Actiphy

ActiveImage™ 2022
PROTECTOR

ActiveImage Protector 2022 Virtual

System Protection Solution for

Virtual Environment

～ Product Summary～

March 8, 2023
Actiphy Inc.

Contents

System Protection Solution for on-premise virtual environment

What is ActiveImage Protector 2022 Virtual?

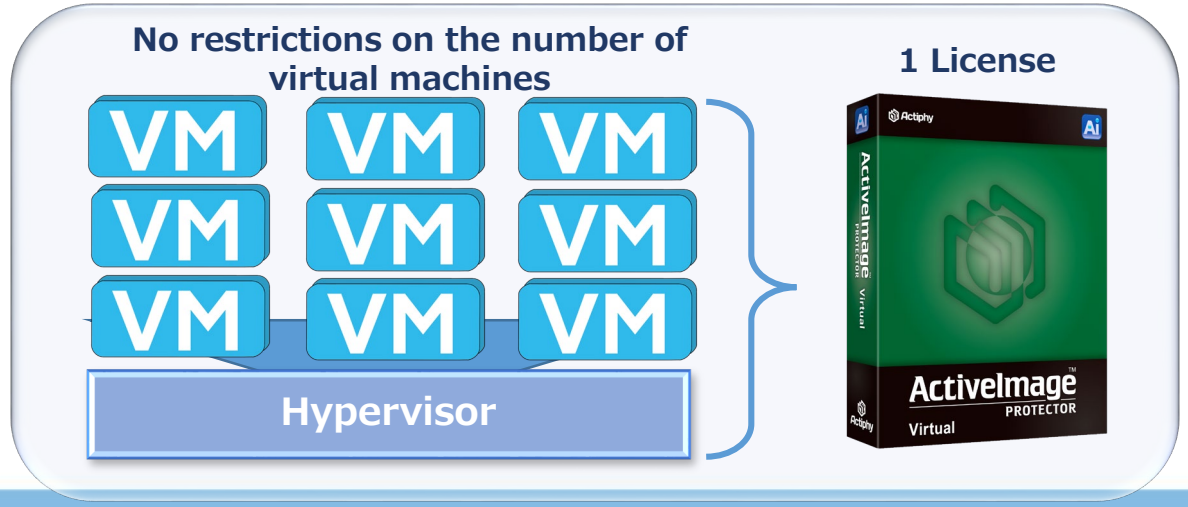
System Protection Solution optimized for VMware vSphere and Microsoft Hyper-V virtual environment

- Agent-based and agentless backup supporting virtual machines on hypervisor.
- Supported public cloud storage services include S3 compatible object storage and Azure Storage. NEW
  SFTP protocol and LTO tape devices are also supported.
- Granular backup of a specific file / folder NEW

One license is applied to one virtual environment host

- No restrictions on the number of virtual machines running on a single licensed virtual environment host.
- No restrictions on the number of CPU sockets or cores
- Backup feature supports Microsoft Hyper-V host

ActiveImage Protector Virtual License



New Features of ActiveImage Protector 2022

- S3 compatible object storage supported as the backup destination
- Virtual machines on Amazon AWS, Microsoft Azure are supported as backup source
- LTO tape device supported as backup source
- File / Folder Backup
- Support for SFTP servers providing secure communication
- Boot Environment Builder without installation of Windows ADK
- Subscription and perpetual licenses are now available.
- Windows Server 2022 and Windows 11 are supported.

* As for the summary of the new main features, please refer to “ActiveImage Protector 2022 Summary of New Features.”

Main Features of ActiveImage Protector 2022 Virtual

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Provides both agent-based and agentless backup features selectable when backing up VMs on hypervisor

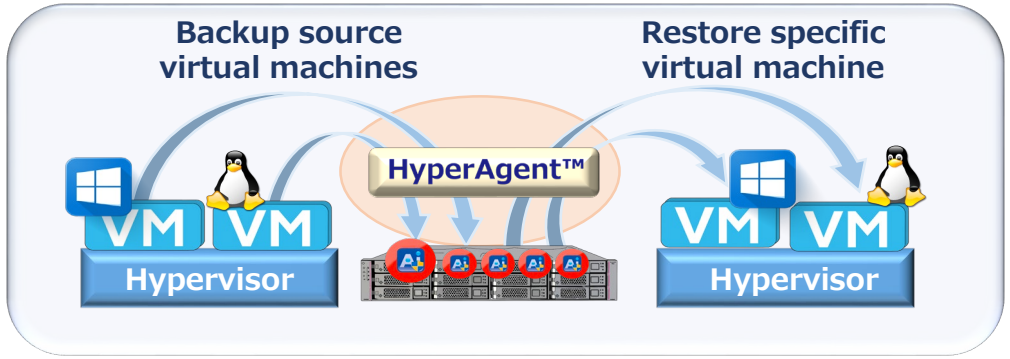
Agentless

No need to install ActiveImage Protector on virtual machines to back up. HyperAgent feature built in ActiveImage Protector Virtual enables to back up / restore virtual machines without the need for installation of ActiveImage Protector on the virtual machines.

Benefits of Agentless Backup

- **No installation of agent reduces man-hours required for the product deployment.**
- **No additional load from agents d running on virtual machines**
- **Flexible support for guest OS (Windows Server 2003 or later)**

Agentless Backup / Restore of virtual machines



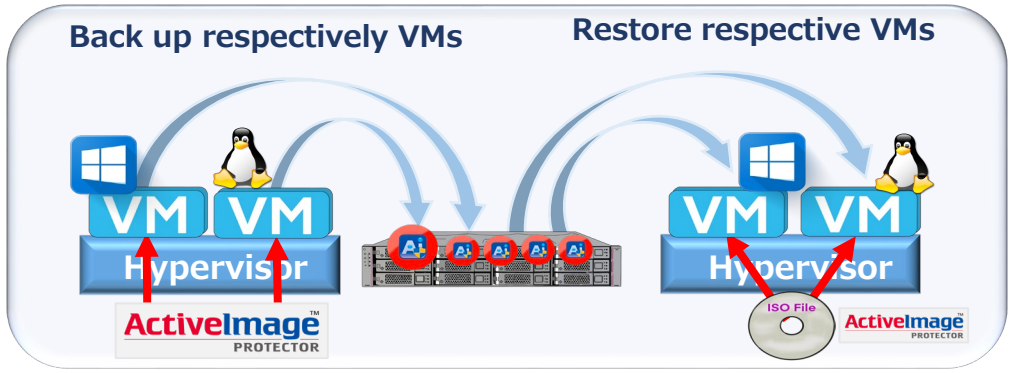
Agent-based

Install ActiveImage Protector agents on virtual machines to back up. ActiveImage Protector agents installed on virtual machines back up / restore the virtual machines.

Benefits of Agent-based Backup

- **Unified backup operation for physical / virtual environments**
- **No need for administrative right of virtual host**
- **Support for vSphere RDM, Hyper-V path through disk configuration**

Back up / restore the respective virtual machines



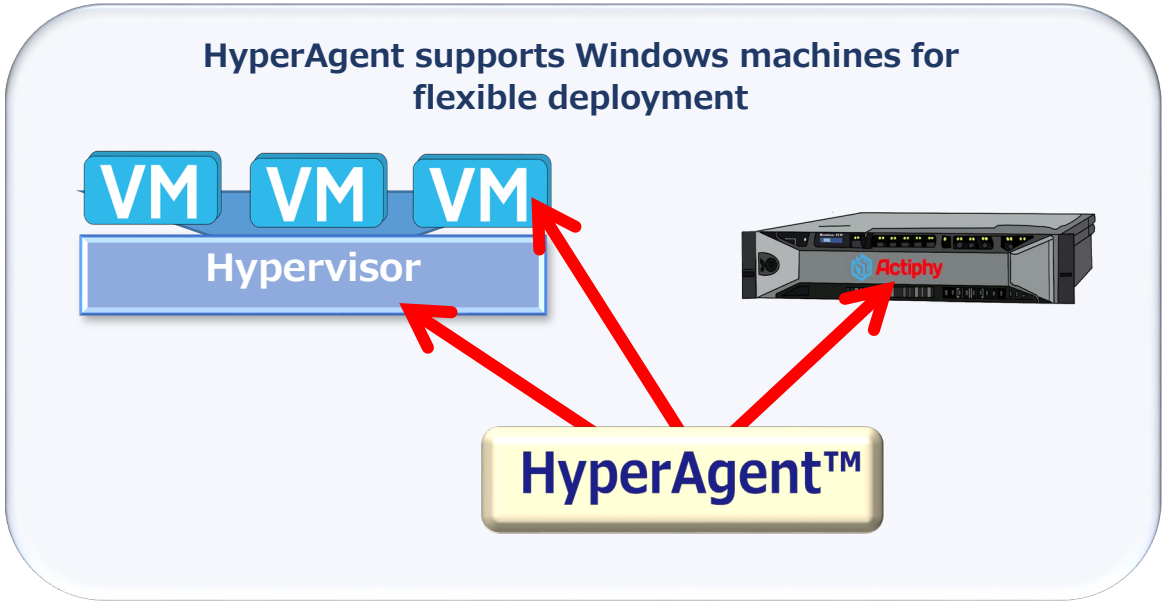
Summary of Agentless Backup

HyperAgent provides a variety of features and enables flexible deployment

Flexible deployment of HyperAgent

HyperAgent, backup management server, **supports Windows machines rather than a dedicated server**, enabling flexible system configuration including NAS as backup destination.

HyperAgnet supports flexible deployment



A variety of agentless features

HyperAgent provides a variety of agentless features including **"backup", "restore", "create standby virtual machine", "File Restore"** for virtual machines on virtual host.

Agentless backup features - HyperAgent

- **HyperBack**
  Agentless backup of the respective virtual machines
- **HyperRecovery**
  Agentless restore of a virtual machine from backup image
- **HyperStandby**
  Creates standby virtual replica from backup image
- **File Recovery**
  Agentless recovery of file / folder from backup image file

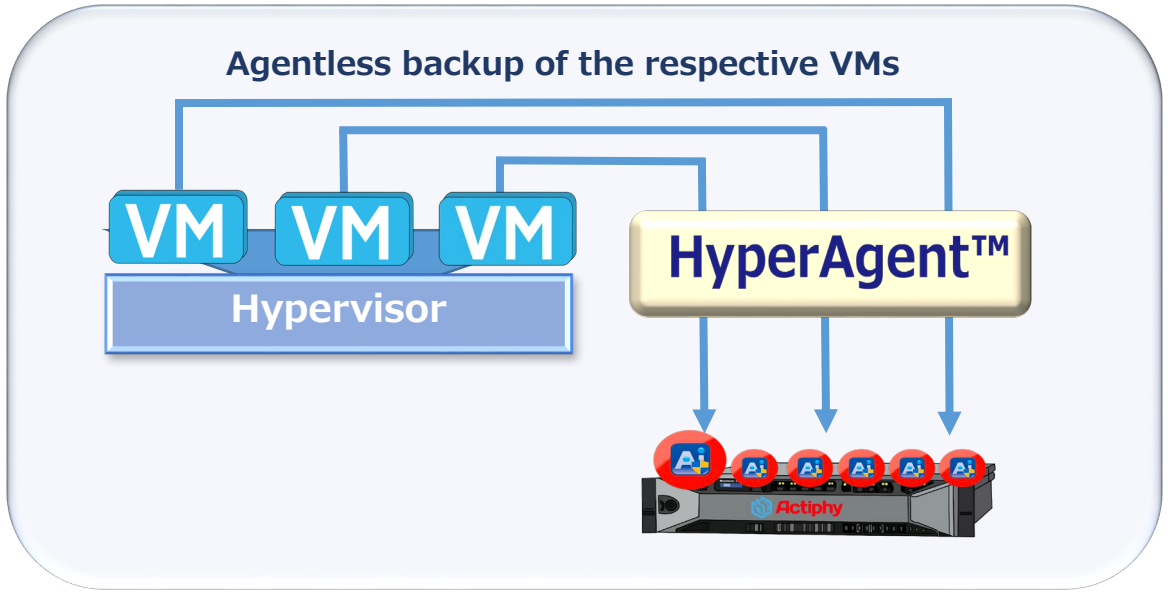
Agentless Backup Operation

HyperAgent provides agentless backup to protect virtual machines

Minimizes the consumption of CPU and memory resources on virtual machines

Backing up backup source VM on host machine according to the predefined schedule, HyperAgent™, with no need for installation of agents on VM, runs the tasks **minimizing the consumption of CPU and memory resources on host and guest machines.**

HyperAgent provides agentless backup of VMs



Simple backup settings

The simple settings are configured as simple as specifying a virtual host and selecting backup source VMs. **Even when you are not familiar with server operation, you can easily start backup operation.**

HyperAgent provides agentless backup feature with simple operation

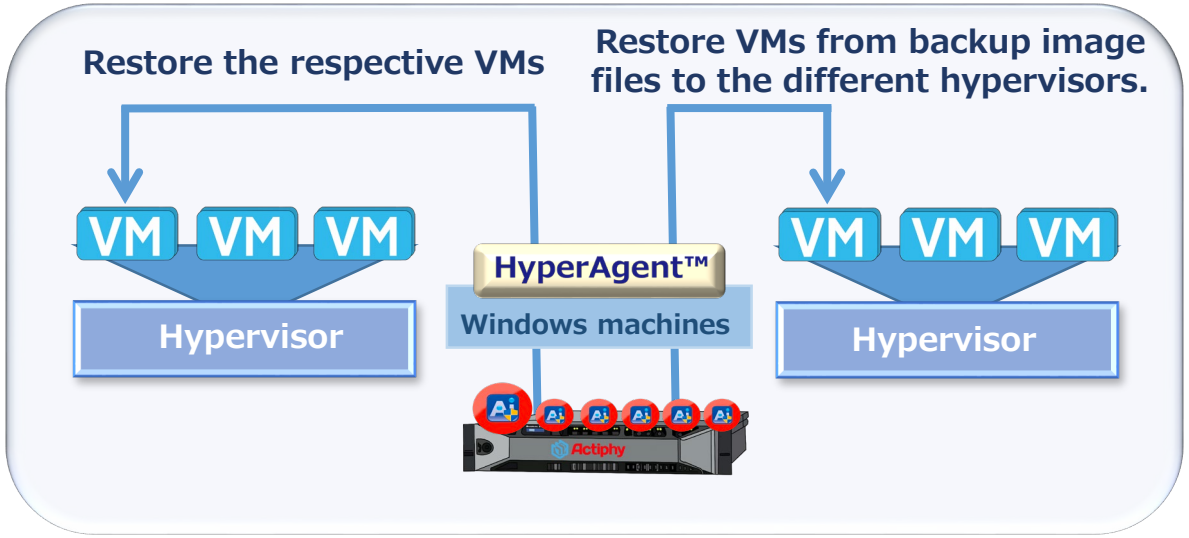
Agentless Recovery Operation

HyperAgent provides agentless recovery of VMs

Flexible recovery of respective VMs

When an emergency arises, **without the need for reconfiguring restore target virtual machine or virtual disk, VMs can be restored from agent-based / agentless backup image files,** which reduces the system administrators operation man-hours.

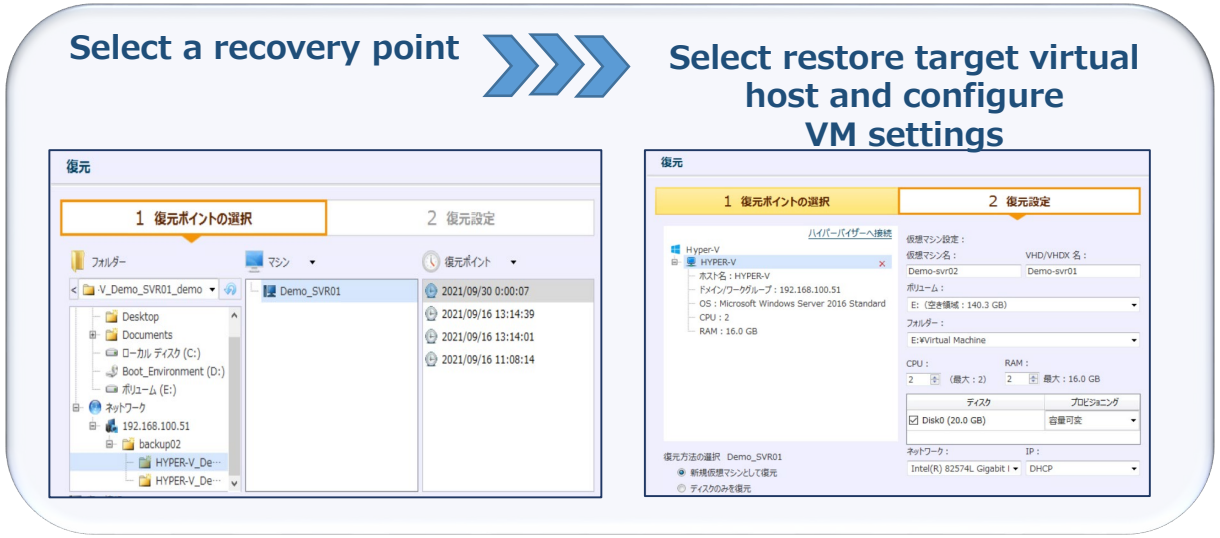
VMs are restored directly from the backup image files without the need for reconfiguring VMs



Simple recovery operation

Wizard driven agentless Recovery feature of HyperAgent does not require cumbersome recovery operation. **Recovery Wizard guides you through selecting backup source VM and configuring the settings for virtual host and virtual machines.** Granular file / folder recovery is also supported.

Restore VMs directly from backup image, without the need for reconfiguring the VMs.



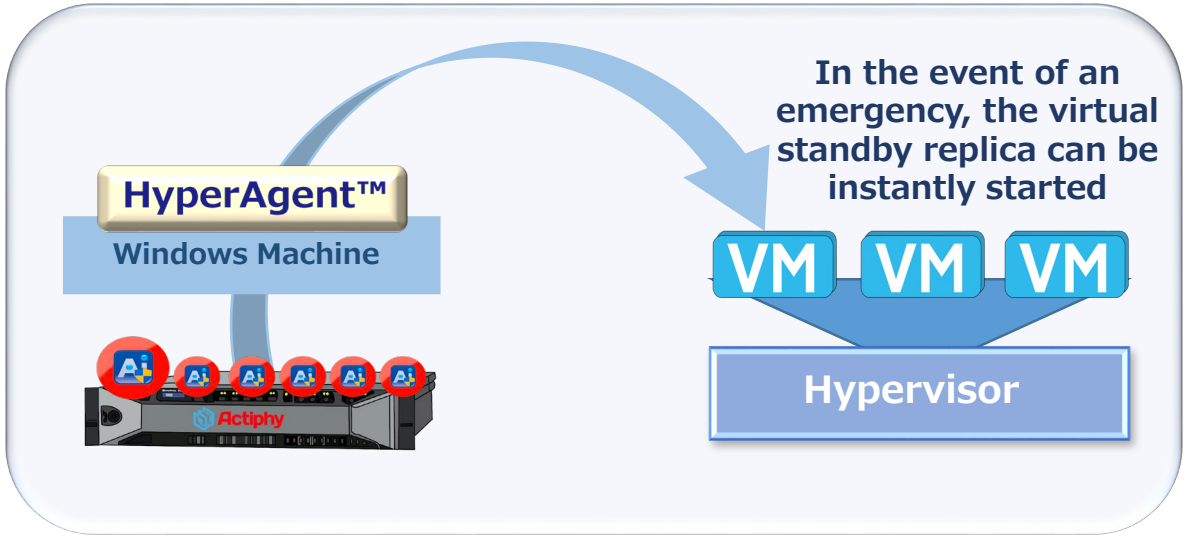
Agentless VM availability solution

HyperAgent featuring reduction of RTO

Creates and maintains standby virtual replica

In an emergency, it may take lengthy time to restore a large volume of backup file. HyperAgent automatically replicates your virtual machines according to the pre-defined schedule on a target host. **When a disaster strikes, the virtual standby replica can be instantly started to continue the operation. ActiveImage Protector enables you to deploy affordable standby availability solution.**

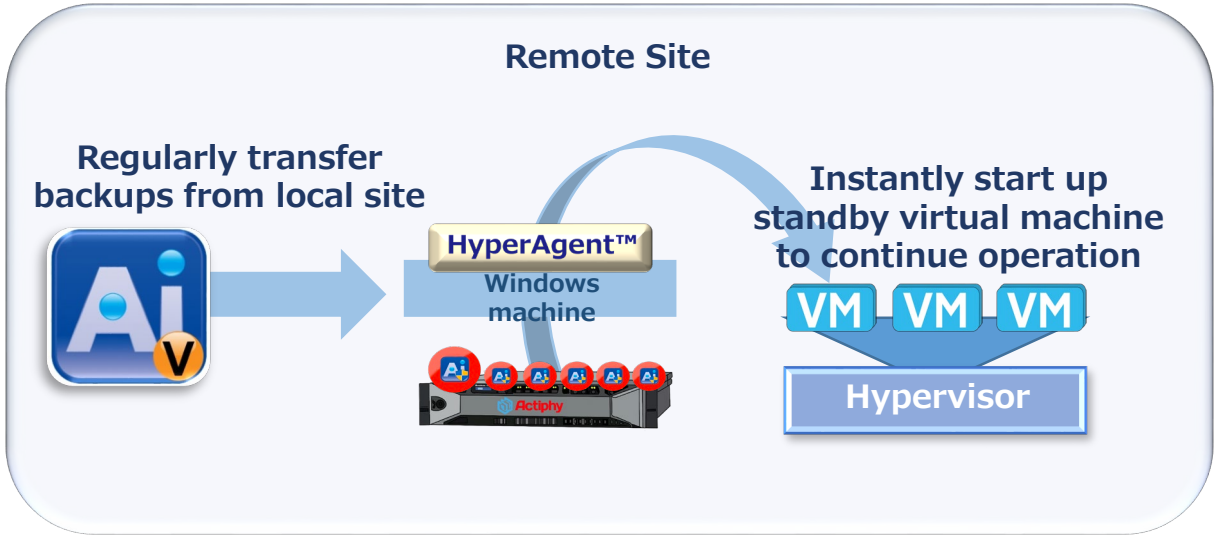
Creates standby virtual machine from a backup file



Provides DR solution

HyperAgent enables to restore the system at remote site. Regularly transferring backups to virtual server at remote site, HyperAgent automatically replicates the virtual machines on the remote virtual host according to the pre-defined schedule. You can deploy the system configuration providing DR solution at low cost.

Restore the system at remote site

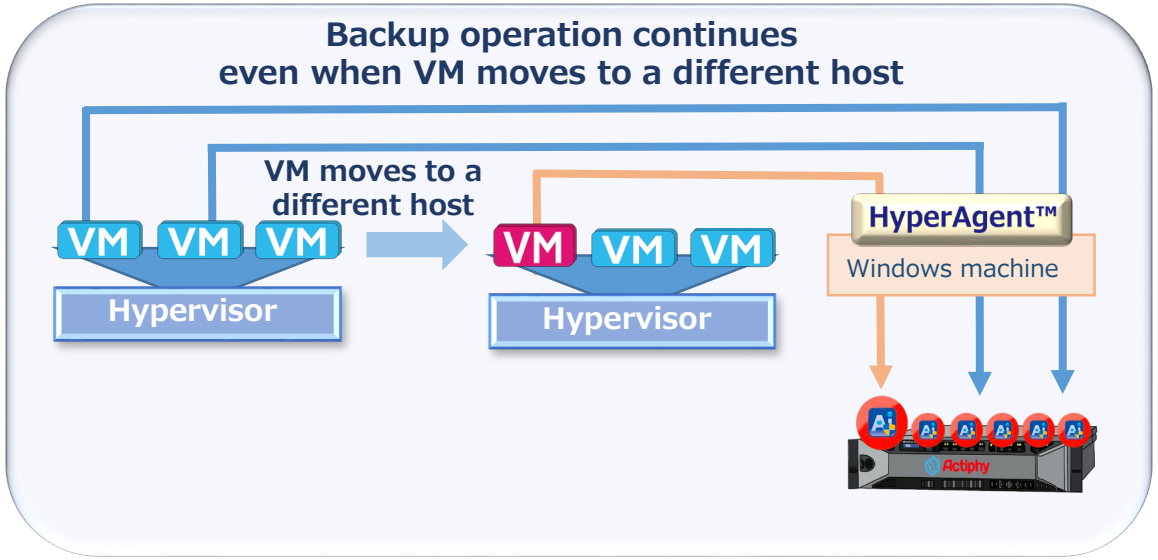


Support backup operation of HA or HCI virtual environment

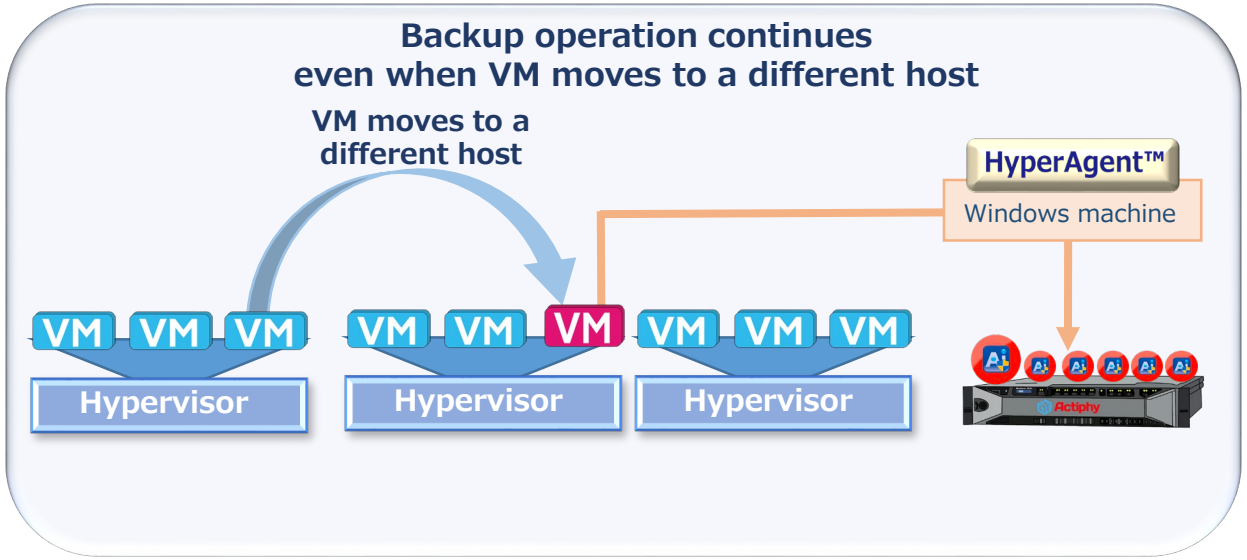
Backup operation continues even when the source virtual machine moves to a different host

Without the need for installation of agents on virtual machines configured on HA (clustered) or HCI (Hyper-Converged Infrastructure) configured environment, the deployment of HyperAgent allows to backup the respective virtual machines. **HyperAgent detects and continues to back up the virtual machine reconfigured on a different host.**

Backup operation in HA configured environment



Backup operation in HCI configured environment



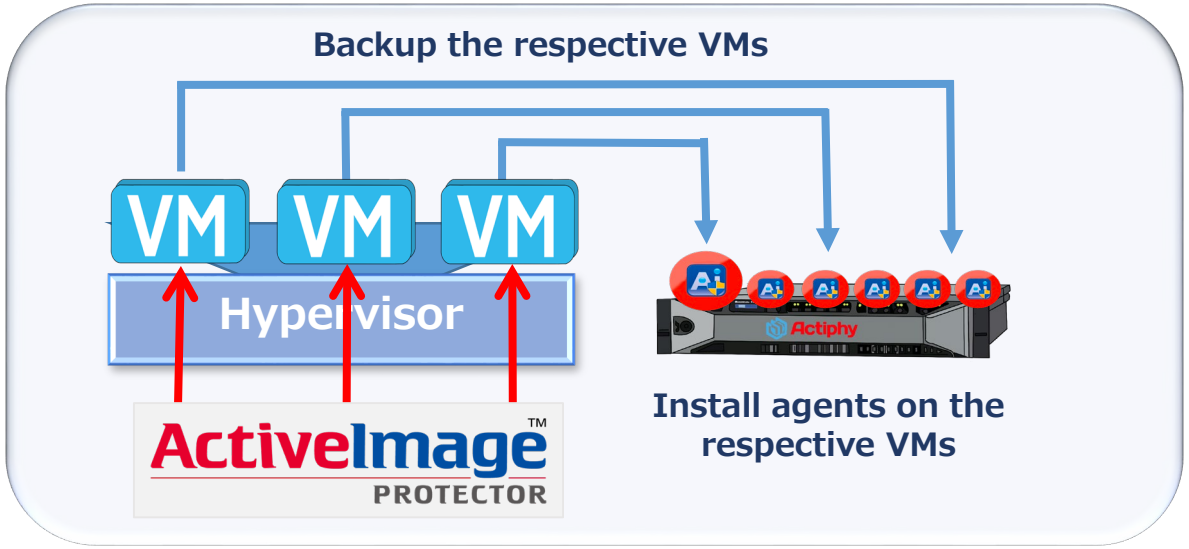
Agent-based backup operation

Uniform backup operation for physical / virtual environments

Back up the respective VMs

ActiveImage Protector agents installed on the respective virtual machines, backs up the respective virtual machines. **AIP backs up the VMs using uniform backup operation in the environment where physical / virtual systems are configured or pass-through disk is deployed**.

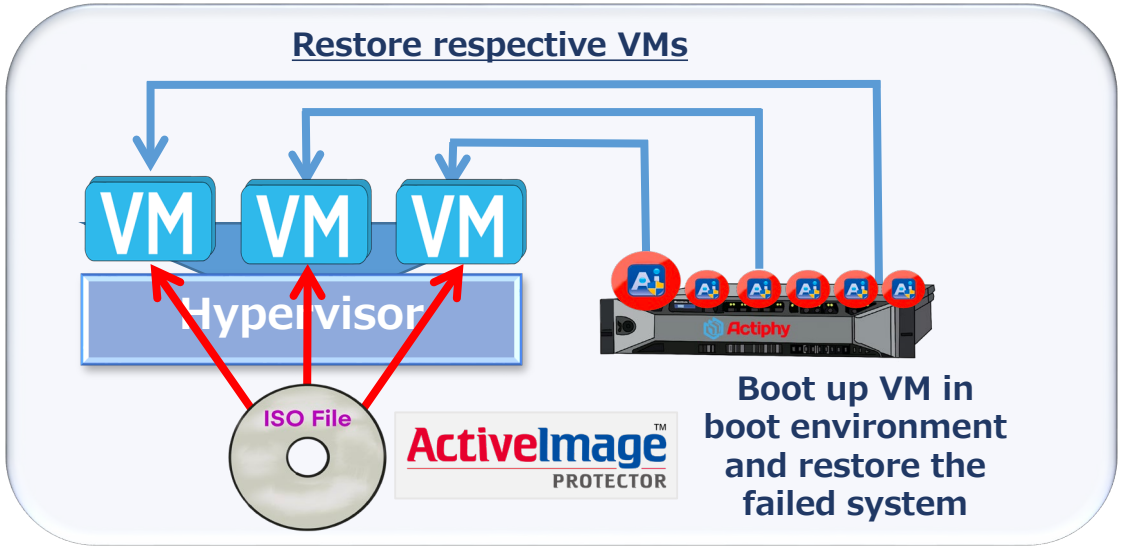
Install ActiveImage Protector agents and back up the respective virtual machines



Restore the respective VMs from backup files

When a disaster strikes, VM can instantly start up in AIP boot environment. **The failed system can be restored to the VM from a backup file. File / Folder Recovery feature is also provided.**

Restore respective VMs in AIP boot environment



Agent-based Backup Feature

Uniform backup operation for physical / virtual environments

Back up virtual machines using mostly the same operating procedures as backup of physical machines

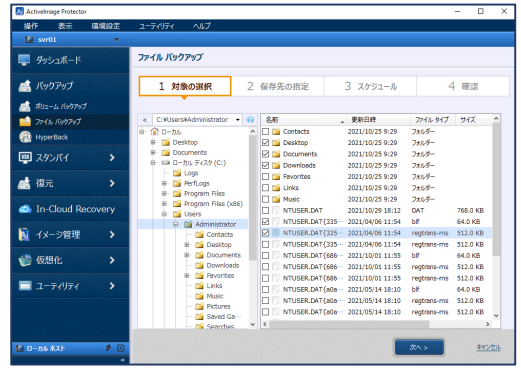
Agent-based backup feature enables to back up virtual machines configured on virtual environment using mostly the same operating procedures as backup of physical machines.

【Main Backup Features】

- ○Entirely back up virtual machines
- ○Block-based incremental backup
- ○Backup using Deduplication Compression option
- ○Backup enabling retention policy
- ○Scheduled backup
- ○Online backup of VSS-savvy database
- ○Enable encryption of backup images (AES256, etc.)
- ○E-Mail notification keeping users informed of backup results

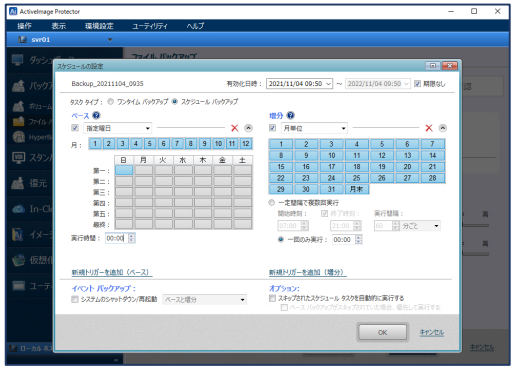
Backup by Disk / Volume

File / Folder Backup



Destinations saving backup files

Schedule Settings



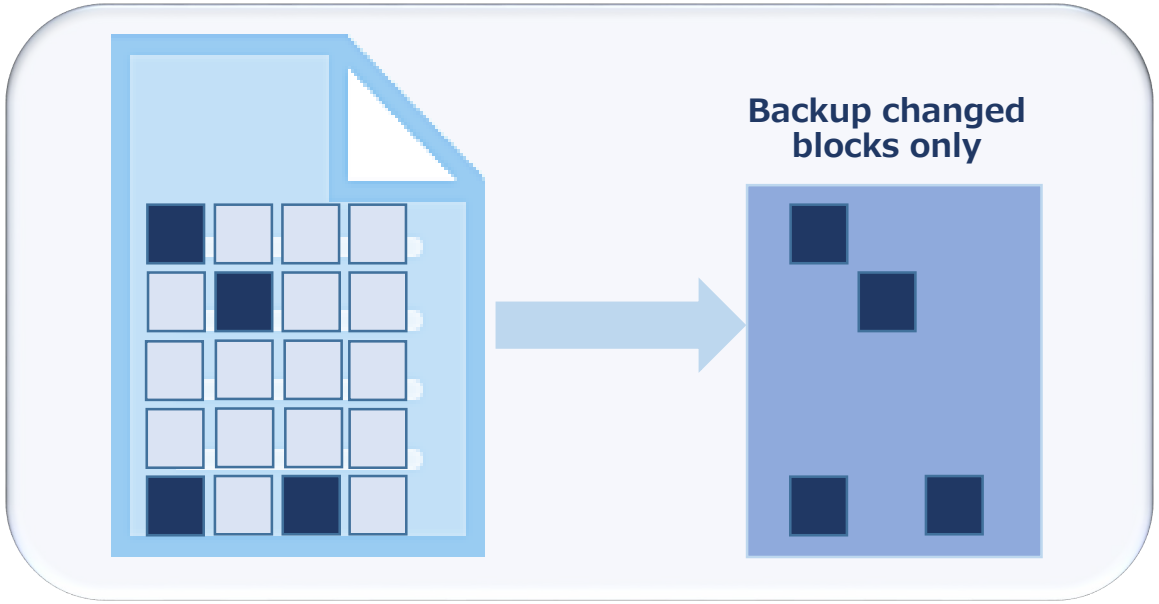
Agent-based Backup Feature

File / Folder backup feature is provided. NEW

Block-based file backup

Select a source file / folder and back up according to pre-defined schedule. Configure daily incremental backup settings for backing up the blocks changed in the file / folder, enabling reduction of storage demand.

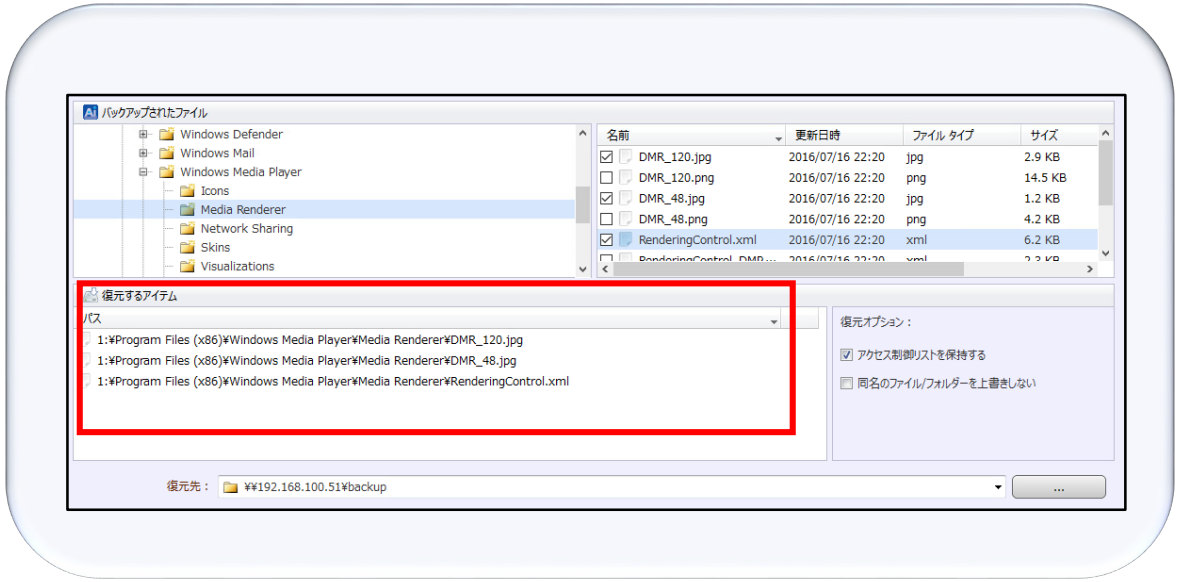
Incremental backup of changes in a file



Restore file / folder

Select a file / folder in a backup file to restore. **The stream information and access rights assigned to files are inclusively restored.** You can flexibly restore a point-in-time backup file.

Select a point-in-time backup file and restore



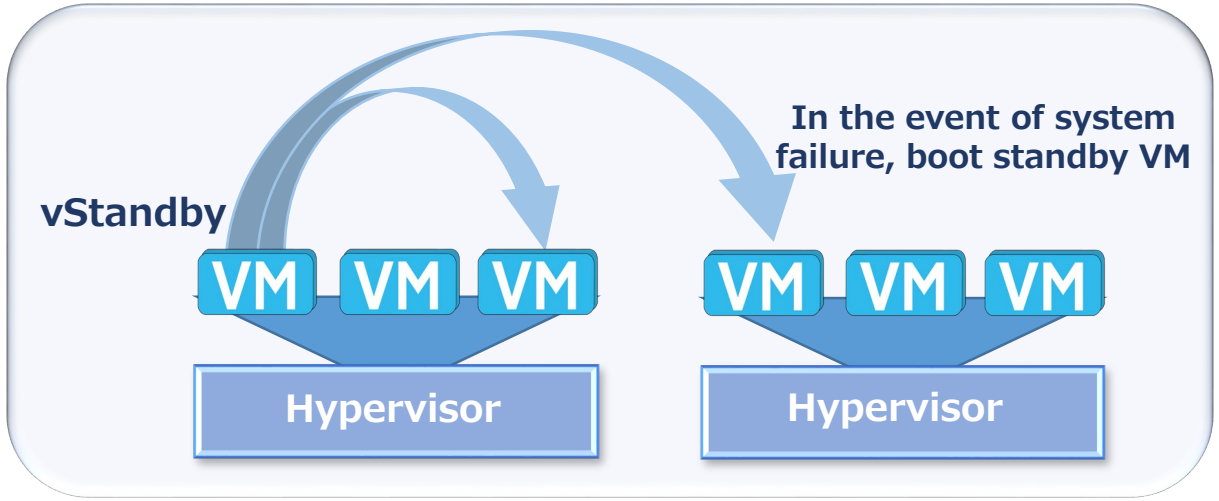
Agent-based standby VM availability solution

Featuring reduction of RTO

Create and maintain standby virtual replica

Use vStandby, add-on tool for ActiveImage Protector, to replicate the VM according to the pre-defined schedule on a target host. The created standby virtual machine may be flexibly configured on remote virtual host to deploy HA system.

Select the source disk to create the standby virtual machine



HyperBoot immediately boot a backup image as virtual machine

HyperBoot add-on immediately boots backup image as virtual machine. HyperBoot serves as an interim replacement server to bridge the gap between disaster and recovery.

Immediately boot backup image as virtual machine

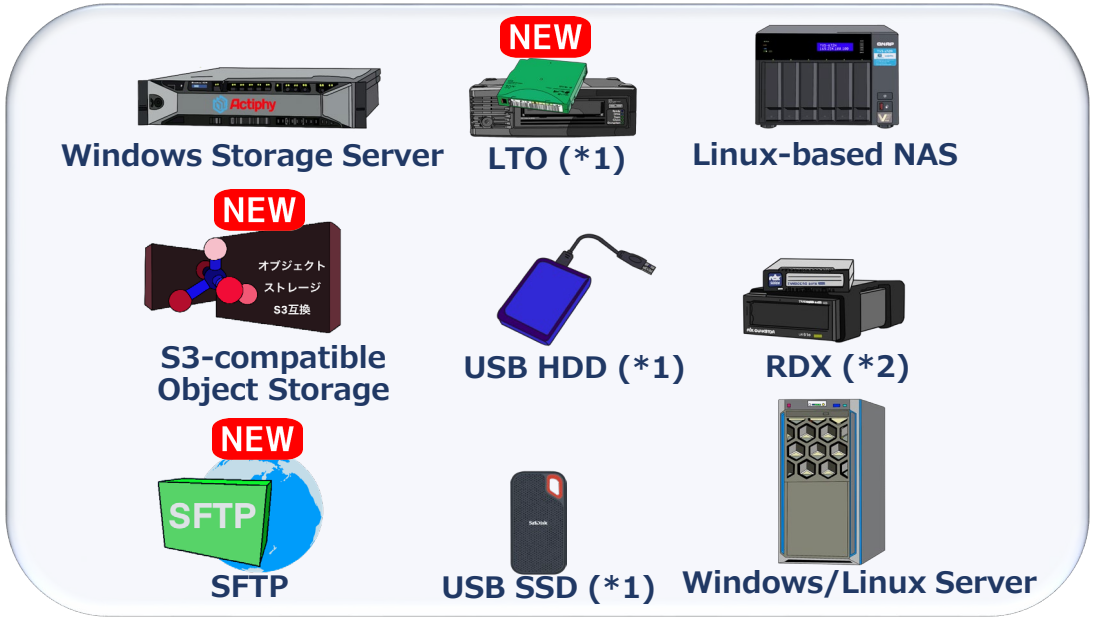
A variety of storage media are supported

Flexibly select a backup destination depending on the system configuration

A variety of Storage Media are supported

Save your backups to any available storage location, including **USB HDD, cloud object storages, etc., supporting a variety of system configuration and backup policies.**

A variety of Storage Media



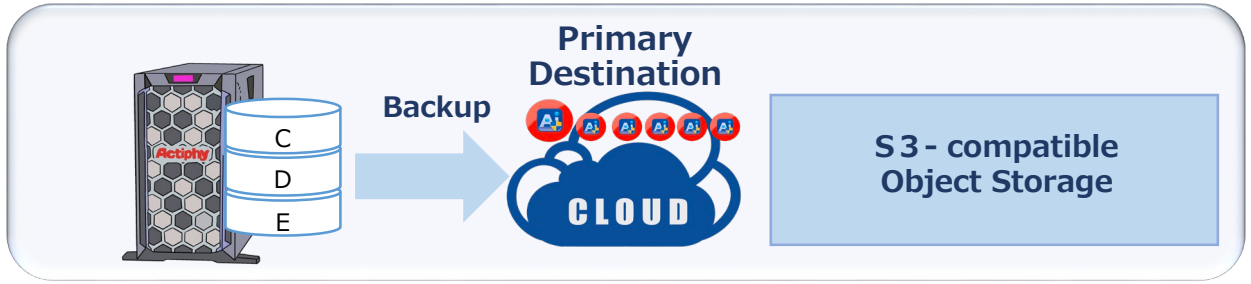
*1: Not supported as the destination storage saving backups directly from virtual machine.

*2: USB RDX is not supported as the destination storage saving backups directly from virtual machine. Please use iSCSI RDX.

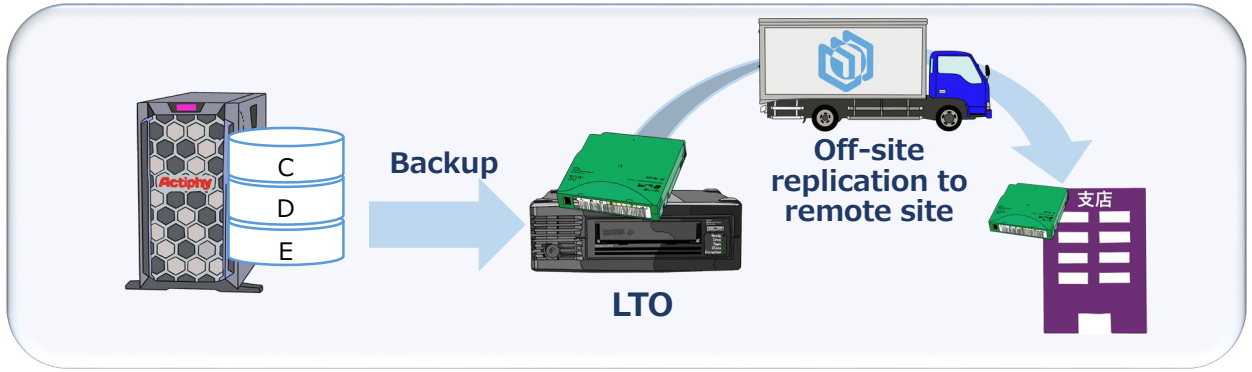
Save your backups to any available storage location NEW

Supported storages include **S3-compatible object storage, SFTP server and LTO tape devices** as backup destinations.

Backup systems directly to cloud storage



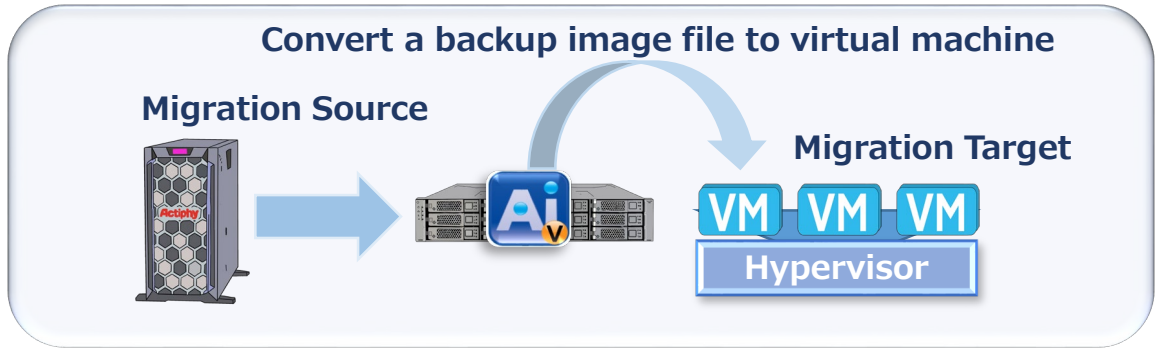
Backup data saved on LTO tape can be physically isolated at remote site



Flexible Migration to Virtual Environment

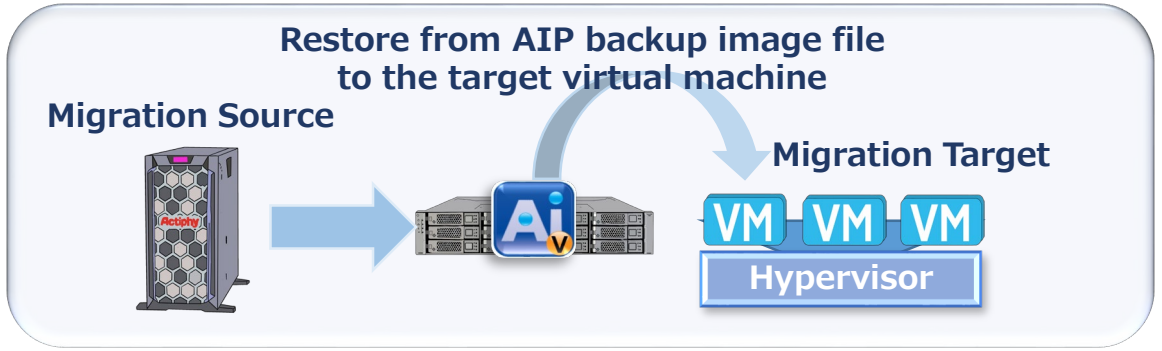
Virtualization feature is provided to migrate from backup to destination virtual host

Virtual conversion utility is provided to **convert a backup image file to virtual machine on virtual host**.



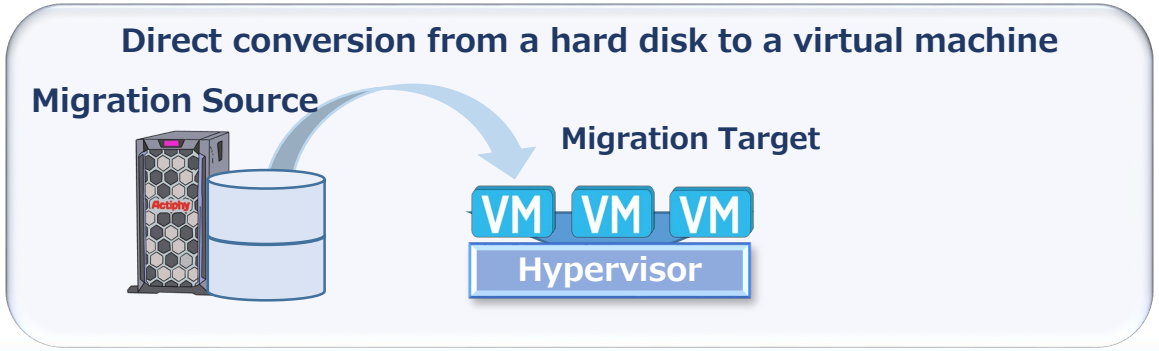
Restore VMs from AIP backup image files to migration target

Restore from AIP backup image file to virtual machine on migration target virtual host by using ActiveImage Protector's Restore feature.



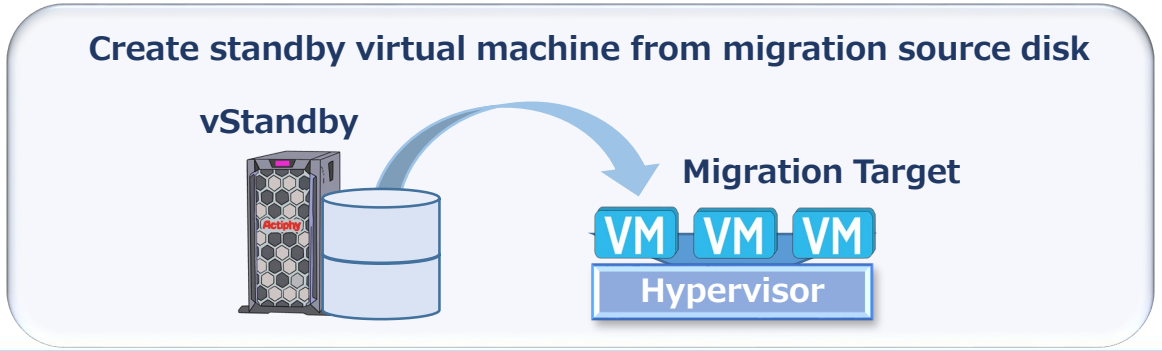
Direct conversion from a hard disk to a virtual machine

P2V conversion feature supports direct conversion from a hard disk to a virtual machine on target virtual host.



Seamless Migration

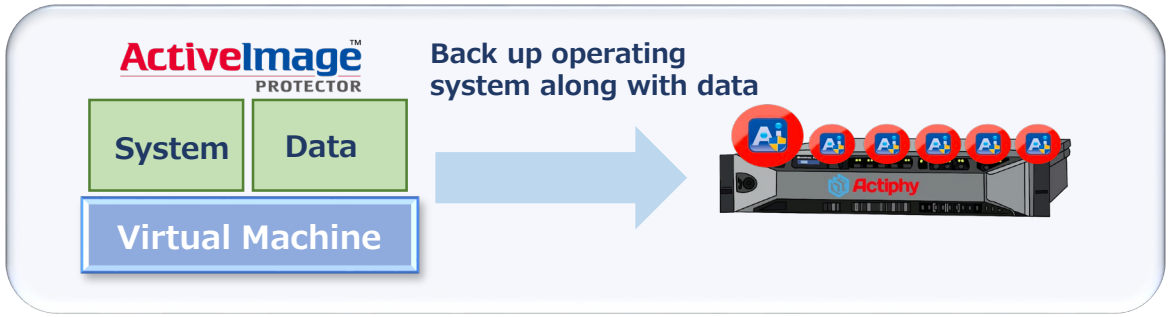
Use vStandby, add-on tool for ActiveImage Protector, to **automatically create and regularly keep up standby virtual replica** with changes made according to the pre-defined schedule on a target host.



Main Backup Features

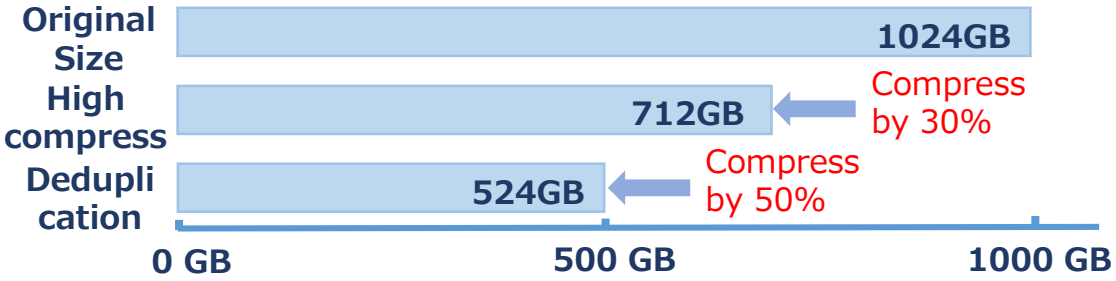
Backup the operating system along with all your data

ActiveImage Protector is **a disk imaging backup of live Windows/Linux system (OS/application) along with all you data.**



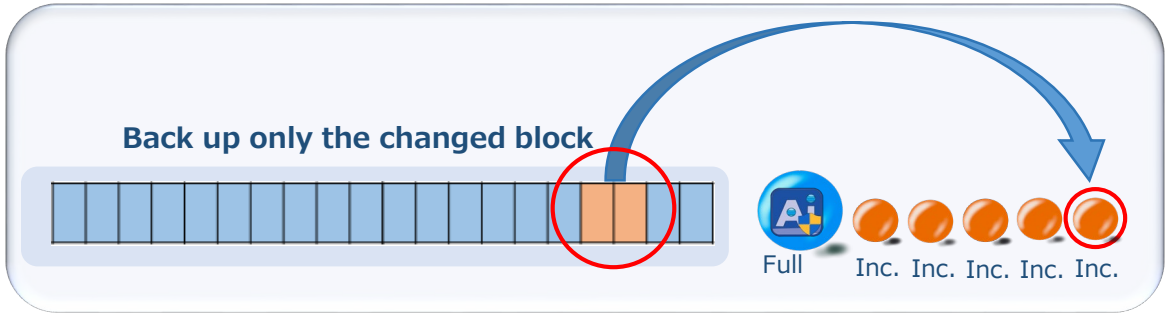
Deduplication Compression reduces storage requirements

Our Inline Data Deduplication Compression (IDDC) feature **eliminates duplicate data while simultaneously compressing it,** resulting in a significant reduction in backup storage requirements and network load.



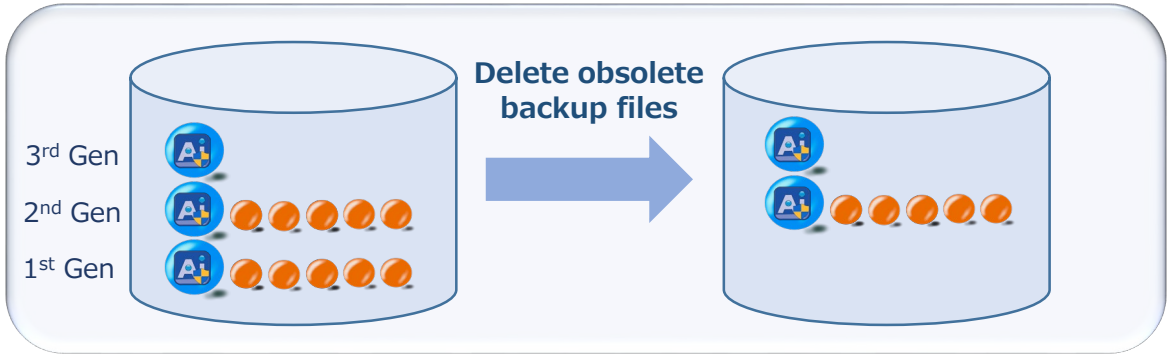
Incremental backup includes only the changed blocks from the last backup

Daily incremental backup includes only the changed block since the last backup and is scheduled on regular basis according to the predefined schedule. ActiveImage Protector only runs backup tasks according to the predefined schedule, minimizing the consumption of the system resources on the machine.



Use Retention Policy to delete obsolete backup image files, resulting in reduction of the storage space.

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.



Main Recovery Features

Restore the entire disk

Select the most up-to-date incremental backup file, specify the restore target disk and your system is restored to the most updated state. The restore target may be on-premise virtual environment, cloud environment as well as the original server.

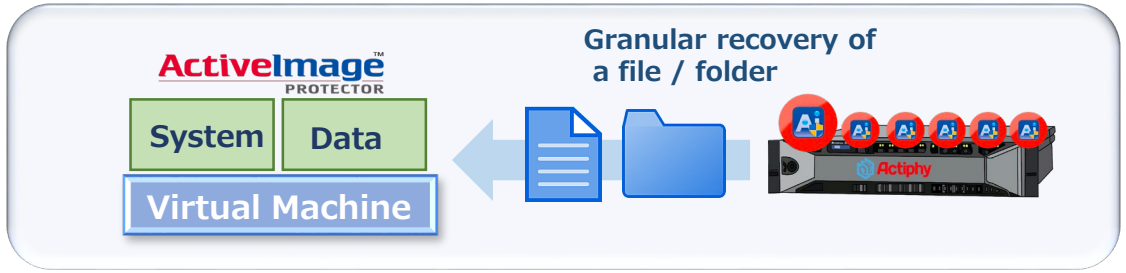
Restore by volume

Restore a backup image of a specific recovery point to a specified volume. For example, **only "D:" drive can be selected from the data volume to restore.**

File / Folder Recovery

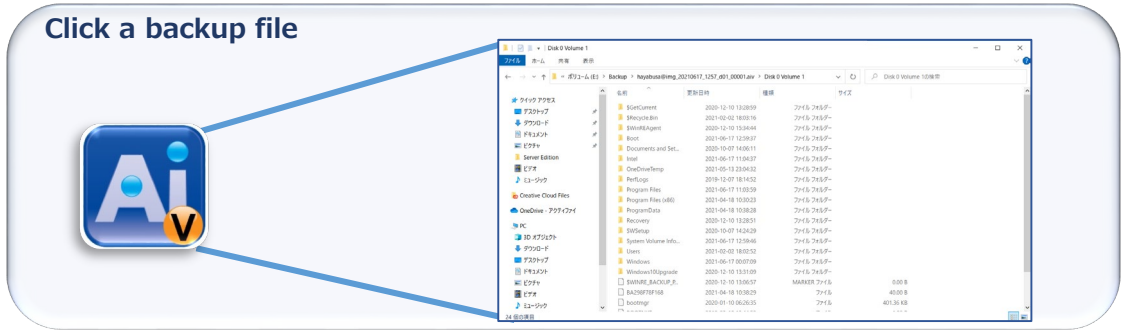
○File Recovery Feature

Granular point-in-time recovery of a file / folder is enabled. The stream information and access rights assigned to files are inclusively restored. When you only need specific files to restore in order to restart your duties, **File Recovery feature can provide you with flexible action.**



○Image Explorer

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

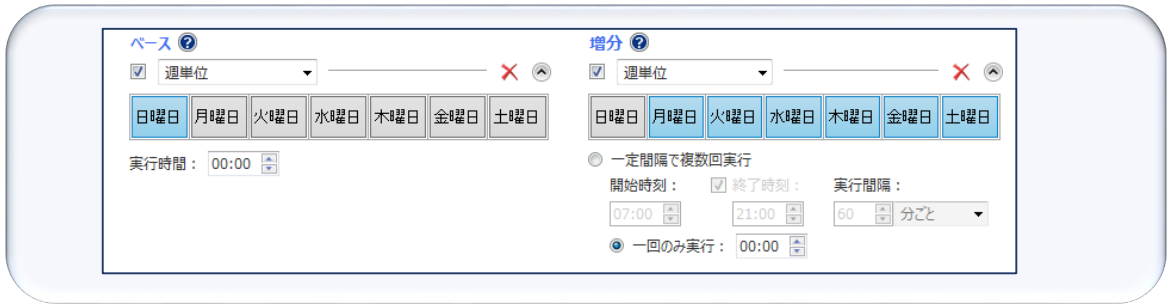


Scheduled Backup

Flexible Multi-scheduling

Backup tasks can be automatically executed according to the onetime, weekly or monthly schedule, specified date / time or a specific day of a week in a specific month.

Weekly - Full backup may be scheduled to execute on the weekend while incremental backup tasks are scheduled from Monday to Friday. Incremental backup can be scheduled to run for multiple times a day.



Monthly - Select by clicking the date(s) of the month and the time of a day to perform a recurring full base backup tasks while incremental backup tasks are scheduled from Monday to Friday.

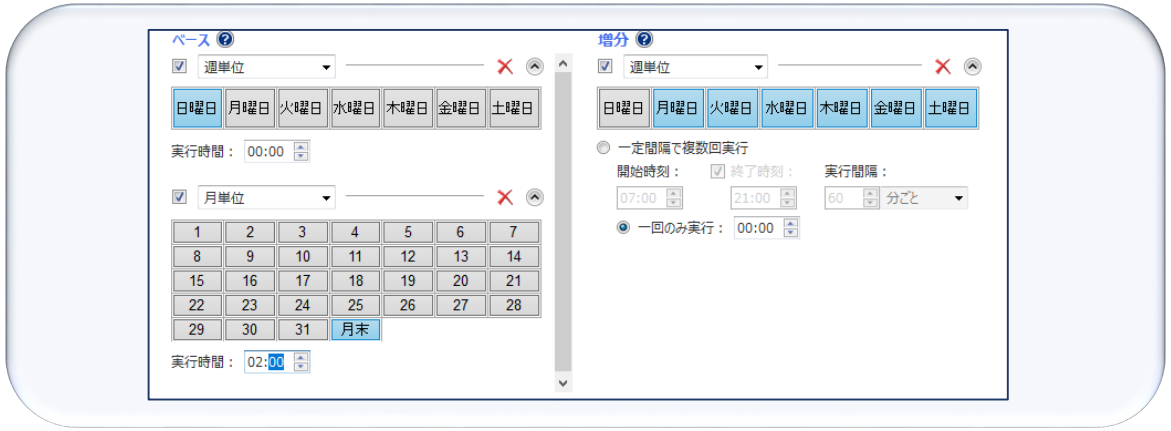
Designate Specific Days - Select by clicking a specific days of a week to perform a recurring full base backup while incremental backup tasks are scheduled from Monday to Friday.

Specified Date / Time - Select by clicking a date and time to schedule a full backup task on specific date while incremental backup tasks are scheduled for other days.

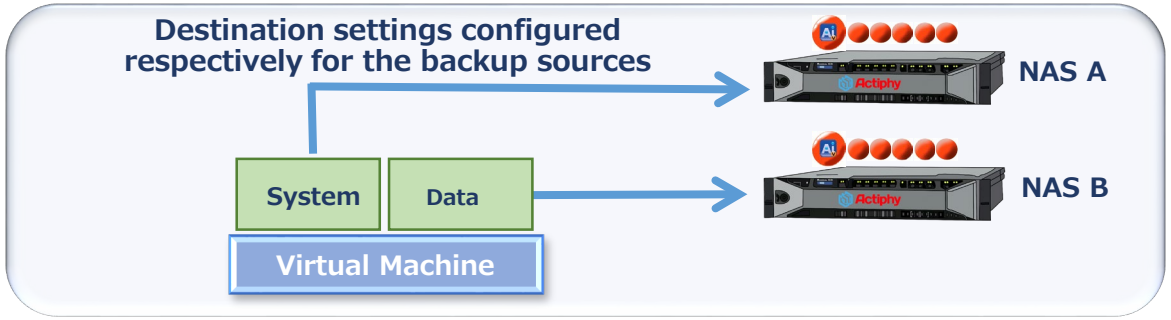
Customized Schedule Settings

Multi-scheduling

Incremental backup tasks are scheduled on weekly basis while full backup tasks are scheduled at the end of a month.



Multiple Backup Destination Settings - Multiple backup task settings can be configured to direct backup files to multiple destinations. Backup files of C drive are created in NAS A while backup files of D drive are created in NAS B.



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