Updated on 18/08/2023

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Nutanix® Enterprise Cloud Platform Administration 5.5 Training

4 days (28 hours)

Presentation

Our Nutanix Enterprise Cloud Platform Administration 5.5 training course will enable you to master all the tasks Nutanix administrators may have to perform. From setting up the environment, to configuring it and keeping it in good working order.

After an introduction to the basic concepts of the Enterprise Cloud platform, participants will understand how to rack a Nutanix block, how to install and configure a cluster, and how to use the various interfaces to administer it. Nutanix Enterprise Cloud Administration 5.10 is designed for administrators (systems, network and storage) to successfully deploy Nutanix in a datacenter. The course covers all the tasks Nutanix solution administrators perform, including configuring and managing the Nutanix environment. It also introduces the basics of troubleshooting tools, offers tips for solving the most common problems and provides the information needed to escalate to Nutanix Support.

The course then explores in detail the management of virtual machines in Acropolis, and the monitoring of cluster health and performance. Data protection, capacity optimization and hypervisor in-place conversion will also be covered. Various datacenter failure scenarios will be presented, and participants will learn how to implement strategies to protect their data.

Mastery of Nutanix's Prism interface is included in the program to monitor and manage multiple activities between clusters, examine and analyze resources used and assess future needs.

You'll also learn basic Nutanix troubleshooting tools, including how to solve common problems and escalate to Nutanix support. Finally, you'll learn about essential lifecycle operations, including cluster startup and shutdown. This training covers all the updated features and new features, including :

- Support for VMware® vCenter 6.7

- Support for Xi Leap: Disaster Recovery in SAS Mode with Orchestration
- Prism Central: Addition of the "Audits" Dashboard in order to visualize the actions that have been carried out on the various registered clusters.
- "Never-Schedulable" Node: increases storage capacity without consuming resources CPU/Mem (licenses)
- Support for Data Replication (Metro Availability and Synchronous Replication) between different hardware manufacturers

Objectives

- Develop a working knowledge of the Nutanix product family
- Understand the prerequisites and considerations involved in setting up a Nutanix cluster.
- Familiarize yourself with cluster administration and monitoring via the Prism web console.
- Learn how to create, manage and migrate virtual machines, configure data protection services and plan business continuity.
- Understand how to plan and manage upgrades, assess future requirements and create what if" scenarios to adapt to changing business needs

Target audience

- Main : DevOps engineers, systems administrators and engineers, architects, and business leaders in charge of deploying and administering Nutanix clusters in data centers. Anyone wishing to prepare for the Nutanix Platform Professional (NPP) 5.5 certification.
- Secondary: Managers and technical teams wishing to deepen their knowledge of the pre-acquisition solution.

Prerequisites

- Be familiar with traditional storage virtualization architectures.
- Unix/Linux command line skills.

Nutanix® Enterprise Cloud Platform Administration 5.5 training program

- Introduction to the Nutanix Enterprise Cloud Platform
- Nutanix cluster administration
- Nutanix cluster configuration
- User interfaces
- Health surveillance and alerts
- Networking

- Virtual machine management
- Distributed Storage Fabric
- Workload AHV migration
- Services
- Business continuity
- Data protection
- Prism Central
- End of installation
- Lifecycle operations

Module 1: Introduction

- This module introduces the main Nutanix concepts and presents :
- Distributed Storage Fabric (DSF), App Mobility Fabric (AMF).
- Acropolis Hypervisor (AHV) native hypervisor.
- The module also describes Prism and other Nutanix cluster components, including Acropolis.

Module 2: Cluster administration

- In this module, participants will learn how to
- Set up a Nutanix cluster, including configuring DNS and adding network connections.
- The module also covers the use of Prism (Element and Pro) to manage the cluster.

Module 3: Nutanix cluster security

- This module describes how to secure a Nutanix cluster via
- User authentication, SSL certificate installation and
- RBAC-type access control (Prism Central).

Module 4: Networking

- Participants will learn how to
- Manage networks using Open vSwitch (OVS).
- Default configurations
- Configure bridges, hops, VLANs and segmentation.

Module 5: VM management

- This module shows you how to create and manage virtual machines.
- Participants will learn how to create a Guest VM
- How to import a new system image to a VM.

Module 6: Health monitoring - Cluster Healt & Alerts

- This module describes how to use the Cluster Health dashboard to monitor the health of a cluster.
- how to configure tests for different components.
- Participants will also learn how to monitor cluster performance and react to system alerts and events.
- In addition, this module will detail the customization of email alerts and the management of the NCC (use and update).

Module 7: Distributed Storage Fabric

- The module describes all the different Nutanix storage components:
  - Storage Tiers, Pools, Containers.
  - Volume Groups, vDisks, Datastores/SMB Shares, Snapshots & Clones.

Module 8: AHV workload migration

- This module describes how to migrate workloads to AHV using the Nutanix Move tool.
- Participants will learn how to deploy and configure Move (migration plan).

Module 9: Services

- Module 9 demonstrates the simplicity, high availability and high performance of two storage services:
- Nutanix Volumes, which provides iSCSI block storage and
- Nutanix Files, a native file server service.

Module 10: Service continuity - Continuity

- This module describes the various Nutanix data protection functions.
- It covers protection at VM, file and Volume Group level.

Module 11: Data protection

- This module describes how to create a remote site and a protection domain using the Prism web console.

- He also discusses the use of Cloud Xi to protect workloads via Xi Leap.

Module 12: Prism Central

- This module describes all the tasks that can be performed from Prism Central
- To supervise and control a number of activities across a set of clusters.

Module 13: Maintaining the Nutanix cluster

- This module presents the various resources available to help diagnose the cluster's state of health
  - Pulse, Logs File, Linux Tools, Nutanix Support Tools.

Module 14: Life Cycle Operations

- This module describes Nutanix cluster lifecycle management tasks (Shutdown/Restart, Add/Remove Node).
- Participants will also learn how to manage licenses and carry out software updates.
  and firmware Enterprise Cloud Administration 5.10

Module 15: ROBO deployments

- This module deals with the special case of remote sites.
- It covers 1-node and 2-node architectures, Witness use cases and possible recovery cases.

Complementary module

- Hybrid Cloud
- Cloud governance
- Cloud migration
- Infrastructure monitoring
- Backup and disaster recovery
- Computing Efficiency

Companies concerned

This course is aimed at both individuals and companies, large or small,

wishing to train its teams in a new advanced IT technology, or to acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.