Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Enterprise Cloud Administration (ECA)

CODE:	LENGTH:	PRICE:
NUT_ECA_7-5	32 Hours (4 days)	€3,200.00

Description

If you already have experience administering a Nutanix environment, this course will extend, deepen and broaden your knowledge as you grow in your career as a Nutanix administrator.
In Nutanix Enterprise Cloud Administration (ECA), you'll focus on Prism Central. This course provides a comprehensive look at Nutanix centralized management capabilities and allows you to explore the wide variety of features that are available in this web console.

Objectives

1. Core Nutanix Concepts: 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.
2. VM Management: 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.
3. Monitoring and Troubleshooting: Learn about alerts, events, log collection, reporting, and how to use various features in Prism Central to identify, analyze and remediate performance issues.
4. Maintenance and Upgrades: Learn 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.

Audience

- 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

Programme

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

Test and Certification

Nutanix Certified Professional - Multicloud Infrastructure (NCP-MCI)

- Comes with a free NCP-MCI exam voucher

Further Information

- AOS
- Prism Central

Session Dates

On request. Please contact us

Additional Information

This training is also available as onsite training. Please contact us to find out more.