



## COURSE DESCRIPTION

Acquire the skills to make your data protection strategy successful with the *Veritas NetBackup 8.1.2: 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 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

- By the completion of 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.
- Diagram the NetBackup product architecture.
- Define common terms used in the NetBackup product.
- 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 steps related to failing jobs.
- Configure and manage AdvancedDisk storage units and disk pools.
- Configure tape-based devices and volume pools; perform a robot inventory.
- Manage robot and tape drive settings, including media sharing.
- Monitor and manage media and media states.
- Configure, run, and manage virtual machine backups using VMware.
- Recover virtual machines, including using VMware Instant Recovery.

- Use the integrated NetBackup vSphere Web Client Plug-in for VMware.
- Describe the various methods of backup image duplication.
- Configure Storage Lifecycle Policies (SLPs) and initiate jobs that use SLPs.
- Manage the NetBackup catalog to search for, verify, duplicate, import, and expire backup images.
- Back up and recover the NetBackup catalogs.
- Optimize file system backups using incremental backups, True Image Restore, synthetic backups, NetBackup Accelerator, multiple data streams, and multiplexing.
- 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 concepts
- NetBackup Appliance Overview
- Using the NetBackup Administration Console
- Using the NetBackup web interface
- Using NetBackup OpsCenter

### Labs:

- Exercise A: Introduction to your Lab On Demand (LOD) lab environment
- Exercise B: Accessing remote lab systems
- Exercise C: Launching the NetBackup Administration Console
- Exercise D: Exploring the NetBackup Administration Console
- Exercise E: Verifying NetBackup licenses
- Exercise F: Identifying common Administration Console configuration items
- Exercise G: Initiating backup jobs using the NetBackup Administration Console
- Exercise H: Viewing and monitoring backup jobs using the Activity Monitor
- Exercise J: Exploring the NetBackup web interface

- Exercise K: Configuring role-based access control

### Configuring NetBackup Storage

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

#### Labs:

- Exercise A: Viewing disk storage on a NetBackup server system
- Exercise B: Configuring a BasicDisk storage unit
- Exercise C: Configuring a storage unit group

### Configuring Policies

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

#### Labs:

- Exercise A: Configuring a NetBackup policy
- Exercise B: Configuring a policy to use calendar-based schedules
- Exercise C: Copying a policy to create a new policy
- Exercise D: (Optional) Lab challenge

### Performing File System Backups

- Using and customizing the NetBackup Activity Monitor
- Performing manual backup operations
- Performing user-directed backups
- Backup job-related tips

#### Labs:

- Exercise A: Using the Activity Monitor
- Exercise B: Manual backups
- Exercise C: Viewing job details
- Exercise D: Deactivating and activating policies
- Exercise E: Performing user-initiated backups
- Exercise F: Bringing tape drives UP on lnxmaster.example.com

### Performing File System Restores

- Introduction to restores
- Performing restore operations using the BAR interface
- Performing restore operations using OpsCenter Operational Restore
- Restore job-related tips

#### Labs:

- Exercise A: Becoming familiar with key restore settings in the BAR user interface
- Exercise B: Restoring client files to their original location
- Exercise C: Restoring client files to an alternate file system location
- Exercise D: Restoring client files to an alternate client system Windows only
- Exercise E: Restoring client files to an alternate client system Linux only
- Exercise F: Optional Using the OpsCenter Operational Restore feature

### Configuring Disk Pools

- Understanding disk pools and AdvancedDisk
- Configuring AdvancedDisk
- Managing AdvancedDisk storage

#### Labs:

- Exercise A: Identifying AdvancedDisk storage
- Exercise B: Configuring AdvancedDisk
- Exercise C: Verifying AdvancedDisk configuration
- Exercise D: Configuring a policy to write backups to AdvancedDisk storage
- Exercise E: Performing and monitoring backups to AdvancedDisk storage
- Exercise F: Monitoring and managing AdvancedDisk disk pools

### Configuring Media Server Deduplication

- Introduction to NetBackup deduplication
- Configuring NetBackup media server deduplication
- Configuring client-side deduplication
- Managing NetBackup deduplication

#### Labs:

- Exercise A: Configuring NetBackup Media Server Deduplication (MSDP)
- 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
- Exercise F: (Optional) Running Deduplication reports in OpsCenter

### Configuring Tape Storage

- Understanding Media Manager storage units
- Configuring tape devices
- Verifying tape storage
- NetBackup media concepts
- Configuring media

#### Labs:

- Exercise A: Verifying tape devices are visible to the operating system of media servers
- Exercise B: Viewing configured tape devices (using the NetBackup Administration Console)
- Exercise C: Configuring tape devices using the Device Configuration wizard
- Exercise D: Configuring volume pools
- Exercise E: Configuring media using the Administration Console

### Managing Tape Storage

- Managing robots and tape drives
- Monitoring media and media states
- Managing tapes
- Media- and device- related tips

#### Labs:

- Exercise A: Viewing tape drive and robot configuration settings

- Exercise B: Using the Device Monitor to monitor and manage tape drives
- Exercise C: Managing media
- Exercise D: Running tape-based reports
- Exercise E: (Optional) Using the robtest utility
- Exercise F: (Optional) Running NetBackup reports from the command line
- Exercise G: (Optional) Media state management using the command line

### Performing Virtual Machines Backups

- Introduction to virtual machine backups
- Configuring VMware backups
- Protecting VMware Assets using the web UI
- Performing and Monitoring VM Backups

#### 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 Web UI

### Performing Virtual Machines Restores

- Managing virtual machine restores
- Managing VMware restores
- Using VMware Instant Recovery

#### Labs:

- Exercise A: Recovering virtual machine files
- Exercise B: Recovering a VMware virtual machine disk
- Exercise C: Recovering an entire VMware virtual machine
- Exercise D: Performing non-NetBackup pre-requisite tasks for IRV (Required, but pre-done)
- Exercise E: Performing NetBackup pre-requisite tasks for IRV
- Exercise F: Performing Instant Recovery for VMware (IRV) using the vSphere Web Client
- Exercise G: Using NetBackup Web UI to recover a virtual machine to alternate location

### Duplicating Backups Using Storage Lifecycle Policies

- Backup duplication concepts
- 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

### Managing and Protecting the NetBackup Catalog

- Introduction to NetBackup catalogs
- Managing images
- Configuring a catalog backup policy
- Disaster recovery strategies

#### 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

### Optimizing File System Backups

- 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: (Optional) Configuring and performing multiplexed backups

### 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: Running NetBackup reports for troubleshooting
- Exercise C: Using the nbsu and nbcplogs commands
- Exercise D: (Optional) Viewing and setting debug logging properties
- Exercise E: (Optional) Enabling NetBackup legacy debug logging
- Exercise F: (Optional) Viewing debug logging levels for unified logs