

Nutanix - Enterprise Cloud Platform Administration (ECA)

ID ECA Price CHF 3,800.—(excl. VAT) Duration 4 days

Who should attend

- Administrators, engineers, and others who manage Nutanix clusters in the datacenter
- Managers and technical staff seeking information to drive purchase decisions
- Anyone seeking the Nutanix Certified Professional - Multicloud Infrastructure (NCP-MCI) certification

Prerequisites

Experience with administering a Nutanix environment

Course Objectives

At the end of this course, you will be able to :

- Gain a deep understanding of hyperconverged infrastructure (HCI) and the various Nutanix cloud solution packages. Learn the basics of cluster configuration and the components for creating and managing VMs – namely, networks and images.
- Explore how to create and manage VMs, work with projects, protect VMs and their data, apply storage optimization features at the VM level, and migrate your workloads to a Nutanix environment.
- Understand alerts, events, log collection, reporting, and how to use various features in Prism Central to identify, analyze and remediate performance issues.
- Understand how to set up a cluster for maintenance activities – such as starting and stopping nodes and clusters – and how to upgrade installed software and firmware with just a few clicks.

Course Content

1: Getting Started with a Nutanix cluster

- Understand three-tier and HCI
- Understand the Nutanix product portfolio
- Understand nodes, blocks, clusters, and cluster services
- Get started with Prism Central and Prism Element
- Understand when to use Prism Central and Prism Element

• Hands-on-Labs

- Connecting to and exploring Prism Element
- Adding data services IP, an NTP server, and a name server in Prism Element
- Connecting to, exploring and configuring Prism Central

2: Configuring Cluster Networking

- Understand AHV networking terminology
- Use Prism Central to monitor cluster networks
- Use Prism Element to explore the Network Visualizer
- Create and update subnets and virtual switches
- Understand subnet extension and network segmentation
- Hands-on Labs
 - Creating unmanaged and managed networks
 - Exploring the AHV network configuration
 - Viewing virtual switches from Prism Element

3: Managing Images

- Understand the image service
- Use Prism Central to monitor, upload, import, and manage images
- Hands-on Labs
 - Uploading and importing images to Prism Central
 - Configuring an image placement policy

4: Creating VMs

- Use Prism Central to create VMs
- Use Prism Central self-service capabilities to create VM templates
- Use Projects in Prism Central
- Install and enable Nutanix Guest Tools
- Hands-on Labs
 - Creating Windows and Linux VMs
 - Installing Windows and Linux operating systems
 - Installing Nutanix Guest Tools on Windows and Linux
 - Creating a project
 - Exploring the Self-Service dashboard in Prism Central

5: Managing VMs

- Update, clone, customize, export, and apply placement

rules to VMs

- Create and apply storage policies to VMs
- Create playbooks to automate common VM administrative tasks
- *Hands-on Labs*
 - Updating a VM
 - Assigning categories to a VM
 - Creating a snapshot and restoring a VM
 - Creating a template and a clone
 - Exporting a VM as an Open Virtual Appliance (OVA) file
 - Creating and running a playbook

6: Configuring and Managing Cluster Storage

- Understand AOS storage
- Understand key storage concepts such as storage pools, storage containers, redundancy factor, replication factor, capacity reservation, and snapshots
- Understand fault tolerance and failure handling mechanisms
- Create and update storage containers
- Create and update volume groups
- Use various capacity optimization features
- *Hands-on Labs*
 - Exploring the Storage dashboard
 - Creating containers with and without compression
 - Comparing data in a compressed vs uncompressed container
 - Configuring volume groups
 - Migrating vdisks between storage containers

7: Data Protection and Disaster Recovery

- Understand data protection terms and concepts
- Understand synchronous and asynchronous replication capabilities
- Create snapshots and recovery points
- Use Prism Element to configure local and remote backup and disaster recovery
- Use Nutanix disaster recovery to create protection policies and recovery plans
- Backup and restore Prism Central
- *Hands-on Labs*
 - Backing up and restoring Prism Central
 - Configuring Self-Service Restore
 - Creating protection domains and local VM restore
 - Creating containers for replication
 - Configuring remote sites and creating protection domains
 - Performing VM migration and migrating back to primary

8: Securing a Nutanix Cluster

- Understand the Nutanix approach to security
- Use the Security dashboard in Prism Central
- Use Prism Central to configure authentication, users and RBAC
- Implement hardening features for AHV and the CVM
- Understand policies in Flow Network Security
- Understand data-at-rest encryption
- *Hands-on-Labs*
 - Exploring the Security dashboard
 - Adding a local user
 - Adding Active Directory authentication
 - Configuring Role Mapping
 - Verifying a new user account
 - Cluster lockdown

9: Migrating Workloads with Nutanix Move

- Understand, install and upgrade Nutanix Move
- Use Move to migrate VMs
- Download Move logs
- *Hands-on Labs*
 - Preparing a VM for migration
 - Deploying a Move VM
 - Configuring Move and a migration plan

10: Monitoring Cluster Performance

- Understand performance monitoring features in Prism Central
- Create sessions, charts and reports
- View and manage project resource utilization
- Create custom dashboards in Prism Central
- Resource planning and capacity runway
- *Hands-on Labs*
 - Creating a Prism Central performance monitoring dashboard
 - Creating charts to analyze metrics using Prism Central
 - Creating and managing reports

11: Monitoring Cluster Health

- Understand health monitoring features in Prism Central and Prism Element
- Get summarized and detailed health information from Prism
- Use Nutanix Cluster Check
- Collect and forward logs
- *Hands-on Labs*
 - Using Nutanix Cluster Check health checks
 - Collecting logs for Support
 - Verifying cluster health

12: Maintaining and Upgrading a Cluster

- Perform a health check
- Use node-maintenance mode
- Understand hardware upgrade and replacement tasks
- Start and stop nodes and clusters
- Add and remove nodes
- Understand and explore Life Cycle Manager (LCM)
- Use LCM to perform inventory and upgrades
- *Hands-on Labs*
 - Using node maintenance mode
 - Performing upgrades with LCM (with and without internet access)

13: Investigating and Remediating Performance Issues

- Understand alerts and events and the associated dashboards in Prism Central
- Troubleshoot issues with protection policies, LCM, security, and performance
- Identify problematic or inefficient VMs
- Explore potential methods of remediating problematic VMs
- *Hands-on Labs*
 - Working with Alerts
 - Exploring Events

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Training Centres worldwide



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