

# Nutanix Advanced Administration and Performance Management

Course 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

## 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 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
- **Lab Guide:**
- Regression tested for AOS 5.20

### **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
- **Lab Guide:**
  - 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.

### **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'
- **Lab Guide:**
  - Regression tested for AOS 5.20.

- Updated Files to version 3.8.0.1.
- Changed Windows 2012 to Windows 2019.

## **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
- **Lab Guide:**
  - Regression tested for AOS 5.20 and pc.2021.1.
  - Updated Objects to 3.4.0.1.

## **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
- **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
- **Lab Guide:**
  - Regression tested for AOS 5.20 and pc.2021.1.
  - Updated to pc.2021.1 version of Leap.
  - Changed Windows 2012 to Windows 2019.

## Module 8: Understanding & Troubleshooting AOS Performance

- **Course Guide:** Made minor content updates to the following sections:
  - 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
- **Lab Guide:**
  - Regression tested for AOS 5.20.
  - Updated Exercises 1-3 due to changes in PE and PC UIs.