

## Nutanix Advanced Administration and Performance Management

**Duration: 4 Days    Course Code: AAPM    Version: 6.10    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	Hands-on Labs of 4	8: Microsegmentation with Flow Network Security
<ul style="list-style-type: none"><li>■ Understanding Nutanix AOS Services and AOS Storage Services</li><li>■ Exploring Storage Components</li><li>■ AOS Storage Data Pathing</li></ul>	<ul style="list-style-type: none"><li>■ Enabling Flow Networking</li><li>■ Creating an External Subnet</li><li>■ Creating a VPC</li><li>■ Creating VMs using the Overlay Subnets</li><li>■ Configuring Local and Remote Gateways</li><li>■ Establishing a VPN Connection</li><li>■ Verifying VPN Connectivity</li></ul>	<ul style="list-style-type: none"><li>■ Evaluating Cluster Health</li><li>■ Network Packet Capture and Inspection</li><li>■ Acropolis Service Failures</li><li>■ Ensuring Efficient Physical Resource Consumption with Machine Learning</li><li>■ Application Monitoring and Discovery</li><li>■ Monitoring Performance</li></ul>
Hands-on Labs of 1	5: Optimizing VM Performance	Hands-on Labs of 8
<ul style="list-style-type: none"><li>■ Creating a Storage Container</li><li>■ Updating Reported Capacity</li></ul>	<ul style="list-style-type: none"><li>■ Sizing the CVM ; Prism Central</li><li>■ Alternate Methods of Provisioning User VMs</li><li>■ Working with GPUs in AHV</li><li>■ Improving VM Storage and Network Performance</li></ul>	<ul style="list-style-type: none"><li>■ Creating a Prism Central Performance Monitoring Dashboard</li><li>■ Creating Charts to Analyze Metrics Using Prism Central</li><li>■ Creating Charts to Analyze Entities Using Prism Element</li></ul>
2: Creating a Highly Available, Performant, and Resilient Storage Layer	Hands-on Labs of 5	9: Business Continuity
<ul style="list-style-type: none"><li>■ Creating Highly Available, Resilient Infrastructure</li><li>■ Storage Optimization and Data Efficiency</li><li>■ Optimizing and Planning for New Workloads</li><li>■ Storage Best Practices for Application Workloads</li></ul>	<ul style="list-style-type: none"><li>■ Creating VMs with the REST API</li><li>■ Configuring VirtIO Multi-Queue</li><li>■ Configuring Volumes Block Storage</li></ul>	<ul style="list-style-type: none"><li>■ Assessing Business Continuity and Disaster Recovery</li><li>■ High Availability and Data Protection</li><li>■ Third Party Backup Integrations</li><li>■ Best Practices</li></ul>
Hands-on Labs of 2	6: Analyzing Nutanix Cluster Security Options	Hands-on Labs of 9
<ul style="list-style-type: none"><li>■ Observing Nutanix Cloning Efficiency</li><li>■ Reserving Rebuild Capacity in AHV</li><li>■ Observing the Rebuild Process</li><li>■ Disabling Rebuild Capacity Reservation</li><li>■ Creating a Storage Container with Deduplication Enabled</li><li>■ Reviewing Deduplication Savings</li><li>■ Enabling Replication Factor 1 and Creating a Storage Container</li></ul>	<ul style="list-style-type: none"><li>■ Nutanix Security Technologies</li><li>■ User Authentication and Permissions</li><li>■ Hardening AHV and the CVM</li><li>■ Using Flow Network Security ; Flow Security Central</li><li>■ Data Encryption with Nutanix</li><li>■ Managing Log Files</li></ul>	<ul style="list-style-type: none"><li>■ Configuring Self Service Restore</li></ul>
3: Optimizing Physical and Virtual Networks in AOS	Hands-on Labs of 6	10: Implementing Disaster Recovery
<ul style="list-style-type: none"><li>■ Optimizing Physical ; Virtual Networks</li><li>■ Best Practices</li></ul>	<ul style="list-style-type: none"><li>■ Configuring Cluster Lockdown</li><li>■ Replacing Default SSL Certificates</li><li>■ Configuring Syslog Integration</li><li>■ Managing User Permissions</li></ul>	<ul style="list-style-type: none"><li>■ Replicating Data with AOS</li><li>■ Disaster Recovery Orchestration</li><li>■ Disaster Recovery with Protection Domains</li><li>■ Getting Started with Nutanix Leap</li><li>■ Protecting Against Ransomware</li></ul>
Hands-on Labs of 3	7: Microsegmentation with Flow Network Security	Hands-on Labs of 10
<ul style="list-style-type: none"><li>■ Managing Virtual Switches and Uplinks</li><li>■ Viewing Virtual Switches from Prism Element</li><li>■ Configuring CVM Network Segmentation</li><li>■ Configuring QoS Traffic Marking</li></ul>	<ul style="list-style-type: none"><li>■ Flow Policy Constructs</li><li>■ Security Policy Models and Types</li><li>■ Enabling Microsegmentation</li><li>■ Creating and Applying Policies</li></ul>	<ul style="list-style-type: none"><li>■ Enabling Nutanix Leap</li><li>■ Configuring an Availability Zone</li><li>■ Configuring a Protection Policy</li><li>■ Creating Production and Test VLANs</li><li>■ Preparing VMs for Nutanix Leap</li><li>■ Configuring a Recovery Plan</li><li>■ Performing Test and Planned Failover</li></ul>
4: Optimizing Overlay Networks Using Flow Networking	Hands-on Labs of 7	
<ul style="list-style-type: none"><li>■ Optimizing Physical ; Virtual Networks</li><li>■ Implementing Flow Networking</li><li>■ Implementing VPCs</li><li>■ Overlay Network Use Cases</li></ul>	<ul style="list-style-type: none"><li>■ Enabling Flow Microsegmentation</li><li>■ Creating Categories</li><li>■ Creating VMs and Assigning Categories</li><li>■ Configuring Isolation and Application Security Policies</li></ul>	

## 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 20 (0) 2 2269 1982 or 16142

[training@globalknowledge.com.eg](mailto:training@globalknowledge.com.eg)

[www.globalknowledge.com/en-eg/](http://www.globalknowledge.com/en-eg/)

Global Knowledge, 16 Moustafa Refaat St. Block 1137, Sheraton Buildings, Heliopolis, Cairo