COURSE DESCRIPTION

The *Veritas Backup Exec 20.1: Administration* course is designed for the data protection professional tasked with architecting, implementing, backing up, and restoring critical data. This class covers how to back up and restore data, configure storage devices, manage media, manage and maintain the Backup Exec environment.

Students also learn how to configure and work with various Backup Exec Agents, which protect applications like Microsoft Exchange, Microsoft SharePoint, Microsoft SQL, Active Directory, and virtual environments.

Delivery Method(s)
This course is available in the following delivery method(s):
• Instructor-led training (ILT)
• Virtual instructor-led training (VILT)

Duration
• Instructor-led training (ILT): 5 days
• Virtual instructor-led training (VILT): 5 days

Course Objectives
By the completion of this course, you will be able to:
• Describe the functionality and architecture of Backup Exec.
• Install and upgrade to Backup Exec 20.1.
• Configure storage devices.
• Manage devices and media used by Backup Exec.
• Run backup and restore jobs.
• Set backup and recovery settings and methods.
• Perform Online Disaster Recovery.
• Work with the Database Encryption Key.
• Install the SDR disk creation wizard, create an SDR disk imagen and recover a server with SDR.
• Backup a physical machine and convert to a virtual machine either simultaneously or on a schedule.
• Install, configure, and manage the Backup Exec Central Admin Server feature.
• Protect remote servers using the appropriate Remote Agents.
• Use Backup Exec to protect databases and applications, including;
    • VMware vSphere
    • Microsoft Hyper-V
    • Microsoft SQL Server
    • Microsoft Exchange
    • Microsoft SharePoint
    • Agent for Active Directory
• List the supported virtual conversion configurations.
• Configure Backup Exec Deduplication Storage.
• Backup and restore deduplicated data.

Who Should Attend
This course is designed for system administrators, system engineers, technical support personnel, systems professionals, consultants, backup administrators, backup operators, and others who are responsible for installing, configuring, managing and monitoring Backup Exec 20.1.

Prerequisites
You must have basic working knowledge of administrating and configuring Windows Server 2008, Windows Server 2012 and later platforms. You must also have experience configuring server software. Basic working knowledge of the following applications is beneficial, but not required:
• Microsoft SQL Server
• Microsoft Exchange Server
• Microsoft SharePoint Portal Server
• Microsoft Hyper-V
• VMware virtual infrastructure.

Hands-On
This course includes practical, hands-on lab exercises that enable you to test your new skills and begin to transfer them to your working environment. Additionally, assessment items at the end of each lesson test your knowledge and comprehension of the information provided.

COURSE OUTLINE

Veritas Backup Exec 20.1: Install and Configure

Lesson 00: Course Introduction
• About this course
• Veritas education and support resources

Lesson 01: Backup Exec Fundamentals
• Data backup basics
• Backup Exec solution offerings
• Backup Exec architecture
• Backup Exec 20.1: EOL Items

Lesson 02: Licensing Backup Exec
• Subscription, Perpetual and À la carte Licensing
• Trialware and upgrades
• Capacity and subscription license enforcement
• Updated licensing information
• Capacity widget and capacity metering
• Maintenance and Extended Support Licensing

Lesson 03: Installing Backup Exec
• Backup Exec: New installation
• Typical installation of Backup Exec
• Custom installation of Backup Exec
• Installation details
• Applying Backup Exec updates

Lesson 04: Working with the Administration Console
• Launching Backup Exec
• Introduction to Backup and Restore

Lesson 05: Disk Storage Devices
• Backup Exec storage devices
• Configuring disk storage devices
• Configuring disk cartridge devices
• Configuring deduplication storage

- Configuring Backup Exec storage pools
- Managing disk storage devices

Lesson 06: Cloud-based Storage Devices

- Cloud storage
- Amazon S3 cloud-based storage
- Google cloud-based storage
- Microsoft Azure cloud-based storage
- Backup Exec requirements for creating cloud storage devices
- Configuring a cloud-storage device in Backup Exec
- Managing cloud-storage in Backup Exec

Lesson 07: Network Storage Devices

- Configuring network storage

Lesson 08: Disk, Network, and Cloud Data Management
- Managing disk and network data
- Data Lifecycle Management fundamentals
- DLM rules overview
- Dependent backup sets
- DLM rule
- Manual expiration and retention
- Read only setting
- Media Catalogs

Lesson 09: Tape Devices and Tape Management
- Configuring tape storage
- Managing tape devices
- Tape storage operations
- Managing tapes with media sets
- Tape Drive Auto Eject enhancements

Lesson 10: Backing up Data
- Adding a server
- Creating a backup job
- Working with multi-server backup definitions
- Accounts and credentials in Backup Exec
- Managing server selections
- Backup selections – Dynamic inclusion
- Backup selections – Resource ordering
- Backup selections – Excludes
- Adding a backup task
- Backup settings – Backup methods
- Backup settings – Additional settings
- Backup stage basics
- Job name fundamentals
- Manually running backup jobs

Lesson 11: Managing Servers and Jobs
- Backup and Restore view
- Server groups
- Backup selections – Tag as Business-Critical
- Retired servers group

Lesson 12: Restoring Data
- Viewing contents of backup sets
- Restore job basics
- Restore settings
- Granular restore technology (GRT)

- Restoring data from a single backup set
- Restoring data from multiple backup sets
- Restoring data from a cloud storage device
- Restoring data from disk storage
- Restoring data from tape
- Restoring data from backup job
- Online Disaster Recovery
- Restoring System State
- Shadow Copy Components

Lesson 13: Working with the Database Encryption Key
- Backup Exec Database sensitive data components
- Auto-generated AES-256 encryption key
- Protecting the Database Encryption Key (DEK)

Lesson 14: Simplified Disaster Recovery
- Simplified Disaster Recovery fundamentals
- Simplified Disaster Recovery – Backup
- Installing the SDR disk creation wizard
- Creating an SDR disk image (.iso) file
- Recovering a server with SDR
- Windows Storage Pools and Spaces
- SDR additional options

Lesson 15: Upgrading Backup Exec
- Upgrading the Backup Exec server
- BE CAS and MBES rolling upgrades
- Agent for Windows upgrade
- Migration report

Appendix A: Storage Devices
- Windows Storage Pools and Spaces
- Network Storage
- Remote Media Agent for Linux
- Robotic Libraries
- Importing a legacy backup-to-disk folder

Appendix B: Central Admin Server Feature
- Backup Exec CAS: Overview
- Installing the CAS
- Installing MBES
- Backup jobs: MBES and Server Pools
- Restoring Files using CAS
- Instant Recovery jobs
- MBES Settings
- Copy Configuration to MBES
- Upgrading a CAS environment to Backup Exec
- Renaming CAS and MBES
- MBES to Standalone
- Offline Central Admin Server Restore from a Managed Backup Exec Server

Appendix C: Remote Administration Console
- Installing Backup Exec 20.1 Remote Administration Console
- Configuring Backup Exec 20.1 Remote Administration Console

Veritas Backup Exec: Agents and Features

Lesson 00: Course Introduction
- About this course
- Veritas education and support resources

Lesson 01: Deduplication Feature
- Data deduplication and Open Storage Technology – Fundamentals
- Enabling the Deduplication Feature
- Configuring Backup Exec deduplication storage
- Exclusion from Windows deduplication
- Configuring OST device
- Deduplication backup job
- Configuring client-side deduplication
- Rehydration
- Optimized duplication
- Protecting Backup Exec deduplication storage
- Best practices for the Deduplication Feature
- OpenDedupe OST connector
- OpenDedupe installation and configuration
- Configuring OpenStorage in Backup Exec

Lesson 02: Introduction to Remote Agent, Applications and Databases
- Agent for Windows
- Push-installing the Agent for Windows using the Add Server Wizard
- Locally installing the Agent for Windows
- Managing the Agent for Windows
- Agent for Applications and Databases fundamentals
- Enabling the Agent for Applications and Databases feature

Lesson 03: Protecting Microsoft Exchange Server
- Backup Exec Agent for Microsoft Exchange: Installation
- Backing up a DAG
- Exchange backup selections
- Exchange backup settings
- Exchange Preferred Servers Only backups
- Restoring Exchange Data
- Exchange Database Restore
- GRT Browse Restore
- GRT Search Restore
- Restore Considerations: GRT
- Restore Considerations: Public Folders
- Restore Considerations: Site Mailbox
- Restore Considerations: Database Overwrite
- Restore Considerations: RDB
- Restore Considerations: Disaster Recovery
- Volume Shadow Copy
- Troubleshooting: VSS Provider and Exchange Writer

Lesson 04: Protecting Microsoft SQL Server
- Microsoft SQL server agent: Installation
- SQL backup selections
- SQL backup settings
- Restoring a Microsoft SQL server database
- Unsupported Microsoft SQL server features

Lesson 05: Protecting Microsoft SharePoint Server
- SharePoint Agent overview
- Adding a SharePoint server Farm
- Backing up SharePoint
- Restoring SharePoint

Lesson 06: Protecting Microsoft Active Directory
- Agent for Microsoft Active Directory
- Traditional Active Directory Restore
- Active Directory: Granular Recovery Technology

Lesson 07: Protecting Virtual Environments
- Virtualization technologies
- Backup Exec virtualization Agents
- Installing Agent for VMware and Hyper-V
- Backing up virtual machines
- Instant recovery for virtual machines
- Performing an Instant Recovery for virtual machines
- Removing an Instantly recovered virtual machine
- Instant Recovery Resiliency and Enhancements
- Virtual machine Recovery Ready validation: Overview
- Performing a virtual machine Recovery Ready validation
- Restoring virtual machines

Lesson 08: Performing Virtual Machine Conversions
- Conversion to virtual machine fundamentals
- One-time convert to virtual
- Backup and convert simultaneously
- Backup and convert to virtual machine on schedule
- Convert from a backup set
- Virtual conversion options
- Conversion considerations

Appendix A: Agent for Linux
- Agent for Linux