

# **Enterprise Computing Solutions - Education Services**

# **TRAINING OFFERING**

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Postboks 6562 ETTERSTAD, 0606 Oslo, Norge

Email: kurs.ecs.no@arrow.com Phone: +47 22 02 81 00

# **VERITAS** Veritas Backup Exec 22: Administration

CODE: LENGTH: PRICE:

VER BE22-A 40 Hours (5 days) kr39,000.00

## **Description**

Acquire the skills to make your data protection strategy successful with the Veritas Backup Exec 22: Administration course. The course is designed for the data protection professional tasked with deploying, configuring, maintaining, and managing a Backup Exec environment. The course covers Backup Exec concepts, how to back up and restore critical data, configure storage devices and media, and work with various Backup Exec agents and options, which protect applications like Microsoft Exchange, Microsoft SharePoint, Microsoft SQL, Microsoft 365, Active Directory, Cloud, Oracle, and Virtual environments.

## **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 22.
- Configure storage devices Cloud-based storage and Network storage.
- Backup data to and restore data from disk, network, and the Cloud.
- Perform tape devices and tape management.
- · Manage servers and jobs.
- Set backup and recovery settings and methods.
- · Work with the Database Encryption Key.
- · Perform online Disaster Recovery.
- Install the SDR disk creation wizard, create an SDR disk image and recover a server with SDR.
- Back up 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.
- Configure Backup Exec Deduplication Storage.
- Protect remote servers using the appropriate remote agents, applications, and databases.
- Use Backup Exec to protect databases and applications, including;
- o Microsoft Hyper-V
- o Microsoft SQL Server
- o Microsoft Exchange
- o Microsoft SharePoint
- o Microsoft 365
- o Active Directory
- o Oracle
- Protect virtual environments.
- · Perform virtual machine conversions.

#### **Audience**

This course is designed for system administrators, system engineers, technical support personnel, consultants, backup administrators, backup operators, and others who are responsible for installing, configuring, managing, and monitoring Backup Exec 22.

#### **Prerequisites**

You must have a basic working knowledge of administrating and configuring Windows Server 2016 and later platforms. 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.
- Oracle
- Cloud Technologies
- · Microsoft 365

# **Programme**

Licensing Backup Exec

- Subscription, Perpetual, and Custom Licensing Installing Backup Exec
- Trialware and Upgrades

· Backup Exec: New installation

· Capacity and subscription license enforcement · Typical Installation of Backup Exec

· Viewing disk storage: Storage View

· Windows Storage Pool and Spaces

• Importing a Legacy Backup-to-disk Folder

Updating Licensing Information

Custom Installation of Backup Exec

• Backup Exec Solution Offerings • Capacity Widget and Capacity Metering

Installation Details

Backup Exec Architecture

**Backup Exec Fundamentals** · Data Backup Basics

• Maintenance and Extended Support Licensing • Applying Backup Exec Updates

Working with the Backup Exec Administration Console

• Exercise A: Installing Veritas Backup Exec

• Installing and Configuring the Backup Exec Administration Console

**Disk Storage Devices** 

· Disk Cartridge Devices

· Deduplication Disk Storage

Backup Exec Storage Pools

- Exercise B: Verifying the Veritas Backup Exec Installation Using the Backup Exec Administration Console
- Exercise C: Adding Backup Exec Licenses
- Exploring the Backup Exec Administration Console
- Exercise D: Configuring and Running Veritas Update
- Introduction to Backup and Restore
- Exercise E: Viewing the Backup Exec License
- Introduction to BEMCLI

• Exercise A: Installing the Backup Exec Remote Administration Console

- Exercise B: Exploring the Home tab of the Backup Exec Administration Console Backup Exec Storage Devices
- Exercise C: Working with the Configuration Task Widget
- Exercise D: Exploring the Backup Exec Administration Console
- · Exercise E: Creating a Configured View
- · Exercise F: Creating a Disk Storage
- Exercise G: Creating a Basic Backup Job
- Exercise H: Creating a Basic Restore Job
- Labs
- Exercise A: Creating a Disk Storage Device Using the Configuration Wizard
- Exercise B: Viewing the Disk Storage in the Backup Exec Management Command Line Interface
- Exercise C: Viewing Disk Storage Device Properties
- · Exercise D: Creating a Storage Pool

Cloud-based Storage Devices

- · Basics of Cloud storage Support in Backup Exec
- Amazon S3 Cloud-based Storage
- · Google Cloud-based Storage
- Microsoft Azure Cloud-based Storage
- Backup Exec Cloud Deduplication
- Configuring a Cloud-storage Device in Backup Exec
- Managing Cloud-storage in Backup Exec

• Exercise A: Configuring Generic S3 Compatible Cloud

Storage in Backup Exec

- Exercise B: Backing up data to Generic S3 Cloudbased Storage
- Exercise C: Configuring Deduplication on Generic S3 Compatible Cloud Storage

Disk and Network Data Management

- Data Lifecycle Management Fundamentals
- DLM Rules: Overview

**Network Storage Devices** Network Storage Devices

- · Dependent Backup Sets • DLM Dependent Rules
- OpenStorage Devices (Third-party deduplication)
  Manual Expiration and Retention
  - · Read-only Setting
- Backup Exec Remote Media Agent for Linux
- Media Catalogs

NDMP Servers

- Exercise A: Manually Performing Two Sets of Full and Incremental Backups
- Exercise B: Manually Expiring the Backup Sets

Robotic Libraries

 Tape Storage · Managing Tapes

• Exercise C: Retaining Backup Sets and Changing the Expiration Date of a Backup Set • Tape Storage: Alerts

• Tape Storage Operations

Tape Devices and Tape Management

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#### Labs

### Backing Up Data

- Preparing for Backups
- Exercise A: Inventorying Robotic Libraries when Backup Exec Services Start Adding a Server
  - · Creating a Backup Job

Backup Selections

Backup Stage Basics

Job Name Fundamentals

Backup Settings

Managing Server Selections

• Excluding Files from the Backup

· Manually Running Backup Jobs

- Exercise B: Configuring Barcode Rules for a Robotic Library • Exercise C: Assigning a Cleaning Slot to a Robotic Library • Multi-server Backups
- Exercise D: Understanding Storage Default Values
- Exercise E: Viewing Default Media Sets
- · Exercise F: Creating a Media Set
- Exercise G: Creating a Media Vault
- Exercise H: Assigning a Media Set to a Media Vault
- Exercise I: Assigning Tapes to a Media Set
- Exercise J: Backing up to Tape
- · Exercise K: Restoring from Tape

### Labs

- · Exercise A: Adding a Server
- Exercise B: Backing Up Files and Folders
- Exercise C: Creating a One-time Backup Job
- Exercise D: Creating a New Backup Job Using the Settings from an Existing Backup
- Exercise E: Backing up Multiple Servers
- Exercise F: Backing up System State
- Exercise G: Working with Backup Methods
- · Exercise H: Adding a Stage to a Backup

- Managing Servers and Jobs
- · Backup and Restore View

Accounts and Credentials in Backup Exec

- Server Groups
- · Tag as Business-Critical Restoring Data
  - · Contents of a Backup Set
  - · Restore Job Basics
  - Restore Settings
  - Granular Restore Technology (GRT)
  - · Restoring Data

  - Restoring System State
  - Shadow Copy Components

#### Labs

- · Exercise A: Creating a Server Group
- Exercise B: Viewing Server Details
- Exercise C: Tagging a Resource as Business-critical and Backing it up
- Exercise D: Tagging a Resource as Business-critical from the Include/Exclude Window Online Disaster Recovery
- Exercise E: Examining Pre-defined and Custom Reports
- · Exercise F: Viewing Job Log Details

#### Labs

- Exercise A: Viewing the Contents of a Backup Set
- Exercise B: Restoring Data to the Default Location
- Exercise C: Restoring Data to an Alternate Location
- Exercise D: Restoring File and Folder Permissions • Exercise E: Restoring Data Using the Search Wizard
- · Exercise F: Restoring Data to a VHD
- Exercise G: Restoring Data Directly from a Disk
- · Exercise H: Restoring Data from a Tape Backup
- Exercise I: Restoring a Business-Critical Resource
- Working with the Database Encryption Key • Backup Exec Database Sensitive Data Components
- Auto-generated AES-256 Encryption Key
- Protecting the Database Encryption Key (DEK)

  - Simplified Disaster Recovery
  - Simplified Disaster Recovery Fundamentals
  - Simplified Disaster Recovery: Backup
  - Installing the SDR Disk Creation Wizard
  - · Recovering a Server with SDR
  - Windows Storage Pools and Spaces

# Labs

- Exercise A: Viewing the Database Encryption Key
- Exercise B: Viewing the Database Encryption Key and Attempting to Back it up Creating an SDR Disk Image (.iso) file
- Exercise C: Exporting the Database Encryption Key
- Exercise D: Backing Up and Restoring the Database Encryption Key Labs
- · Exercise A: Adding a Server
- Exercise B: Viewing and Identifying Critical System Devices
- Exercise C: Creating a Simplified Disaster Recovery Enabled Backup Job
- Exercise D: Performing a Complete Online Restore of a Computer Walkthrough
- Exercise E: Creating a Simplified Disaster Recovery Disk
- Exercise F: Recovering appsrv1 Using the SDR Disk

#### Upgrading Backup Exec

- Basics of Upgrading the Backup Exec Server
- Standard and Rolling Upgrade Backup Exec Labs
- Agent for Windows Upgrade
- Exercise A: Upgrading Veritas Backup Exec

Migration Report

• Exercise B: Upgrading the Agent for Windows

#### Central Admin Server Feature

- Backup Exec CAS: Overview
- Installing the CAS
- Installing the Managed Backup Exec Server (MBES)
- Instant Recovery Jobs in a CAS Environment
- MBES Settings
- · Backup Jobs: MBES and Server Pools
- · Restoring Files using CAS
- · Copying Configuration to MBES
- Instant Recovery jobs in a CAS environment
- MBES Settings
- Copy Configuration to MBES
- Upgrading a CAS Environment to Backup Exec 22
- Renaming CAS and MBES
- · MBES to Standalone
- Offline Central Admin Server Restore from a Managed Backup Exec Server

#### Labs

- Exercise A: Installing the CAS Feature
- Exercise B: Converting a Backup Exec Server to a Managed Backup Exec Server
- Exercise C: Viewing the Settings for a Managed Backup Exec Server
- Exercise D: Creating a Backup Exec Server Pool
- · Exercise E: Restoring Data from CAS
- Exercise F: Using Optimized Duplication with the Central Admin Server
- Exercise G: (Optional) Changing the CAS Storage and Media Data Location for MBES
- Exercise H: (Optional) Running the Backup Exec Utility for CAS Operations

### **Deduplication Feature**

- Data Deduplication and Open Storage Technology: Fundamentals
- Deduplication Feature Option
- Configuring Backup Exec Deduplication Storage
- Exclusion from Windows Deduplication
- · Deduplication Backup Job
- Configuring Client-side Deduplication
- Rehydration
- Optimized Duplication
- Protecting the Backup Exec Deduplication Storage
- Best Practices for the Deduplication Feature
- OpenStorage devices (Third-party deduplication)
- OpenDedupe OST Connector
- OpenDedupe Installation and Configuration
- Configuring OpenStorage in Backup Exec
- Upgrading from Backup Exec 21 to Backup Exec 22

- Exercise A: Verifying the Deduplication Feature Installation
- Exercise B: Creating a Deduplication Storage Folder
- Exercise C: Creating a Backup Job to Backup Data to the Deduplication Disk Storage (Server-side deduplication)
- Exercise E: Verifying Data Deduplication
- Exercise F: Restoring Deduplication Data
- Exercise G: Creating a Client-side Deduplication Job

Security and Compliance Features

Labs

- Backup Exec Support for GDPR
- · Exercise A: Working with the GDPR Guard Feature
- Backup Exec Support for Ransomware Resilience Exercise B: Working with the Ransomware Resilience Feature

#### Remote Agent, Applications, and Databases

- · Agent for Windows: Fundamentals
- · Installing the Agent for Windows
- · Managing the Agent for Windows
- Agent for Applications and Databases: Fundamentals
- GRT Support for Agent, Applications, and Databases

## Protecting Microsoft Exchange Server

- Installing the Backup Exec Agent for Microsoft Exchange
- · Backing up a DAG
- Exchange Backup Selections
- Exchange Backup Settings
- Exchange Preferred Servers Only Backups
- · Restoring Exchange data
- Redirected Restore Considerations
- VSS Providers and Exchange Writers

- Exercise A: Viewing Backup Exec License Information
- Exercise B: Installing the Agent for Windows
- Exercise C: Viewing the Agent for Windows Installation Footprint
- Exercise D: Backing Up a Remote Windows Computer
- Enabling the Agent for Applications and Databases Feature Exercise E: Restoring Data to a Remote Windows Computer

#### Labs

- Exercise A: Viewing the Exchange DAG Configuration
- Exercise B: Backing Up an Exchange DAG
- Exercise C: Restoring Exchange Mailbox Items
- Exercise D: Restoring Exchange Mailbox Items Using Search
- Exercise E: Performing a Redirected Restore of Exchange Databases and Logs Supported Microsoft SQL Server Features Labs

Active Directory: Granular Recovery Technology

Protecting Microsoft SQL Server

- Exercise A: Backing up SQL Server System Databases · Agent for Microsoft SharePoint: Fundamentals
- Exercise B: Restoring a SQL Server Database • Exercise C: Restoring a SQL Server Database to an Alternate Location • Restoring Microsoft SharePoint
- Exercise A: Viewing the SharePoint Site Details
- · Exercise B: Backing Up SharePoint
- Exercise C: Performing a SharePoint GRT Restore for a Task
- Protecting Microsoft Active Directory • Exercise D: Performing a SharePoint Redirect Restore for a Document • Agent for Microsoft Active Directory: Fundamentals
- Exercise E: Restoring a Versioned Document
- Exercise F: Restoring a SharePoint Portal Site

Labs

- Exercise A: Backing up Microsoft Active Directory
- Exercise B: Restoring Active Directory Objects

Protecting Microsoft 365

- Integrated Microsoft 365
- · Support for Backing Up Microsoft 365 Tenant Data
- · Restoring Microsoft 365 Tenant Data
- Notes And Best Practices For Microsoft 365Protecting Virtual Environments Part 1
- · Virtualization Technologies
- · Backup Exec Virtualization Agents
- · Installing Agent for VMware and Hyper-V
- Backing up Virtual Machines
- Restoring Virtual Machines

Labs

- Exercise A: Verifying the Agent for VMware and Hyper-V Installation
- Exercise B: Connecting to and Viewing the ESX Server Configuration
- Exercise C: Adding the vCenter Server to Backup Exec
- Exercise D: Backing up an ESXi Server
- Exercise E: Restoring a VMware Virtual Machine

Protecting Virtual Environments - Part 2

- Instant Cloud Recovery for Hyper-V and VMware
- Instant Recovery for Hyper-V and VMware Virtual Machines
- · Performing an Instant Recovery for a Virtual MachineRemoving an Instantly Recovered Virtual Machine
- Instant Recovery Resiliency
- Virtual Machine Recovery Ready Validation

Labs

- Exercise A: Performing an Instant Recovery of a Windows Virtual Machine
- Exercise B: Performing an Instant Recovery of a NonWindows Virtual Machine
- Exercise C: Removing Instantly Recovered Virtual Machines
- Exercise D: Creating a Validate Virtual Machine for a Recovery Job for a Windows Virtual Machine
- Exercise E: Creating a Validate Virtual Machine for a Recovery Job for a Non-Windows Virtual Machine
- Exercise F: Working with the Virtual Machine Backups Widget
- Exercise G: Backing Up a Virtual Machine Skipping PageFile.sys

Performing Virtual Machine Conversions

- Conversion to Virtual Machine: Fundamentals
- Backup and then Convert Workflow
- Backup and Simultaneously Convert Workflow
- · Convert to a Virtual Machine from a Point-in-time
- One-time Convert to Virtual Machine
- Virtual Conversion Options

Labs

 Conversion Considerations Labs Exercise A: Performing a Backup and then a Virtual Conversion

Agent for Linux and UNIX

Agent for Linux

- Exercise A: Installing the Agent for Linux • Exercise B: Backing up a Linux Server
- · Installing the Agent for Linux
- · Backing up Linux Servers • Exercise C: Restoring Data to Linux Computers
- Agent for Linux: Best Practices Exercise D: Restoring Data to an Alternate Location
- Linux References
- Exercise E: Configuration Options for Linux Computers

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 Agent for Microsoft SQL Server: Fundamentals Microsoft SQL Backup Selections

• Backing up a Microsoft SQL Server

· Restoring a Microsoft SQL Server Database

Protecting Microsoft SharePoint Server

· Backing up Microsoft SharePoint

Traditional Active Directory Restore

#### Agent for Oracle

- Agent for Oracle on Windows or Linux Servers
- Installing the Oracle Agent on Windows or Linux Servers
- Configuring the Oracle Agent on Windows or Linux Servers
- Authenticating Credentials on the Backup Exec Server
- · Backing up Oracle Databases
- Restoring Oracle Databases
- Best Practices for Backup Exec Agent for Oracle on Windows and Linux Servers Labs
- Exercise A: Verifying the Backup Exec Remote Agent (RALUS) Installation on the Linux Server
  Exercise B: Configuring the Oracle Agent on the Linux Server
- Exercise C: Performing Oracle Database Backup
- · Exercise D: Restoring Data
- Exercise E: Performing a DBA-Initiated Backup Job
- Exercise F: Installing and Configuring Backup Exec Remote Media Agent (RMAL) on the Linux Server

#### **Further Information**

#### 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

Hands-On

• Learning Lab – Self-paced lesson guide plus 6 months of lab access

This course includes practical, hands-on lab exercises that enable you to test your new s

#### **Session Dates**

| Date           | Location                      | Time<br>Zone | Language | Туре             | Guaranteed | PRICE |
|----------------|-------------------------------|--------------|----------|------------------|------------|-------|
| 09 Jun<br>2025 | Virtual Classroom (GMT / UTC) | BST          | English  | MOC On<br>Demand |            | Free  |
| 20 Oct<br>2025 | Virtual Classroom (GMT / UTC) | BST          | English  | MOC On<br>Demand |            | Free  |
| 15 Dec<br>2025 | Virtual Classroom (GMT / UTC) | GMT          | English  | MOC On<br>Demand |            | Free  |

# Tilleggsinformasjon

Denne treningen er også tilgjengelig som trening på stedet. Kontakt oss for å finne ut mer.