

# VMware Tanzu with Portworx by Pure Storage

More efficient and effective application modernization, migration, and management using containers



## Executive Summary

As part of digital transformation efforts, organizations are modernizing their applications and the infrastructure they run on by adopting containers and Kubernetes for their applications and leveraging a solution like VMware® Tanzu Kubernetes Grid for their infrastructure.

Many Kyndryl™ customers currently use VMware solutions, deploying VMware Tanzu Kubernetes Grid. This allows organizations to apply their existing investments to run an enterprise-grade container environment within their data centers or in public cloud.

Kyndryl in partnership with Pure Storage offers **Portworx®** for VMware Tanzu as a managed service.

Kyndryl will be responsible for design, deployment, and Day 2 management of the solution deployed in on-premises and public cloud environments. The Day 2 responsibilities include health monitoring, management of persistent volume claims, data management and security compliance.

## Introduction

The Portworx Enterprise Storage Platform is a data management solution for all Kubernetes projects, including container-based CaaS, DBaaS, SaaS, and Disaster Recovery (DR) initiatives. This document describes the use cases and benefits of using Portworx with VMware Tanzu Kubernetes Grid to run stateful containerized applications, using Kyndryl migration and management services.



## Solution Overview

Portworx is a data management solution that serves applications and deployments in Kubernetes clusters. Portworx is deployed natively within Kubernetes and extends the automation capabilities down into the infrastructure to reduce data management complexities. Portworx provides simple and easy-to-consume storage classes that are usable by stateful applications in a Kubernetes cluster, while also allowing users to create new custom storage classes for their applications.

Kyndryl provides customers:

- **Disaster Recovery:** The Kyndryl team can help customers define DR strategy for their VMware Tanzu environment using Portworx and assume the responsibility for the execution of same in case of disaster.
- **Data Protection:** The Kyndryl team can help customers define backup and recovery strategy for their VMware Tanzu environment using Portworx and assume the responsibility of managing the backup and recovery of stateful applications and its related data.
- **Capacity and Performance:** The Kyndryl team can manage storage performance and capacity of the VMware Tanzu environment, while Portworx is used in conjunction with the VMware Tanzu.
- **Migration:** The Kyndryl team can design and manage workload migrations between the VMware Tanzu clusters using Portworx in on-premises, public cloud and hybrid-cloud environments.



## Solution Benefits

Portworx provides a fully integrated and unified solution that addresses the storage, data protection, security, capacity management and data migration for any Kubernetes environment. Kyndryl customers looking to modernize their applications using VMware Tanzu can rely on Portworx solutions to provide a consistent set of data services for on-premises and public cloud deployments.

- Kyndryl customers looking for a highly available data storage solution for VMware Tanzu environment can take advantage of the PX-Store to provide persistent storage for containers that are hosted in VMware Tanzu cluster.
- Backup and recovery are essential for any environment, and Kyndryl customers can use the PX-Backup module to protect applications and data that are hosted in VMware Tanzu cluster.
- Kyndryl customers who want to build a Disaster Recovery strategy for their VMware Tanzu environment can take advantage of replication technologies available in PX-DR to create the DR copy either within or across the geographies.
- Kyndryl customers looking to manage and move workloads across VMware Tanzu cluster in a private, public, or hybrid-cloud environment can rely on PX-Motion to migrate the containers workloads. PX-Motion can not only move the data, but also the application and its configurations as well.
- Kyndryl customers, who are looking to automate the storage capacity management can use PX-Autopilot, a rule-based automation solution to dynamically expand the persistent volumes and Portworx storage pools when they run out of capacity.

# Use Cases



## Kubernetes storage and data management for VMware Tanzu

Portworx PX-Store provides cloud native persistent storage for applications running in the cloud, on-premises, and in hybrid and multi-cloud environments. Some of the salient features of this product include container optimized volumes, highly available storage for container environments, multi-write shared volumes across containers and storage class-of-service.



## Data protection for VMware Tanzu

Backup is essential for enterprise applications, serving as a core requirement for mission-critical production workloads. Portworx Backup can help protecting stateful applications such as databases in highly dynamic environments. Portworx Backup allows you to capture entire applications, including data, application configuration, and Kubernetes objects, and move them to any backup location and restore them as needed. Some of the features of this product include continuous backup, point-in-time recovery for Kubernetes applications, and backup and recovery for cloud volumes.



## Disaster recovery for VMware Tanzu

Portworx PX-DR allows organizations to build robust disaster recovery plans for applications running on VMware Tanzu Kubernetes Grid clusters. PX-DR provides both synchronous and asynchronous replication for Kubernetes data and failover across the data centers. Features of this product include multi-site synchronous and asynchronous replication and container level DR policies.



## Workload migration and mobility for VMware Tanzu

Portworx allows customers to migrate applications, data, and configuration information between clusters across hybrid and multi-cloud environments. Portworx can be instrumental in managing the workloads in multi-cluster environments and reproduce the production environment including data and configuration information for test and development activities.

## Next steps

Learn more. Visit [kyndryl.com](https://kyndryl.com)



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