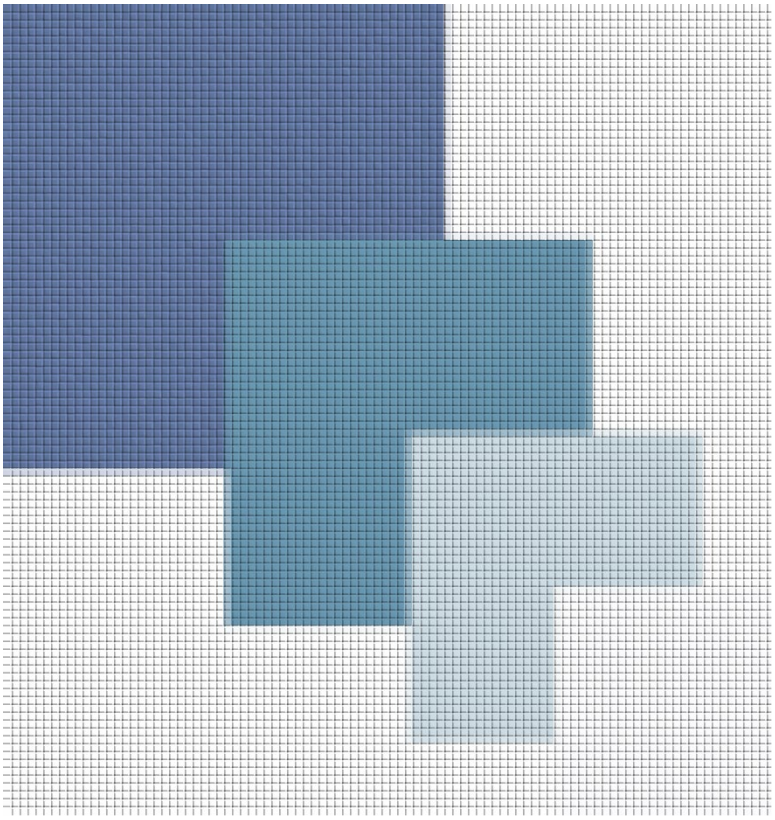
Actiphy



ActiveImage™ 2018 PROTECTOR

(ActiveImage Protector for Hyper-V Enterprise)

w/ ReZoom it! Startup Guide

1st Edition September, 2018

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Overview

ReZoom it! is one of the new features built into ActiveImage Protector 2018 for Hyper-V Enterprise. ReZoom it! can select and restore one or more virtual guest machines from ActiveImage Protector backup image files directly to the same Hyper-V host or an alternate host on dissimilar hardware.

In the event of a Hyper-V virtualized server failure, the system recovery can take hours. Furthermore, the time required for recovery from a hardware failure may take longer. In either case, ReZoom it! can quickly boot a virtual machine from the host's backup from the Hyper-V host, independent of its operational environment.

Installation of the ReZoom it! Feature is included in the ActiveImage Protector 2018 for Hyper-V Enterprise installation.

System Requirements

CPU	Pentium 4 or above
Main memory (RAM)	Minimum 1024 MB or more
Hard disk space	100MB or more available disk space required.
DVD-ROM Drive	Required to install the product and boot up the ActiveImage Protector Boot Environment.
Operating System	Windows Server 2008 R2 or later server OS. ReZoom it! requires Hyper-V configured on the server. The system requirements for ReZoom It! must be the same or higher than the above described specifications: •For Windows Server 2008 R2, please make sure that Microsoft .Net Framework 4.5 or later is already configured. •Please make sure Hyper-V is already configured.

* For further limitations, please refer to the Release Notes included in the product media.

1. Installing Hyper-V and creating virtual machines

The ReZoom it! feature requires that Hyper-V is configured on the Windows Server.

First, start up the Server Manager.

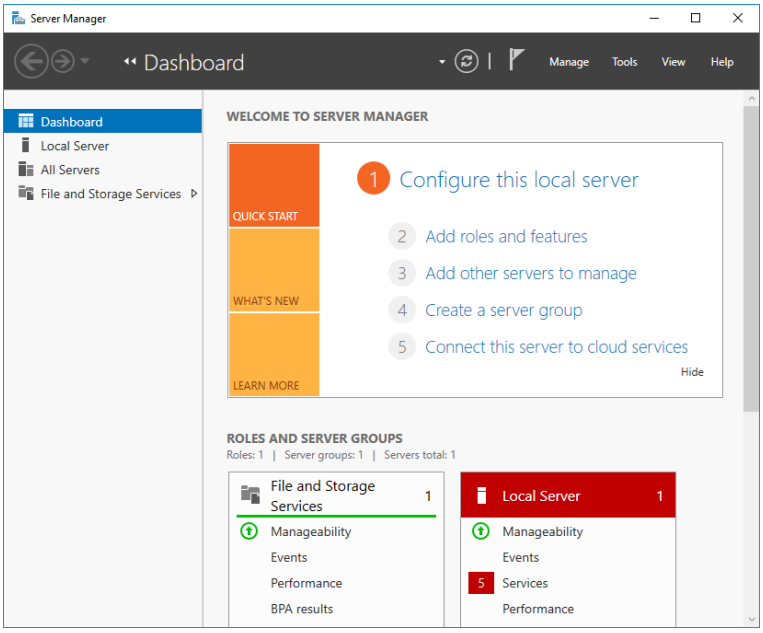

Fig.1-1　Server Manager

Please select **[Add rolls and features]** to launch the wizard guiding you through the steps.

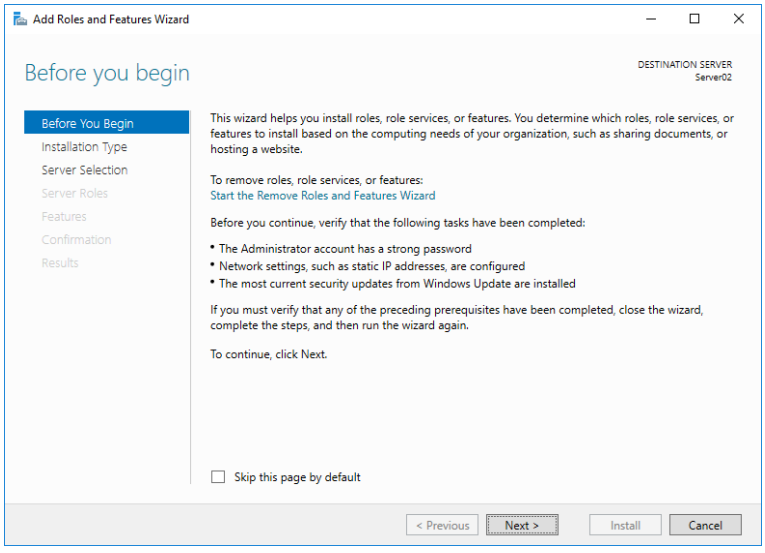

Fig.1-2　Add Roles and Features Wizard

Please select **[Role-based or feature-based installation]** in **[Select installation type]** window.

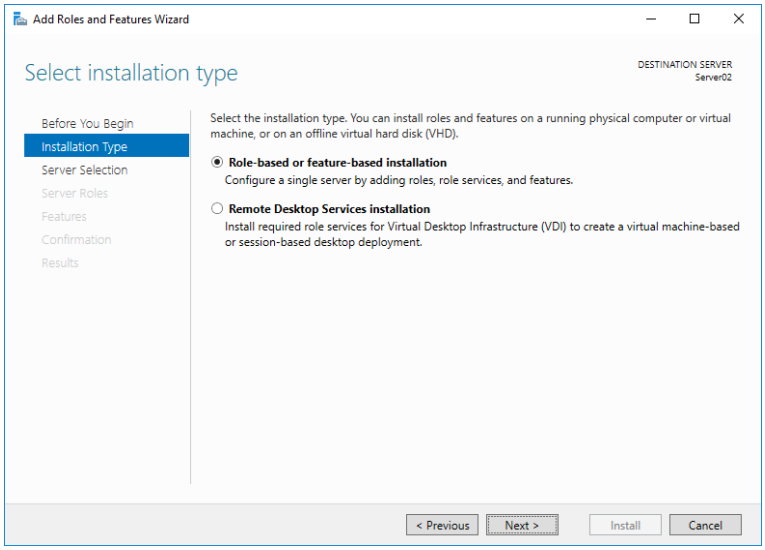

Fig. 1.3 Select the installation type

Next, the following example shows that “Server02” is selected from the Server Pool in **[Select Destination Server].**

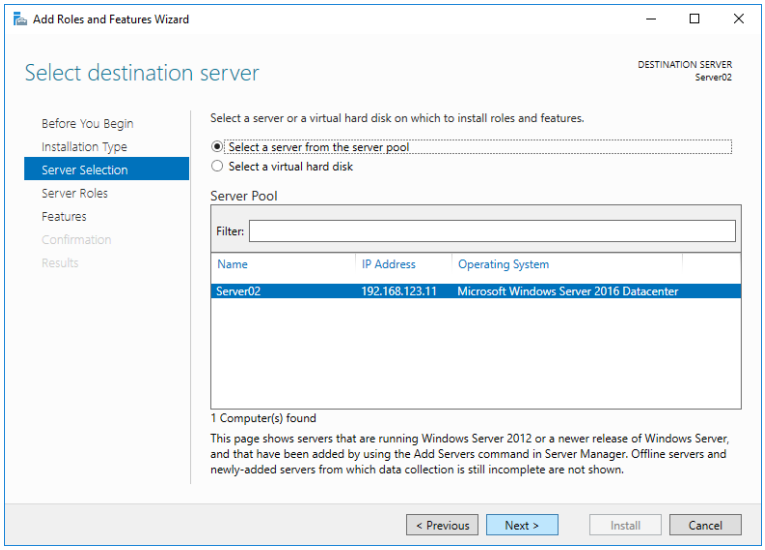

Fig.1-4 Select destination server

The **[Select server roles]** window is displayed below:

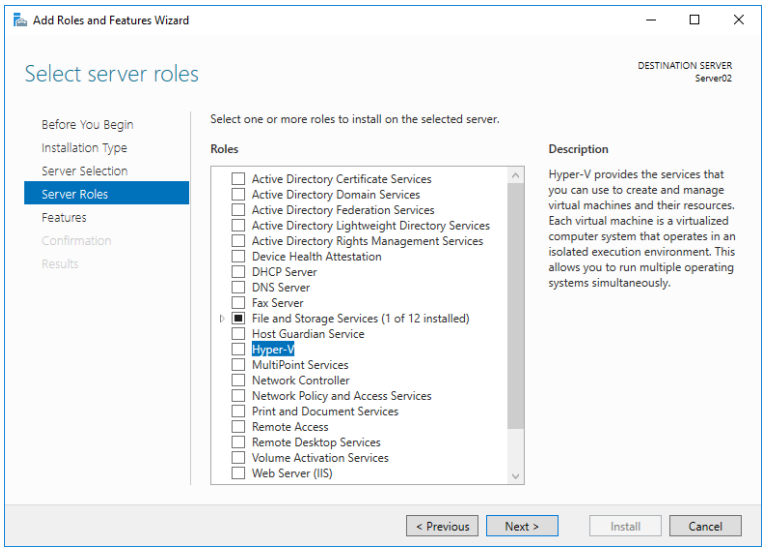

Fig.1-5　Select server roles

Click the **[Hyper-V]** checkbox and **[Add features that are required for Hyper-V?]** window is displayed below.

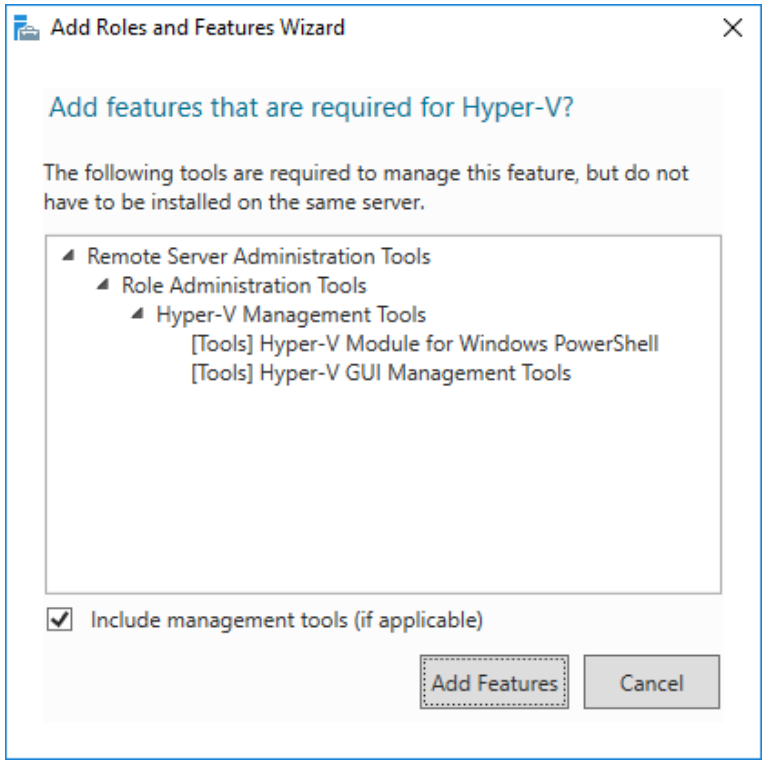

Fig. 1-6　Add Roles and Features Wizard

Identify the Hyper-V related modules and click **[Add Features].** The screen transitions back to **[Select server roles]** window.

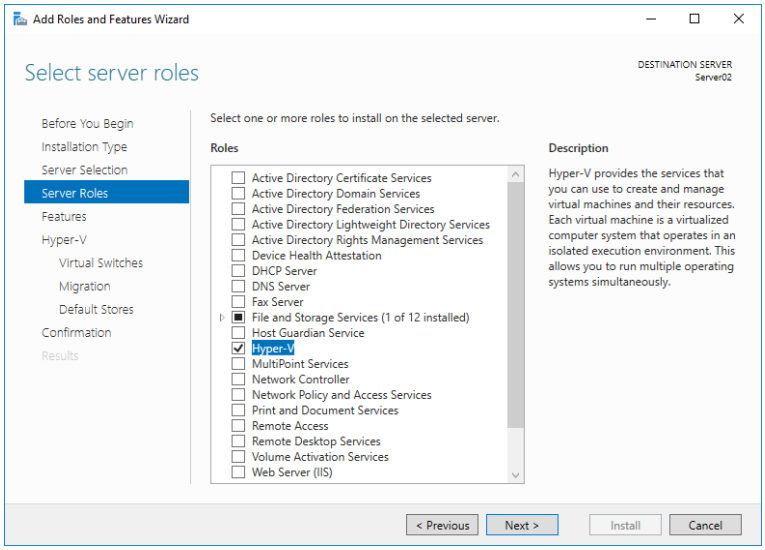

Fig.1-7　Select server roles

Please make sure that **[Hyper-V]** is selected. Click **[Next].** The features other than Hyper-V are displayed in the **[Select features]** window.

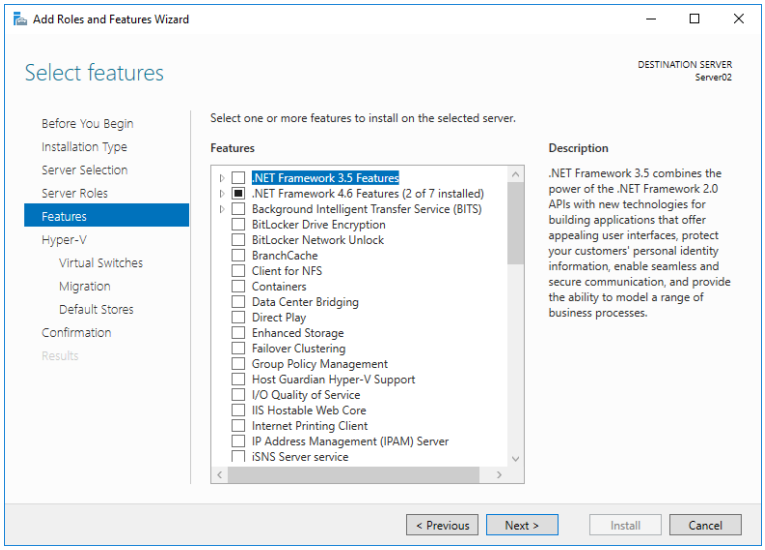

Fig.1-8　Select features

Please read “Things to note” and configure the settings for the respective Hyper-V features.

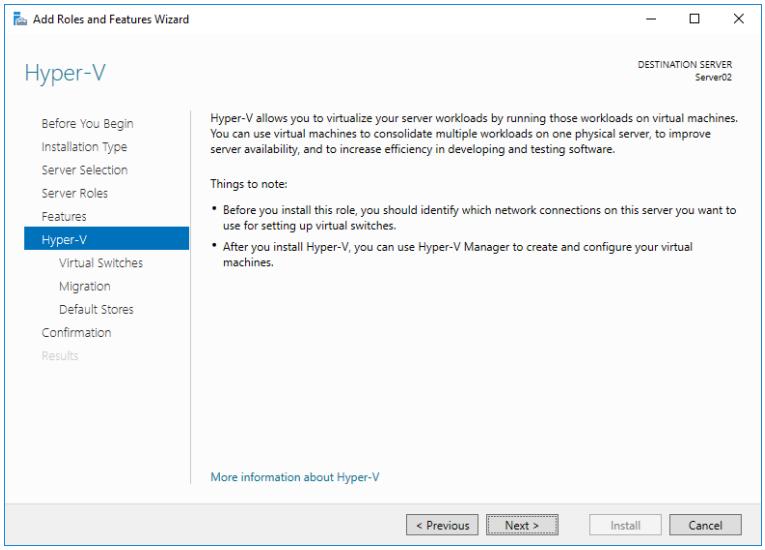

Fig. 1-9 Hyper-V

Click the checkbox for network adapter in the **[Create Virtual Switches]** window.

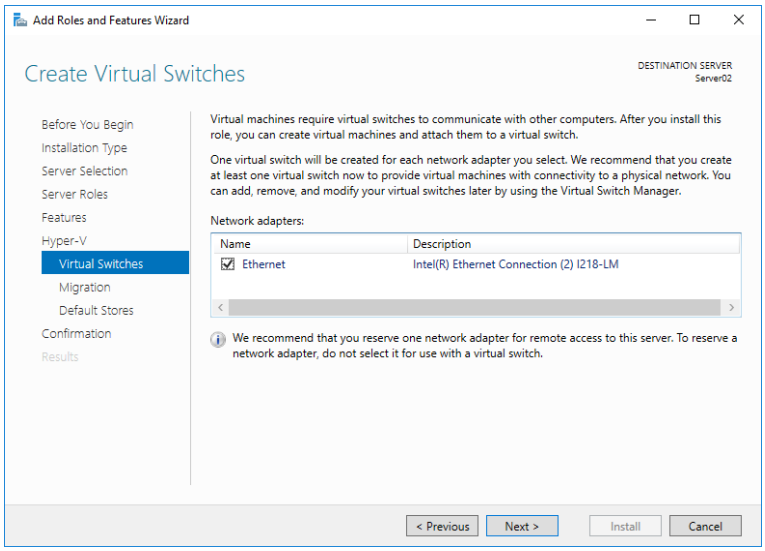

Fig.1-10 Create Virtual Switches

Configure the settings for Live Migration in the **[Virtual Machine Migration].**

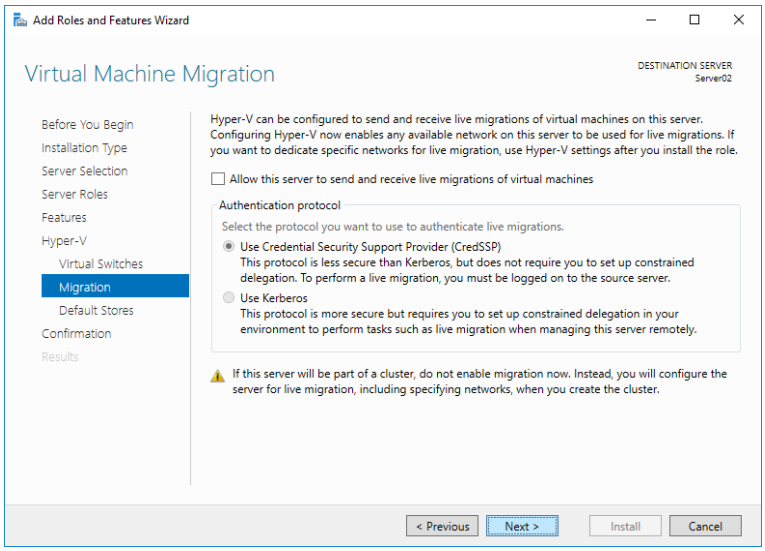

Fig. 1-11　Virtual Machine Migration

Configure the above settings after creating virtual machines. In this example, the default settings are not changed. Next, the **[Default Stores]** window is displayed. Please specify the destination location for saving the virtual hard disk(s) and config file. There is no need to make any changes to the default settings.

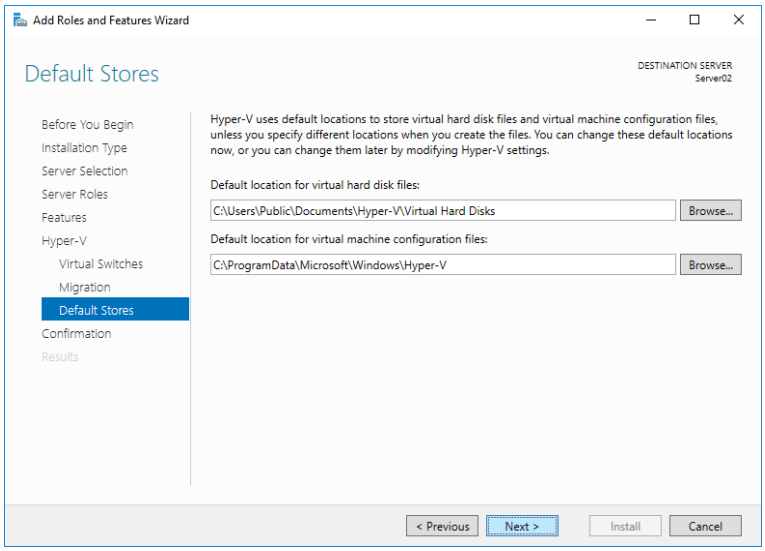

Fig. 1-12　Default Stores

Review the configured settings in the **[Confirm installation selections]** window.

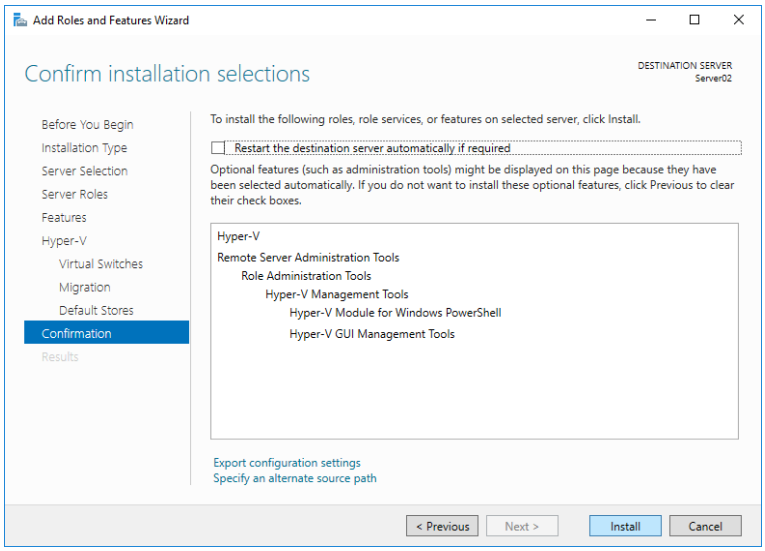

Fig. 1-13 Confirm installation selections

Here the checkbox for **[Restart the destination server automatically if required]** option is checked. Upon completion of the settings, click **[Install]** to proceed with installation.

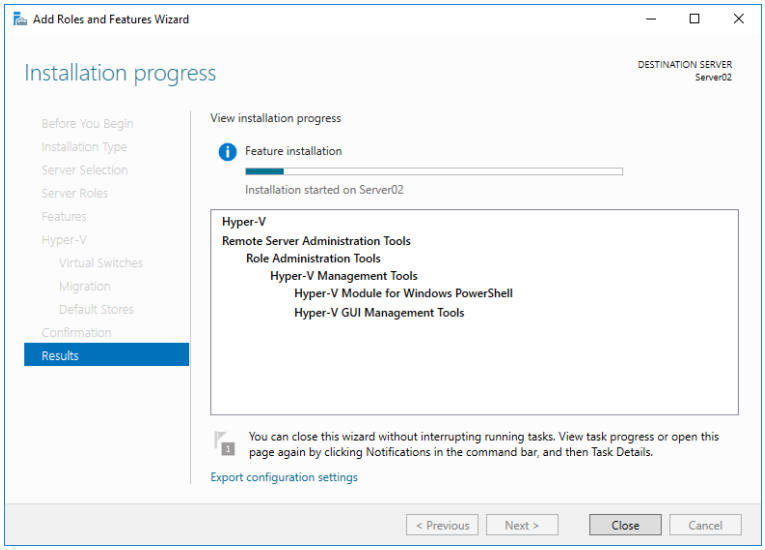

Fig.1-14 Installation progess

When the system is restarted automatically, Hyper-V is available. The following window will be displayed upon completion of installation process.

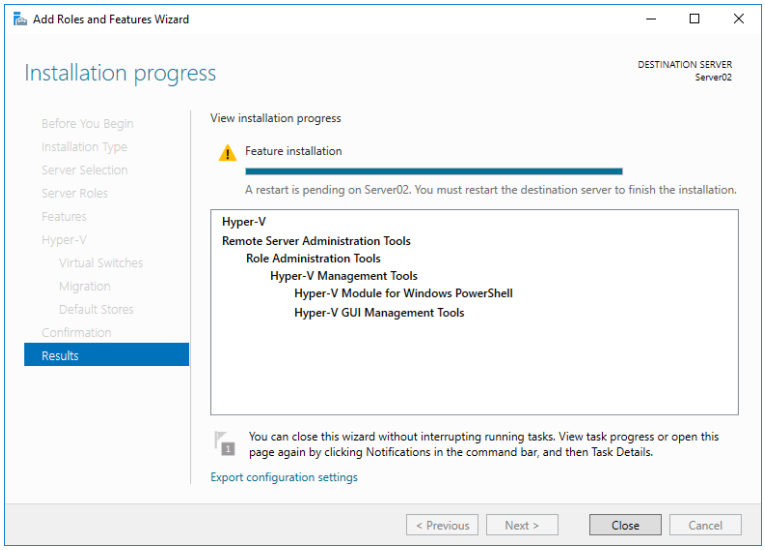

Fig. 1-15 Installation results

Click **[Close]** to end the wizard.

Next, let's create a virtual machine. Select **[Hyper-V Manager]** in Start menu.

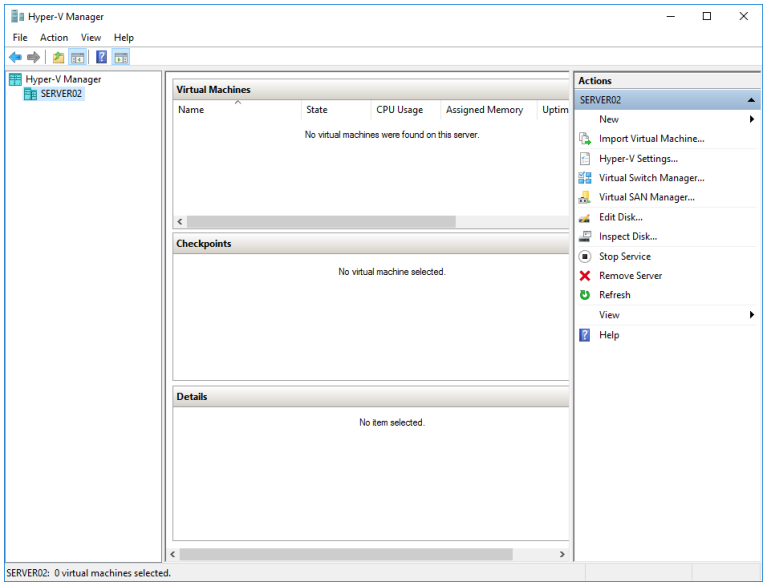

Fig.1-16 Hyper-V Manager

Select **[New] - [Virtual Machine]** from the menu in the right pane.

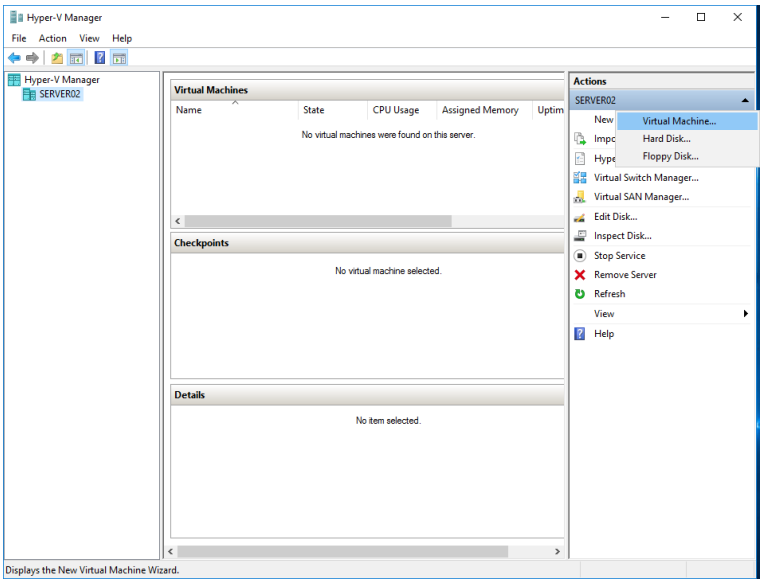

Fig. 1-17 Create New Virtual Machine

The **[New Virtual Machine Wizard]** is launched to guide you through creating a virtual machine.

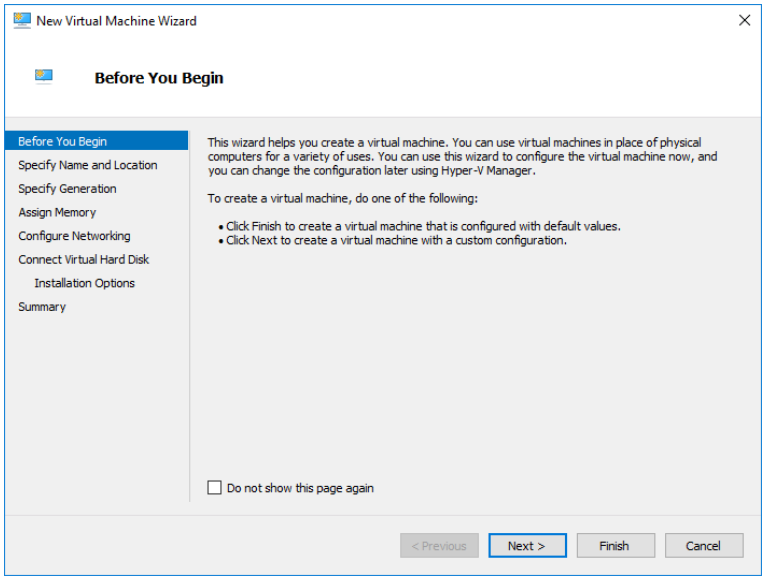

Fig. 1-18 New Virtual Machine Wizard

Next, configure the settings in **[Specify Name and Location].** It is recommended that you use a name that helps you easily identify this virtual machine, such as the name of the guest operating system or assigned workload. By default, the destination specified in the above fig. 1.12 is selected.

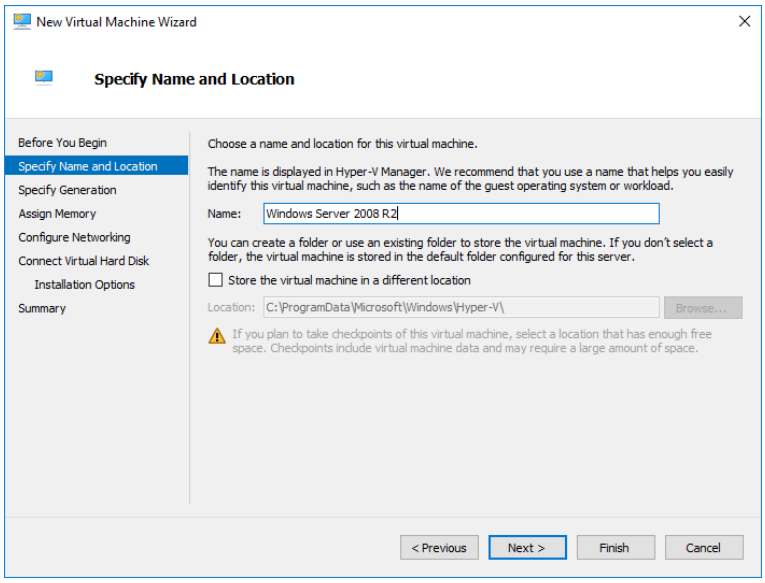

Fig.1-19　Specify Name and Location

Next, this example shows that **[Generation 1]** is selected in the **[Specify Generation]** window.

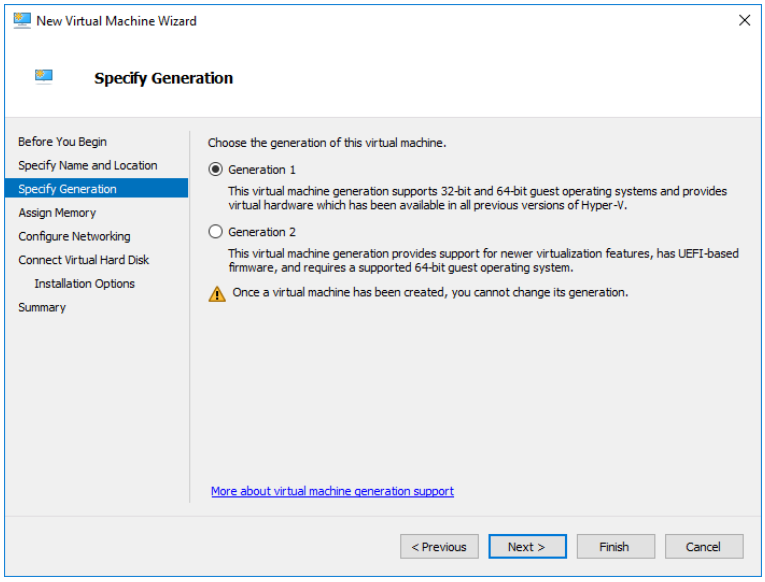

Fig.1-20　Specify Generation

Please allocate the memory size for the virtual machine using the **[Startup memory xx MB]**. Decide the optimum memory size by taking into consideration the intended use or purpose of the virtual machine.

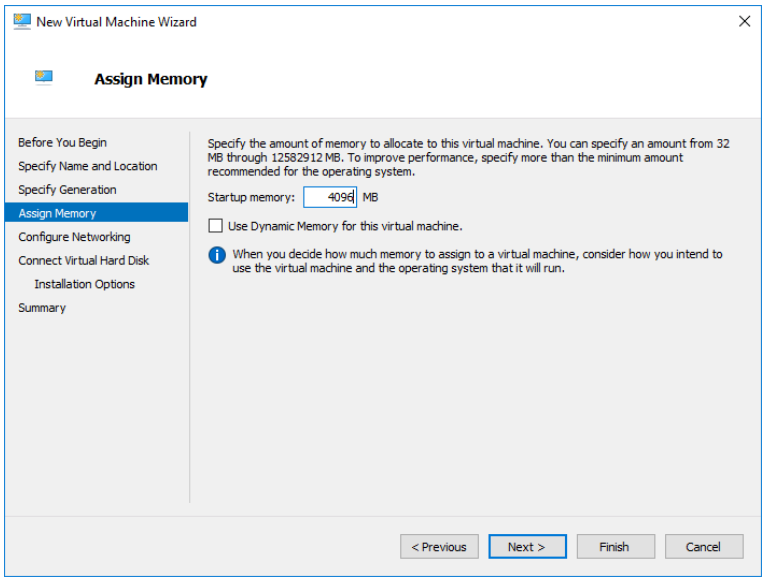

Fig.1-21　Assign Memory

In **[Configure Networking]** please select the network adapter specified in Fig. 1.10.

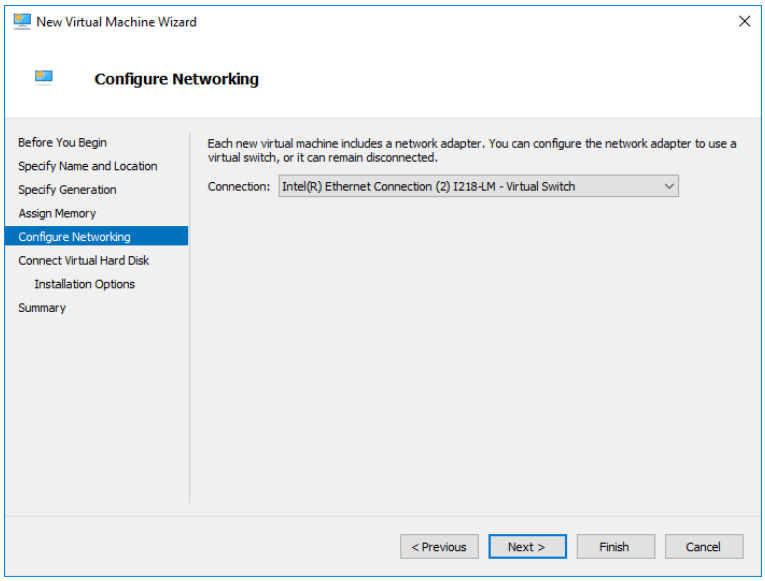

Fig.1-22　Configure Networking

Select **[Create a virtual hard disk]** in the **[Connect Virtual Hard Disk]** window and specify the size.

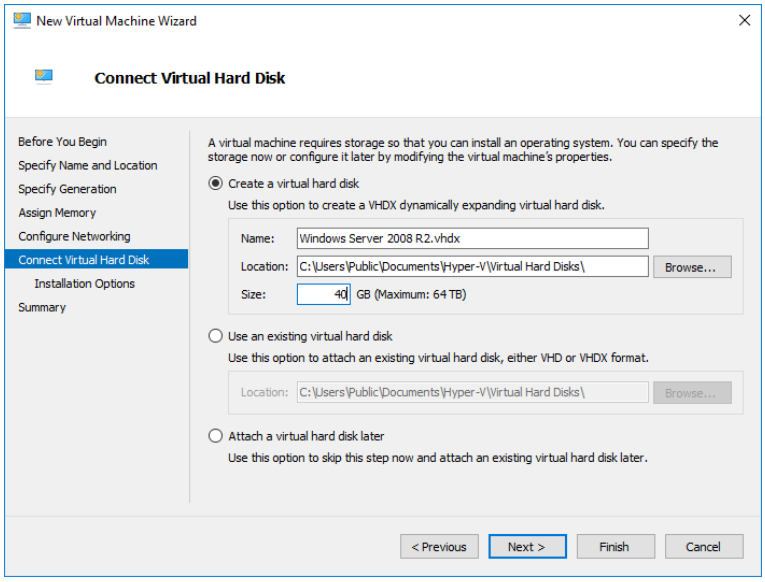

Fig.1-23 Connect Virtual Hard Disk

Please select the install media in the **[Installation Options]** window.

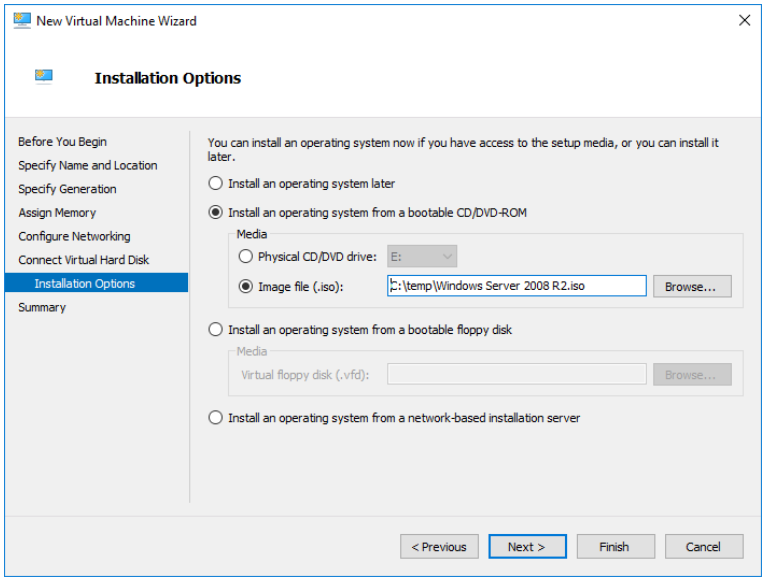

Fig.1-24 Installation Options

In this example, an ISO image is selected. Review the description and configuration of the new virtual machine.

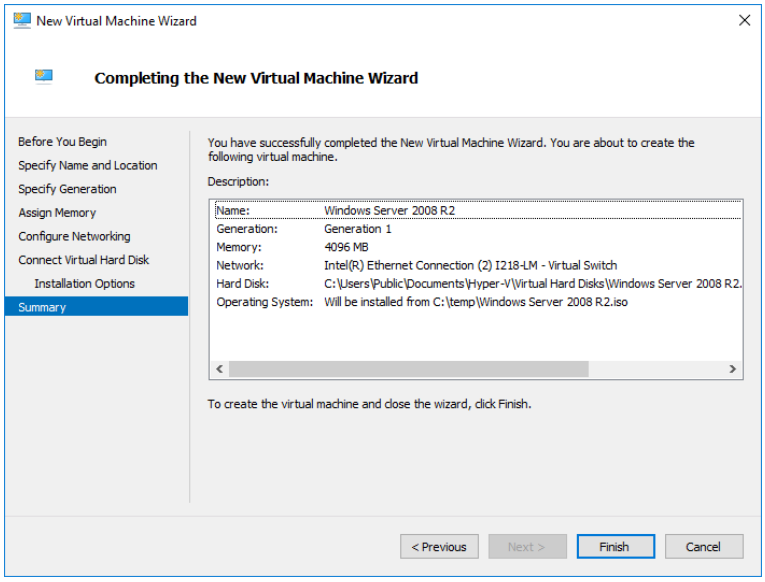

Fig. 1-25 Completing the New Virtual Machine Wizard

Click **[Finish]**. Once the new virtual machine is created, it is listed in the Hyper-V Manager.

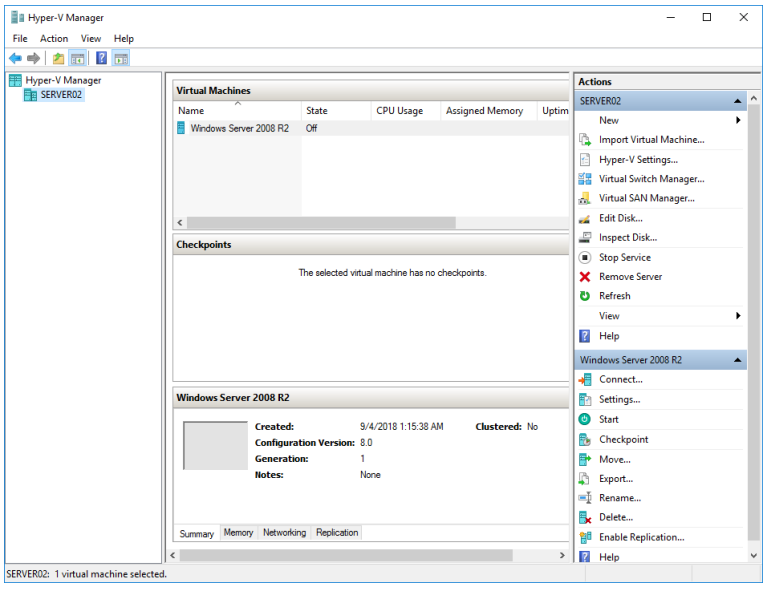

Fig.1-26 New Virtual Machine is registered

Run the virtual machine to start installation process.

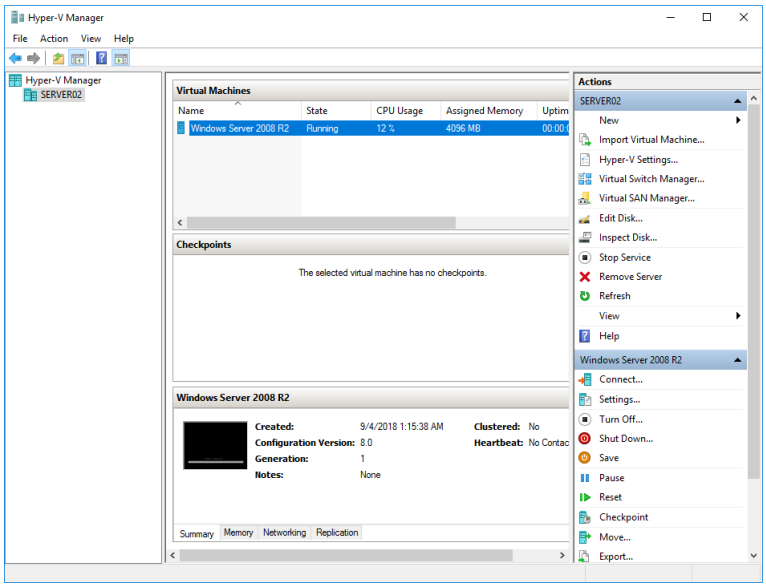

Fig.1-27 Virtual Machine is running

Please make sure that the virtual machine is properly running.

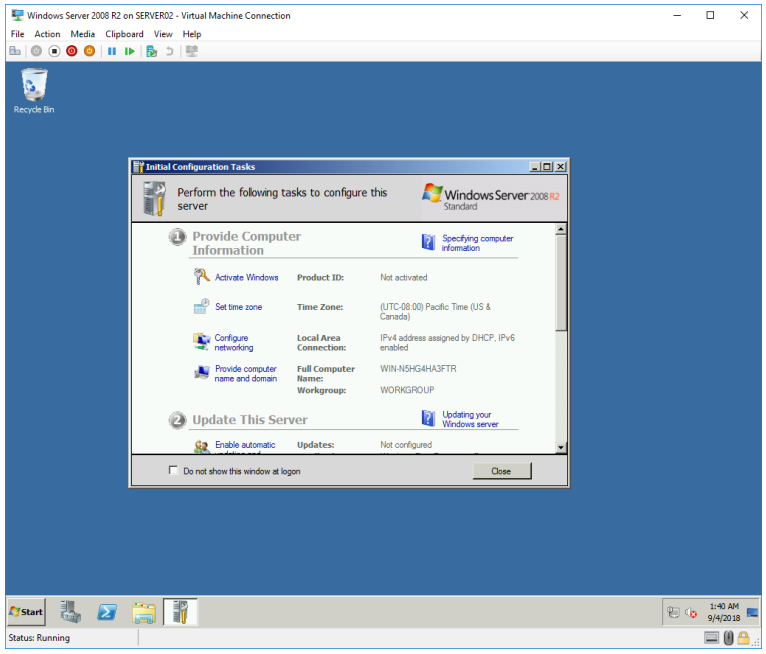

Fig. 1-28 Confirm that the Virtual Machine boots properly.

2. Install ActiveImage Protector 2018 for Hyper-V Enterprise

This chapter provides the description about the installation procedures for ActiveImage Protector 2018 for Hyper-V Enterprise. Launch the ActiveImage Protector 2018 for Hyper-V Enterprise setup wizard on the Hyper-V host.

Fig.2-1 Setup Wizard of ActiveImage Protector 2018 for Hyper-V Enterprise

Click **[Next]** to enter the product key.

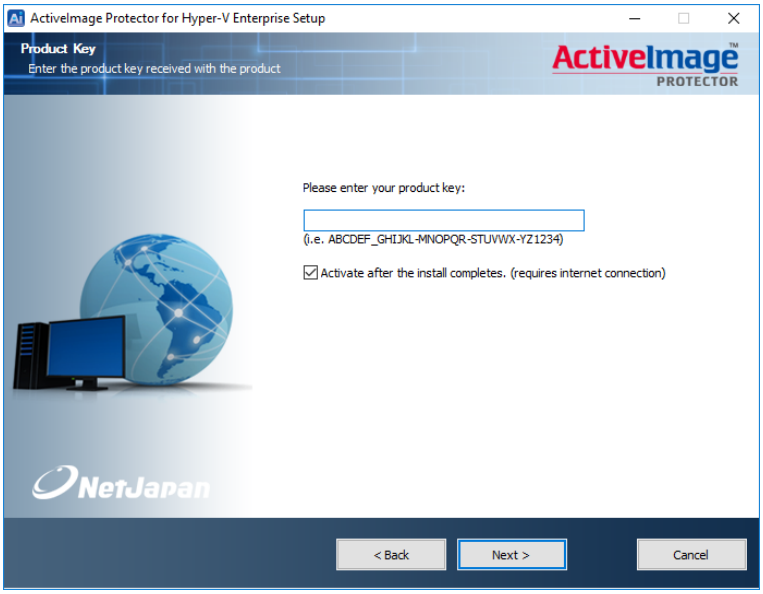

Fig.2-2 Enter the product key

Please review the End User's License Agreement and click the checkbox to **[I accept the License Agreement]** to proceed with the installation process.

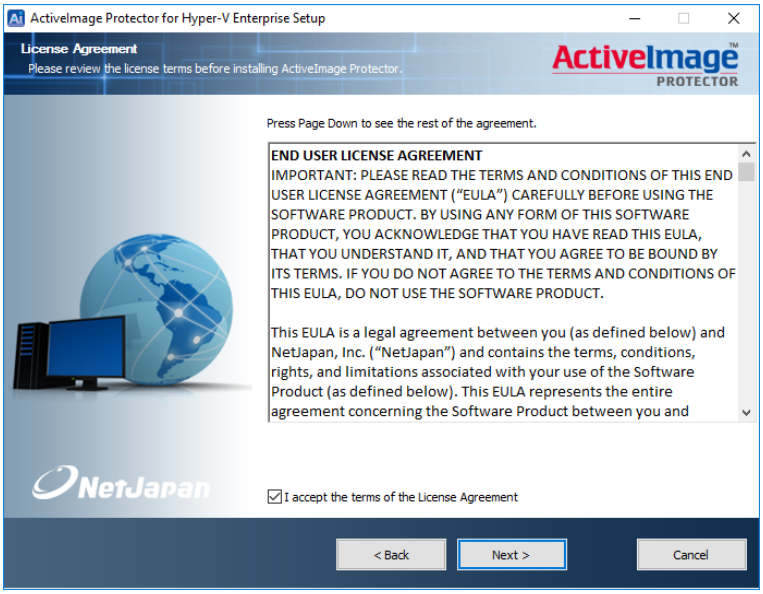

Fig.2-3 License Agreement

Select the setup type in the following **[Choose Setup Type]** window.

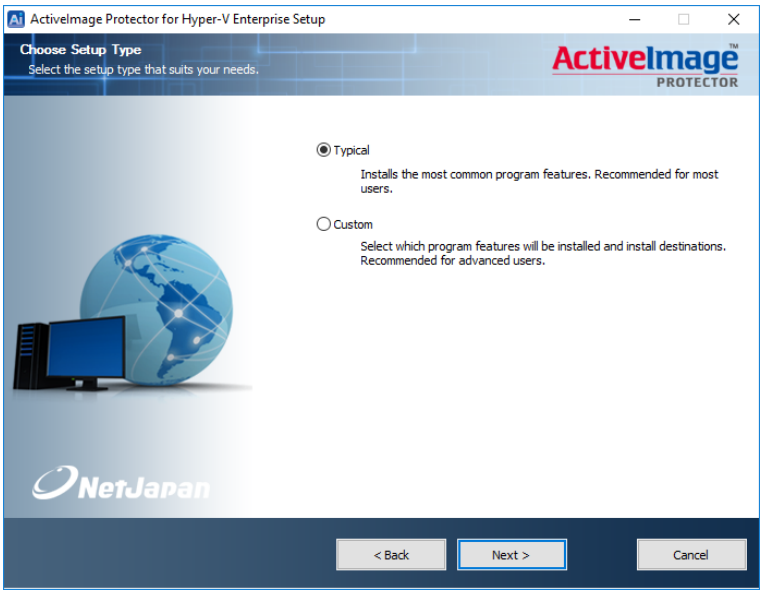

Fig.2-4 Select Setup Type

[Typical] is selected in this example.

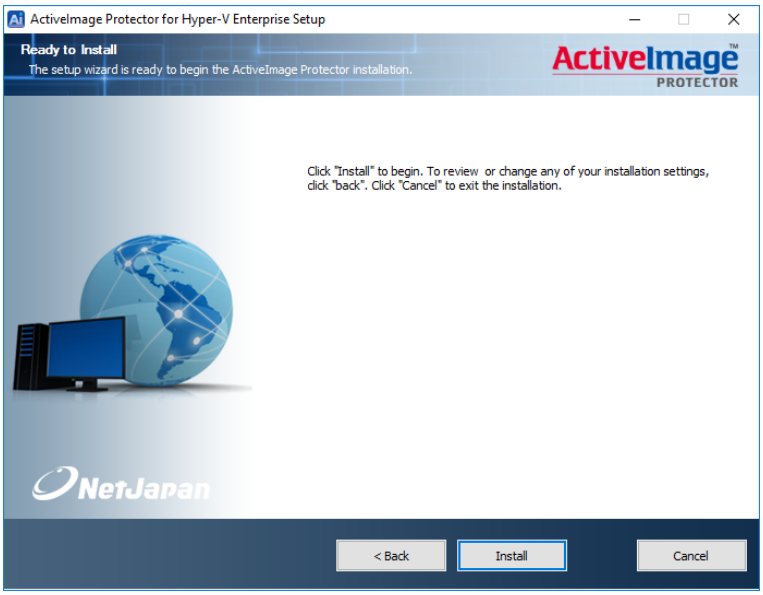

Fig. 2-5 Ready to begin the ActiveImage Protector installation

Click **[Install]** to start the installation process.

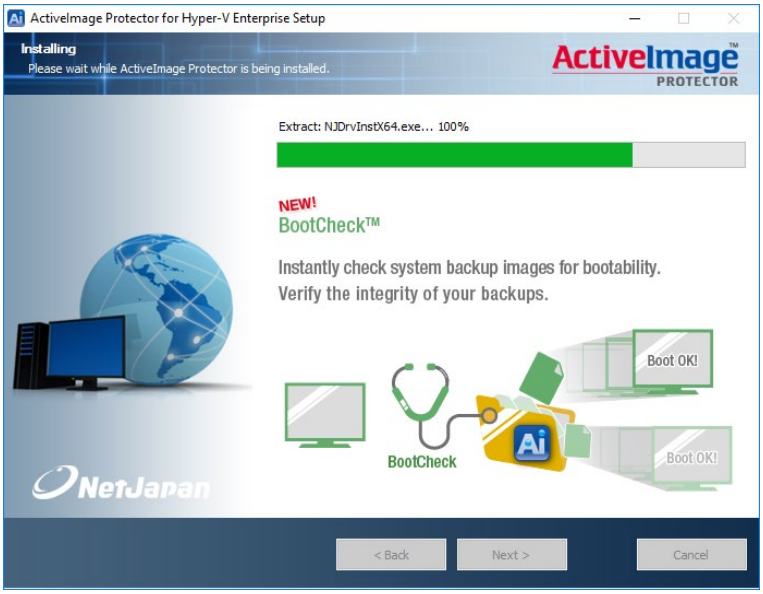

Fig. 2-6 Installing ActiveImage Protector

Upon completion of installation process, you will be prompted to reboot the system now or to manually reboot later.

Fig.2-7 Reboot now

[Reboot Now] is selected in this example. When your computer is restarted, **[NetJapan]** is added to the Start menu, with **[ActiveImage Protector]** and **[ReZoom it!]** both included.

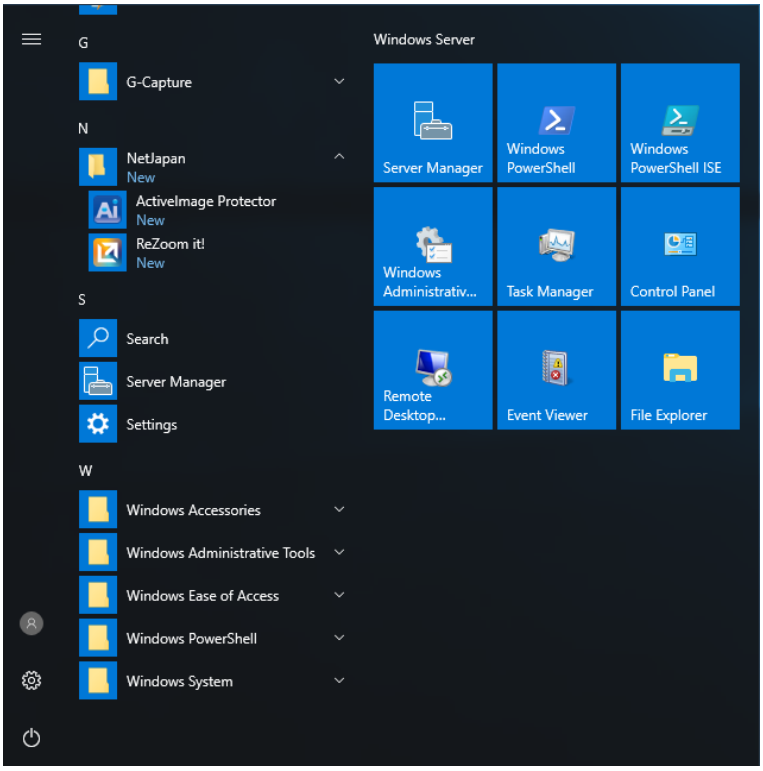

Fig.2-8 Confirm the “ReZoom it!” Icon in the Startup menu

3 Back up by using ActiveImage Protector 2018 for Hyper-V Enterprise

After completing the installation, let's configure the settings for a backup task. First, start ActiveImage Protector 2018 for Hyper-V Enterprise.

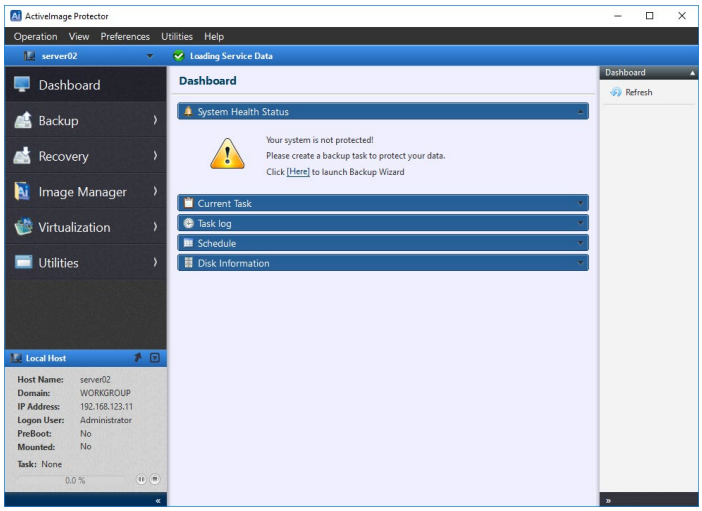

Fig.3-1 ActiveImage Protector 2018 for Hyper-V Enterprise

As a matter of course, ActiveImage Protector 2018 for Hyper-V Enterprise, just installed, reports that the system is not protected. So, let's configure the schedule settings.

Select **[Backup]** from the menu in the left pane.

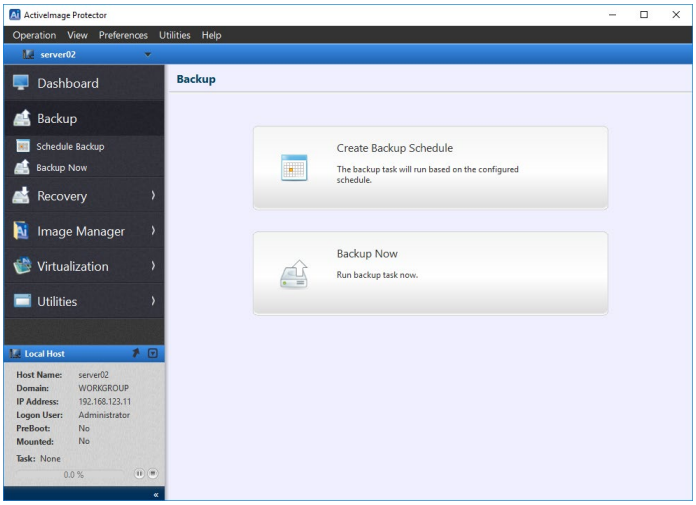

Fig.3-2 Backup Wizard

Select **[Schedule Backup]**. **[1 Source]** is selected.

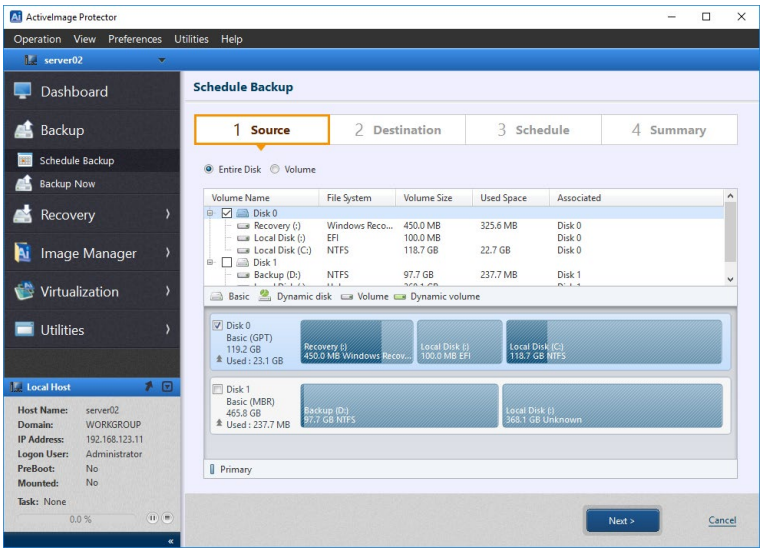

Fig.3-3 Backup Wizard:Select Source

This example shows that **[Entire Disk]** and “Disk 0” are selected for the backup source (Disk 1 is the destination for saving backup files.).

Next is the **[2 Destination]** setting.

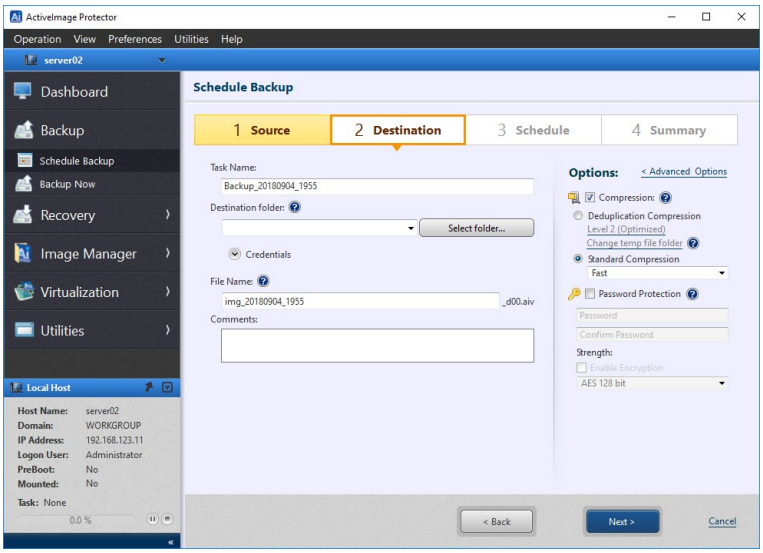

Fig. 3-4 Backup Wizard: Specify Destination

Specify the location of the destination to save the backup files. Here, the “backup” folder on an external hard disk is specified.

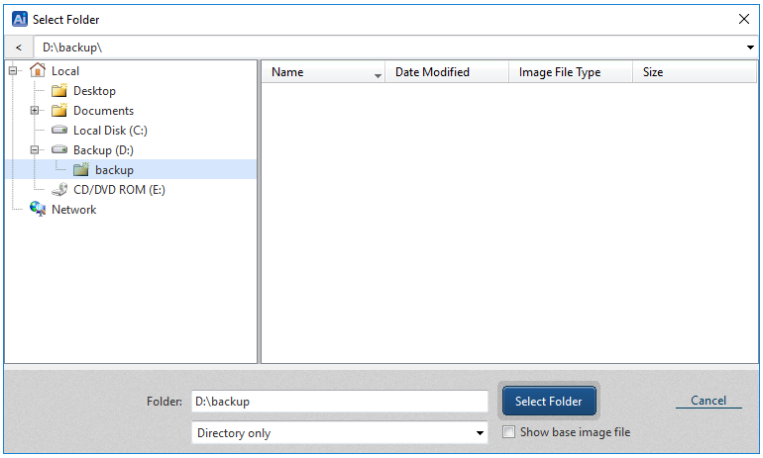

Fig. 3-5 Backup Wizard: Select Folder

Specify a backup file name and create a comment so that the file needed for recovery can be easily identified.

Enabling **[Standard Compression] - [Fast]** reduces storage requirements by further compessing the backup image file. When the backup image file includes a multiple number of virtual machines, enable the **[Deduplication Compression]** option to efficiently deduplicate data and compress image files requiring even less storage.

Configure the settings for **[Advanced Backup Options]** as shown in Fig. 3.6.

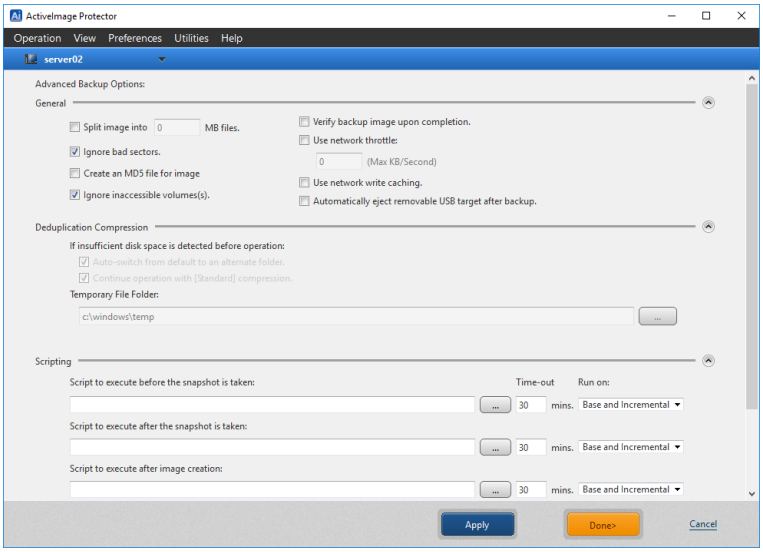

Fig.3-6. Backup Wizard:Advanced Backup Options

The **[Split image into xx MB files]** option is often selected. By specifying “2000MB”, the created backup image file is split into multiple 2000MB files enabling to save them on a FAT32 formatted storage device or in optical media, etc.)

[Enable Encryption] and **[Password Protection]** options are also provided.

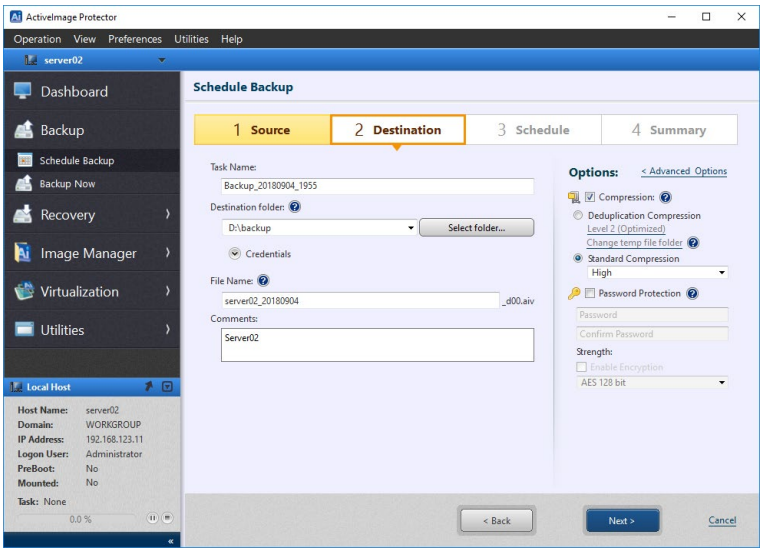

Fig.3-7 Backup Wizard: Password Protection and Encryption

Next, please configure the schedule settings in the **[Schedule Settings]** window. ActiveImage Protector 2018 for Hyper-V Enterprise allows you to configure flexible and detailed schedule settings.

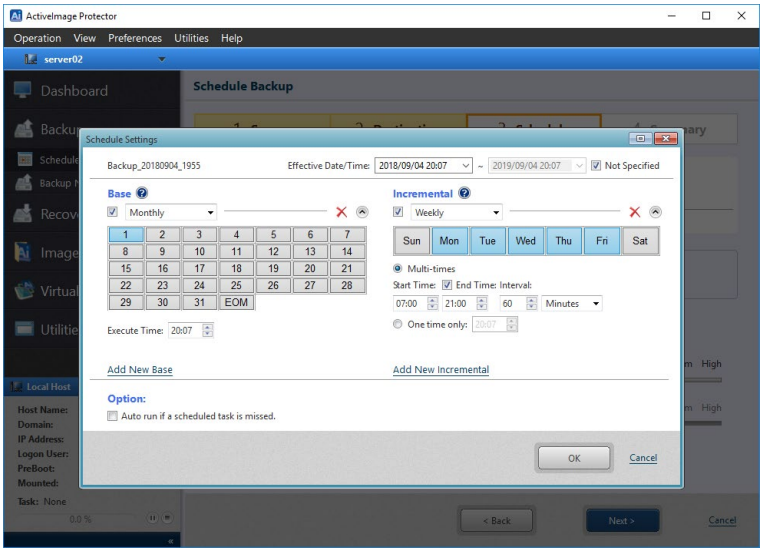

Fig.3-8 Backup Schedule Setting

With this example, a base backup (full backup) is scheduled to run at the beginning of the month. Incremental backups are performed Monday to Saturday every hour from 7:00 to 21:00. This example shows that only one schedule setting is configured for base and incremental backups respectively. However, you can select and configure multiple schedule settings. Click **[OK]** to return to the wizard. At last, **[4 Summary]** window is displayed.

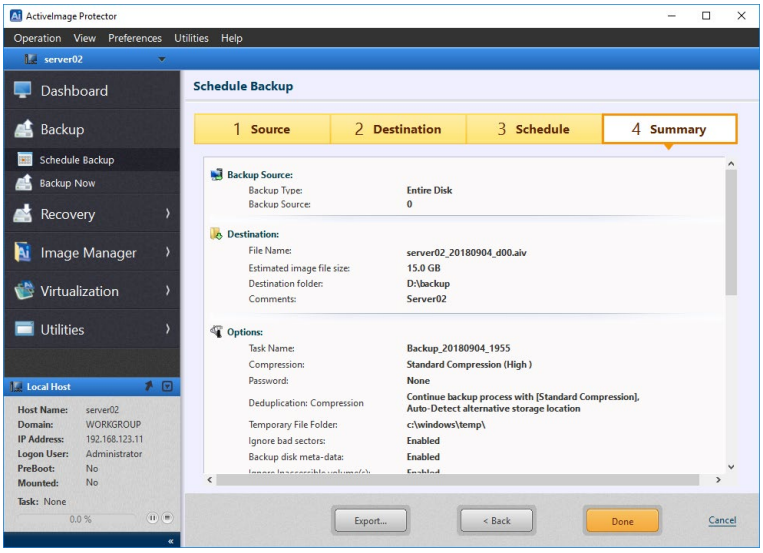

Fig.3-9 Backup Wizard: Summary

Click **[Done]** to display the following dialog that prompts you to run the first scheduled task (base backup) immediately.

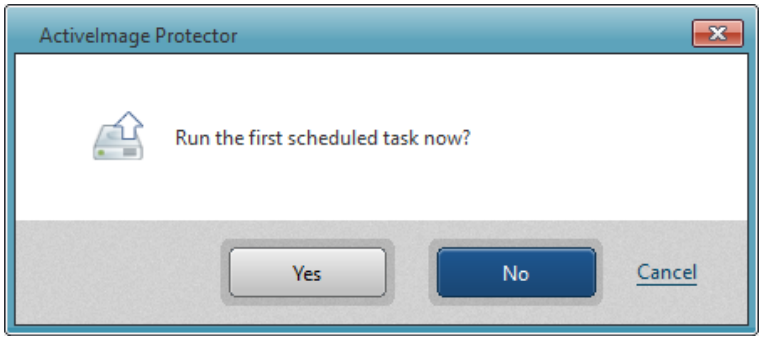

Fig.3-10 Run the first schedule task

After installation of ActiveImage Protector for Hyper-V Enterprise, and no backup image has yet been created, it is recommended to run a backup as soon as possible.

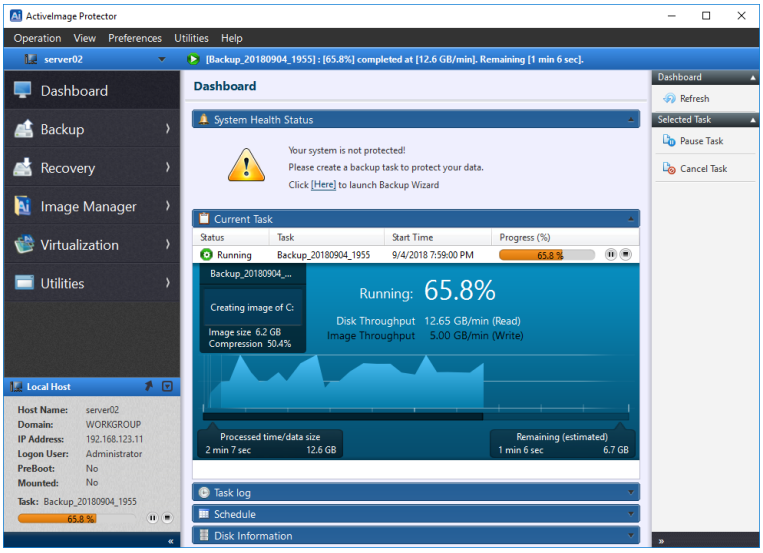

Fig.3-11 Dashboard: Current Task

Upon completion of a backup task, the window is displayed as shown in Fig. 3.12.

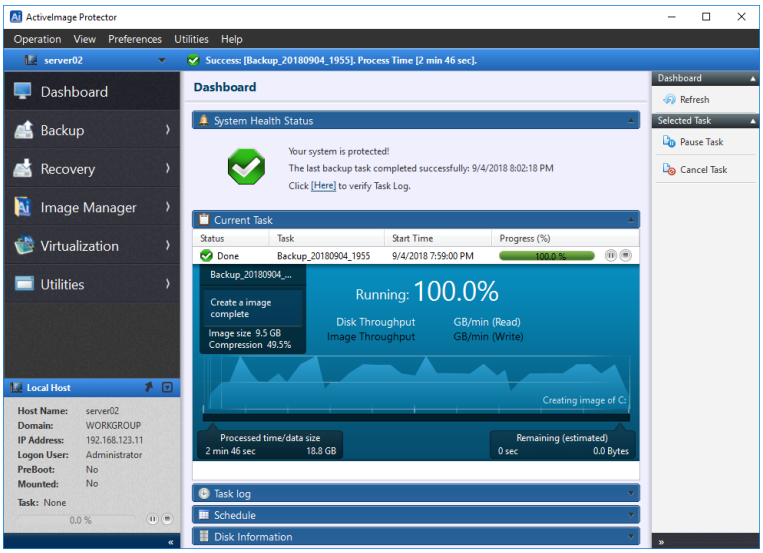

Fig.3-12 Dashboard:System Health Status is protected

By hovering the mouse pointer over the chart the throughput (loading) is displayed

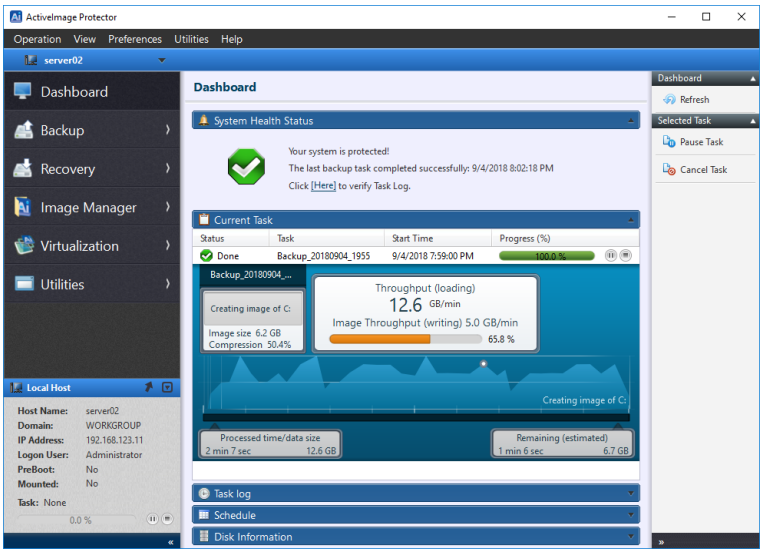

Fig. 3-13 Image Throughput

The system health status is shown with the icon indicating that the system is protected.

Now, you are ready to use ReZoom it! The following chapter describes the operating procedures.

4 ReZoom it! Migration

The ReZoom it! Migration feature can select and restore a virtual guest machine from a backup image file onto the same or dissimilar Hyper-V host.

First, start ReZoom it! from Start menu under **[NetJapan]**.

Fig. 4-1 Startup ReZoom it ! Migration

Please select **[ReZoom it! Migration]**. Click **[Next]** and the **[Select Backup Image File]** window is displayed. ReZoom it! offers a Search feature that automatically searches for a virtual machine in a backup image file.

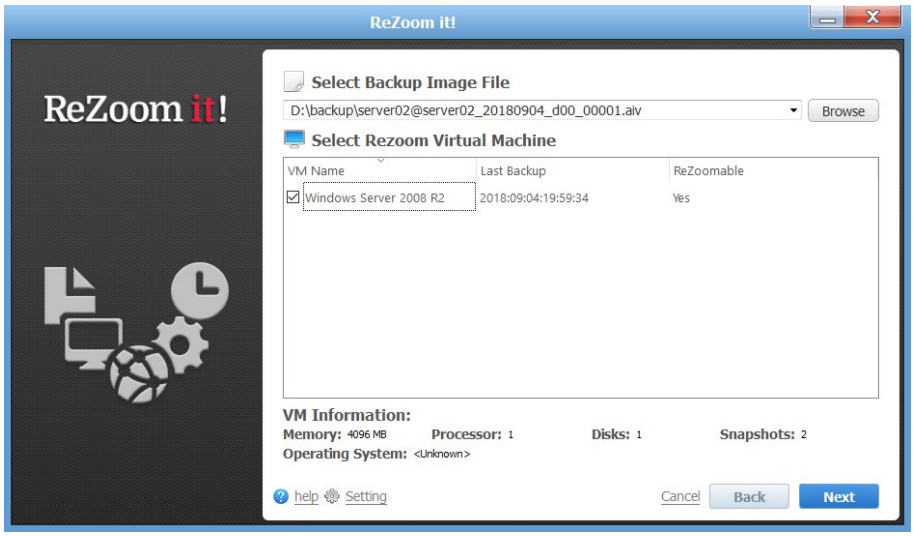

Fig. 4-2 Select Backup Image File

This Virtual Machine name is shown with [Rezoomable] status. If **[No]** is indicated for **[Rezoomable]** status, hover the mouse pointer over the status, so you can check the reason why the virtual machine is not rezoomable. Click the checkbox for the found virtual machine to display the information such as Memory, Processor, etc. Click **[Next]** to display **[Select Target]** window. This example shows that “this machine” is selected. Click **[Connect]** and the virtual machine information is displayed.

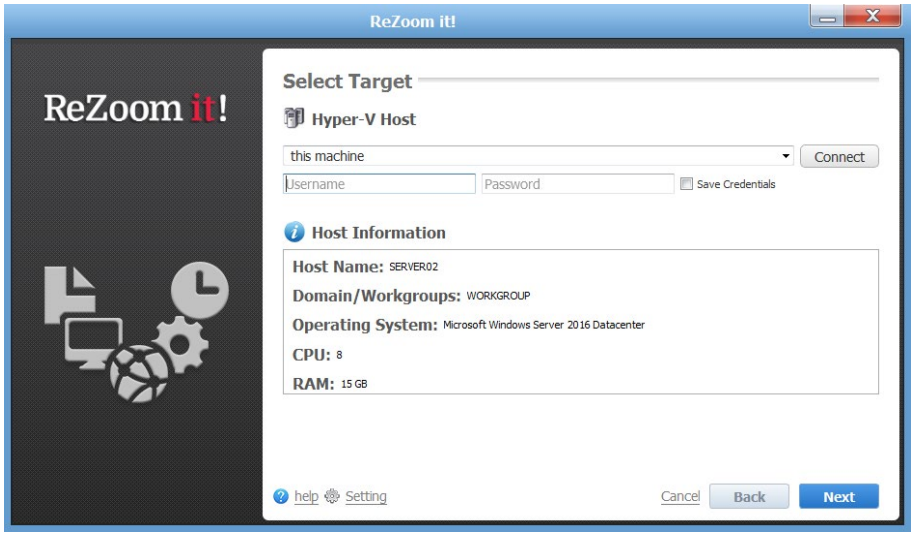

Fig. 4-3 Select Target

Click **[Next]** to display the **[Edit VM Settings]** window.

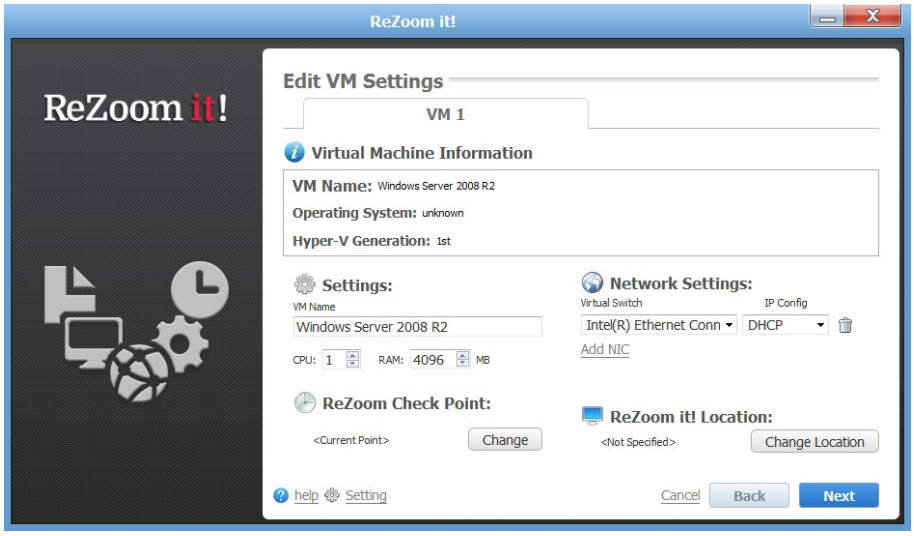

Fig.4-4 Edit Virtual Machine Setting

In **[Settings]** you can edit the settings for CPU and RAM. If multiple checkpoints are created, you can select a specific checkpoint. Click **[Change]** for **[ReZoom CheckPoint]** and the following window is displayed as shown with Fig. 4.5.

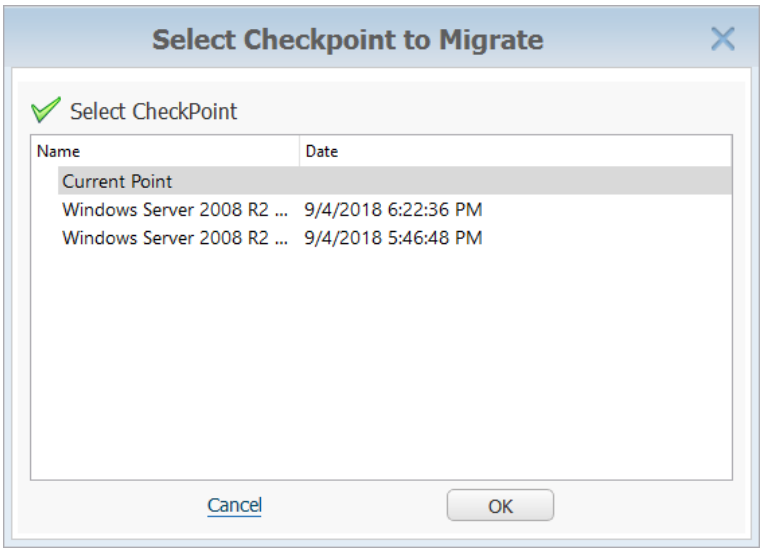

Fig. 4-5 Select Checkpoint to Migrate

If you want to ReZoom the virtual machine at a specific checkpoint created in the past, use this window to select the checkpoint. This example shows that **[Current Point]** (the most recent state) is selected.

[ReZoom it! Location] is <not specified>. Click **[Change Location]** and specify the target location to ReZoom the virtual machine.

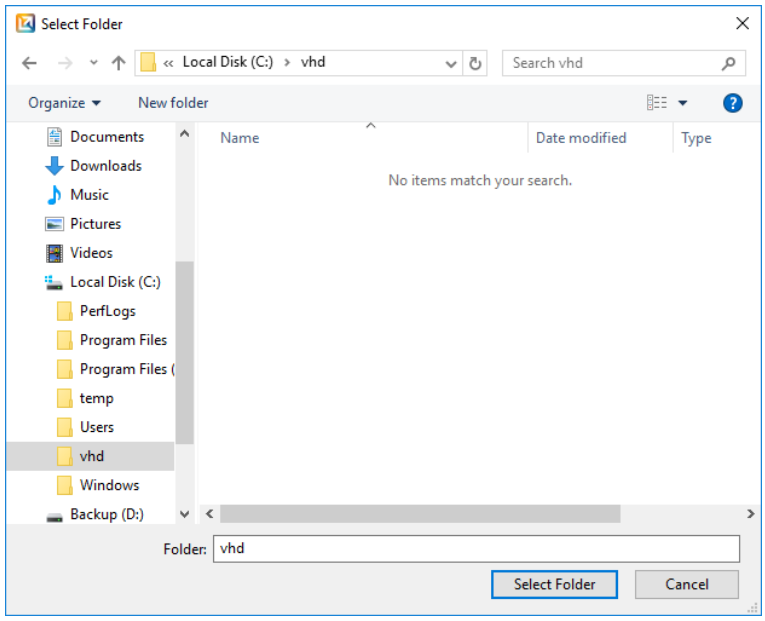

Fig.4-6 Selecting the Destination Folder

In this example, a new VHD folder on the same disk on the backup source is selected. This example shows that the virtual machine is ReZoomed to the backup source disk. However, you can specify the destination folder for the virtual machine (ex: “C:\Users\Public\Documents\Hyper-V\Virtual Hard Disks” folder) on an alternate host or a host of dissimilar hardware. In either case, understand that any existing file(s) of the same name will be overwritten.

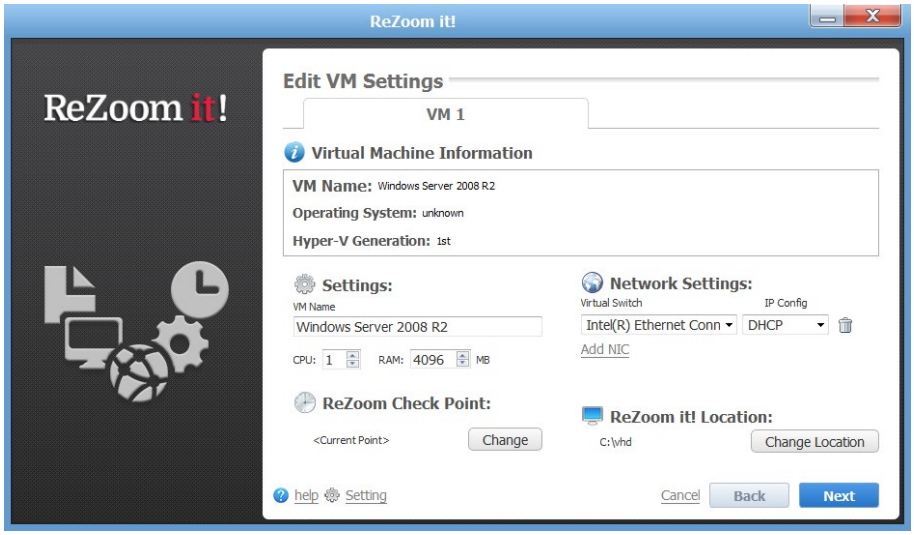

Fig.4-7 Edit Virtual Machine setting

Click **[Next]** to display **[Rezooming]** progress window.

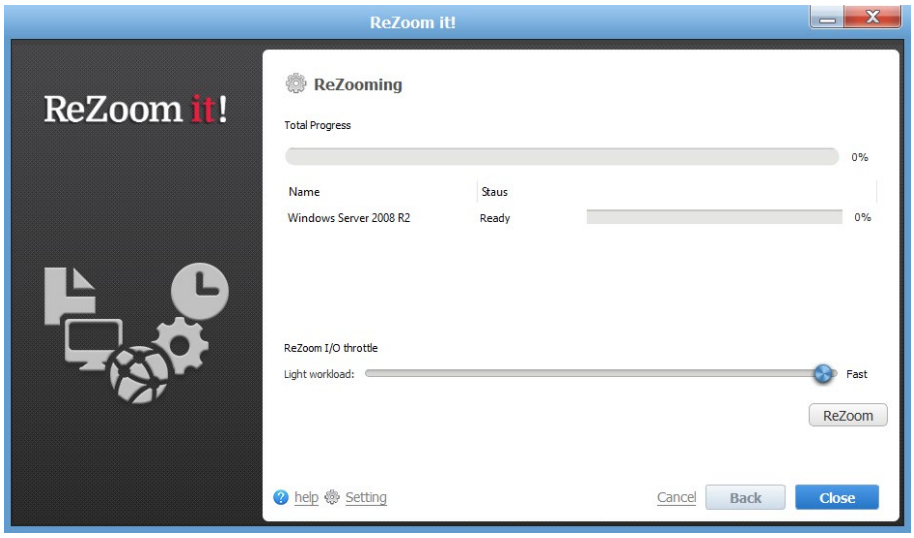

Fig.4-8 Start ReZoom

Click the **[ReZoom]** button to start ReZoom process.

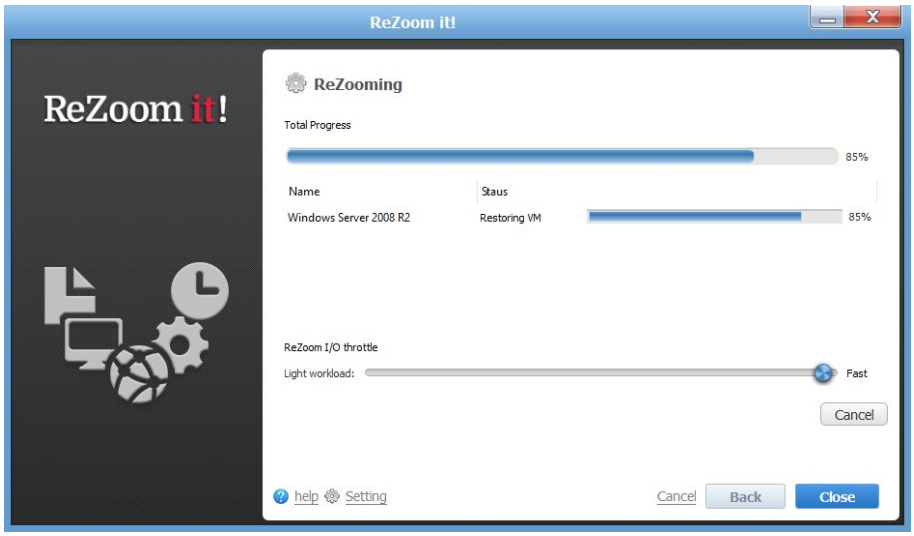

Fig.4-9 ReZoom is running

Upon completion of the ReZoom process, the following window is displayed as shown in Fig. 4.10.

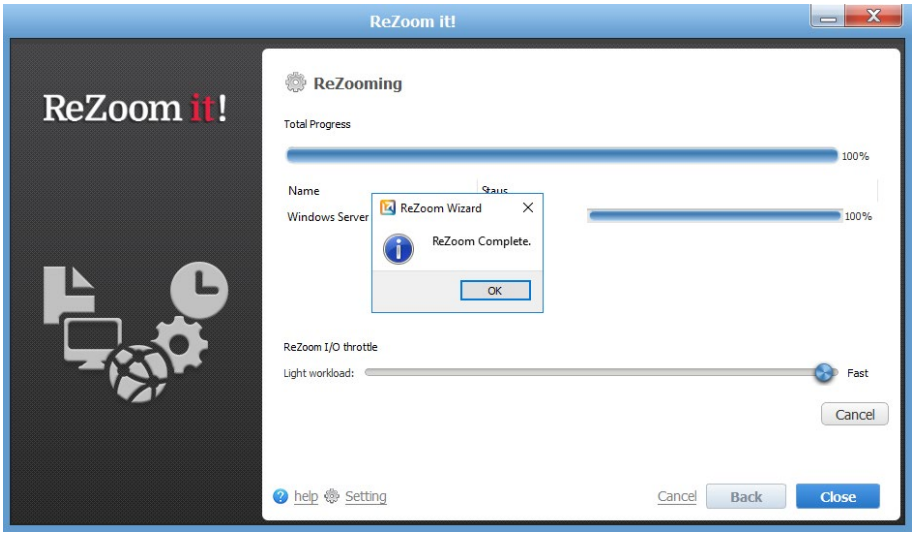

Fig.4-10 ReZoom Complete

Click **[OK]** to acknowledge the **[ReZoom Complete]** message and then click **[Close].** This concludes the operating procedures for ReZoom it! Migration.

The contents in the destination folder are displayed in Fig. 4.11.

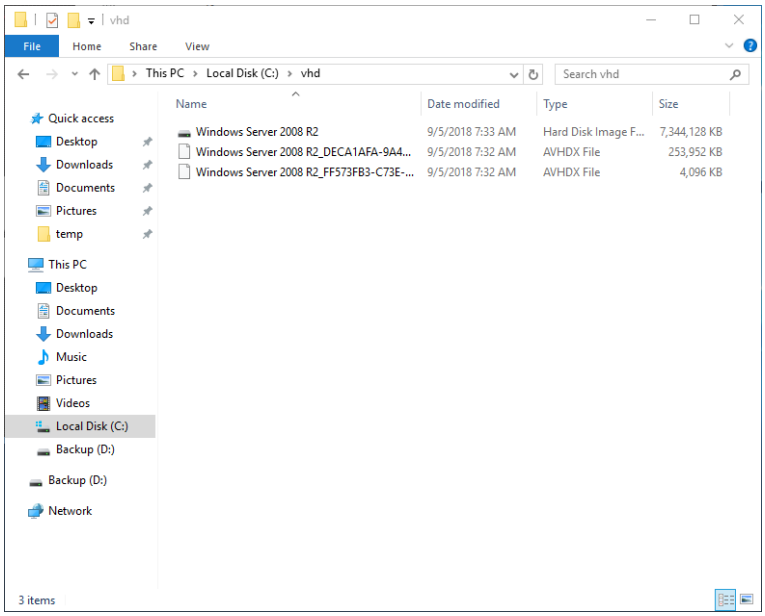

Fig.4-11 Migrated Virtual Machine

Launch the Hyper-V Manager to make sure that two virtual machines are listed in the **[Virtual Machines]** section. The following window displays the migrated virtual machines created by using the ReZoom It! feature.

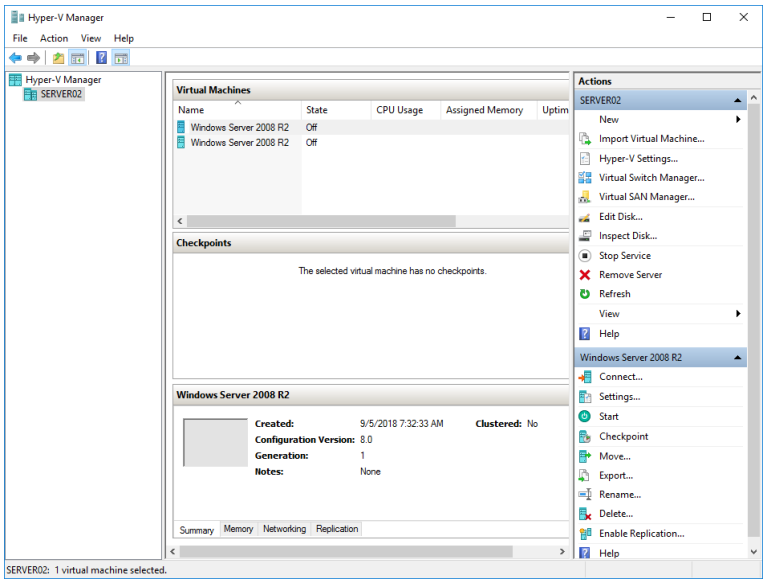

Fig.4-12 Virtual Machine(s) added to the Hyper-V Manager

5 ReZoom it ! Live

ReZoom it! Live provides system availability while recovering a virtual machine on a Hyper-V host. ReZoom it! Live boots a copy of the virtual machine (live VM) from the host's backup image as the recovery process begins; bringing the virtual machine online while simultaneously recovering the VM.

Select ReZoom it! From the **[Start]** menu.

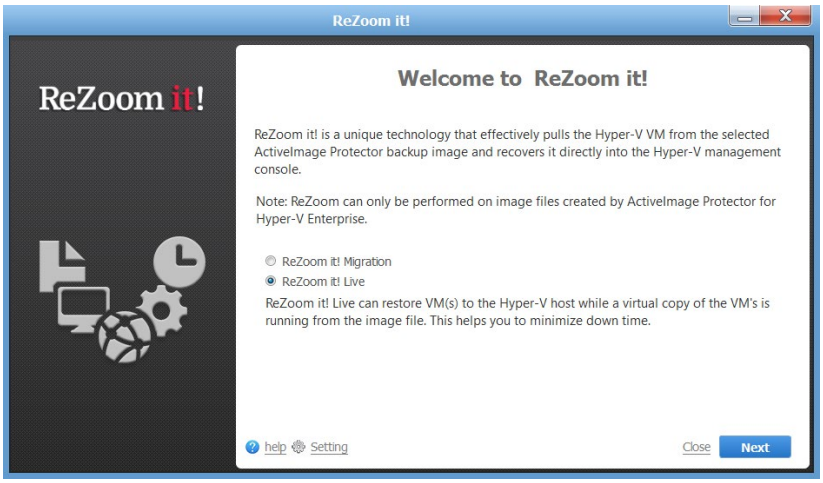

Fig. 5-1 Startup ReZoom it ! Live

Select **[ReZoom it! Live]**.

Click **[Next]** to select a backup image file in the following window. ReZoom it! includes a search feature for locating a virtual machine in a backup image file.

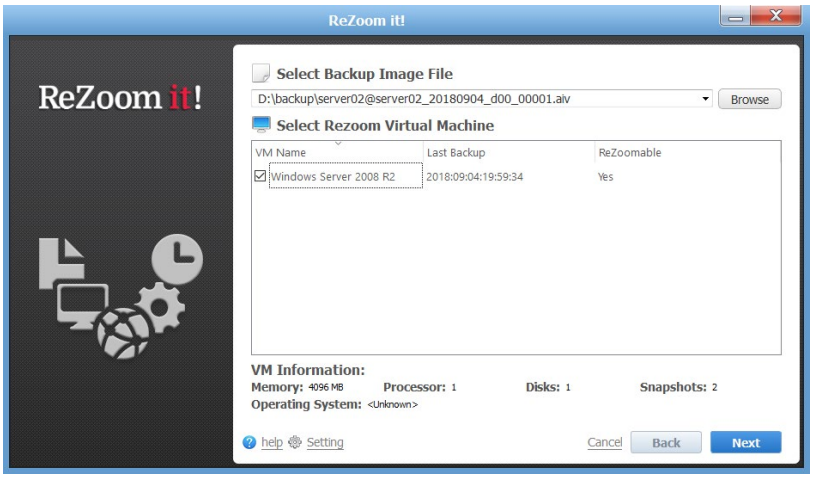

Fig.5-2 Select Backup Image file

The **[VM name]** and **[ReZoomable]** status are displayed. If **[No]** is indicated for **[Rezoomable]** status, hover the mouse pointer over the status so you can check the reason why the virtual machine is not rezoomable. Click the checkbox for the found virtual machine to display the machine's information such as Memory, Processor, etc. Click **[Next]** to display the **[Select Target]** window. The following example shows that "this machine" is selected. Click **[Connect]** and the Host Information is displayed.

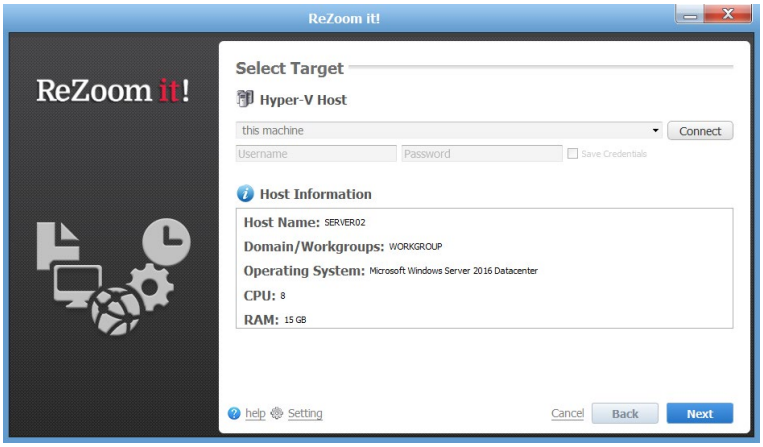

Fig.5-3 Select Target

Click **[Next]** to display the **[Edit VM Settings]** window.

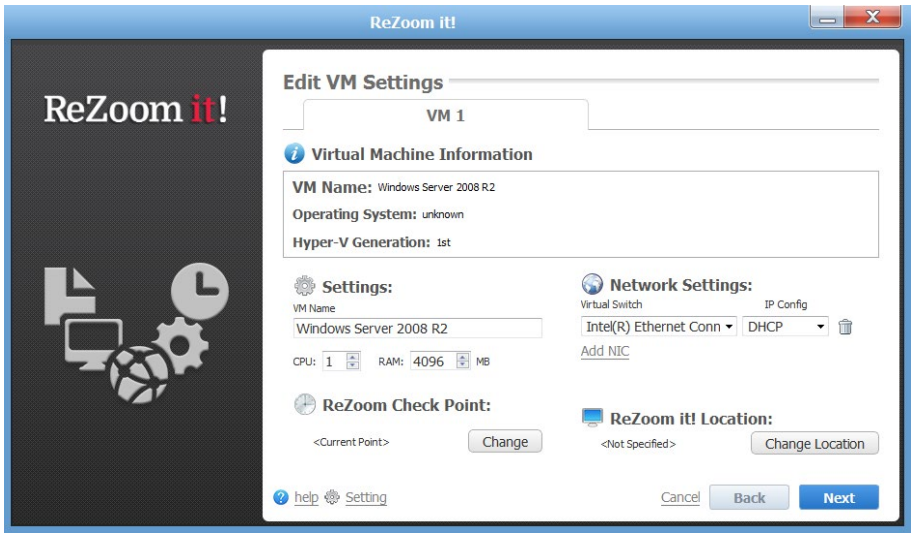

Fig.5-4 Edit Virtual Machine Settings

In **[Settings]** you can edit the configuration settings for the CPU and RAM. If multiple checkpoints have been created, click **[Change]** for **[ReZoom CheckPoint]** to display the following window as shown in Fig.5.5.

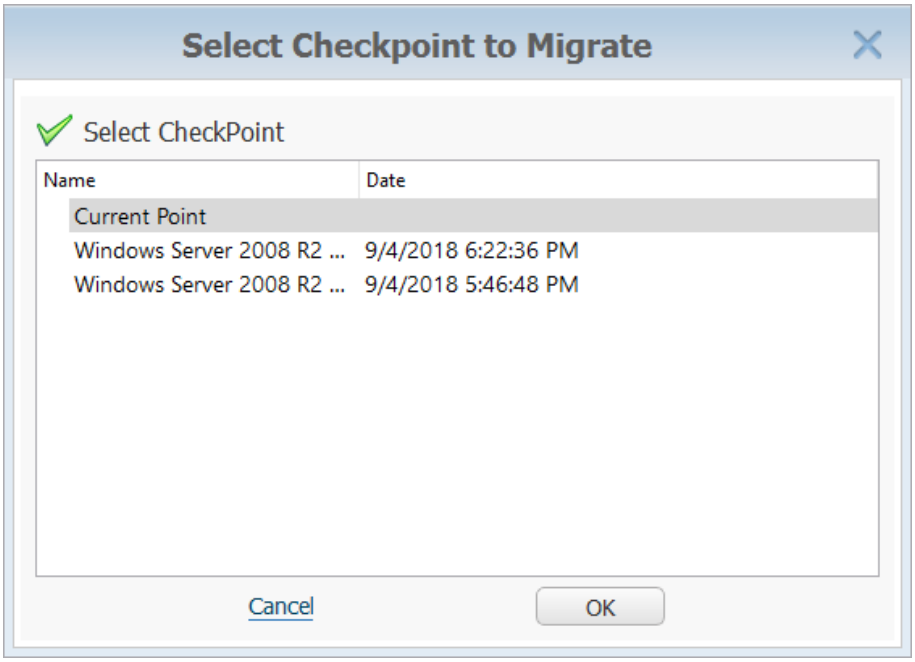

Fig.5-5 Select a Checkpoint for Migration

If you want to ReZoom a virtual machine from a specific checkpoint created in the past, use this window to select the checkpoint. This example shows that **[Current Point]** (the most up-dated status) is selected.

[ReZoom it! Location] is <not specified>. Click **[Change Location]** and specify the target location to ReZoom the virtual machine.

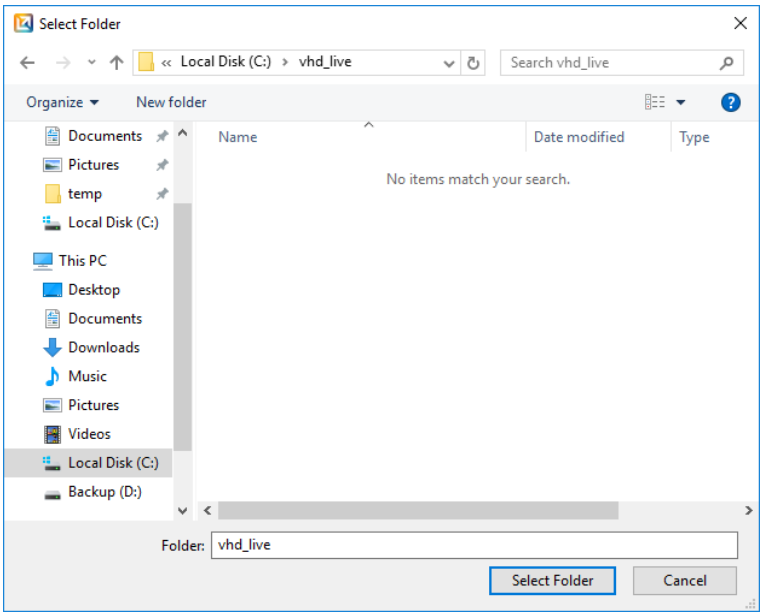

Fig.5-6 Select Destination Folder

In this example, a new “VHD” folder, on the identical disk to the backup source, is selected. This example shows that the virtual machine is ReZoomed to the backup source disk. However, you can specify a destination folder for the virtual machine (ex: “C:\Users\Public\Documents\Hyper-V\Virtual Hard Disks” folder) on an alternate, dissimilar, or remote host in which case, please make sure that an existing file of the same name, if any, is overwritten.

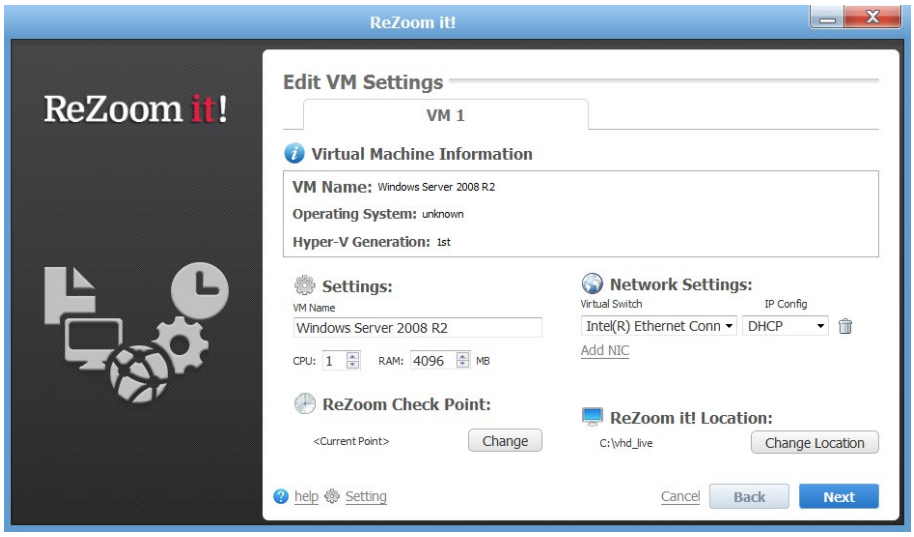

Fig. 5-7 Edit Virtual Machine Setting

Click **[Next]** to display the **[Rezooming]** window.

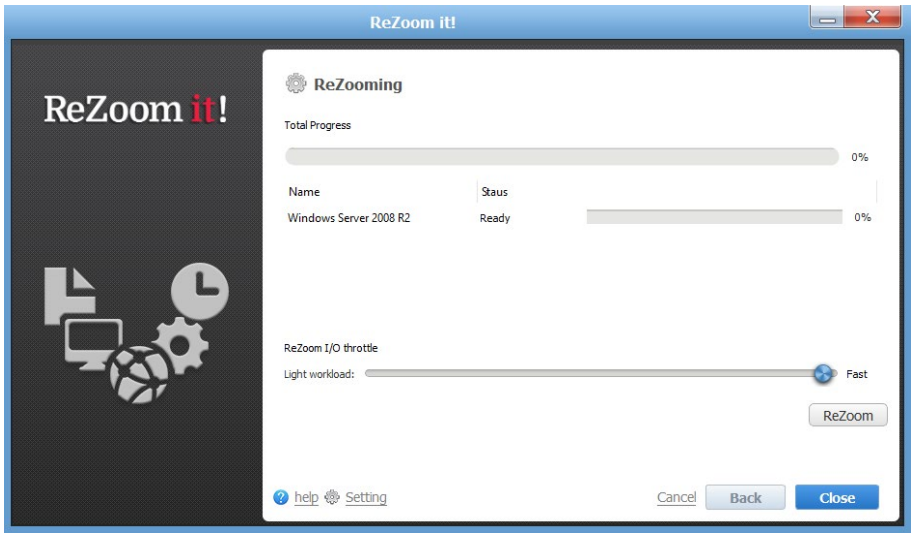

Fig. 5-8 Start ReZoom

Click the **[ReZoom]** button to start ReZoom process.

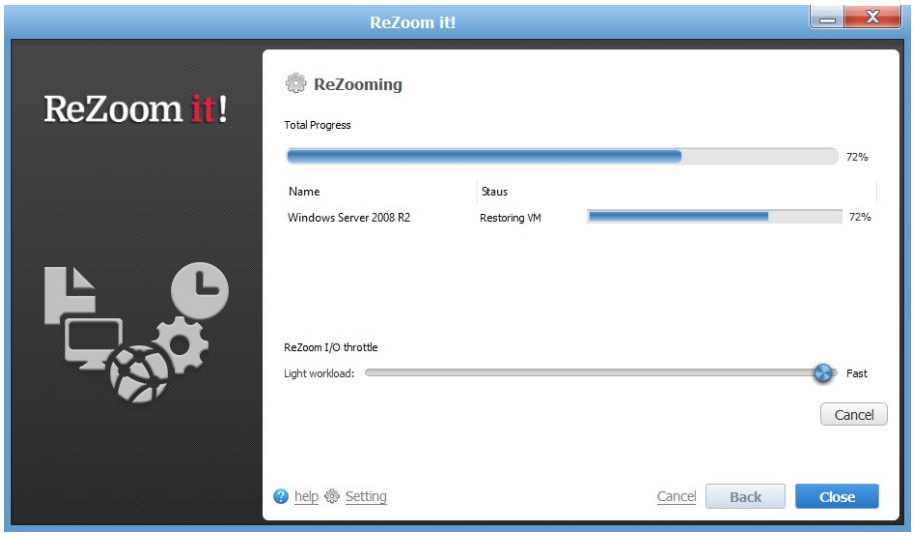

Fig.5-9 ReZoom is running

Upon completion of the ReZoom process, the live VM named as “<Virtual Machine name to recover>_RzmLive” is created in the Hyper-V Manager and then started.

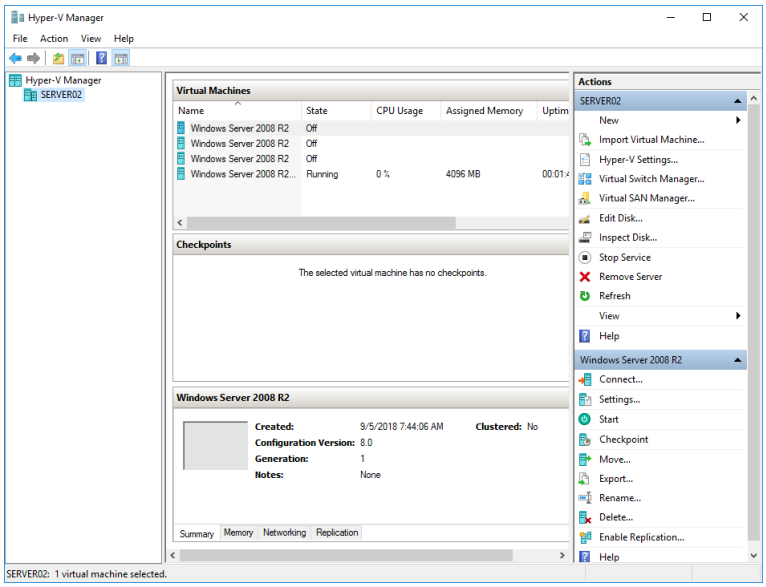

Fig.5-10　Live Virtual Machine is running

Upon completion of the ReZoom process, the following message is displayed prompting a merge of the live VM.

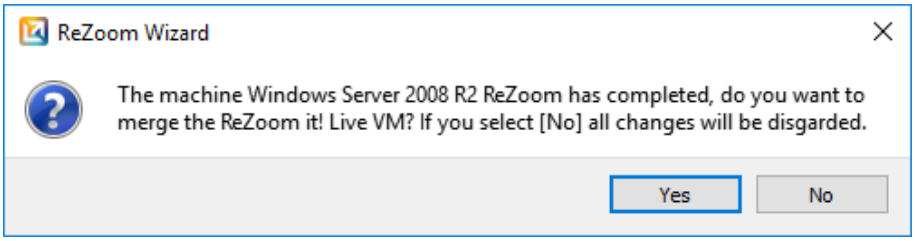

Fig. 5-11 Merge Live Virtual Machine or not

Regardless of whether you select **[Yes]** or **[No]**, the live VM will be deleted to complete the process and shut down. The following dialog is displayed.

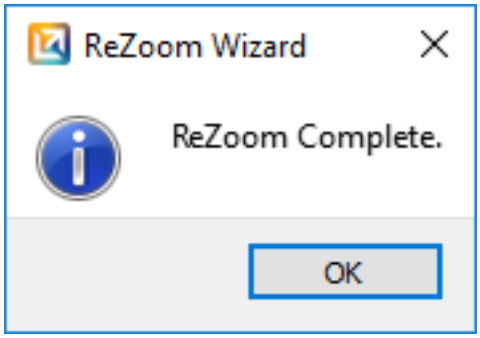

Fig. 5-12 ReZoom has Completed

If you select **[Yes]** in above Fig. 5-11, all changes made during the ReZoom it! Live process will be merged and available when the recovered virtual machine is subsequently booted.

ReZoom it! Live eliminates the time-gap between failure and recovery by providing system availability while restoring the virtual machine.

APPENDIX

Reference - ActiveImage Protector

●Actiphy's Web site

Our Web site provides access to comprehensive information including product information, related documents, technical support, updates, etc.

https://www.actiphy.com/

●ActiveImage Protector FAQ

Support information can be accessed at FAQ web site.

https://kb.actiphy.com/

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E-mail: global-sales@actiphy.com