As organizations accelerate adoption of multi-cloud strategies, they need to simplify the way they build their clouds, so they can focus on building out differentiated applications and services.

PRA provides a tested, validated reference architecture on which to deploy a highly available enterprise-grade developer platform. Built on hyper-converged VxRail, PRA delivers automated lifecycle management of the infrastructure, a critical element in accelerating your transformation into a digital business.

- Pivotal Application Service (PAS) and Pivotal Container Service (PKS) reference architectures on VxRail
- Fully software defined infrastructure
- "Always on" highly available configurations
- A central management console
- Modular design that scales with Enterprises
- Integrated backup & disaster recovery options

**Pivotal Ready Architecture**

**Speed**
Deploy new code thousands of times a month

**Stability + Scalability**
Deliver enterprise SLAs and breakthrough operational efficiency

**Security**
Improve your security posture with built-in capabilities

A reference architecture for a variety of highly available Pivotal software deployments

- A private cloud and infrastructure service with simplified deployment
- A highly available platform to develop and quickly deploy applications, reducing the time to application delivery
- A modern developer platform that boosts developer productivity by combining application services, service discovery, container management, and orchestration with an ecosystem of plug-ins for developer tools
- Increased cloud solution portability and agility, because you are not locked into public cloud APIs
- External S3-compatible storage or an internal Web Distributed Authoring and Versioning (WebDAV) server for the Pivotal Application Service (PAS) blobstore

**Pivotal Application Service**

Pivotal Application Service (PAS) is based on Pivotal Cloud Foundry, which is an open source cloud application platform, providing a choice of clouds, developer frameworks, and application services. Cloud Foundry makes it faster and easier to build, test, deploy, and scale applications.

- Best runtime for Spring and Spring Boot
- Turnkey microservices operations and security
• A native Windows and .NET experience
• Fully integrated with continuous integration/continuous delivery (CI/CD) tools

Pivotal Container Service (PKS)

PKS allows application teams to self-serve provision Kubernetes clusters that are fully managed on their behalf, allowing them to focus on the workloads that serve their consumers rather than the substrate needed to run those workloads.

• Built with open-source Kubernetes: Constant compatibility with the current stable release of Kubernetes
• Production-ready: Highly available, built-in health checks, scaling, auto-healing and rolling upgrades.
• BOSH provides a reliable and consistent operational experience. For any cloud.
• Network management and security: Out-of-the-box with VMware NSX-T

Essential PKS: Signed and supported upstream Kubernetes binaries with validated designs. Includes expert support to proactively guide you through upgrades or maintenance and reactively troubleshoot if/when needed.

Enterprise PKS: Enterprise-grade distribution that applies tightly packaged technologies like BOSH, NSX, and Harbor to speed deployment and simplify operations. It is simpler to deploy and operate than Essentials PKS.

Deployment Options

Dev/Test/ROBO: Single-AZ: NSX-T

• Need dedicated 4 node for NSX-T for ROBO and single AZ scenarios
• Can share it for PAS and PKS
• 4 VxRail Node Min Configuration for AZ1

Production: Single Site with Multi-AZ: NSX-T

• NSX-T needs dedicated hardware resources to support all the capabilities.
• Size appropriately based on performance considerations: Minimum 6 nodes is commended for Edge/Controller/Mgmt.