Nutanix Advanced Administration and Performance Management

Varighed: 4 Days **Kursus Kode: AAPM** **Version: 7.5** **Leveringsmetode: Virtuel deltagelse**

Beskrivelse:

If you're ready to move beyond standard administration and master high-performance, enterprise-grade hybrid multicloud environments, this advanced course is for you.

Becoming an expert Nutanix administrator means shifting from routine management to administering automated, highly available infrastructures. As enterprise demands for high-performance workloads grow, mastering storage tuning, software-defined networking, microsegmentation, and disaster recovery qualifies you for senior roles such as Senior HCI Specialist, Cloud Operations Architect, and AI Infrastructure Lead.

To position you for success, this course equips you to:
- Improve the security posture of AHV, CVMs, and Prism Central, run LCM DUO dark site updates, and use syslog.
- Optimize AOS data paths, SPDK Blockstore, vDisk sharding, and understand external storage connections.
- Scale Prism Central, configure vNUMA, deploy vGPU acceleration, and load-balance Volume Groups.
- Govern multi-tenancy with Prism Self Service projects, resource quotas, and automated blueprints.
- Build software-defined overlay networks using Flow Virtual Networking.
- Enforce zero-trust microsegmentation using Flow Network Security policies.
- Diagnose performance anomalies, run NCC checks, gather logbay logs, and analyze root causes.
- Configure zero-RPO synchronous DR, Witness arbitration, stretched L2 subnets, and Multicloud Snapshot Technology.
- Perform non-disruptive Cross-Cluster Live Migration (OD-CCLM) across clusters and availability zones.

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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.

Målgruppe:

This Course is designed for experienced Senior Systems Administrators, Cloud Infrastructure Leads, and HCI Architects, it provides deep mastery of the Nutanix Cloud Platform (NCP).

Agenda:

- **By the end of this course, you will be able to:**
- Manage cluster security hardening, describe LCM DUO, and SIEM log forwarding.
- Configure and optimize AOS storage features for workload performance and resiliency.
- Tune VM compute resources using vNUMA, GPU acceleration, and Volume Group load balancing.
- Set up multi-tenant self-service projects with resource quotas and automated blueprints.
- Configure software-defined overlay networks, VPCs, and external gateways.
- Implement network security policies.
- Monitor cluster health, analyze metrics, collect log bundles, and troubleshoot issues.
- Configure synchronous disaster recovery.
- Live migrate running virtual machines across clusters and availability zones.

Forudsætninger:

Participants should have experience administering Nutanix environments and a solid understanding of virtualization,

Test og certificering

Nutanix Certified Master - Multicloud Infrastructure (NCM-MCI)

networking, storage, and infrastructure management. Familiarity with Nutanix Prism, cluster administration, and day-to-day operational tasks is recommended.

Yderligere Kurser:

None

Indhold:

Module 1: Advanced Cluster Security

- Security Development Life Cycle (SecDL), STIGs, SCMA, and AIDE.
- Hardening procedures for AHV hosts, Controller VMs, and Prism Central.
- Centralized security governance with Nutanix Central and Security Central.
- LCM DUO dark site updates and RELP/SIEM syslog integration.

Module 2: Exploring Nutanix Storage Features

- AOS storage constructs, I/O data pathing, and AHV Turbo.
- Storage resiliency, Smart Rebuild, and Rebuild Capacity Reservation.
- Elastic storage and shared storage container configurations.
- External storage array integrations and snapshot workflows.
- Performance acceleration with SPDK Blockstore, RDMA, Flash Mode, and vDisk sharding.

Module 3: Optimizing VM Performance

- Sizing and scale-up/scale-out decisions for CVMs and Prism Central.
- vNUMA topology alignment and NVIDIA GPU/vGPU acceleration in AHV.
- Volume Group load balancing and vNIC multi-queue/RSS tuning.
- Prism Central capacity runway planning, inefficiency analysis, and rightsizing.
- Programmatic VM management via REST APIs, CLI tools, and PowerShell.

Module 4: Prism Self Service

- Self-service architecture, governance, and common use cases.
- Project creation, Active Directory/IDP user mapping, and custom RBAC roles.
- Infrastructure binding, Policy Engine setup, and resource quota enforcement.
- Blueprint creation, approval policies, and self-service catalog management.

Module 5: Optimizing Overlay Networks Using Flow Virtual Networking

- Flow Virtual Networking architecture and GENEVE overlay encapsulation.
- Virtual Private Clouds (VPCs), overlay subnets, and Transit VPCs.
- NAT and No-NAT external gateways with Layer 4 Virtual IP load balancing.
- IPsec VPN gateways, VTEP connections, and IP address management.

Module 6: Microsegmentation with Flow Network Security

- Flow Network Security Next-Gen architecture and category tagging.
- Application, Isolation, VDI, Quarantine and Shared Services security policies.
- Microsegmentation enablement and policy enforcement workflows.

Module 7: Advanced Cluster Diagnostics

- Analysis Dashboard metrics, custom charts, and anomaly detection.
- Alert policies, behavioral thresholds, and notification rules.
- Nutanix Cluster Check (NCC) execution and operational best practices.
- Log collection using logbay, v4 APIs, SDKs, and SIEM forwarding.
- Failure recovery workflows and Knowledge Base root-cause analysis.

Module 8: Advanced DR and Multicloud Resiliency

- Synchronous replication write paths and Witness arbitration.
- Protection Policies, Recovery Plans, and Volume Group sync.
- Flow overlay vs. physical underlay DR designs and network segmentation.
- Failure handling.
- Multicloud Snapshot Technology (MST).

Module 9: On-Demand Cross Cluster Live Migration

- OD-CCLM prerequisites, latency limits, and VM permission rules.
- Live migration workflows across VLAN subnets and VPC overlay subnets.
- Troubleshooting failures.

Additional Information:

- Official course book provided to participants
- Includes hands-on labs
- Comes with a free NCP-MCI exam voucher

Software
- AOS
- Prism Central

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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