Kubernetes Platform Design Workshop for Red Hat OpenShift

Product Code: CNS-INF-A-WRK-K8

At-a-Glance

Stage: Design

The Kubernetes Platform Design Workshop offers IT teams in-depth and practical guidance to create a comprehensive design for the Kubernetes Platform for Red Hat OpenShift on Nutanix Cloud Infrastructure (NCI). It covers various aspects such as performance, scalability, flexibility, integration, and operational needs. This workshop is beneficial during the Design stage of the hybrid multicloud journey.

Related Services

- Kubernetes Platform Deployment for Red Had OpenShift

Service Scope

The Design workshop is delivered by highly skilled consultants with strong domain expertise and rich experience to ensure that the solution requirements and required outcomes are identified. Design workshops require collaboration with key customer stakeholders from architecture, virtualization, security, and develop operations. After the design workshop, the consultant develops a Nutanix Design Document for the Kubernetes platform and a Configuration workbook that addresses conceptual, logical, and physical Kubernetes design elements.

Red Hat OpenShift

For customers who want to deploy Red Hat OpenShift Container Platform (OCP) to on-premises Nutanix Cloud Infrastructure (NCI).

The service includes the following activities:

- Gather and document solution requirements, constraints, assumptions, dependencies, risks, mitigations, and decisions in the workshop
  - Review targeted containerized workload use cases
  - Assess Red Hat OpenShift Control Plane, Workers, and infrastructure nodes quantity and capacity requirements based on solution sizing
- Develop NCI architecture, including interoperability, security, and scalability for future growth
- Define integration with AD/LDAP and IPAM/DNS environments
- Design virtual networking for Red Hat OpenShift nodes
  - Plan Container Network Interface (CNI) solution for OpenShift
  - Plan north-south communications for the default OpenShift router
- Develop virtual storage for Red Hat OpenShift nodes and containerized workload design
- Plan Nutanix Container Storage Interface (CSI) integration-based solution for OpenShift
- Design Red Hat Image Registry solution integration

- Plan a secure sockets layer (SSL) certificate strategy
- Develop a validation plan

Limitations

- For each quantity purchased, design is limited to a single on-premises Kubernetes Platform design in a single physical site
- The design can be deployed multiple times in various environments, such as development, test, and production
- Continuous Integration/Continuous Delivery (CI/CD) pipeline or containerized workload deployment is excluded
- Excludes NCI Cluster design

Prerequisites

- Containerized workload use cases have been identified
- Workshop requires key stakeholders from virtualization, network and security, DevOps, and engineering

Required Product Licenses

- None

Delivered Artifacts

- Configuration Workbook
- Design Document (standard documentation only)

Level of Effort

Typically 5 days

Delivery Type

Delivery Type	Delivery Activities
In-person	• In-person workshop • Virtual documentation

Related Products

- Nutanix Cloud Infrastructure (NCI)
- Nutanix Unified Storage (NUS)

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