Kubernetes Platform Design for Red Hat OpenShift

Product Code: CNS-K8-DSGN-RH-OCP

At-a-Glance

Stage: Design

The Kubernetes Platform Design 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 engagement is beneficial during the Design stage of the hybrid multicloud journey.

Related Services

- Kubernetes Platform Deployment for Red Had OpenShift

Service Scope

The Kubernetes Platform Design is delivered by highly skilled consultants with strong domain expertise and extensive experience to ensure that solution requirements and desired outcomes are clearly identified. This engagement requires collaboration with key customer stakeholders from architecture, virtualization, security, and development operations. Following the design engagement, the consultant develops a Nutanix Design Document for the Kubernetes platform and a configuration workbook that addresses the 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 design session
  - 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

Project Management

Nutanix Project Management (PM) oversees Nutanix resources and aligns execution with your goals, scope, and timelines.

Core project management activities may include the following:

- Serve as a single point of contact for all project communication
- End-to-end Nutanix resource management
- Coordinate change window(s) and implementation schedules with customer
- Track and facilitate readiness and prerequisite completion
- Conduct project kickoff/technical readiness meeting(s)
- Integrate customer resources into the high-level project timeline
- Send status update(s)
- Manage timeline(s)
- Deliver created artifacts to the customer
- Facilitate project closeout activities

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

Project Management

- Excludes scheduling customer resources and activities
- Excludes detailed project plan (schedule) development and management
- Excludes responsibility for creating, managing, or delivering change management communications

Prerequisites

- Containerized workload use cases have been identified
- Design sessions require key stakeholders from virtualization, network and security, DevOps, and engineering

Required Product Licenses

- None

Delivered Artifacts

Delivered Artifacts will be provided in English only. Delivery in additional languages must be mutually agreed upon in writing by both parties in advance and may be subject to additional fees.

Delivered Artifact	Description
Configuration Workbook	Captures all required configuration settings and decisions gathered during the design session to support accurate and consistent solution deployment.
Design Document	Captures the customer's solution architecture based on design session outcomes, detailing both high-level and low-level designs. It documents requirements, constraints, assumptions, and risks, and provides clear rationale for design decisions to ensure the solution meets performance, availability, scalability, and other critical objectives.

Level of Effort

Typically 5 days

Delivery Type

Delivery Type	Delivery Activities
In-person	• In-person design session • Virtual documentation • Virtual project management Note: Any in-person project management activities provided solely at Nutanix's discretion
Virtual	• Virtual design session • Virtual documentation • Virtual project management Note: Any in-person project management activities provided solely at Nutanix's discretion

Related Products

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

Terms and Conditions

This document contains the entire scope of the service offer. Anything not explicitly included above is out of scope. This service offer is subject to the Nutanix Services General Terms and Conditions that can be viewed at https://www.nutanix.com/support-services/consulting-services/terms-and-conditions

©2026 Nutanix, Inc. All rights reserved. Nutanix, the Nutanix logo, and all Nutanix product and service names mentioned herein are registered trademarks or trademarks of Nutanix, Inc. in the United States and other countries. Nutanix, Inc. is not affiliated with VMware by Broadcom or Broadcom. VMware and the various VMware product names recited herein are registered or unregistered trademarks of Broadcom in the United States and/or other countries. All other brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holder(s).