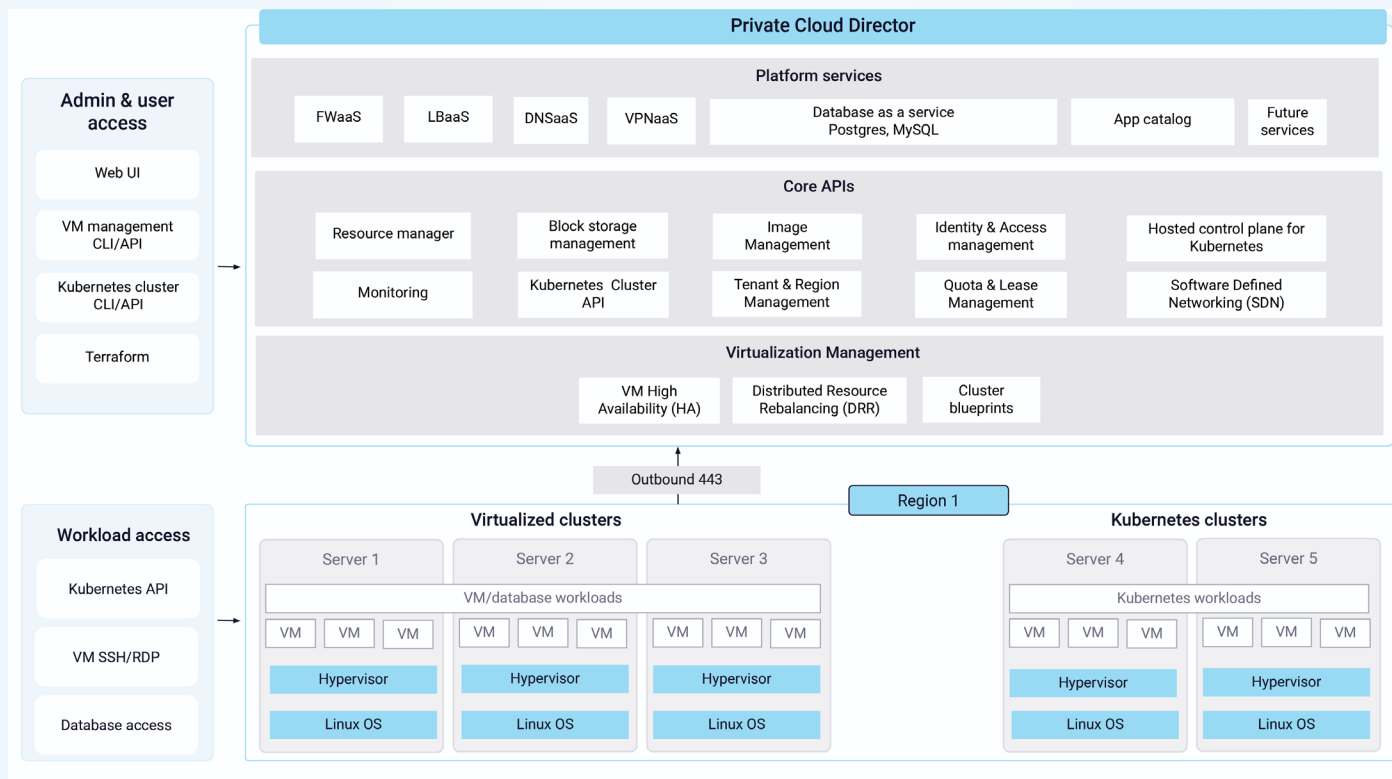# PLATFORM9

Solution Brief

Migrate from VMware to Platform9

Executive Summary

Large enterprises are migrating their existing data-center infrastructure to Platform9. Founded in 2013 by early VMware engineers, with >$100m in venture funding and marquee enterprise deployments, Platform9 provides a modern private cloud:

Private Cloud Director: Comprehensive VMware alternative

- VMware like clusters, with robust VM Live Migration, VM High Availability and Cluster Rebalancing.

- Seamless integration with existing storage, network and server infrastructure.

- Familiar user experience for experienced Virtualization administrators.

- Automated migration of running VMs with Project #vJailbreak.

- Modern, developer friendly features: Self-service, Terraform based blueprints, Kubernetes and Platform Services.

VMware like clusters, with VM Live Migration, VM High Availability and Cluster Rebalancing

Private Cloud Director (PCD) uses the same KVM Hypervisor technology trusted by the world's largest cloud providers. PCD provides KVM clusters with the critical features valued by large scale VMware deployments:

Live Migration
Pre-migration compatibility checks, highly performant live migration, with or without shared storage.
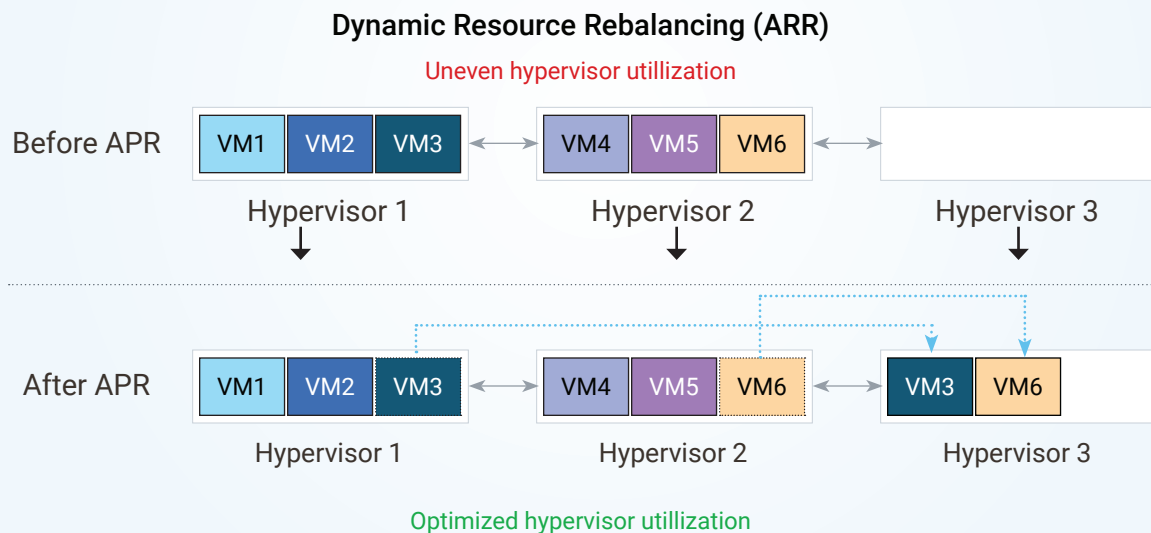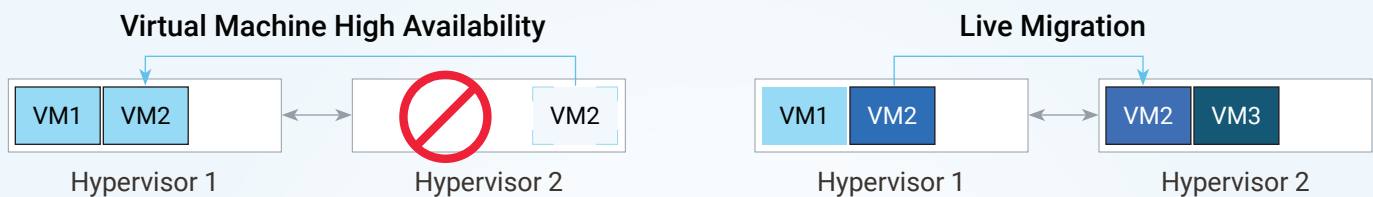
VM High Availability
Clusters automatically detect a server failure and recover affected VMs on other available hosts in the cluster.

Cluster Rebalancing
Dynamic rebalancing of clusters to distribute memory and CPU load evenly across available hosts, while optimizing workload performance.

Virtual Machine High Availability

Live Migration

Dynamic Resource Rebalancing (ARR)

Uneven hypervisor utillization

Before APR — Hypervisor 1, Hypervisor 2, Hypervisor 3

After APR — Hypervisor 1, Hypervisor 2, Hypervisor 3
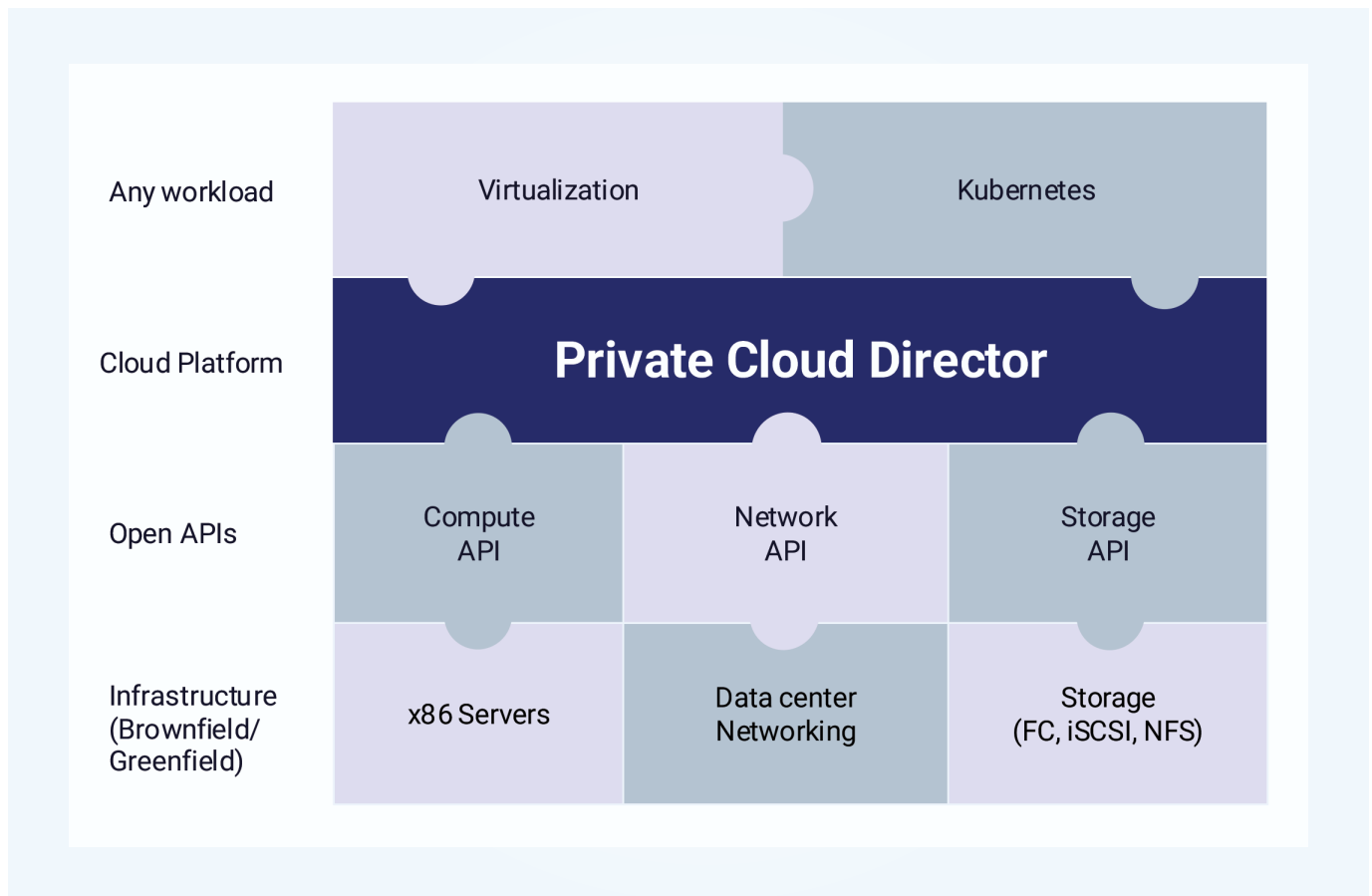
Optimized hypervisor utillization

Seamless integration with existing storage, network and server infrastructure

PCD works with existing data-center infrastructure and does not require investments in new compute, storage or networks.

Compute: Any x86 server that is compatible with Ubuntu 22.04 or VMware vSphere is supported.

Storage: Provision storage using a vVol like architecture, using the open-source Cinder API from the OpenStack community. This means that virtually all major existing enterprise storage environments are supported, NFS or block; iSCSI or FC.
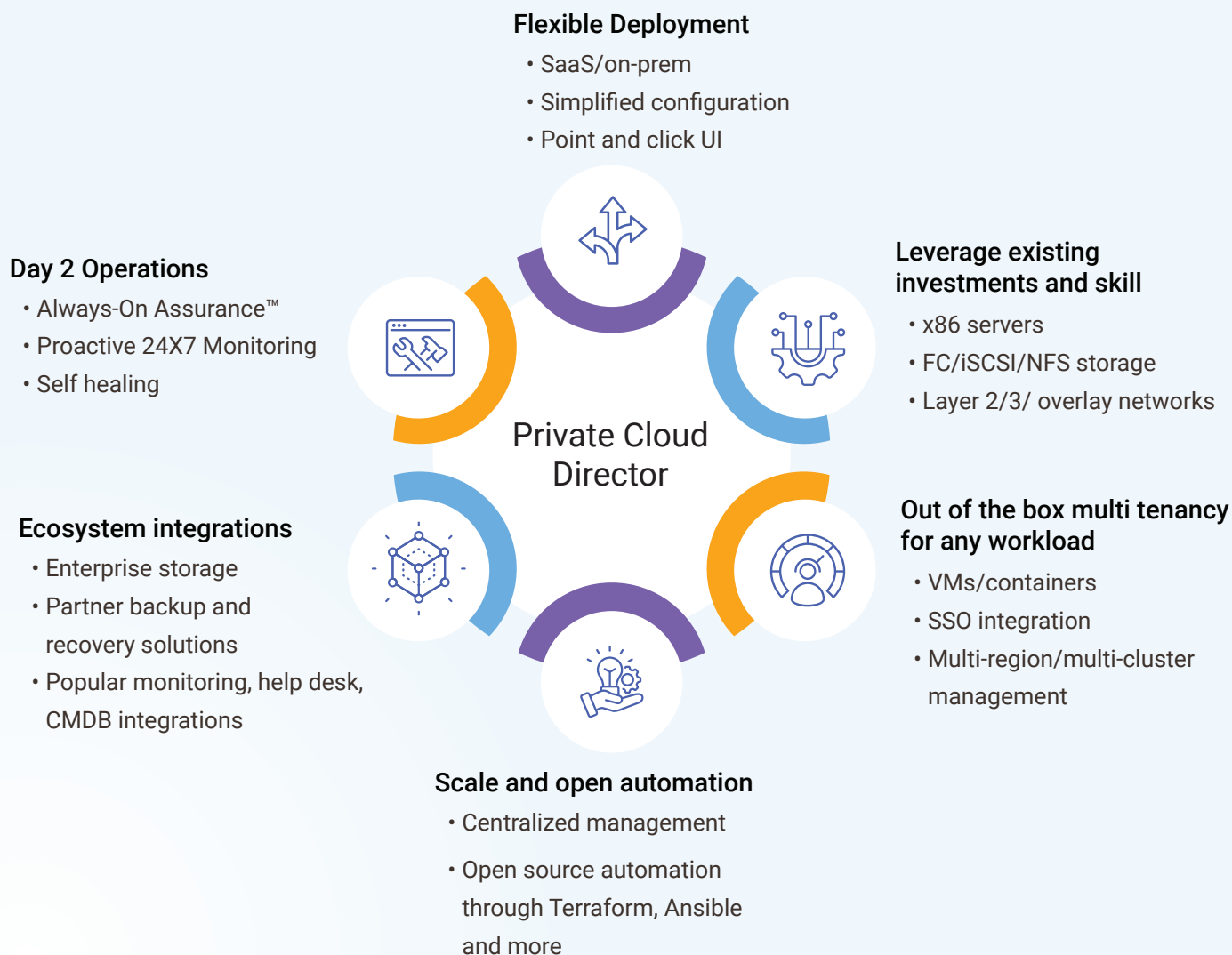
Network: PCD works with existing network infrastructure, and offers both vDS like traditional physical network usage, as well as NSX like Software Defined Networks.

Any workload	Virtualization	Kubernetes
Cloud Platform	**Private Cloud Director**	
Open APIs	Compute API	Network API	Storage API
Infrastructure (Brownfield/ Greenfield)	x86 Servers	Data center Networking	Storage (FC, iSCSI, NFS)

Familiar user experience for experienced Virtualization administrators

Private Cloud Director is designed to be instantly familiar to Virtualization administrators. Initial setup, day-to-day management and problem resolution are all designed to be simple, intuitive and self-explanatory:

- Point and click experience with minimal pre-requisites and manual configuration. Minimal Linux experience required.

- Intuitive configuration and management of solution architecture using 'Cluster Blueprints' and host role assignment in the user interface.

- Integrations with all major operational considerations such as major backup tools, CMDB and systems of record, and APIs for automation.

- Choice of SaaS control plane or self-hosted (on-premises) control plane.

Flexible Deployment
- SaaS/on-prem
- Simplified configuration
- Point and click UI

Leverage existing investments and skill
- x86 servers
- FC/iSCSI/NFS storage
- Layer 2/3/ overlay networks

Day 2 Operations
- Always-On Assurance™
- Proactive 24X7 Monitoring
- Self healing

Private Cloud Director

Out of the box multi tenancy for any workload
- VMs/containers
- SSO integration
- Multi-region/multi-cluster management

Ecosystem integrations
- Enterprise storage
- Partner backup and recovery solutions
- Popular monitoring, help desk, CMDB integrations

Scale and open automation
- Centralized management
- Open source automation through Terraform, Ansible and more

Automated migration of running VMs with Project vJailbreak

To reduce the risk and complexity of migrating large environments, Platform9 has developed a tool, Project vJailbreak, that seamlessly discovers your existing VMware environments; queries and identifies all relevant metadata; and enables an orderly migration with minimal labor and risk:

- Point and click simplicity, all Windows and Linux OSes since early 2010s.

- Live migration using change-block-tracking followed by 'cutover' to KVM. Retention of system identifiers, MAC addresses, network and storage configurations.

- Uninstallation of VMware tools, installation of required virtio drivers, ability to run post migration tools.

- Control over schedules, concurrency, and automated vs manual 'cutover'.
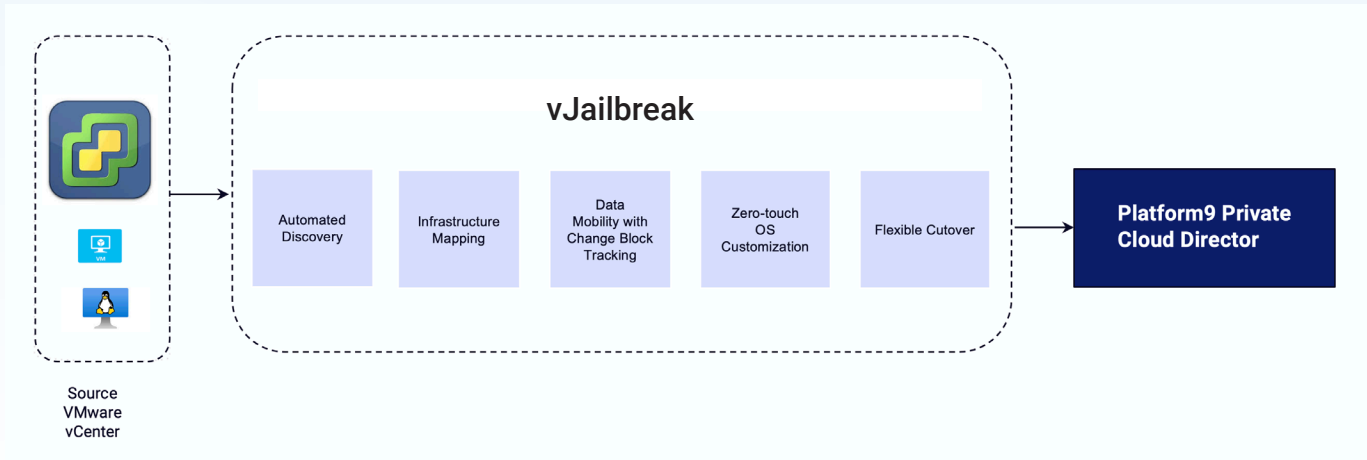
Modern, developer friendly features: Self-service, Terraform, Kubernetes and Platform Services

Private Cloud Director delivers much more than just a virtualization platform, with:

- Self-service provisioning, quotas, multi-region and multi-tenant capabilities.

- Terraform based app and VM provisioning - Infrastructure as Code.

- Built-in, upstream Kubernetes control plane that provides a public cloud like Kubernetes service experience (autoscaling, autohealing node pools).

- Platform Services that provide higher level infrastructure constructs, including:

  1. PostGres Database Autopilot

  2. MySQL Database Autopilot
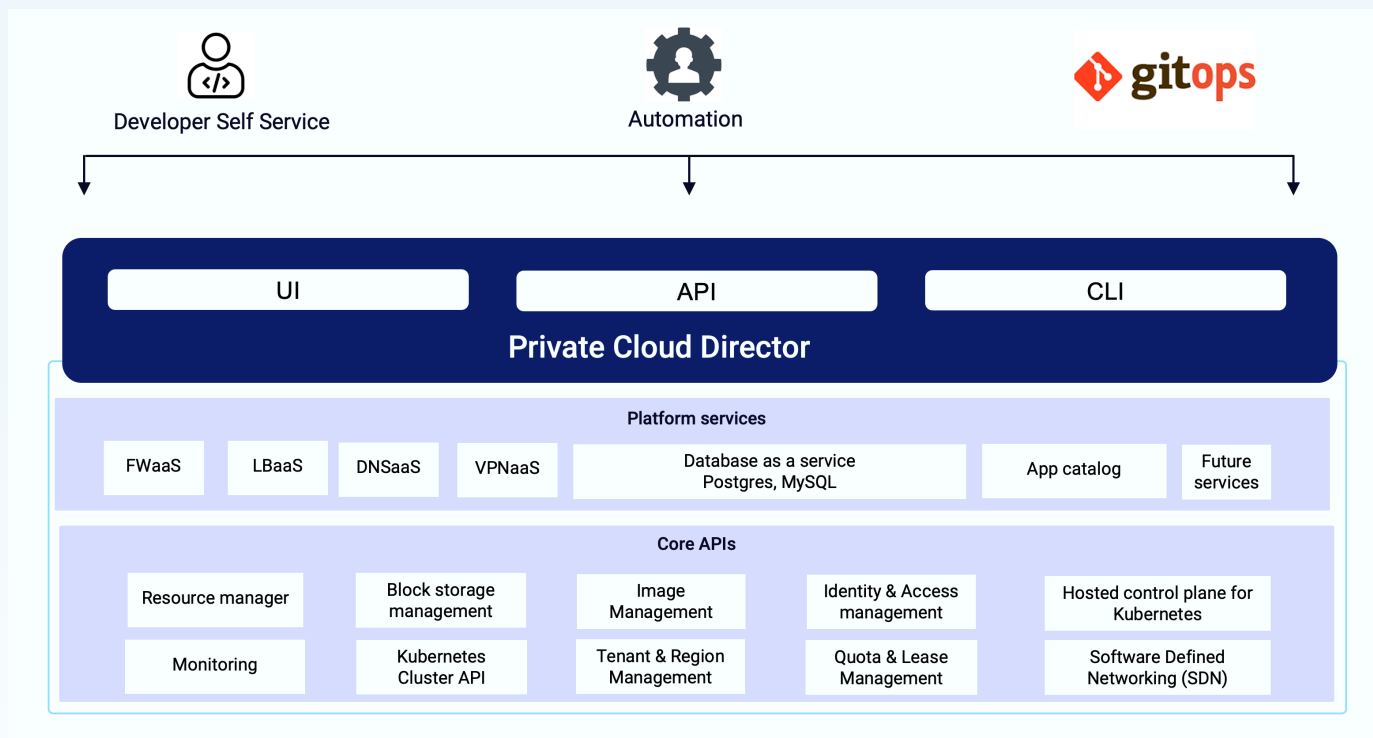
Additional resources for further reading
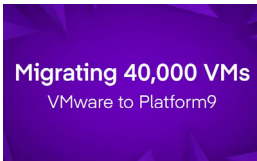
Fortune 500 global enterprise migrating 40,000 VMs from VMware to Platform9 Private Cloud Director

Read case study

Replace your legacy virtualized infrastructure with Private Cloud Director, a developer-friendly and cost-effective platform.

Read technical doc

0-60 with virtualization: A monthly two days hands-on lab for VMware admins

Register

Easily migrate your VMs and infrastructure configurations with Project vJailbreak

Learn more

About Platform9

Platform9 is the leader in simplifying enterprise private clouds. The company's flagship product, Private Cloud Director, has all of VMware's enterprise-grade features today along with private cloud features for the future. Platform9 was founded by a team of VMware cloud pioneers and has over tens of thousands of nodes in production at some of the world's largest enterprises. Platform9 is an inclusive, globally distributed company backed by prominent investors, committed to driving private cloud innovation and efficiency.

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