

Fast Backup and Live Recovery Solutions for  
Real Protection in a Virtual World

# ActiveImage™ 2018

## PROTECTOR

# ActiveImage™ 5

## PROTECTOR

## Protect your company from disasters before they strike with ActiveImage Protector

ActiveImage Protector is an image based backup and recovery solution that supports a variety of physical and virtual Windows and 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. When disaster strikes, ActiveImage Protector offers lightning fast granular file and folder recovery as well as complete system restore to the same or different hardware, or to a virtual environment. With ActiveImage Protector, you can perform backup and recovery of both Public Cloud servers as well as local servers. Our reliable Inline Data Deduplication and Compression technology reduces the size of your backups, saving you both storage space and money.

NEW

- Post-backup processing including BootCheck™ and consolidation
- Virtual Standby Availability
- Updated and improved P2V, V2P, P2P, and V2V processing
- Enhanced Full-state file recovery retains access rights
- Supports Windows 10 Fall Creators Update

## Backup Features

### Hot-Imaging for Windows machines

ActiveImage Protector backs up your entire machine, including the OS, applications and data files, while the machine is active and running using Microsoft's advanced VSS (Volume Shadow Copy Service) technology to ensure ultra-reliable backups of your Windows Server 2003, 2008 R2 and 2012 R2, 2016 as well as Windows XP , 7, 8 and 10.

### Cold-Imaging for Windows machines

Perform cold backups of static Windows Servers and Desktops. Ideal for use with new / clean system environments (directly after a Windows OS install) or just prior to a system failure.

### Faster 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.

### 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. The latest version supports for volume data exceeding 11 Terabytes.

### High Performance Backup and Recovery

ActiveImage Protector is optimized for speed, performing backup and recovery nearly twice as fast as the other solutions.

### Fast Incremental Backup

Our proprietary filter driver tracks and backs up only the changes made since the previous backup, resulting in faster processing time and dramatically smaller backup files.

### Incremental Reconcile Feature

ActiveImage Protector's Reconcile Feature allows you to continue an incremental chain even if previous incremental files are lost or corrupted.

### Encryption and Compression

ActiveImage Protector can create compressed 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.

### USB SmartDetect™

Automatically detects when your USB backup disk is not connected and will prompt you to resume your backups once the disk is reconnected. Even when multiple USB hard disks are specified as the destination to save backup images, USB SmartDetect feature can be enabled.

### Smart Sector Technology - Backup Linux partitions from Windows

In a Windows/Linux multi-boot environment, AIP's Smart Sector Technology can backup both Linux (Ext2, Ext3 & Ext4) and Windows partitions from Windows.

### Save your backups to any storage location

Save your backups to any available storage location, including network shares, USB, RAID or your cloud storage location.

# Backup Options

## Schedule backup and Image Retention Policy

Backup tasks can be automatically executed according to the one-time, weekly or monthly schedule you specify. 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. Also, you can schedule the first baseline backup and recurring incremental backup tasks to run subsequently. Multiple USB devices may be configured for alternate storage destinations in one schedule, as well as Retention Policy enabling to keep only pre-defined number of backup image generation sets for storage space saving, and USB SmartDetect™ feature detecting disconnected USB backup disk and resume skipped backups once the disk is reconnected.

## Flexible Multi-Scheduling Feature

Multiple schedules can be defined for individual backup jobs. For example, you can create a new full back-up each month for an ongoing Weekly Schedule backup job.

## Schedule Suspension feature

Scheduled incremental backup tasks can be suspended and resumed while maintaining uninterrupted incremental change tracking; resulting in improved backup performance.

## Automatic Backup At Shutdown

ActiveImage Protector supports automatic backup when a machine is shutting down.

## Automatic execution of missed backup tasks

If your computer was powered off at the scheduled backup time, the missed backup tasks are executed when the computer is restarted.

## Throttling Feature

Adjust ActiveImage Protector's system resource and network bandwidth usage priorities to ensure the backup processes does not affect the performance of other critical processes.

## Network Bandwidth Usage Throttling

When backing up to a network share, use the network bandwidth throttling feature to adjust the overall impact a backup job has on network bandwidth.

## Scripting

Scripts can be implemented to run before and or after snapshots are taken or after the backup image has been created.

## Offsite Replication

Automatically replicate your backups offsite to shared network drives, FTP locations and WebDav folders.

# Restore Features

## Restore Wizard

Our easy-to-use Restore Wizard guides you step by step through the quick and easy restoration process.

## Restore multiple source images to multiple target disks in a single operation

Select and restore a system volume by dragging the volume image to the target disk. Then, select an incremental data volume image from a different date or backup source for a complete recovery.

## 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, the NTFS streams information and 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). AIPBE is built based on CentOS. This enables to recognize the latest devices to use.

## Build your own boot environment (Windows PE based)

ActiveImage Protector includes a Windows PE based boot environment builder that uses Windows AIK or ADK. (IT Pro Edition Creator is provided for IT Pro Edition)

## Boot from USB, CD/DVD or ISO file

Our Linux-based boot environment builder can create a boot environment as an ISO file, on optical media and on a USB key, offering you maximum flexibility and the ability to perform bare metal recovery of machines without optical drives.

## Pre-Boot Recovery Environment

This feature creates a boot environment directly on your hard drive, allowing you to boot the recovery environment without the need of an external device or optical drive. (Not available for Hyper-V Server or Server Core)

## Recovery of GPT volume

When uEFI system is used, GPT volume can be restored by disk or by volume.

## Architecture Intelligent Restore

ActiveImage Protector's A.I.R (Architecture Intelligent Restore), developed using Windows Embedded technology, can restore and migrate virtual and physical machines to different servers and dissimilar hardware. A.I.R. can also restore entire disks and/or selected volumes and enables easy migration across physical and virtual machines.

## Repair Boot Configuration

Recovery of BCD in MBR is supported on boot environment. In case that you failed to back up boot partition in the partition table in Vista or later, or that only C: drive was restored and the system was not bootable, the use of "Repair Boot Configuration" feature enables you to boot the system.

### Shrink On The Fly

ActiveImage Protector provides Shrink on Restore for NTFS volumes. NTFS volumes can be restored to disk drives that are smaller than the original disk. The minimum requirement is that there is enough space on the smaller drive to restore the amount of actual data of the original volume.

### Enlarge or reduce target volumes or partitions during recovery

NTFS volume may be restored to a volume in specified size larger or smaller than the source volume.

## Snapshot driver

### Standard Snapshot Driver (Volsnap)

ActiveImage Protector uses Microsoft's standard Volsnap snapshot driver. No additional drivers need to be installed.

### Backup of VSS-aware Server Applications

Create consistent backups of your VSS-aware server applications such as SQL Server, Exchange Server and Oracle.

### Point-In-Time Multi-Volume Snapshots

ActiveImage Protector offer superior recoverability of databases spread across multiple volumes by taking a point-in-time snapshot of all volumes at the same time, thus ensuring consistency and recoverability.

## Virtual Environment Support

### Virtual environment support

ActiveImage Protector provides powerful virtualization tools for migrating and restoring both virtual and physical machines V2P (virtual to physical), V2V (virtual to virtual) and P2V (physical to virtual).

### Virtual Conversion Utility

Virtual Conversion Utility is provided to convert a backup image file to virtual disk bootable as virtual machine. Conversion to the latest virtual disk format, VHDX, as well as VMware VMDK, Hyper-V VHD is supported. ESXi 6.5 is newly supported.

### P2V (physical to virtual) conversion directly from hard disk

P2V conversion feature supports direct conversion from hard disk to VMDK file, which saves P2V conversion process time, bypassing P2V conversion from an image file.

### P2V conversion directly to VMware vSphere ESXi virtual environments

P2V conversion supports datastore on ESXi host as the target destination to save the created VMDK file. Compared to P2V conversion process that involves VMDK file created on local machine and uploaded to ESXi host, it improves P2V conversion convenience with less impact on the conversion process time. You can specify a folder in datastore on ESXi host as the destination to save VMDK files.

### Support for the free-license edition of VMware vSphere hypervisor (ESXi)

Free-license edition of VMware ESXi is also supported as the target destination to save the created VMDK file.

### Support for P2V disk on Windows PE

Conversion from physical to virtual disk (conversion to virtual disk only) is supported in Windows PE-based boot environment.

## Image Management

### ImageExplorer

Installed as a Windows Explorer extension, ImageExplorer allows you to browse and copy files and folders from your image files without requiring a full image mount, saving you time and system resources. This will allow you to restore individual files or folders.

### Image Mount (Granular File and Folder Recovery)

When your system crashes, ActiveImage Protector can quickly mount an image file as a virtual 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 & Archive

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

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

### Post-backup Process

Runs BootCheck™/ Consolidation tasks upon completion of a backup task or at a specified time. BootCheck™ quickly tests that backup images can successfully boot as virtual machines in Windows environment where ActiveImage Protector Hyper-V is installed on a Hyper-V host or Oracle VirtualBox. BootCheck™ is useful for immediately ensuring that the backup images are bootable, saving system resource and time.

### Centralized Image Management

Use our free ImageCenter LE add-on to centrally manage your ActiveImage Protector images both onsite and offsite with scheduled consolidation of your base and incremental backups as well as local and offsite replication to network shared folders, FTP, SFTP WebDAV and Amazon S3.

## Remote Management

### Push install for easy backup agent distribution

Push Install feature is designed to install ActiveImage Protector agents and console on remote computers over a network. Using the built-in Network Discovery feature, you can discover target computers and enter the product key for the selected installation package. You can also get a list of computers from Windows Active Directory or push install the programs to remote multiple computers.

### Client management console for easy administration of backup agents

- 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 NetJapan software installed on remote network computers can be upgraded to a full product version from console.

# Instant recovery solution

## **Creates virtual standby replica (VSR) (integrated with vStandby)**

vStandby, standby availability solution, was marketed separately from ActiveImage Protector. ActiveImage Protector integrates its features to replicate your physical / virtual machines (virtual standby replica) directly to an ESXi or Hyper-V host, up-dating boot points with scheduled incremental snapshots. When a disaster strikes, the virtual standby replica (VSR) can be instantly started (in two minutes according to our test result).

## **ImageBoot Add-On**

Use our free ImageBoot add-on to boot your backup as a fully functional virtual machine in only a few minutes in VMware WorkStation, Player / Player pro or Microsoft Hyper-V. ImageBoot serves as an interim replacement server to bridge the gap between disaster and recovery.

## **vStandby AIP for Instant Disaster Recovery**

Use our vStandby AIP solution in combination with ActiveImage Protector to create a standby virtual machine directly from your backup images. When disaster strikes, you can instantly boot a standby virtual machine from any incremental boot point made before the system crashed – giving you true Instant Disaster Recovery!

# Others

## **Supports the latest OSes and legacy OSes**

Supports Windows Server 2016 / 2012 / 2012 R2 and Windows 10 Fall Creators as well as legacy OSes such as Windows XP and Windows Server 2003. Update as well as the latest hardware architectures including uEFI mother boards and GPT (GUID partition table) volumes (boot, system and logical). ActiveImage Protector supports Storage Spaces, CSVFS Volumes (Cluster Shared Volume File System), ReFS (Resilient File System) and 4K sector disks, including incremental backup of ReFS.

## **Remote File Explorer**

Administer both local and remote file systems via a customized cross-platform file browser.

## **RAID Configuration Support**

Backup and restore of RAID configuration is supported.

## **Monitor task log entries in Windows Event Log Viewer**

Events are now recorded in the Windows event log to provide better integration into the Windows Management Interface for a more unified experience.

## **Automatic E-Mail Notification**

Set email notifications to be sent (using SSL/TSL) in the event of successful backup completion, backup failure, or when ActiveImage Protector encounters an error, a restart or a failure. Task summary option and license status (remaining days of a valid license) are notified.

## **Notify Update, On-line Update features**

You can pre-configure ActiveImage Protector to automatically check for updates over network and install the latest updates.



**NetJapan, Inc.**

<http://www.netjapan.com>   [sales@netjapan.com](mailto:sales@netjapan.com)

Copyright 2018 NetJapan, Inc. All rights reserved. ActiveImage Protector, vStandby AIP, vStandby, vmGuardian, ImageCenter, ImageBoot, ReZoom it! are trademarks of NetJapan Inc. Other brands and product names mentioned in this new release are trademarks or registered trademarks of their respective holders

# ActiveImage Protector solution comparison

(As of January, 2018) ※AIP=ActiveImage Protector

		Virtual Edition						
		AIP 2018 Server	AIP 2018 Desktop	AIP 2018 Linux	AIP 2016 Hyper-V	AIP 2018 IT Pro	AIP 2018 Cluster	AIP 5 (Personal)
Backup features	Hot/Cold backup	○	○	○	○	○	○	○
	Smart Sector Backup (backup of only used sectors)	○	○	○	○	○	○	○
	Deduplication Compression (IDDC)	○	○	○	○	○	○	○
	Command line execution support (parameter setting in command line)	○	○	○	○	○	○	○
	Incremental backup	○	○	○	○	×	○	○
	Reconciling function which allows continuous creation of incremental backup images even if a previously created incremental backup image is corrupted.	○	○	×	○	×	○	○
	AES256 bit encryption	○	○	○	○	○	○	○
	GPT volume backup	○	○	○	○	○	○	○
	Bad sector skip	○	○	○	○	○	○	○
	USB SmartDetect	○	○	×	○	—	○	○
	Smart Sector function enables Windows to backup Linux partitions in Ext2/Ext3/Ext4 formats	○	○	—	—	○	○	○
	Backup file storage in local disk, network shared folders	○	○	○	○	○	○	○
Backup Options	Scheduled backup	○	○	○	○	×	○	○
	Retention Policy (keeps only specified number of backup image sets)	○	○	○	○	×	○	○
	Mutiple schedule creation	○	○	○	○	×	○	×
	Scheduled incremental backup tasks can be suspended	○	○	○	○	×	○	○
	Automatic incremental backup at shutdown	○	○	×	×	×	○	○
	Automatic execution of missed backup tasks	○	○	○	○	×	○	○
	Post-backup task options (automatic shutdown or system restart)	○	○	○	○	○	○	○
	Throttling options (to adjust system resource usage priorities and assure backups don't interfere with other mission-critical processes.)	○	○	○	○	○	○	○
	Network bandwidth throttling	○	○	○	○	○	○	○
	Scripting	○	○	○	○	○	○	○
	Offsite replication	by using ImageCenter LE	by using ImageCenter LE	○	by using ImageCenter LE	by using ImageCenter LE	by using ImageCenter LE	○
Replicate to Network shared folders, FTP, SFTP, WebDAV and Amazon S3 cloud data storage services	○	○	○	○	○	○	○	

# ActiveImage Protector solution comparison

(As of January, 2018) ※AIP=ActiveImage Protector

		Virtual Edition						
		AIP 2018 Server	AIP 2018 Desktop	AIP 2018 Linux	AIP 2016 Hyper-V	AIP 2018 IT Pro	AIP 2018 Cluster	AIP 5 (Personal)
Recovery Features	Restore from a disk image	○	○	○	○	○	○	○
	File Recovery feature	○	○	○	○	○	○	○
	Restore multiple source images to multiple target disks in a single operation	○	○	○	○	○	○	○
	Bare Metal Recovery (BMR)	○	○	○	○	○	○	○
	initializing and creating partitions on the bare metal disk.	○	○	only creating partitions	○	○	○	○
	ReZoom it! feature(restore by each virtual machine)	×	×	×	○	×	×	×
	Restore image file of entire Hyper-V host	○	○	—	○	×	×	×
	Linux based Recovery Environment (ActiveImage Protector Boot Environment=AIPBE) included	○	○	○	○	×	○	○
	AIPBE(ActiveImage Protector Boot Environment) Windows PE builder / wizard	Windows AIK/ADK is required	Windows AIK/ADK is required	—	Windows AIK/ADK is required	by using IT Pro Edition Creator	Windows AIK/ADK is required	Windows AIK/ADK is required
	Boot from ISO, USB disk or optical media	○	○	except for optical media	○	○	○	○
	AIPBE Pre-boot function	○	○	×	○	×	○	○
	GPT restore by volume or disk (including system volume)	○	○	○	○	○	○	○
	A.I.R. (restore backup image files to virtual / physical machine on a different server and hardware.)	○	○	×	○	○	○	○
	BCD recovery support for MBR boot environments.	○	○	—	○	○	○	○
	Shrink on the fly	○	○	×	○	○	○	○
Enlarge or reduce target volumes or partitions during recovery (only for NTFS)	○	—	—	○	○	○	—	
Snapshot driver/Database	Built-in snapshot driver uses the Microsoft standard	○	○	—	○	○	○	○
	Linux native snapshot driver	—	—	○	—	—	—	—
	Support for VSS (Volume Shadow Copy Service)-savvy applications such as SQL Server, Exchange Server, Oracle, etc.	○	×	—	○	○	○	×
	Point-in-time snapshots of multiple volumes	○	○	×	○	○	○	○
	Support for MySQL database, Cybozu Garoon	—	—	○	—	—	—	—

# ActiveImage Protector solution comparison

(As of January, 2018) ※AIP=ActiveImage Protector

		Virtual Edition						
		AIP 2018 Server	AIP 2018 Desktop	AIP 2018 Linux	AIP 2016 Hyper-V	AIP 2018 IT Pro	AIP 2018 Cluster	AIP 5 (Personal)
Virtualization	Virtual environment support (V2P, V2V, P2P, P2V)	○	○	Support on some Oses	○	In Windows PE based boot environment, the conversion is performed on local disk	○	○
	Virtual conversion utility (convert to VHDX/VMDK)	Win Server 2012 or later	Win 8 or later	×	Win Server 2012 or later	Win Server 2012 / Win 8 or later	Win Server 2012 or later	Win 8 or later
	P2V conversion directly to VMware vSphere ESXi virtual environments	○	○	×	×	○	○	○
	P2V (physical to virtual) conversion directly from hard disk	○	○	×	×	○	○	○
	Support for P2V disk on Windows PE	○	○	—	×	○	○	○
Image file management	ImageExplorer	○	○	×	○	×	○	○
	Image Mount (Granular File and Folder Recovery)	○	○	○	○	○	○	×
	Consolidation backup	○	○	○	○	○	○	○
	Remote Consolidation(Consolidation of incremental backup image files may be executed from ActiveImage Protector on remote PC)	○	○	○	○	○	○	○
	Offsite Consolidation (Consolidation of incremental image files replicated off-site may be executed from ActiveImage Protector on a remote PC)	○	○	○	○	○	○	○
	Archive (unification) backup	○	○	○	○	○	○	○
	Multiple Disk Backup in One Image (backup multiple volumes / disks in one image)	○	○	○	○	○	○	○
	Post backup process	○	○	×	×	×	○	○
BootCheck™	○	○	×	×	×	×	○	
Remote management	Push install for easy backup agent distribution	○	○	×	×	×	○	○
	Remote host connection	○	○	○	○	○	○	○
	Client management console for easy administration of backup agents	○	○	○	○	×	○	○
Instant recovery	vStandby is incooperated	○	○	×	×	×	×	×
	ImageBoot is included	○	○	×	×	○	×	○



# ActiveImage Protector solution comparison

(As of January, 2018) ※AIP=ActiveImage Protector

		Virtual Edition						
		AIP 2018 Server	AIP 2018 Desktop	AIP 2018 Linux	AIP 2016 Hyper-V	AIP 2018 IT Pro	AIP 2018 Cluster	AIP 5 (Personal)
Others	E-Mail notification (via mail server with SSL/TSL connection to a pre-set email address)	○	○	○	○	×	○	○
	Remote file explorer	○	○	○	○	○	○	○
	Support for uEFI native mode	○	○	○	○	×	○	○
	Smart Sector backup of CSVFS volumes	○	—	—	○	○	○	—
	Update notification, Online update	○	○	○	○	available for IT Pro Edition Creator	○	○
	Support for hardware RAID, RAID0, RAID1 and RAID5 controller	○	○	○	○	○	○	○
	Support for software RAID	Backup / restore by volume	Backup / restore by volume	Support for RAID 0/1/5/10 (by volume)	Backup / restore by volume	Backup / restore by volume	Backup / restore by volume	Backup / restore by volume
	Support for dynamic disk	Backup / restore by volume	Backup / restore by volume	—	Backup / restore by volume	Backup / restore by volume	Backup / restore by volume	Backup / restore by volume
	Monitor task log entries in Windows Event Log Viewer	○	○	×	○	○	○	○
	Requires installation	Yes	Yes	Yes	Yes	No	Yes	Yes



**NetJapan, Inc.**

8 Kanda-kon'yacho, Chiyoda-ku, Tokyo 101-0035, Japan

E-mail: [corporate@netjapan.co.jp](mailto:corporate@netjapan.co.jp)

Phone. +81-3-5256-0855 Fax. +81-3-5256-0878

<https://www.netjapan.com/jp>