

Service Overview

Rackspace Managed Platform for Kubernetes

Powered by  **PLATFORM9**

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Rackspace Technology is the multicloud solutions expert. We combine our expertise with the world's leading technologies — across applications, data and security — to deliver end-to-end solutions. We have a proven record of advising customers based on their business challenges, designing solutions that scale, building and managing those solutions, and optimizing returns into the future.

As a global, multicloud technology services pioneer, we deliver innovative capabilities of the cloud to help customers build new revenue streams, increase efficiency and create incredible experiences. Named a best place to work, year after year according to Fortune, Forbes, and Glassdoor, we attract and develop world-class talent to deliver the best expertise to our customers. Everything we do is wrapped in our obsession with our customers' success — our Fanatical Experience™ — so they can work faster, smarter and stay ahead of what's next.

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Overview

Rackspace Managed Platform for Kubernetes (MPK) Powered by Platform9 is an opinionated deployment of Kubernetes in addition to the Cloud Native Computing Foundation (CNCF) components as described in the section titled [Rackspace Kubernetes Stack](#).

All components are deployed using known best practices and leverage programmatic management (infrastructure-as-code, API-driven modification, etc.) in order to facilitate integration at any phase into automated workstreams. The service and all associated resources are delivered by a [Rackspace Kubernetes Pod](#) — a specialized team consisting of CKA-certified engineers, a Lead Architect (LA), and an Engagement Manager (EM). Below is a high-level summary of the services included with the offering — all of which are more thoroughly detailed in the [Service Overview portion](#) of this document.

- **Design and Deployment:** We will design and deploy our complete [Rackspace Kubernetes Stack](#) on the public or private cloud platform of your choice using best practices and automation*
- **Kubernetes Operations Management:** We will manage ongoing activities such as upgrades, incident response and problem management
- **Performance Optimization:** We will optimize the solution for performance and take proactive measures in preparation for planned events
- **Security Management:** We will ensure cloud and Kubernetes security practices are assessed and applied according each customer's individual needs

Rackspace Kubernetes Stack

The Rackspace Kubernetes Stack provides customers with a consistent set of technologies across all their clusters for repeatable and scalable deployments.

At the core of the stack, you'll find three different categories of applications:

Infrastructure applications: Fully integrated into MPK's software with one-click deployments and managed upgrades.

Certified applications: Deployable through MPK's software, but integration is more limited with lifecycle activities managed by Rackspace and the customer.

Catalog applications: Commonly open source and limited to community support. We deliberately defined this category because we realize that no two customers are alike and it's critical that MPK allows for some level of customization.

Category	Technology/Service	Infrastructure	Certified	Catalog
IaC, CI/CD	Terraform	●		
	Spinnaker			●
Kubernetes as a Service	AWS Elastic Kubernetes Service (EKS)	●		
	Rackspace Kubernetes on Bare Metal (RPC-K)	●		
	Kubernetes Dashboard	●		

Category	Technology/Service	Infrastructure	Certified	Catalog
Metrics Collection, Logging, Alerting & Visualization	Prometheus	●		
	Alertmanager	●		
	Grafana	●		
	Metrics Server	●		
	Fluentd			●
Image Management & Registry Services	AWS Amazon Machine Image (AMI)	●		
	Customer-supplied AMI			●
	AWS Elastic Container Registry (ECR)	●		
	Harbor			●
Ingress & Service Mesh	AWS ALB Ingress Controller for EKS	●		
	Nginx Ingress Controller			●
	MetallB	●		
	CoreDNS	●		
	Istio			●
Package Management	Helm	●		
Identity, Security & Conformance	OpenID Connect (OIDC)	●		
	Calico Network policies	●		
	Sonobuoy			●
Storage & Backup	AWS EBS Container Storage Interface (CSI) Driver	●		
	AWS EFS CSI Driver	●		
	NetApp CSI Driver	●		
	Velero			●

Rackspace Kubernetes Stack is continually evolving with technologies graduating from Catalog to Certified to Infrastructure on a quarterly basis. Please speak with your EM for the latest roadmap details.

Customer Service Experience

MPK offers customers who purchase Kubernetes management and support services the opportunity to engage with the dedicated team of Rackspace Technology cloud experts assigned to the customer's account. The supporting team is organized into a group known as a pod, and the customer always works with the same pod during business hours, which provides continuity as pod members become more familiar with the customer and the customer's business.

Rackspace Kubernetes Pod Model

A Rackspace Kubernetes pod possesses the following characteristics:

A pod includes a small group of CKA-certified engineers, an LA, and an EM who work together as a unit.

Consistent team structure: Pod members have been working together long-term across multiple clients and projects.

Shared knowledge and resources: Pod members create and share resources, platform tools and frameworks across the team. Customers benefit from this collective knowledge.

A Rackspace Kubernetes Pod consists of team members in the following roles:

- **Engagement Manager (EM):** The EM owns the proactive business relationship with the customer through a combination of account management, change management and incident management responsibilities. They are ultimately accountable for the successful delivery of services to the customer.
- **Senior CKA Engineer (SCKA):** The SCKA owns the proactive technical relationship with the customer through the identification and implementation of new features and services. With a deep understanding of a customer's environment and unique requirements, the SCKA also serves as a senior escalation point for the JCKAs and assumes responsibility for the resolution of all L3 issues.
- **Junior CKA Engineer (JCKA):** The JCKA is responsible for the reactive technical troubleshooting and resolution of all L1/L2 issues. They're certified in Kubernetes, but can also assist with general platform questions and issues.
- **Lead Architect (LA):** The LA owns all design and deployment activities related to MPK and the Rackspace Kubernetes Stack. They work closely with the Engagement Manager and Engineers to help ensure the customer's technical and business needs are met over the lifetime of the engagement.

Onboarding

All MPK customers are assigned to a [Rackspace Kubernetes Pod](#), a specialized group of experts who work with the Customer throughout their journey from design and deployment all the way through to production. During the onboarding phase, the pod's EM is the primary point of contact for key communications and activities related to the deployment.

For every MPK customer, Rackspace Technology will:

- Assign an EM to coordinate end-to-end activities and project manage the MPK deployment
- Assign a lead architect (LA) to assess the customer's requirements and create a high-level design for customer approval
- Provide a detailed design describing the technical details of the proposed solution — this document is shared with the customer, who is given an opportunity to accept the detailed design
- Assign a Senior CKA Engineer (SCKA) to deploy the environment as per the accepted detailed design document

Service Overview

Purpose

Our Managed Platform for Kubernetes service was designed to provide high-value services pertinent in managing Kubernetes deployments at scale. The service enables customers to collaborate side-by-side with highly skilled Rackspace Technology experts to build, optimize and maintain their Kubernetes environments.

Objectives and Guiding Principles

MPK's supporting teams operate according to the following guiding principles:

- Pod-based teams, offering a shared resource model
- IaC-based deployment methodology with emphasis on partnering with the customer's internal operations and development teams
- Emphasis on enablement, automation and transformation
- Build a practice of ongoing innovation, rather than focus on break/fix
- Continually seek to adopt new services and technologies that accelerate the customer's cloud native journey

Overall Partnership Governance Structure

The EM is the customer's primary point of contact and is responsible for account management, change management and incident management processes.

The EM works directly with other members of their pod, chiefly the SCKA and LA, to provide regular touchpoints and reporting on behalf of the customer.

Standard touchpoints and reports include:

- **Platform upgrade assistance planning:** Rackspace Technology identifies and then carries out upgrade opportunities for all services and technologies in the Infrastructure and Certified Application categories within the [Rackspace Kubernetes Stack](#).
- **Performance optimization:** Rackspace Technology optimizes for performance and then maintains performance targets through routine audits and adjustments. An output of these activities is available as a standard report for customers to consume.
- **Conformance enforcement:** Rackspace Technology continually tests for and then corrects deviations in a customer's cluster against agreed-upon standards. All conformance enforcement activities are then made available via a standard report for customers to review.
- **Security management:** Rackspace Technology employs architectural best practices to secure the deployment and operation of your Kubernetes environment. Through timely upgrades, sound identity posture, container image scanning, runtime security and network protection, the Managed Platform for Kubernetes service takes a comprehensive approach to help ensure your environment remains tenable.

Scope of Management

Design and Deployment

- We will design and deploy our complete [Rackspace Kubernetes Stack](#) on the desired Cloud platform.
- Kubernetes infrastructure (control plane and associated worker nodes)
- Cluster autoscaler
- Monitoring solution
- Centralized logging solution
- Framework for deploying applications on Kubernetes (a basic Application Catalog structure to which customers can add their own applications)
- Container registry
- Service mesh solution
- Ingress controllers

Operations Management

- Automated deployments of the entire stack using infrastructure as code principles and tooling
- Optional self-serviceability: Customers can access any infrastructure-as-code templates used in order to modify as their own version
- Deployment and updates happen through Rackspace Technology-managed automation pipelines, which can be triggered by the customer via API for integration with their own automated processes

Monitoring, Alerting and Response

Comprehensive Cloud Management Platform

Rackspace Technology uses tools to manage, monitor and maintain environments. Licenses to these tools used in the standard delivery of the service are included with MPK. These tools include:

- Rackspace Technology Customer Portal
- Rackspace Technology intellectual property designed for automation, self-healing and management of cloud environments
- Rackspace Technology monitoring, logging and alerting tools

If a customer requests that Rackspace Technology use additional or alternative tools, the customer must provide Rackspace Technology with applicable licenses and be mindful that supportability of non-standard tools implies abbreviated support guarantees per the [Rackspace Kubernetes Stack](#) section of this document.

Monitoring, Alerting and Incident Management

To measure the availability, performance and utilization of a customer's environment, Rackspace Technology monitors MPK's key services using industry-standard monitoring tools. Rackspace Technology configures and manages alarm thresholds and automates the creation of incidents in the Rackspace Customer Portal.

The responses by Rackspace Technology to incidents reported in the [Rackspace Customer Portal](#) tool are governed by MPK's [SLA response time guarantees](#).

The initial deployment of monitoring agents, architectural changes to support monitoring, and the resolution of monitoring-related defects are all examples of activities owned by the [Rackspace Kubernetes Pod](#) as a part of the MPK service.

All technologies and services listed in the Infrastructure category of the [Rackspace Kubernetes Stack](#) benefit from MPK's full support, troubleshooting and alert response capabilities

Platform Upgrade Assistance

Rackspace Technology guarantees the following resources will be upgraded within 120 days of an end-of-life event for all customers who maintain a qualified environment configuration.*

- Kubernetes cluster
- Worker nodes
- Monitoring platform
- Logging platform

* A qualified environment configuration is defined, at a minimum, as having a production and non-production environment. Customers without a separate non-production environment will still receive upgrade support, but Rackspace Technology cannot guarantee the SLA.

Conformance Enforcement

Rackspace Technology will ensure the clusters are CNCF conformant and provide tools for end-to-end conformance testing. In addition to Kubernetes conformance, Rackspace Technology will also ensure that the cloud platform conforms to cloud best practices and that the cluster is suitable for running standard application workloads.

Performance Optimization

Rackspace Technology will work with the application teams to optimize for performance and then maintain performance targets through routine audits and adjustments. Where applicable, suitable tools will be deployed to automate analysis and recommendations.

Security Management

- Architectural best practices for secure deployment and operation
- Timely security and version upgrades
- Advise on Cloud Identity and Kubernetes RBAC best practices
- Advise on container image scanning setup and integration into the deployment pipeline
- Advise on runtime protection using Kubernetes pod security policy or equivalent protection mechanism
- Advise on network protection using cloud-provider controls and Kubernetes network policy add-ons

Customer Interactions

Rackspace Technology Customer Portal

Rackspace Technology provides customers who have purchased MPK access to a customer portal that can be used to manage tickets and incidents.

Ticketing Process

One of the primary ways that customers can interact with Rackspace Technology is by creating a ticket in the Rackspace Technology Customer Portal. Once logged in, click the “Tickets” button from the menu to create a new ticket or view an existing ticket. Rackspace Technology automated systems will also create tickets for events on your account that require either your attention or the attention of a Rackspace Technology employee. Customers can also call our 24x7x365 support team at any time.

Incident response: Rackspace Technology will respond to customer support requests in the timeframes outlined in the [Service Level KPI/PI Measures section](#).

Service Level KPI/PI Measures

MPK is backed by a response time guarantee related to Rackspace Technology response to incidents (also known as a Service Level Agreement, or “SLA”). For the avoidance of doubt, the SLA does not apply to non-technical requests. Such non-technical requests will be scheduled collaboratively by Rackspace Technology and the customer.

Description	Target response — Initial Response Time
Urgent	
An incident that impacts customer’s use of the Kubernetes Stack in a production environment such that customer’s business operations are halted with no existing procedural workaround.	15 minutes
High	
An incident that impacts customer’s use of the Kubernetes Stack in a production environment such that customer’s business operations are substantially reduced with no existing procedural workaround.	1 hour
Normal	
An incident that impacts customer’s use of the Kubernetes Stack in a production environment, QA, or staging environment such that customer experiences only a partial, non-critical loss in business operations.	1 business hour
Low	
Any non-technical request (such as billing inquiry or administrative change) and/or an incident that results in low or no impact to customer’s business or the functionality of customer’s Kubernetes Stack, possibly through use of an existing procedural workaround.	1 business day

Description	Target response — Initial Response Time
Platform upgrade guarantee	
<p>Rackspace Technology guarantees an upgrade path will be available for all customers who maintain a qualified environment configuration.</p> <ul style="list-style-type: none"> • Kubernetes Cluster • Worker nodes • Monitoring platform • Logging platform <p>A qualified environment configuration is defined, at a minimum, as having a production and non-production environment. Customers without a separate non-production environment will still receive upgrade support, but Rackspace Technology cannot guarantee the 90-day SLA.</p>	<p>90 days from the release of a new version for side by side upgrades 120 days from the release of a new version for in-place upgrade.</p>

For the purpose of the SLA, business hours are defined as Monday through Friday, 8:00 a.m. to 5:00 p.m. Pacific Time, excluding public holidays in the United States. Rackspace Technology will make every reasonable attempt to resolve incidents and will continue to work through an incident until stabilization or until directed otherwise by the customer. SLAs only apply for the two most recent versions of Kubernetes. SLAs do not apply to versions that are deemed end of life.

If Rackspace fails to meet the initial response time, customer is eligible for a credit of \$250 per event, up to 100% of customer's then current monthly recurring support fee for the affected part of the service.

Credit Request: Customer must request a credit through customer's Rackspace Technology account within seven days following the event giving rise to the credit. Such credits may only be applied against future purchase of these services from Rackspace Technology. Customer's sole and exclusive remedy for unavailability, non-performance, or other failure of these services is the receipt of a credit pursuant to the terms of this section.

Eligibility: Customer is not eligible for a credit if the event giving rise to the credit occurred because of the unavailability of any tool comprising the Kubernetes Stack or because of Rackspace Technology's inability to access any portion of the Kubernetes Stack or the Management Plane, if such unavailability or inaccessibility is caused by a party other than Rackspace Technology. Customer is not eligible for a credit if customer is in breach of the agreement at the time of the event giving rise to the credit. Customer is not eligible for a credit during the on-boarding phase of these services.