



File



Backup



Restore



Verify



Admin



Setup



Schedule

Unscheduled Full Backup

Backup Single Dir

Backup Multiple Files

Expert Backup

Run Scheduled

*Backup***EDGE**

Media Kit

Quick Installation Guide

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*Backup**EDGE*** Installation Guide - Revision 03.00.03 Build 4

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Introduction

Thank you for investing in or evaluating Microlite *BackupEDGE™* (referred to in this manual simply as *BackupEDGE*). As one of the most comprehensive data storage, retrieval and recovery products available for *UNIX®* and *Linux®* systems, *BackupEDGE* has many features and options that can help you effectively protect *and manage* your data. This guide will help you to install the product.

NOTE: Understanding the core concepts of the *BackupEDGE* architecture is the key to the most effective use of the product. Please read the User Guide (on the CDRom in Adobe Acrobat format) to gain a full understanding of the capabilities of the product.

BackupEDGE combines the following features:

- a powerful internal backup formatter which can archive and restore all of the file types typically encountered on a UNIX/Linux system, at very high speeds.
- a hardware reporting and control layer capable of taking maximum advantage of the features of today's most powerful storage *Devices*, while disappearing when legacy *Devices* are used.
- network capabilities that make *Remote Devices* respond and function as if they were attached to the local system.
- *Disaster Recovery* capabilities allowing bare metal crash recovery on supported platforms¹.
- a scheduler allowing the user to easily craft and manage multiple backup strategies.
- a secure encryption algorithm, to protect archives from unauthorized use (requires a separate license).
- A user interface that functions identically in character, graphical and *Web Services* modes. It is sophisticated enough to define advanced backup strategies, while simple enough to be used by persons without years of *UNIX* training.

Media Support

BackupEDGE can create and manipulate archives on any of the following media types...

- Tape
- Optical Media, (Blu-ray Disc BD-RE, DVD-RAM, DVD-RW, DVD-R, DVD+RW, DVD+R, DVD+R Dual Layer)
- CD-Recordables and Re-Writable Media (CD-R, CD-RW)
- Removable Hard Disk and Cartridge disk systems via legacy or new SharpDrive™ access.
- NAS systems through FTP/FTPS
- Internet cloud storage via Amazon S3
- Iomega REV™

In addition, *BackupEDGE* can manipulate SCSI/SAS *Autochangers* and *Libraries*, providing for near-enterprise level backups.

User Interface

BackupEDGE is designed to be run via the *EDGEMENU* menu-driven user interface, which may be launched in one of three ways:

- in graphical mode as a *Web Service* from any client system supporting Sun Java 1.4.2 or later, such as a Windows PC.
- in graphical mode on X11 consoles or clients equipped with Sun Java 1.4.2 or later.
- in character mode on system consoles, dumb terminals or xterm clients.

Major New Features

- MySQL Hot Backups.
- Multiple archive per medium on most media types.
- Flexible scheduling system allowing quotas and retention times with lazy space reclamation.
- Per-Triplet Archive Retention / Expiration (03.00.02 and later)
- Disk-to-Anything-to-Anything Backups; create a fast backup, then automatically copy it to a slower resource.
- Web service interface allowing management through any web browser with a Java plug-in.
- Internet backups via Amazon Simple Storage Service (S3).
- FTP Backups, allowing any device or appliance with an FTP server to be used as a storage *Resource*.

1. Linux 2.4.x IA32, Linux 2.6.x IA32/EM64T/AMD64, SCO OpenServer 5.0.5-5.0.7/5.0.7V, 6.0.0, SCO UnixWare 7 (7.1.1-7.1.4)

Simplified Installation Instructions

Installation Pre-requisites

Prior to beginning a *BackupEDGE* installation, the system and devices should be set up properly.

- All prior releases of *BackupEDGE* **must be removed** before installing a 3.x release.
- All storage devices should be properly recognized by the operating system, including tape drives, changers/libraries/autoloaders, optical and REV devices.
 - Under OpenServer 6, all SCSI, SAS, ATAPI, SATA and USB devices should be automatically recognized by the operating system. The latest Maintenance Packs and a full patchck update should be performed.
 - Under OpenServer 5, this involves running “mkdev tape” (tape drives), “mkdev juke” (changers/libraries/autoloaders) and “mkdev cdrom” (optical/REV), then re-linking the kernel and rebooting. The latest Maintenance Packs and a full patchck update should be performed.
 - UnixWare 7 release 7.1.4 users should be running the latest Maintenance Pack and perform a full patchchk update before installing BackupEDGE.
 - Linux users wanting to run ATAPI CD/DVD/REV/TAPE devices must make sure that the device connection (/dev/hdX) is running with DMA enabled. Legacy Linux 2.4.x users should have IDE-SCSI enabled on the device port. Linux 2.6.x users with ATAPI tape drives should have IDE-SCSI enabled on the device port. Linux 2.6.x users with CD/DVD/REV devices should not. **All** daemons or programs which attempt to automount or autorun programs when media is inserted should be disabled.
- All devices except floppies must have media inserted during autodetection. Optical drives may not have a blank inserted. It must contain some data (even a music CD is acceptable).
- If the Java GUI is to be used under X11, Sun Java 1.4.2 or later must be installed prior to installation so that *BackupEDGE* can find it.

From The Installation CD-ROM

The *Installation CD-ROM* contains:

- Versions of *BackupEDGE* in multiple distribution formats for:
 - Linux (IA32 / EM64T / AMD64 Architecture, 2.6.x kernels)
 - Linux (IA32 Architecture, 2.4.x kernels)
 - SCO OpenServer 6 (6.0.0)
 - SCO OpenServer 5.0.5 - 5.0.7 and 5.0.7V
 - SCO UnixWare 7.1.4
- On line documentation including manuals and “How To” guides in Adobe Acrobat (PDF) and other formats.
- Tools for accessing the CD-ROM from Microsoft® Windows®.
- Tools for creating floppy distribution media for instances when the UNIX/Linux CD-ROM drive is non-functional or un-available.
- Tools for checking for newer versions of *BackupEDGE* from the Microlite Corporation website.

Installation Summary

NOTE: The full User Guide describes alternate installation methods, including non-interactive.

The *Master Install Program* detects your operating system type and selects the proper version of *BackupEDGE* to be installed automatically.

The basic installation procedure from CD-ROM is:

- 1 Mount the Installation CD-ROM.
 - 2 Run the CD-ROM install program.
 - 3 Unmount the CD-ROM.
-

Mounting The CD-ROM and Starting the Installer

Linux (2.4.x or 2.6.x kernels)

```
mount /dev/cdrom /mnt
/mnt/install.sh
umount /mnt
```

OpenServer 6.0.0

```
mount /dev/cdrom/cdrom0 /mnt
/mnt/install.sh
umount /mnt
```

OpenServer 5.0.5 - 5.0.7 / 5.0.7V

```
mount /dev/cd0 /mnt
(or, if this doesn't work)
mount -r -f HS,lower /dev/cd0 /mnt
/mnt/install.sh
umount /mnt
```

UnixWare 7.1.4

```
mount -r -F cdfs /dev/cdrom/cdrom1 /mnt
/mnt/install.sh
umount /mnt
```

The CD-ROM Installation Screen

The CD-ROM install program displays a splash screen, then attempts to detect the operating system and release you are using and set the install program to install it.

Press [Enter] at this prompt to continue.

You will next be given the option to check the Microlite Corporation website for newer versions of *BackupEDGE* before installing anything. You must have a functioning Internet connection with port 80 (http) open on the UNIX system for this to work.

You may skip this check by pressing [Enter], in which case proceed to “The Installation Manager”. If you elect to perform this check by pressing Y [Enter], however, *BackupEDGE* will check for a newer version.

Auto Updater

If no newer version exists, you will be informed of this. Installation will continue with the CD-ROM version as if you did not check for a newer version.

Assuming some newer version is found on the Microlite web site, the Change Log for it will be displayed. This will provide information about exactly what is different between the newer version and the version found on the CD-ROM.

After you have viewed the Change Log, you will have the option to download and install the newer version, or stay with the version on the CD-ROM.

Whichever you select, installation will now proceed.

The Installation Manager

The *Installation Manager* is presented in a “Wizard” format. The *Installation Manager* will warn you before it causes your old installation to be overwritten. Enter is the appropriate response for most prompts.

You may install and configure the base product using the following steps. If you wish to enable or configure features that require a separate serial number, such as Encryption, then you must consult the section of the manual on that particular feature.

Navigation

Use the [Arrow Keys] and / or [Tab] to **switch fields**. [Enter] generally selects things / presses buttons / etc. If you want to change a text field, simply highlight it and start typing. On color screens the current window will have red border lines and the inactive windows will have white border lines. Pressing a button means using the arrow or [Tab] keys until the indicated text is highlighted, then pressing [Enter].

Screens with multiple choice answers use **FastSelect**. The [Up-Arrow] and [Down-Arrow] keys can be used while the cursor is on the [Next] button to choose between possible responses.

This section describes a typical installation, screen-by-screen with possible responses.

Installation Steps

Installation Manager Screen

Press [Begin] to continue or [Exit] to terminate without installing.

End User License Agreement

Installation of and upgrades to this product are subject to acceptance of an End User License Agreement (EULA). You may use the up and down arrow keys to scroll through the agreement. Press [Accept] to accept the terms (press [Enter] while [Accept] is highlighted). Press [Decline] to terminate the installation or upgrade. If you press [Decline] here, some distribution files will remain in /usr/lib/edge but no files will be installed or overwritten.

Update Warning

If this is an update, you will be prompted to exit without updating. Press [Exit] to exit without over-writing the old version (or installing this version), or [Next] to begin copying files.

Upgrade Warning

If there is a version of *Backup**EDGE*** installed which would require a new serial number and activation (for instance a chargeable upgrade), you'll be given the option of continuing or aborting the installation.

Activation Notice

Unless this is an upgrade to a licensed and activated release of *Backup**EDGE*** 03.00.00 or later, the product will be enabled in 60 day demo / evaluation mode and you'll be shown the date by which you must register and activate the product. Press [Next].

Network Settings

If you are asked to enter your system's Fully Qualified Host Name (FQHN), you should do so. This name must have both a host name and a domain name, such as "mlitedfs.microlite.com".

After you have done this, select [Next] to continue with the installation.

NOTE: If the machine is not on a network and only the hostname appears, simply add "localhost.com" or "yourcompany.com" to give it a usable domain name.

Network Transport

This screen allows to change the way that *Backup**EDGE*** sends data across the network. If you do not create backups across the network, this setting is irrelevant. Just press [Next]. Otherwise, select the appropriate connection type (options are currently *Remote Shell* or *Secure Shell*) and press [Next].

Device Autodetection

The next option is whether to perform or skip automatic device detection. During first-time installation you should always insert media in each device as described above, then select "Perform Autodetection". *Backup**EDGE*** will scan your system and create *Resource* entries for each of your optical, REV and Tape drives, as well as for any Autochangers. Press [Next] for each device detected.

If for any reason no devices and detected and *Resources* created, and you are not doing *Network Backups*, proceed with the installation. When you schedule your first backup job, you will have to create a new *Resource* to use with it. Refer to "Defining Resources Manually" in the User Guide for information on manually defining *Resources*.

URL Creation for FTP Backups

The installer will ask whether to create a default URL (Uniform Resource Locator) for FTP backups. Answer [Yes] if you wish to do so. This prompt will not install if you are re-installing or updating and at least one URL exists.

See “Setting up FTP Backups” in the User Guide for additional information on the network attached storage (NAS) capabilities of *BackupEDGE*.

Autochanger and Device Association

If you have an *Autochanger*, you must establish a relationship between it and any tape drive *Resources* may have. This allows *BackupEDGE* to know which tape drive(s) are attached to the *Autochanger*, and which are stand-alone *Resources*. When *BackupEDGE* needs to load a tape, this information allows it to do so. The User Guide provides additional autochanger information.

Scheduling A Default Backup

After all *Resources* have been defined, the installer will allow you to create or modify your unattended backup *Schedules*. We highly recommend that you allow the installer to create a default backup schedule. This schedule may be modified, or even enabled and disabled, at a later time.

To proceed:

- Select [Next] when prompted to create a default schedule.
- Select the *Resource* to be used for scheduled backups.
- Select the default times and dates for the scheduled backups, or choose the default time and days of the week desired.
- Select [Save] to save the default backup schedule.

See “Scheduling” in the User Guide for additional information on the basic and advanced scheduling capabilities of *BackupEDGE*.

Virtual File Check

The last phase of the installation is the *Virtual File Check*. *BackupEDGE* contains a scanner that will run as a *Background Task*, checking each file on your system and adding it to a list of files to be treated specially if it appears to be a *Virtual*, or *Sparse* file. Most users do not need to run this check. The default is to [Skip] the check. See “Virtual File Identification” in the User Guide for more information on this subject.

MySQL Backup Setup

If a MySQL installation is detected, the installer will ask whether to configure *BackupEDGE* for MySQL database backups. Select (X) Perform MySQL backup Setup if you wish to do so. See “Setting up MySQL Backups” in the User Guide for additional information on the MySQL backup and restore capabilities of *BackupEDGE*.

NOTE: MySQL Hot Backups are not supported in the SCO OpenServer 5 release of *BackupEDGE*.

Finishing The Installation

The installer will congratulate you on your successful installation and ask you to press the [Exit] button. Remember to un-mount the CD-ROM and eject it.

Removing BackupEDGE

OpenServer 5 / OpenServer 6 Platforms

BackupEDGE is removed by typing `custom` from a character interface or running **Software Manager** from the *GUI* or `scoadmin`. From the full-screen interface, make sure that BackupEDGE for SCO OpenServer 5 (or BackupEDGE for SCO OpenServer 6) is highlighted, then use the `Software -> Remove Software` option or, from a root prompt, type:

```
custom -p misc:edgesco5 -r
or
custom -p misc:edgesco6 -r
```

All Other Operating Systems

From a root prompt, simply type the following command...

```
/usr/lib/edge/bin/edge.remove
```

Launching EDGEMENU

EDGEMENU is the name of the main menu program that provides an interface to all *BackupEDGE*-related operations. During installation, *BackupEDGE* will populate the root desktop of most operating systems with a *BackupEDGE Icon*. Simply double-click on the *Icon* to launch *EDGEMENU*. The character or Java version will launch as appropriate.

OpenServer and UnixWare systems running the graphical Desktop can launch *EDGEMENU* from the `ScoAdmin` menu. The character or Java version will launch as appropriate.

From a character login, type:

```
edgemenue [Enter]
```

To launch *EDGEMENU* as a Web Service, refer to the User Guide for information on starting the Web Services daemon.

First Time Execution

The first time you launch *EDGEMENU* after a new installation, you'll get a pop-up menu that says:

```
No Primary Backup Resource Selected!
```

This is because *EDGEMENU* doesn't know which backup *Device* to use when running attended backups and restores. Acknowledge the message (press [OK]) and then **Fast Select** the device to use for attended backups.

Fastest Way To Perform a Full System Backup

The quickest way to do a backup is simply to press [B] [U] [Enter]. This chooses the [Backup] drop down menu, selects the [Unscheduled Full Backup] option, and does an [Execute Backup] with all defaults intact.

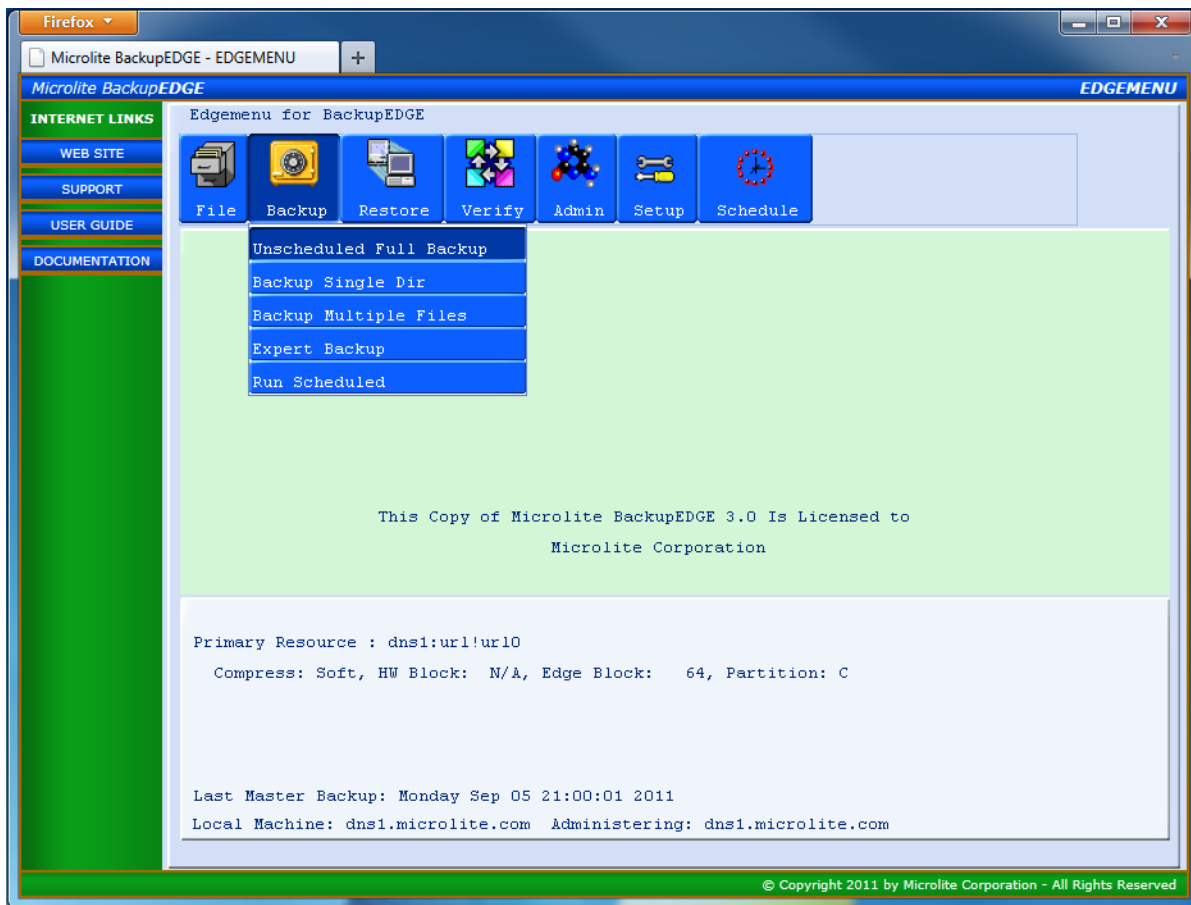
Best Way To Perform a Full System Backup

We recommend selecting the [Backup], [Run Scheduled] option, choosing the `Basic Schedule`, and [Run]ning it. This takes one extra keystroke, but it runs the same nightly backup *Scheduled Job* that you defined during installation. It also keeps *Sequence* information intact.

Additional Resource Setup

Amazon S3 cloud backup Resources and removable disk resources `SharpDrive` are not automatically detected. Please refer to the User Guide for more information on configuring these storage resource types.

EDGEMENU Main Menu (Java / Web Interface)



EDGEMENU Main Menu (Character Mode Interface)

```
+ Edgemenu for BackupEDGE -----+
|+-----+
| | [File] [Backup] [Restore] [Verify] [Admin] [Setup] [Schedule] |
|+-----+
|-----| [Unscheduled Full Backup] |-----|
| | [Backup Single Dir] |
| | [Backup Multiple Files] |
| | [Expert Backup] |
| | [Run Scheduled] |
|-----+

+-----+
|Primary Resource : dns1:url!url0
| Compress: Soft, HW Block: N/A, Edge Block: 64, Partition: C
|
|
|Last Master Backup: Monday Sep 05 21:00:01 2011
+Local Machine: dns1.microlite.com Administering: dns1.microlite.com -----+
+Perform Full Backup-----+
```