ActiveImage Protector 2022 Cloud Setup Guide

3rd Edition (February, 2024)



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1. Overview

ActiveImage Protector is a system / data protection solution supporting various system environments, including physical and virtual machines and cloud environments. This set-up guide will show you how to install and configure ActiveImage Protector 2022 Cloud on virtual machines on public cloud (Amazon Web Services (hereinafter "AWS"), Microsoft Azure (hereinafter "Azure"), Google Cloud Platform (hereinafter "Google Cloud"), Oracle Cloud Infrastructure (hereinafter "Oracle Cloud")). We recommend you read this manual before using ActiveImage Protector 2022 Cloud to configure backups. Please visit our online help for more detailed information at the following sites:

- For Windows environment: <u>https://webhelp.actiphy.com/AIP/2022/en_US/</u>
- For Linux environment: <u>https://webhelp.actiphy.com/AIP/linux/2022/en_US/</u>

System Requirements

The following are computer system requirements to install ActiveImage Protector 2022 (Version 7.0.3,8919 for Windows, Version 7.0.3.8919 for Linux). Please ensure your computer meets these minimum system requirements before using ActiveImage Protector 2022. For the latest system requirements, please visit our Web site at: (https://www.actiphy.com/global/support/system-requirements/)

Windows Virtual Machine				
CPU	Pentium 4 or newer.			
Main Memory	4GB of RAM or greater. (8GB is recommended.)			
(RAM)				
Hard Disk	1.5GB of available disk space or greater.			
Internet	An internet connection is required to activate the product, issue license file and update			
	the product.			
Supported OS	Windows Server 2022			
	Windows Server 2019			
	Windows Server 2016			
	Windows Server 2012 R2			
	Windows Server IoT 2019 / 2022 for Storage			
	Windows Storage Server 2016			
	Windows Storage Server 2012 R2			

	Linux Virtual Machine
CPU	Pentium 4 or newer.
	* Only x86_64 architecture is supported.
	* Secure Boot is not supported.
Main Memory	2GB of RAM or greater.
(RAM)	
Hard Disk	2GB of available disk space or greater.
Internet	An Internet connection is required to activate the product.
Supported OS	• Red Hat Enterprise Linux : 9.0 – 9.3 /8.0 – 8.9 / 7.0 – 7.9
	• CentOS : 8.1 – 8.4 / 7.0 – 7.9
	• Oracle Linux : 9.0 – 9.3 / 8.1 – 8.9 / 7.0 – 7.9
	• AlmaLinux 9.0 – 9.3 / 8.3 – 8.9
	• MIRACLE LINUX 9.0, 9.2 / 8.4, 8.6, 8.8
	• Rocky Linux 9.0 – 9.3 / 8.3 – 8.9
	Amazon Linux 2
	SUSE Linux Enterprise Server 15 / Desktop 15
	OpenSUSE Leap 15
	Ubuntu 18.04LTS / 20.04LTS / 22.04LTS
	• Debian 9 – 12

2. Installation

ActiveImage Protector Cloud is designed to back up Windows / Linux virtual machines on public clouds (AWS, Azure, Google Cloud, Oracle Cloud). For more detailed operating procedures regarding how to install and configure the basic settings, please refer to the following setup guide.

*When installing ActiveImage Protector on virtual machines in a Cloud environment, please use a "Cloud product key".

- Windows: ActiveImage Protector 2022 Server Setup Guide
 https://www.actiphy.com/global/setup_guide/actiphy_activeimage_protector_2022_server
- Linux: ActiveImage Protector 2022 Linux Setup Guide
 <u>https://www.actiphy.com/global/setup_guide/actiphy_activeimage_protector_2022_linux</u>

3. Configure backup settings and run backup tasks

3-1. Volume Backup: One Time Only

Use the following steps to run ad hoc backup tasks:

Launch ActiveImage Protector by clicking on the Windows Start menu and then navigating to [Actiphy] →
 [ActiveImage Protector].

Once inside ActiveImage Protector, click on [Backup] \rightarrow [Volume Backup].

Operation View Preferences Help		
C/amaz-8vod1bd		
Dashboard Backup		
🚵 Backup 🔸		
Recovery Volume Backup Create local disk or volume backup task.		
In-Cloud Recovery		
In-Cloud Standby		
Image Manage > Create file or folder backup task.		
🔝 Local Host 🔹 🔊		
Host Name: ec2amaz-8vod1bd		
IP Address:		
Logon User: Administrator		
Mounted: No		
Task: None		
0.0 % 🛈 🛞		

2. Select a backup source. The following example shows the entire disk selected for the backup source. Click **[Entire Disk]** and check the checkbox for **[Disk 0]**. When the backup source is selected, click **[Next]**.

Activelmage Protector		- 🗆 X
Operation View Preferences H	lelp	
🔝 ec2amaz-8vod1bd 🔹 🔻		
📮 Dashboard	Volume Backup	
🛋 Backup	1 Source 2 Destination 3 Schedule	4 Summary
Volume Backup	Entire Disk O Volume	
📩 Recovery 🔉	Volume Name File System Volume Size Used Space Associated ■ I ■ Disk 0 L ■ Local Disk (C:) NTFS 30.0 GB 27.3 GB Disk 0	
 In-Cloud Recovery In-Cloud Standby 	🔿 Racie 🧟 Donamie dick 🥽 Volume 🗃 Donamie volume	
Image Manage >	Ø Disk 0 Basic (MBR) 30.0 GB Local Disk (C) 30.0 GB Wirs	
Host Name: ec2amaz-8vod1bd Domain: WORKGROUP IP Address:	Primary	
Task: None 0.0 % (0) (0)		Next > Cancel

 Select a destination folder for the backup image. Supported storage locations include local disks, network shared folder in the cloud, cloud storage (Azure Storage, Amazon S3, Wasabi). The following example shows "Amazon S3" is selected as the destination. Click the [Select Folder] button.

ActiveImage Protector	Help			- 🗆 X
ec2amaz-8vod1bd V	Teih			
📮 Dashboard	Volume Backup			
🛋 Backup	1 Source	2 Destination	3 Schedule	4 Summary
Volume Backup File Backup File Backup Recovery In-Cloud Recovery In-Cloud Standby Image Manage > Icaal Host Host Name: ec2ama2-8yadibd Domain: WORKGROUP IP Address: Un-enabled Kounted: No Task: None	Task Name: Backup, 20221020, 1540 Destination Folder: Comments: Destination Isolation Option Destination Isolation Option Destination Isolation Application Destination Destination Application Destination	ns 📦	Select folder	Options: Advanced Options Advanced Options Compression: Compression Compression Compression Fast Passworld Confirme Compression Compre
Task: None 0.0 % 0 .0 %			< Back	Next > Canc

4. Select "Amazon S3" in [Select Folder] window. Next, enter your credentials to log into Amazon S3. Enter [Access ID:], [Secret Key]: for AWS and select [Region:] and click [Connect].

Select Folder				×
Local Desktop Documents Local Disk (C:)	Access Key Id: Secret Key: Region:	AKIAL TANANA ASia Pacific (Tokyo)	1	•
MS Azure A MS Azure		Specify Provider NIFC Please enter login crede	LOUD (east-2) ntials.	Connect Cancel
	Name	↓ Date Modified ↓	Image File Type	Version
	<			>
Folder: Directory	only	•	Select Folder	Cancel

5. When the connection to Amazon S3 is successfully established, bucket information is shown. The following example shows we are selecting folder "demo-test-ec2" in the bucket "aip-backup-s3" pre-configured in Amazon S3. Click the **[Select Folder]** button.

Select Folder				×
< s3://aip-backup-s3/demo-t	est-ec2/			
🗉 🟠 Local	Name	💂 Date Modifie	d Image File Type	Version
 Desktop Documents Local Disk (C:) Network MS Azure Amazon S3 in-backup-s3 in-backup-s3 im-demo-test-ec2 Wasabi 	5037df65	-b98f-4	Folder	
1				,
Folder:	s3://aip-backup-s3/demo	-test-ec2	Select Folder	Cancel
	Directory only		 Show base image f 	ile

6. Ensure you have selected a folder in Amazon S3 for the [Destination Folder]. Then, click the [Next] button. The Destination Isolation feature, and compression & encryption options are available at the bottom and the right side of the screen. Please refer to section 3-2 Volume Backup: Scheduled Backups of this document for more information.

Activelmage Protector		– 🗆 X
Operation View Preferences H	telp	
🔝 ec2amaz-8vod1bd 🔹		
📮 Dashboard	Volume Backup	
🛋 Backup	1 Source 2 Destination 3 Schedule	4 Summary
Volume Backup File Backup File Backup In-Cloud Recovery In-Cloud Standby In-Cloud Standby Image Manage > Local Hest 0	Task Name Backup, 20221020, 1540 Destination Folder: s3://aip-backup+32/demo-test-ec2 s3://aip-backup+32/demo-test-ec2 Select folder Comments Destination Isolation Options: Destination Isolation Options: Select folder Destination Isolation Options: Select folder Select folder Select folder Select folder Select folder	Options: Advanced Options Compression: Compression Level 2 (Optimized) Change temp file folder @ Sandard Compression Fast Password Password Confirm Password C
Host Name: ec2amaz-8vod1bd Domain: WORKGROUP IP Address Logon User: Administrator RescueBoot: Un-enabled Mounted: No Task: None 0.0 % U •	Select Network Interface - < Back	AES 128 bit

7. Select [Backup Once] for the Task Type and click [OK].

Backup_ Task Type	20221020 <u>-</u> 2022 8 ac	1540 kup Onc	e 🔵 Sche	dule Bac	Effective kup	Date/Time:	2022/10/20	16:05	~ 20	23/10/201	16:05 ~	V No	Specified
Base (* @	Increm	ental 🔞)				× 6
Mc Mc	nthly		•			<u> </u>	We We	ekly	1	• ·			
1	2	3	4	5	6	7	Sun	Mon	Tue	Wed	Thu	Fri	Sat
8	9	10	11	12	13	14							
15	16	17	18	19	20	21	Multi	times					
22	23	24	25	26	27	28	Start 7	lime:	E Snd	1(11c)	Interval:		
29	30	31	EOM				07:00	(A) (4)	200	1	60 IN	Minut	es 💌
Add Ne	w Base						Add Ne	w Increm	ental				
	ackup:						Option:						
Event E													
Event E	lown/Reb	oot B	ase and Inc	rementa	1	•	Autono Rur	n if áláchie Chase bac	düled tas kup if sch	k is missed reduled ba	t. Ise backup	taskhas	been mis

8. Click **[Next]** in this example.

Activelmage Protector				– 🗆 ×
Operation View Preferences H	elp			
🔛 ec2amaz-8vod1bd 🛛 🔻				
📮 Dashboard	Volume Backup			
🛋 Backup	1 Source	2 Destination	3 Schedule	4 Summary
Volume Backup	Task type: Effective From: Base (Full): Incremental:	Backup Once 2022/10/20 16:05		
💒 Recovery 🔹 🔉		Edit Sch	edule 🗂	
 In-Cloud Recovery In-Cloud Standby Image Manage > 	Options: Chalde Retendion Poincy Dir Number of image sets to re Challers the old Send again Task failed	elete both full and incrementals 👻 🙆 tain: er mane before new bace hadron.	Exe Fu	cution Priority
Local Host Contemporation Contemporatio Contemporation Contemporation Contemporation Contempora				
0.0 % Ū®			< Back	Next > <u>Cancel</u>

9. Review the summary for the configured settings and click [Done] to start the backup task.

ec2amaz-8vod1bd 🔹				
Dashboard	Volume Backup			
🛓 Backup	1 Source	2 Destination	3 Schedule	4 Summary
Volume Backup				
Eile Packup	Backup Source:			
гле васкир	Backup Type:	Entire Disk		
🛓 Recovery 🔹 🕨	Backup Source:	0		
	Destination:			
In-Cloud Recovery	Estimated image file size:	20.5 GB		
	Destination Folder:	s3://aip-backup-s3/der	mo-test-ec2	
In-Cloud Standby	Comments:	None		
	Options:			
🔬 Image Manage 👂	Task Name:	Backup_20221020_154	40	
	Compression:	Standard Compression	(Fast)	
Local Host 🖉 🕑	Password:	None		
Host Name: ec2amaz-8vod1bd	Designate a separate image	Disabled		
Domain: WORKGROUP	Ignore bad sectors:	Enabled		
P Address:	Backup disk meta-data:	Enabled		
ogon User: Administrator	Ignore Inaccessible volume(s	: Enabled		
RescueBoot: Un-enabled	Force Component Mode:	No		
Mounted: No	Excluded files:	pagetile, hiber fi, volum	e information	
Tasku Mana				

10. Select [Run Now] and click [OK] to start backup task.

[Post Backup Operation] may be selected to shut down or restart the system upon the completion of backup.

tivelmage Protector	
When do you want start backup?	
Run Now	
O Run manually later	
Post Backup Operation	
None	•
_	
Cancel	OK

11. When a backup task starts, you can monitor the progress in the Dashboard window.

Activelmage Protector								- 🗆 🗙
Operation View Pref	erences Help							
ec2amaz-8vod1bd	🔹 💌 🚫	[Backup_2022	1020_1540] : [8.3%] comple	eted at [2.7 GB/min]. Rer	naining [19 mi	n 58 sec].		
📮 Dashboard	D	ashboard						Dashboard
A Backup	× 💷	System Hea	alth Status				•	
		Current Tas tatus	sk Task	Start Time	Progress (%	6)	*	
Recovery	- <u>(</u>	Running	Backup_20221020_1540	2022/10/20 15:58:00		8.3 %		
In-Cloud Reco	very							
In-Cloud Stand	lby							
	e							
Local Host	1							
Host Name: ec2amaz-8	wod1bd							
Domain: WORKGRC	UP							
P Address:	tor							
RescueBoot: Un-enable	d							
Mounted: No								
Task: Backup_20221020_15	40	🕽 Task log					•	
83%		Schedule					*	
- 3.3 70		Disk Inform	nation				•	-

12. ActiveImage Protector has finished the backup when the progress bar reaches 100%.

						Dashboard
Dashboard	Dashboar	d				Refresh
Packup	🔒 System	Health Status				
васкар	Current	Task			*	
Recovery	Status	Task	Start Time	Progress (%)		
- necovery	😒 Done	Backup_20221020_1540	2022/10/20 15:58:00	100.0 %		
In-Cloud Recov	ion/					
III Cloud Neco	ery					
In Cloud Stand	bu					
In-Cloud Stand	by					
In-Cloud Stand	by					
In-Cloud Stand Image Manage	by >					
In-Cloud Stand Image Manage	by >					
In-Cloud Stand Image Manage	by >					
In-Cloud Stand	by					
D In-Cloud Stand	by >					
In-Cloud Stand Image Manage Local Host ost Name: ec2amaz=8	by >					
In-Cloud Stand Image Manage Ioral Host ost Name: ec2emaz=8 omain: WORKGRO	by >					
In-Cloud Stand Image Manage Iocal Host ost Name: ec2ema:=0 omain: WORKGRO Address:	by >					
In-Cloud Stand Image Manage Iocal Host ost Name: ec2amaz-8 omain: WORKGRO Address: Gon User: Administra He-conclude	by > redlbd yp					
In-Cloud Stand Image Manage Image Manage Cocal Host Ost Name: ec2amaz:8 WORKGRO Address: Administra escueBoot: Un-enable komstah Un-enabl	by > redibb or					
In-Cloud Stand Image Manage Iocal Host Iocal Host Iocal Host Iocal Host WORKGRO Administra escueBoot Un-enable Iocuned: No	by > rodibd or					

3-2. Volume Backup: Scheduled Backups

Please use the following steps to configure regularly scheduled backups.

Start ActiveImage Protector by clicking on the Windows Start menu and selecting [Actiphy] → [ActiveImage Protector].

Once in ActiveImage Protector, click on [Backup] \rightarrow [Volume Backup].

ActiveImage Protector		– 🗆 ×
Operation View Preferences H	leip	
🔛 ec2amaz-8vod1bd 🛛 🔻		
📮 Dashboard	Backup	
🛋 Backup 🛛 🔸		
📩 Recovery 🔹 🕨	Volume Backup Create local disk or volume backup task.	
In-Cloud Recovery		
In-Cloud Standby	File Backup	
🚺 Image Manage >	Create file or folder backup task.	
📓 Local Host 👔 🗊		
Host Name: ec2amaz-8vod1bd Domain: WORKGROUP IP Address: Cogon User: Administrator		
RescueBoot: Un-enabled		
Mounted: No		
Task: None 0.0 % (0) (**********************************		

 Select the backup source from the list of volumes. We will select the entire disk as the backup source in this example. Click [Entire Disk] and then click the checkboxes for [Disk 0]. Once you have selected the backup source(s), click the [Next] button.

Activelmage Protector		- 🗆 X
Operation View Preferences H	Help	
🔛 ec2amaz-8vod1bd 🛛 🔻		
📮 Dashboard	Volume Backup	
📑 Backup	1 Source 2 Destination 3 Schedule 4 Su	mmary
🔹 Volume Backup	Entire Disk O Volume	
📥 Recovery 🔹 🗲	Volume Name File System Volume Size Used Space Associated Image: Space Disk 0 Image: Space Image: Space Disk 0 Image: Space Disk 0 Image: Space Disk 0 Image: Space Disk 0	
In-Cloud Recovery		
In-Cloud Standby	🔜 Basic 🔮 Dynamic disk 🖙 Volume 📟 Dynamic volume	
📓 Image Manage >		
Host Name: ec2amaz-8vod1bd Domain: WORKGROUP IP Address:	- Used 12/20 UB	
Mounted: No	Primary	
Task: None 0.0 % (0) (0)	Net>	Cancel

 Select a destination folder to save the backup image files to. In this example, we have selected the cloud storage "Amazon S3" as the destination. Click [Select Folder] or click on the "▼" icon on the right-hand side of the [Destination folder] text box to select a location to save your backup. Click [Select Folder] when specifying a new destination folder.

Activelmage Protector		- 🗆 X
Operation View Preferences	<u>H</u> elp	
🗽 ec2amaz-8vod1bd 🔹 🔻	the second se	
📮 Dashboard	Volume Backup	
🛋 Backup	1 Source 2 Destination 3 Schedule	4 Summary
Volume Backup File Backup Recovery In-Cloud Recovery	Task Name: Backup_20221020_1616 Destination Folder: @ Comments:	Options: < Advanced Options Compression: Declupication Compression Level 2 (Optimized) Change temp file folder Standard Compression
 In-Cloud Standby Image Manage > Local Host 	Destination Isolation Options: Destination Isolation Options: Destinations Isolation Cost Hard Data attract is skyp completes: Take the assimution Cost Hard Data attract is skyp completes. Jack the assimution USP Hard Data attract is skyp completes. Destination cost Hard Data attract is skyp completes.	Fast
Host Name: ec2amaz-8vod1bd Domain: WORKGROUP IP Address: • • • • • • Logon User: Administrator RescueBoot: Un-enabled Mounted: No	Select Network Interface 👻	AES 128 bit
lask: None 0.0 % (i) (i)	< Back	Next > Cancel

4. Select "Amazon S3" in [Select Folder] window. Next, enter your credentials to log into Amazon S3. Enter [Access ID:], [Secret Key]: for AWS and select [Region:] and click [Connect].

- 🞽 Desktop	Access Key Id:			
— 📸 Documents — 📼 Local Disk (C:)	Secret Key: Region:	Asia Pacific (Tokyo)	•••••	•••
🚱 Network 🔨 MS Azure 🏊 Amazon S3		Specify Provider NIFC	OUD (east-2) ntials.	Connect Cance
— 🚱 Wasabi	Name	Date Modified	Image File Type	Version

 When the connection to Amazon S3 is successfully established, bucket information is shown. The following example shows selecting the folder "demo-test-ec2" in the bucket "aip-backup-s3" pre-configured in Amazon S3. Click the [Select Folder] button.

Select Folder					×
< s3://aip-backup-s3/demo-t	est-ec2/				
Local Documents Local Disk (C:) Metwork Amazon S3 Amazon S3 main -backup-s3	Name	₽ If65-b98f-4	Date Modified	Image File Type Folder	Version
🗠 🚱 Wasabi					
	٢				
Folder	s3://aip-backup-s3/de	mo-test-ec2		Select Folder	Cancel
	Directory only			Show base image file	

6. Ensure you have selected a folder in Amazon S3 for the **[Destination Folder].** Then, click the **[Next]** button. We will review the **[Options]** sections later in this document.

Activelmage Protector		- 🗆 X
Operation View Preferences H	telp	
ec2amaz-8vod1bd 💌		
📮 Dashboard	Volume Backup	
💼 Backup	1 Source 2 Destination 3 Schedule	4 Summary
Volume Backup File Backup File Backup In-Cloud Recovery In-Cloud Standby In-Cloud Standby In-Cloud Standby In-Loud Standby In-Loud Standby In-Loud Standby In-Loud Standby In-Loud Standby Host Name: ec2amaz-8vod1bd	Task Name Backup, 2022/020, 1616 Destination Folder: Syl/aip-backup-s3/demo-test-ec2 Select folder Somment: Destination Isolation Options: Destination Isolation Isolation Options: Destination Isolation Isolation Isolat	Options: Advanced Options Image: Compression: Image: Compression: Image: Compression: Image: Compression: Level 2 (Optimized) Change: temp file folder @ Image: Compression: Image: Compression: Image: Compression: Image: Compression:
Domain: WORKGROUP IP Address: Content Logon User: Administator RescueBoot: Un-enabled Mounted: No Task: None 0.0 % () (*)	< Back	Next > Cancel

- Configure the schedule options. Options include [Weekly], [Monthly], [Designate Specific Days].
 The steps below shows an example of configuring a weekly schedule:
 - Select [Schedule Backup] for the Task Type and configure the Weekly backup schedule settings.
 - Set the Base backup schedule to Weekly.
 - Set the Incremental backup schedule to Weekly.
 - Set the Execute Time of the Base backup to Sundays at 1:00 am.
 - Set the Incremental Backup schedule to Monday to Saturday at 1:00 am.
 - After configuring all options, click the **[OK]** button.

Base 🕑							Incremental					
V We	ekly					×	Veekly	1	▼	17		×
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun Mon	Tue	Wed	Thu	Fri	Sat
							07:00	alvo nlv: 01:0		60 TH	Minut	es 🔻
Add Ne	w Base						One time o	nly: 01:0		60 1	Minut	es •

- 8. The following example shows how to set up a multi-scheduled backup:
 - Click the [Add New Base] link on the Schedule Settings page.
 - Configure the settings for your additional schedule.
 - In addition to a weekly schedule, you can configure monthly backups to regularly occur at the end of the month.

Base (onthly					× or	Increm We	ental 🔞 ekly)	• -			×
1	2	3	4	5	6	7	Sun	Mon	Tuo	Worl	Thu	Fri	Sat
8	9	10	11	12	13	14	Jun	WOIT	ide	weu	inu		Jai
15	16	17	18	19	20	21	Multi	-times					
22	23	24	25	26	27	28	Start	Time:	End T	îme:	Interval:		
29	30	31	EOM				07200	181	21:00	120	100 H	Minut	es 🔻
Execute	Time: 01	:00				×®	0	ne time oi	nly: 01:00				
Execute	Time: 01 eekly Mon	:00 👘	Wed	Thu	Fri	X 🔿	• 0	ne time oi	nly: 01:00				
Execute We Sun Execute Add Ne	Time: 01 eekly Mon Time: 01 w Base	:00 E	Wed	Thu	Fri	Sat	Add Ne	w Increm	ental				

9. You can configure [Enable Retention Policy] and [Send Email] settings on the [Schedule] tab.

The Retention Policy defines how many sets of backup files to retain before deletion. In this example, we've enabled the retention policy by checking the **[Enabling Retention Policy]** checkbox. We've also configured the program to keep the three most recent backups in the destination folder and delete any backups older than those. The default setting for the **[Number of image sets to retain]** field is 3.

NOTE: Each set of ActiveImage Protector backup files consists of one base backup image and any associated incremental backup files.

Activelmage Protector				- 🗆 X
Operation View Preferences	Help			
Dashboard	Volume Backup			
/ Backup	1 Source	2 Destination	3 Schedule	4 Summary
Volume Backup	Task type: Effective From: Base (Full): Incremental:	Schedule Backup 2022/10/20 16:30 Weekly: Sun., 01:00 Weekly: MonFri,,Sat., 01:00		
 In-Cloud Recovery In-Cloud Standby 	Options: Enable Retention Policy D Number of image sets to re 3 * Delete the old	Edit Sch elete both full and incrementals 🔻 🔞 etain: er image before new base backup.	edule 🗖 Ex	ecution Priority @ 'ull (Base): Lowest Low Medium High
Local Host Camace Manage >	E Send email Task failed	•	ŀ	Icovest Low Medium High
Task: None 0.0 % (1) ®			< Back	Next > Cancel

10. After configuring the backup schedule, you should see a summary of your configuration. Please review your backup configuration. If everything looks correct, click the **[Done]** button.

Activelmage Protector				- 🗆 X
Operation View Preferences F	lelp			
🗽 ec2amaz-8vod1bd 🛛 🔻				
📮 Dashboard	Volume Backup			
🛋 Backup	1 Source 2	Destination	3 Schedule	4 Summary
🔺 Volume Backup				
File Backup	Backup Source: Backup Type:	Entire Disk		
💒 Recovery 🔹 🗲	Backup Source:	0		
 In-Cloud Recovery In-Cloud Standby 	Destination: Estimated image file size: Destination Folder: Comments:	20.7 GB s3://aip-backup-s3/der None	no-test-ec2	
🚺 Image Manage >	Coptions: Task Name:	Backup_20221020_161	(6	
🔝 Local Host 🛛 🕴 🗹	Password:	None	(rdst)	
Host Name: ec2amaz-8vod1bd Domain: WORKGROUP IP Address: • • • • • • Logon User: Administrator RescueBoot: Un-enabled Mounted: No	Designate a separate image Ignore bad sectors: Backup disk meta-data: Ignore Inaccessible volume(s): Force Component Mode: Excluded files:	Disabled Enabled Enabled Enabled No pagefile, hiber fi, volume	e information	~
Task: None 0.0 % (1) •		Export	< Back	Done Cancel

11. Next, you'll see a dialog asking if you want to run the initial backup now. If you click the [No] button, the system will take you back to the Dashboard, and your initial backup will run according to your schedule. If you click the [Yes] button, the system will immediately run the initial backup and skip the first scheduled backup.



12. Go to [Dashboard] \rightarrow [Schedule] to modify or monitor your scheduled tasks.

Operation View Preferences Hel colored and the second sec	p Dashboard					
 ec2amaz-8vod1bd Dashboard Backup 	Dashboard					
Dashboard Backup >	Dashboard					
🛋 Backup 💙						Dashboard
васкир 🖌	👃 System Health Stati	JŠ				
	🔲 Current Task					
Recovery >	🕒 Task log					
	🔲 Schedule					
In-Cloud Recovery	Name	Task	Valid From	Last Run Date/Time	Next Run Date/Time	
	Backup_20221020_1616	Agent-based	2022/10/20 16:30:00	N/A	2022/10/21 1:00:00	
🛛 Local Host 🔹 🕅						
Host Name: ec2amaz-8vod1bd						
IP Address:						
Logon User: Administrator						
RescueBoot: Un-enabled						
Mounted: No						
Task: None						
0.0 % 🛈 🕥						

13. Right-click on **[Schedule Name]** to immediately run a full or incremental backup task or edit the schedule settings.

Activelmage Protector		– 🗆 X
Operation View Preferences H	Help	
🔛 ec2amaz-8vod1bd 🛛 🔻		-
📮 Dashboard	Dashboard	Dashboard A
🛋 Backup 🔹 🗲	System Health Status Current Task V	
📩 Recovery 🔹 🗲	Task log T Schedule	
In-Cloud Recovery	Name Task Valid From Last Run Date/Time Next Run Date/Time Barkun 20221020 1615 Agent-barget 2022/10/20 1615 N/A 2022/10/21 100:00	
In-Cloud Standby	Run full backup Run full backup Diable	
📓 Image Manage >	2 Edit X Delete	
Host Name: ec2amaz-8vod1bd		
Domain: WORKGROUP IP Address: "" " Logon User: Administrator		
RescueBoot: Un-enabled Mounted: No		
Task: None 0.0 % 🕕 🖲		
*	Disk Information	»

- 14. When necessary, you can enable the [Options] and [Advanced Settings]. Here are some examples:
 - (1) Options:

• Compression: ActiveImage Protector provides two types of compression: [Standard Compression] and [Deduplication Compression]. The compression ratio differs depending on the type of compression you choose. The [Standard Compression] option will produce a backup image around 70% of the size of the backup source. The [Deduplication Compression] option will produce backup images around 50% of the size of the backup source. When selecting [Deduplication Compression] option, by default [Level 2 (recommended)] is selected and [Change temp file folder] option is enabled.



- (2) Password Protection: Enabling this option protects the backup image file by assigning a unique password. This additional security prevents anyone from mounting, exploring, or restoring the image file without a password.
- (3) Enable Encryption: There are three levels of encryption to choose from: "RCS," "AES128 bit", and "AES256 bit." Encrypting your backups will help protect any backup image files you save to a remote location from cyber attacks.



(4) Advanced Backup Options: The Advanced Backup Options section contains the following settings:

Advanced Backup Options:		
General		۲
Designate a separate image file set per disk	Use network throttle: 0 (Max KB/Second)	
Split image into 0 MB files.	Use network write caching.	
Ignore bad sectors.	Backup timeout: 12 Hours	
Create an MD5 file for image	Return tape to slot after backup completes.	
Clean and overwrite the pool when creating full backup.		
Image Preparation		۲
V Make backup image file P2V ready. 🔞 🔍 Make back	up image Cloud Standby ready. 🔞	

- Make backup image file P2V ready: This option tells ActiveImage Protector to prepare an image file for virtualization later. Please note that this option does not virtualize the file. It only prepares the image so you can virtualize it at a later time, however it includes the installation of the drivers required for virtualization on (VMware ESXi / Microsoft Hyper-V), and modifying registry settings, etc.
- Make backup image Cloud Standby ready: This option prepares the image for booting via In-Cloud Standby by installing required drivers and modifying the registry. Please enable this option when using In-Cloud Standby.

 Scripting: You can write scripts to run before and after ActiveImage Protector creates snapshots or backups. For example, when backing up non-VSS-savvy databases, you need to stop the service before starting the backup task to maintain the integrity of the data. You can specify a script or batch file to stop the database service before ActiveImage Protector takes a snapshot and then start it again once the backup is complete.

Scriptin	g —				- 🔊
	Script to execute before the snapshot is taken:	Time-o	ut	Run on:	
	c:\temp\DB_shutdown.ps1	 30	mins.	Base and Incremental 🔻	
	Script to execute after the snapshot is taken:				
	c:\temp\DB_startup.ps1	 30	mins.	Base and Incremental 🔻	

4. Restore

4-1. File / Folder Recovery

Please use the following steps to restore a specific file or folder from a disk backup image:

1. Start ActiveImage Protector by clicking on the Windows Start menu and navigating to [Actiphy] →

[ActiveImage Protector]. Select the [Recovery] menu. Click on the [File Granular Recovery] button.

Activelmage Protector				-		×
Operation View Preferences	lelp				(
👪 ec2amaz-8vod1bd 🔹						
📮 Dashboard	Recovery					
💒 Backup 🔶						
📥 Recovery			Volume Recovery Recover entire disk or specific volumes along with volume metadata			
Solume Recovery		-	пот васкир.			
In-Cloud Recovery		-	File Granular Recovery Restore file from disk-based or file-based backup image.			
In-Cloud Standby						
📓 Image Manage >						
🔛 Local Host 🛛 🕴 🖪						
Host Names ec2amaz-9vod1bd Donsain: WORKGROUP IP Address: Logen User: Administrator						
RescueBoot: Un-enabled Mounted: No						
Task: None						

- 2. Next, on the [File Granular Recovery] screen:
 - Click on the [▼] icon under [Backup Destination].
 - Select the folder of the backup image file from which you want to restore a file or folder.
 - You can also specify the path to the backup image. In this example, we're entering "S3://aip-backups3/demo-test-ec2" as the instance of Amazon S3 containing our backup image.
 - Press the [Enter] key to set your selection. When you are prompted to enter credential information for accessing AWS, please enter [Access ID:], [Secret Key:], [Region:] and click [Connect].

Activelmage Protector				
Qperation View Preferences H	elp			
Dashboard	File Granular Recovery			
💰 Backup 🔹 🔉	1 Select Recovery Point	2	File Granular Recovery	
Recovery Volume Recovery File Granular Recovery In-Cloud Recovery In-Cloud Standby In-Cloud Standby Local Heat	Beckup Destination Source Computers Surge-backup-s3/demo-test-r Destop Decoments Decal Disk (c) Oncoments Decal Disk (c) Oncoments Surge-backup-s3/demo-test-r Oncoments Decal Disk (c) Oncoments Surge-backup-s3/demo-test-r Oncoments Destop Oncoments Surge-backup-s3/demo-test-r Oncoments Destop Oncoments Surge-backup-s3/demo-test-r Oncoments Destop Oncoments Surge-backup-s3/demo-test-r Oncoments Surge-backup-s3/de		🕚 Recovery Points 🔹	7
Host Name: eccamas should be Domain: WORKGROUP IP Address: • • • Logon User: Administrator RescueBoot: Un-enabled Mounted: No Task: None	Backup Information		1002	Cancel

3. ActiveImage Protector will populate the **[Source Computers]** list with all the images in the directory you specified.

Select the source computer you want to restore a file or folder from in the list. ActiveImage Protector will display information about your selected backup image in the **[Backup Information]** section of the screen.

Click the [Next] button. ActiveImage Protector × Operation View Pref Camaz-Byod1bd File Granular Recovery Dashboard 1 Select Recovery Point Backup > 2 File Granular Recovery Source Computers Backup Destination Recovery Points + Recovery 17 < '/aip-backup-s3/demo-test-ec2 • 🥪 2022/10/17 10:40:26 ecZamaz-8vod1bd e Recovery 2022/10/17 9:40:04 B 🔂 Local File Granular Recovery 2022/10/17 8:40:04 Documents Local Disk (C:) 2022/10/17 7:40:04 In-Cloud Recovery 2022/10/17 6:40:04 Network In-Cloud Standby Watabi ④ 2022/10/17 5:40:04 2022/10/17 4:40:03 Image Manage... > 2022/10/17 3:40:04 A. 2022/10/17 2:40:04 2022/10/17 1:40:04 Host Nat ec2amaz-8vod1bd Backup IP Address STAT. Image File: s3://aip-backup-s3/demo-test-ec2/5037df65-b98f-4491-9a73-7d216b256bee/5037DF65-B98F-4491-9A73-7D21682568FE_6430305F30303030315F6930303033352D3030303335.aii; tem: Microsoft Windows Server 2016 Datacenter Edition (build 14393), 64-bit(64; Source: Disk., Volume C: Deduplication: No mession: fair Password: No Comments: Logon User: Un-enabled Cancel

4. Now, click the checkbox next to each file or folder you want to restore in the [Backed up files] list. ActiveImage Protector will list each item you've selected in the [Recovery Items] section of the page. Once you have selected all the files and folders you want to restore from the [Backup up files] list, you may

choose the following recovery options:

- [Copy ACL] will copy the Access Control List data from the backup image to the recovered file or folder.
- If [Not overwrite existing folder of file] is selected, ActiveImage Protector will safely recover your selected files without overwriting existing files and folders. If you don't choose this option, ActiveImage Protector will overwrite any files or folders on your computer that have the same name as the files and folders you are recovering from your backup image.

operation View Preferences E	lelp			
🗱 ec2amaz-8vod1bd 🔹	No Contra di			
Dashboard	File Granular Recovery			
🔹 Backup 🔹 🔉	1 Select Recovery Point	2 File Gr	anular Recovery	
Recovery	All Backed up files			
Volume Recovery Re Granular Recovery In-Cloud Recovery In-Cloud Standby	A Mounted Active Active Active Active Active Active Active Active	Name Imageformats	 Date Modified 2022/10/07 17:24 2022/10/07 17:40 2022/10/12 11:59 2022/10/12 13:23 2022/10/07 17:24 	File ^ ^ Folder Folder Folder Folder Folder
Local Host Construction Constru	Recovery items: File Path OnProgram Files/Actiphy/ActiveImage Protector/AD-ab OnProgram Files/Actiphy/ActiveImage Protector/Jog OnProgram Files/Actiphy/ActiveImage Protector/Jog OnProgram Files/Actiphy/ActiveImage Protector/Jog	- Recovery Optio	ns: te existing folder or file	
IP Address: Administrator RescueBoot: Un-enabled Mounted: No Task: None	Recovery Te:	Previous	•	···

5. Click the [...] button to specify a destination folder to save your restored items.

ec2amaz-8vod1bd							
Dashboard	File Granular Recovery		_				
🛔 Backup 🔹 🗲	1 Select Recovery Point				2 File G	iranular Recovery	
Recovery	Backed up files						
Volume Recovery File Granular Recovery In-Cloud Recovery In-Cloud Standby	Mounted Perlogs Pogram Files Actiphy Actiphy ActiveVisor ActiveVisor Pigaro CloudRestore	< >	Name	ame imageformats language log logs plugins		 Date Modified 2022/10/07 17:24 2022/10/07 17:40 2022/10/12 11:59 2022/10/12 13:23 2022/10/07 17:24 	File" * Folder Folder Folder Folder
Image Manage >	Recovery Items: File Path O:\Program Files\Actiphy\ActiveImage Protector\AlP.db		•		Recovery Opt	ions:	
Jost Name: ec2amaz-8vod1bd Jomain: WORKGROUP P Address: • • • ogon User: Administrator	0:Program Files/Actiphy/ActiveImage Protector/log 0:Program Files/Actiphy/ActiveImage Protector/logs				Not over	vrite existing folder or file	
RescueBoot: Un-enabled Mounted: No Seck: None	Recovery To:					•	

6. Select the folder and click [Save].

RFE For Folder	×
Please select place where you want to recovery the file(s) then click select button.	
 Documents Local Disk (C:) PerfLogs Program Files Program Files (x86) Users Users Cloud temp Network 	
Folder: C:\temp Make New Folder Save Can	▼ cel

7. Click the **[Done]** button to start the recovery process.

Activelmage Protector					=	
Operation View Preferences H	elp					
Dashboard	File Granular Recovery					
👛 Backup 🔹 🗲	1 Select Recovery Point	1 Select Recovery Point 2 File G			anular Recovery	
Recovery	Backed up files	~	Name		- Date Modified	File * ^
Volume Recovery File Granular Recovery	B- C: B- C: B- C: B- C: C: B- C: C: C: C: C: C: C: C: C: C:	1	Varine Image formats Image formats		2022/10/07 17:24 2022/10/07 17:40 2022/10/07 17:40 2022/10/12 11:59 2022/10/12 13:23 2022/10/07 17:24	Folder
In-Cloud Recovery	Actiphy ActiveImage Protector					Foldei Foldei Foldei
In-Cloud Standby	E CloudRestore	*	、			>
Image Manage	Recovery Items:					
Local Host Contemporation Contemporatio Contemporation Contemporation Contemporation Contempora	Pier vatn 0:/Program Files/Actiphy/Activelmage Protector/AIP.db 20:/Program Files/Actiphy/Activelmage Protector/log 20:/Program Files/Actiphy/Activelmage Protector/logs		Recovery Options: Copy ACL Not overwrite existing folder or file			
RescueBoot: Un-enabled Mounted: No Task: None	Recovery To: 🔚 C-\temp			Instruction	•	

8. ActiveImage Protector will display the restoration progress in the [Current Task] section.

Activelmage Protector							>
Operation <u>V</u> iew <u>P</u> references	<u>H</u> elp						
ec2amaz-8vod1bd	the second second						
Dashboard	Dashboard						Dashboard
Businocura	-						Refresh
🖆 Backup 🔹 🔉	4 System He	alth Status				*	Selected Task
Current Task						A	Pause Task
📑 Recovery 🔹 🕨	Rupping	FILE RESTORE Quick	2022/10/20 17-57-00	Progress (%)	33.7.%		Cancel Task
	- Kunning	THEE_RESTORE_QUICK	2022/10/20 11.5/100		33.1 /6	00	
In-Cloud Recovery							
In-Cloud Standby							
In cloud standby							
Mage Manage 🗸							
Leading A							
lost Name: eczamaz-svod i bd							
Address:							
ogon User: Administrator							
escueBoot: Un-enabled							
Mounted: No							
Task: FILE_RESTORE_Quick	🕒 Task log					*	
	Schedule						

9. Once the progress bar reaches 100%, the recovery task is complete.

Activelmage Protector							– 🗆 X
Operation View Pre	ferences <u>H</u>	<u>l</u> elp					
ec2amaz-8vod1bd	*						
📮 Dashboard		Dashboard					Dashboard .
and Bashan		🔔 System H	lealth Status				Selected Task
васкир		📋 Current T	ask 🛛			*	Dause Task
📩 Recovery	>	Status	Task FILE RESTORE Quick	Start Time 2022/10/20 17:57:00	Progress (%)		Cancel Task
In-Cloud Reco	verv						
In-Cloud Stan	dby						
Mage Manag	e >						
Local Host	1 🖸						
Host Name: ec2amaz-	-8vod1bd						
Domain: WORKGR	OUP						
IP Address:	rator						
RescueBoot: Un-enabl	ed						
Mounted: No							
Task: None		🕒 Task log					
0.0 %		🔲 Schedule	No.			*	
		📕 Disk Info	rmation			•	2

10. The files and folders specified to restore are saved to the specified location.

🗧 🚽 🕈 🕇 📃 🔋 This	PC > Windows (C:)) > temp		O D Sei	arch temp	
This PC	Name	^	Date modified	Туре	Size	
3D Objects	🔲 log		10/12/2022 11:59 AM	File folder		
Desktop	logs		10/12/2022 1:23 PM	File folder		
Documents	AIP.db		10/17/2022 10:40 AM	Data Base File	280 KB	
- Downloads						
h Music						
E Dictures						
Pictures						
Pictures Videos Windows (Ci)						
Pictures Videos Windows (C:) Parfl.ogr						
Pictures Videos Videos Videos PerfLogs PrefLogs						
Pictures Videos Videos Videos PerfLogs Program Files						
Pictures Videos Videos Vindows (C:) PerfLogs Program Files Program Files (x!						
Pictures Videos Videos Windows (C:) PerfLogs Program Files Program Files (xf Recovery						
Pictures Videos Videos Vindows (Cs) PerfLogs Porgram Files Program Files (x6) Recovery Component (x6) Componen						
Pictures Pictures Vindows (C:) PerLogs PerLogs Program Files Program Files (xt) Recovery temp Users						
Videos Videos Videos Videos PerLogs PerLogs Program Files Recovery Exp temp Usidows Usidows Videows						
Fortures Videos Videos Windows (Ci) Perfuga Program Files Program Files Recovery temp Users Users Videos Windows work						
Pictures Pictures Pictures Videos Videos Perfuga Perfuga Perfuga Porgram Files Perfuga Recovery Executery Executery Solutions Solutions Work Windows Executery Providemo						

4-2. In-Cloud Recovery

The In-Cloud Recovery feature restores an entire system from a backup virtual machine configured in an Amazon Web Service (AWS), or Microsoft Azure cloud environment. This feature restores the backup via a temporary instance appliance and does not require the use of cloud management consoles or command line tools.

In-Cloud Recovery enables users to restore a system from a backup to an instance of AWS EC2 by using the following steps.

* In-Cloud Recovery[™] does not support Google Cloud Platform (GCP) and Oracle Cloud Infrastructure (OCI). When restoring a virtual machine, boot environment booted from RescueBoot is used. (Ref. "4-3 System Recovery (RescueBoot))

 Go to Windows Start menu - [Actiphy] → [ActiveImage Protector]. Start ActiveImage Protector. Select [In-cloud Recovery] in the left meu.

Note: In-Cloud Recovery does not run on a target virtual machine.

In-Cloud Recovery must be used on a computer that has access to the cloud environment.

The use of any of the cloud services may incur additional costs and will be billed as defined by your Cloud Service Provider. In addition a temporary appliance called "Actiphy Cloud agent" will be deployed in the respective regions in cloud environment. Data transfer and storage for a volumes created in restore process may also incur additional costs as determined by the cloud provider. To proceed with operation, please click the checkbox to **[Agree to additional cost]** and click **[Next]**.



2. Select the cloud service and enter credential information.

In this example we have selected **[Amazon AWS]** for **[Select Cloud Service]** and entered **[Access Key]** and **[Secret Key]** for AWS. Select **[Region]** and click **[Next]**.



3. Click [...] and specify the instance for the restore target. Please make sure that the instance is not running.

Activelmage Protector				- 🗆 ×
Operation View Preferences Ut	ilities <u>H</u> elp			
🔛 demo_svr01 👻				
📮 Dashboard	In-Cloud Recovery			
📑 Backup 🔹 🕨	1 Connect	2 Target	3 Source	4 Summary
🕎 Standby 🔰	Select Target Instance:			•
Recovery >				^
In-Cloud Recovery	Sele	ect existing Virtu	ual Machine instar	nce
In-Cloud Standby				
📓 Image Manage	Start Instance after restore 🕅 Ka	eep instance even P2V failed		
Local Host	Deatch Current Disks	Delete Current Disks 😧 🔘 Ke	eep Current Disks 🔞	
Host Name: demo_svr01	Replace(detach) previously restor Launch remote appliance:	red Disks 🚱 🔘 Replace(delet	e) previously restored Disks 🕑	
IP Address: Logon User: Administrator RescueBoot: Un-enabled	U Launce Re	mote Appliance	U Shutdowr	n Remote Appliance
Mounted: No	Remote appliance will shutdown after	er 10 minutes of inactivity.		
Task: None 0.0 % (1) (1)			K Back	Next> Cancel

4. Please select the target instance and click **[Select instance]**. In this example we have selected backup source instance "test-ec2".

ease select targ	et instance:			
Name	Instance ID	Public IPs	Private IPs	
test-ec2	i-076f9e865e8e618b3	2220-	Long with	
test-ec2-st	i-01ac4091f7c237dec		C C C C C C C C C C C C C C C C C C C	

5. The information of the target instance is displayed.

Activelmage Protector				- 🗆 X
Operation View Preferences Utili	ties <u>H</u> elp			
🔛 demo_svr01 🔹 💌				
🖵 Dashboard	In-Cloud Recovery			
📑 Backup 🔹 🗲	1 Connect	2 Target	3 Source	4 Summary
🕎 Standby 🔉	Select Target Instance: i-076f9e865e8e618b3(test-ec2)			•
Recovery >	Instance ID: i-076f9e865e8e618b3 Instance State: Running Instance Type: t2.micro	Pt Pt V	ublic IP Address: """""""""""""""""""""""""""""""""""	0800488
In-Cloud Recovery	Platform: windows	Si	ubnet ID: subnet-08831d2	a0b587d8d7
In-Cloud Standby	Volume ID Device name vol-028682bc7754153b5 vol-028682bc77	Volume size(GiB 54153b5 30	i) Attachment status attached	
Image Manage >	Start Instance after restore Keep inst Disk preservation settings Deatch Current Disk Deatch Current Disk Delete Launch remote appliance:	ance even P2V failed Current Disks 🕜 💿 Keep (Is 🚱 💿 Replace(delete) p	Current Disks 😧	
IP Address: = == Logon User: Administrator RescueBoot: Un-enabled Mounted: No.	U Launce Remote A	ppliance	U Shutdown F	lemote Appliance
Task: None 0.0 % (i) *	Remote appliance will shutdown after 10 m	inutes of inactivity.	< Back	Next > Cancel

6. Configure the option settings for the restored disk.

In this example, we have selected [Detach current disk] for [Disk preservation settings]. Then, click [Launch Remote Appliance] to run "Actiphy Cloud Agent (boot environment)". Please wait for a while...

Activelmage Protector				- = ×
Operation View Preferences U	ilities <u>H</u> elp			
🛄 demo_svr01 🔹 🔻				
📮 Dashboard	In-Cloud Recovery			
📑 Backup 👂	1 Connect	2 Target	3 Source	4 Summary
	Select Target Instance:			
🕎 Standby 🔹 🕨	i-076f9e865e8e618b3(test-ec2)			•
Recovery	Instance ID: i-076f9e865e8e618b3 Instance State: Running Instance Type: t2.micro	Pub Priv VPC	Iic IP Address: 52.68.98.246 vate IP Address: 172.31.7.212 ID: vpc-0c0101201	e0800d88
In-Cloud Recovery	Platform: windows	Sub	net ID: subnet-08831d	2a0b587d8d7
In-Cloud Standby	Volume ID Device na vol-028682bc7754153b5 vol-028682b	ne Volume size(GiB) pc7754153b5 30	Attachment status attached	
📓 Image Manage >	Start Instance after restore Keep	instance even P2V failed		19
Local Host	Deatch Current Disks De C Replace(detach) previously restored	ete Current Disks 😰 💿 Keep Cu Disks 😨 💿 Replace(delete) pre	urrent Disks 🕐 eviously restored Disks 🔞	
Host Name: demo_svr01	Launch remote appliance:			
Domain: localhost.demo IP Address: *** Logon User: Administrator RescueBoot: Un-enabled		ite Appliance	U Shutdown	Remote Appliance
Mounted: No	Remote appliance will shutdown after	0 minutes of inactivity.		
Task: None 0.0 % 0 0		[< Back	Next > Cancel

Disk preservation settings:

(1) Detach Current Disks:

Detach the disk connected to the instance and connect the restored disk to the instance. The detached disk is not deleted but remains in storage.

(2) Delete Current Disks:

Detach and delete the disk(s) connected to the instance and attach the restored disk to the instance.

(3) Keep Current Disks:

The disk attached to the instance is not detached and the restored disk is attached as an additional disk.

(4) Replace (Detach) previously restored disks:

Detach previously restored disks and attach the newly restored disk to the instance.

The detached disk is not deleted but remains in storage.

Disks that are not restored when using this option are not detached from the instance.

(5) Replace (Delete) previously restored disks:

Detach and delete previously restored disks on the instance and attach the newly restored disk to the instance. Disks that are not restored when using this option are not detached from the instance.

7. When [Launch Remote Appliance] is grayed out and [Shutdown Remote Appliance] is enabled, "Actiphy Cloud Agent (boot environment)" is running. Click [Next].

Activelmage Protector				>
Operation View Preferences	<u>J</u> tilities <u>H</u> elp			
🔛 demo_svr01				
📮 Dashboard	In-Cloud Recovery			
🛋 Backup 🔰	1 Connect	2 Target	3 Source	4 Summary
🕎 Standby 🔉	Select Target Instance: i-076f9e865e8e618b3(test-ec2)			•
Recovery	Instance ID: i-076f9e865e8e618b3 Instance State: Running Instance Type: t2.micro Platform: windows	Pub Priv VPC Sub	Address:	±0800d88 2a0b587d8d7
 In-Cloud Standby 	Volume ID Device n vol-028682bc7754153b5 vol-02868	ame Volume size(GiB) 2bc7754153b5 30	Attachment status attached	
Image Manage >	Sart Instance after restore Sart Instance after restore Sart Instance after restore Disk preservation settings O Deatch Current Disks Paplace(detach) previously restore Launch remote appliance:	p instance even P2V failed elete Current Disks 🕖 💿 Keep Cu d Disks 😧 💿 Replace(delete) pre	urrent Disks 😨 vriously restored Disks 😨	
IP Address: I Logon User: Administrator RescueBoot: Un-enabled		iote Appliance	Shutdown Remote Ap Started Appliance Inst	ppliance tance ID:i-00a7997fb38faff37
Mounted: No Task: None 0.0 % (1) (1)	Remote appliance will shutdown after	10 minutes of inactivity.	< Back	Next > Cancel

8. Please specify the folder on which the source backup file is located.

In this example we have selected [Amazon S3] for [Backup Destination].

Activelmage Protector				- 🗆 ×
Operation View Preferences Utilit	ties <u>H</u> elp			
🔛 demo_svr01 🔹				
📮 Dashboard	In-Cloud Recovery			
🛋 Backup 🔹 🔰	1 Connect	2 Target	3 Source	4 Summary
🕎 Standby 🔹 🕨	Connected to: Remote Appliance in Ar	nazon EC2,Asia Pacific (Tokyo) ap	o-northeast-1 region using A ers 🗢 🤇	ccess Key:AKIA6GQKERN6ANNJRGNZ
📩 Recovery 🔹 🕨	<			
In-Cloud Recovery	MS Azure			
In-Cloud Standby	J STIP			
🚺 Image Manage >				
Local Host				
Host Name: demo svr01	Target Disk Settings			
Domain: localhost.demo	Disk	Mount Point	Capcacity	Storage Class
IP Address:				
Logon User: Administrator				
RescueBoot: Un-enabled				
Mounted. No				
lask: None			< Back	Next > Cancel

9. Enter [Access Key] and [Secret Key] to access Amazon S3 of AWS. Select [Region] and click [Connect].



10. Please select [Folder] -> [Source Computer] -> [Recovery Point] and click [Next]. You can also configure the settings for [Capacity] and [Storage Class] in [Target Disk Setting].

Activelmage Protector				÷.	
Operation View Preferences Ut	ilities <u>H</u> elp				
🛄 demo_svr01 🔹					
📮 Dashboard	In-Cloud Recovery				
📑 Backup 🔹 🕨	1 Connect	2 Target	3 Sou	rce 4 Summ	ary
🕎 Standby 🔉	Connected to: Remote Appliance in A	mazon EC2,Asia Pacific (Tokyo) a	p-northeast-1 region usir ters 👻	ng Access Key:AKIA6GQKERN6ANNJR Recovery Points +	GNZ
📥 Recovery 🔹 🗲	< ://aip-backup-s3/demo-test-ec	2 👻 🦃 🖳 ec2amaz-8vod11	bd	10/17/2022 10:40:26 AM 10/17/2022 9:40:04 AM	^
In-Cloud Recovery				 10/17/2022 8:40:04 AM 10/17/2022 7:40:04 AM 	
In-Cloud Standby	B- Contest-ec2			 10/17/2022 6:40:04 AM 10/17/2022 5:40:04 AM 	
📓 Image Manage >				 10/17/2022 4:40:03 AM 10/17/2022 3:40:04 AM 	
Virtualization				 10/17/2022 2:40:04 AM 	*
Host Name: demo suf01	Target Disk Settings				
Domain: localhost.demo	Disk Disk	Mount Point	Capcacity	Storage Class	
IP Address:	Disk 0	/dev/xvdg	30	GiB General Purpose SSD(gp2)	-
RescueBoot: Un-enabled					
Mounted: No					
0.0 % (1) ®			< Back	Next >	Cancel

11. Please review the configured settings and click **[Done]** to start the recovery process.

ActiveImage Protector	– 🗆 X
Operation View Preferences Utilities Help	
🔛 demo_svr01 🔹	
Dashboard In-Cloud Recovery	
Backup > 1 Connect	2 Target 3 Source 4 Summary
Service: Standby Access Key: Region:	Amazon AWS AK ap-northeast-1
Source Image: Source	s3://aip-backup-s3/demo-test-ec2/5037df65-b98f-4491-9a73-7d216b256bee/5037DF65-898F-4491-f 192.7 MB ec2amaz-8vod1bd
In-Cloud Standby Selected Disks:	10/17/2022 1:40:00 AM Disk 0
Image Manage > Target Instance: VPCID: Subnet:	i-076f9e855e8e518b3 vpc-0c0101201c0800d88 subnet-08831d2a06587d8d7
Local Host Post P2V Options: Host Name: demo_svr01	Deatch current disks
Domain: Iocalhost.demo Estimated Data Transfer: IP Address: •••••••••••••••••••••••••••••••••••	192.7 MB
Logon User: Administrator Disk Restore Options: RescueBoot: Un-enabled Mounted: No.	Disk 0: 30 GB General Purpose SSD(gp2)
<	>
usk: None 0.0 % (1) ●	Kenter Ke

12. When a recovery task starts, you can monitor the progress in the Dashboard window.

Operation View Preferences demo svr01				
demo svr01	tilities <u>H</u> elp			
Dashboard	Dashboard			Dashboard
	(A) U			w Kerresh
🔒 Backup 🔹 👂	Guter HyperAgent	Selected Task		
	System Health Status			Log Pause Task
🖳 Standby 🔹 🔪	Status Task	Start Time Progre	ss (%)	Cancel Task
	O Running CLOUD_RESTOR	E_Quick 10/21/2022 11:37:00 AM	6.0 %	
In-Cloud Recovery				
In-Cloud Standby				
· in a start of the				
Mage Manage >				
Virtualization	-			
Local Host 🦻				
lost Name: demo_svr01				
Domain: localhost.demo				
P Address:				
Auministrator				
vescaeboot. on enabled				
Mounted: No				
Mounted: No	🕒 Task log		*	
Mounted: No Task: CLOUD_RESTORE_Quick_8523	Task log # Schedule		*	

13. ActiveImage Protector has finished the recovery process when the progress bar reaches 100%.

Activelmage Protector		>
Operation <u>V</u> iew Preferences	<u>U</u> tilities <u>H</u> elp	
🔝 demo_svr01		
📮 Dashboard	Dashboard	Dashboard
	🐵 HyperAgent 🔹	Selected Task
васкир и	🔔 System Health Status 🔹 👻	Do Pause Task
Standby	🔲 Current Task 🔺	Cancel Task
- Starrasy	Status Task Start Time Progress (%)	
Recovery >	🕑 Done CLOUD_RESTORE_Quick 10/21/2022 11:37:00 AM (100.0 %)	-
Image Manage >		
lost Name: demo_svr01		
PAddress:		
ogon User: Administrator		
escueBoot: Un-enabled		
founted: No		
ask: None	Task log	
0.0 %	Schedule 🔹	
	🖌 📕 Disk Information 🗸	20

- 14. Once the recovery is complete, the disk connected to the instance is detached from AWS management console. You can verify the restored disk is connected to the restore target instance.
 - A new disk is created from the backup. The disk name is "<instance name>_disk_YYYYMMDDhhmmss".
 When you verify the restored disk is connected to the target instance is running normally, please delete the detached disk.

Volumes (1/2)						C	;	Actions 🔻	Cre	ate volun	ne		
Q	Search									<	1 >	0	
	Name		Volume ID	Δ.	Size 👳	Created		v	Availability	φ.	Volume	state	ą
	test-ec2-vol1		vol-028682bc7754153b5	5	30 GiB	2022/10/0	06 16:15 GMT+9		ap-northeast-1c		🕝 Availa	able	
•	test-ec2_Disk_20221021113753		vol-066b6372a135bf0b3	;	30 GiB	2022/10/2	21 11:38 GMT+9		ap-northeast-1c		⊘ In-us	e	1

(2) The created disk is connected as the root device of the instance.

Instances (1/1) Into	C Connect	Instance state 🔻	Actions 🔻	Launch instances	
Q Find instance by attribute or tag (case-ser	isitive)			< 1	> @
✓ Name ♥ Instance ID	Instance state 🛛 🕈	Instance type 🐨 Sta	atus check	Availability Zone 🔻	Put
✓ test-ec2 i-076f9e865e8e	618b3 🛛 Stopped 🔍 Q	t2.micro –		ap-northeast-1c	ec2
Instance: i-076f9e865e8e618b3 (te Details Security Networking	est-ec2) =	: Monitoring Tags		۲	×
Root device details	Root device type	EB	S optimization		
 Robice name ∂ /dev/sda1 ▼ Block devices 	EBS	dis	sabled		
All device name	EBS	dis Attachment status Atta	tachment time	Encrypted	

4-3. System Recovery (RescueBoot)

ActiveImage Protector[™] includes RescueBoot, enabling to start up the Actiphy Boot Environment directly from a virtual machine in AWS, Azure, Google Cloud, Oracle Cloud without the use of external device of Actiphy Boot Environment. You can also remotely access boot environment booted from RescueBoot and restore the system of virtual machine in cloud. The following example shows the operating procedures of system recovery for AWS EC2 instance (virtual machine) using RescueBoot.

1. Boot up RescueBoot

Please use the following operating procedures on the restore target virtual machine on which ActiveImage Protector is installed.

(1) Go to Windows Tray icon (at the lower right of the desktop window) and click **[Run RescueBoot]** in ActiveImage Protector 's icon menu.



(2) When RescueBoot boots up, boot environment is built in the internal disk. Please wait until boot environment will be built (2-3 minutes).



(3) When the boot environment is built, you will get the following dialog notifying you that the system is shutting down and boot environment will boot up. At this point, remote connection is disconnected.



2. Accessing boot environment

When boot environment boots up on the restore target virtual machine, access the boot environment from ActiveImage Protector's Remote Management console.

*In this example, the following ports are opened in Security Settings for AWS instance.

- TCP port 48236
- UDP port 48238
- UDP port 48239
- Please use the following operating procedures to launch ActiveImage Protector's console window. Click [Actiphy] – [ActiveImage Protector] in Windows Start menu.
- (2) First, in order to launch ActiveImage Protector's Remote Management console, go to [Preference] -[Console Window Settings] and check in the checkbox for [Enable Network Client Management Console] and click [Apply] button. Click [OK] and the system will take you back to the Dashboard.



(3) Click [Management Console] located in the upper left of the window.

Before using the Remote Management feature, you need to add any clients you wish to manage to the list of Managed Computers.

eration <u>V</u> iew <u>P</u> references <u>U</u> ti	lities <u>H</u> elp		
Management Console 🔻			Dashboard
💂 demo_svr01 (Local)			Refresh
Managed Computers Total: 0	<u>Connect All</u>		
Add New Computers	Clear all	Volume Size Used Space Associated 0.0 MB 347.2 MB Disk 0 0.0 MB Disk 0 J 4 GB 32.0 GB Disk 0	
Image Manag >	🚔 Basic 🔮 Dynamic disk 🖙 Volume	💷 Dynamic volume	
st Name: demo_sv/01 main: WORKGROUP Vddress: 10.123.1.105 on User: Administrator scueBoot: Un-enabled unted: No	Disk 0 Basic (GPT) 50.0 GB # Used : 32.4 GB	Loval Dirk (j) 100/0 MB EFI 40.4 GB NTFS	

Click [Add New Computers].

(4) You need to select restore target virtual machine on which boot environment is booted. Enter [Public IP Address] of the instance, Administrator's [User Name] and [Password] and click [Connect Test] in [Add New Remote Host] dialog. When the connection test succeeds, [Host Name], [IP address] and [Installed Product] (Actiphy Boot Environment) are displayed.

anage Remote Hosts			
Add New Romote Host			
52.68.139.254			
Administrator	•••••	Connection Test	
Operating System: Windows Installed Product: ActiveImag	234 10 Ultimate Edition (build 20348), 64-bit ge Protector; Boot Environment(Windows PE); 7.0.3,	List	
Target Computers Auto	main IR Address Operating System	✓ All Edition Version	License Expiration

(5) Click **[Add to list]** and the remote host is added to the list of **[Target Computers]**. Click **[Add]** and the target emote host is added to the list of Managed Computers.

inage Protector			
on <u>V</u> iew <u>P</u> references <u>U</u> tilities <u>H</u> e	P		
anagement console			
Manage Remote Host Add New Romote Host S2.68.139.254 Administrator Computer Name: ec2-52-68-139-254 IP Address: 52.68.139.254 Operating System: Windows 10 Ulti Installed Product: ActiveImage Prote	4.ap-northeast-1.compute.amazonaws.com mate Edition (build 20348), 64-bit ector; Boot Environment(Windows PE); 7.0.3.8909	Connection Test Add to List	
Target Computers Auto Search	Protector Installed All	✓ All ✓	Barran Bartakan
1 Computer + Doma	52.68.120.254 Windows 10 Ultimate	Edition Version	License Expiration
Total Computers: 1			

(6) The remote host is added as a managed computer.

Activelmage Protector						- 🗆 ×
Operation View Preferences Utilities H	<u>t</u> elp					
🖵 Management Console 💌		-				Dathbased
demo_svr01 (Local)	<i>₽ ₹</i>					Dashboard
👮 Managed Computers Total: 1	Connect All					w Kenesii
EC2-52-68-139-254.AP Disconnect	ted 🕨 💉					
		i.				
						j l
					7	
					*	
		Volume Size	Used Space	Associated		
Add New Computers	Clear all	0.0 MB	347.2 MB	Disk 0 Disk 0		
		.4 GB	32.0 GB	Disk 0		
🚺 Image Manag >						-
Local Host A 🖸 🛁 Ba	asic 🔮 Dynamic disk 📼 Volume	🚥 Dynamic vo	lume			
Host Name: demo_svr01 Dis	sk 0					
IP Address: 10.123.1.105 50	SIC (GP1) .0 GB 回復 () .450.0 ME NTFS	Local Dis 100.0 Mi	ik (:) Local SEFI 49.4 C	Disk (C) 58 NTFS		
Logon User: Administrator	EU : 52.4 GB					
RescueBoot: Un-enabled Mounted: No						
Task: None						
0.0%						
« Prin	hary					

(7) Select and right-click on a host in the host list. The following context menu is displayed. Click the Connecter mark.

Al Activelmage Protector			- 🗆 X
Operation View Preferences Utilities Help			
🛱 Management Console 💌			
🕎 demo_svr01 (Local)	<i>₽ ₽</i>		Dashboard
Managed Computers Total; 1	Connect All		
👍 Add New Computers	Clear all	Alume Size Used Space Associated 40.0 MB 347.2 MB Disk 0 00.0 MB Disk 0 34.6 B 32.0 GB Disk 0	
🛐 Image Manag >			_
Host Name: demo_sv01 Domain: WORKGROUP IP Address: 10.123.1.105 Logon User: Administrator RescueBoot: Un-enabled Mounted: Ne Task: None 0.0 %) (Biff e) (Biff e) (Bi	Local Disk (C) Local Disk (C) 100.0 MS EFI 45.4 GB NTPS	
« Primary			»

(8) Select a host in the host list and click **[Remote]** in the right-click menu. The connection from Management Console window to the boot environment is established.

Activelmage Protector				- 🗆 ×
Operation View Preferen	nces Utilities Help			
😰 Management Console	*			
🖳 demo_svr01 (Local)		₽ ₽		Dashboard
Managed Computers Total	1	Connect All		 Refresh
EC2-52-68-139-254.AP				
	Cancel Task			
	Pause Task			
	Pamata		-	
	Run Command Line			
	Disconnect			
	Connect		Volume Size Used Space Associated	
	× Remove		i0.0 MB 347.2 MB Disk 0	
Add New Computers	Refresh	Clear all	0.0 MB Disk 0 14 GB 32.0 GB Disk 0	
St. Includes and	🛞 Reboot			
Mage Manag	Shutdown		Construction from the second se	-
Local Host	Basic 🛎 Dyn	iamic disk 🗔 Volume	Dynamic volume	
Host Name: demo_svr01	Disk 0			
Domain: WORKGROUP	Basic (GPT) 50.0 GB	回復的	Local Disk () Local Disk (C)	
IP Address: 10.123.1.105	* Used : 32.4 GB	450.0 MB NTFS	100.0 MB EFI 49.4 GB NTFS	
RescueBoot: Un-enabled				
Mounted: No				
Taska Mana				
lask: None				
0.0 %				

(9) When the connection is successfully established, the status bar is green.

*When disconnecting the access to remote host, double-click the local host name.

Ai Activelmage Protector		- 🗆 X
Operation View Utilities He	lp Language	
🚆 Management Console 🔻 🔻		and the second second
📮 Dashboard	Dashboard	Dashboard Refresh
🛋 Backup 🔹 🗲		
📩 Recovery 🔹 🗲	Current Task	
📑 Utilities 🔹 🗲	■ lask log	
	Disk Information	*
	Contraction of the space	=
Remote Host 🛛 🐔 [👌 🚘 Basic 🔮 Dynamic disk 🖙 Volume 🖙 Dynamic volume	
Host Name: ec2amaz-e11evei Domain: IP Address: 172.31.35.79 Logon User: SYSTEM	Disk 0 Basic (MBR) Local Disk (Ci) 30.0 GB 30.0 GB 30.0 GB NTFS	
Task: None 0.0 % 🕕 🖲		
	Primary	

3. System Recovery

The following is an explanation of performing a restore operation from remote Management Console while accessing the boot environment on the remote host.

(1) Select [Recovery] – [Volume Recovery].



(2) Select the backup destination for the virtual machine to restore.

In this example [Amazon S3] is selected for [Backup Destination].

Activelmage Protector			
Operation View Utilities Help	Language		
👷 Management Console 🔻	E Ready		
📮 Dashboard	Volume Recovery		
💒 Backup 🛛 🗲	1 Select Recovery Point	2 Restore Settings	3 Summary
🛃 Recovery	Backup Image Location	Source Computers 🔹	Revovery Points -
Volume Recovery	< • • •		
Utilities			
Host Name: ec2amaz-e11evei Domain:			
IP Address: 172.31.35.79 Logon User: SYSTEM Task: None	🕎 Backup Image Location		
0.0 % 🕕 🖲			Next > Cancel

(3) Enter AWS [Access Key ID] and [Secret Key] for Amazon S3. Select [Region] and click [Connect]. Or click [▼] to the right of the text box for [Access Key ID]. The destinations previously selected in the backup processes and backup tasks are listed. You can select one from the list.

A	Al Activelmage Protector X						
	Access Key Id: Secret Key:				-		
	Region:	Asia Pacific (Tokyo)	1		•		
		Specify Provider	NIFCLOUD (east-2)		•		
	Please enter	login credentials.		Connect	Cancel		

(4) Select [Folder] – [Computer] – [Recovery Point] and click [Next].



(5) Right-click on the left part of disk map in [Source Objects]. From the context menu select [Disk 0 – Basic (MBR)] for [Target]. The details are displayed in [Target Settings]. Click [Next].

ActiveImage Protector			- 🗆 X
Operation View Utilities Help	Language		
🛃 Management Console 🔻	🕑 Ready		
📮 Dashboard	Volume Recovery		
💒 Backup 🛛 🗲	1 Select Recovery Point	2 Restore Settings	3 Summary
📩 Recovery	Source Objects: How to Select		
Solume Recovery	Disk 0		
🖻 Utilities 🔸	Basic (MBR) Target Disk 0 - Basic (MBR) Target Setting: How to Configure	🕥 🔄 Ignore checksum error during restore 🚍	Post Restore Operation Reboot system
Remote Host Image: Constraint of the sector of the secto	Disk 0 Besic (MBR) 300 GB & Used : 19.6 GB		
0.0% 0 .		< Back	Next > Cancel

(6) Please review the configured settings in the [Summary] window. Click [Done].

Activelmage Protector	- 🗆 X
Operation View Utilities Help	Language
🚆 Management Console 🔻	D Ready
📮 Dashboard	Volume Recovery
💒 Backup 🛛 🗲	1 Select Recovery Point 2 Restore Settings 3 Summary
Recovery	After Restoration:
Nolume Recovery	Dick 0
📑 Utilities 🔹 🕨	Basic (MBR) 30.0 GB ★ Used : 18.6 GB 30.0 GB (MTS Boos
	Details
🔥 Remote Host 🛛 👂 💌	Source: s3://demo-s3-backup/21878cec-134d-4ded-b15c-4c26ebe4090c_EC2AMAZ-E11EVEI/21878CEC-134D-4DED-B15C-4C26EBE4090C_6430305 Auto fit volume size: No Boot settings MBR: Restore MBR
Host Name: ec2amaz-e11evei	First Track: Restore First Track
Domain: IP Address: 172 31 35 70	Disk Signature: Use target Disk Signature
Logon User: SYSTEM	
	Post Restore Operation: No
Task: None	(
0.0 % 🛈 🖲	
	< Back Done Cancel

(7) When the recovery task starts, the progress is displayed.

A ctivelmage Protector							– 🗆 X
Operation View Utilities	<u>H</u> elp	Language					
📑 Management Console	•	🜔 Ready					
📮 Dashboard		Dashboard					Dashboard A
Backup	5	Current Tas	sk			*	Selected Task
Duckup		Status	Task	Start Time	Progress (%)		Dause Task
📥 Recovery	>	Running	Restore	2024/02/07 15:19:00	9.8 %		Cancel Task
Utilities	>						
		Task log Event	Results	Start Date/Time	End Date/Time	*	
🚯 Remote Host	* 🗹						
Host Name: ec2amaz-e11er Domain: IP Address: 172.31.35.79 Logon User: SYSTEM	vei						
Task: Restore Image	•						
	**	📕 Disk Inform	nation			*	»

(8) When the Progress reaches "100%", the recovery task for cloud virtual machine has completed.

Activelmage Protector							
Operation View Utiliti	es Help	Language					
🛃 Management Console	• •	Success: [Rest	tore]. Process Time [11 mir				
Dashboard		Dashboard				Dashbo	ard
- Dushbourd	_					Re Re	fresh:
📑 Backup	>	📋 Current Ta	sk			Selecte	d Task
	_	Status	Task	Start Time	Progress (%)	Lig Pa	use Task
📩 Recovery	>	S Done	Restore	2024/02/07 15:19:00	100.0 %		ancel Task
- I tablet							
Oundes	-						
		🕒 Task log		and the second		A	
		Event	Results	Start Date/Time	End Date/Time		
Barrata Hart	4 0	Restore Disk	Success	2024/02/07 15:19:26	2024/02/07 15:30:49		
Kemote Host	r 🖸						
Host Name: ec2amaz-ei	1evei						
IP Address: 172.31.35.76							
Logon User: SYSTEM							
Task: None							
0.0.%							
V-V /2	(II) (B)						
0.0 78							

(9) Click on [Operation] - [End] to shut down or reboot the machine.

ActiveImage Protector						- 🗆 X
Operation View Utilities Hel	o Language					
🔹 Backup 🕨 <mark>it Console 🔻</mark>	🕑 Ready					
A Recovery	Dashboard					Dashboard 🔺
Exit 🕨 Shutdown	Businsoura					Refresh
Reboot	Current Ta	sk			*	Selected Task
са васкир	Status	Task	Start Time	Progress (%)		Dause Task
📩 Recovery 🔹 🗲	🤣 Done	Restore	2024/02/07 15:19:00	100.0 %		Cancel Task
Utilities >						
	Task log Event	Results	Start Date/Time	End Date/Time	*	
🔥 Remote Host 🛛 🖈 🔽	Restore Disk	Success	2024/02/07 15:19:26	2024/02/07 15:30:49		
Host Name: ec2amaz-e11evei Domain: IP Address: 172.31.35.79 Logon User: SYSTEM Task: None 0.0 % (i) (ii)						
	Dick Jafor	mation			-	
	Disk Inton	nauwn				»

(10) Please access the restored virtual machine and make sure recovery process successfully completed.



5. In-Cloud Standby

In-Cloud Standby feature creates snapshots on a predetermined schedule for machine instances that exist on Amazon Web Service (AWS) or Microsoft Azure. If an emergency arises, the snapshot is available in the cloud for booting and instance to a specific point in time.

The following explains how to use this feature in a system recovery scenario including how to create a backup snapshots from an instance of AWS EC2, create a volume from a snapshot by using AWS management console, attach the volume to a newly created instance.

5-1. Create a snapshot from a backup file

Note: To create snapshots using the In-Cloud Standby feature, the backup image files from which the snapshots are created require that the option **[Make backup image Cloud Standby ready]** is enabled. Please refer to section **3-2 Volume Backup: Scheduled Backups** of this document for more information.

Start ActiveImage Protector. Go to Windows Start menu - [Actiphy] → [ActiveImage Protector].
 Select [In-Cloud Standby] in the left meu.

Note: The use of any of the cloud services may incur additional costs and will be billed as defined by your Cloud Service Provider. In addition a temporary appliance called "Actiphy Cloud agent" will be deployed in the respective regions in cloud environment. Data transfer and storage for a volumes created in restore process may also incur additional costs as determined by the cloud provider. To proceed with operation, please click the checkbox to **[Agree to additional cost]** and click **[Next]**.



2. Select the cloud service and enter credential information.

In this example we have selected [Amazon AWS] for [Select Cloud Service] and entered [Access Key] and [Secret Key] for AWS. Select [Region] and click [Next].



3. Click [...] and specify an existing instance as the restore target. Please make sure that the instance is not running.



In-Cloud Standby

4. Select the instance. In this example, we selected "test-ec2" for the backup source instance. Click [Select].

omputer Object	Browser				
lease select tar	get instance:				
Name	Instance ID	Public IPs	Private IPs		
test-ec2	i-076f9e865e8e618b3	4-64	Ind I was		
					_
				Columbus and	Cancal
				select instance	Cancel

5. The information of the instance is displayed. Click [Launch Remote Appliance] to boot [Actiphy Cloud agent (boot environment)].

					- 0	
Operation View Preferences Util	ities <u>H</u> elp					
💀 Management Console 🔹 🔹						
📮 Dashboard	In-Cloud Standby					
🖆 Backup 🔹 🕨	1 Connect	2 Target	3 Source	4 Schedule	5 Summary	
and the second second	Select Target Instance:					
Standby	i-076f9e865e8e618b3(test-	ec2)			• [
Recovery	Instance ID: i-076/9265262618b3 Public IP Address: Pressing Private IP Address: Pressing Private IP Address: Private IP Addres					
In-cloud Necovery	Volume ID	Device name	Volume size(GiB)	Attachment status	30/000/	
In-Cloud Standby	vol-028682bc7754153b5	vol-028682bc7754153b5	30	attached		
a inage wanage >						
Local Host						
Host Name: demo_svr01 Domain: localhost.demo	Launch remote appliance:					
Local Host Temp Temp Temp Temp Temp Temp Temp Temp	Launch remote appliance:	Launce Remote Appliance		U Shutdown Remot	e Appliance	

47

6. When [Launch Remote Appliance] is grayed out and [Shutdown Remote Appliance] is enabled, "Actiphy Cloud Agent (boot environment)" is running. Click [Next].

Activelmage Protector	100 M 100				- 🗆 ×
Operation View Preferences	<u>U</u> tilities <u>H</u> elp				
🛃 Management Console					
Dashboard	In-Cloud Standby				
🛃 Backup 🔰	1 Connect	2 Target	3 Source	4 Schedule	5 Summary
🕎 Standby 👂	Select Target Instance: i-076f9e865e8e618b3(test-	ec2)			•
Recovery In-Cloud Recovery	Instance ID: i+076f9el Instance State: Running Instance Type: t2.micro Platform: windows	365e8e618b3	Public I Private VPC ID: Subnet	P Address: 52.68.98.246 IP Address: 172.31.7.212 : vpc-0c0101201e0800 ID: subnet-08831d2a0b3	id88 187d8d7
In-Cloud Standby	Volume ID vol-028682bc7754153b5	Device name vol-028682bc7754153b5	Volume size(GiB)	Attachment status	
Mintualization					
Host Name: demo_svr01	Launch remote appliance:				
IP Address: Administrator RescueBoot: Un-enabled	Ċ	Launce Remote Appliance		Shutdown Remote Appliance Started Appliance Instance ID	ti-0789a8834acfc87a1
Mounted: No Task: None 0.0 % (0) (=	Remote appliance will she	itdown after 10 minutes of in	nactivity.	< Back Nex	E> Cancel

7. Please specify the location of the backup files.

In this example we have selected [Amazon S3] for [Backup Destination].

When you are prompted to enter the credential information for Amazon S3, please enter [Access Key] and [Secret Key] to access AWS. Select [Region] and click [Connect].

Activelmage Protector					- 🗆 ×
<u>Operation View Preferences Ut</u>	ilities <u>H</u> elp				
Management Console 🔹					
📮 Dashboard	In-Cloud Standby				
🛋 Backup 🔹 🗲	1 Connect	2 Target	3 Source	4 Schedule	5 Summary
🕎 Standby 🔉 🕨	Connected to: Remote Appliance	e in Amazon EC2,Asia Pacific	(Tokyo) ap-northeast-1 regi Computers 👻	on using Access Key:AKIA6G	QKERN6ANNJRGNZ
📩 Recovery 🔹 🕨	<				
In-Cloud Recovery	🔥 MS Azure in Amazon S3				
In-Cloud Standby	SFIP				
🚺 Image Manage 🕻					
Local Host					
Hort Name: dama proli	Target Disk Settings				
Domain: localhost.demo	Disk	Mount Point	Capcacity	Storage Class	
IP Address: 🚽 🛄 🕻					
Logon User: Administrator					
RescueBoot: Un-enabled					
Mounted: No					
Task: None	000000000000000000000000000000000000000				
0.0 % 🕕 🖲			< Back	Next	> <u>Cancel</u>

In-Cloud Standby

8. Please select [Folder] -> [Source Computer] -> [Recovery Point] (base backup) and click [Next].

Activelmage Protector							- 0	×
Operation View Preferences U	tilities <u>H</u> elp							
🕂 Management Console 🔹								
📮 Dashboard	In-Clou	ıd Standby						
🛋 Backup 🔸	1	Connect	2 Target	3 Source	4 s	chedule	5 Summar	У.,
🕎 Standby 🔉	Connecter Back	d to: Remote Applia up Destination	nce in Amazon EC2,Asia Pacif	ic (Tokyo) ap-northeast-1 re ce Computers 👻	gion using Ac	cess Key:AKIA6GQKERM	i6ANNJRGNZ ▼	
📩 Recovery 🔹 🕨	< ://a	ip-backup-s3/demo	-test-ec2 👻 🦃 🖳 ec2a	maz-8vod1bd		9 10/15/2022 11:57:47	PM	
In-Cloud Recovery In-Cloud Standby		Ietwork (In-Cloud) AS Azure Amazon S3 aip-backup-s3 million demo-test-e FTP	-2					
Image Manage >	- Target Die	k Sattings						
Host Name: demo_svr01		Disk	Mount Point	Capcacity		Storage Class		_
Domain: localhost.demo IP Address: Image: Control of the second		Disk 0	/dev/xvdg	30	GiB	General Purpose SSE	(gp2)	
Task: None 0.0 % (i) (ii)	x			< Bac	*	Next >	Car	ncel

- Please select the schedule type. Options include [Weekly], [Monthly], [Designate Specific Days].
 The steps below shows an example of configuring a weekly schedule:
 - Under [Schedule In-Cloud Standby], use the drop-down menu to select the schedule type for the designated interval for creating snapshots.
 - Set the snapshot schedule to [Weekly].
 - Specify the daily interval of snapshots created by clicking specific days of the week.
 - Set the execute time interval for [One Time Only] at 2:00am.

Virtual snapshots are created on the instance based on the In-Cloud Standby Schedule when a new full or incremental backup file(s) is detected. If multiple new backup files are detected at the time of the scheduled task, then snapshots are created for each file. If there are no new backup or incremental files available, the scheduled task is skipped.

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Operation View Preferences	<u>U</u> tilities <u>H</u> elp
📲 Management Console	
📮 Dashboard	In-Cloud Standby
💒 Backup 🔹 👌	1 Connect 2 Target 3 Source 4 Schedule 5 Summary
🕎 Standby 🔉	Schedule In-Cloud Standby In-Cloud Standby Options:
	Weekly Veekly Create new snapshot sets on New Backup Generation. Create new snapshot sets on New Backup Generation.
🚵 Recovery 🔹 🕨	Sun Mon Tue Wed Thu Fri Sat Grable Retention Policy
In-Cloud Recovery	Multi-times Number of snapshot sets to retain: 3 (2) Sant Time Interval:
In-Cloud Standby	
🛐 Image Manage >	
Local Host	
Host Name: demo_svr01	
IP Address:	
Logon User: Administrator	
RescueBoot: Un-enabled	
Mounted: No	Add New Schedule
Task: None	
0.0 %	< Back Next > Cancel
	«

10. The following example explains the configuration settings for the Retention Policy.

(1) Create a snapshot set for a designated number of snapshots taken:

When enabled, a new virtual snapshot set is created every time the designated number of snapshots have reached that designated threshold.

(2) Enable Retention Policy

Specify the number of snapshot sets to retain. This example shows by default that the last three snapshot sets are retained in the cloud.

Note: When a fourth snapshot set is created, then the oldest set is deleted.

Once configured, click [Next].

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🛒 Management Console 🛛 🔻	
📮 Dashboard	In-Cloud Standby
🛋 Backup 🔹 🗲	1 Connect 2 Target 3 Source 4 Schedule 5 Summary
🕎 Standby 🔉 🕨	Schedule In-Cloud Standby In-Cloud Standby Options:
📥 Recovery 🔹 🕨	Sun Mon Tue Wed Thu Fri Sat
In-Cloud Recovery	Multi-times Start Time Interval:
In-Cloud Standby	
🚺 Image Manage 🔰	
Virtualization V	
Host Name: demo_svr01 Domain: localhost.demo	
IP Address:	
RescueBoot: Un-enabled	
Mounted: No	Add New Schedule
Task: None 0.0 % (1) •	< Back Net> Cancel
«	

11. Confirm the settings in the Summary window. If satisfied with the configuration, click [Done].

In-Cloud Standby In-Cloud Standby In-Cloud Standby In-Cloud Recovery In-Cloud Standby In-Cloud Standby In-Cloud Recovery In-Cloud Standby In-Cloud Standby In-Cloud Standby In-Cloud Recovery Source Image Size In-Cloud Standby	Management Console *			
1 Connect 2 Target 3 Source 4 Schedule 5 Summing Image Standby > Service: Amazon AWS Access Key: AKey Akey <td< th=""><th>📮 Dashboard</th><th>In-Cloud Standby</th><th></th><th></th></td<>	📮 Dashboard	In-Cloud Standby		
Service: Amazon AWS Service: Amazon AWS Access Key: AVG Recovery Avg In-Cloud Recovery Source Image Size: 1n-Cloud Standby Source Compute: Image Manage> Selected Disk: Uritualization Image Instruction Viritualization Image Instruction Image Manage> ProfesseefetBa3 Viritualization Viritualization Image Instruction Image Instruction Incoll Host Image Science Instruction Indext Name: demosprofil Instruction Image Instruction Incoll Host Image Nanage> Avg Instruction Image Instruction Incoll Host Image Nanage Incoll Host Image Instruction Incol Host Image Instructin	💒 Backup 📏	1 Connect 2 Tar	jet 3 Source 4 So	hedule 5 Summary
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Region: ap-northeast-1 Source Image sb//aip-backup-s3/demo-test-ec2/5037d/65-b98t-4491-9a73-7d216b256bee/5037DF55- B98+-A91-9473-7D216b256bee/c403005F3000003015F693000030302D30000000.aiv In-Cloud Standby 16 GB Source Image c2/maip-backup-s3/demo-test-ec2/5037d/65-b98t-4491-9a73-7d216b256bee/5037DF55- B98+-A91-9473-7D216b256bee/c403005F3000003015F693000030302D30000000.aiv In-Cloud Standby 16 GB Source Image Size c2/maip-backup-s3/demo-test-ec2/5037d/65-b98t-4491-9a73-7d216b256bee/5037DF55- B98+-A91-9473-7D216b256bee/5037000003015F693000000000000000000000000000000000000	Standby	Access Key:	AKI	
Source Image Source Image Source Image Source Image Source Image Source Image Source Image Source Image Source Image 1.6 GB Source Compute 10/15/2022 257:00 PM Selected Disks Disk 0 Target Instance -0/076/966564618b3 VPC ID: Vpc-00/101201e8000488 Submet: submet-00831d2a0b57030407 Host Name: demo_sw01 Estimated Data Transfer: 1.6 GB Disk Options: Disk 0: 30 GB gp2		Region:	ap-northeast-1	
In-Cloud Recovery Source Image Size 1.6 GB Source Computer ec2mar2-8vod1bd Source Computer ec2mar2-8vod1bd In-Cloud Standby Recovery Point Image Manage> Target Instance 1-07694e865e818b.3 VPC ID: Vpc-Oc0101201e0800d88 subnet-08831d2a0587d8d7 Host Name: demo_sv01 Estimated Data Transfer 1.6 GB Domain: localHost Disk Options: Disk 0:30 GB gp2	Recovery >	Source Image:	s3://aip-backup-s3/demo-test-ec2/5037df65-b98f-44 B98F-4491-9A73-7D216B256BEE_6430305F3030303031	491-9a73-7d216b256bee/5037DF65- 15F6930303030302D3030303030.aiv
Source Compute: ec2mar-8vod1bd Recovery Point: 10/15/2022 257:00 PM Selected Disk: Dirk/02022 257:00 PM Selected Dirk: Dirk/02022 257:00 PM Selected Dirk: Dirk/0202 257:00 PM Selected Dirk: Dirk/	In-Cloud Recovery	Source Image Size:	1.6 GB	
In-Cloud Standby Recovery Points 10/15/2022 2:57:00 PM Selected Disks Disk 0 In-age Manage> Target Instance: i-07679e855e8e518b3 VPC ID: vpc-0c0101201e0800d88 Subnet: subnet-08831d2a0b587d8d7 Host Name: demo_sw01 Estimated Data Transfer: 1.6 GB Domain: localhost demo IP Address: Administrator	and a second	Source Computer:	ec2amaz-8vod1bd	
Selected Disk: Disk 0 Image Manage> Target Instance -07679e865e8618b3 Victure Iteration VPC ID: vpc-0c0101201e0800488 Uccal Heat ethnet: 06831d2a05567d8d7 Host Name: demo_sw01 Estimated Data Transfer: 1.6 GB Domain: localhottdamo Disk 0ptions: Disk 0; 30 G8 gp2 Lagon User: Administrator Disk 0; 30 G8 gp2	In-Cloud Standby	Recovery Point:	10/15/2022 2:57:00 PM	
Image Manage> Target Instance: i-07679e656826518b3 VPC ID: Vpc-0c0101201e0800d88 Subnet: subnet-06831d2a0550768d7 Host Name: demo_sw01 Estimated Data Transfer: 1.6 G8 Domain: local/host Disk Options: Disk 0:30 G8 gp2 Logon User: Administrator Disk 0:30 G8 gp2		Selected Disks:	Disk 0	
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Local Hest Sublet Suble	Virtualization	VPC ID: Subacti	vpc-ucu101201e0800d88	
Host Name: demo_sw01 Estimated Data Transfer: 1.6 GB Domain: localhost demo Disk Options: Disk 0: 30 GB gp2 IP Address: Image: Transfer: Disk 0: 30 GB gp2	🖉 Local Host 🧳 💽	Subriet.	subilet-00031028003070007	
Domain: localhost.demo IP Address: Image: The state of the state	Host Name: demo svr01	Estimated Data Transfer:	1.6 GB	
IP Address: Disk 0: 20 GB gp2 Logon User: Administrator	Domain: localhost.demo			
Logon User: Administrator	IP Address:	Disk Options:	Disk 0: 30 GB gp2	
	Logon User: Administrator			
RescueBoot: Un-enabled Schedule: Weekly: MonFri,Sat,Sun, 02:00	RescueBoot: Un-enabled	Schedule:	Weekly: MonFri.,Sat.,Sun., 02:00	
Mounted: No In-Cloud Standy Options: Create new snapshot sets every 10 snapshots Munkers of complete date to extrin 2	Mounted: No	In-Cloud Standy Options:	Create new snapshot sets every 10 snapshots	
Task: None	Task: None		Number of snapshot sets to retain: 5	1

A dialog box is displayed asking if you would like to run the initial snapshot creation task now.
 By clicking **[No]**, the system returns to the dashboard, and your initial snapshot creation task will run according to the configured schedule.

By clicking **[Yes]**, the system will run the initial snapshot creation task immediately and will thus skip the first scheduled task.



13. Go to the **[Dashboard]** and expand the **[Schedule]** tab to modify or monitor your scheduled tasks. A snapshot is created from a backup based on the predefined backup schedule.

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 In-Cloud Standby Image Manage > Victualization Local Hest 		
Host Name: demo_svr01		
Domain: localhost.demo		
Logon User: Administrator		
RescueBoot: Un-enabled		
Mounted: No		
Task: None		
0.0 %		
	🖉 📕 Disk Information	•

14. In this example, the created snapshot is named accordingly using this naming convention: [AIPInCloudSnap_YYYYMMDDhhmmss].

Sna	pshots (9)								(C Recycle Bin	Act	tions v Create	anapsho	nt 🛛
Ów	ned by me 🔻 🔍 Search											<	1 >	Θ
	Name	Ψ.	Snapshot ID	÷.	Size	-	Description V	Sna	ashet 🔻	Started		Progress	7 E	ncrys
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In-Cloud Standby

15. You can run tasks immediately or edit settings be right-clicking on the [Schedule Name].

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Operation View Preferences Uti	lities Help	
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In-Cloud Recovery In-Cloud Standby In-Cloud Standby Image Manage >	InCloudStanby_20 Disable Edit Delete	
Local Host Local Host Local Host Local Host Logo User: Administrator RescueBoot: Un-enabled Mounted: No Task: None		
	Disk Information	

5-2. Create a volume from a snapshot and attach to newly created instance

The following explains how to do a system recovery, including how to create a volume from the Cloud Standby snapshot and attaching the volume to a newly created instance.

*AWS Management Console screens may have changed from the time of this documents creation, however the following explains the basic instructions even if the user interfaces have changed.

1. Create a volume from the snapshot.

Please select [EC2] -> [Snapshot] from the menu on AWS management console. Check in the checkbox for the snapshot created at the point of time to restore to. Click [Create volume from snapshot] in the pull-down menu of [Action].

In this example we have selected the latest snapshot of the host "ec2amaz-8vod1bd" created by In-cloud Standby.

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EC2 Global View	AlPinCloudSnap_2022101744003	snap-0f5741c26f9b8f246	30 Gi8	ec2amaz-Bvo	Copy snapshot	3/17 C
Events	AlPinCloudSnap_2022101734004	snap-0f89c20c949433d59	30 GiB	ec2amaz-8voc	Modify permissions	3/17 C
Tags	AlPinCloudSnap_2022101724004	snap-0f318b9bc54c4e8df	30 GiB	ec2amaz-Bvoc	Manage fast snapshot res	Jore 1/17 C
Limits	AlPInCloudSnap_2022101714004	snap-086657234d9caf844	30 GiB	ec2amaz-Bvoc	Archive snapshot)/17 C
Instances	AlPinCloudSnap_2022101704003	snap-0add3633ee7dc5e0d	30 GiB	ec2amaz-Bvoc	Restore snapshot from an)/17 C
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Launch Templates.	AlPInCloudSnap_2022101774004	snap-0650d747b0a19d0cf	30 GIB	ec2amaz-8vodTD	a Scompleteo	2022/10/17 0
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2. Configure the settings in **[Create volume]** window.

(1) Volume settings

Please specify the same availability zone as the target instance to attach the volume. In this example, we selected "ap-northeast-1c" for **[Availability Zone]**. No changes are made to the other default settings.

rea	ate volume Info
eate a	in Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.
Vol	ume settings
Snap	shot ID
L,	shep-ors/arczorsporzad (Archicloudshep_zozzror/aadds)
Volu	me type Info
Ger	neral Purpose SSD (gp2)
Size	(GiB) Info
30	
Min:	I GIB, Max: 16384 GIB. The value must be an integer.
IOPS	
100	/ 3000
Basel	ine of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.
Thro	ughput (MiB/s) Info
Not a	applicable
Avail	ability Zone Info
ap-	northeast-1c
Fast	snapshot restore Info
0	lot enabled for selected snapshot
-	
Encr	yption Info manne EBS accounting as its accounting colution for your EBS provided a storighted with your EC2 instances
USE A	nervot this volume

(2) Tags - optional

In this example, we specified "Name" for **[Key]** and "test-ec2-standby" for **[Value - optional]**. After configuring the settings, click **[Create volume]** button.

Tags - optional Info A tag is a label that you assign t your resources or track your AW	to an AWS resource 'S costs.	. Each tag consists of a key and an opti	onal value. You can	use tags to	search and filter
Key		Value - optional			
Q, Name	×	Q test-ec2-standby	×	Remov	/e
Add tag					
You can add 49 more tags.					
			Can	icel	Create volume

(3) The volume named "test-ec2-standby" is created.

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3. Create a new instance.

Go to AWS Management Console and select [EC2] -> [Instance] in the menu. Click [Launch Instances] to display the window for creating an instance.

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Experience Tell as what you trink	Q, Find instance by attribute or tag (case-sensitive)			3 1 2	0
EC2 Dashboard	Name Name Instance ID	Instance state ♥ Instance type ♥	Status check	Availability Zone	V Pi
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(1) In **[Name and tags]**, please specify any name of the instance. In this example, specified "test-ec2-standby" for the name of the instance.

vame and tags into	
Name	
and the second	Add additional tans

(2) In [Application and OS Images (Amazon Machine Image)], please select the backup image of the virtual machine. In this example, we selected "Windows_Server 2016-Japanese-Full-Base" which is the same as the backup source instance.

Q. Search out	r full catalog includir	ng 1000s of applica	ation and OS images	e	
AMI from c	atalog Recent	s Quick Sta	rt		
Amazon Machir	ne Image (AMI)				0
Windows_Serve	er-2016-Japanese-Fi	ull-Base-	Verified	provider	Browse more AMIs
2022.09.14 ami-0e5e6cd36	580e5aa0e				Including AMIs from AWS, Marketplace and the Community
Catalog	Published	Architecture	Virtualization	Root device	ENA Enabled
Community	2022-09-	x86_64	hvm	type	Yes
AMIs	14T19:00:09.0			ebs	

(3) Please select the instance type. In this example. We selected "t2.micro" with the same name as the backup source instance.

Instance type Info		
Istance type t2.micro Family: t2 1 vCPU 1 GiB Memory On-Demand Linux pricing: 0.0152 USD per Hour On Demand Windows origine: 0.0180 USD per Hour	Free tier eligible	Compare instance types

(4) In **[Key pair (login)]** window, select key pair. In this example, we selected the existing key pair "test-ec2-key"named the same as backup source instance.

You can use a key pair to securely connect to your insta the instance.	ance. Ensure that you have access to the se	lected ke	ey pair before you launch
ey pair name - required			
test as 2 lieu		C	Create new key pai

(5) In **[Network settings]** window, specify the security group. In this example, the existing security group same as the backup source instance is selected.

Network Info vpc-0c0101201e0800d88 test-ec2-vpc Subnet Info No preference (Default subnet in any availability zone)	
vpc-oco101201008000088 test-ec2-vpc Subnet Info No preference (Default subnet in any availability zone)	
Subnet I <mark>nfo</mark> No preference (Default subnet in any availability zone)	
No preference (Default subnet in any availability zone)	
Auto-assign public IP Info	
Enable	
Firewall (security groups) Info A security group is a set of firewall rules that control the traffic for your instance. Add rules to allo instance.	w specific traffic to reach your
Create security group Select existing security group	
Common security groups Info	
Select seturity groups	C Compare security group rules
launch-wizard-1 sg-0ab413092c7e90814 X VPC-vpc-0c0101201e0800d88	

(6) In **[Configure storage]** window, you do not need to change the default settings. When you have finished configuring the instance, click **[Launch Instance]** to begin the creation process of the instance.

Configure storage Info Advanced	Firewall (security group)
1x 30 GiB gp2 Root volume (Not encrypted)	launch-wizard-1 Storage (volumes) 1 volume(s) - 30 GIB
Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage X Add new volume The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance 0 x File systems Edit	Free tier: In your first year includes 750 Yours of t2micro (or t3micro in the Regions in which t2micro is unavailable) instance usage on free tier AMIs per month, 30 Gill of EBS torage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.
Advanced details Info	Cance! Launch Instance

4. Before replacing the volumes, stop the newly created instance.

In this example, we selected **[Instance]**, check in the checkbox for the newly created instance "test-ec2-standby" and click **[Stop Instance]** in the pull-down menu of **[Instance State]**.



5. Detach the root volume of the newly created instance.

Before detaching the root volume, check the root device name (in this example, "/dev/sda1") in **[Storage]** tab of the instance and click **[Volume ID]**.

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Resource Groups & Tag Editor	waa senera' noore i noor	
New EC2	Instances (1/4) Info	
Experience Tell as what you mini	Q. Find instance by attribute or the (case-sensitive)	9
EC2 Dashboard	🖬 Name 💌 Instance ID Instance state 👳 Instance type 👳 Štatus check Availability Zone 👳	Pt
EC2 Global View	test-ec2-standby i-023c07a7334d14741 ⊕ Stopped @@ t2micro ap-northeast-1c	1
Events	□ test-ec2 i+07619e865e8e6180.5 ②Running @Q t2_micro ②2/2 checks passed ap-hortheast-1c	ec
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6. When [Volumes] window is displayed, click [Detach volume] in the pull-down menu of [Action].

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7. Attach the volume created from a snapshot.

Go to AWS Management Console and select **[EC2]** -> **[Volume]** in the menu. Check in the checkbox for the volume created from a snapshot. Click **[Attach Volume]** in the pull-down menu of **[Action]**.

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Events	test-ec2-standby	vol-08c6478d5d9d5b23c	30 Gi8 2022/10/21 16:07 GM	Delete volume	in
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8. Attach the created volume to the newly created instance. The device name is "/dev/sda1" as identified above.

Pasta datatta				
Basic details				
Volume ID				
Vol-08c6478d5d9d5b2	ic (test-ec2-standby)			
Availability Zone				
ap-northeast-1c				
Instance Info				
i-023c07a7334df474f		¥	C	
Only instances in the same Avail	bility Zone as the selected	i volume are displayed	L	
Device name Info				
/dev/sda1				

9. Detach "Elastic IP" from the existing instance and attach it to the new instance.

Go to AWS Management Console and select **[EC2]** -> **[Elastic IP]** in the menu. Check in the checkbox for "Elastic IP" attached to the existing instance and click **[Associate Elastic IP address]** from the pull-down menu of **[Action]**.

Bastic IP address C 6	tes EC2 Manag × +	wsamazon.com/is2/bome?us	. ∧∿ 10. as .⊖	6 A	G 1	-		×
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Dedicated Hosts	Name Name	V Allocated iPv4 a	id 9. Type	Associate Elastic	IP address	1	v Rei	
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e linages	1			Update reverse L	ONS			
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Load Balancers Load Balancers Target Groups Auto Scaling	Allocated IPv/ address	Туре В Робік ІР	Allocation ID d elpattoc-053a3a5e63	Revers 5940983	se DNS resord			
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10. Select the newly created instance for [Instance], check in the checkbox for [Allow this Elastic IP address to be reassociated] and click [Associate].

Associate Elastic IP address EC × +				-	0	
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III Services Q. Search for services, features, blogs, docs, and more [All+5]	۵	4	۲	Takya 🕶	Actiphy_	Sa
essurce Groups & Tag Editor			<u>1</u>			
C2 🕐 Elastik IP addresses 🗇 Associate Elistik IP address						
Associate Elastic IP address						
hoose the instance or network interface to associate to this Elastic IP address (52.68.98.246)						
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Resource type Cooper this rups of monitors with when the available the Listin IP address.						
O Instance						
Q Network interface						
If you associate an Elastic IP address to an instance that airpady has an Elastic IP address associated, this previously associated Elastic IP address will be disassociated but still allocated to your account. Lown more						
Instance						
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Private IP address The private IP address with relicities anostate the Eartic IP obtimes						
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Reassociation Specify whether the Elastic IP address can be massociated with a different re-surger if it aintedy associated with a resource.						
Allow this Elastic IP address to be reassociated						
Cancel Associate						

11. Boot the newly created instance.

The snapshot created from backup is now restored to the new instance.



6. Remote Management Console

Remote Management Console enables you to remotely manage ActiveImage Protector agents installed on the instances of AWS EC2 and Azure.

- Launch ActiveImage Protector by clicking on the Windows Start menu and then navigating to [Actiphy] → [ActiveImage Protector].
- Go to [Preference] -> [Console], check in the checkbox for [Enable Network Client Management Console] and click [Apply]. Click [OK] and the system will take you back to the Dashboard. Please open the following ports in security settings for the instance (add them to the inbound rules of security policy with AWS.)
 - TCP port 48236
 - UDP port 48238
 - UDP port 48239

Preference		•
 General Proxy Notification Deduplication Alert Console Online Portal 	Console window settings:	
	Ok Cancel Ap	ply

3. Click [Management Console] in the upper left of the window. Click [Add new computers] to add the new computer to the host list.

Activelmage Protector				- 🗆 X
Operation View Preferences Ut	ilities <u>H</u> elp			
📳 Management Console 🔹				
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Ranaged Computers Total: 0	Connect All			Refresh
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📜 Local Host 🔹 🕈 🔽	SYSTEM (:) FAT32 Windows (C:) NTFS $\pi \partial_1 - \Delta$ (:) NTFS Local Disk (:) NTFS	300.0 MB 26.9 M 204.8 GB 101.7 G 732.4 GB 266.3 G 900.0 MB 511.6 M	B Disk 0 iB Disk 0 iB Disk 0 MB Disk 0	
Host Name: msi	📄 Basic 😤 Dynamic disk 📼 Volum	e 📼 Dynamic volume		
Domain: WORKGROUP IP Address: Image: Image	Disk 0 Basic (GPT) 953.9 GB # Used : 383.2 GB	С.) TF5 732.4 GB NTF5	Local Dis 900.0 Mic BIOS_ENV(s) 15.3 GB MTFS	
Task: None 0.0 % (i) (ii)	Primary			2

4. Select the host names to add to the list by selecting [Auto Search] or [Manual Search].

In this example, we entered "IP address of the instance of Cloud", "Administrator's user name", "Password" in [Add New Remote Host] window, and click [Connection Test]. When the connection test succeeds, [Host Name] and [IP address] are displayed.

lanage Remote Hosts							
Add New Romote Hos	it .						
tel Par I							
Administrator		••••••	•		Connection	Test	
Computer Name: ec2 IP Address: Operating System: Wi	indows Server 20	northeast-1.compute.amazona 16 Datacenter Edition (build 14?	ws.com.WORKGR 393), 64-bit	OUP	Add to List		
Installed Product: Acti	Auto Search	r; Cloud; 6.5.2.7778 Protector Installed	Áll	•	All	•	
Computer	Domain	IP Address Operating	System	Edition	Version	License	Expiration
utal Computers: 0						1	-
						Add	Cancel

5. Click **[Add to List]** and the remote host is added to the **[Target Computers]** list. Click **[Add]** to register the remote host as the target computer.

Add New Romote Hos	t					
A A Solution						
Administrator		•••••		Connection	Test	
Computer Name: ec2	📲 📲 📲 📭 ap-north	east-1.compute.amazonaws.com.WOR	KGROUP	1000	100	
IP Address:	HH-			Add to List		
Operating System: Wi	ndows Server 2016 Data	acenter Edition (build 14393), 64-bit			_	
Installed Product: Acti	velmage Protector; Clou	ıd; 6.5.2.7778				
Target Computers	Auto Search	Protector Installed All		All	-	
Computer -	Domain IP Ac	ddress Operating System	Edition	Version	License	Expiration
] ec2-	WORKGROUP	Windows Server 2016 🧧	Cloud	6.5.2.7778	Nor	e
] ec2- *** *** ** 246 \	WORKGROUP	Windows Server 2016 🥻	Cloud	6.5.2.7778	Nor	e

6. The remote host is added to the managed computer.

Activelmage Protector		- 🗆 X
Operation <u>V</u> iew <u>P</u> references <u>U</u>	tilities <u>H</u> elp	
😰 Management Console 🔹 🔹		
🕎 msi (Local)	-> □ <i>★</i>	Dashboard A
🛒 Managed Computers Total: 1	Connect All	
👳 EC2- 🌆 🖬 👫 AP-N	Disconnected ted! sk to protect your data. Backup Wizard RescueBo:	ot @
		*
Add New Computers	Clear all	*
Utilities	voramer vame rne system volume Size Used Space Associated Image: Disk 0 Disk 0 00.0 MB 26.9 MB Disk 0 Image: Windows (C): NTFS 204.8 GB 101.7 GB Disk 0 Image: R/J_3-L_A (D) NTFS 722.4 GB 266.3 GB Disk 0 Image: R/J_3-L_A (D) NTFS 720.0 MB 511.5 MB Disk 0	
Host Name: msi	🛁 Basic 😤 Dynamic disk 🖙 Volume 🖙 Dynamic volume	
Domain: WORKGROUP IP Address: II. Logon User: Administrator RescueBoot: Un-enabled Mounted: No Tack New	Disk 0 Basic (GPT) 933.9 GB ⋬ Used : 383.2 GB 300.0 204.8 GB NTFS 15.5 GB N 15.5 GB N	P) TFS

7. Right-click on a host in the list and click **[Connect]** in the context menu.

Activelmage	Protector				– 🗆 X
Operation	View Preferences Ut	ilities Help			
😨 Manage	ement Console 🔷 🔻				
🖳 msi (Lo	cal)	n □ *			Dashboard 🔺
👰 Managed (Computers Total: 1	Connect All	1		Neiresi
🖳 EC2-52	Cancel Task ii) Pause Task Pause Task	nected	ted! sk to protect your d Backup Wizard	ata.	
	Remote Run Command Line			RescueBoo	it ©
	Connect				*
Add New C	Remove Refresh Reboot Sinutdown	Clear all umervame rine system Disk 0 SYSTEM (1) FAT32 Windows (C) NTFS #JU2-CA (1) NTFS State Disk (4) NTFS	volume Size Us 300.0 MB 26.9 204.8 GB 101 732.4 GB 266 900.0 MB 511	ed Space Associated	*
Host Name: msi		Basic A Dynamic disk I Volume	e 📼 Dynamic volume	O MIB DISK U	v
Domain: IP Address: Logon User: RescueBoot: Mounted: Task: None	WORKGROUP Administrator Un-enabled No	Disk 0 Basic (GPT) 933.9 GB ★ Used : 383.2 GB 200.0 24.3 GB N	C) ポリューム (1) TFS 732.4 GB NJT	S Jocat Dis BIOS_RVY 900.0 ML: 15.3 GB NT	its
0.	0% (Ū)(Ē) «	Primary			>>

8. Right-click on a host in the list, and select **[Remote]** in the right-click menu to establish the connection to the agent.

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🛱 Management Console 🔹				
🗽 msi (Local)	<i>€</i>			Dashboard
🛒 Managed Computers Total: 1	Connect All			vy neresi
EC2-52 Cancel Task	'acked up 🕨 💉	ted!		
Run Task		Backup Wizard	RescueBoot @	
Run Command Line		1	*	
Connect Remove		1		
Refresh Utiliti Utiliti Utiliti	Clear all nume tvame rite system ☐ Disk 0 ☐ SYSTEM (:) FAT32 ☐ Windows (C:) NTFS 2	volume Size Used Space 100.0 MB 26.9 MB 104.8 GB 101.7 GB	Associated Disk 0 Disk 0	
🛃 Local Host 🛛 🕈 🔽	- ロ ポリューム (:) NTFS 7 - Local Disk (:) NTFS 9	732.4 GB 266.3 GB 900.0 MB 511.6 MB	Disk 0 Disk 0 🗸	
Host Name: msi Domain: WORKGROUP IP Address: • • • Logon User: Administator RescueBoot: Un-enabled Mounted: No Task: None	Basic Synamic disk ■ Volume Disk 0 Basic (GPT) 5151E \$53.9 GB \$151E Windows (CAS GB WI ↓ Used : 383.2 GB \$150.0 \$24.8 GB WI		Local Dis 9000 Mar 1533 GB NTPS	

9. When connection is successfully established, the status bar is green. Now one-click offers execution of scheduled backup tasks on networked remote computers and monitoring of log information.

Activelmage Protector		- 🗆 🗙			
Operation View Preferences	lelp				
🕂 Management Console 🔹					
📮 Dashboard	Dashboard	Dashboard			
💒 Backup 🛛 🗲 🗲	System Health Status Your system is protected!				
Recovery	The last backup task completed successfully: 10/20/2022 4:10:13 PM Click [Here] to verify Task Log.				
Marcine Cloud Recovery	📋 Current Task 🔹				
In-Cloud Standby					
🛐 Image Manage >	Schedule Schedule Disk Information				
	Volume Name File System Volume Size Used Space Associated Image: Space Disk 0 Image: Space Image: Space Associated Image: Space Disk 0 Image: Space Space Associated				
Remote Host 🥻 🔽	Denie 😫 Dennie fiele and Mahara an Dennie incluse				
Post name: ec2amaz-8vod ibd Domain: WORKSROUP IP Address: e Logon User: SYSTEM RescueBoot: Un-enabled	Disk 0 Disk (MBR) 30.0 GB torat Disk (Ci) 30.0 GB 30.0 GB NTFS				
Task: None 0.0 % (1) (1)					
	Primary				

10. Double-click on the local host name to disconnect from the remote host.

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📑 Management Console 🔹						
🖳 msi (Local)		9 L x				Dashboard 🔺
🛒 Managed Computers Total: 1		Connect All				Refresh
🚖 👤 EC2-	cked up	Þ 💉				
			ipleted success isk Log.	sfully: 10/20/2022 4	RescueBoot 🧘	-
					- X	•
			1			•
- Add New Computers		Clear all	1			*
Remote Host	Disk 0 Local Disk (C:) N	nie system	30.0 GB	25.6 GB	Associated Disk 0	
Host Name: ec2amaz-8vod1bd	Basic 🔮 Dynamic d	lisk 🖙 Volume	e 🧰 Dynamic vo	olume		
Domain: WORKGROUP IP Address:	Disk 0 Basic (MBR) 30.0 GB Used : 25.6 GB	l Disk (C:) GB NTFS]
0.0 % (1) (1)						
	Primary					

7. Reference

• Actiphy's Web site:

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

https://www.actiphy.com/global

- Knowledge Base
 <u>https://enkb.actiphy.com/</u>
- ActiveImage Protector Help Center
 Support information is accessible at the following web site.
 https://actiphyhelp.zendesk.com/hc/en-us
- For any inquiries about ActiveImage Protector, please contact: Global Sales Dept., Actiphy Inc.
 E-mail: global-sales@actiphy.com

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