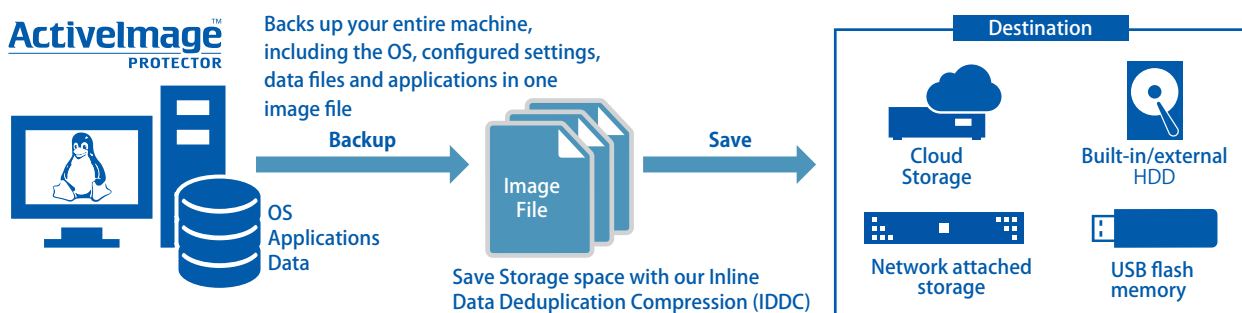# ActiveImage™

PROTECTOR

What is ActiveImage Protector™ ?

Backup Solution

ActiveImage Protector™ is an image based backup and recovery solution that supports a physical and virtual Linux environments. ActiveImage Protector™ uses the latest sector-based technology to back up your entire hard disk, including the operating system along with all your applications and data. The backups are saved to any available storage location, including local hard disk, USB memory, network storage such as NAS, etc.
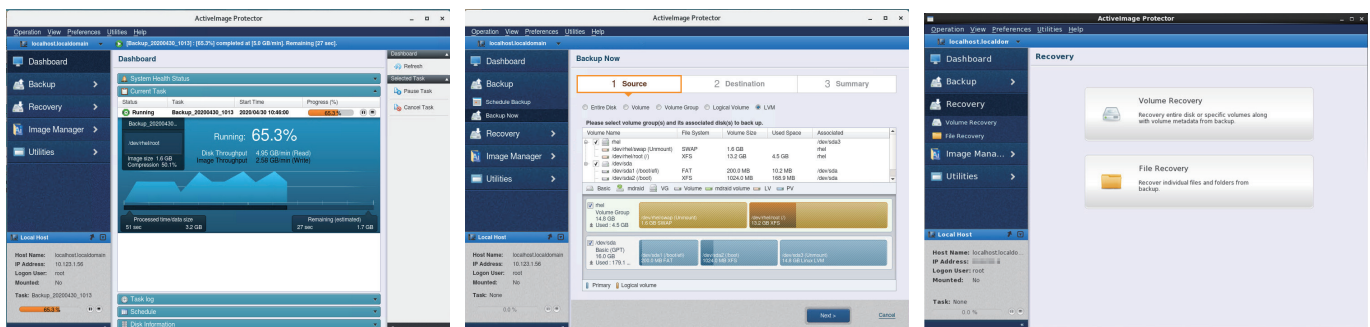
ActiveImage™ PROTECTOR

Backs up your entire machine, including the OS, configured settings, data files and applications in one image file

Backup → **Image File** → **Save**

OS Applications Data

Save Storage space with our Inline Data Deduplication Compression (IDDC)

Destination

Cloud Storage

Built-in/external HDD

Network attached storage

USB flash memory

Ensure full-state recovery

ActiveImage Protector™, a disaster recovery solution, is designed to provide "a fast and successful recovery", and is useful for disaster recovery.

Recently an increasing number of business institutions have introduced some sort of backup system offering a disaster recovery solution in the event of natural disaster or virus attack. On the other hand, many of them have experienced issues that "the system recovery never completed or took lengthy time" or "the restored system never boots up" in the event of a system failure which may lead to a business continuity crisis.

Powerful Graphical User Interface for Linux

A cross platform graphical user interface that supports both Windows and Linux (X Windows) platforms. The new GUI provides simple and easy access to ActiveImage Protector™'s features and settings across both platforms. CUI/CLI are supported.

Backup Features

Image file based backup

ActiveImage Protector™ backs up your entire machine, including the OS, configured settings, data files and applications in one image file. When disaster strikes, select a backup image to quickly restore for a fast and complete recovery.

## Hot-Imaging backup for live Linux machines

ActiveImage Protector™ backs up your entire machine, including the OS, applications and data files, while the machine is active and running without stopping the services including database or open files to ensure ultra-reliable backups. The hot-imaging backup is useful especially when backing up the system and the data frequently updated throughout the day and night on non-stop server.

Cold-Imaging for Linux machines

ActiveImage Protector™ may be booted from the product media to run. This enables to create a backup image of a clean static Linux server (immediately after installation of Linux OS). Cold-imaging backup saving the point-in-time state of the failed system is convenient to examine the cause of the system failure.

Faster and smaller backup with Smart Sector technology

ActiveImage Protector™'s Smart Sector technology only backs up the used sectors on a disk, resulting in faster backup and smaller backup files.
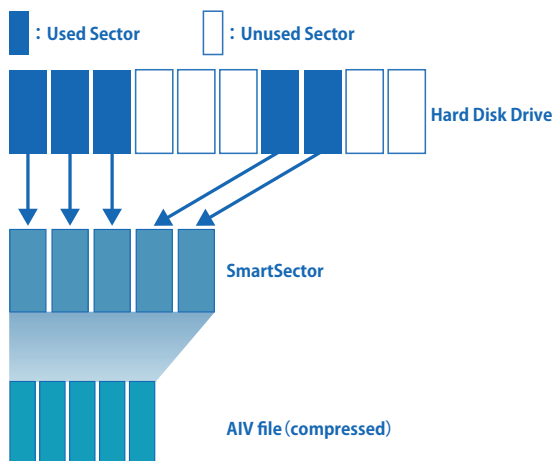
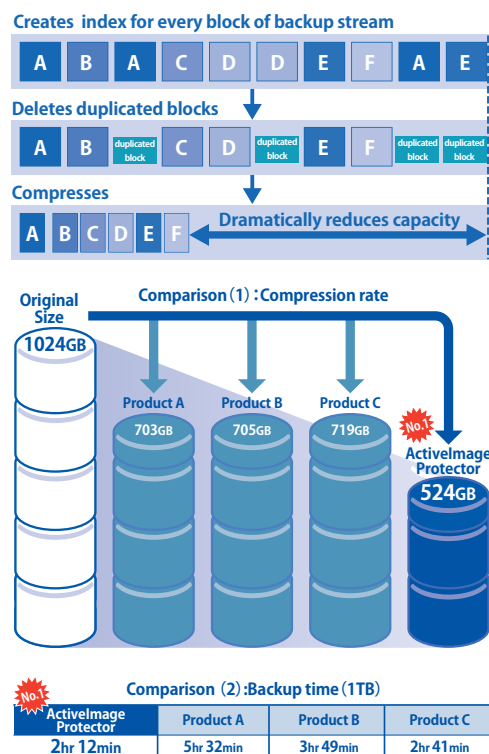## Encryption of Backup Images

ActiveImage Protector™ can create password-protected and encrypted backup images and supports up to 256 bit encryption.

Bad Sector Skip

In the event of a corrupt or failing disk, ActiveImage Protector™'s Bad Sector Skip function will ignore bad or unreadable sectors, allowing you to back up and recover data in the remaining good sectors.

Save storage space with IDDC

Our Inline Data Deduplication Compression (IDDC) feature eliminates duplicate data while simultaneously compressing it, resulting in a significant reduction in backup storage requirements. Backup using IDDC does not increase the overall backup processing time (according to our test results: 27 hours to backup 11.7 TB data). You do not need to purchase an optional tool or an expensive storage offering Deduplication feature. No special configuration settings or operation are required.

No.1 ActiveImage Protector	Product A	Product B	Product C
Comparison（2）:Backup time（1TB）			
2hr 12min	5hr 32min	3hr 49min	2hr 41min

Fast Incremental Backup

Fast and efficient incremental backup includes only sectors that have changed from the last backup. The incremental backup saves both process time and storage space. ActiveImage Protector™ includes the proprietary change tracking filter driver for the fast incremental backup. When restoring the system, you need to have the backup file set including the base backup image file and the associated incremental chain to the recovery point.

Support for LVM Backup

Support for collective backup / restore of disks configured with Linux Logical Volume Manager (LVM).

Command line execution support

Most of ActiveImage Protector™'s features can be used by specifying parameters for command line tool or with command file. ActiveImage Protector™'s CLI allows backups to be seamlessly administered by system management tools, if any, by using prepared script file.

A variety of Storage Media are supported

Save your backups to any available storage location, including NAS, SAN (fibre channel), USB, eSATA, network shared folders, etc.

Backup Options

Schedule backup

Backup tasks can be automatically executed according to the one-time, weekly or monthly schedule, or a specific day of a week in a specific month. Also, you can schedule the first baseline backup and recurring incremental backup tasks to run subsequently.

Image Retention Policy

The use of Retention Policy feature allows you to automatically delete the obsolete backup image set when the number of backup image sets reaches the preset limitation and reduce the storage space requirements. Retention Policy may be enabled to manage how many sets of base and incremental backup files to retain before deletion.

Flexible Multi-Scheduling Feature

Multiple schedules can be defined for individual backup tasks. For example, you can create a new full backup each month for an ongoing Weekly Schedule backup task.

Post-backup Process

Runs Replication and Consolidation tasks upon completion of a backup task or at a specified time.

Destination Isolation Option

Our new ImageIsolate™ technology reduces potential malware or ransomware attacks by disconnecting access to a backup storage drives after backups complete.

Scripting

Scripts can be implemented to run before and/or after snapshots are taken or after the backup image has been created. An example would be to execute a user-specified script to purge database cache before taking a snapshot and resume database after taking a snapshot (before starting a backup task), a script to copy / edit the created backup image file, etc. Scripts can be implemented respectively for a base backup and incremental backup tasks.

Cloud Storage Services are supported (Offsite Replication)

Replication target supports a local storage, a Network Shared folder, FTP, FTPS, SFTP, WebDAV, Amazon S3, Azure Storage, OneDrive, Google Drive, Dropbox.


Live Backup of MySQL on Linux

ActiveImage Protector™ offers image-based backup of live MySQL databases without needing to shut MySQL down, ensuring consistency of data in the backup.

Restore Features

Fast and full-state recovery from disk image-based backup

In the event of a system failure due to hard disk failure. the traditional lengthy recovery process involved the reinstallation of OS and applications, data recovery, etc. ActiveImage Protector™ is a sector-based disk imaging backup/recovery solution and the built-in wizards guide you through every steps to perform required operations for recovery from the backup image file. Select the most up-to-date incremental backup file and your system is restored to the most updated state.
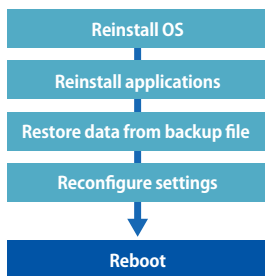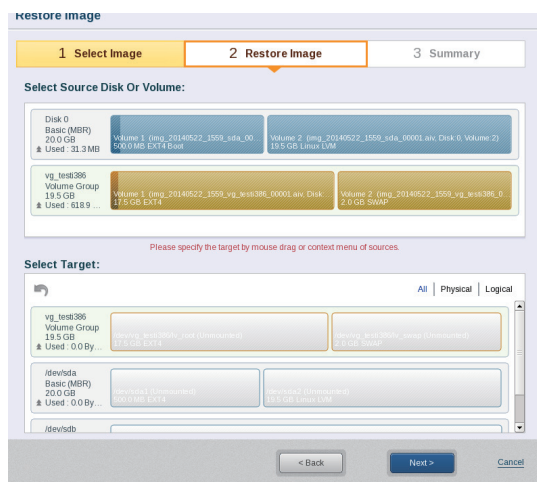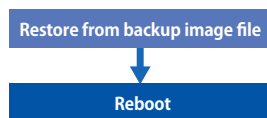
Fast Bare Metal Recovery

ActiveImage Protector™'s lightning-fast restore engine dramatically speeds up recovery time. Bare Metal Recovery provides capabilities for initializing and creating partitions on the bare metal disk.

File Recovery feature

In the event of system failure, as is often the case, you may only need specific files to restore in order to restart your duties. File Recovery feature allows you to restore a specific file or a folder from a backup image file on ActiveImage Protector™'s GUI. Then, access rights assigned to files, which Copy File feature of Mount Image often fails to recover, are inclusively restored.

Linux Based Recovery Environment

Perform faster disaster recovery and cold back-ups with ActiveImage Protector™'s Linux based boot environment (AIPBE) on DVD. AIPBE is built based on CentOS. This enable to recognize the latest device to use.

Operation

New GUI provides tools for efficient operations

New GUI provides dashboard window enabling real time monitoring of the status of tasks, logs, schedules and disk information. Backup/Restore wizards windows makes the software operation more intuitive.
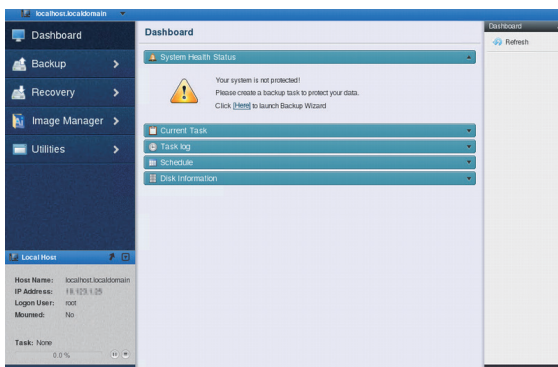
Remote File Explorer

Built with File Explorer for selecting files/folders. Remote File Explorer allows you to browse files and folders from your image files in network shared folders on remote clients just in the same manner as on local computer.
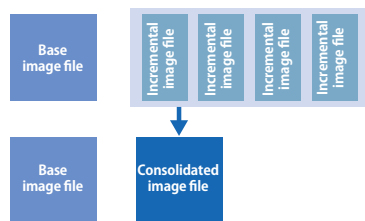
Image Management

Image Mount (Granular File and Folder Recovery)

ActiveImage Protector™ can quickly mount an image file as a drive, allowing you to extract any files or folders contained in the image file. When image file is mounted as a writable drive, the changes made on the drive will be saved as differential files.
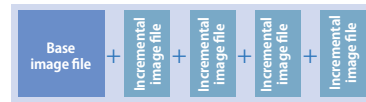
Consolidation of Backup Files

Consolidate incremental backups into a single incremental file to save storage space and for easier management.

Archive Backup Files

Use the archive (unification) feature to unify a full base image file and all associated incremental files into a single backup file.

Remote Management

Client management console for easy administration of backup agents

The use of Client management console enables to manage ActiveImage Protector™ agents installed on remote computers.
 ・You can monitor the status of remote agents over the network, start execution of backup tasks from console and establish connection to remote console.

・One-click offers execution of scheduled backup tasks on remote network computers.
・Free evaluation version of Actiphy software installed on remote network computers can be upgraded to a full product version from console.

Instant recovery solution

HyperBoot™ add-on to immediately boot backups images as virtual machines

Use our Windows-based add-on application, HyperBoot™ to boot ActiveImage Protector™ backup mage files as a fully functional virtual machine in only a few minutes in local and remote Microsoft Hyper-V, VMware ESXi, VMware Workstation Pro / Player, Oracle VirtualBox. HyperBoot™ serves as an interim replacement server to bridge the gap between disaster and recovery. Using VMware vMotion streamlines the recovery process by seamlessly migrating live virtual machines booted in vCenter to a hypervisor in a production environment.
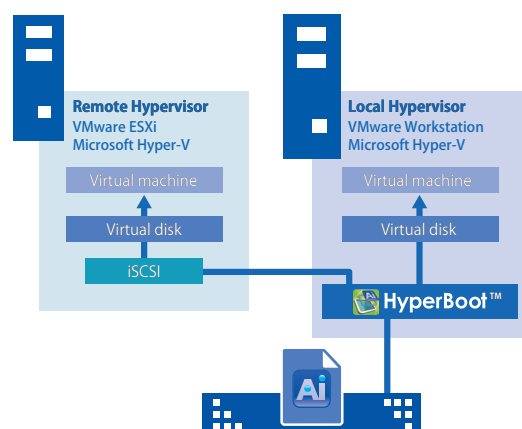
Others

Support for Smart Sector Backup of XFS system volume

ActiveImage Protector supports the smart sector backup of XFS system volume which is used on Red Hat Enterprise Linux and CentOS.

Support for the Latest uEFI Mother Boards

Backup and restore of GPT disks in a uEFI boot environment are supported, as are large capacity disks (2TB or larger). ActiveImage Protector's Linux boot environment (AIPBE) offers native support for uEFI.

Support for hardware RAID

Backup / recovery of hardware RAID is supported.

Email Notification

Email notification can be sent (using SSL/TSL) to an email address of your choice. Notifications include successfully completed backups, backup failure, or in the event that ActiveImage Protector encounters an error, a restart or failure. Email notification may be set to inform you of the summary of task execution and license status (expiration of the license period).

Central Management Console "ActiveVisor™"

ActiveVisor™ provides a centralized solution for managing and monitoring ActiveImage Protector™ clients. ActiveVisor™ collects data from remote clients (agent-based ActiveImage Protector™ and agentless HyperAgent™) over network, provides graphical and statistic presentation of the data, monitors the status of ActiveImage Protector™ clients / backup status / destination storage and deploys the backup task / schedule templates. ActiveVisor™ enables system administrators to manage and monitor ActiveImage Protector™ clients from any location, reducing the burdens on the system administrators.
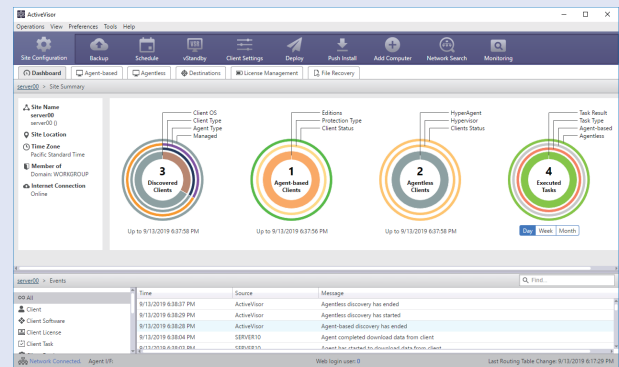
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