MICROLITE CORPORATION

redhat. TECHNOLOGY PARTNER

FOR Linux

IA-32 / EM64T / AMD64 - 2.6.x

IA-32 / EM64T / AMD64 - 5.x / 4.x / 3.x

BackupEDGE

SECURE BACKUP AND DISASTER RECOVERY SOFTWARE FOR LINUX®

FEATURES

Data Format

- Standards-based (with extensions). Derived from IEEE 1003.1-2001.
- 5,000 Character Pathnames - longest available.
- Full-File Checksum - assures file integrity when using newer media.
- Compression - 9 selectable levels for tuning space vs. performance.
- Access Control List (ACL) support.

Encryption

- Standards-based - file level.
- 256bit randomly generated archive key, super-encrypted with 2048bit public/private key pair.
- Complete key management system.
- Optional add-on.

Database Support

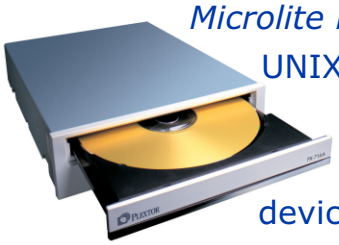
- MySQL™ / MariaDB Hot Backups.

Device Support

- Tape Drives, Changers, Autoloaders, and Libraries.
- Blu-ray Disc (BD-RE), DVD, and CD burners.
- SharpDrive™ support for USB flash/hard drives and cartridge hard disks like RDX / RD1000.
- Network-attached-storage (NAS). Any device, server or appliance available on the network internet via re-startable **FTP/FTPS/NFS/CIFS** Backups.
- **S3-**compatible Object Storage. Worldwide *Region* support for cloud sites like ***Amazon S3***, ***Google Cloud***, **Backblaze B2**, and ***Wasabi***.

Bare Metal Disaster Recovery

- **BIOS**, **UEFI** support. **NVMe,** /dev/vdX support. **MD RAID** support.
- Linux P2V support (VMware ESXi and Hyper-V).
- Automated **OneTouch™ Restore**.
- Create boot images on optical and USB media or as **PXE** image.
- Restore from any media type, including network / internet backups.
- Create "**Bootable Backups**" on optical and SharpDrive media.



Microlite BackupEDGE™ has been protecting UNIX and Linux operating systems since 1987. It is an enabling technology, combining class-leading storage device support, data format, encryption, and disaster recovery technologies that have a natural synergy with the newest features of each operating system.

BackupEDGE allows Linux users to deploy the storage that best suits their needs. Our exclusive *Transparent Media*™ Technology ensures that, from Blu-ray Disc™ to DVD to Tape, users can pick the device and interface that make the most sense for their environment. NAS, D2D, and Cloud Storage (S3) backups allow for more frequent data backups, and *BackupEDGE* provides immediate support for these highly popular storage methods.

We've all seen the news stories over the last few years about the nightmares that have been caused by either system crashes where no backup exists, or of lost or stolen data backups containing confidential data. *BackupEDGE* solves both problems by creating verified data backups with easy disaster recovery capability and available high strength encryption and key management.

Written to FIPS standards, *BackupEDGE* encryption removes the liability (and embarrassment) normally associated with lost or stolen archives.

KEY FEATURES AND BENEFITS

BACKUP/VERIFY/RESTORE

User Interface
The user interface renders itself in one of three ways:
✧ As a Java™ Interface on an X11 Desktop.
✧ As a Web Services Interface to any PC with a Java-enabled browser.
✧ As a standard character interface.
All functions work identically in both character and graphical mode. Custom themes and colors may be designed.

Installation
An *Installation Wizard* detects and configures tape drives, libraries, autochangers, and optical drives automatically. A default backup schedule (full system backup) is created. A scan for virtual/sparse files may be performed.

Enhanced Data Format
The data format is standards-based and extensible. It archives all Linux file types, and has a 5,000 character pathname limit, providing more flexibility than the 99 to 1024 character limits that restrict most other products. ACLs (Access Control Lists) are supported under more recent Linux releases.

Flexible Scheduler
Domains are "things to be protected". The default *Domain* is "the entire system". Additional *Domains* may be created for purpose-built backups. Examples might be "the accounting system" or "the source code directories". *Domains* can define before and after backup "actions", files/directories to be excluded, and more. Our *Scheduler* allows easy creation and protection of multiple *Domains*.

Multiple Backup Types
Master Backups (backup everything), *Differential Backups* (backup everything since the last *Master Backup*) and *Incremental Backups* (backup everything since the last *Differential Backup* or last *Incremental Backup*) are all supported.

Strong Encryption Option
BackupEDGE uses 256 bit AES data encryption to secure your data. Each archive has its own randomly generated encryption key, which itself is encrypted and protected by a 2048 bit public/private key pair. You may choose to encrypt either selected critical files, or entire archives if you wish. Full integration ensures that no other product functionality is lost when using encryption.

Powerful Compression
Backups to optical media and legacy or low-priced tape drives place special demands on backup software. *BackupEDGE* has powerful ZLIB based compression capable of storing far more data per archive than competing products. Fully integrated, including encryption, it is even beneficial when using devices with hardware compression.

TapeAlert™ Support
Most tape drives support the industry standard *TapeAlert* diagnostics system. *BackupEDGE* detects and reports *TapeAlert* messages, allowing device and media errors to be dealt with **before** any critical data is lost.

Fast File Restore™ / Instant File Restore™
Files and directories may be restored at maximum possible speed, as *BackupEDGE* can directly manipulate tape devices with *Quick File Access* capabilities, optical, NAS, Flash and removable hard disk devices with direct access commands, to provide the industry's fastest available one-pass restores.

Archive Verification
An un-verified backup is not a backup at all. *BackupEDGE* combines full file checksum verification (can be done anytime) with the ability to do a byte-by-byte comparison between archived files and original files, ensuring that your archived data will be there when you really need it. Checksum verification is crucial when using non-tape media, as no ECC correction is available.

Advanced Reporting and Notification
Reporting, logging and notification are a critical part of a structured, reliable backup scheme. *BackupEDGE* allows a virtually unlimited number of recipients to get printed and emailed messages on two levels: those who get notified of the status of all *Scheduled Jobs*, and those who get notified only in the event of failures and warnings. Mail messages can be configured as text or HTML, or even set up for SMS text messaging or numeric pagers, on a per-schedule / per-user basis.

BARE METAL DISASTER RECOVERY

Theory
BackupEDGE comes bundled with *RecoverEDGE™*, our bare-metal disaster recovery component. *RecoverEDGE* allows a system to be recovered from a hard disk failure or other catastrophic data loss without having to re-install the operating system, add device drivers, etc. Simply boot from the media (created on *your system* with *your kernel* and *your system configuration*) into the *RecoverEDGE* disaster recovery menu system and automatically (or manually if desired) configure your hard drives and restore data from your last backup. *RecoverEDGE* fully supports restores from encrypted archives.

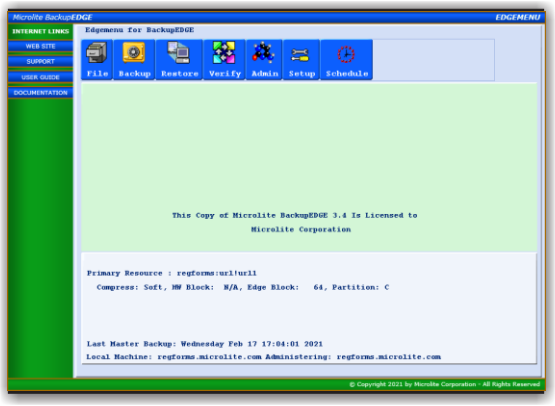
Boot Media Choices
RecoverEDGE can create boot media on optical and SharpDrive media. These work directly with your system backups to recover systems, as does as PXE media-free network booting.

Bootable Backups
You may also create nightly system backups which are fully bootable for disaster recovery on optical and SharpDrive media. If your tape device supports *OBDR™*, you may also make bootable nightly backup tapes, meaning that your backup media is also your disaster recovery media.

Remote Recovery
Boot media contains a full *network stack* and *modem support*. This means that if the local user can simply boot into the *RecoverEDGE* menu, an administrator can telnet or modem into the system from anywhere in the world to perform a recovery.

Recovery From Network Backups
Complementing the remote backup capabilities of *BackupEDGE*, *RecoverEDGE* can restore from NAS backups, providing a complete backup and disaster recovery solution for systems without attached storage, such as rackmount servers and notebook computers.

BackupEDGE is available world-wide for most modern Linux server distributions, including Red Hat Enterprise Linux, Oracle Linux Server, Rocky, Almalinux, SUSE Linux Enterprise Server, OpenSUSE LEAP, Ubuntu and more. Please check the Microlite Corporation web site for current platform availability. No-charge, 60 day evaluation copies may be downloaded. A license must be purchased for continued operation.



MICROLITE CORPORATION

724-375-6711 • 888-257-3343 • http://www.microlite.com