documentation of OpenShift is better

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#### WHAT OTHER ADVICE DO I HAVE?

I would rate OpenShift an 8 out of 10 overall.

#### WHICH DEPLOYMENT MODEL ARE YOU USING FOR THIS SOLUTION?

Hybrid Cloud

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## Vendor Directory For Container Management

Amazon	Amazon Elastic Container Service
Amazon	Amazon EKS
Cisco	Cisco Container Platform
ContainerShip	ContainerShip
Diamanti	Diamanti
Docker	Docker
F5	NGINX Ingress Controller
Google	Google Container Engine
Google	Google Kubernetes Engine
Gravitational	Gravity
HashiCorp	HashiCorp Nomad
Hewlett Packard Enterprise	HPE Ezmeral Container Platform
Komodor	Komodor

Kubernetes	Kubernetes
Mirantis	Mirantis Container Runtime
Nutanix	Nutanix Kubernetes Engine NKE
Portainer	Portainer
Quest Software	Quest Foglight Container Management
Rancher Labs	Rancher Labs
Red Hat	OpenShift Container Platform
Replicated	Replicated
StackPath	StackPath Edge Computing Containers
VMware	VMware Tanzu Mission Control
VMware	VMware Tanzu Build Service
Weaveworks	Weaveworks

## Top Container Management Vendors

Over professionals have used PeerSpot research. Here are the top vendors based on product reviews, ratings, and comparisons. All reviews and ratings are from real users, validated by our triple authentication process.

#### **Chart Key**



#### Bar length

The total ranking of a product, represented by the bar length, is based on a weighted aggregate score. The score is calculated as follows:

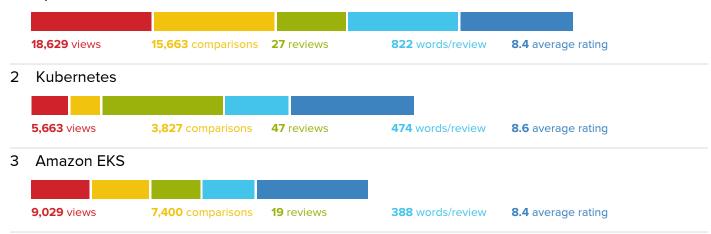
For each ranking factor of **Reviews**, **Views**, and **Comparisons**, the product with the highest count in each ranking factor gets a maximum 18 points. Every other product gets assigned points based on its total in proportion to the #1 product in that ranking factor. For example, if a product has 80% of the number of reviews compared to the product with the most reviews then the product's points for reviews would be 18 \* 80% = 14.4.

Both **Rating** and **Words/Review** are awarded on a fixed linear scale. For Rating, the maximum score is 28 points awarded linearly between 6-10 (e.g. 6 or below=0 points; 7.5=10.5 points; 9.0=21 points; 10=28 points). For Words/Review, the maximum score is 18 points awarded linearly between 0-900 words (e.g. 600 words = 12 points; 750 words = 15 points; 900 or more words = 18 points). If a product has fewer than ten reviews, the point contribution for Rating and Words/Review is reduced: 1/3 reduction in points for products with 5-9 reviews, two-thirds reduction for products with fewer than five reviews.

Reviews that are more than 24 months old, as well as those written by resellers, are completely excluded from the ranking algorithm.

All products with 50+ points are designated as a Leader in their category.

#### 1 OpenShift Container Platform



#### 4 VMware Tanzu Mission Control



## Top Container Management 5 Solutions by Ranking Factor

#### Views

		VIEWS
1	OpenShift Container Platform	18,629
2	VMware Tanzu Mission Control	17,612
3	Rancher Labs	9,437
4	Amazon EKS	9,029
5	Nutanix Kubernetes Engine NKE	5,848

#### Reviews

		REVIEWS
1	Kubernetes	47
2	OpenShift Container Platform	27
3	Docker	22
4	Amazon EKS	19
5	Google Kubernetes Engine	10

#### Words / Review

		WORDS / REVIEW
1	OpenShift Container Platform	822
2	Google Kubernetes Engine	701
3	Amazon Elastic Container Service	612
4	VMware Tanzu Mission Control	485
5	Kubernetes	474

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## About this report

This report is comprised of a list of enterprise level Container Management vendors. We have also included several real user reviews posted on peerspot.com. The reviewers of these products have been validated as real users based on their LinkedIn profiles to ensure that they provide reliable opinions and not those of product vendors.

## **About PeerSpot**

The Internet has completely changed the way we make buying decisions. We now use ratings and review sites to see what other real users think before we buy electronics, book a hotel, visit a doctor or choose a restaurant. But in the world of enterprise technology, most of the information online and in your inbox comes from vendors but what you really want is objective information from other users.

We created PeerSpot to provide technology professionals like you with a community platform to share information about enterprise software, applications, hardware and services.

We commit to offering user-contributed information that is valuable, objective and relevant. We protect your privacy by providing an environment where you can post anonymously and freely express your views. As a result, the community becomes a valuable resource, ensuring you get access to the right information and connect to the right people, whenever you need it.

PeerSpot helps tech professionals by providing:

- A list of enterprise level Container Management vendors
- A sample of real user reviews from tech professionals
- Specific information to help you choose the best vendor for your needs

#### Use PeerSpot to:

- Read and post reviews of vendors and products
- Request or share information about functionality, quality, and pricing
- Contact real users with relevant product experience
- Get immediate answers to questions
- Validate vendor claims
- Exchange tips for getting the best deals with vendors

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