



COURSE DESCRIPTION

Acquire the skills to make your data protection strategy successful with the *Veritas NetBackup 8.3: Administration* course. You will learn the general principles, configuration, and management of NetBackup, including how to best utilize the NetBackup tools and interfaces, effectively monitor backup operations, and ensure that the data recovery objectives are met.

Delivery Method(s)

This course is available in the following delivery methods:

- [Instructor-led training \(ILT\)](#)
- [Virtual instructor-led training \(VILT\)](#)
- [Learning Lab](#)

Duration

- Instructor-led training - ILT: 5 days, including 6 months of lab access
- Virtual instructor-led training - VILT: 5 days, including 6 months of lab access
- Learning Lab – Self-paced lesson guide plus 6 months of lab access

Course Objectives

After completing this course, you will be able to:

- Discuss the challenges of performing backups in today's enterprise computing environments.
- Describe the functions of the master server, media servers, and clients.
- Describe how NetBackup backs up and restores data.
- Identify NetBackup options and agents.
- Use the NetBackup Administration Console, Web Interface, and OpsCenter.
- Configure and manage basic disk storage units and storage unit groups.
- Configure file system backup policies and schedules.
- Perform manual backups and user-directed backups.
- Restore files using the Java or Windows BAR interface and OpsCenter Operational Restore.
- Monitor NetBackup backup and restore jobs and perform basic troubleshooting and information-gathering related to failing jobs.
- Configure and manage AdvancedDisk storage units and disk pools.
- Configure tape-based devices and volume pools; perform a robot inventory.
- Describe the various methods of backup image duplication.
- Describe MSDP cloud support and duplicate backups from local MSDP storage to MSDP cloud.
- Backup, restore and protect virtual environments like VMware and Hyper-V.
- Configure Storage Lifecycle Policies (SLPs) and initiate jobs that use SLPs.
- Manage the NetBackup catalog.
- Optimize NetBackup for performance.
- Generate NetBackup reports.

- Identify and use resources for troubleshooting NetBackup, including the support information gathering tools related.

Who Should Attend

This course is intended for technical professionals responsible for the design, configuration, operation, monitoring, or support of NetBackup.

Prerequisites

Students should be familiar with general network and storage concepts, and the administration and configuration of Windows or Linux operating systems.

Hands-On

This course includes practical hands-on lab exercises to apply your new skills in a virtual NetBackup domain. At the start of class students will choose between Windows-based or Linux-based NetBackup servers to perform lab exercises.

COURSE OUTLINE

Introducing NetBackup

- Data Protection and the NetBackup Environment
- NetBackup licensing models
- NetBackup Appliance overview
- Using the NetBackup Administration Console
- Installing NetBackup

Labs:

- Exercise A: Creating web service user and group on NetBackup master server
- Exercise B: Installing NetBackup master server software
- Exercise C: Installing NetBackup Java Remote Administration Console
- Exercise D: Installing NetBackup media server software
- Exercise E: Installing NetBackup client software
- Exercise F: Exploring the NetBackup Administration Console
- Exercise G: Viewing NetBackup Host Properties

NetBackup Web UI

- NetBackup Web User Interface
- Managing role-based access control
- Configuring NetBackup for Single Sign-On
- Configuring storage
- Managing credentials
- Protecting workload assets
- Monitoring and notifications
- Managing user sessions

Labs:

- Exercise A: Accessing and navigating the NetBackup web user interface
- Exercise B: Configuring role-based access control
- Exercise C: Configuring NetBackup for Single Sign-On
- Exercise D: Viewing and configuring notifications
- Exercise E: Managing user sessions

NetBackup Storage

- NetBackup storage device concepts
- Configuring and managing a basic disk storage unit
- Configuring storage unit groups
- Configuring AdvancedDisk
- Managing AdvancedDisk Storage

Labs:

- Exercise A: Viewing disk storage on a NetBackup server system
- Exercise B: Configuring a Basic Disk storage unit
- Exercise C: Identifying AdvancedDisk storage server
- Exercise D: Configuring an AdvancedDisk Disk Pool
- Exercise E: Verifying AdvancedDisk configuration
- Exercise F: Configuring a policy to write backups to AdvancedDisk storage
- Exercise G: Performing and monitoring backups to AdvancedDisk storage
- Exercise H: Monitoring and managing AdvancedDisk disk pools
- Exercise I: Configuring a storage unit group

NetBackup Policies

- Introduction to backup policies
- Creating and configuring policy attributes
- Creating a policy schedule
- Adding client to a policy
- Creating backup selections
- Managing policies

Labs:

- Exercise A: Configuring a policy to use frequency-based schedules
- Exercise B: Configuring a policy to use calendar-based schedules
- Exercise C: Copying a policy to create a new policy

Protecting File Systems

- Performing manual backup operations
- Using and customizing the NetBackup Activity Monitor
- Performing user-directed backups
- Backup job-related tips
- Introduction to restores
- Performing restore operations using the BAR interface
- Performing restore operations using OpsCenter Operational Restore
- Restore job-related tips

Labs:

- Exercise A: Using the Activity Monitor
- Exercise B: Performing manual backups
- Exercise C: Viewing job details
- Exercise D: Deactivating and activating policies
- Exercise E: Performing user-initiated backups
- Exercise F: Becoming familiar with key restore settings in the BAR user interface
- Exercise G: Restoring client files to their original location
- Exercise H: Restoring client files to an alternate file system location
- Exercise I: Restoring client files to an alternate client system

- Exercise J: Using the OpsCenter Operational Restore feature (Optional)

NetBackup Certificate Administration

- Understanding security certificates
- Working with Certificate Revocation Lists
- Configuring NetBackup security certificates
- Managing NetBackup security certificates
- Using external security certificates with NetBackup

Labs:

- Exercise A: Viewing host ID-based certificate details
- Exercise B: Manually deploying the CA certificate on a NetBackup client
- Exercise C: Manually deploying the host-id certificate on a NetBackup host
- Exercise D: Revoking host ID-based certificates
- Exercise E: Configuring External Certificate Authority (ECA) on the NetBackup Master Server
- Exercise F: Configuring a NetBackup host to use an ECA-signed certificate
- Exercise G: Disabling an external CA in a NetBackup domain

Storage Lifecycle Policies

- Duplication strategies
- Storage lifecycle policy concepts
- Using storage lifecycle policies
- Additional Storage Lifecycle Policy features and benefits

Labs:

- Exercise A: Configuring a Storage Lifecycle Policy
- Exercise B: Configuring a policy to use an SLP
- Exercise C: SLP Host Properties
- Exercise D: Viewing and monitoring SLP operations

Optimizing NetBackup

- File system backup challenges
- Optimizing file system backups
- Optimizing file system backups with NetBackup Accelerator
- Using multiple data streams
- Optimizing tape drive performance using multiplexing
- Handling busy files on UNIX and Windows file systems

Labs:

- Exercise A: Optimizing backups using the NetBackup Accelerator
- Exercise B: Configuring and using multiple data streams
- Exercise C: Configuring and performing multiplexed backups (Optional)

NetBackup: Upgrading and Updating

- VxUpdate overview
- Deployment Policy Management
- Initiating upgrades using VxUpdate
- VxUpdate Error Codes

Labs:

- Exercise A: Populating the repository with NetBackup packages
- Exercise B: Configuring a Deployment policy

- Exercise C: Manually initiating upgrades from the master server using VxUpdate
- Exercise D: Initiating upgrades from the client using VxUpdate
- Exercise E: Viewing the deployment job status

NetBackup Deduplication

- Introduction to MSDP
- Deduplication solutions
- MSDP architecture
- Planning your deployment
- Provisioning storage and configuring MSDP

Labs:

- Exercise A: Configuring NetBackup Media Server Deduplication
- Exercise B: Configuring a policy to use MSDP storage
- Exercise C: Performing backups to MSDP storage
- Exercise D: Configuring and using client-side deduplication
- Exercise E: Monitoring and managing NetBackup MSDP storage

NetBackup MSDP Cloud and Disaster Recovery

- MSDP Cloud Support
- MSDP Online data integrity checking
- Optimizing deduplication restores and rehydration
- Monitoring MSDP
- MSDP Disaster Recover

Labs:

- Exercise A: Configuring MSDP Cloud
- Exercise B: Duplicating backups from local MSDP storage to MSDP Cloud
- Exercise C: Performing Disaster Recovery
- Exercise D: (Optional) Examining MSDP cloud configuration files
- Exercise E: (Optional) Verifying Data Integrity Checks

Ransomware

- Ransomware overview
- NetBackup protection against Ransomware
- Configuring NetBackup WORM protection

Labs:

- Exercise A: Configuring NetBackup WORM storage server instance
- Exercise B: Configuring Disk Pool and WORM Storage Unit
- Exercise C: Configuring NetBackup Policy
- Exercise D: Understanding catalog operations on WORM image copy

Protecting VMware Environments

- Understanding VMware backups
- Performing VMware backups
- Performing VMware restores
- Instant Access for VMware
- VMware Agentless Restore

Labs:

- Exercise A: Verifying the VMware environment

- Exercise B: Configuring NetBackup to perform VMware backups
- Exercise C: Installing the NetBackup Plug-in for VMware vSphere Web Client
- Exercise D: Configuring a VMware policy
- Exercise E: Performing and monitoring VMware virtual machine backups
- Exercise F: Excluding disks from a VMware virtual machine backup
- Exercise G: Managing VMware assets using the NetBackup Web UI
- Exercise H: Managing VMware credentials using Web UI
- Exercise I: Recovering virtual machine files
- Exercise J: Recovering a VMware virtual machine disk
- Exercise K: Recovering an entire VMware virtual machine
- Exercise L: Using NetBackup Web UI to recover a virtual machine to alternate location
- Exercise M: Using the Instant Access for VMware (Linux only)

NetBackup Catalog

- NetBackup catalog: Overview
- NetBackup relational databases
- Catalog backup and recovery
- Maintaining the NBDB

Labs:

- Exercise A: Running NetBackup reports
- Exercise B: Verifying, expiring, and importing backup images
- Exercise C: Configuring and running NetBackup catalog backups
- Exercise D: Recovering the catalogs using the NetBackup Catalog Recovery wizard

NetBackup Reporting

- Generating reports in NetBackup
- Generating reports using OpsCenter
- Generating reports using APTARE IT Analytics

Labs:

- Exercise A: Generating reports in NetBackup Admin Console
- Exercise B: Generating reports using OpsCenter

NetBackup Integrated Solutions

- Introduction to NetBackup APIs
- NetBackup Integration with Veritas Resiliency Platform
- NetBackup Integration with Access Appliance 3340 (7.4.2)
- NetBackup Integration with Enterprise Vault

Appendix A: Collecting Logs and Diagnostic Information

- Performing basic NetBackup troubleshooting
- Identifying NetBackup processes, services, and daemons
- NetBackup logging overview
- Using the support utilities
- Using NetBackup support resources

Labs:

- Exercise A: Viewing the NetBackup services
- Exercise B: Using the nbsu and nbclogs commands
- Exercise C: Viewing and setting debug logging properties
- Exercise D: Enabling NetBackup legacy debug logging
- Exercise E: Viewing debug logging levels for unified logs

Appendix B: Configuring and Managing tape storage

- Understanding Media Manager storage units
- Configuring tape devices
- Verifying tape storage
- NetBackup media concepts
- Configuring media
- Managing robots and tape drives
- Monitoring media and media states
- Managing tapes
- NetBackup device troubleshooting
- Common NetBackup device issues
- Media and device selection
- Media-related status codes
- Troubleshooting frozen and suspended media

Labs:

- Exercise A: Verifying and discovering tape devices
- Exercise B: Viewing configured tape devices
- Exercise C: Configuring tape devices
- Exercise D: Configuring volume pools
- Exercise E: Configuring media
- Exercise F: Viewing tape drive and robot configuration settings
- Exercise G: Using the Device Monitor to monitor and manage tape drives
- Exercise H: Managing media
- Exercise I: Using the robtest utility
- Exercise J: Running NetBackup reports from the command line
- Exercise K: Media state management using the command line

Appendix C: Protecting Hyper-V Environments

- Introduction to NetBackup for Hyper-V
- Configuring Hyper-V backups
- Performing and Monitoring Hyper-V backups
- Performing Hyper-V restores
- Performing Hyper-V restores with the NetBackup Add-in for SCVMM

Labs:

- Exercise A: Configuring NetBackup communication with Hyper-V
- Exercise B: Configuring a Hyper-V Intelligent Policy and backing up Hyper-V virtual machines
- Exercise C: Restoring individual files
- Exercise D: Restoring the full Hyper-V machine
- Exercise E: Performing Hyper-V backups and restores in an SCVMM environment

Appendix D: Instant Recovery for VMware

- Using VMware Instant Recovery

- VMware Instant Recovery: Differences
- VMware Instant Recovery: Process
- Working with the NetBackup plug-in in vSphere Web Client
- Instant Recovery Cleanup
- Executing the nbrestorevm command

Labs:

- Exercise A: Verifying the VMware environment
- Exercise B: Performing non-NetBackup pre-requisite tasks for IRV
- Exercise C: Performing NetBackup pre-requisite tasks for IRV
- Exercise D: Performing Instant Recovery for VMware (IRV) using the vSphere Web Client