NCI Cluster Deployment or Expansion

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

At-a-Glance

Stage: Deploy

The Nutanix Cloud Infrastructure (NCI) Cluster Deployment or Expansion accelerates the deployment of hybrid cloud infrastructure to support any application and workload. Highly skilled consultants can deploy on-premises NCI clusters or dedicated Nutanix Unified Storage (NUS) clusters. The clusters can be deployed to various supported hardware platforms, regardless of whether it's Nutanix, our OEM partners, or other platform providers. This offer is ideal for the Deploy stage of the hybrid multicloud journey.

Related Services

- NCI Design Workshop

Service Scope

Highly skilled consultants with solid domain expertise and rich experience begin deploying the NCI or dedicated NUS clusters according to Nutanix recommended practices and the customer-provided design document. After the deployment, the consultant creates a customized as-built document and updated configuration workbook to document the final configuration of the cluster(s).

Starter Edition

For customers who want to deploy up to 4 individual on-premises NCI clusters or expand an existing NCI cluster with additional nodes according to customer-provided design and configuration documentation during a single on-premises visit.

The Starter Edition is a basic NCI cluster deployment without any NUS data services and includes the following activities:

- Review customer-provided design and configuration documentation
- Configure layer 2 virtual networking on hypervisor hosts
  - Configure hypervisor vSwitch
- Deploy and configure NCI cluster, including recommended firmware and AOS
- Deploy and configure the hypervisor cluster on the deployed NCI cluster
  - For VMware vSphere clusters, integrate the vSphere cluster into an existing vCenter or deploy the vCenter Server Appliance (VCSA)
  - For Microsoft Hyper-V clusters, integrate Hyper-V cluster into an existing System Center Virtual Machine Manager (VMM)
  - Configure LCM for automatic updates (online or integrated into an existing dark site webserver)
- Deploy and integrate Prism Central (optional)
- Enable local key management service for encryption (optional)
- Test and validate the deployed clusters

Pro Edition

For customers who want to deploy one of the available Nutanix Unified Storage data services: Objects, Volumes, or Files on one or more NCI clusters deployed with the Starter Edition.

The Pro Edition is also appropriate for deploying dedicated NUS clusters and includes the following activities plus one of the optional activities:

- Everything included in the Starter Edition
- Deploy one NUS Files, Volumes, or Objects data service according to a customer-provided design and configuration documentation
  - NUS Objects:
    - Enable Nutanix Objects
    - Deploy object store
    - Generate API keys
    - Configure bucket(s)
    - Test and validate the NUS Objects deployment
  - NUS Volumes:
    - Configure the iSCSI target address
    - Configure volume groups
    - Test and validate the NUS Volumes deployment
  - NUS Files:
    - Deploy NUS Files
    - Configure file server and shares
    - Test and validate the NUS Files deployment
- Optional services (choose one):
  - Deploy and configure dark site LCM webserver running either IIS (Windows) or Apache (supported Linux OS) on the customer-provided VM image
  - Harden Nutanix Controller VM and AHV according to the *Nutanix Security Guide*
  - Install and configure hardware and drivers for GPU
    - Install host drivers
    - Deploy GPU license server
- Configure a single test VM for vGPU

Ultimate Edition

For customers who want to deploy any combination of the available Nutanix Unified Storage data services: Objects, Volumes, or Files on one or more NCI clusters deployed with the Starter Edition.

The Ultimate Edition is appropriate for deploying dedicated NUS clusters to consolidate all data services and includes the following activities plus one of the optional activities:

- Everything included in the Starter Edition
- Deploy any combination of NUS Files, Volumes, or Objects data service according to a customer-provided design and configuration documentation
  - NUS Objects:

- Enable Nutanix Objects
        - Deploy object store
        - Generate API keys
        - Configure bucket(s)
        - Test and validate the NUS Objects deployment
    - NUS Volumes:
        - Configure the iSCSI target address
        - Configure volume groups
        - Test and validate the NUS Volumes deployment
    - NUS Files:
        - Deploy NUS Files
        - Configure file server and shares
        - Test and validate the NUS Files deployment
- Optional activities: (choose one):
    - Deploy and configure dark site LCM webserver running either IIS (Windows) or Apache (supported Linux OS) on the customer-provided VM image
    - Harden Nutanix Controller VM and AHV according to the *Nutanix Security Guide*
    - 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 1 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 creation or updates to existing design documentation
- Excludes NCI Flow Network Security and NCI Advanced Replication deployment
- Excludes EUC, AI/ML, or database workload deployment

Starter Edition

- Hypervisor vSwitch limited to 2 vSwitches and 5 port groups
- For VMware vSphere clusters, vCenter Server Appliance (VCSA) deployment limited to one standalone appliance

Pro Edition

- Deployment of one NUS Files, Volumes, or Objects data service per NCI or dedicated NUS cluster up to a maximum of 4 clusters according to the customer-provided design (customer choice of one)

Ultimate Edition

- Hardening of 3rd-party components, including VMware ESXi and Microsoft Hyper-V

Supported Hypervisors

- Nutanix AHV
- VMware ESXi
- Microsoft Hyper-V

Prerequisites

- Hardware that meets all product requirements for the selected hypervisor, NCI, and NUS (as required)

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

- For VMware ESXi Hypervisor, Enhanced vMotion Compatibility (EVC) must be enabled for cluster expansions
- For Cisco Intersight, Intersight infrastructure services must be deployed and functioning
- Cisco Fabric Interconnects must be deployed and functioning
- Customer-provided Design document
- Completed Pre-Install Questionnaire

Required Product Licenses

- Nutanix Cloud Infrastructure (NCI)
- Nutanix Unified Storage (NUS)
- Hypervisor licenses for NCI

Deliverables

- Project Kickoff
- Project Schedule
- Project Status Report(s)
- Deployment
- As-built Guide
- Project Closeout

Duration

Starter	Pro	Ultimate
Typically up to 3 days	Typically up to 4 days	Typically up to 5 days

Related Products

- Nutanix Cloud Infrastructure (NCI)
- Nutanix Unified Storage (NUS)
- End User Computing (EUC)
- Nutanix Database Services (NDB)

Terms and Conditions