



Advanced Training
Partner Certification
BackupEDGE 2.3

Microlite *BackupEDGE 2.3* Certification Class Syllabus¹

- Frequency
- Course Description
- Grading and Certification
- Objectives
- Schedule and Contents

Frequency

The *BackupEDGE* Certification Class is held around the United States at various times of the year. End Users, VARs and Distributors interested in learning more about *BackupEDGE* should send an email to sales@microlite.com asking to be notified as classes occur.

Course Description

BackupEDGE is a high performance, easy to use, **fully integrated** backup, restore and recovery software product for UNIX® and Linux® operating systems. It supports tape drives, CD drives, DVD drives, REV™ drives, and removable disk devices, as well as changers, libraries and autoloaders.

RecoverEDGE is automated disaster recovery (DR) software allowing complete restore after a hardware failure without having to re-install the operating system, configure device drivers, etc. It comes free with the Linux, SCO OpenServer™ 6, OpenServer 5, and UnixWare® 7 versions of *BackupEDGE*.

Both have undergone a remarkable transformation in recent years, in usability and in keeping up with the capabilities of modern storage devices.

This fast paced, one day course is intended to give both new and long-term users a practical working knowledge of all of the major capabilities of *BackupEDGE*, as well as how to install it, configure it for day-to-day use, and troubleshoot problems.

Instruction will be by lecture, class demonstration, and slide presentation, with a lot of class participation. There are no prerequisites for the class. However, due to the intense schedule, a basic proficiency in UNIX and/or Linux system operation and administration is highly recommended, especially for the troubleshooting sections of the class.

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1. All items in the Syllabus are subject to change.

Grading and Certification

There are no assignments or exams in the traditional sense. Attendance during the entire class day, and participation during the class, are required. End users completing the entire class will be mailed a *Certificate of Completion*. Resellers will become *Certified BackupEDGE Resellers*, will receive a certificate with that designation, and have their contact information placed on the appropriate pages of the Microlite web site.

Objectives

Upon completion of this course, the student should be able to...

- prepare a UNIX or Linux system for installation of *BackupEDGE*.
- use all of the different media types and download files available for installation.
- install and configure *BackupEDGE*.
- configure and enable the Java® and Web Services interfaces.
- create FTP/FTPS (network) backup resources.
- create AWS (Amazon Web Services) backup resources.
- create FSP (disk-to-disk) backup resources.
- prepare basic backup schedules.
- design advanced domains, sequences and schedules.
- understand how to implement encryption.
- implement multiple notification scenarios.
- perform attended backups.
- restore files and directories.
- work with remote systems.
- recover systems.
- troubleshoot problems.
- Boot from *RecoverEDGE* media and perform an automatic, bare metal disaster recovery.

Suggested Reading

While not required, the *Microlite BackupEDGE Reviewer's Guide* provides a good overview of the product and some of its capabilities. Reading it before the class may provide additional background and suggest questions that the student may wish to bring up during the class to provide maximum benefits from attendance. A current Acrobat (PDF) version of the Guide can always be found at:

<ftp://ftp.microlite.com/pub/whitepapers>

Outline and Contents

8:30am - 9:00am

9:00am

Registration - Coffee & Danish

Class Begins Promptly at 9:00am

- 1 - Introduction and Background
 - A Why Use *BackupEDGE*
 - 1 Modular Backup Process
 - 2 Device Control
 - 3 Command-line Tools
 - 4 Character Menu Interface
 - 5 Java / Web Services Interfaces
 - 6 Disaster Recovery
 - B Data Format Advantages
 - 1 Standards-based
 - 2 Pathname Lengths
 - 3 Integrity checksums
 - 4 Compression
 - 5 Encryption
 - 6 Access Control Lists
 - 7 Extensibility
 - C Major Terms Used During The Class
 - 1 Resource
 - 2 Domain
 - 3 Sequence
 - 4 Scheduled Job
 - 5 Notifier
 - 6 Master Backup
 - 7 Differential Backup
 - 8 Incremental Backup
 - 9 Raw Device
 - 10 Virtual / Sparse File
 - 11 Encryption
 - 12 Transparent Media Technology
 - 13 FSP Backups
 - 14 AWS Backups
 - 15 FTP Backups
- 2 - Pre-Requisites - Linux 2.6.x kernels
 - A Processors and Architectures
 - 1 64bit - Intel EM64T and AMD AMD64
 - 2 32bit - Intel IA32
 - B Supported Hardware
 - C Installing Device Drivers
 - 1 Using ide-tape
 - 2 Using ide-scsi
 - 3 enabling DMA support on ATAPI

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- 4 Using SCSI devices
 - 3 - Pre-Requisites - Linux 2.4.x kernels
 - A Supported Hardware
 - B Installing Device Drivers
 - 1 Using ide-tape
 - 2 Using ide-scsi
 - 3 enabling DMA support on ATAPI
 - 4 Using SCSI devices
 - 4 - Pre-Requisites - OpenServer 6
 - A Supported Hardware
 - B Maintenance Pack 2
 - C IDE714G and AHCI 1.2
 - 5 - Pre-Requisites - OpenServer 5
 - A Supported Hardware
 - B Installing Device Drivers
 - 1 Tape Drivers and mkdev tape
 - a SCSI Tape Drives
 - b ATAPI Tape Drives
 - c Compaq Driver Issues
 - d Bugs in 5.0.4-5.0.6 Stp driver
 - 2 Optical and REV Media and mkdev cdrom
 - 3 Changers / Autoloaders / Libraries and mkdev juke
 - a Adding LUN Support To Drivers
 - C New Hardware Supported in 5.0.7 or Patched 5.0.6 Systems
 - D SCOoffice Mail Server Support
 - 6 - Pre-Requisites - UnixWare 7
 - A Supported Hardware
 - B Making device nodes
 - C New Hardware Supported in UnixWare 7.1.3 and later
 - D IDE714G and AHCI 1.2
 - 7 - Pre-Requisites - Performing FTP Backups
 - A Supported Hardware
 - B Creating FTP Accounts
 - 8 - Pre-Requisites - Performing AWS Backups
 - A Creating FTP Accounts
 - 9 - Pre-Requisites - Performing FSP Backups
 - A Supported Hardware

Morning Break 1

10 - Installation

- A Media Types
 - 1 Using the CD-ROM
 - 2 Using downloadable self extracting executables
 - 3 Using downloadable custom/tar archives
 - 4 Using downloadable DOS executables to make UNIX / Linux media
- B Setting the Remote Shell Type
 - 1 Changing remote shell type after installation
- C Detecting Devices
 - 1 Before Running the Detector
 - 2 Tape Drives
 - 3 Autochangers
 - 4 Optical Media
 - 5 Associating Tape Drives With Autochangers
- D Creating URL Resources
- E Default Backup Schedule
 - 1 Specifying a Default Backup Time
 - 2 Choosing Days of the Week
 - 3 Choosing Default Notifiers
 - 4 Enabling/Disabling the Default Schedule
- F Scanning for Virtual / Sparse Files
- G Completing the Installation
- H Adding dealer information to email/reports

11 -Running EDGEMENU For The First Time

- A Ways to Launch EDGEMENU
 - 1 From the Command Line
 - 2 From an ICON on a Graphical Desktop
 - 3 From CDE
 - 4 From SCOADMIN
- B Selecting a Default Backup Resource
 - 1 Selecting Remote Resources
- C Basic Navigation Keys
- D Function Key Usage

12 -Enabling Web Services

- A Pre-Requisites
- B Connecting via Web Services

13 -Registering *BackupEDGE*

- A Filling Out the Registration Form
- B Printing and Mailing or Faxing the Registration Form
 - 1 Receiving an Activation Code via Fax
- C On-Line Registration

- 1 Receiving an Activation Code via Fax
- 2 Receiving an Activation Code On-Line (Resellers)
- D Entering a Permanent Activation Code
- E Troubleshooting and Calling Registration or Support
 - 1 What will Break an Activation

Break

Morning Break 2

14 - Introductions to Domains

- A Examining the Default Domain
 - 1 When To Modify the Default Domain

15 - Basic Scheduling

- A The Default Backup Schedule
 - 1 Modifying the Default Schedule
 - a Changing the Backup Time
 - b Temporarily Enabling or Disabling the Schedule
 - c Selecting Master, Differential or Incremental Backups on an Daily Basis
 - d Changes when a Resource with an Autochanger is Selected
 - e Using Remote Resources
 - 2 The Notify / Advanced Window
 - a Verify Types
 - b Indexing
 - c Bootable Backups
 - d End of Volume Options
 - e Promoting Backups
 - f Media Unload Strategies
 - g Print Notification
 - h Mail Notification
- B The Power of Notifiers
 - 1 Creating Print Notifiers
 - 2 Creating Email Notifiers
 - a Text
 - b HTML/MIME
 - c Alpha Paging
 - d Numeric Paging
- C Scheduling Automatic Update Checking
- D Creating your First Scheduled Backup
- E Browsing Through Running Jobs
- F Acknowledging Messages
 - a Changing Media

16 - Examine Backup Results

- A Backup Status
- B Verify / Index Status
- C TapeAlert™ Status

17 - Making Backups from EDGEMENU

- A Scheduled Jobs

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- B Unscheduled Full Backups
 - C Canceling an Attended Job
 - D Unscheduled Partial Backups
- 18 -Adding Backups To Your Own Menus
- A The EDGE.NIGHTLY Interface
- 19 -Restoring Files
- A Using EDGEMENU
 - 1 Selective Restore
 - a Using the File Browser
 - b Manually Specifying Filenames
 - 2 Expert Restore
 - a Manually Specifying Filenames
 - B Using EDGE.RESTORE Command Line Interface
- 20 -Setting / Changing the Default Backup Resource for EDGEMENU
- 21 -Auto-Detecting New Devices
- 22 -Creating Resources Manually - URL Resource Example
- 23 -Creating Resources Manually - AWS Resource Example
- 24 -Creating Resources Manually - FSP Resource Example
- 25 -Using AF Resources
- 26 -Miscellaneous EDGEMENU Functions
- A File Menu
 - B Verify Menu
 - C Admin Menu
 - D View Menu
- 27 -Places To Look Under The Hood
- A /usr/lib/edge/config
 - 1 The master.cfg File
 - 2 Color Palettes

12:30pm-1:00pm

Lunch - On Your Own

- 28 -Advanced Schedules
- A Enabling The Advanced Scheduling Menus
 - B Creating and Editing Domains
 - C Creating and Editing Sequences
 - D Creating Advanced Schedules
- 29 -Encryption
- A Introduction - Ways To Use Encryption
 - B Enabling Encryption
 - C Files To Be Encrypted
 - D Creating Keys
 - E Backing Up Keys

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- F Restoring Keys
- G Restoring Files
- H Disaster Recovery
- I Multiple Key Environments
- J Positioning and Selling Encryption Technology

Break

Afternoon Break 1

30 -Disaster Recovery - Introduction

31 -Disaster Recovery - Linux

A Making Media

- 1 Launching *RecoverEDGE*
- 2 Selecting Media Type
 - a Locally Attached Media
 - b Media Images
 - c Remote Media
- 3 Advanced Options
- 4 Handling Error Messages

B Using *RecoverEDGE*

- 1 Booting From Floppy
- 2 Booting From Optical Media
- 3 Booting from OBDR Backups
- 4 Booting from the network with PXE
- 5 OneTouch Restore
- 6 Enabling Network and or Modem Recovery
- 7 Manual Configuration
- 8 Troubleshooting
- 9 After The Restore

32 -Disaster Recovery - OpenServer 6

A Making Media

- 1 Launching *RecoverEDGE*
- 2 Selecting Media Type
 - a Locally Attached Media
 - b Media Images
 - c Remote Media
- 3 Advanced Options
- 4 Handling Error Messages

B Using *RecoverEDGE*

- 1 Booting From Optical Media
- 2 Booting from OBDR Backups
- 3 OneTouch Restore
- 4 Enabling Network and or Modem Recovery
- 5 Manual Configuration
- 6 Troubleshooting
- 7 After The Restore

33 -Disaster Recovery - UnixWare 7

A Making Media

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 - 1 Booting From Floppy
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 - 3 Booting from OBDR Backups
 - 4 OneTouch Restore
 - 5 Enabling Network and or Modem Recovery
 - 6 Manual Configuration
 - 7 Troubleshooting
 - 8 After The Restore
- 34 -Disaster Recovery - OpenServer 5
- A Making Media
 - 1 Launching *RecoverEDGE*
 - 2 Selecting Media Type
 - a Locally Attached Media
 - b Media Images
 - c Remote Media
 - 3 Advanced Options
 - 4 Handling Error Messages
 - B Using *RecoverEDGE*
 - 1 Booting From Floppy
 - 2 Booting From Optical Media
 - 3 Booting from OBDR Backups
 - 4 OneTouch Restore
 - 5 Enabling Network and or Modem Recovery
 - 6 Manual Configuration
 - 7 BTLT Support
 - 8 Troubleshooting
 - 9 After The Restore

Break

Afternoon Break 2

- 35 -Advanced Topics
- A Removing *BackupEDGE*
 - B Modifying Resources Manually
 - C Understanding the Locate Threshold
 - D Command Line Interfaces
 - 1 EDGE.TAPE
 - 2 EDGE.CHANGER
 - 3 EDGE.LABEL
 - E Changing the System Name

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- F Network Device Backups
 - 1 Selecting Remote Resources
 - 2 Changing the Remote Transport
 - G Creating and Modifying Java / Web Services Themes
 - H Adjusting Color Palettes
- 36 - Troubleshooting / Q&A

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