

# Nutanix Hybrid Cloud Fundamentals (NHCF)

## Description

This course is for those who are new to Nutanix and want a feature-focused introduction to AOS Storage, Nutanix's scale-out storage technology, and Prism, Nutanix's multicloud management interface.

NHCF explores the breadth and depth of Nutanix's centralized management capabilities. Focused on getting you to explore and work with the Nutanix platform as quickly as possible, this introductory course starts by discussing key Nutanix products and cluster-related concepts.

Using the Prism Central and Prism Element unified control plane, you will learn how to monitor cluster health and performance, manage software versions, create and manage VMs, and perform basic management tasks on hardware, storage, and networks.

In addition to the associate-level NHCF course, Nutanix University also offers a professional-level course — Enterprise Cloud Administration (ECA). ECA covers similar topics to NHCF, providing more in-depth content regarding key administrative tasks (deployment, configuration, migration, reporting, and so on).

## Audience

- Network and security operations center personnel who want to learn Nutanix fundamentals (Prism, AOS, AHV) virtualization and Cloud-related concepts.
- Specific job roles that will benefit from the NHCF course:
  - Network Operations Center (NOC) operators
  - Security Operations Center (SOC) operators
  - Data Center Operations (DCO) Technician
  - IT project managers

- IT staff new to Nutanix
- Anyone seeking the Nutanix Certified Associated (NCA) certification.

## Course Outline

### 1: Introduction

- Understand three-tier and hyperconverged infrastructure (HCI)
- Understand Nutanix Cloud Solution Packages
- Get started with Prism Central and Prism Element
- Understand Nutanix Pulse
- Understand when to use Prism Central and when to use Prism Element
- Cluster setup fundamentals
- Understand cluster-level security settings

### Hands-on Labs

- Accessing and Exploring Prism Element and Prism Central
- Deciding when to use Prism Central versus Prism Element

### 2: Hardware and Storage Concepts

- Understand nodes, blocks, and clusters
- Understand types of physical storage
- Understand AOS Distributed Storage
- Understand key storage concepts such as storage pools, storage containers, redundancy factor, replication factor, capacity reservation, cluster resiliency, and snapshots
- Use different Prism Central dashboards to monitor cluster hardware and storage

### Hands-On Labs

- Exploring the hardware and storage containers dashboards
- Creating a storage container

### 3: Networking

- Understand AHV networking terminology and key concepts such as managed and unmanaged networks
- Use Prism Central to monitor cluster networks
- Use Prism Element to explore the Network Visualizer

#### Hands-On Labs

- Viewing network configuration in Prism Central
- Using the Network Visualizer

### 4: Image Management

- Understand the image service
- Use Prism Central to monitor, upload, import, and manage images

#### Hands-On Labs

- Exploring the images dashboard
- Uploading and importing an image to Prism Central
- Uploading an image using Prism Element

### 5: VM Management

- Use Prism Central to create and monitor VMs
- Perform basic VM management tasks such as updating, deleting, exporting, and cloning VMs; taking snapshots; and creating VM recovery points
- Understand categories and affinity policies

#### Hands-On Labs

- Exploring the VMs dashboard

- Creating VMs
- Creating a VM recovery point
- Cloning a VM
- Exporting a VM as an OVA file

## 6: Backup and Disaster Recovery Fundamentals

- Understand data protection and data protection strategies
- Create snapshots and recovery points
- Use the Data Protection dashboard
- Create protection domains and remote sites
- Understand Nutanix Disaster Recovery terms and concepts

### Hands-on Labs

- Creating protection domains and local VM restore
- Configuring remote sites
- Creating protection domains using remote sites
- Performing VM migration

## 7: Monitoring Cluster Performance and Health

- Use Prism Central to create sessions, charts, and reports
- Understand and explore alerts and events
- Configure alert emails
  - Collect logs
  - Use the Nutanix Support Portal to create a support case

### Hands-On Labs

- Adding built-in charts to the Analysis Dashboard
- Creating a custom chart
- Creating a new report
- Viewing, downloading, and scheduling reports
- Monitoring cluster health
- Collecting logs

## 8: Understanding Licensing and Performing Upgrades

- Understand License Manager
- View license details in Prism and on the Nutanix Support & Insights Portal
- License a cluster
- Understand Life Cycle Manager (LCM) and the LCM workflow
- Use the LCM dashboard in Prism Central and Prism Element
- Use LCM to perform an inventory

### Hands-On Labs

- Exploring the LCM dashboard
- Performing inventory at a Connected Site and at a Dark Site

### **Software Versions**

- AOS 6.10
- Prism Central 2024.1.0.2