



Amanda Enterprise

Open Source Backup Software

Reduce the costs and complexity of data protection across your Linux, Solaris, Windows, Hyper-V, and Mac OS X platforms – all managed by a single web-based console

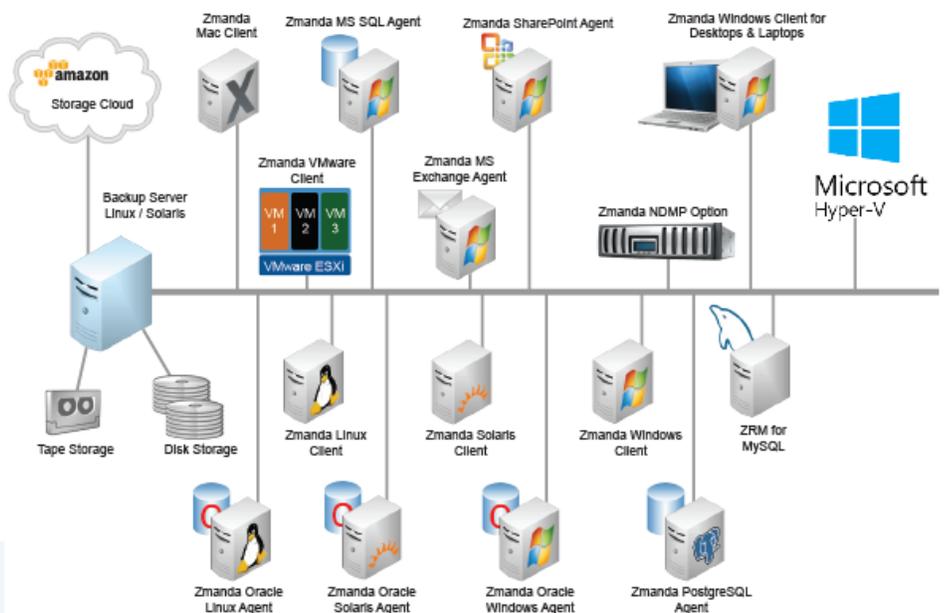
“Amanda Enterprise software provides enterprise-level backup... at a fifth of the cost of proprietary backup products.”

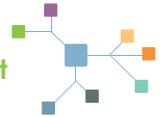
As organizations of all sizes become increasingly dependent upon their data, centralized backup and recovery of data distributed across all platforms is essential. Yet, faced with small IT staffs and limited budgets, many businesses cannot afford to purchase and manage expensive and complex backup solutions. Amanda Enterprise software provides enterprise-level backup and restore capabilities, coupled with ease of implementation and management, at one-fifth to one-tenth of the cost of proprietary backup products.

server to back up multiple Linux, Solaris, Windows, Hyper-V, and Mac OS X clients to tape, disk, or storage cloud. Amanda Enterprise also protects databases such as Oracle, Microsoft SQL Server, Postgres and the data in email applications including Microsoft Exchange. Image-level backup of VMware guest VMs is also supported.

As an open source product, Amanda Enterprise uses standard data formats – effectively freeing you from being locked into a vendor to recover your archived data. Amanda has been certified by an initiative sponsored by the US Department of Homeland Security to

With Amanda Enterprise, system administrators can set up a backup





- **Enterprise-class protection with simplified administration.** Offers enterprise-level functionality without unnecessary complexity. With an intuitive user interface, Amanda Enterprise is easy to install, configure, and manage.
- **Scalable & heterogeneous.** A single backup server can scale to back up and recover hundreds of desktops, workstations, and servers running Linux, Solaris, Windows, Hyper-V, and Mac OS X operating systems.
- **Centralized and secure.** A centralized web-based management console enables protection and recovery of data distributed throughout your enterprise. Industry standard encryption and compression tools are used to secure and store data.
- **Intelligent scheduler.** A unique approach to scheduling automatically optimizes network and storage usage to achieve consistent backup windows and enhance administrator productivity.
- **Open formats.** Only industry standard data formats and tools are used. Other backup products use proprietary formats – locking your data into the vendor.
- **Low cost of ownership.** Subscriptions are up to 80 percent lower than licensing costs for major competitive products. Simplified and centralized operations improve administrator productivity, further reducing the cost of ownership.
- **Responsive technical support.** Users may choose from three levels of support, complete with knowledge base access, email and phone support, case management, software enhancements, and security updates.

be free of security defects – the only backup product to achieve such a distinction.

Centralized Management

A centralized web-based management console simplifies all day-to-day activities such as configuring backup policies and schedules, adding new clients, initiating and monitoring backup activities, restoring files from backup archives, and generating pre-defined or custom reports.

Administrators can remotely access Amanda Enterprise from any browser, including any Internet-enabled PDA, to monitor backup activities and perform backup and recovery operations. IT managers can implement centralized management policies and processes to ensure that corporate, legal, and regulatory requirements are being met.

Intelligent Scheduler

Most backup products require administrators to select the specific days and levels for backup of each client. For organizations with a large number of backup clients to configure, this can be tedious and complicated. It also results in huge variations in the amount of data backed up each day, requiring

companies to purchase additional storage and network capacity to accommodate peak data volumes.

To address the time and cost inefficiencies of manual scheduling, Amanda Enterprise has an intelligent scheduler that automatically determines backup levels to optimize resource usage and recovery point objectives. This powerful and unique scheduling system allows administrators to increase their productivity and achieve consistent backup windows.

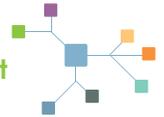
Backup Fault Tolerance

Since backup touches most of your IT infrastructure, any of the moving parts can have a potential glitch. Architecture of Amanda Enterprise allows it to keep running even in the face of multiple faults.

For example, Amanda Enterprise gracefully skips systems (e.g. laptops) which cannot be backed up in a particular run. When this skipped system is available in a future backup run, Amanda Enterprise's intelligent scheduler promotes its backup to an appropriate backup level. In case of backup media errors (e.g. tape errors or inaccessibility of cloud storage), Amanda Enterprise caches the backup data on the holding disk. You can migrate this data to

The screenshot shows the Amanda Enterprise Management Console interface. At the top, there is a navigation bar with tabs for Backup, Monitor, Report, Admin, and Restore. The user is logged in as 'admin'. Below the navigation bar, there is a 'Monitoring current backup' section with a table showing backup statistics: Total Backups: 3, Backups Completed: 1, Backups In Progress: 2, and Backups Failed: 0. To the right, there is a 'Monitor Chart' for 07/30/2008 12:29:50, which displays a table with columns for Hostname, Directory, Level, Flush, Estimate, Holding, and Media. The table lists three hosts: tm-demo- CentOS4, tm-demo- Solaris10, and tm-demo- Win2k3, each with corresponding progress bars and status indicators.

Hostname	Directory	Level	Flush	Estimate	Holding	Media
tm-demo- CentOS4	/home/demo					
tm-demo- Solaris10	export/home/demo					
tm-demo- Win2k3	.s and Settings/Demo					



Backup Server with Management Console

- Solaris
- OpenSolaris
- Red Hat Enterprise
- SUSE Linux Enterprise
- Oracle Enterprise Linux
- CentOS
- Fedora
- Ubuntu
- Debian

Platform Clients

- Solaris
- Open Solaris
- Red Hat Enterprise
- SUSE Linux Enterprise
- Oracle Enterprise Linux
- CentOS
- Fedora
- Debian
- Ubuntu
- Open SUSE
- Windows Server
- Windows
- Mac OS X
- VMware ESXi
- VMware vSphere
- NAS Filers (NDMP, NFS, CIFS)

Database & Application Agents

- MS Exchange
- MS SQL Server
- Oracle
- MS SharePoint
- Postgres

backup media after the fault has been resolved.

Automated Data Retention and Disposition Policy

Ever-expanding government regulations such as HIPAA and Sarbanes-Oxley put an incredible amount of pressure on businesses to comply with data security, retention, and retrieval requirements. Amanda Enterprise allows you to automate your data retention and disposition policy, setting the stage for effective compliance management and e-discovery.

Holding Disks

Amanda Enterprise stages backups to one or more "holding disks," allowing later migration to tape or other media. Multiple clients can be backed simultaneously to the same holding disk to improve performance and reduce the total backup time.

Flexible Backup Media Options

Amanda Enterprise provides a wide variety of storage media for backup, including tape, tape libraries, VTLs, disks (DAS, NAS, SAN, RAID), optical jukeboxes, and online storage.

Cloud Storage (including Amazon S3)

As data has become invaluable to every company, you need a way to ensure business continuity and fast recovery in case of disaster. Amanda Enterprise provides a highly scalable, reliable, and low-cost way to store your data off site using Amazon Simple Storage Service (Amazon S3).

Wide Platform and Application Support

Amanda Enterprise supports Linux, Solaris, Windows, Hyper-V, and Mac OS X clients. Amanda also protects databases such as Oracle, Microsoft SQL Server & PostgreSQL, and the data in e-mail applications including Microsoft Exchange. You can also use Zmanda's ESXi and vSphere client to backup virtual machines at an image level

for disaster recovery.

Advanced Support for Windows

Zmanda Windows Client provides support for backing up open and locked files on all Windows platforms. This client also protects Windows System State, including Active Directory, to enable fast and easy system restoration, even to dissimilar hardware and virtual environments. Backup images from Windows based systems are stored in ZIP64 format which is supported by several tools and utilities

High-performance backups for NAS Appliances

Amanda Enterprise supports backups of Storage Appliances (e.g. such as NetApp Storage Systems and Sun Unified Storage Systems) via NDMP, NFS and CIFS. You can use NDMP to directly transfer backup images from the appliance to the tape library - without impacting the corporate LAN. All filesystem meta-data attributes, including UNIX and Windows file attributes, are maintained when backing up and recovering data using NDMP. NFS and CIFS based backups are also supported, in case NDMP is not supported by the device or is not efficient for a particular configuration.

Standard Backup Tools and Data Formats

As an open source product, Amanda Enterprise does not use any proprietary data formats. All other commercial backup products use their own proprietary backup formats that lock you into their product since it provides the only way to recover data. Your backup data is essentially held hostage by the vendor. With data protected by Amanda Enterprise, in case of emergency you can recover your data using standard operating system tools and utilities.

Standard backup tools. Amanda Enterprise uses industry-standard tar to backup Linux and Solaris clients. The standard Zip file format is used to backup Windows.
Standard compression. Amanda



Enterprise supports standard compression utilities, such as gzip, and allows administrators to choose the optimal compression algorithm for the data and the resources available, as well as whether to compress the data on the client or the server. Most backup solutions lock the user into proprietary compression routines.

Flexible Recovery

Recovering data is quick and easy with Amanda Enterprise. The graphic interface allows administrators to simply click on the file or files to be restored.

Cross-platform restore. Data backed up from one operating system may be recovered to a different operating system.

Layered Security

Amanda Enterprise provides many layers of security to ensure that backup data, communications, and access to the backup process itself are all secured.

Role-based access. Amanda Enterprise allows universal access to be given to administrators, while operators are given access only to their respective data sets.

Standard encryption. Most commercial backup products use a built-in proprietary encryption algorithm. On the other hand, Amanda Enterprise gives you the flexibility to choose from any standard encryption, and to encrypt the data either on the client to ensure security of data in transit or on the server to ensure security of data at rest.

Comprehensive Backup Reporting

Amanda Enterprise provides comprehensive reports for quick discovery of problems, capacity planning and compliance management, helping you to meet the business objectives of data protection.

Calendar view provides at-a-glance view of history of backup operations.

This interactive calendar provides visual indicators of success and failures, and provides easy drill down to details of a specific backup run. **Media reports** provide visual overview of media utilization and performance, so you can identify backup performance bottlenecks and do capacity planning. You can initiate one-click recovery right from your backup summary reports. In addition, you can customize reports and export them into a spreadsheet or the dashboard of your monitoring application for further trending analysis.

Professional Services

Zmanda's team of backup experts are available to help you design and implement a solution for backup and recovery, storage and network capacity planning (for backup purposes), legacy backup migration, backup performance optimization, or disaster recovery. They can also provide hands-on training for installation, configuration and maintenance of Amanda Enterprise.

Enterprise Subscription	Standard	Premium
Software		
Certified software	✓	✓
Security & Functionality updates	✓	✓
Product Support		
Product alerts & Knowledge base access	✓	✓
Number of supported cases	Unlimited	Unlimited
Phone support	Yes	24 x 7
Number of authorized contacts	1-5	Unlimited
Initial response time	Within 8 hours	Within 3 hours

“Amanda Enterprise should be on the short list of any IT manager looking for a backup solution.”

**Arun Taneja,
Noted Storage Analyst**