Nutanix Advanced Administration and Performance Management

Duration: 4 Days   **Course Code: AAPM**   **Version: 5.20**   **Delivery Method: Company Event**

Overview:

This course features comprehensive coverage of advanced administration and performance management for Nutanix clusters. You'll learn how to monitor and tune clusters for better system performance, and optimize datacenter administration.
This course explains in detail how to use Acropolis services such as Volumes, Files and Objects. The course also explains how to define, manage, and secure workloads and applications using Calm and Flow, including automation of the Life Cycle Management (LCM) application, and how to implement and configure Self Service Portal and governance.
This course also covers Data Protection solutions such as Metro Availability with Witness. Advanced management using the new features of Prism Central and the command line are also covered in detail. This includes how to take advantage of machine learning with entity management and resource optimization as well as how to plan for future growth using Scenario Management using Prism Pro.
This course includes a **Free** exam Voucher.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

IT administrators, architects, and business leaders who already manage Nutanix clusters in the datacenter, but who would like more in-depth knowledge of Nutanix datacenter administrationAnyone preparing for the Nutanix Certified Master - Multicloud Infrastructure (NCM-MCI) certification

Objectives:

- Monitor datacenter performance and manage components to optimize system performance.

- Implement advanced solutions for business continuity and data protection in Nutanix datacenters.

- Design high-performing networks to support Nutanix clusters.

- Customize Nutanix security features.

- Deploy all Nutanix storage solutions:

- - Files

- - Volumes

- - Objects

- Use Prism Central to:

- - Identify and fix cluster health problems

- - Exploit machine learning for entity management and resource optimization

- - Plan for future growth

- - Manage assets and applications using Calm, Life Cycle Management (LCM)

- Practice advanced datacenter management procedures using hands-on labs.

- Get the most out of Nutanix systems by maximizing configuration and operation for peak efficiency.

- Validate your new skills by preparing for and completing the Nutanix Certified Master - Multicloud Infrastructure (NCM-MCI) certification.

Prerequisites:

- Nutanix Enterprise Cloud Administration (ECA) classroom training or an NCP certification
- Basic knowledge of Nutanix datacenter administration techniques
- Familiarity with traditional virtualization storage architectures
- Comfortable with Linux command-line interface

Content:

Module 1: Advanced Network Configuration and Management

Course Guide: Updated the following sections with new content, notes, CLI commands, and images where required:

- Network Performance Design: Core-Aggregation-Access
- Running Networking commands
- Load-Balancing Algorithms
- Configuring Jumbo Frames
- Configuring VLAN Trunking
- Isolating iSCSI Network Traffic
- Migrating iSCSI Connections to the Segmented Network
- Configuring RDMA
- Additional Resources

Lab Guide:

- Regression tested for AOS 5.20
- Converted exercises 1 and 2 from CLI to Prism UI
- Regression tested for AOS 5.20
- Regression tested for AOS 5.20 and pc.2021.1.
- Updated to pc.2021.1 versions of Calm and Flow.
- Changed Windows 2012 to Windows 2019.
- Regression tested for AOS 5.20.
- Updated Files to version 3.8.0.1.
- Changed Windows 2012 to Windows 2019.
- Regression tested for AOS 5.20 and pc.2021.1.
- Updated Objects to 3.4.0.1.
- Regression tested for AOS 5.20 and pc.2021.1.
- Updated to pc.2021.1 version of Leap.
- Changed Windows 2012 to Windows 2019.
- Regression tested for AOS 5.20.
- Updated Exercises 1-3 due to changes in PE and PC UIs.

Module 2: Managing Clusters and VM Workloads

Course Guide: Updated the following sections with new content, notes, and CLI commands:

- Replacing Certificates
- Hardening AHV and the CVM
- Enable High Strength Password Policies
- Configuring AIDE
- Configuring Remote Logging
- Replaced 'Forecasting Resources Utilization' and 'Monitoring Infrastructure Load with X-Fit' sections with 'Capacity Runway'.
- Moved 'Conducting Rolling Upgrades with LCM' section right after 'Nutanix Recommendations' section in addition to

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Module 4: Deploying Nutanix Volumes

Course Guide: Updated module introduction

Lab Guide: Regression tested for AOS 5.20

Module 5: Implementing Nutanix Files

Course Guide:

- Updated module introduction
- Updated graphic in the 'Volume Group Disk Usage (3.x)' section
- Changed 'Files Analytics Dashboard' to 'File Analytics Dashboard'
- Changed 'Files Analytics Architecture' to 'File Analytics Architecture'

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Module 7: Implementing Data Protection

Course Guide: Added new features to the following sections as text or notes:

- Updated 'Understanding Nutanix Snapshots' section
- Added new feature update 'Self-Service Restore (SSR) Support for Leap' as a note
- Updated 'Protection Policies' content
- Support for Multi-Site Replication with Leap
- Support for AHV Synchronous Replication (0 RPO) with Leap and Support for NearSync Replication (1–15 minutes RPO) with Leap
- Support for AHV Synchronous Replication (0 RPO) in the Same Availability Zone
- Support for NearSync Replication (1–15 minutes RPO) on Leap with Single Prism Central or Single Prism Central with Leap (1 hour RPO or greater only)
- Support for NearSync Replication (1–15 minutes RPO) on Leap with Single Prism Central
- Updated 'Recovery Plans' content
- Support for VM level IP Address Mapping in Recovery Plans with Leap
- Support for Planned Failover of AHV VMs Protected with Synchronous Replication Schedule (0 RPO) in Leap
- Support for In-guest Script Execution in Recovery Plans with Leap
- Support for Cross cluster live migration with Leap
- Support for Recovery of VMs with Conflicting Files on ESXi
- Updated 'Implementing Async DR with NearSync' section
- Added new feature update 'Support for Network Traffic Segmentation of Disaster Recovery Service with Metro and NearSync Replication Schedules'
- Added new feature update 'Cross-Hypervisor Disaster Recovery (CHDR) Support for NearSync Replication in Leap'
- Updated 'Deploying Metro Availability' section
- Updated best practices and requirements
- Added new feature update 'Third-Party Backup Vendor Support for Backup and Restore (Metro Availability Disaster Recovery)'
- Updated 'Configuring vStores for SRM' section
- Interoperability of Metro, Asynchronous, and NearSync Replication Schedules for vStore Protection
- 20 seconds RPO in NearSync replication schedule for vStore protection

minor content updates.
- Troubleshooting

Course Guide: Updated screenshots in the following sections

- Category Based RBAC (Prism Central)
- Replacing Certificates
- Monitoring VM Performance (Prism Central)
- Sizing VM Workloads
- Modifying VM Resources Dynamically

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Module 3: Deploying and Securing VM Workloads

Course Guide: Updated module introduction. Additionally, replaced screenshots in the following sections:

- Creating Custom Categories
- Applying Categories to VMs
- Creating an Application Security Policy
- Creating an Isolation Policy
- Quarantine Policy
- Securing an Application
- Tiering Application
- Application Tiers
- Service Chain Configuration
- Monitoring Traffic with Flow
- Filtering Application Policies

- Updated Files to version 3.8.0.1.
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Module 6: Configuring Nutanix Objects

- Course Guide: Made minor text, note, hyperlink, and image updates to the following sections
- Module introduction
- Objects Network Architecture
- Creating Buckets
- Setting up an SSL Certificate for an Object Store
- Lifecycle Management in Objects
- Deployment Prerequisites

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Course Guide: Made minor content updates to the following sections:

- Employing Async DR Strategies
- vSphere Configuration Guidelines
- Metro Availability Failure Response
- VPN Gateway Appliance
- Network Ports for Disaster Recovery
- Module introduction
- Metrics to Monitor
- AHV Turbo
- Scaling Storage with Nutanix

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Module 8: Understanding ; Troubleshooting AOS Performance

Course Guide: Made minor content updates to the following sections:

- Employing Async DR Strategies
- vSphere Configuration Guidelines
- Metro Availability Failure Response
- VPN Gateway Appliance
- Network Ports for Disaster Recovery
- Module introduction
- Metrics to Monitor
- AHV Turbo
- Scaling Storage with Nutanix

Course Guide: Made graphics updates to the following sections:

- Investigating Performance Issues
- Understanding the I/O
- Understanding Unified Content Cache Operation

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Further Information:

For More information, or to book your course, please call us on 0800/84.009

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