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Disclaimer

The SUREedge products are available and support only the English language.

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Introduction

SUREedge DR provides data protection and disaster recovery solutions for physical servers, VMware, and Microsoft Hyper-V virtual environments locally, remotely, and cloud-based virtual servers. By protecting your servers with a source SUREedge DR instance and connecting it to a target DR instance, you can recover your entire network in the case of a disaster. SUREedge DR instances can be in data centers, or public or private clouds, allowing many possible protection schemes such as inter-site, datacenter-to-cloud, cloud-to-datacenter, inter-cloud and inter-region within a cloud.

Deploying SUREedge DR

An instance of SUREedge DR is a software appliance that can be installed within any virtual environment to perform the critical functions of recovery. At the most basic level each SUREedge DR instance is capable of:

- Capturing a data-consistent image of a system without agents or additional software
- \ Transforming that image so that it can be run in the desired virtualization environment
- Instantiating the captured and transformed image within the target environment
- \ Deployment Scenarios

SUREedge DR supports many different deployment configurations to meet the needs of various situations:

- Cloud-targeted DR where the cloud is leveraged as a failover site for on-premise workloads or workloads in another cloud.
- Site-to-site DR where the source and target environments are non-cloud based
- Intra-cloud DR where the goal is to protect against unavailability due to loss of resources in or connectivity to a region or zone within a public or private cloud.
- Cloud-to-site DR which reverses the cloud-targeted scenario and uses a non-cloud, onpremises virtualization environment to protect cloud-based workloads.

In all these scenarios an instance of SUREedge DR is deployed in each of the source and target environments. The source SUREedge DR instance is responsible for capturing images of the protected systems and efficiently transferring them to the target instance. The target SUREedge DR instance receives and manages the system images and orchestrates the transformation and instantiation process when recoveries are performed.

Installing SUREedge DR Instances

The specifics of deploying the SUREedge DR in a given environment is covered in an Install Guide for that environment:

- SUREedge DR 6.6.1 Install Guide for GCP: This guide helps you install SUREedge DR 6.6.1 on GCP using the Google Cloud Marketplace. Once you launch SUREedge DR instance in GCP, user can download installers for another environment via the DR UI.
- SUREedge DR 6.6.1 Install Guide for Hyper-V: This guide helps you obtain an installer and to deploy SUREedge DR 6.6.1 on Windows Hyper-V.
- SUREedge DR 6.6.1 Install Guide for VMware: This guide helps you obtain an installer and deploy SUREedge DR 6.6.1 on VMware.
- SUREedge DR 6.6.1 Install Guide for AWS: This guide helps you obtain an installer and deploy SUREedge DR 6.6.1 on AWS.
- SUREedge DR 6.6.1 Install Guide for Azure: This guide helps you obtain an installer and deploy SUREedge DR 6.6.1 on Azure.
- SUREedge DR 6.6.1 Install Guide for AHV: This guide helps you obtain an installer and deploy SUREedge DR 6.6.1 on AHV.

You can obtain the installer(s) and installation guide(s) for your specific needs through your designated contact at Accelerite or by contacting the Accelerite Support team at support@accelerite.com.

After deploying a SUREedge DR instance it will consist of two virtual machines:

- A **Management Console** or **MC** VM that serves the SUREedge DR UI and performs all scheduling and coordination of operations.
- A **Datastore** or **Store** VM that manages the de-duplicated image store and does the data streaming for image capture and inter-instance transfers.

The two systems work in concert to perform the operations required to complete recovery.

SUREedge DR Licensing

Each instance of SUREedge DR must be licensed to perform recovery. If you have not received your license(s), you can obtain it (them) through your designated contact at Accelerite or by contacting the Accelerite Support team at support@accelerite.com.



Once you purchase the SUREedge DR, you will get a permanent GUID license. These licenses are tied to a specific SUREedge DR instance. To obtain your GUID licenses, you need to supply the Appliance Serial Number to Persistent Systems for all your SUREedge DR instances after they have been installed. Detailed instructions on getting your Appliance Serial Number(s), obtaining your permanent licenses, and applying them to your SUREedge DR instance(s) can be found in the Settings section of this guide for your platform.

Once you have license(s) for your SUREedge DR instance(s), you must install it before performing recovery operations. Instructions for installing licenses on the SUREedge DR instances can be found in the Settings section of this guide.

Getting Started

This section provides you a brief overview of the SUREedge DR user interface (UI) and its functionalities. It is through this UI that you will configure the SUREedge DR instance, add servers, perform captures, test captures images, and instantiate images in the GCP environment. If you are a new user or if you wish to enhance or refresh your knowledge about system recovery using the SUREedge DR make sure that you thoroughly read this entire section including the subsections.

Accessing SUREedge DR User Interface

The SUREedge DR UI is accessed by connecting to the Management Console (MC) component of the SUREedge DR instance with a web browser (Google Chrome is recommended). Once SUREedge DR is installed you can access the UI by pointing your web browser to the new instance's Management Console (MC) using a URL:

http://<MC IP address>/

(You should substitute the IP address of the SURE edge DR MC for ${\rm <MC}\ {\tt IP}\ {\tt address}{\rm >}\ in$ the URL.)

Note: It's recommended that you use the latest version of **Google Chrome** web browser when accessing SUREedge web UI.



It displays the login screen for the SUREedge DR instance:

You should log in using the **Username** and **Password** that was set while installing your SUREedge DR instance. Once you log in, the main SUREedge DR UI appears. The UI elements are described in the following sections.

SUREedge DR UI Elements

This section will walk you through the elements of the SUREedge DR user interface. For example, when you first log in you will see the DR Dashboard:

子 Persiste	ent								Aug 5, 2021 10:11 AM Sureline 🗸		1
器 Dashboard	🔳 Register	Protect		@ Jobs	Reports	Settings				-	2
Registered 1 Al	0	Replicati	ng O All ~		Protected O All ~		Recovered 2 All –	Last 24 hours	or 5 All ~	-	3
8 8 4						Total 19 Running 0					
SUREedge DR, Version	n: 6.6.1.29643							Copyright © 2021 Persi	stent Systems Limited. All rights reserved.	-	4

Each page in the DR UI has four main elements:

- 1. <u>Header</u>
- 2. <u>Tabbed menu</u>
- 3. Working area
- 4. Footer

Header

The UI header contains information about the SUREedge DR instance where you are logged in:

|--|

On the left side of the screen is **Persistent** logo and on the right side is the username under which you are logged in. Clicking on the dropdown, you can view the **About** link that displays information on the Product Name, SUREedge Version, and Serial Number and also a link to **Logout** of the SUREedge DR instance.

Tabbed Menu Bar

The tabbed menu bar gives access to the main functional areas of the SUREedge DRUI:

🖺 Dashboard 🗮

There are seven tabs on Menu bar which are as follows:

ТАВ	Description
Dashboard	Displays an overview of all protected servers and processes
Register	Displays a list of registered servers and allows new servers to be registered
Protect	Displays details of server protection and allows protection plans to be set up
Recover	Allows protected systems to be recovered in the target environment
Jobs	Displays progress and status of DR operations
	Produces various reports for summarizing protection status, inventory, and so
Reports	on
	Gives access to SUREedge DR's software options and configuration
Settings	parameters

The currently selected tab is highlighted to indicate the area of operation that is represented in the main UI workspace.

The Working Area

The main UI workspace is the working area where you can explore information about the system and perform operations. The contents and the structure of the workspace changes depending on the tab currently selected. For clarity in referring to different workspaces, this user guide identifies a workspace with the web page name, which is displayed in the upper left corner.

There are two main types of workspaces in the SUREedge DR UI:

- **Grids**: Contain lists of information about an area of operation (such as servers, plans or jobs).
- **Dashboard**: Presents an overview of the state of all servers and plans and allows details to be explored.

Grids

Grids are used to display lists of related objects, such as servers or jobs. While the specifics of any grid depend on the type of information being displayed. There are many attributes common across all grids:

Grid toolbar and links: Wherever relevant, a workspace has an additional workspace toolbar based on the information being displayed or manipulated. The tool bar may contain icons or text links.

🕂 Persist	ent									Aug 5, 2021 10:27 A	AM Sureline	~
器 Dashboard	Register	Prote	ct 🔊 Recover	ம Jobs	Reports	Settings						
🔳 Regis	ter	Q Searc	h									
								\oslash	REGISTER	DELETE	C REFRESH]
All Servers		🗌 Туре	IP Address	DNS Host Nar	ne		Plan	Group	Size	Status 🕁	Action	

Pagination: A grid may have to display a large volume of information. To avoid long waits associated with loading many records, large data sets are divided into pages. The number of records (rows) in a grid's current page and the total number of records in all pages are displayed at the bottom right. When there is more than one page of records the grid pagination bar with controls to navigate between pages is shown, as well as to control the number of records to display on a single page.

Captured												
Transferring	Δ	10.1.0.18	centos7	/-vip				1009.23	MB Caching		:	
Transferred						5						
Recovering					ltems per pag	10	1 – 10 of 10	< <	1 of	1 >	>1	
Recovered						25						
						20						
SUREedge DR, Version: 6.6.1.29643						100	Copyright €	2021 Persister	nt Systems Limit	ed. All rigi	hts rese	rved.

- **Scroll bars**: Wherever a page's size exceeds the height or width of the browser window vertical and horizontal scroll bars will appear in the workspace.
- Sorting within grids: Most grids can be sorted by column values. Hovering the mouse cursor over a column can be sorted a pair of arrows will appear in the header for sorting in ascending or descending order.

Sureline											Jan 7, 2021 1:27	PM Administrator	×
盟 Dashboard	Register	Protes	t ⊙ Recover	岱 Jobs	🖻 Reports 🛛 😫	Settings							
🔳 Register		Q Searc	1										
											TER 🗍 DELET	/E C REFRESH	
All Servers			îype 🕈 IP Add	Jress 🕈	DNS Host Name 🕈			Plan 🕈	Group 🕈	Size 🕈	Status 🕈	Action	
Persist	tent									Au	g 5, 2021 10:33 /	AM Sureline \	~
B Dashboard	≡ Re	gister	Protect	⑦ Recove	a 🖆 Jobs	Reports	Settings						
🔳 Regis	ter		Q Search									–	
									Øre	GISTER	j delete	C REFRESH	
All Servers			Туре	IP Address	DNS Host	Name		Plan	Group	Size	Status 🛧	Action	

Searching on grids: Where appropriate, workspaces have text boxes for filtering and searching for specific records in a grid. You may enter a few characters of the item you want to search for, and the workspace will display the records containing those characters. To clear the search simply clear the text in the search box.

🕂 Persist	ent									Aug 5, 2021 10:3	7 AM Sureline	~
盟 Dashboard	🔳 Register	Protect	Recover	虛 Jobs	Reports	Settings						
🗮 Regis	ter	Q Search										
								0)register	🗍 DELETE	C ^I REFRESH	
All Servers		Туре	IP Address	DNS Host Nar	ne 🕈		Plan	Group	Size	Status	Action	

Row Actions: In some grids there is an action column that provides a pulldown menu which allows access to all available operations on the item represented in the row.

🕂 Persiste	ent								Aug 5	2021 10:	43 AM Surelin	ie v
盟 Dashboard	■ Register	Protect	Recover	億 Jobs	Reports	Settings						
🔳 Regist	er	Q Search										
								େ)REGISTER 📋 🛛	ELETE	C REFRES	H
All Servers		Туре	IP Address	DNS Host Nam	1e		Plan	Group	Size	Status	🖌 Actio	m
Windows		🗆 💧	10.128.0.32	ubuntu18-vip					1.55 GB	Transf	erred :	
Linux		🗆 💧	10.1.0.18	centos7-vip					1009.68 M	B Cache	d :	
STATUS		🗆 💧	10.1.0.7	ubuntu18-vip					1.4 GB	Reco	DELETE	
Added Capturing			10.1.0.6	win2k19-vip					22.03 GB	Reco	REFRESH	
Contract												

Footer

The UI footer has three sections: The product name and version information are displayed on the left side; the appliance name and location, if set, are shown in the center (these are set in the <u>Settings</u> section); and the product copyright information is shown on the right side. These are for information purposes and are not interactive.

SUREedge DR, Version: 6.6.1.29643

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The Dashboard

After you log in to SUREedge DR, the Dashboard page appears that provides a visual summary of status of the server recovery:

Persist	ent							Aug 5, 2021 11:18 AM Sureline 🗸
器 Dashboard	Register	Protect	O Recover	色 Jobs	Reports	Settings		
Registered	0	Replicat	All ~		Protected	-	Recovered 2 All ~	Error 5 All ~
Job Summary	/						Last 2	4 hours This Week Last Week
12 10 8						Total 28 Running 1		

The Dashboard is divided into several sections:

- Five cards summarize important information and status regarding the protected servers and DR operations.
- \ The Job Summary section shows a history of DR operations over a selectable time period.

Dashboard Cards

The dashboard cards give you immediate information regarding the status of your protected systems and DR operations.

Each of the five server status cards displays the number of servers in the state the card. The scope of servers represented by a card can be refined using a drop-down menu when available. For example, the **Registered** card, displays the number of servers that have DR operations currently running for them:

Registered	
10	
All 👻	

Clicking on the dropdown shows a menu of sub-states to choose from to refine the counting criteria:

子 Persis	tent								Aug 5, 2021 11:20 AM	Sureline v
B Dashboard	■ Register	Protect		@ Jobs	Reports	Settings				
Registered		Replica	ting		Protected		Recovered		Error	
1	10		2		1		2		5	
	All		All -		All -		All 👻		All 👻	
	Scheduled									
Job Sumn	Not scheduled							Last 24 ho	urs This Week Las	st Week

Clicking on the main section of a UI card jumps to the **Register** tab and displays a grid of the servers that the segment represents. For example, clicking on the **Cached** item from the dropdown list of the **Protected** card display a grid of all the cached servers in the system:

🕂 Persisten	ıt						Aug 5, 2021 11:22 AM Sureline 🗸
B Dashboard	≣ Register 🛛 😯	Protect ^① Recover	ம Jobs	Reports Settings			
Registered	0	Replicating 2	Pr	rotected	Recovered	2	Error 5
All 🖣	-	All 👻		All	AII	-	All 👻
				Transferred			
Job Summary				Cached		Last 24 hours	This Week Last Week

The following screen is displayed after clicking the **Cached** segment of the **Protected** card on the dashboard:

P Persiste	ent									Aug 5, 20	21 11:24 AM Sureline V
盟 Dashboard	≣ Register	0	Protect	Recover	ළු Jobs	Reports	Settings				
Recov	er	٩	Search								
											€ RECOVER
All Servers			Type	IP Address	DNS Host M	Name 🕈 Plan	Group	Size	Image State	Status	Action
TYPE			۵	10.1.0.18	centos7-vi	p		1010.13 MB	\bigotimes	Cached	:
Windows Linux											
PLANS											
GROUP											
STATUS											
Added											
Capturing											
Captured									1 - 1 of 1		1 of 1 > > >
Transferring								items per page: 10 💌	1 = 1 of 1	1< <	

Job Summary

The Job Summary section of the dashboard gives different views of DR-related operations that have run over a given period of time:





The time span represented in the **Job Summary** section can be set to the last twenty-four hours, the current week or the past week by selecting the desired time period from the list in the upper-right corner:





The left side of the job summary view shows the protected job states over time in a bar chart. Each bar is proportionally divided to represent the number of jobs in a given state (Running, Completed, and so on). Hovering over a segment in the bar chart will display the state (which represents segments as well as the number of jobs in that state):





Clicking on a segment in the bar chart jumps to the Jobs tab and displays a grid of the jobs that the segment represents. For example, clicking on a **Completed** (blue) segment in the example above displays a grid of all the completed jobs in the system:

Persiste	ent								Aug 5, 2021 11:31 AM	Sureline	~
盟 Dashboard	■ Register	Protect	Recover	ළු Jobs	🖻 Reports 🛛 🕏	₿ Settings					
ট Jobs	(Q Search in al	l fields								
		Servers			Туре	Start Time	Duration	Size	Status	Action	
All Jobs		win2k19-vip			Transfer	Aug 5, 2021 11:13 AM	4 minutes		Completed	:	
Discover		centos7-vip			ImageCaching	Aug 5, 2021 11:05 AM	7 minutes	870.33 KB	Completed	:	
Capture		ubuntu18-vip			Transfer	Aug 5, 2021 11:03 AM	2 minutes		Completed	:	
Transfer		win2k19-vip			Capture	Aug 5, 2021 11:01 AM	11 minutes	429.23 MB	Completed	:	
ImageCaching Other		ubuntu18-vip			Capture	Aug 5, 2021 11:01 AM	a minute	16.57 MB	Completed	:	
STATUS		win2k19-vip			Transfer	Aug 5, 2021 10:55 AM	4 minutes		Completed	:	
Running											
Completed						Items per page: 10	▼ 1 - 10 of	60 < 4	< <u>1</u> of 8	> >	
Failed											

This grid can be searched and sorted to find information about a specific job. See the section on the <u>Jobs Column, Searching and Sorting</u> for details on using the Jobs tab.

On the right side of the Job Summary is the state-wise view of the jobs in the form of a wave chart. Each wave in the chart represents a state, and the segments of the wave proportionally

represent the number of jobs in that state which are in each state. Each jobs state is listed along with the number of jobs in that state:

	Last 24 hours	This Week	Last Week
Total 40			
Running O			
Completed 39			
Failed 1			

Registering Servers

Once the instance (or instances) of SUREedge DR is installed and configured the server registration process begin by navigating to the **Register** tab. The Register tab displays servers registered with SUREedge DR along with important information about each server – its name and IP address, the size of its data image, and so on.

To register a new server in SUREedge DR, download and install the **SUREedge Server Utility** on the server to be protected. To get started, click the **Register** button:

Persistent								Aug	5, 2021 12:22 P	M Sureline v
Bi Dashboard	r 😯 Protect		ம Jobs E	Reports	Settings					
Register	Q Search									T
							Øre	GISTER	DELETE	C REFRESH
All Servers	🗌 Туре	IP Address	DNS Host Name			Plan	Group	Size	Status 🕁	Action
TYPE		10.128.0.32	ubuntu18-vip					1.55 GB	Transferred	:
Linux		10.128.0.41	win2k19-vip					22.74 GB	Transferred	:
STATUS	□ 👌	10.1.0.18	centos7-vip					1010.13 M	B Cached	:
Capturing	o 👌	10.1.0.7	ubuntu18-vip					1.4 GB	Recovered	:
Captured		10.1.0.6	win2k19-vip					22.03 GB	Recovered	:
Transferred		10.128.0.35	win2k19-vip					22.75 GB	Recovered	:
Recovering						Items per page: 10	▼ 1 - 10 of 10	< <	of 1	$\rightarrow \rightarrow$

It displays a page describing the registration process:

P P	ersistent						Aug 5, 2021 12:29 PM Sureline 👻
騽 Dashbo	ard I	E Register	Protect		🖉 Jobs	Reports	Settings
	Register	Servers					
SURE To star used to	edge Serv protecting a protect the	er Utility I server, a SUR newly registere	Eedge Server Util d server. The SUF	ity needs to be dowr REedge Server Utility	nloaded and insta y captures the da	ilied on the server. A ta on the server and	After the installation completes, the SUREedge Server Utility will automatically register the server. After the server registration is completed the SUREedge Vieb UI can be d sends it to the SUREedge instance to be protected.
For L	nux Serve	rs 🖸	aller by executing	the following comma	ind on the server		
1a. OR:	wget -0 ./	sureedge_ser	ver_utility_lir	nux_installer.tar	http://10.12	8.15.227/downloa	ads/sureedge_server_utility_linux_installer.tar
1b. 1	Download the	e Server Utility	using the browser	and copy it onto the	server to be prot	ected: SUREedge	Server Utility Installer for Linux
2. 1	ar -xvf ./	s following com	mands on the sen	ver to untar and insta nux_installer.ta			
3. :	udo ./sure	edge_server	utility_instal	ler.shtoken 4	5D5638B751D563	80 D	
For W	indows Se	ervers					
1.0	ownload the	SUREedge Se	erver Utility using t	he browser and cop	y it onto the serve	er to be protected: S	SUREedge Server Utility Installer for Windows
2. L	nzip the dov	mloaded file. E	xecute the following	ng commands on the	server to install.		
SU	EedgeServe	rutility.exe	e /token=45D563	8875105630	1		
SUREedge D	R, Version: 6.6	1.29843					Copyright @ 2021 Pensistent Systems Limited. All rights reserved.

Download and install the SUREedge Server Utility on your servers as described in the following sections. After the SUREedge Server Utility is installed, it registers the server with your

SUREedge DR instance and start the recovery process by kicking off the initial system image capture.

Registering a Windows Server

To begin protection of a Windows server, download and install the SUREedge Server Utility on the server to be protected. From the How to Register Servers page in the Register tab click the link indicating the **SUREedge Server Utility Installer for Windows**:



Once downloaded, unzip the installer and run the following command in a command window:

SUREedgeServerUtility.exe /token=<TOKEN>

using the value for *<TOKEN>* indicated on Register Servers page as shown above. For convenience the entire command can be copied from that page and pasted into a command window.

Note: For advanced parameters and full usage description of the SUREedge Server Utility for Windows please refer to the section on "Windows Server Utility Parameters".

```
Microsoft Windows [Version 10.0.17763.379]
(c) 2018 Microsoft Corporation. All rights reserved.
C:\Users\Administrator\Desktop\SUREedgeServerUtility>SUREedgeServerUtility.exe /token=570B88D16B73C42E
C:\Users\Administrator\Desktop\SUREedgeServerUtility>
Checking Supported OS.
                                                             [OK]
Checking 1GB free space available in C:\.
                                                             [OK]
 Extracting SUREedge Server Utility.
                                                             [OK]
Installing SUREedge Server Communication Service.
                                                             [ок]
 Starting SUREedge Server Communication Service.
                                                             [OK]
Checking SUREedge MC Connection.
Checking SUREedge Reverse Connection.
                                                             [OK]
                                                             Гок'
Adding Server to SUREedge.
                                                             [OK]
                                                             [OK]
Adding Server information to SUREedge.
Server information added successfully. Use SUREedge Web UI to schedule protection. Press any key to exit_
```

After installation has completed the SUREedge Server Utility will perform following operations:

- perform discovery on the system being protected;
- register the server with the SUREedge DR instance for protection;
- submit the discovered system details;
- start the initial system image capture.

The image capture process transfers the system's data image to the SUREedge DR instance from which you downloaded the Server Utility. In a single-instance deployment this is the DR instance in the target environment. In a dual-instance deployment this will be the site-side DR instance; and once capture is complete, the image will be automatically transferred to the target-side instance.

Once a system image has arrived at your DR instance in GCP you can perform recovery as described in the section, "<u>Recovering Servers</u>".

Registering a Linux Server

To register a Linux server, download the SUREedge Server Utility Installer for Linux from the Register Servers page. From the How to Register Servers page on the Register tab follow the instructions to download and install the **SUREedge Server Utility Linux** on the server to be registered:

P	ersister	nt						Aug 5, 2021 12:29 PM Sureline 🛩
器 Dashbo	ard	Register	Protect	Recover	🖨 Jobs	P Reports	Settings	
	Registe	r Servers						
SURE To star used to The SU For L1 Dow 1a. OR: 1b. 1 Ther 2 1 3 3	edge Sei protecting protect th IREedge S nux Serv nload the S wget -0 . Download th execute t ar -xvf sudo ./su	rver Utility a server, a SU e newly registe server Utility wil rers Server Utility in /surreedge_se the Server Utilit he following co ./surreedge_serve	REedge Server UBI red server. The SUB staller by executing using the browser mmands on the ser erver_utility_instal	lity needs to be down REedge Server Utilit ninstalled from the re the following commi- nux_installer.tar and copy it onto the ver to untar and inst inux_installer.ta inux_installer.ta	Vicaded and insta y captures the da eccovered server and on the server http://10.12 server to be pro at: n	iled on the server. ta on the server ar 8.15.227/downlo lected: SUREedge	After the installation completes, the SUREedge Server Utility and sends it to the SUREedge instance to be protected.	vil automatically register the server After the server registration is completed the SUREedge Web UI can be
For W 1. D 2. U SUR	indows ! ownload th nzip the do EedgeSer	Servers he SUREedge ! ownloaded file. verutility.e	Server Utility using t Execute the followi xe /token=450563	the browser and cop ng commands on the 188751D5630	y it onto the serv e server to install)	er to be protected:	: SUREedge Server Utility Installer for Windows	
SUREedge D	R, Version: 0	6.1.29843						Copyright @ 2021 Persistent Systems Limited. All rights reserved.

From the Register Servers page on the Servers tab download the **SUREedge Server Utility Installer for Linux** to the server to be registered. Then execute the following commands in a terminal or terminal window on the server to be registered to unzip and run the installer:

```
tar -xvf ./sureedge server utility linux installer.tar
```

sudo ./sureedge server utility installer.sh --token <TOKEN>

The value for <TOKEN> should be obtained from Register Servers page.

Note: For advanced usage and parameters for the SUREedge Server Utility for Linux and please refer to the section on "Linux Server Utility Parameters".

$q_{\rm urrelineBuhn1804-grv.~S}$ wast -0 /gureedge gerver utility linux installer t	ar http://172 16 51 20/downloads/sureedge server utili
tu linuy installer tar	ar hosp.,, i, z.io.oi.zo, downioddo, burccuge_beiver_doiri
$J_{-2020-0}$ = 2 06.11.35- http://172 16 51 20/downloads/surredge server util	ity linux installer tar
Connecting to 172 16 51 20:80 connected	ioj_inan_inodiici/odi
HTTP request sent awaiting response 200 OK	
Length: 3383808 (3,2M) [ann]ication/v-tar]	
Saving to: \ /suredge server utility linux installer tar'	
build of ", burchage_berver_abirroy_rinan_inboarier.bar	
/sureedge server utility linux 100%[===================================	======================================
·/barcage_berter_abtribi_inan_ iboot	
2020-09-22 06:11:35 (108 MB/s) - \./sureedge server utility linux installer	tar' saved [3383808/3383808]
sureline@ubn1804-srv:~\$ tar -xvf ./sureedge server utility linux installer.	tar
sureedge.config	
sureedge server utility.tar.gz	
sureedge server utility installer.sh	
sureline@ubn1804-srv:~\$ sudo ./sureedge server utility installer.shtoken	570B88D16B73C42E
Checking Supported OS.	[OK]
Checking required space available for /tmp directory.	[OK]
Checking firewall status.	[OK]
Checking for virtio drivers.	[OK]
Extracting SUREedge Server Utility.	[OK]
Installing SUREedge Server Communication Service.	[OK]
Starting SUREedge Server Communication Service.	[OK]
Checking SUREedge MC Connection.	[OK]
Checking SUREedge Reverse Connection.	[OK]
Adding Server to SUREedge.	[OK]
Adding Server information to SUREedge.	[OK]
Server information added successfully. Please use SUREedge Web UI to schedu	le protection.
sureline@ubn1804-srv:~\$	

After installation has completed the SUREedge Server Utility is installed it will perform following operations:

- perform discovery on the system being protected;
- register the server with the SUREedge DR instance for protection;
- submit the discovered system details;
- start the initial system image capture.

The image capture process transfers the system's data image to the SUREedge DR instance from which you downloaded the Server Utility. In a single-instance deployment this is the DR instance in the target environment. In a dual-instance deployment this will be the site-side DR instance; and once capture is complete, the image will be automatically transferred to the targetside instance.

Once a system image has arrived at your DR instance in GCP you can perform recovery; see Section," <u>Recovering Servers</u>".

Other Operations

Besides registering new servers, the Register tab also displays the currently registered servers, along with important information about them, and allows operations on them. This list can be filtered by column values (as described in <u>Filtering</u>) or filtered by system type or state (as described in <u>Filtering</u>).

Each line in the Register tab represents a server that has been registered with SUREedge DR, and provides information about the registered server:

Persistent											Aug 6, 2021 6:15	AM Sureline
떏 Dashboard 📃 R	Register	0	Protect	Recover	億 Jobs	Reports	Settings					
🔳 Register		Q :	Search									–
											🗍 DELETE	C REFRESH
All Servers			Туре	IP Address	DNS Host Na	ame		Plan	Group	Size	Status 🕁	Action
TYPE			Δ	10.128.0.32	ubuntu18-vi	ip.				1.55 0	B Skipped	:
Linux				10.128.0.41	win2k19-vip					22.74	GB Skipped	:
STATUS			۵	10.1.0.7	ubuntu18-vi	p				1.4 G	3 Recovered	:
Added Capturing				10.1.0.6	win2k19-vip					22.03	GB Recovered	:
Captured				10.128.0.35	win2k19-vip					22.75	GB Recovered	:
Transferring Transferred			Δ	10.1.0.18	centos7-vip					1010.	13 MB Capturing	÷
Recovering			Δ	10.128.0.6	ubuntu18-vi	p				1.64 0	B Failed	:
Recovered Caching				10 128 15 232	win?k19_vin					22.4.0	R Failed	:
Cached								Items per page: 10	<u>▼</u> 1-1	0 of 10 <	< _1_of	

The following table provides information of each column on Register page:

Туре	The Operating System that the server is running (Windows,
	Linux)
IP Address	The host's IP address.
DNS Host	Username to be used to access the host.
Name	
Plan	Displays the plan (if any) to which the server belongs.
Group	Displays the server groups which are collections of servers
	that can be treated as one when performing operations (like
	recovery).
Size	Displays the total size of the data to be captured.
Status	Displays the current status of the server.
Action	Clicking the three-dot button displays actions that can be
	performed on the server represented in the row.

Clicking on a server's row in the grid brings up detailed information about the server:

Persistent	:					Aug 6, 2021 8:17 AM Sureline V	
盟 Dashboard	■ Register	Protect	岱 Jobs	Reports	Settings		
← ubuntu18	3-vip						
Server Information	on						
DNS Host Nam IP Address Type RAM CPU Port OS Name OS Version Drives DHCP Subnet Gateway DNS	 ubuntu 18-vip 10.128.0.32 Linux 1.94 GB 2 25028 Ubuntu 18.04 //boot/efi/mr False 255.255.255. 10.128.0.1 127.0.0.53 	nt 255					

The following table provides Server Information page details:

Parameter	Description
DNS Host Name	The hostname of the server.
IP Address	The host's IP address.
Туре	The Operating System (OS) type (Windows, Linux) of the
	server.
RAM	The memory (RAM) capacity of the server.
CPU	The number of CPUs the server has configured.
Port	The server's preferred SSH port.
OS Name	The name of the system's OS.
OS Version	The system's OS version.
Drives	The drives attached to the system.
DHCP	Indicates whether Dynamic Host Configuration (DHCP) is
	used to configure networking on the system.
Subnet	The system's IP subnet.
Gateway	The network gateway for the system.
DNS	The DNS servers for the system.

Server Operations

The Register tab has an additional workspace toolbar, along with the Register button it also has options to Delete and Refresh the servers.

To delete or refresh a server, first select the server by clicking on the check-box next to it and then click on Delete or Refresh button. You can also click on the vertical three dots in the action pull down menu in actions column to perform the delete or refresh server action.

Persistent										Aug 6, 2021 6:23	AM Sureline	Ŷ
B Dashboard 🗮 Register	0	Protect	Recover	@ Jobs	Reports	Settings						
Register	٩ :	Search										
									⊘register	DELETE	C REFRESH	
All Servers		Туре	IP Address	DNS Host Na	me		Plan	Group	Size	Status 🕁	Action	Г
TYPE	~	۵	10.1.0.7	ubuntu18-vij	5				1.4 G	B Recovered	:	
Linux	~		10.1.0.6	win2k19-vip					22.03	GB Recovered	:	L
STATUS			10.128.0.35	win2k19-vip					22.75	GB Recovered	:	L
Added Capturing		۵	10.128.0.32	ubuntu18-vij	0				1.55	GB Capturing	:	
Captured		Δ	10.1.0.18	centos7-vip					1010.	13 MB Capturing	:	
Transferred			10.128.0.41	win2k19-vip					22.74	GB Capturing	:	
Recovering		۵	10.128.0.6	ubuntu18-vij	5				1.64	GB Failed	:	
Recovered			10 128 15 232	win2k19_vin					22.4	3B Failed	:	
Cached Failed							Items per page: 10	▼ 1	- 10 of 10 <	< _1_0	^{F1} > >	

Filtering

To the left of the Register Tab you will find filters to restrict the list of servers displayed in the grid. You can choose to show **All Servers** by removing any current filtering (**1** in the image below) or to filter by **Server Type** (**2**) or **Server State** (**3**):

盟 Dashboard	Register	0	Protect	O Recover	伫 Jobs	Reports	Settings						
🔳 Regist	ter (٩	Search										
											Ĵ DELETE	C REFRESH	
All Servers	1		Туре	IP Address	DNS Host Nan	ne -		Plan	Group	Size	Status 🕁	Action	
Windows	2	 	Δ	10.1.0.7	ubuntu18-vip					1.4 GB	Recovered	:	
Linux	-	<u>~</u>		10.1.0.6	win2k19-vip					22.03 GB	Recovered	:	
Addad				10.128.0.35	win2k19-vip					22.75 GB	Recovered	:	
Capturing	3		Δ	10.128.0.32	ubuntu18-vip					1.55 GB	Capturing	:	
Captured			Δ	10.1.0.18	centos7-vip					1010.13 MB	3 Capturing	:	
Transferred				10.128.0.41	win2k19-vip					22.74 GB	Capturing	:	
Recovering Recovered			Δ	10.128.0.6	ubuntu18-vip					1.64 GB	Failed	:	
Caching				10 128 15 232	win?k19_vin					22.4 GB	Failed	:	
Cached Failed								Items per page: 10	▼ 1−1	0 of 10 < <	of	1 > >	

Only one filter may be applied at a time; to clear any currently applied filters click the **All-Servers** item.

The following filters are available for filtering by server type:

Windows	Display only servers running the Windows operating system.
Linux	Display only servers running a Linux-based operating system

The following filters are based on the system's state within SUREedge DR:

Added	Displays all the Added servers.
Capturing	Displays all the Capturing servers.
Captured	Displays all the Captured servers.
Transferring	Displays all the Transferring servers.
Transferred	Displays all the Transferred servers.
Recovering	Displays all the Recovering servers.
Recovered	Displays all the Recovered servers.
Caching	Displays all the Caching servers.
Cached	Displays all the Cached servers.
Failed	Displays all the Failed servers.

Exporting the Server List

The **Export** button can be used to download a spreadsheet of server information in various file formats (Windows Excel, CSV, JSON and Text). This gives you access to server information in spreadsheet form for use in tracking, reports, etc.

🕂 Persistent									Aug 6, 2021 6:2	AM Sureline	~
BB Dashboard 🗮 Register	Protect	ා Recover	色 Jobs	Reports	Settings						
Register	Q Search										
								⊘register	DELETE	Excel	
All Servers	— Туре	IP Address	DNS Host N	ame		Plan	Group	Size	Status 🕁	CSV	
TYPE	🗹 🔬	10.1.0.7	ubuntu18-v	ip				1.4 GB	Recovered	JSON	
Linux		10.1.0.6	win2k19-vi;	0				22.03 0	B Recovered	Text	
STATUS		10.128.0.35	win2k19-vi	2				22.75 0	BB Recovered	1 E	

Once you click on Export button, select the file format to export (Excel or CSV or JSON or Text) the spreadsheet and save the Excel spreadsheet file to your computer. In the following example Excel file format has been selected to download the spreadsheet:



The resulting file is an Excel spreadsheet containing all the information for servers that have been added to the SUREedge DR instance, as shown below:

,	AutoSave 💽) ~ (d ~ .	~				Se	vers.xlsx - Pr	otected View	- Excel				Nilesh N	ikam N	Ŧ	- 0	×	
Fi	le Hom	ne Insert	Page La	yout Fo	rmulas	Data Rev	view View	Help	∕⊃ Sea	rch							🖻 Share	Com	iments	
A1			E.	Tuno																
			√ Jx	Type																_
	A	В	С	D	E	F	G	Н	1	J	К	L	М	N	0	Р	Q	R		A
1	Туре	IIP Address	DNS Host	l Plan	Group	Size	Status													
2	linux	1/2.16.200	cent/.4-id	check	newone	2.66 GB	Transferred													
3	linux	1/2.16.201	cent8.0-id	e		6.59 GB	Iransferred													
4	linux	172.16.201	rhel8.0-scs			25.17 GB	Transferred												/	
5	windows	172.16.205	win2k16-s	(25.87 GB	Transferred												/	
6	linux	172.16.200	rhel7.4-scs			1.1 GB	Transferred													
7	linux	172.16.51.	ubn1804-s			3.25 GB	Added													
8	linux	172.16.201	install			1.2 GB	Transferred													
9	linux	172.16.201	sles15-x64	l		1.33 GB	Transferred													
10	linux	172.16.201	install	DevOps	Cent8	1.24 GB	Transferred													
11	linux	172.16.51.	ubn2004-i	DevOps	Cent8	5.97 GB	Transferred													
12																				
13																				
14																				
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27																				-
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In the spreadsheet, each row represents one server and contains columns as defined below. Please note that the list is exported to obtain proper format of spreadsheet. Leave fields blank wherever applicable.

Column	Description
Туре	Type of Server (e.g. Windows Server, Linux Server).
IP Address	IP address of the server.
DNS Host Name	Username to be used to access the host.
Plan	Plans are collections of servers which are captured, transferred, and
	recovered as a group in a plan.
Group	Server Groups are collections of servers that can be treated as one for
	operations like recovery to be performed.
Size	The maximum size (in GB) that the SUREedge DR Store VM should be
	allowed to consume for storing captured system images.
Status	The current status of the servers.

Protecting Servers

The **Protect** tab is where you will be able to define protection for individual servers, create recovery plans and access information about existing plans and protection details.

The most basic operation for protecting servers is the *capture* of the system's data. A complete copy of the system's data is a *full* capture. While a full capture guarantees complete protection, they are not used on a regular basis by most organizations since they are time consuming and also require a lot of disk storage.

Incremental capture offers a way to reduce the time required to capture a system image and reduce the disk capacity needed to store it. Incremental capture only captures the data that has changed since the previous capture.

🕂 Persistent											Aug 6	, 2021 8:45 AM	Sureline v
器 Dashboard 🗧	Register	•	Protect	Recover	色 Jobs	Reports	Settings						
😯 Protect		Q 5	Search										
											Ô	PROTECT	PLAN
All Servers			Туре	IP Address	DNS Host Nam	e		Plan	Group	Size	Schedule	Status 🕁	Action
PLANS			۵	10.1.0.7	ubuntu18-vip					1.4 GB	0	Recovered	:
				10.1.0.6	win2k19-vip					22.03 GB	0	Recovered	:
				10.128.0.35	win2k19-vip					22.75 GB	0	Recovered	:
			Δ	10.1.0.18	centos7-vip					1010.13 ME	3 🕓	Capturing	:
			۵	10.128.0.6	ubuntu18-vip					1.64 GB	()	Failed	:
								ltems per pag	e <u>5 ▼</u> 1-	5 of 10 ∢	< <	of 2	> >I

The Protect tab displays the server and protection information in a grid:

Each row in the Protection grid represents a server that has been registered for protection. The grid contents can be filtered by specifying search terms in the search bar above the grid. Servers can also be filtered by server group or recovery plan using the filters to the left of the grid.

For each server you can see the following information in the gird:

Туре	The OS that the server is running (Windows, Linux).
IP Address	The server's (primary) IP address.
DNS Host Name	The DNS name of the server.
Plan	Shows the plan (if any) to which the server belongs.
Group	Shows any server groups to which the server belongs.
Size	Displays the total size of the data to be captured.
Status	Displays the current status of the server.
Action	Clicking the three-dot action button presents a list of operations that can
	be performed on the server, such as setting or adjusting its capture
	schedule.

Persistent										Aug 6	, 2021 8:45 AM	Sureline v
踢 Dashboard 🗮 Register	•	Protect	⑦ Recover	億 Jobs	Reports	Settings						
Protect	٩	Search										
										0	PROTECT	🖉 PLAN
All Servers		Туре	IP Address	DNS Host Nar	ne		Plan	Group	Size	Schedule	Status 🕁	Action
PLANS		۵	10.1.0.7	ubuntu18-vip)				1.4 GB	0	Recovered	:
			10.1.0.6	win2k19-vip					22.03 GB	0	Recovered	:
			10.128.0.35	win2k19-vip					22.75 GB	0	Recovered	:
		۵	10.1.0.18	centos7-vip					1010.13 MB	0	Capturing	:
		۵	10.128.0.6	ubuntu18-vip)				1.64 GB	S	Failed	:
							ltems p	erpage: 5 👻	1 – 5 of 10 <	<	of 2	> >1

More information about the server can be viewed by clicking on the desired server's row:

This displays the **Server Information** details page:

子 Persiste	nt					Aug 6, 2021 8:47 AM Sureline Y
器 Dashboard	Register	Protect	Recover	@ Jobs	Reports	Settings
← ubuntu	18-vip					
Server Informa	ation	Schedule	Images			
DNS Host Na IP Address Type	me : ubuntu18-v : 10.1.0.7	ip				
RAM CPU Port	: 3.35 GB : 1 : 25028					
OS Name OS Version	: Ubuntu : 18.04					
DHCP Subnet	False	5.0				
Gateway DNS	: 10.1.0.1 : 127.0.0.53					

The following table describes the parameters of server information details page:

Parameter	Description
DNS Host Name	The hostname of the server.
IP Address	The server's IP address.
Туре	The Operating System (OS) type (Windows/ Linux) of server.
RAM	The memory (RAM) capacity of the server.
CPU	The number of CPUs the server has configured.
Port	The server's preferred SSH port.
OS Name	The name of the system's OS.
OS Version	The system's OS version.
Drives	The drives attached to the system.
DHCP	Indicates whether Dynamic Host Configuration (DHCP) is
	used to configure networking on the system.
Subnet	The system's IP subnet.

Gateway	The network gateway for the system.
DNS	The DNS servers for the system.

Selecting the Schedule subtab displays the details of the server's protection schedule:

	Persistent								Oct 8, 2021 1:59 AM Adm	ninistrator ~
5	뿝 Dashboard 📰	Register 😯 Protect	Recover	ළ Jobs	P Reports	🕸 Settings				
	← ubn1804-s 172.16.201.90	csi-lvm-multidisk-one	epart-diff-rd1-e>	d4-singnic-l	bios					
	Server Information	Schedule	Images							
	Operation	Туре		Time			Drives		Actions	
	Capture	Full		Daily at 01	1:00 (no daily repe	at)	/,/home,/tmp,/boot	l,/raid1	:	
	Capture	Incremen	ital	Daily at 02	2:00 (no daily repe	at)	/,/home,/tmp,/boot	l,/raid1	:	
	Edit Protection S	ichedule								
										_
SL	JREedge DR, Version: 6.6.1.2	29888			Instance nam	e: SUREedge • Instance location: Hyper-		Copyright © 20	21 Persistent Systems Limited. A	All rights reserved

The protection schedule is a list of *capture operations* defined for the server. Each capture operation defines a type of image capture operation to perform (full or incremental) and when to perform it. Taken together all the operations define the desired recovery points available when a server needs to be recovered.

The following table describes the attributes of a capture operation:

Parameter	Description
Туре	The type of capture to perform (full or incremental).
Time	The scheduled time(s) the capture should be performed.
Drives	The drives whose data will be captured.
Action	In the Action column you can select operations to perform on the defined
	operation - Run Now, Run At, etc.

Clicking on the **Images** subtab displays details about images that have been captured for the server:

f	Persistent							Aug 8, 2021 8:48 AM S	ureline v
器 Da	shboard 🔳 Register	Protect	Recover	伫 Jobs	Reports	奪 Settings			
÷	ubuntu18-vip 10.1.0.7								
s	erver Information	Schedule	Images						
	Job Name	Арр Туре	Capture	Туре	Size	Start Time	End Time	Actions	
	Capture_full_2	OCB	Full		1.19 GB	2021-08-02 10:47:01	2021-08-02 10:48:39		
	Capture_full_2_incr_1	OCB	Incr		9.13 MB	2021-08-02 11:27:01	2021-08-02 11:28:18	R	
	Capture_full_5	OCB	Full		1.27 GB	2021-08-03 07:47:01	2021-08-03 07:50:59	Ì	
	Capture_full_5_incr_1	OCB	Incr		9.6 MB	2021-08-03 08:08:01	2021-08-03 08:09:15	R	
SUREed	ge DR, Version: 6.6.1.29643						Copyright ⊜ 20	21 Persistent Systems Limited. All rig	ghts reserved.

The following table describes the parameters of **Images** details page:

Parameter	Description
Job Name	The unique job name identifying the specific job that represents the capture
	operation performed to obtain the image.
Арр Туре	Indicates the level at which the image capture was performed; this will
	always be OCB for system protection.
Capture Type	Indicates the type (full or incremental) of capture operation performed to
	capture the image.
Size	Displays the total size of the data captured.
Start Time	The start time and date for the initiation of server capture operation.
End Time	It displays the end time and end date of server capture operation.
Actions	In the Action column you can delete the image by clicking on the delete
	icon.

Defining Server Protection

For registered servers you can create a protection schedule by selecting the particular server or group of servers in the grid, clicking on the **Protect** button in the upper right-hand corner of the screen and selecting the **Schedule** item:

Persistent										Au	g 6, 2021 8:49 Al	/ Sureline v
盟 Dashboard 🛛 🔳 Register	0	Protect	⑦ Recover	@ Jobs	Reports	Settings						
Protect	٩	Search										
										Ć) PROTECT	🛛 PLAN
All Servers		Туре	IP Address	DNS Host Nan	1e 🅈		Plan	Group	Size	Schedule	Status	Action
PLANS	<u>~</u>	۵	10.1.0.18	centos7-vip					1010.13 MB	0	Capturing	1
		۵	10.1.0.17	centos7-vipat	itupg				1011.37 MB	0	Failed	:
		Δ	10.128.0.6	ubuntu18-vip					1.64 GB	S	Failed	:
		Δ	10.128.0.34	ubuntu18-vip					1.58 GB	0	Failed	:
		Δ	10.128.0.32	ubuntu18-vip					1.55 GB	0	Failed	:
		۵	10.1.0.7	ubuntu18-vip					1.4 GB	0	Recovered	:
							ltems per pa	age: 10 💌	1 – 10 of 10	< <	of 1	> >

This will bring up the Edit Protection screen:

子 Persist	ent						Aug 6, 2021 9:03 AM Sureline 🗸
B Dashboard	Register	Protect	Recover	伫 Jobs	Reports	Settings	
← Edit F	Protection						() Schedule
	Туре	DNS Host	Name			IP Address	
	۵	ubuntu18	3-vip			10.128.0.6	
Scheduling Add Captu	ге						
Retention							
Local Copy			Day(s 7)*			
Remote Copy			Day(s)*			I
SUREedge DR, Versio	n: 6.6.1.29643						Copyright © 2021 Persistent Systems Limited. All rights reserved.

At the top of the page shows the servers that were selected when you clicked **Protect -> Schedule**. By selecting multiple servers, you can quickly set the same schedule for many servers in one pass. All servers that were selected when you clicked the **Protect** button are selected in the Edit Protection screen by default; you can refine the selection of servers whose protection characteristics you wish to set by changing the selection.

Protecting a server involves defining the three components:

- A *capture schedule* that will determine what types of images of the server(s) to capture and when to capture them. This determines the granularity of images that are available for recovery in case of a disaster, which in turn defines the **Recovery Point Objectives** (**RPOs**) available for the server.
- Defining a *retention policy* that indicates how long images are kept available for recovery. This determines the *window of recovery* available for a server, i.e. the

farthest back in time a recovery point for the server is available, another component of **RPO**.

• Enabling or disabling *Hot DR* for the server(s). Hot DR involves keeping a pre-recovered image of a server's data disks available as a virtual device in the target environment. This reduces the time needed to bring up a copy of the server when a failover is needed, reducing the **Recovery Time Objective (RTO)** for a server.

The Edit Protection screen presents three sections corresponding to these three protection characteristics.

Capture Schedule

The **Capture Schedule** section shows the list of currently defined capture operations, if any. To add a new operation, click the **Add Capture** button:

子 Persis	tent						Aug 8, 2021 9:03 AM Sureline 🗸
器 Dashboard	Register	Protect	⑦ Recover	色 Jobs	Reports	奪 Settings	
← Edit	Protection						() Schedule
	Туре	DNS Host N	lame			IP Address	
~	Δ	ubuntu18-	vip			10.128.0.6	
Scheduling Add Cap Retention	ure						
Local Copy			Day(s)	•			
Remote Cop	/		Day(s) 7	*			
SUREedge DR, Vers	ion: 6.6.1.29643						Copyright @ 2021 Persistent Systems Limited. All rights reserved.

This will bring up the **Set Schedule** dialog allowing you to define a capture operation:

Capture Type		
Full		-
Schedule Type		
Daily		-
At Time		
Hour *	- O Minute *	-
Repeat After		
Hour*	- Minute	-

• **Capture Type:** Specify the type of image to capture. A **Full** capture (1 in the image below) unconditionally captures all data on the system; an **incremental** capture (2) only captures files that have changed since the last full capture operation.

Capture Type			
Full			-
Schedule Type			
Daily			-
At Time			
At Time		Minute *	
At Time Hour*	-	Minute *	-
At Time Hour* 0 Repeat After	-	0 Minute *	-
At Time Hour * 0 Repeat After Hour *	-	0	-

• The remaining sections of the determine when the capture operation will occur. There are three different types of scheduling available under the **Schedule Type** pulldown:
Daily: To define a capture operation that should be performed every day choose the Daily item from the Schedule Type pulldown:

Full		-
Schedule Type		
Daily		Ŧ
At Time		
Hour *	Minute *	
0	- 0	-
Repeat After		
Repeat After Hour*		

For a daily capture schedule you can set the time of day to perform the capture in the **At Time** section. You can also specify that the operation be repeated within the same day using the **Repeat After** section; if no repeat catpure is desired, select **No Repeat**.

 Weekly: to define the capture operation based on the days of the week, choose the Weekly item from the Schedule Type pulldown:

Capture Type			
Full			-
Schedule Type			
Weekly			-
At Time			
Hour *		Minute *	
3	-	15	-
On Days			
		andau 🖂 Thursdau G	Criday 🖂 Octorday

Choose the time of day when the capture operation should be performed in the **At Time** section, and select which days of the week to perform the capture in the **On Days** section.

• **Monthly:** To define the capture operation based on the days of the month choose the **Monthly** item from the Schedule Type pulldown:

Set	Schedu	lle								×
Captur	е Туре									
Full										÷
Schedu	le Type									
Mont	hly									•
At Time	•									
Hour*					•	/inute *)				Ŧ
On Day	/s									
1	2	3	4	5	6	7	8	9	10	
11	12	13	14	🗌 15	🗌 16	17	🗌 18	19	20	
21	22	23	24	25	26	27	28	29	30	
	Las	t Day								

Indicate the time of day when the capture should be performed in the **At Time** section and select the days of the month to perform the operation in the **On Days** section.

Retention

The **Retention** parameter determines the number of days for which a captured image is kept at either site (source or target); by default, images are set to be expired after seven days at each site. To change the retention window at either site, edit the corresponding value:

Retention Local Copy 1	Dav(s)*
Remote Copy 2	7

The *Local Copy* (1) retention value controls the retention window at the source site; *Remote Copy* (2) controls the retention window at the target site.

Hot DR

Enabling the **Hot DR** option causes SUREedge DR to maintain virtual device(s) containing the latest captured image for a server at the target site.

To enable or disable Hot DR for a server or servers use the option selector at the bottom of the page.

Once you are satisfied with the protection parameters for the server(s) you are protecting click the **Schedule** button in the upper-right corner (1 below); or, if you wish to discard the changes you have made on this page click the **back** button (2).

Editing Existing Protection Schedules

You can edit protection schedules by selecting a server row in the grid and then click on **Sever Grid** in **Protect**:

P Persistent									Oct	27, 2021 2:3	1 AM Adı	ninistrator	~
먦 Dashboard 🛛 🗮 Regi	ster	•	Protect	Recover	ট Jobs	Reports	🕸 Settings						
Protect		۹	Search										
										PR	OTECT	V PLAN	
All Servers			Туре	IP Address	DNS Host Name ↑		Plan	Group	Size	Schedule	Status	Action	
PLANS			Δ	10.1.1.72	centos6-srv		vmware-to-gcp	vmware-to-gcp	34.96 GB	0	Skipped	:	
vmware-to-gcp			Δ	10.1.1.156	centos7-srv		vmware-to-gcp	vmware-to-gcp	37.21 GB	C	Skipped	:	
			Δ	10.1.1.209	centos8-srv		vmware-to-gcp	vmware-to-gcp	48.59 GB	0	Skipped	:	
			Δ	10.1.1.190	ubuntu14-srv		vmware-to-gcp	vmware-to-gcp	89.36 GB	0	Failed	:	
			А	10 1 1 105	ubuntu16-en/		vmware_to_con	vmware-to-gen	01.6 GR	0	Cantured	:	-
							Items per page: 10	▼ 1 - 8 of 8	<	< _	1 of 1	> >	
SUREedge DR, Version: 6.6.1.29623	3							Copyrigh	t © 2021 Per	Activa Go to S sistent Syste	ate Window ettings to activ Ems Limited. ,	All rights reser	rved.

Select Schedule on top pane. Click Edit Protection Schedule:

P Persistent						Oct 27, 2021 2:51 AM Administrator ~
盟 Dashboard 🛛 🗮 Reg	ister 📀 Protect 💿 Recov	er 🖆 Jobs 🕮 Rep	orts 🔹 Settings			
← centos6-srv 10.1.1.72						
Server Information	Schedule Image	PS				
Operation	Туре	Time			Drives	Actions
Capture	Full	Daily at 1	0:30 (no daily repeat)		/,/boot/home	:
Capture	Incremental	Daily at 0	Daily at 00.00, Repeat every 0hr 15min			:
Edit Protection Sche	dule					
						Activate Windows

This will display the **Edit Protection** page:

🕂 Persistent			Oct 27, 2021 2:53 AM Administrator ~
🖽 Dashboard 🛛 🗮 Register 📀	Protect - ා Recover @ Jobs @ Reports \$ Settings		
← Edit Protection			() Schedule
Туре	DNS Host Name	IP Address	
☑ △	centos6-srv	10.1.1.72	
Scheduling Add Capture			
Capture Type	Schedule Information		Action
Full	Daily - At 10 hrs 30 mins of the day. No Repeat		1
Incremental	Daily - At 0 hrs 0 mins of the day. Repeat Interval - 0:15:00		1
Retention			
Local Copy	Day(s)* 7		
Remote Copy	Day(s) *		
Hot DR			
			Activate Windows Go to Settings to activate Windows
SUREedge DR, Version: 6.6.1.29623			Copyright © 2021 Persistent Systems Limited. All rights reserved.

Here you can change the protection schedule by adding or deleting capture operations, adjusting the local and remote retention windows and enabling/disabling Hot DR.

- To add a new capture operation, click the **Add Capture** button; this will bring up the **Set Schedule** dialog for defining the operation's attributes; see Section: "Defining Server Protection" for details.
- To delete a capture operation, select the delete icon for the operations in its **Action** column. You will be presented with a popup to confirm the delete the scheduled protection:

J Persisten	τ			Oct 27, 2021 5.25 AW Administrator V
BB Dashboard	Register	ect 🧿 Recover 🖆 Jobs 🕮 Reports	Settings	
← Edit Pro	tection			() Schedule
	Туре	DNS Host Name	IP Address	
	۵	centos6-srv	10.1.1.72	
Scheduling				
Capture Type		Schedule Information		Action
Full		Daily - At 10 hrs 30 mins of the day. No Repeat	Delete Schedule X	1 8
Incremental		Daily - At 0 hrs 0 mins of the day. Repeat inter	Are sure you want to delete the schedule ?	∕ 8
Retention			Confirm Cancel	
Local Copy		Day(s) *		
Remote Copy		Døy(5) * 7		
Hot DR				
SUREedge DR, Version: 6.	6.1.29623			GO to Settings to activate windows. Copyright 9 2021 Persistent Systems Limited. All rights reserved.

To **edit** an operation (to adjust its capture type or schedule) select the edit icon in the Action column bring up the Edit Schedule dialog:

Persistent						Oct 27, 2021 3:27 AM Administrator ~
B Dashboard	Register 📀 r	Protect 🗿 Recover 👜 Jobs	健 Reports 尊 Settings			
						() Schedule
	type	UNS Host Name	Edit Schedule		3	
	Δ	centos6-srv	Capture Type		-	
Scheduling			Full			
Add Capture			Fui		· .	
Capture Type		Schedule Information	Schedule Type			Action
Full		Daily - At 10 hrs 30 mins of the day.	Daily		•	/ 🛛
Incremental		Daily - At 0 hrs 0 mins of the day. R	At Time			1 2
			Hour*	Minute ×	•	
Retention					-	
Local Copy			Repeat After			
			No Repeat *	Minute	-	
Remote Copy						
			Schedule			
Hot DR						
					Go to Setting	is to activate windows.
REedge DR, Version: 6.6.	1.29623		Instance name: SUREedge • Instance location:	: VMware	Copyright 6	/ 2021 Persistent Systems Limited. All rights reserve

Defining Server Protection" for details on editing the operation's attributes. To save your changes to the operation click on the **Schedule** button to update the operation or click the cancel button in the header to discard any changes.

• To enable or disable Hot DR use the Hot DR toggle button.

When you are satisfied with the changes to the protection schedule click the **Schedule** button (in the upper right corner) to save your changes; or click the back button (in the upper left corner) to discard the changes you have made.

Manually Executing Capture Operations

There are occasions when you may wish to manually trigger a capture operation so that you have a recovery point for an important moment that's not included in the server's regular capture schedule. For example, you may want to have a recovery point just prior to a software update, a maintenance operation, or data reorganization; or just after an important data-related event such as a quarterly data reconciliation or audit.

To perform an off-schedule data capture for a server go to that server's information page by clicking on it in the grid, then choose the Schedule subtab:

This subtab lists the capture operations that comprise the server's protection schedule. You can trigger any of the operations by clicking the three-dot icon in the Action column and choosing either **Run Now** or **Run At**:

- **Run Now**: Use this option to immediately trigger a capture operation based on the attributes of the pre-defined capture operation. You will be presented with a popup to choose attributes for the capture:
 - **Capture Type:** Choose the type of capture to perform, either **Full** (to capture all data from the server) or **Incremental** (to capture only the data that has changed since the prior capture operation).

Then click **Run** to immediately initiate the capture operation or click the **Cancel** button in the header to cancel.

- **Run At**: This option allows you to schedule the capture operation to occur **one** time at some point in the future. You will be presented with a popup to define the details for the capture:
 - **Capture Type:** Choose the type of capture to perform, either **Full** (to capture all data from the server) or **Incremental** (to capture only the data that has changed since the prior capture operation).
 - **Capture Time:** Specify the date and time when the capture operation should occur using the calendar and time fields.

Click **Submit** to schedule the capture operation to occur at the specified time or click the **Cancel** button in the header to cancel.

Creating a Plan

Protect Plans are collections of servers which are captured, transferred, and recovered as a group, along with the attributes changes that will be applied to them during recovery. The use of protect plans streamlines and automates the recovery process. Servers may be grouped into plans for any number of reasons: common administrative responsibility or functionality; common recovery time; common location etc.

Plan creation is performed on the source side of the DR console by logging into the SUREedge DR instance running in the same environment as the servers to be recovered. Recovery plans are created and managed under the **Protect** tab in the SUREedge DR user interface. Once you have added server, you can protect the new server by clicking on the **Plan** button.

Persistent										Aug	6, 2021 8:49 A	M Sureline v
路 Dashboard 🛛 〓 Register	•	Protect	Recover	億 Jobs	Reports	Settings						
Protect	٩	Search										
										Ø	PROTECT	🖉 PLAN
All Servers		Туре	IP Address	DNS Host Name	e 🕈		Plan	Group	Size	Schedule	Status	Action
PLANS	<u>~</u>	۵	10.1.0.18	centos7-vip					1010.13 MB	0	Capturing	÷
		۵	10.1.0.17	centos7-vipaft	upg				1011.37 MB	S	Failed	:
		۵	10.128.0.6	ubuntu18-vip					1.64 GB	0	Failed	
		Δ	10.128.0.34	ubuntu18-vip					1.58 GB	0	Failed	
		Δ	10.128.0.32	ubuntu18-vip					1.55 GB	0	Failed	:
		۵	10.1.0.7	ubuntu18-vip					1.4 GB	0	Recovered	:
							ltems per pa	ge: 10 🔻	1 – 10 of 10	< <	of 1	> >1

Clicking on the Create Plan button, will display the following screen:

Persistent								Aug 6, 2021 9:28 AM	Sureline	~
昭 Dashboard 🛛 🗮 Registe	er 😵 Protect	 Recover 	@ Jobs	Reports	Settings					
÷		Plan Detail	ls							
1 Plan Details		Plan Name								
2 Server Selection										-
3 Server Group										
4 VM Details										
5 Storage Configuration										
6 Target Location										
7 VM Configuration										>
8 Network Interface										

🕂 Persistent						Aug 6, 2021 9:28 AM	Sureline	×
BB Dashboard 🗮 R	Register 😯 Protect	ා Recover	🖆 Jobs	Reports	Settings			
÷		Plan Details	s					
1 Plan Details		Plan Name						
2 Server Selection								-
3 Server Group								
4 VM Details								
5 Storage Configuration								
6 Target Location								
7 VM Configuration							•	

To create a Plan, please follow the steps as mentioned below:

1. Plan Details: In the Plan Details field, enter the Name of plan.

Persistent					Aug	8, 2021 10:62 AM Sureline Y
踞 Dashboard 🗮 Register	• Protect	ල Recover ළ	Jobs 🕑 Reports	Settings		
	PI	an Details				
	Name					
1 Plan Details	testp	olan				
2 Server Selection						
3 Server Group						
4 VM Details						
5 Storage Configuration						
6 Target Location						
7 VM Configuration						•
8 Network Interface						-
•						
Persistent						Aug 6, 2021 9:32 AM Sureline Y
Persistent	Protect	ා Recover d	회 Jobs 🕑 Reports	Settings		Aug 8, 2021 9:32 AM Sureline Y
Persistent If Dashboard ■ Register ←	Protect	⊙ Recover @ Server Selecti	한 Jobs @ Reports	Settings		Aug 6, 2021 9:32 AM Sureline Y
Persistent B Dashboard ≡ Register €	Protect	ତ Recover de Server Selecti (ପ୍ର Search	한 Jobs @ Reports ION	Settings		Aug 8, 2021 9:32 AM Sureline Y
Persistent Dashboard Register	Protect	⑦ Recover ₫ Server Selecti Q Search Server ♠	회 Ø Reports ion	Settings		Aug 6, 2021 9.32 AM Sureline Y
Persistent Dashboard Eregister	Protect	Recover Server Selecti Q Search Server ↑ centos7-vip	ව Jobs @ Reports ion	Settings IPAddress 10.1.0.18	туре А	Aug 6, 2021 9:32 AM Sureline ~
Persistent B Dashboard Register Plan Details Server Selection S Server Group	Protect	Recover A Server Selecti Q Search Server + centos7-wp centos7-wp	D Jobs @ Reports ion	Settings IPAddress 10.1.0.18 10.1.0.17	Type Â Â	Aug 6, 2021 9:32 AM Sureline × Status capturing failed
Persistent B Dashboard Register Plan Details Server Selection Server Group VM Details	Protect	Recover Cerver Selecti Certes Server Server centos7-vipa ubuntu18-vip	D Jobs @ Reports	Settings IP Address 10.10.18 10.10.17 10.128.0.34	Type A A A	Aug 6, 2021 9:32 AM Sureline ~
Persistent B Dashboard Register Plan Details Plan Details S Server Selection VM Details S Storage Configuration	Protect	Recover Recover Server Selecti Server Server centos7-vip centos7-vip ubuntu18-vip ubuntu18-vip	D Jobs @ Reports ion	Settings IPAddress 10.10.18 10.128.0.34 10.128.0.32	Type Â Â Â	Aug 6, 2021 9:32 AM Sureline × Status capturing failed failed failed
Persistent B Dashboard Register Plan Details Plan Details Server Selection Server Group WI Details S Storage Configuration S Tamet Location	Protect	Recover Recover Server Selecti Server server centos7-vipa ubuntu18-vip ubuntu18-vip ubuntu18-vip ubuntu18-vip	D Jobs @ Reports	Settings IP Address 10.10.18 10.10.17 10.128.0.34 10.128.0.32 10.10.7	туре <u>А</u> <u>А</u> <u>А</u> <u>А</u> <u>А</u> <u>А</u>	Aug 8, 2021 9.32 AM Sureline × Status capturing failed failed failed recovered
Persistent Persistent Persistent Persistent Register Plan Details Server Selection Server Group VM Details Server Group VM Details Server Group Target Location	Protect	Recover Recover Server Selecti Q. Search server centos7-vipa centos7-vipa ubuntu18-vip ubuntu18-vip ubuntu18-vip ubuntu18-vip	Disolos @ Reports	Settings IP Address 10.10.18 10.10.128.034 10.128.032 10.10.7 10.128.032 10.10.7 10.10.8	τιγρο Δ Δ Δ Δ Δ Δ Δ Δ	Aug 6, 2021 9.32 AM Sureline × Status capturing failed failed failed recovered failed
Persistent BI Dashboard Engister Plan Details Plan Details Server Selection Server Group VM Details S Storage Configuration Farget Location VW Configuration VW Configuration	Protect		D Jobs @ Reports ion	Settings IPAddress 10.10.18 10.10.17 10.128.0.34 10.128.0.32 10.128.0.32 10.128.0.3 10.10.7 10.128.0.3 10.10.7 10.10.8	Type Δ Δ Δ Δ Δ Δ Δ Δ Δ	Aug 8, 2021 9:32 AM Sureline × Status capturing failed failed failed failed failed failed failed failed
Persistent B Persistent B Persistent B Persistent Register Parset Persistent Persistent Register Register Persistent Register Registe	Protect	Recover Recover Server Selecti Server server centos7-v/pa ubuntu18-v/p ubuntu18-v/p ubuntu18-v/p ubuntu18-v/p win2k19-v/p win2k19-v/p	Dobs @Reports	Settings	Туре А А А А А А А С С С С С С С С С С С С С	Aug 8, 2021 9.32 AM Sureline V Statue Capturing failed failed failed failed failed failed failed failed failed

Click on **Next** button to continue.

2. Server Selection: In Server Selection, allows you to select the servers to include in the plan being created:

Persistent							Aug 6, 2021 10:65 AM	Sureline 💙
聞 Dashboard 🗮 Register	Protect	O Recover	@ Jobs	Reports	Settings			
÷		Server Sele	ection					
0		Q 10.1.0.17						
1 Plan Details		Server 1	r.		IP Address	Туре	Statue	
2 Server Selection						•		-
I		centos/	-vipattupg		10.1.0.17	<u>0</u>	failed	_
3 Server Group						litems per page: 10 👻	1-1of1 <	>
4 VM Details								
5 Storage Configuration								
6 Target Location								
7 VM Configuration	•							•
8 Network Interface								-

Select the servers to be included in the plan by checking the checkbox to the left of each server you wish to be part of the plan. You can also sort the list by clicking on the column headers, and filter the servers using the search box in the upper right corner. Click on **Next** button to define Server Groups and the sequencing of protection operations or click on **Previous** button to go back to previous screen.

3. Server Group

The servers within a plan can be subdivided into *Server Groups* which are collections of servers within the plan that can be treated as one for the purpose of performing operations such as recovery. While it is not required that you create server groups there can be many reasons for doing so – common time for recovery, common functionality, etc.

Server Groups are instantiated in parallel, and the servers within each server groups are instantiated in Recovery Sequence Number order.

ீ	Persistent							Aug 6, 2021 10:55 AM	Sureline 🗡
器 Dashi	nboard 🔳 Register	Protect	⑦ Recover	@ Jobs	Reports	🏶 Settings			
÷			Server Gro	up					
1 Plar	n Details		Host Name				Server Group		
2 Ser	rver Selection		centos7-vipaft	tupg			Servergroup *		
3 Ser	rver Group								
4 VM	l Details								
5 Stor	orage Configuration								
6 Targ	get Location								
7 VM	I Configuration		•						•
Not	twork Interface								-

To create a new "**Server Group**," click on (+) button, this will bring up the **Add to Group** dialog, this will bring up the **Add to Group** dialog:

Add Server Group
Server Group *
Add

Specify the name for the server group you wish to create and click on **Add** button to create the server group or **Cancel** to cancel the operation.

To change the server group for a server, simply choose one from the drop-down in the **Server Group** column.

🕂 Persiste	ent								Aug 6, 2021 10:65 AM	Sureline 🗡
🔡 Dashboard	🔳 Register	Protect	ා Recover	@ Jobs	Reports	🕸 Settings				
÷			Server Gro	up						
1 Plan Details			Host Name				Server Group			
2 Server Selecti	on		centos7-vipaft	tupg			Servergroup	*		
3 Server Group										
4 VM Details										
5 Storage Confi	guration									
6 Target Locatio	n									
7 VM Configurat	tion									•

A server's Recovery Sequence Number can be specified in the **Recovery Sequence** column.

Once you have specified the recovery information for the servers in the plan, click on

Next

button to continue or click on **Previous** button to go back to previous screen.

4. VM Details

This shows the VM Details screen.

Persisten	ıt								Aug 6, 2021 10:58 AM Sur	reline 🗸
器 Dashboard	🔳 Register	Protect	ා Recover	@ Jobs	Reports	Settings				
÷			VM Details							
1 Plan Details			Host Name		Server Group		Current RAM(MB)	Current CPU	Target VM Name	
2 Server Selection			centos7-vipaftu	19g	Servergroup		3.21 GB	1	vm-centos7-vipa/tupg	
3 Server Group										
4 VM Details										
5 Storage Configur	ration									
6 Target Location										
7 VM Configuration	n									•

Each server's virtual machine can have certain attributes specified, such as the number of virtual CPU cores and memory size. You can also specify the target VM's name If the default is not satisfactory.

If a server has undergone discovery by SUREedge DR, then the CPU count and memory size will be filled in with the discovered values from the source server. Any discovered values can be changed, allowing servers to be resized as part of the recovery process, click on **Next** button to continue or click on Previous button to go back to previous screen.

5. Storage configuration

This shows the Storage configuration page:

P Persistent									Aug 6, 2021 10:58 AM	Sureline ~
🖺 Dashboard 🛛 🗮 Regist	er 😯 Protect	ං Recover	@ Jobs	Reports	Settings					
÷		Storage Co	onfiguratio	n						
1 Plan Details		Hoet Name		Se	erver Group	Disk Typ	10	Access Scope		
2 Server Selection		centos7-vipaft	tupg	S	ervergroup	pd-s:	sd	• default	Ŧ	
3 Server Group										
4 VM Details										
5 Storage Configuration										
6 Target Location										
7 VM Configuration										•
8 Network Interface										_

You can specify each system's storage configuration as follows:

Parameter	Description
Disk Type	Storage type for the disk(s) of the recovered server.
Access Scope	The GCP access scope for the recovered system.

Click on **Next** button to continue or click on **Previous** button to go back to previous screen.

6. Target Location

This shows the Target Location page:

子 Persister	nt									Aug 6, 2021 10:68 AM	Sureline 🗡
88 Dashboard	🔳 Register	Protect	ං Recover	@ Jobs	Reports	Settings					
÷			Target Loca	ation							
1 Plan Details			Host Name	Se	rver Group	Project	Region	Zone	Instance Type	Service Account	
2 Server Selection	1		centos7-vipafti	upg Se	ervergroup	Sureedge-QA *	us-east1	vus-east1-b	* Accelerator *	sureedge-m *]
3 Server Group		_									
4 VM Details											
5 Storage Configu	ration										
6 Target Location	1										
7 VM Configuratio	n										•
Naturali Interfer	-	_									_

You can specify each system's storage configuration as follows:

Parameter	Description
Project	In the Project name field select the appropriate name of the
	deployment project.
Region	In the Region field select the appropriate region from the
	dropdown list.
Zone	In the Zone field select the appropriate zone/ country from the
	dropdown list.
Instance Type	In the Instance Type field select the appropriate instance type from
	the dropdown list.

7. VM Configuration

This shows the VM Configuration page:

🕂 Persiste	ent								Aug 6, 2021 11:00	AM Sureline Y
🔡 Dashboard	🔳 Register	Protect	O Recover	@ Jobs	🕑 Reports	Settings				
÷			VM Configu	iration						
1 Plan Details			Host Name		Server Group		Sole Tenant Node (Optional)	BYOL	\$QLPAYG	
2 Server Selecti	on		centos7-vipaft	nbâ	Servergroup		Select Sole Tenant	•		
3 Server Group										
4 VM Details										
5 Storage Config	guration									
6 Target Locatio	n									
7 VM Configura	ition									•
Natural later										-

The **VM Configuration** page allows the specification of Project, Region, Zone, Instance Type, Network and Subnetwork characteristics and sole-tenancy options for the virtual machines created during recovery. You can specify each virtual machine's configuration as follows:

Parameter	Description
Host Name	The GCP project where the VM should be recovered.
Server Group	The GCP server group where the VM should be recovered.
Sole Tenant Node	Sole Tenant Node should be enabled only if you have Sole Tenant Node
(Optional)	features configured for your Project and you wish this system to be migrated
	there.
BYOL	BYOL option is enabled only for Widows Servers when there is a Sole Tenant
	Node in a GCP Project.

8. Network Interface

This shows the Network Interface page:

子 Persiste	ent								Aug 6, 2021 11:00 /	M Sureline Y
🔠 Dashboard	🔳 Register	Protect	ூ Recover	@ Jobs	Reports	🕸 Settings				
÷			VM Configu	uration						
1 Plan Details			Host Name		Server Group		Sole Tenant Node (Optional)	BYOL	SQLPAYG	
2 Server Selecti	ion		centos7-vipaft	upg	Servergroup		Select Sole Tenant			
3 Server Group										
4 VM Details										
5 Storage Confi	guration									
6 Target Locatio	n									
7 VM Configura	ation									•
Natwork Interd	1000									_

You can specify each Network Interface configuration as follows:

Parameter	Description
Host Name	The GCP project where the VM should be recovered.
Server Group	The GCP region where the VM should be recovered.
Network	Select a network from the drop-down list to which the named virtual NIC will
	be attached.
Subnetwork	Select a subnet from the drop-down list to which the virtual NIC will be
	attached.
Ephemeral	When this option is enabled a recovered server will be assigned an
External IP	Ephemeral external IP address when it is created.

When you are done specifying any capture operations click **Next** to review the plan configuration, a confirmation popup is displayed as shown in below image:

Persist	ent								Aug 6, 2021 11:01 AM	ureline ~
盟 Dashboard	🗮 Register	Protect	🕤 Recover	🖨 Jobs	🕑 Reports	Settings				
÷			Network In	terface						
1 Plan Details			Host Name		Server Group	Network	Subnetwork	Network Tags	Ephemeral External IP	
2 Server Select	tion		centos7-vipaf	ftupg	Servergro		sureqa-vpc	• New Tag		
3 Server Group	,					Save Plan ×	,			
4 VM Details					Are	a sure you want to save the plan det	tails?			
5 Storage Conf	liguration					Cancer	_			
6 Target Locati	on									
7 VM Configura	ation	C								0
8 Network Inte	arfaca									

Review the plan and click **Confirm** button to save the plan. The new plan will now appear in the list of plans under the **Protect** tab:

🕂 Persistent											Aug 6, 2021 11:02 AM	/ Sureline >
먦 Dashboard 📰 Register	•	Protect	O Recover	🖨 Jobs	Reports	Settings						
Protect	٩ ۽	Search										
											🕑 PROTECT	🖉 PLAN
All Servers		Туре	IP Address	DNS H	iost Name 🛧		Plan	Group	Size	Schedule	Status	Action
PLANS		۵	10.1.0.18	cento	s7-vip				1010.86 MB	©	Capturing	
		۵	10.1.0.17	cento	s7-vipaftupg		testplan	Servergroup	1011.37 MB	0	Failed	
		۵	10.1.0.7	ubunt	tu 18-vip				1.48 GB	C	Recovered	
		۵	10.128.0.34	ubunt	tu 18-vip				1.58 GB	©	Failed	
		۵	10.128.0.32	ubunt	tu 18-vip				1.55 GB	C	Failed	:
		۵	10.128.0.6	ubunt	tu 18-vip				1.83 GB	C	Failed	1
										-		
								liems per page: 10 -	1 - 10 of 10	<	< <u>1</u> of 1	$\rightarrow \rightarrow$

Recovering Servers

The **Recover** tab allows users to select specific servers to be recovered in the target environment:

P Persistent										Aug 6, 2021	11:03 AM Sureline	~
🖁 Dashboard 🗮 Regis	ter 😯	Protect	😔 Recover	🖨 Jobs	Reports	Settings						
	٩	Search										
											€ RECOVER	
All Servers		Туре	IP Address	DNS	S Host Name	Plan	Group	Size	Image State	Status 🕹	Action	
TYPE Windows		Δ	10.1.0.7	ubu	intu18-vip			1.46 GB	Ø	Recovered	÷	
Linux			10.1.0.6	win	2k19-vip			22.28 GB		Recovered	:	
PLANS			10.128.0.35	win	2k19-vip			11.4 GB		Recovered	:	

The Recover tab contains two sections. In the main panel you'll see a grid containing sortable list of servers arranged in rows, with a search bar above it. The columns show a server's details and status, including the presence of recoverable images; clicking a column header will sort the server list according to that column's displayed attribute.

Column	Description
Туре	Type of Server (Windows Server, Linux Server).
IP Address	IP address of the server.
DNS Host	The hostname of the server.
Name	
Plan	The plan the server belongs to, if any.
Group	Any server groups the server belongs to.
Size	The size of captured system image.
Image State	The current status of the server's image. A green icon indicates the latest
	attempted captured image is available; a yellow image indicates that the
	latest attempted capture image is not available, but an earlier image can be
	used to recover the server; and a red image indicates that no images are
	available, and the server cannot be recovered.
Status	The current status of the server.
Action	You can perform recovery-related operations on a server by clicking the
	three-dot icon and choosing an operation from the drop-down menu.

On the left is a list of filters that can be applied to the server list in the grid. The following table describes the various filter options available:

All	Clear any filters and display all servers.
Туре	Filter the server list by operating system
Windows	Display only Windows servers.
Linux	Display only Linux servers.
Plans	Filter the server list by Plan
	Selecting a Plan name in this section will display only servers in the selected plan in the main grid.
Groups	Filter the server list by Group

Status	Filter the list by server state
Added	Display only servers in the Added state.
Capturing	Display only servers which are currently undergoing a capture operation (full or sync).
Captured	Display only servers that are in the Captured state.
Transferring	Display only servers in the Transferring state.
Transferred	Display only servers in the Transferring state.
Recovering	Display only servers for which a recovery is being performed.
Recovered	Display only servers in the Recovered state.
Caching	Display only servers in the Caching state.
Cached	Display only servers in the Cached state.
Failed	Display only servers in the Failed state.
Skipped	Display only servers in the Skipped state.

Recovering a Server

Recovering one or more servers in SUREedge DR is done by selecting the server(s) to be recovered and clicking the **Recover** button. You can use the filtering and sorting mechanisms to find and select the server(s) you wish to recover.

To recover one or more servers select it/them in the grid and click on the **Recover** button at the top:

子 Persiste	ent										Aug 6, 2021	11:03 AM Sureline
器 Dashboard	🔳 Register	0	Protect	Recover	🖨 Jobs	Reports	Settings					
• Recover		٩ :	Search									
												€) RECOVER
All Servers			Туре	IP Address	DN	S Host Name	Plan	Group	SIZƏ	Image State	Status 🕹	Action
Windows			۵	10.1.0.7	ubu	untu 18-vip			1.46 GB	0	Recovered	÷
Linux				10.1.0.6	win	2k19-vip			22.28 GB		Recovered	÷
PLANS				10.128.0.35	win	2k19-vip			11.4 GB		Recovered	÷
resuprati												

To recover a single server, you can also click on its action button (in its Action column) and choose **Recover**.

This will open the Start Recovery page:

Persistent						A	ug 6, 2021 11:05 AM Sureline ~
🖁 Dashboard 🛛 🗮 Register	Protect 📀	Recover 🖞 Jobs	Reports	🏶 Settings			
← Server Recovery/Cre	ate VM						Start Recovery
Server/Image Details		Target VM Details			Configuration	Network Interface	
DNS Host Name ubuntu18-vip		VM Name * vm-ubuntu18-vip			SQLPAYG	Network * dr661-vn-vip	•
Host IP 10.1.0.7		Instance Type * Standard_B1Is		*		Subnetwork * default	•
Image Name Capture_full_6	Î	Disk Type * Unmanaged Disk		*			
Image Size 1.28 GB		Power On					

This page displays the recovery attributes for the server(s) you chose to recover, which you can examine and some of which you can modify if you wish.

Note that many of the recovery parameters are specific to the environment where the recovery is being performed – such as storage type attributes, networking options, regions and zones, etc. The following example shows options available when recovering within the Google Cloud.

Server/Image Details	
DNS Host Name	The server's hostname.
Host IP	The IP address of the server at its source site.
Image Name	The name of the capture image used for recovery. By default, this will be the last image captured; you can choose a different
	image by clicking the edit icon.
Image Size	The size of the captured data image.
Target Location	

Project	The GCP project where the VM should be recovered.
Region	The GCP region where the VM should be recovered.
Zone	The GCP zone where the VM be recovered.
Target VM Details	
Name	The name for the virtual machine being created.
Service Account	The GCP service account that will be used for authentication
	while performing recovery operations.
Access Scope	The GCP access scope for the recovered system.
Configuration	
Instance Type	The GCP machine type for the VM to be created.
Disk Type	Storage type desired for the virtual disk(s) of the recovered
	server.
Node Group (Optional)	The Node Group attribute will be enabled only if you have the
	Sole Tenant Nodes feature configured for your Project. Select
	the Node Group where you wish the recovered system to reside.
BYOL (Optional)	The BYOL option is enabled only for a Windows Server when
	there is a Sole Tenant Node in a GCP Project. Enable this
	option to activate the BYOL GCP feature for the recovered
	server.
Ephemeral External IP	When this option is enabled a recovered server will be assigned
	an Ephemeral external IP address when it is created.
Network Interface	
Network	Select a network from the drop-down list to which the virtual NIC
	will be attached.
Subnetwork	Select a subnet from the drop-down list to which the virtual NIC
	will be attached.
Network Tags (Optional)	Enter any network tags to attach to the recovered server's
	network connection.

Once you have made the desired adjustments to the recovery with attributes click on the **Start Recovery** button to start recovery operation(s) (or click the back button in the upper left to cancel.)

Once Start Recovery is clicked SUREedge DR will kick off the recovery, spawning recovery operations for the server(s) using the attributes you indicated. The recovery process can take some time depending on the amount of data to be recovered. You can track the progress and status of the recovery jobs by navigating to the **Jobs** tab and selecting the Recovery job type:

P Persisten	t									Aug 6, 2021 11:08 A	M Sureline ~
🔠 Dashboard	🔳 Register	Protect	ා Recover	🖆 Jobs	Reports	Settings					
色 Jobs	(Q Search in al	l fields								
		Servera				Туре	Start Time	Duration	Size	Statue 🦊	Action
All Jobs		ubuntu18-vip				Capture	Aug 2, 2021 10:34 AM	5 minutes	1.19 GB	Completed	
Discover		win2k19-vip				Capture	Aug 2, 2021 10:34 AM	22 minutes	22 GB	Completed	
Capture		ubuntu18-vip				Capture	Aug 2, 2021 10:47 AM	2 minutes	1.19 GB	Completed	
Transfer		ubuntu18-vip				Transfer	Aug 2, 2021 10:49 AM	17 minutes		Completed	:
ImageCaching Other		win2k19-vip				Transfer	Aug 2, 2021 10:58 AM	10 minutes		Completed	
STATUS		win2k19-vip				Capture	Aug 2, 2021 11:27 AM	13 minutes	458.24 MB	Completed	
Running		ubuntu18-vip				Capture	Aug 2, 2021 11:27 AM	a minute	9.13 MB	Completed	:
Gompleted Failed								liems per page: 10 👻	1 – 10 of 94	< < 1 of 10	> >

Microsoft SQL Server Licensing

There are some cloud-based Windows VM configurations that come with Microsoft SQL Server included. These Windows VM's come with both the base operating system and Microsoft SQL Server software, though they are licensed as separate products. In some virtual environments the Microsoft SQL Server software is licensed separately from the Windows operating system where it runs, and as such when recovering VMs in these environments a license will need to be obtained in order to make the recovered VM usable.

SUREedge DR will automatically handle obtaining any required licenses for VMs running Microsoft SQL Server to keep it operational in the recovery environment. The following list shows the supported Microsoft SQL Server versions on the different Windows OS versions:

Windows 2012	Windows 2014	Windows 2016	Windows 2017	Windows 2019
sql-server-2012- enterprise	sql-server-2014- enterprise	sql-server-2016- enterprise	sql-server-2017- enterprise	sql-server-2019-enterprise
sql-server-2012-standard	sql-server-2014-standard	sql-server-2016-express	sql-server-2017-express	sql-server-2019-express
sql-server-2012-web	sql-server-2014-web	sql-server-2016-standard	sql-server-2017-standard	sql-server-2019-standard
		sql-server-2016-web	sql-server-2017-web	sql-server-2019-web

After recovery the Microsoft SQL Server license for a VM recovered on GCP can be verified by checking the detail properties section for the recovered VM in the GCP console. Go to the details properties by clicking on the VM and then click on the REST properties section. Below is an example of SQL server screen output for a VM recovered in GCP:

Equivalent REST response



Managing Jobs

In SUREedge DR all long-term operations, such as captures, transfers and recoveries, are tracked as **Jobs** in the **Jobs** tab. This allows you to track operations as they progress and get details about them.

Like other SUREedge DR tabs the Jobs tab is a grid with each row representing a single operation and the columns providing details:

🕂 Persiste	nt									Aug 6, 2021 11:08	BAM Sureline	~
🖁 Dashboard	🔳 Registe	Protect	O Recover	@ Jobs	Reports	Settings						
ট Jobs		Q Search in a	II fields									
		Servers				Туре	Start Time	Duration	Size	Status 🦊	Action	
All Jobs		ubuntu 18-vip				Capture	Aug 2, 2021 10:34 AM	5 minutes	1.19 GB	Completed	:	
TYPE Discover		win2k19-vip				Capture	Aug 2, 2021 10:34 AM	22 minutes	22 GB	Completed	:	
Capture		ubuntu 18-vip ubuntu 18-vip				Capture	Aug 2, 2021 10:47 AM	2 minutes	1.19 GB	Completed	:	
Transfer						Transfer	Aug 2, 2021 10:49 AM 17 minutes		Completed	:		
ImageCaching Other		win2k19-vip				Transfer	Aug 2, 2021 10:56 AM	10 minutes		Completed	:	
STATUS		win2k19-vip				Capture	Aug 2, 2021 11:27 AM	13 minutes	458.24 MB	Completed	:	1
Running Completed		ubuntu18-vip				Capture	Aug 2, 2021 11:27 AM	a minute	9.13 MB	Completed	:	
Failed								liems per page: 10 👻	1 – 10 of 94	< < <u>1</u> of	10 > >I	

Above the grid is a search bar for searching the list of jobs, and to the left is a table of filters to restrict which jobs get displayed. The details shown in the various columns are:

Servers	The server for which the job is (was) performed.
Туре	The type of operation (capture, transfer, etc.)
Start	The start time for the operation.
Time	
Duration	The time consumed performing the operation so far, or the total time taken
	for operations that have completed.
Size	Displays the amount of data associated with the operation (when
	appropriate).
Status	It displays the current status of the operation.
Action	Clicking the action button gives a menu of operations on the job, such as
	pausing or aborting it.

The Jobs grid can be filtered either by typing text into the search box above the grid or by using the filters displayed on the left:

子 Persiste	nt									Aug 6, 2021 11:08	AM Sureline	~
🔡 Dashboard	🔳 Register	😯 Protect	④ Recover	🖆 Jobs	Reports	Settings						
ம் Jobs		Q Search in al	l fields									
		Servera				Туре	Start Time	Duration	Size	Status 🦆	Action	
All Jobs		ubuntu18-vip				Capture	Aug 2, 2021 10:34 AM	5 minutes	1.19 GB	Completed	:	
Discover		win2k19-vip				Capture	Aug 2, 2021 10:34 AM	22 minutes	22 GB	Completed	:	
Capture		ubuntu18-vip				Capture	Aug 2, 2021 10:47 AM	2 minutes	1.19 GB	Completed	:	
Transfer		ubuntu18-vip				Transfer	Aug 2, 2021 10:49 AM	17 minutes	17 minutes		:	
ImageCaching Other		win2k19-vip				Transfer	Aug 2, 2021 10:56 AM	10 minutes		Completed	:	
STATUS		win2k19-vip				Capture	Aug 2, 2021 11:27 AM	13 minutes	458.24 MB	Completed		,
Running Completed		ubuntu18-vip				Capture	Aug 2, 2021 11:27 AM	a minute	9.13 MB	Completed	:	
Failed								liems per page: 10 👻	1 – 10 of 94	< < <u>1</u> of 1	• > >	

Clicking on a filter restricts the jobs displayed in the grid to those meeting the filter's conditions. The available filters are:

All Jobs	Clear any applied filter and display all jobs.
Type Filters	Description
Discover	Filter the job list to contain just server Discovery operations
Capture	Filter the job list to contain just image Capture operations (both full and sync)
Recovery	Filter the job list to contain just VM Recovery operations
Transfer	Filter the job list to contain just image Transfer operations
Image Caching	Filter the job list to contain just Image Caching operations
Other	Filter the job list to contain just jobs whose types are not listed above
Callor	
Status Filters	Description
Status Filters Running	Description Filter the job list to contain only jobs that are currently running.
Status Filters Running Completed	Description Filter the job list to contain only jobs that are currently running. Filter the job list to contain only jobs that have successfully completed.
Status Filters Running Completed Failed	Description Filter the job list to contain only jobs that are currently running. Filter the job list to contain only jobs that have successfully completed. Filter the job list to contain only jobs that have failed.
Status Filters Running Completed Failed Added	Description Filter the job list to contain only jobs that are currently running. Filter the job list to contain only jobs that have successfully completed. Filter the job list to contain only jobs that have failed. Filter the job list to contain only jobs that have failed. Filter the job list to contain only jobs that have failed.
Status FiltersRunningCompletedFailedAddedPending	Description Filter the job list to contain only jobs that are currently running. Filter the job list to contain only jobs that have successfully completed. Filter the job list to contain only jobs that have failed. Filter the job list to contain only jobs that have failed. Filter the job list to contain only jobs that have newly added. Filter the job list to contain only jobs that have newly added.

Aborted	Filter the job list to contain only jobs that have been aborted.
Skipped	Filter the job list to contain only jobs that were skipped.

Viewing Job Details

To view details of a particular job, click on that job's row in the grid:

🕂 Persistent										Aug 6, 2021 11:14	AM Sureline	~
🏽 Dashboard 🛛 🗮	Register	Protect		🙆 Jobs	Reports	Settings						
மீ Jobs		Q Search in all	fields									
		Servers				Турө	Start Time	Duration	Sizə	Statue 👃	Action	
All Jobs		ubuntu 18-vip				Capture	Aug 2, 2021 10:34 AM	5 minutes	1.19 GB	Completed	:	
TYPE Discover		win2k19-vip ubuntu18-vip				Capture	Aug 2, 2021 10:34 AM	22 minutes	22 GB	Completed	:	
Capture						Capture	Aug 2, 2021 10:47 AM	2 minutes	1.19 GB	Completed	:	
Transfer		ubuntu 18-vip				Transfer	Aug 2, 2021 10:49 AM	17 minutes		Completed	:	
ImageCaching Other		win2k19-vip				Transfer	Aug 2, 2021 10:56 AM	10 minutes		Completed	:	
STATUS		win2k19-vip				Capture	Aug 2, 2021 11:27 AM	13 minutes	458.24 MB	Completed		'
Running		ubuntu 18-vip				Capture	Aug 2, 2021 11:27 AM	a minute	9.13 MB	Completed	:	
Failed Added								liems per page: 10 👻	1 – 10 of 94	< < <u>1</u> of 1	• > >	-

This brings up a **Jobs Details** page with detailed information about the job:

ზ	Persiste	nt					Aug 6, 2021 11:18 AM Sureline 🗡
🔡 Dash	board	🔳 Register	Protect	O Recover	@ Jobs	🕑 Reports	Settings
	Recov Job Detai	ery_Capture	_full_1_incr_3				
	Details		Steps				
	Job GUID			fedf0	ba0-f5dd-11eb-9	387-8b3ec6783507	
	Status			COM	PLETED		
	Host Name			win2k	k19-vip		
	IP Address			10.12	28.0.35		
	Start Time			Aug	5, 2021, 11:13:00	D AM	
	End Time			Aug 8	5, 2021, 11:40:50	D AM	
	Destination						

The Jobs Details page contains two subtabs: **Details** and **Steps**. The Details section contains specifics about the jobs itself: it's unique identifier, the server for which it was performed, its status, and start and end time. If any errors occurred a summary will be displayed as part of the job's status.

The Steps sub-tab displays the progress flow of the operation and specifics to each step, including when each step occurred, whether the step completed successfully or not, etc:

🕂 Persistent						Aug 6, 2021 11:19 AM	Sureline 🗡
🖁 Dashboard 🛛 🗮 Regi	ister 😯 Protect	ං Recover	🖉 Jobs	🕑 Reports	Settings		
← Recovery_Ca Job Details	pture_full_1_incr_3						
Details	Steps						
Aug 5, 2021, 11:41:16 AM	Executing post action					~	
Aug 5, 2021, 11:40:50 AM							
Aug 5, 2021, 11:40:50 AM	Handling job update					~	
Aug 5, 2021, 11:40:49 AM							
Aug 5, 2021, 11:40:48 AM	Executing post script					~	
Aug b, 2021, 11,40,48 AM							
Aug 5, 2021, 11:40:48 AM	Doing reatore Target VM Name - vm-wir	12k19-vip				~	

Job Operations

In SUREedge DR many long-term operations can be paused and resumed as well as cancelled (aborted). These actions are available by clicking on the three vertical dots icon in the Actions column:

Persistent					Oct 8,	2021 2:03 AM Ad	ministrator ~
🖫 Dashboard 🛛 🗮 Regis	ster 😯 Protect 🕤 Recover 💼 Jobs	Reports	Settings				
ট Jobs	Q Search in all fields						
	Servers	Туре	Start Time	Duration	Size	Status	Action
All Jobs	win2k19server	Capture	Oct 8, 2021 12:01 AM	25 minutes	32.64 GB	Completed	- E - [
TYPE Discover	sles123-x64-lde-nolvm-singledisk-default-xfs-singlenic	-bios Capture	Oct 8, 2021 12:01 AM	8 minutes	3.5 GB	Completed	:
Capture	WIN-BVJBTR7KO3K	Capture	Oct 7, 2021 2:00 AM	32 minutes	30.08 GB	Completed	
Recovery Transfer	ubn1804-scsi-lvm-multidisk-onepart-diff-rd1-ext4-singr	nic-bCapture	Oct 7, 2021 1:00 AM	6 minutes	10.55 GB	Completed	:
ImageCaching	win2k19server	Capture	Oct 7, 2021 12:00 AM	26 minutes	32.64 GB	Completed	:
Other STATUS	sles123-x64-ide-nolvm-singledisk-default-xfs-singlenic	-bios Capture	Oct 7, 2021 12:00 AM	7 minutes	3.5 GB	Completed	:
Running		Conturn	Oct C 2004 4-20 AM	04 minutos	20.4.OD	Completed	•
Completed Failed			Items per page: 10	▼ 1 - 10 of 13	3 < <	10f2	> >1
SUREedge DR, Version: 6.6.1.29688	Instance name: SUREedo	ge • Instance location	i: Hyper-	Copyrid	aht © 2021 Persist	ent Systems Limited.	All rights reserved

- Abort: Terminates the specified job.
- **Pause:** Pauses the specified job.
- **Resume:** Resumes a job that was paused.

Reports

SUREedge DR allows you to create several types of reports via the **Reports** Tab. Reports allow you to view information about your solution's configuration and status in order to evaluate your DR situation. Reports are basically preset filters that report their results in a grid. The information in the grid can then be viewed and exported to various formats for use in reporting or other calculations or presentations.

SUREedge offers users two types of reports – **Inventory** reports and **History** reports. Inventory reports center around the configuration of objects – servers, captured images, etc. – that are part of your DR solution. History reports are about events that occurred over time, such as capture operations, recoveries, etc.

🕂 Persisten	t							Aug 6, 2021 11:3	4 AM Sureline 🗡
🔓 Dashboard	🔳 Register	Protect	ා Recover	🖆 Jobs	Reports	🕸 Set	tings		
Reports									ц.
		Host Ip		Host Name		Туре	SIZO	Updated On	Status
Client Inventory		10.128.0.41		win2k19-vip		Windows	22.73 GB	Aug 6, 2021, 11:31:03 AM	Failed
Capture Image Inven	tory	10.128.0.32		ubuntu18-vip		Linux	1.55 GB	Aug 6, 2021, 11:31:03 AM	Failed
History Capture History		10.1.0.18		centos7-vip		Linux	1010.86 MB	Aug 8, 2021, 11:25:01 AM	Failed
Recover History Transfer History		10.1.0.17		centos7-vipaftupg		Linux	1011.37 MB	Aug 5, 2021, 7:47:00 AM	Failed
Image Caching Histo	ry	10.128.0.34		ubuntu18-vip		Linux	1.58 GB	Aug 5, 2021, 5:25:04 AM	Failed
		10.128.0.35		win2k19-vip		Windows	11.4 GB	Aug 5, 2021, 11:40:50 AM	Recovered
		10.128.15.232		win2k19-vip		Windows	10.62 GB	Aug 4, 2021, 8:18:50 AM	Failed
		10.128.0.6		ubuntu18-vip		Linux	1.63 GB	Aug 4, 2021, 8:15:58 AM	Failed
		10.1.0.6		win2k19-vip		Windows	22.28 GB	Aug 5, 2021, 7:43:03 AM	Recovered
		10 1 0 7		ubuntu18-vin		Linux	1.48 GB	Aug 5, 2021, 7:55:03 AM	Recovered
								liems per page: 10 - 10 of 10	< >

The Reports tab shows the grid in its normal spot and a list of reports on the left side:

The following table describes the Reports that are available:

Inventory				
Client Inventory	Shows all servers defined in the DR instance.			
Capture Image	Shows all capture images currently available in the DR instance.			
inventory				

History	
Capture History	Shows all capture jobs performed.
Recover History	Shows all recoveries performed.
Transfer History	Shows all transfer jobs.
Image Caching History	Shows all image caching jobs.

Exporting Reports

Once you have generated a report you can export it in various formats (Excel spreadsheet, CSV, JSON or text) file by clicking on the **Download Reports** button:

器 Dashboard 🛛 🗮 Register	Protect	ං Recover ඕ Jobs	🕑 Reports	🕸 Set	ttings		
Reports							Ł
Innerten	Host Ip	Host Name		Туре	Size	Updated On	Excel
Client Inventory	10.128.0.41	win2k19-vip		Windows	22.73 GB	Aug 6, 2021, 11:31:03 AM	CSV
Capture Image Inventory	10.128.0.32	ubuntu18-vip		Linux	1.55 GB	Aug 6, 2021, 11:31:03 AM	JSON
Capture History	10.1.0.18	centos7-vip		Linux	1010.86 MB	Aug 6, 2021, 11:25:01 AM	Text
Recover History Transfer History	10.1.0.17	centos7-vipaftup	9	Linux	1011.37 MB	Aug 5, 2021, 7:47:00 AM	Failed
Image Caching History	10.128.0.34	ubuntu18-vip		Linux	1.58 GB	Aug 5, 2021, 5:25:04 AM	Failed
	10.128.0.35	win2k19-vip		Windows	11.4 GB	Aug 5, 2021, 11:40:50 AM	Recovered
	10.128.15.232	win2k19-vip		Windows	10.82 GB	Aug 4, 2021, 6:16:50 AM	Failed
	10.128.0.6	ubuntu18-vip		Linux	1.63 GB	Aug 4, 2021, 6:15:58 AM	Failed
	10.1.0.6	win2k19-vip		Windows	22.28 GB	Aug 5, 2021, 7:43:03 AM	Recovered
	10 1 0 7	ubuntu18-vin		Linux	1 48 GB	Aug 5, 2021, 7:55:03 AM	Recovered
						liems per page: 10 👻 1 – 10 of 10	< >

Once you click on **Download Report** button, select the file format to export (Excel or CSV or JSON or Text) the report and save the file to your computer. In the following example Excel file format has been selected to download the report:

Save As					×
🔁 🔵 🗢 📑 🕨 Librar	ries I	Documents	▼ 4	Search Document	ts 🚽
Organize 🔻 New f	folder	r			:= • 🔞
쑫 Favorites 📃 Desktop	•	Documents library Includes: 2 locations		Arrange b	y: Folder 🔻
\rm Downloads		Name		Date modified	Туре
Recent Places	=	퉬 Bluetooth Exchange Folder		13-10-2019 03:36	File folder
- Oleblive		퉬 Custom Office Templates		23-04-2020 18:50	File folder
📜 Libraries		퉬 OneNote Notebooks		13-05-2020 12:25	File folder
Documents		퉬 Simple Sticky Notes		30-06-2020 19:15	File folder
👌 Music					
Pictures					
📑 Videos					
Computer	Ŧ	•	III		
File name: Se	ervers	s.xlsx			
Save as type: M	licros	oft Excel Worksheet (*.xlsx)			
Hide Folders				Save	Cancel

The resulting report file is an Excel spreadsheet in a format that can be used for monitoring the status of servers. The spreadsheet is populated with information about servers that have already been defined, as shown below:

E		~ ~ ~	∓ nsert E	age lavout	Formulas	Data F	leview \	liena O	Tell me what	Servers.xsl	x - Excel		0	R)			7	H -	8	×
Pas	te Clipboan	y ≠ nat Painte d	r Fa	U → E Font	• 11 • A A A • 2. • <u>A</u> • t		₩ *	Wrap T Merge	Text & Center →	General S - %	• 00 00	Condit Format	≠ ional Forma ting + Tabl Styles	at as Cell e * Styles *	€ Insert E	Delete Forma	∑ Aut ↓ Fill ◆ Clea	oSum + / Z ar + Si ar + Fi Editing	The select of th		~
A1		•	$\times \checkmark$	f_X	Host Name																~
	A	в	С	D	E	F	G	н	1	J	К	L	м	N	0	Р	Q	R	S	т	
1	Host Nam	Туре	Size	Updated	CStatus																
2	cent8.0-id	linux	5.76 GB	Jan 6, 202	2: Transferred																
3	deb10.x-s	window	4.12 GB	Jan 7, 202	2: Transferred																
4	deb9.x-sc	linux	4.2 GB	Jan 7, 202	2: Capturing																
5	oel8.x-scs	linux	4.06 GB	Jan 7, 202	2: Failed																
6	rhel7.4-sc	window	1.15 GB	Jan 7, 202	2: Failed																
7	rhel8.0-id	linux	5.41 GB	Jan 7, 202	2: Added																
8	sles123-x€	window	3.83 GB	Jan 7, 202	2: Added																
9	sles123-x€	window	3.41 GB	Jan 7, 202	2: Added																
10	ubn1404-s	window	1.72 GB	Jan 7, 202	2: Cached																
11	ubn1804-s	linux	10.88 GB	Jan 7, 202	2: Cached																
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					+
21																					ΗU
22																					- n
23				~		_															·
	•	Serve	ers	(+)																	►
Rea	dy																	I 🗉 .		+	100%

In the spreadsheet, each row represents one server and contains columns as defined below. Please note that the list is exported to obtain proper format of spreadsheet. Leave fields blank wherever applicable.

Column	Description			
Host Name	Username to be used to access the host.			
Туре	Type of Server (For Example: Windows Server or Linux Server).			
Size	The maximum size (in GB) that the SUREedge DR Store VM should be			
	allowed to consume for storing captured system images.			
Updated On	Latest updated date and time.			
Status	The current status of the servers.			

Settings

The Settings tab allows users to obtain detailed information about a SUREedge DR instance and to set various attributes and features. The settings are grouped into related parameters:

- Appliance Settings: View and modify attributes of this SUREedge DR instance.
- \ Licensing: Manage SUREedge DR licenses.
- \ Global Recovery Settings: Set attributes used as defaults when performing recoveries.
- \ Job Concurrency: Manage parallelism of recovery and capture jobs.
- <u>Dual Instance</u>: Set up a dual-instance SUREedge DR configuration (see the section on Dual Instance for details.)
- Support: access to information and logs that are helpful in providing information when you encounter issues with the product and/or are contacting Accelerite support team for assistance.
- Advanced: manage settings and access downloads that are intended for advanced users of SUREedge SUREedge DR, such as the CBT Driver.

P Persistent	Aug 6, 2021 11:37 AM Sureline	e ~
🔠 Dashboard 🛛 🗮 Register 🛛 😯 Prot	ct - ා Recover ළව Jobs ළව Reports 🔷 Settings	
段 Settings Configuration	Appliance	
Appliance	SUREedge Instance Management Console SUREedge Store VM SUREedge Store Hypervisor Configuration	
Licensing	Serial number : BBC8AAEC-E1BE-4100-0004-05D2EA035605 SUREedge version : 0.0.1.20043 Instance name : SUREedge	
Job Concurrency	Instance location : EASTUS	
Dual Instance	EDIT Change UI password	
Support		
Advanced		

Appliance Settings

In the **Appliance** subtab you can access and configure settings of the SUREedge DR instance.

SUREedge Instance

The **SUREedge DR Instance** tab allows you to examine and modify attributes and parameters generally related to the specific SUREedge DR deployment you are logged into.

🕂 Persistent		Aug 6, 2021 11:37 AM Sureline Y
먦 Dashboard 🛛 🗮 Register 😯 Prote	t - の Recover 道 Jobs l 尼eports - 尊 Settings	
Dashboard Register Prote Image: Settings Configuration Image: Settings Configuration Appliance Image: Settings Job Concurrency Image: Support	at Image: Provide a state of the state o	Hypervisor Configuration
Advanced		

- The instance Serial number is used to uniquely identify a deployment of SUREedge DR and cannot be changed. You will need to provide it when obtaining licenses.
- The SUREedge Version is the release identifier for the version of SUREedge DR that is running in this instance. It should be provided if you need to contact support.
- The Instance Name and Instance Location are informational fields that are displayed on each page of the SUREedge DR UI. This is useful when you access multiple instances of SUREedge DR and help prevent getting confused about which instance you are managing.

	Ū		
Persistent			Aug 6, 2021 11:39 AM Sureline ~
器 Dashboard 🛛 🗮 Register 😯 Protect	ං Recover @ Jobs @ Reports	Settings	
பல் Settings Configuration	Appliance		
Appliance	SUREedge Instance Management Console	SUREedge Store VM SUREedge Store	Hypervisor Configuration
Licensing	Instance name SUREedge		
Job Concurrency	EASTUS		
Dual Instance	Save Cancel		
Support			
Advanced			

To modify the instance's name and location strings click the **Edit** button:

This displays the name and location strings in editable text entries. Once you are done with your changes click on the **Save** button to save the changes or click on the **Cancel** button to discard them.

Persistent	Aug 6, 2021 11:39 AM Sureline	×
먦 Dashboard 🛛 🗮 Register 😯 Protec	t - ා Recover @ Jobs @ Reports 🔹 Settings	
භී Settings Configuration	Appliance	
Appliance	SUREedge Instance Management Console SUREedge Store VM SUREedge Store Hypervisor Configuration	
Licensing	Instance name SUREedge	
Job Concurrency	EASTUS	
Dual Instance	Save Cancel	
Support		
Advanced		
		5

To change the UI Password (the password required to <u>log into the SUREedge DR instance</u>) click on the **Change UI Password** button which will bring up a password change dialog:

lease ente	the current UI password and supp	oly and confirm the new passwor
Old Pass	word	
New Pas	sword	
Confirm	Password	

Once you reset the password, click on the **Update** button to commit the change, or click on **Cancel** button to retain the old password.

Management Console

The **Management Console** subsection displays details about the VM that serves as the instance's management console:

Appliance				
SUREedge Instance	Management Console	SUREedge Store VM	SUREedge Store	Hypervisor Configuration
IP Address: Username: CPU: RAM: Windows VM Name: Operating System:	10.128.0.20 sureline 4 13.75 GB sureedge-dr-byol-3-windows-vm Windows Server 2016	1		

Store VM

The Store VM section provides details about the VM used for managing the de-duplicated store for this SUREedge DR instance:

IP Address : 10.10.11 Username : sureline CPU : 2 RAM : 7.78 GB Port : 22 Linux VM Name : STORE-650-MB Operating System : Ubuntu 20.04.2 LTS	IP Address:10.1.0.11Username:surelineCPU:2RAM:7.78 GBPort:22Linux VM Name:STORE-650-MBOperating System:Ubuntu 20.04.2 LTS	SUREedge Instance	Management Console	SUREedge Store VM	SUREedge Store	Hypervisor Configuration
Username: surelineCPU: 2RAM: 7.78 GBPort: 22Linux VM Name: STORE-650-MBOperating Syster:: Ubuntu 20.04.2 LTS	Username: surelineCPU: 2RAM: 7.78 GBPort: 22Linux VM Name: STORE-650-MBOperating Syster:: Ubuntu 20.04.2 LTS	IP Address	: 10.1.0.11			
CPU: 2RAM: 7.78 GBPort: 22Linux VM Name: STORE-650-MBOperating System: Ubuntu 20.04.2 LTS	CPU: 2RAM: 7.78 GBPort: 22Linux VM Name: STORE-650-MBOperating System: Ubuntu 20.04.2 LTS	Username	: sureline			
RAM : 7.78 GB Port : 22 Linux VM Name : STORE-650-MB Operating System : Ubuntu 20.04.2 LTS	RAM: 7.78 GBPort: 22Linux VM Name: STORE-650-MBOperating System: Ubuntu 20.04.2 LTS	CPU	: 2			
Port : 22 Linux VM Name : STORE-650-MB Operating System : Ubuntu 20.04.2 LTS	Port : 22 Linux VM Name : STORE-650-MB Operating System : Ubuntu 20.04.2 LTS	RAM	: 7.78 GB			
Linux VM Name : STORE-650-MB Operating System : Ubuntu 20.04.2 LTS	Linux VM Name : STORE-650-MB Operating System : Ubuntu 20.04.2 LTS	Port	: 22			
Operating System : Ubuntu 20.04.2 LTS	Operating System : Ubuntu 20.04.2 LTS	Linux VM Name	: STORE-650-MB			
EDIT	EDIT	Operating System	1: Ubuntu 20.04.2 LTS			
		EDIT				

To modify the **Store VM** details, click on the **Edit** button. This will bring up a dialog for changing the parameters used to connect to the Store VM:

Appliance				
SUREedge Instance	Management Console	SUREedge Store VM	SUREedge Store	Hypervisor Configuration
IP Address * 10.128.0.41				
Username *				
Store Access Password	•			
Port*22				
Save Cancel				

The following table describes the fields of SUREedge Store VM:

Parameter	Description
IP Address	Host IP address.
Username	The name of the host.
Store Access Password	The password required for accessing the store.
Port	The port via which the server should be contacted via SSH; by
	default, it is 22.

Click on **Save** button to save changes or click **Cancel** button, to cancel the change.

SUREedge Store

In the **SUREedge Store** tab you can monitor and manage the sizing of the SUREedge DR instance's de-duplicated store.

edge Instance	Management Cons	sole	SUREedge Store VM	SUREedge Store	Hypervisor Configuration
pacity:		315 GB			
Space Used:		0			
Minimum unused spa	ce to be maintained:	1024 GB 200 GB			
initiati andood opo	oo to bo mamamour	200 02			
SUREedge Stor	e automatic resizing				
Store Space Resize					
	_				

The following fields describe the current status of the de-duplicated store:

Parameter	Description
Capacity	Displays total capacity for storing captured data.
Space Used	Space consumed by captured data.

The **SUREedge Store automatic resizing** option enables automatic management (growth) of the de-duplicated store and is "**ON**" by default. When this option is disabled and the deduplicated store consumes all its allocated space any further recovery replication operations will fail, and new space will need to be allocated explicitly (see the section on resizing the deduplicated store).

Enabling automatic resizing causes SUREedge DR to automatically increase the storage space for the de-duplicated store by the amount indicated by **Increase capacity by** (1024 GB by default) when the available free space drops below the value indicated by **Minimum unused space to be maintained** (200 GB by default), up to a maximum of 64 TB (64,000 GB.) To disable automatic resizing click the option toggle. You will be presented with a confirmation dialog:



Click on **Confirm** button to Disable SUREedge Store automatic resizing or click on **Cancel** button to leave automatic resizing disabled.
If you click the toggle to re-enable automatic resizing, you will be presented with a dialog to set the resizing parameters:

Automatically increase SUREedge S	tore capacity before it gets ful
Minimum unused space to be maintaine	d *
200	GB
Increase capacity by *	
1024	GB

Once providing the required details, click on **Update** button or click on **Cancel** button to exit.

Resizing the De-duplicated store

To explicitly resize the de-duplicated store, click on the **Store Space Resize** button and provide a new disk size for the store:

Current Disk Size	
450	GE
New Disk Size *	
	GB

When completed, click the Resize button to save the change or click Cancel button to exit.

Hypervisor Configuration

In Hypervisor Configuration, if the configuration of the project has changed, you can reload the values by clicking on the **Edit** button from where you can select the type of Hypervisor from the dropdown list.

Click on **Edit** button to select the desired hypervisor from the dropdown.

	Persiste	nt					Aug 6,	2021 1:20 PM	Sureline	~
8	B Dashboard	Register	Protect	Recover	歫 Jobs	Reports	🕸 Settings			
	Appliance									
	SUREedge Inst	ance Man	agement Console	SUREedge	Store VM	SUREedge Store	Hyperviso	or Configuratio	on	
	Туре	: Windows	Azure							
	Subscription	ID : 07d3b66d	-96f2-4f5c-898b-7e2	2b598e96a5						
•	Application I	D : 3d8d9625	-8aca-46fd-a692-5c	2ccae521eb						
	Directory ID	: 1f4beacd-	b7aa-49b2-aaa1-b8	525cb257e0						
	Resource Gr	oup : DR661-R	GR-vip							
	Storage Acco	ount : dr661stora	agevip							
	Location	: East US								
	Account Typ	e : AzureGlot	alCloud							

Once, you have selected the desired hypervisor, click on **Save** button or click on **Cancel** button to exit.

Licensing

Each instance of SUREedge DR must be licensed to perform recovery. If you have not received your license(s) you can obtain it (them) through your designated contact at Accelerite or by contacting the Accelerite Support team at support@accelerite.com.

Once you purchase the SUREedge DR, you will need to obtain permanent GUID license. These licenses are tied to a specific SUREedge DR instance. To obtain your GUID licenses you will need to supply the Appliance Serial Number to Persistent Systems for all your SUREedge DR instances after they have been deployed.

Once you have license(s) for your SUREedge DR instance(s) they will need to be installed before you can perform recovery operations as described below.

The current status of licensing for your SUREedge DR instance is displayed on the **Licensing** section of the **Settings** page:

Persistent							Aug 6, 2021 1:21 PM	Sureline	×
踞 Dashboard 🛛 🗮 Register 😯 Pro	tect		@ Jobs	Reports	Settings				
හි Settings Configuration	L	Licensing							
Appliance		Current Used Total Protect Lic	censed	: 4 : 999					
Licensing	ι.	Expiry Date Appliance Seria Additional Serve Revoked Licens	al Number er Size Quota ses	: 2021-08-29 : VPOC Appliance a: 0 :					
Job Concurrency	•	Upload licens	se file	Revoke license					
Dual Instance									
Support									
Advanced						 			

Parameter	Description
Current Used	Total number of licenses currently used.
Total Recovery Licensed	Total number of Recovery Licensed purchased/ issued.
Expiry Date	License validity date is displayed.
Appliance Serial Number	Serial number of the appliance is displayed.
Additional Server Size	Additional server size quota is displayed.
Quota	
Revoke Licenses	Total number of licenses currently revoked.

This displays the details of the currently applied SUREedge DR licenses:

Revoke License: Revoke License once revoked; the same license file cannot be used again. Clicking on **Revoke License** button, will pop-up the following dialog, where you can provide license number to revoke the remaining licenses.



Once entering license numbers to be revoked are entered click on **Update** button, a confirmation pop-up gets displayed, click on **Confirm** button to revoke license.

Applying Licenses

Once you have obtained a license for your SUREedge DR instance you will need to apply the license.

1. From your web browser, login to SUREedge management console with your login credentials. The **SUREedge Management Consol**e web application opens with the dashboard page on display.

DISASTER RECOVERY Protect business-critical applications on any virtual, container, or physical server with SUREedge DR to any cloud or to a remote site.	Persi	istent
E Register	Username	٢
Protect	Password	٥
Recover For more information see the Getting Started Guide	Log in	

2. Navigate to **Settings > License**. Various appliance configuration options are displayed on the appliance configuration page:

Persistent		Aug 6, 2021 1:24 PM Sureline ~
踞 Dashboard 🗮 Register 😯 Pro	ect ා Recover @ Jobs ළ Reports 🕸 Setting	8
Settings Configuration Appliance Licensing Job Concurrency Dual Instance Support Advanced	Licensing Current Used : 4 Total Protect Licensed : 999 Expiry Date : 2021-08-29 Appliance Serial Number : VPOC Appliance Additional Server Size Quota : 0 Revoked Licenses : Upload license file Revoke license	
SUREedge DR, Version: 6.6.1.29643		Copyright ⊕ 2021 Persistent Systems Limited. All rights reserved.

3. To upload a new license file, click on the **Upload License file** button, which will bring up a **File Upload** window:

😘 Open					×
\leftarrow \rightarrow \checkmark \uparrow \square \Rightarrow This	PC > Windows (C:) > Migrator_License	~	ට 🔎 Search N	/ligrator_License	
Organize 🔻 New folder	r			:== ▼	?
🔪 📌 Quick access	Name	Date modified	Туре	Size	
	f7a46272-ac47-4060-afba-a4a8a71a0c02.bin	26-08-2020 18:06	BIN File	1 KB	
> CheDrive					
> 💻 This PC					
> 💣 Network					
File nar	me: f7a46272-ac47-4060-afba-a4a8a71a0c02.bin		✓ All Files (*.*)		\sim
			Open	Cancel	

- 4. In the **File Upload** window, browse to the folder containing the license file, select the license file and then click **Open**.
- 5. In the **SUREedge License** dialog box, click on **Submit**. The management console accepts the license file and displays the appliance configuration page.

Job Concurrency

When performing multiple recoveries in SUREedge DR two or more parallel recovery and capture jobs will run simultaneously. The **Job Concurrency** parameter determines the maximum number of recovery and capture jobs to perform in parallel. The default value is 8 and the maximum allowable value is 32.

To change the **Job Concurrency** value, click on the **Edit** button:

🔀 Dashboard 🗮 Register 😯 Protect	ං Recover @ Jobs @ Reports 1	Settings
😥 Settings Configuration	Job Concurrency	
Appliance	Capture jobs: 8 Recovery jobs: 4	
Licensing	ЕОЛТ	
Јов Сопсиггепсу		
Dual Instance		
Support		
Advanced		

You'll be presented with a dialog where you can change the concurrency values:

P Persistent		Aug 6, 2021 1:26 PM Sureline Y
🖁 Dashboard 🗮 Register 😯 Prote	ect - ව Recover ළව Jobs ළව Reports අ Settings	
Settings Configuration Appliance Licensing Job Concurrency Dual Instance	Job Concurrency Capiture jobs * 8 Recovery jobs * 4 Save Cancel	
Support Advanced		

Modify the values and then click **Save** to persistently set them or **Cancel** to revert to the prior values.

Dual Instance

A Dual Instance Deployment for SUREedge DR involves deploying an instance of SUREedge DR within the source site, where the systems being migrated reside, which is used to capture and securely transfer system images to the SUREedge DR instance running in the cloud. The **Dual Instance** area of the setting tab gives access to the downloads necessary for setting up a Dual Instance deployment:

P Persistent		Aug 6, 2021 1:27 PM Sureline	v
먦 Dashboard 🗮 Register 🛛 🖓 Pr	rotect - クRecover ゆJobs l型 Reports 尊 Settings		
र्द्ध Settings Configuration	Dual Instance		
Appliance	SUREedge Onsite installation media		
Licensing	1] Download the appropriate onsite installer to an existing Windows VM. Installers for VMs running in Hyper-V or VMware are available below. 2] Extract and execute the installer. Follow the wizard to create the source SUREedge instance. 3] Once configured the source instance is available to begin operation.		
Job Concurrency	Hyper-V Click to download VMware		
Dual Instance	•		
Support	Contact Support To obtain this installer please contact Persistent Systems Customer Support at "support@accelerite.com", provide the Instance Serial Number and your	contact information.	
Advanced	XEN DpenStack		
	CloudStack 💦 KVM		

Please refer to <u>Section Dual Instance Deployment</u>, for more information.

Support

The **Support** section gives access to information and logs that are helpful when you encounter issues with the product and contact Accelerite support for assistance. In the Support area you will find three horizontally placed subtabs:

P Persistent		Aug 6, 2021 1:27 PM Sureline Y
🖁 Dashboard 🗮 Register 😯 Protect	⊖ Recover @ Jobs @ Reports \$ Settings	
Settings Configuration Appliance Licensing Job Concurrency Dual Instance Support Advanced	Or Recover Description College Support Collect Logs Prune Logs Contact Support Please click "Collect All Logs" button to collect and download all debug data Collect All Logs Collect All Logs	

Collect Logs

There may be a need for the Accelerite support team to view the logs from the SUREedge DR instance for debugging issues. To access the logs, select the on **Collect Logs** subtab and click the **Collect All Logs** button to collect and download all the log data for the instance. After clicking the **Collect All Logs** button a progress bar will be displayed while logs are gathered, which may take some time to complete depending upon size of the data to be collected. The resulting file can then be saved and provided to Accelerite support for analysis.

Prune Logs

SUREedge DR keeps detailed logs in order to make problems solving easier. When they become very large the process of collecting them may become prohibitively long. If you contact Accelerite support, you may be instructed to prune the logs to shorten the time needed to collect them.

To prune the logs when requested, select the **Prune Logs** subtab. You will see an entry for a date:

P Persistent

歸 Dashboard 🗮 Register 🕈	Protect	ං Recover	@Jobs @	Reports	Settings
ស៊្លែ Settings Configuration	n	Support			
Appliance		Collect Logs	Prune Log	j s Co	antaet Support
Licensing		Select Date *			Ĩ
Job Concurrency		Prune Logs	peleted pelore the sele	CIEC Gate	
Dual Instance	*				
Support					
Advanced					

Choose a date for pruning in the **Select Date** entry; all log entries *prior* to this date will be removed. Then click the **Prune Logs** a button, which will bring up a confirmation dialog:



Click on **Confirm** button to prune the logs or click on **Cancel** button to exit.

Contact Support

The **Contact Support** section provides the email address where you should send requests for assistance from the Accelerite support team. You can click on the link to automatically bring up your default email program with the proper email address where requests should be sent.

P Persist	ent					Aug 6, 2021 1:29 PM Sureline Y
🔓 Dashboard	🔳 Register	Protect	ා Recover	🖆 Jobs 🕑 Report	s 🏶 Settings	
ស៊្លិ Setti	ngs Configu	ration	Support			
Appliance			Collect Logs	Prune Logs	Contact Support	
Licensing			For any issue, pl	ease contact support@accele	rite.com	
Job Concurr	ency					
Dual Instand	e	4				
Support						
Advanced						

For more details, please refer Contacting Support section of this document.

Advanced Settings

The **Advanced** section of the Settings Configuration page gives access to more sophisticated features of SUREedge DR.

P Persistent		Aug 6, 2021 1:29 PM Sureline Y
器 Dashboard 🛛 🗮 Register 🛛 😯 Protec	t - ට Recover @ Jobs ළ Reports to Settings	
绞: Settings Configuration	Advanced	
Appliance	Remote Instance Settings Cloud Transfer Bandwidth Throttling	
Licensing	Type : SUREedge Instance Linux Instance IP Address : 20.5.104.163 Linux Instance UserName : sureline	
Job Concurrency	Port : 22	
Dual Instance	CEDIT DELETE	
Support		
Advanced		

Remote Instance Settings

In the **Remote instance settings** subtab you will see the attributes describing how to connect to a target-side sever:

P Persistent									Aug 6, 2021 1:32 PM Sureline Y
B Dashboard	Register	Protect	O Recover	🖆 Jobs	🖉 Reports	Settings			
ស៊្លា Settings	s Configura	ation	Advanced						
Appliance			Remote Instance	Settings	Cloud Transfer Ba	ndwidth Throttlin	ıg		
Licensing			Type Linux Instanc Linux Instanc	: IP Address : UserName :	SUREedge Instance 20.55.104.163 sureline				
Job Concurrenc	y		Port		22				
Dual Instance		۲	EDIT	DELETE					
Support									
Advanced									

These settings are normally automatically configured for a source-side instance of SUREedge DR when it is downloaded and installed from the target side. If no remote instance has been configured and you wish to add a remote connection click the **Add** button:

Persistent						Aug 6, 2021 1:32 PM	Sureline 👻
🖫 Dashboard 🛛 🗮 Register 😵 P	rotect	ල Recover ළ Dobs	e Reports 🎄 Se	ettings			
袋 Settings Configuration		Advanced					
Licensing		Remote Instance Settings	Cloud Transfer Bandwidth	n Throttling			_
Job Concurrency		No configuration found.					
Dual Instance	4	ADD DELETE					
Support							
Advanced		(ⁿ					
SUREedae DR. Version: 6.6.1.29688					Copyright @ 2021 Persister	nt Systems Limited. All i	rights reserved.

This will bring up a form where you can fill in the details of the target instance:

Persistent		Aug 6, 2021 1:31 PM Sureline ~
👪 Dashboard 🛛 🗮 Register 🛛 😯 Protect	-ට Recover @ Jobs @ Reports \$ Settings	
ঠ্টে Settings Configuration	Advanced	
Appliance	Remote Instance Settings Cloud Transfer Bandwidth Throttling	
Licensing	Type SUREedge Instance	v
Job Concurrency	Linux Instance IP Address ' 20.55.104.163	
Dual Instance	Linux Instance UserName * Sureline	
Support	Linux Instance Password *	£
Advanced	Port* 22	
	Save Cancel	

The following fields describe the current status of the Remote Settings:

Parameter	Description
Linux Instance IP Address	The IP address of the SUREStore VM (linux system) of the
	remote instance.
Linux Instance User Name	The username to use to access the remote SUREStore VM.
Linux Instance Password	The password to use to access the remote SUREStore VM.
Port	The port via which the SURESTore VM should be contacted
	via SSH; by default it is port 22.

If a remote instance has already been configured and you wish to change or delete it you will see the details of the connection in the Remote Settings subtab, along with an **Edit** button and a **Delete** button. **Note that if you edit or delete the remote instance configuration any ongoing transfer operations will be interrupted**. Clicking the edit button will bring up the editable form shown earlier.

To clear existing remote instance settings, click the **Delete** button. **Deleting the remote instance settings will interrupt any ongoing transfer operations and prevent future transfers from occurring.** When you click delete button "**Delete GCS Bucket Settings**" popup will get displayed:

Persistent		Aug 6, 2021 1:32 PM Sureline
🛙 Dashboard 🛛 🗮 Register 🛛 🦁 Prot	ct එ Recover @ Jobs ළ Reports ෯ Settings	
영 Settings Configuration	Advanced	
Appliance	Remote Instance Settings Cloud Transfer Bandwidth Throttling	
Licensing	Type : SUREedge Instance Linux Instance IP Address: 2 Linux Instance UserName: ::	
Job Concurrency	Port 2 Delete Remote settings ×	
Dual Instance	Are sure you want to Delete Remote settings?	
Support		
Advanced		

Once done, click on **Save** button to save the changes.

Cloud Transfer Bandwidth Throttling

The bandwidth consumed by transfer operations that occur between SUREedge DR instances can be controlled. This is useful if you need to restrict the amount of available bandwidth consumed by your SUREedge instance for image transfer to prevent overconsuming or swamping the network connection between them. This is done in the **Cloud Transfer Bandwidth Throttling** subtab. SUREedge DR's bandwidth throttling feature divides the week into **Peak** and **Off-peak** time ranges.

Each range can be defined to limit the amount of network resource consumed by image transfers. The **Cloud Transfer Bandwidth Throttling** section displays the current throttling settings:

🕂 Persistent		Aug 6, 2021 1:30 PM Sureline 🗡
떏 Dashboard 🛛 🗮 Register 🛛 😯 Protect	ං ච Recover @ Jobs @ Reports 🔹 Settings	
ঠ্টে Settings Configuration	Advanced	
Appliance	Remote Instance Settings Cloud Transfer Bangwidth Throttling	
Licensing	Bandwith Throttling : Peak time: : Peak days of the week :	
Job Concurrency	Peak maximum (KBps) : Off-peak maximum (KBps) :	
Dual Instance	ЕОТ	
Support		
Advanced		
SUREedge DR, Version: 6.6.1.29643	Copyright © 2021 Persist	ent Systems Limited. All rights reserved.

Parameter	Description
Bandwidth Throttling	Displays the status (Enabled/Disabled) of bandwidth throttling
Peak time	Displays the times of day considered peak times.
Peak days of the week	Displays the days of the week that are considered peak days
	when the peak time range is applied.
Peak maximum (kbps)	Displays the maximum bandwidth consumption during peak times
	(in kbps).
Off-peak maximum	Displays the maximum bandwidth consumption outside of peak
(kbps)	time (in kbps).

The following fields describe the current status of the Cloud Transfer Bandwidth Throttling:

To change bandwidth throttling parameters click the **Edit** button; this brings up a page where the parameters can be set:

Persistent		Oct 25, 2021 4:50 AM Administrator ~
먦 Dashboard 🛛 🔳 Register 📀 Protect	⊕ Recover _ ඬු Jobs ළම Reports 🕸 Settings	
段 Settings Configuration	Advanced	
Appliance	Remote instance Settings Cloud Transfer Bandwidth Throttling Proxy VM network configuration	
Licensing	Specify the network bandwidth usage throttle setting for SUREedge Instance. This setting applies for data transfer from onsite to remote site.	
Job Concurrency	Throtting Schodule Schodule the full time zone of the SLIDE and e M Instance	
Support	Peak time: His His Min 10 11 10	•
Advanced	Peak days of the week	
	Settings Pask mainum (RBps) 1024 Off-peak mainum (RBps) 1024 Stev Cancel	ctivate Windows
SUREedge DR, Version: 6.6.1.29623	Caynar Caynar	n to settings to activate Windows. Ø 2021 Persistent Systems Limited. All rights reserved.

By default, bandwidth throttling is disabled; to enable it set the **Enable Network Bandwidth Throttling** button; to disable throttling altogether clear it. Once enabled you can set your throttling schedule and bandwidth limits.

In the **Throttling Schedule** section, you define Peak Times when the Peak Time bandwidth limits should be applied; all other times are considered off-peak and are limited by the Off-peak bandwidth limits. Choose the time of day (start to end) *of the source DR instance* when you wish to be considered peak time, and which days of the week those times are considered peak time. In the **Settings** section specify the maximum bandwidth consumption, in **Kilobits-per-second**, that you wish to apply to the peak times and off-peak times.

When you have your bandwidth throttling schedule and values set as desired click the **Save** button to apply the configuration; click **Cancel** to cancel your changes and revert to the prior settings.

Proxy VM Configuration

The **Proxy VM Configuration** section allows you to modify the proxy VM that performs image caching and recovery by choosing different subnets and service accounts. This can be useful when performing recoveries across projects.

Navigate to Settings >Advanced >Proxy Image Configuration.

The **Proxy VM Configuration** section displays the following page:

🕂 Persistent		Aug 30, 2021 5:48 PM Sureline ~
먦 Dashboard 🔳 Register 😵 Protec	ා Recover ළව් Jobs ළව Reports ෯ Settings	
袋 Settings Configuration	Advanced	
Appliance	Remote Instance Settings Cloud Transfer Bandwidth Throttling Proxy Image Configuration	_
Licensing	OS Type : windows Image name : winproxy20210831105138 Username : sureline	
Job Concurrency	OS Type : linux	
Dual Instance	Image name : linuxproxy20210831104613 Username : sureline	
Support	EDIT	
Advanced		

To configure the Proxy VM settings, click the **EDIT** button to bring up the **Proxy VM Configuration** dialog:

Project *	
sureline-dev-1264	•
Region *	
us-central1	-
Service Account *	-
SubNetwork *	-
SubNetwork *	-

The attributes can be set as follows:

Parameter	Description
Project	The project where the Proxy VM should be instantiated.
Region	The region where the Proxy VM should be instantiated.
Service Account	The service account that should be used to authorize
	configuration changes, such as creating the Proxy VM
SubNetwork	The network to which the proxy VM should be attached.

Click **Save** after filling in all the details, or click **Cancel** to discard any changes and return to the previous page.

Dual Instance Deployment

A SUREedge DR Dual Instance Deployment involves deploying an instance of SUREedge DR within the source site, where the systems being migrated reside, which is used to capture and securely transfer system images to the SUREedge DR instance running in the cloud. (For details on when you might want to use a Dual Instance deployment, see the <u>Introduction to this document</u>.

Installation

If you are going to use a Dual Instance deployment you will first deploy an instance of SUREedge DR at the target environment (e.g. Google Cloud Platform). Once one instance has been installed the next step is to download and install the SUREedge DR instance at the source site. To download the installer log into the deployed SUREedge DR instance, navigate to the **Settings** page of the SUREedge DR UI and select the **Dual Instance** section:

P Persistent	Aug 6, 2021 1:34 PM Sureline	
🔠 Dashboard 🛛 🗮 Register 😯 Pro	tect	
ঠ্টে Settings Configuration	Dual Instance	
Appliance	SUREedge Onsite installation media	
Licensing	 Download the appropriate onsite installer to an existing Windows VM. Installers for VMs running in Hyper-V or VMware are available below. Extract and execute the installer. Follow the wizard to create the source SUREedge instance. Once configured the source instance is available to begin operation. 	
Job Concurrency	Hyper-V Click to download	
Dual Instance	•	
Support	Contact Support To obtain this installer please contact Persistent Systems Customer Support at "support@accelerite.com", provide the Instance Serial Number and your contact information.	
Advanced	XEN DyenStack	
	2 Cloud Stack KVM	

Here you will find installation media for installing SUREedge DR in various environments, along with instructions for its installation and configuration

- 1. First download the appropriate onsite installer to an existing Windows VM residing on VMware or on the base Hyper-V.
- Extract and execute the installer. It will present you with an installation wizard to create the onsite SUREedge DR instance.
 Note: For detailed information about installing SUREedge DR for Hyper-V, please refer the SUREedge Installation Guide 6.6.1 for Hyper-V.

Note: For detailed information about installing SUREedge DR for VMware, please refer the SUREedge Installation Guide 6.6.1 for VMware.

Once installation of the onsite instance is completed you need to login to the new SUREedge DR instance using the login credentials which were used during the installation.

Note that the newly configured onsite SUREedge DR instance will now attempt to initiate connectivity with the target SUREedge DR instance, which can take a few minutes. Once complete you can use your onsite SUREedge DR instance to register systems and start protecting your systems.

SUREedge Server Utility Detailed Usage

The following sections show the detailed usage information for the SUREedge Server Utility on each supported platform.

/token=<TOKEN> Required. The token attribute encodes a process' or thread 's security identity. The value for token should be obtained from the target server. /serverip=<IPADDR> Optional. If the server has multiple IP addresses, specify the IP address you want to use. /precapture=<PATH> Optional. The option's value is the path to a script or program which will be executed on the Source Machine before capture is initiated (e.g. to temporarily disable anitivirus software during the capture process.) /postcapture=<PATH> Optional. The option's value is a path to a script or program which will be executed on source system after capture is complete (e.g. reenable antivirus software that was disabled during capture.) /postrecovery=<PATH> Optional. The option's value is the path to a script or executable that will be executed on the instantiated virtual system has been created and transformed in the target environment. Post-recovery operations are useful for automating tedious tasks that are needed when a system is cloned or duplicated, such as dealing with licensing issues, installing or removing custom components, performing system readiness tasks, etc. /exclude=<DRIVE>[,<DRIVE>...] Optional. The optione's value is a comma separated list of drives (for example: E:\, F:\) to be excluded from server recovery. The data on these drives will not be captured or transferred to the target site and will not be present on the migrated server. /installpath=<PATH> Optional. The path where the Server Utility software bundle should be installed. The default is C:\Program Files.

Windows Server Utility Parameters

Examples

The example below shows the usage of the server utility when specifying a pre-capture operation. The /token value should be obtained from the SUREedge DR instance from which the installer was downloaded. The path to the pre-capture operation script is

```
c:\prescript.bat:
SUREedgeServerUtility.exe /token=4EA7787H325EA686
/precapture=c:\prescript.bat
```

```
SUREedgeServerUtility.exe /token=4EA7787H325EA686
/precapture=c:\prescript.bat
```

The example below shows the command usage when excluding drives from recovery. In this example the drives E:\ and F:\ will not be captured nor will the migrated server have the data on them, or equivalent virtual devices created to represent them after recovery:

```
SUREedgeServerUtility.exe /token=4EA7787H325EA686 /exclude=E:\,F:\
```

Linux Server Utility Parameters

help	Displays information on the built-in shell commands and exits; no
	operations are performed
token <token></token>	Required. The token attribute encodes a process' or thread 's
	security identity. The value for token should be obtained from the
	target server.
serverip	If the server has multiple IP addresses, specify the IP address you
	want to use.
precapture <path></path>	Optional. The option's argument is the path to a script or program
	which will be executed on the Source Machine before capture is initiated
	(For example: to temporarily disable antivirus software during the capture
	process.)
postcapture <path></path>	Optional. The option's argument is a path to a script or program
	which will be executed on source system after capture is complete (For
	example: reenable antivirus software that was disabled during capture.)
postrecovery <path></path>	Optional. The option's value is the path to a script or executable that will be
	executed on the instantiated virtual system has been created and
	transformed in the target environment. Post-recovery operations are useful
	for automating tedious tasks that are needed when a system is cloned or
	duplicated, such as dealing with licensing issues, installing or removing
	custom components, performing system readiness tasks, etc.
exclude <path>[,<path>]</path></path>	Optional. The option's argument is a comma separated list of path names
	to mount points (for example: /mnt, /var/tmp) to be excluded from
	server recovery. The data on these drives will not be captured or
	transferred to the target site and will not be present on the migrated server.

Examples

The example below shows the usage when specifying a pre-capture operation:

\$ sudo ./sureedge_server_utility_installer.sh --token
4EA7787H725EA686 \
--precapture /home/sureline/precapturescript.sh

The example below shows the exclusion of mount points from the recovery process

\$ sudo ./sureedge_server_utility_installer.sh --token 4EA7787H725EA686 \ --exclude /mnt,/share

Contacting Support

Accelerite Software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by being able to:

- \ Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- \ Submit enhancement requests online
- \ Download software patches
- \ Look up Accelerite support contacts
- \ Enter into discussions with other software customers
- Research and register for software training

To access the Self-serve knowledge base, visit the Accelerite Support home page at

https://support.accelerite.com/hc/en-us

Most of the support areas require that you register on the Accelerite Support Portal. Many also require a support contract.

To register an account at the Accelerite Support Portal, visit

https://support.accelerite.com/hc/en-us

To know more about registration process at Accelerite support portal, visit

https://support.accelerite.com/hc/en-us/articles/202042570-New-user-registration-process

About Persistent

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