AAPM Nutanix Advanced Administration and Performance Management

Duration: 4 Days   Course Code: AAPM   Version: 6.5   Delivery Method: Virtual Learning

Overview:

If you are an experienced Nutanix administrator, this course will serve as a deep dive that gives you a rich, nuanced understanding of the Nutanix platform, and will help you get the most out of your Nutanix solutions. AAPM is divided into six major sections, each focused on performance improvements and advanced administration techniques for different aspects of your clusters:
- **Storage:** Take a deep dive into AOS storage services, different aspects of Acropolis Distributed Storage, storage optimization, and storage best practices for application workloads.
- **Networks:** Learn how to optimize physical and virtual workloads, as well as how to implement Flow Virtual Networking and Virtual Private Clouds (VPCs).
- **VMs:** Learn about sizing the CVM and Prism Central VMs, alternate methods of VM provisioning (such as via CLI), how to work with GPUs, and how to improve VM storage and network performance.
- **Security:** Understand important features such as authentication, RBAC, IAM, and encryption. Learn how to use essential security products, such as Flow Security Central and Flow Network Security.
- **Analyzing Problems:** Explore ways to monitor and identify health issues, network performance, VM performance, and cluster performance.
- **Business Continuity and Disaster Recovery:** Learn about Nutanix data backup, web-scale data protection, protection from ransomware, self service restore, and third-party integrations. You will also learn how to use protection domains and Nutanix Leap for disaster recovery.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

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

Prerequisites:

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

Testing and Certification

Nutanix Certified Master - Multicloud Infrastructure (NCM-MCI)

Content:

1: Exploring Nutanix Storage Features

- Understanding Nutanix AOS Services and AOS Storage Services
- Exploring Storage Components
- AOS Storage Data Pathing

Hands-on Labs of 1

- Creating a Storage Container
- Updating Reported Capacity

2: Creating a Highly Available, Performant, and Resilient Storage Layer

- Creating Highly Available, Resilient Infrastructure
- Storage Optimization and Data Efficiency
- Optimizing and Planning for New Workloads
- Storage Best Practices for Application Workloads

Hands-on Labs of 2

- Observing Nutanix Cloning Efficiency
- Reserving Rebuild Capacity in AHV
- Observing the Rebuild Process
- Disabling Rebuild Capacity Reservation
- Creating a Storage Container with Deduplication Enabled
- Reviewing Deduplication Savings
- Enabling Replication Factor 1 and Creating a Storage Container

3: Optimizing Physical and Virtual Networks in AOS

- Optimizing Physical ; Virtual Networks
- Best Practices

Hands-on Labs of 3

- Managing Virtual Switches and Uplinks
- Viewing Virtual Switches from Prism Element
- Configuring CVM Network Segmentation
- Configuring QoS Traffic Marking

4: Optimizing Overlay Networks Using Flow Networking

- Optimizing Physical ; Virtual Networks
- Implementing Flow Networking
- Implementing VPCs
- Overlay Network Use Cases

Hands-on Labs of 4

- Enabling Flow Networking
- Creating an External Subnet
- Creating a VPC
- Creating VMs using the Overlay Subnets
- Configuring Local and Remote Gateways
- Establishing a VPN Connection
- Verifying VPN Connectivity

5: Optimizing VM Performance

- Sizing the CVM ; Prism Central
- Alternate Methods of Provisioning User VMs
- Working with GPUs in AHV
- Improving VM Storage and Network Performance

Hands-on Labs of 5

- Creating VMs with the REST API
- Configuring VirtIO Multi-Queue
- Configuring Volumes Block Storage

6: Analyzing Nutanix Cluster Security Options

- Nutanix Security Technologies
- User Authentication and Permissions
- Hardening AHV and the CVM
- Using Flow Network Security ; Flow Security Central
- Data Encryption with Nutanix
- Managing Log Files

Hands-on Labs of 6

- Configuring Cluster Lockdown
- Replacing Default SSL Certificates
- Configuring Syslog Integration
- Managing User Permissions

7: Microsegmentation with Flow Network Security

- Flow Policy Constructs
- Security Policy Models and Types
- Enabling Microsegmentation
- Creating and Applying Policies

Hands-on Labs of 7

- Enabling Flow Microsegmentation
- Creating Categories
- Creating VMs and Assigning Categories
- Configuring Isolation and Application Security Policies

8: Microsegmentation with Flow Network Security

- Evaluating Cluster Health
- Network Packet Capture and Inspection
- Acropolis Service Failures
- Ensuring Efficient Physical Resource Consumption with Machine Learning
- Application Monitoring and Discovery
- Monitoring Performance

Hands-on Labs of 8

- Creating a Prism Central Performance Monitoring Dashboard
- Creating Charts to Analyze Metrics Using Prism Central
- Creating Charts to Analyze Entities Using Prism Element

9: Business Continuity

- Assessing Business Continuity and Disaster Recovery
- High Availability and Data Protection
- Third Party Backup Integrations
- Best Practices

Hands-on Labs of 9

- Configuring Self Service Restore

10: Implementing Disaster Recovery

- Replicating Data with AOS
- Disaster Recovery Orchestration
- Disaster Recovery with Protection Domains
- Getting Started with Nutanix Leap
- Protecting Against Ransomware

Hands-on Labs of 10

- Enabling Nutanix Leap
- Configuring an Availability Zone
- Configuring a Protection Policy
- Creating Production and Test VLANs
- Preparing VMs for Nutanix Leap
- Configuring a Recovery Plan
- Performing Test and Planned Failover

Additional Information:

Terms and Conditions Customer must purchase training seats in advance of scheduling course dates. Customer may not cancel purchased training seats and all amounts paid are non-refundable. Customer may reschedule courses with no less than 15 business days written notice to Nutanix. Rescheduling fees may apply. Customer may substitute a student with no less than 5 business days written notice to Nutanix. Rescheduling fees do not apply to substitutions. Training seats must be consumed within 12 months of purchase. Failure to utilize the training seats within the 12 months of purchase shall result in forfeiture of all fees paid for such seats. Extensions may be available on a case by case basis.Most of our Authorized Training Partners (ATPs) have a 10-business day cancellation and/or reschedule policy. If customer cancels or reschedules within those 10 business days, fees may apply up to the full price of the seat. Nutanix reserves the right to cancel any scheduled course due to minimum enrollment not being achieved, instructor illness, or other events outside of its control. Cancellation notices will be sent to enrolled students by email with rescheduling information and alternative training options.

Further Information:

For More information, or to book your course, please call us on 00 971 4 446 4987

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