

Module Title : Veritas NetBackup 8.2: Maintenance and Troubleshooting
Duration : 4 days

Overview

The NetBackup 8.2: Maintenance and Troubleshooting course provides IT professionals with instructions on troubleshooting Veritas NetBackup software. This course covers general error detection tools and troubleshooting methodologies. It enables students to learn how to resolve issues related to the NetBackup database, devices, media, disk, cloud, OST, deduplication, and virtualization. In addition, students study the functions of key NetBackup processes and learn how to enable, view, and manage the associated logs.

Course Objectives

After completing this course, you will be able to:

- Identify the NetBackup interfaces and tools commonly used to gather information about problems.
- Manage debug log settings, including log retention and rollover.
- Prepare and gather debug logs for sending to Veritas Support.
- Troubleshoot ECA and CRL issues.
- Describe the methodology to troubleshoot common installation issues.
- Explain the new VxUpdate error codes and their corresponding resolution.
- Describe the use and features of the Logging Assistant.
- State and resolve common NetBackup Web UI access issues.
- Explain Agentless VM recovery for VMware backups.
- Troubleshoot common issues.
- Describe the methodology to troubleshoot the NetBackup Cloud storage configuration issues.
- Describe the methodology to troubleshoot the OST plugin backup logging.
- Use tools to maintain and troubleshoot NetBackup deduplication.
- Troubleshoot common VMware and Hyper-V backup and recovery issues.
- Describe how NBU integrates with RHV.
- Maintain configuration and troubleshoot Storage Lifecycle Policies and Auto Image Replication.
- Extract relevant data from legacy logs, and use the vxlogview command to format data from raw unified logs.
- Recognize common debug logs messages and search terms related to various failed backup job.
- Work with commands to run, maintain, and troubleshoot the databases.

Who Should Attend

This course is for NetBackup administrators, operators, system engineers, and technical support personnel who want to broaden their NetBackup advanced troubleshooting knowledge and skills on a Windows or UNIX platform.

Prerequisites

Students should be familiar with general network and storage concepts, and administration and configuration of Windows or Linux operating systems. Students must also have one to three years of experience with basic NetBackup administration, configuration, and operation. These prerequisites can be met by attending any version of the NetBackup Administration course plus additional on-the-job experience.

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

Troubleshooting Methods and Tools

- Troubleshooting situations and methodology
- Gathering symptoms and information
- Additional troubleshooting resources

Labs:

- Exercise A: Introduction to the lab environment
- Exercise B: Navigating in the NetBackup (8.2) Administration Console
- Exercise C: Viewing the NetBackup configuration
- Exercise D: Testing backup and restore operations
- Exercise E: Viewing common NetBackup problem information sources and collection tools

NetBackup Process Flow

- Core process functions
- Backup process flow
- Tape restore process flow
- Disk restore process flow
- Viewing process flow information

Labs:

- Exercise A: Tracing backup process flow – to tape-based storage
- Exercise B: Tracing backup process flow - to disk-based storage
- Exercise C: Tracing restore process flow
- Exercise D: Tracing process flow for a failed job

Debug Logging

- Preparing to gather debug logs
- Enabling debug logs
- Performing log management

- Capturing debug logs

Labs:

- Exercise A: Enabling debug logs
- Exercise B: Setting the logging levels
- Exercise C: Enabling legacy logging
- Exercise D: Running manual backups
- Exercise E: Collecting logs and copying them to the file share

Troubleshooting Communication Issues

- NetBackup Secure Communications
- Support for External Certificates
- Working with Certificate Revocation Lists

Troubleshooting NetBackup Installation and Upgrade Issues

- NetBackup 8.2 Installation Updates and Troubleshooting
- Working with and Troubleshooting VxUpdate
- Working with the Logging Assistant

Labs:

- Exercise A: Troubleshooting Master server upgrade issue
- Exercise B: Working with VxUpdate Troubleshooting NetBackup WebUI
- NetBackup Web user interface: Synopsis
- NetBackup Web user interface and RBAC
- Troubleshooting NetBackup Web user interface
- Agentless Recovery for VMware backups

Labs:

- Exercise A: Accessing the NetBackup web interface - problem scenario 1
- Exercise B: Accessing the NetBackup web interface - problem scenario 2
- Exercise C: Creating a custom role
- Exercise D: Editing user access rules
- Exercise E: Creating an object group
- Exercise F: Limiting role permissions to specific objects

Troubleshooting Cloud Storage and OST Plug-ins

- Using the cloud with NetBackup
- Troubleshooting OpenStorage Technology (OST) logging

Troubleshooting NetBackup Deduplication

- Understanding NetBackup deduplication and deduplication process flow
- Maintaining and troubleshooting NetBackup deduplication

- Recovering from MSDP server failure
- Multi-Domain and VLAN support for MSDP
- Certificate configuration

Labs:

- Exercise A: Monitoring and troubleshooting MSDP
- Exercise B: Verifying a MSDP Backup Image
- Exercise C: Discovering and fixing orphan MSDP data

Troubleshooting Virtual Environments

- Troubleshooting VMware backups
- Troubleshooting Hyper-V backups
- NetBackup support for RedHat KVM

Troubleshooting Storage Lifecycle Policies

- Understanding Storage Lifecycle Policies
- Troubleshooting Storage Lifecycle Policies
- Troubleshooting data classification
- Understanding Auto Image Replication
- Troubleshooting Auto Image Replication

Labs:

- Exercise A: Storage Lifecycle Policies – problem scenario 1
- Exercise B: Storage Lifecycle Policies – problem scenario 2

Introduction to Log Analysis

- Preparing for debug log analysis
- Viewing debug logs
- Analyzing debug logs for a successful backup job
- Analyzing debug logs for a failed backup job

Labs:

- Exercise A: Locating backup information in the Activity Monitor
- Exercise B: Locating collected log files
- Exercise C: Viewing and analyzing logs

Understanding the NetBackup Catalog

- The NetBackup catalog
- The NetBackup relational databases (NBDB)
- Catalog backup and recovery
- Maintaining the NBDB

Labs:

- Exercise A: Reviewing the NetBackup catalog structure
- Exercise B: Configuring, performing, and analyzing catalog backups
- Exercise C: Using the cat_convert command
- Exercise D: Corrupting the NBDB
- Exercise E: Recovering the NBDB from a backup
- Exercise F: Recovering the NBDB from staging (Optional)

Appendix A: Troubleshooting Tape Devices and Media

- NetBackup device troubleshooting
- Common NetBackup device issues
- Media and device selection
- Media-related status codes
- Troubleshooting frozen and suspended media

Labs:

- Exercise A: Tape devices and media - problem scenario 1 (Optional)
- Exercise B: Tape devices and media - problem scenario 2 (Optional)

Appendix B: Troubleshooting Disk Backup Resources

- Overview of disk-based backups
- Maintaining and troubleshooting BasicDisk
- Maintaining and troubleshooting AdvancedDisk
- Maintaining and troubleshooting OpenStorage

Labs:

- Exercise A: Disk devices - problem scenario 1 (Optional)
- Exercise B: Disk devices - problem scenario 2 (Optional)

Appendix C: Troubleshooting Basic Communication Issues

- Understanding NetBackup communication
- Configuring NetBackup and network communication
- Troubleshooting network and NetBackup communication problems
- Common NetBackup communication issues

Labs:

- Exercise A: NetBackup communications – problem scenario 1 (Optional)
- Exercise B: NetBackup communications – problem scenario 2 (Optional)
- Exercise C: NetBackup communications – problem scenario 3 (Optional)