PLATFORM9

Platform9 Managed Kubernetes (PMK)

Offload cluster management and focus on your apps

Solution Brief

PMK SaaS centrally manages complex Kubernetes deployments on-premises, in public clouds, and at the edge. It remotely monitors, optimizes, and heals your clusters and underlying infrastructure so you can confidently run production-grade Kubernetes anywhere.

Fast deployments

Spin up a test cluster in under five minutes on a VM, physical server, or in the cloud. Use our advanced capabilities for production clusters such as self-service, auto-provisioning of bare metal servers, a built-in virtualization layer to deploy PMK on VM nodes, and more. Or, deploy and scale your clusters in public clouds using our native integrations.

Remote monitoring

Let our centralized SaaS management plane remotely monitor cluster upgrades and overall health 24/7/365 with automatic alerts for critical issues. Prometheus and Grafana are automatically set up during your cluster deployment to provide cluster, node and pod metrics in a single view. Cluster issues are proactively auto-corrected and your Ops

team is notified of problems related to your physical infrastructure.

Easy upgrades and security updates

Access the latest Kubernetes features faster with one-click upgrades to the latest upstream distribution. Or, stay on a stable version via our multi-version support. PMK maintains security with automatic security patches when there is a new cybersecurity vulnerability exposure (CVE) record.

Full compatibility with existing tools

PMK handles all aspects of Kubernetes integration – from built-in monitoring that integrates with your Slack channels and SSO provider to automatically forwarding logs to your aggregator. It is a complete platform with enterprise-ready features and integrations to run production Kubernetes at scale.

Enterprise-grade SLA

PMK is the first service in the industry to offer a financially-backed 99.9% uptime SLA for Kubernetes clusters running on-premises, in public clouds, and at the edge. Metrics, responsibilities, and expectations are clear with customized SLAs aligned to business objectives.

Experienced Kubernetes experts available 24/7/365

Our customer success team maintains a consistent 99.9% CSAT rating, supporting those just getting started with Kubernetes through to large enterprises with business and mission-critical 24/7/365 operations. 100% of our support team are Certified Kubernetes Administrators (CKA).

> *"To get our products to market quickly, the last thing we needed to worry about was running Kubernetes 24x7, managed, maintained, and upgraded. Platform9 solved that problem for us with their SLA-backed managed service."*
>
> *— Ravi Ravichandran, VP, Juniper Networks*

JUNIPER NETWORKS   Kingfisher   REDFIN   MAVENIR   Snapfish   CLOUDERA
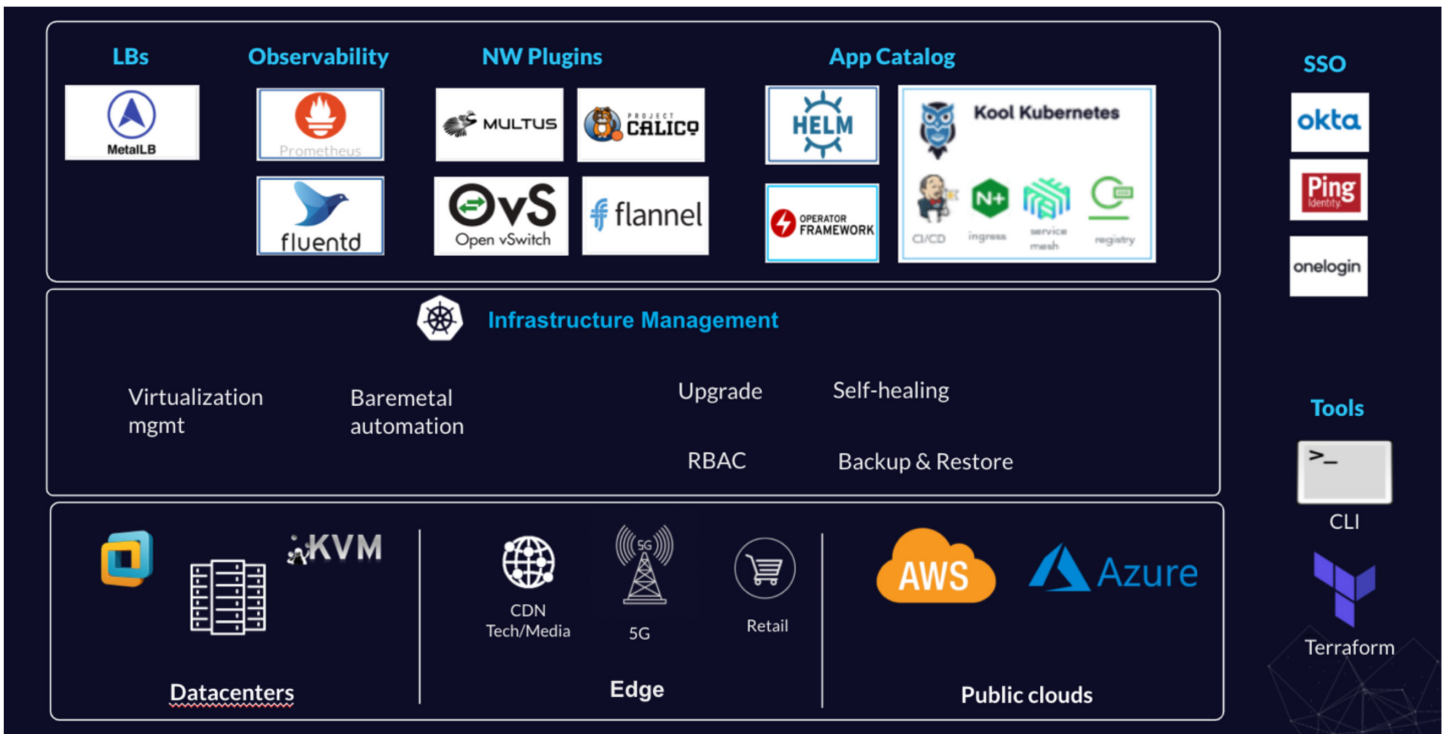
Use Cases

- **CI/CD** — Accelerate development cycles by leveraging native integration between your CI/CD system and Kubernetes. Use our certified recipes for deploying Jenkins, CircleCI, and ArgoCD on top of PMK.

- **Web applications** — Build web applications that run in a secure, highly available manner and scale up and down automatically. Use our out-of-the-box integrations for service load balancers, network policies, security, and persistent storage to run your applications reliably.

- **Machine learning** — Efficiently run your machine learning workflow software such as Kubeflow on large datasets using PMK running on-premises for cost efficiency. Burst to public clouds by creating a multi-cluster hybrid environment on PMK.

- **ISV application delivery** — Deploy your containerized app directly to tens of thousands of edge customer locations. Make fast and frictionless updates using remote upgrade and update capabilities.

- **Retail edge** — Fully automate your store deployment end-to-end using PMK on top of our remote Managed Bare Metal capability.

- **Telco/5G edge** — Fully automate deployment of vRAN software at tens of thousands of cell towers using PMK's remote management combined with our Managed Bare Metal capability. Leverage our advanced telco-optimized networking stack to efficiently run NFV and vRAN workloads at any scale.

System Requirements

Master nodes
- Linux OS (Ubuntu/CentOS)
- 3 physical servers (recommended) — CPU: 4 cores; RAM: 8GB; storage: 30GB
- Networking — NIC with PXE boot enabled attached to the provisioning network; application and Ops NIC attached to any network

Worker nodes
- CPU: 2 cores; RAM: minimum 8GB, tuned based on cluster workloads

Network
- Provisioning: A dedicated flat network for bare metal nodes orchestration utilizing IPMI
- Management (optional): a dedicated network for controller configuration
- Bare metal nodes — support for IPMI and PXE boot
- Networking — NIC with PXE boot enabled attached to the provisioning network; application and Ops NIC attached to any network