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Learning Style: Virtual Classroom

Provider: Citrix

Difficulty: Advanced

Course Duration: 4 Days

Nutanix Advanced Administration & Performance Management

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Course Outline:

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.