NCI Cluster Deployment or Expansion for Cisco

Product Code: CNS-INF-A-SVC-DEP-ONP-CSCO

At-a-Glance

Stage: Deploy

The Nutanix Cloud Infrastructure (NCI) for Cisco with Intersight Integration service accelerates the deployment of on-premises NCI clusters on Cisco UCS infrastructure, ensuring a seamless and validated integration between compute and management platforms.

Designed as a strategic step in your hybrid multicloud journey—particularly during the Deploy phase—this service focuses on:

- Deploying NCI clusters on Cisco UCS using Intersight Standalone Mode (ISM) or Managed Mode (IMM)
- Validating and configuring infrastructure based on Nutanix and Cisco recommended practices and customer-provided design documentation
- Streamlining deployment workflows to reduce complexity and accelerate time-to-value
- Delivering operational readiness through comprehensive documentation and enablement

Related Services

- NCI Cluster Design Workshop for Cisco

Service Scope

Certified Nutanix consultants, equipped with deep domain expertise and hands-on experience, lead the deployment of on-premises NCI clusters on Cisco infrastructure with Cisco Intersight Integration. Following Nutanix and Cisco recommended practices, along with the customer-provided design document, consultants ensure a precise and efficient deployment.

Upon completion, the consultant delivers:

- A customized As-built Guide detailing the final deployed configuration
- An updated Configuration Workbook to support ongoing operations and future scalability

This comprehensive documentation provides your teams with a validated reference for managing and maintaining the deployed NCI environment.

The service includes the following activities:

- Review customer-provided design and configuration documentation
- Validate Cisco Intersight or UCS Server Platform pre-configuration
- Deploy and configure Cisco HCI UCS cluster, including recommended firmware (via LCM) and AOS using either Cisco Intersight Standalone Mode (ISM) or Cisco Intersight Managed Mode (IMM)
- Deploy and configure the hypervisor cluster on the deployed NCI cluster

- o For VMware vSphere clusters, integrate the vSphere cluster into an existing vCenter or deploy the vCenter Server Appliance (VCSA)
  - o Configure LCM for automatic updates (online, dark site bundle, or via integration into an existing dark site LCM webserver)
- Configure layer 2 virtual networking on hypervisor hosts
  - o Configure hypervisor virtual switches
- Deploy and integrate Prism Central
- Enable local key management service (KMS) for encryption (optional)
- Test and validate the deployed clusters

Optional Activities

- Choose one of the following:
  - o Deploy and configure a dark site LCM webserver running either IIS (Windows) or Apache (supported Linux OS) on the customer-provided VM image
  - o Harden Nutanix Controller VM and AHV according to the *Nutanix Security Guide*
  - o Install and configure hardware and drivers for GPU
    - ▪ Install host drivers
    - ▪ Deploy GPU license server
    - ▪ Configure a single test VM for vGPU

Limitations

- For each quantity purchased, deployment is limited to a single node
- Maximum of 64 nodes distributed in up to 4 on-premises NCI or dedicated NUS clusters of a single hypervisor type at a single physical site
- Excludes Cisco Intersight (standalone and managed modes), Fabric Interconnect, Fabric Extender and UCS Manager configurations
- Excludes creation or updates to existing design documentation
- Excludes deployment of NUS, NCI Flow Network Security, or NCI Advanced Replication
- Excludes deployment of EUC, AI/ML, Kubernetes, or database workloads
- For VMware vSphere clusters, vCenter Server Appliance (VCSA) deployment is limited to a single standalone appliance
- Excludes integration into an external KMS
- Excludes hardening of 3rd-party components, including VMware ESXi

Supported Hypervisors

- Nutanix AHV
- VMware ESXi

Prerequisites

- Hardware that meets all product requirements for the selected hypervisor on NCI on the Cisco UCS platform.

  Note: For information on the requirements for NCI Clusters, see Field Installation Overview in the *Field Installation Guide for Cisco HCI Servers* on the Nutanix Support Portal.

- Customer-provided Design document

- Completed Pre-Install Questionnaire

- Fabric Interconnect, Fabric Extenders, and other network infrastructure components must be deployed, configured, and functioning

- For Cisco Intersight integration, Cisco Intersight infrastructure services must be deployed, configured, and functioning

- Firewall rules to connect to Cisco Intersight and the internet must be implemented per https://www.intersight.com/help/saas/getting_started/system_requirements#port_requirements

Required Product Licenses

- Nutanix Cloud Infrastructure (NCI) Core-based license

- Hypervisor licenses for NCI

Deliverables

- Test Plan

- As-built Guide

Level of Effort

Typically up to 4 days

> **Note:** Varies based on the number of nodes purchased

Delivery Type

> **Note:** Delivery is in-person unless otherwise noted.

Delivery Type	Delivery Activities
In-person	- In-person rack and stack of on-premises NCI cluster nodes - In-person deployment
Virtual	- Virtual deployment - Note: Virtual delivery excludes rack and stack of on-premises NCI cluster nodes

Related Products

- Nutanix Cloud Infrastructure (NCI)

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