



**Persistent**

# SUREedge® DR 6.6.1

**User Guide**

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

# Table of Contents

<b>Introduction</b> .....	<b>5</b>
Deploying SUREedge DR.....	5
Installing SUREedge DR Instances .....	6
SUREedge DR Licensing .....	7
<b>Getting Started</b> .....	<b>8</b>
Accessing SUREedge DR User Interface .....	8
SUREedge DR UI Elements .....	9
Header .....	9
Tabbed Menu Bar .....	9
The Working Area .....	10
Footer .....	12
<b>The Dashboard</b> .....	<b>13</b>
Dashboard Cards .....	13
Job Summary .....	15
<b>Registering Servers</b> .....	<b>20</b>
Registering a Windows Server .....	21
Registering a Linux Server .....	22
Other Operations.....	23
Server Operations.....	25
Filtering.....	26
Exporting the Server List.....	28
<b>Protecting Servers</b> .....	<b>30</b>
Defining Server Protection.....	33
Capture Schedule .....	35
Retention .....	39
Hot DR.....	39
Editing Existing Protection Schedules .....	40
Manually Executing Capture Operations.....	42
Creating a Plan.....	44
<b>Recovering Servers</b> .....	<b>52</b>

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Recovering a Server.....	54
Microsoft SQL Server Licensing .....	56
<b>Managing Jobs.....</b>	<b>58</b>
Viewing Job Details .....	60
Job Operations .....	61
<b>Reports .....</b>	<b>62</b>
Exporting Reports.....	63
<b>Settings.....</b>	<b>66</b>
Appliance Settings.....	67
SUREedge Instance .....	67
Management Console .....	70
Store VM.....	70
SUREedge Store .....	71
Hypervisor Configuration.....	74
Licensing .....	75
Applying Licenses .....	76
Job Concurrency .....	78
Dual Instance .....	79
Support.....	80
Collect Logs .....	80
Prune Logs .....	80
Contact Support.....	82
Advanced Settings.....	82
Remote Instance Settings .....	82
Cloud Transfer Bandwidth Throttling .....	85
Proxy VM Configuration .....	87
<b>Dual Instance Deployment .....</b>	<b>89</b>
Installation .....	89
<b>SUREedge Server Utility Detailed Usage .....</b>	<b>90</b>
Windows Server Utility Parameters .....	90
Linux Server Utility Parameters .....	92
<b>Contacting Support.....</b>	<b>93</b>

# 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, on-premises 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](mailto:support@accelerite.com).

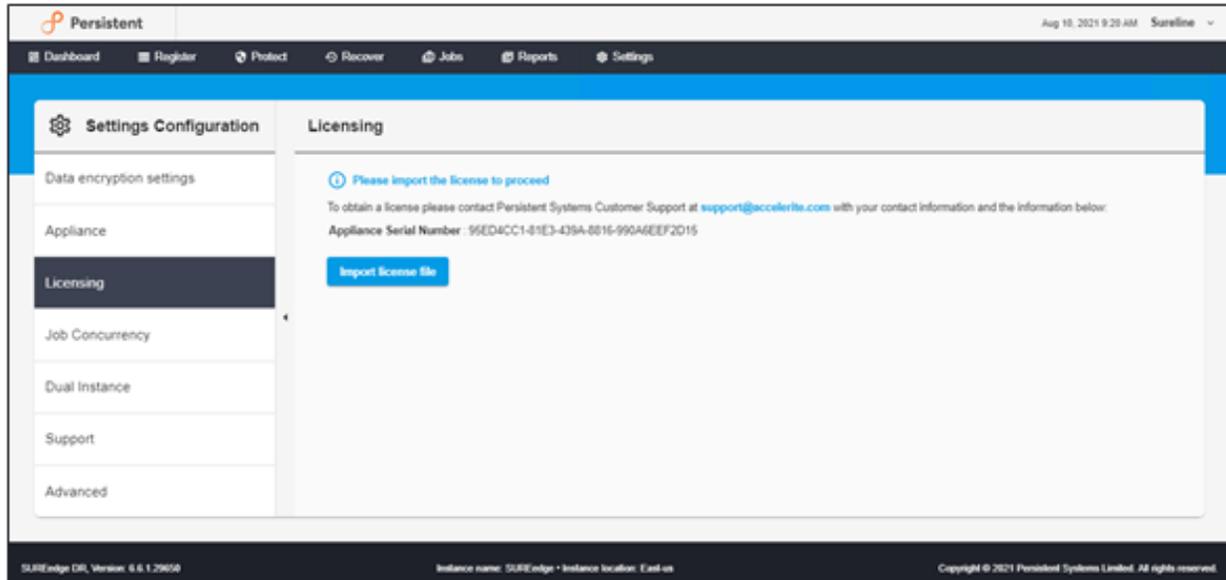
After deploying a SUREedge DR instance it will consist of two virtual machines:

- \ 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](mailto: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 SUREedge DR MC for <MC IP address> in the URL.)

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

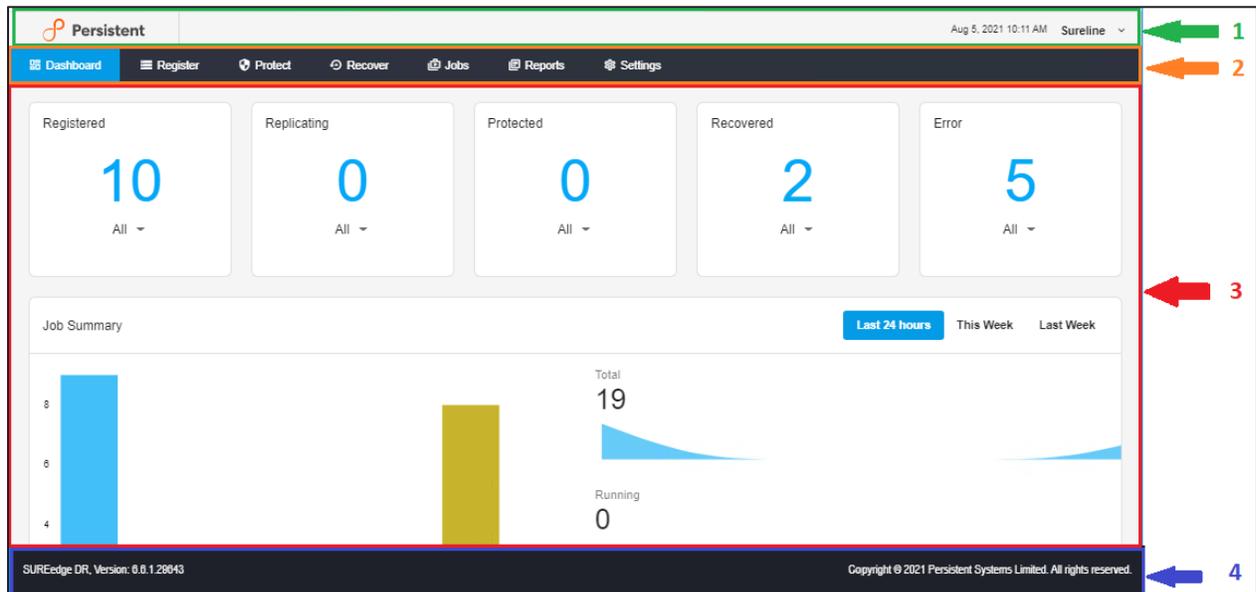
It displays the login screen for the SUREedge DR instance:



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:



Each page in the DR UI has four main elements:

1. [Header](#)
2. [Tabbed menu](#)
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:



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

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

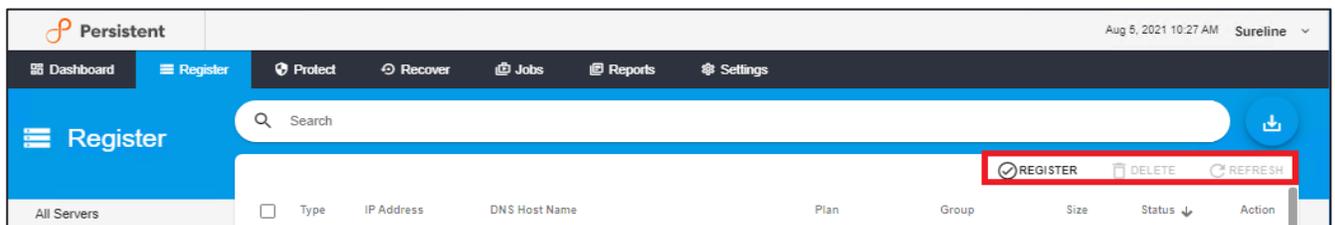
There are two main types of workspaces in the SUREedge DR UI:

- \ **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.

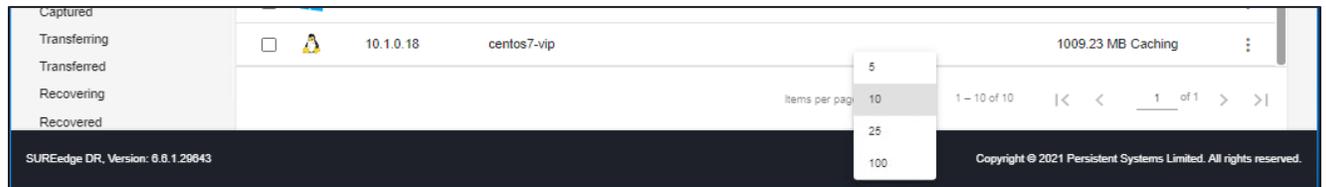
## Grids

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:

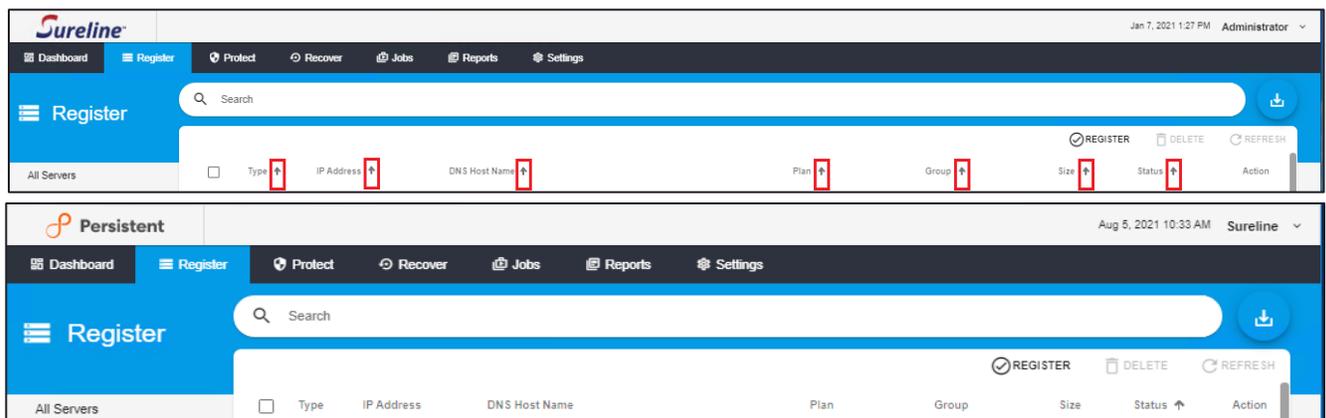
- \ **Grid toolbar and links:** Wherever relevant, a workspace has an additional workspace toolbar based on the information being displayed or manipulated. The tool bar may contain icons or text links.



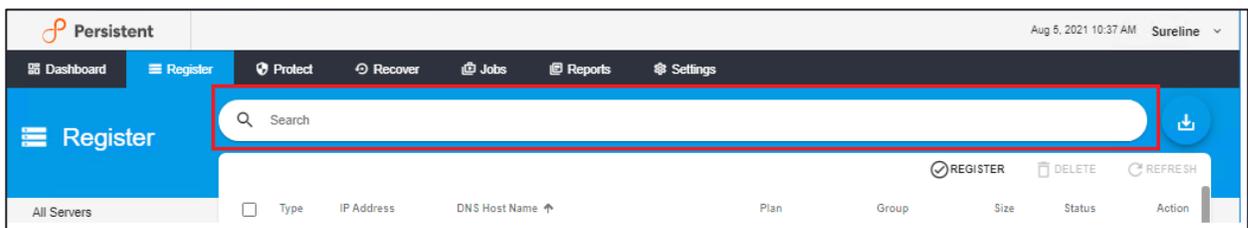
- \ **Pagination:** A grid may have to display a large volume of information. To avoid long waits associated with loading many records, large data sets are divided into pages. The number of records (rows) in a grid's current page and the total number of records in all pages are displayed at the bottom 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.



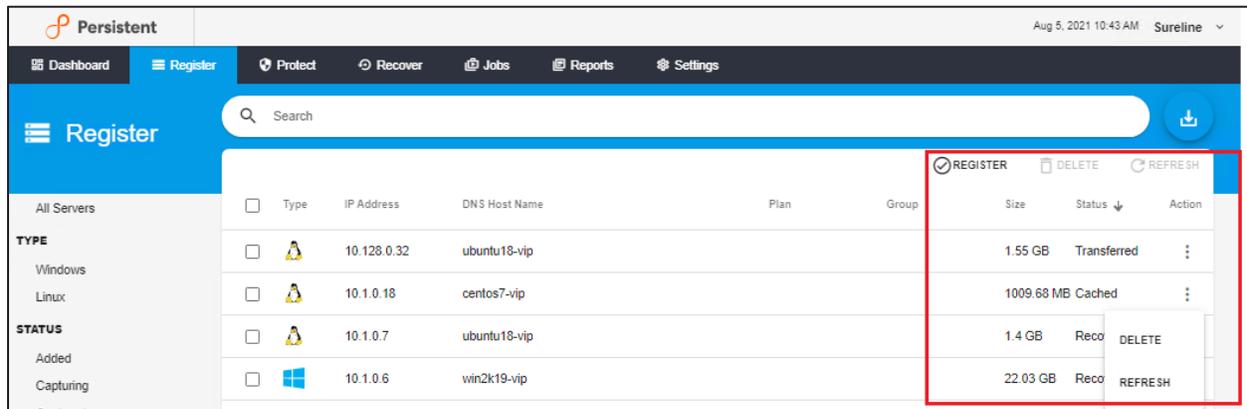
- \ **Scroll bars:** Whenever a page's size exceeds the height or width of the browser window vertical and horizontal scroll bars will appear in the workspace.
- \ **Sorting within grids:** Most grids can be sorted by column values. Hovering the mouse cursor over a column can be sorted a pair of arrows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



- \ **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.



**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.

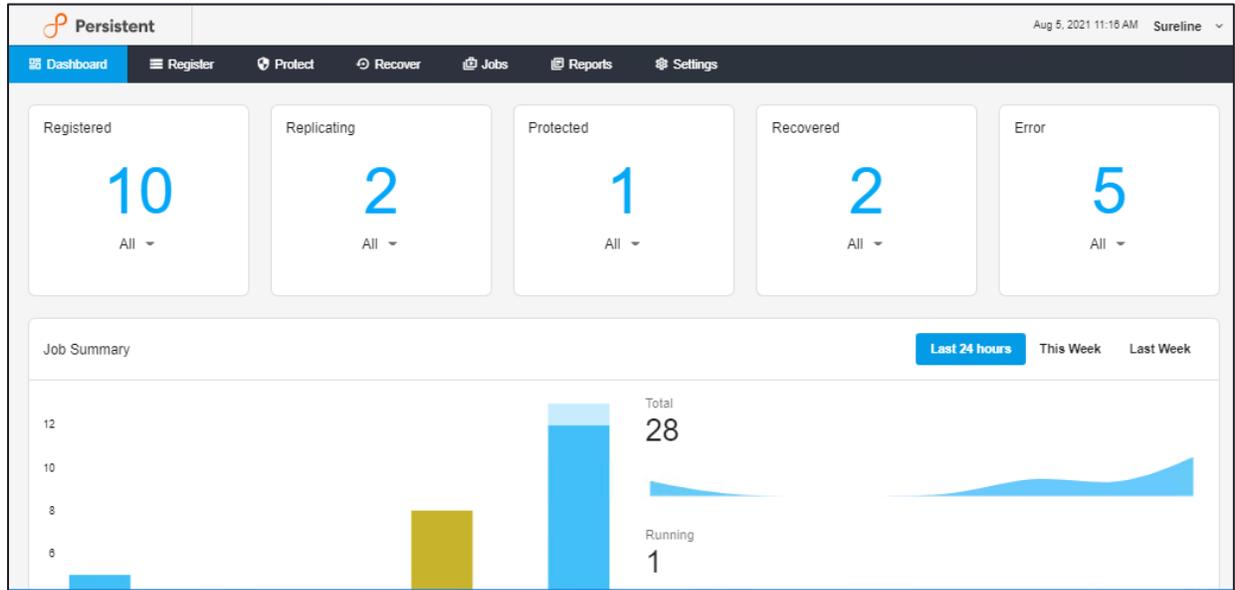


## Footer

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 [Settings](#) section); and the product copyright information is shown on the right side. These are for information purposes and are not interactive.

# The Dashboard

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



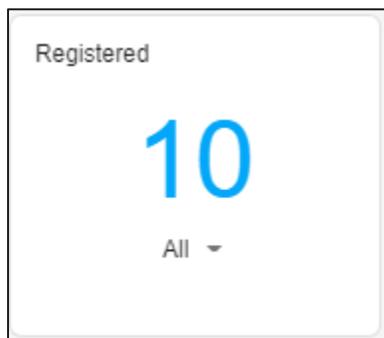
The Dashboard is divided into several sections:

- 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.

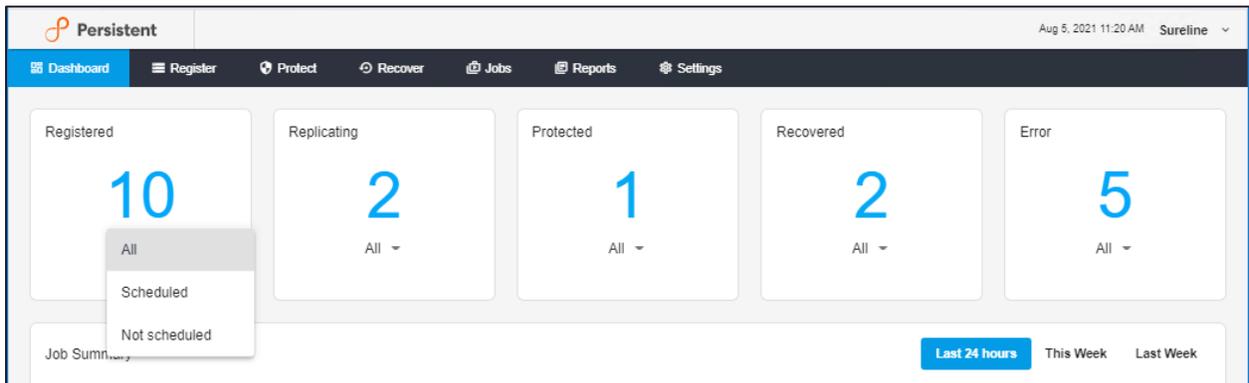
## Dashboard Cards

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

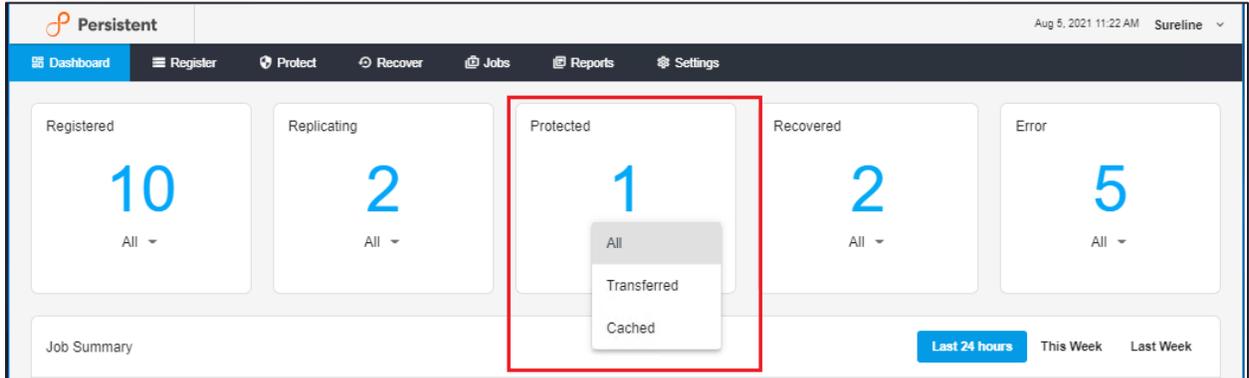
Each of the five server status cards displays the number of servers in the state the card. The scope of servers represented by a card can be refined using a drop-down menu when available. For example, the **Registered** card, displays the number of servers that have DR operations currently running for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



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



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:



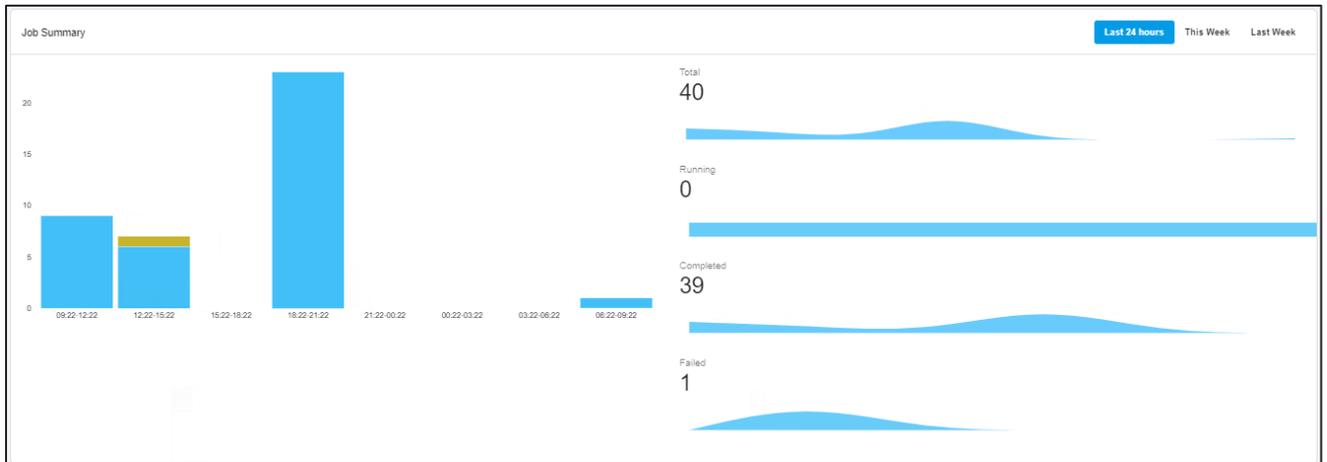
The following screen is displayed after clicking the **Cached** segment of the **Protected** card on the dashboard:

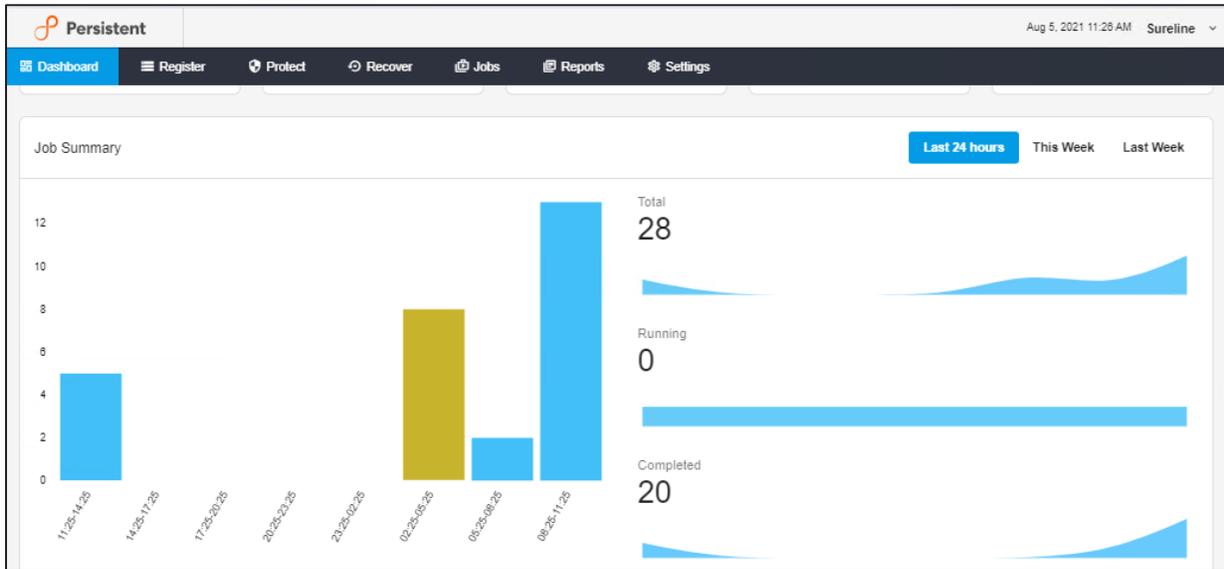
The screenshot shows the 'Recover' section of the Persistent dashboard. The top navigation bar includes 'Dashboard', 'Register', 'Protect', 'Recover', 'Jobs', 'Reports', and 'Settings'. The 'Recover' section has a search bar and a table of recovery jobs. The table has columns for checkboxes, Type, IP Address, DNS Host Name, Plan, Group, Size, Image State, Status, and Action. One job is visible with IP 10.1.0.18 and status 'Cached'. A sidebar on the left lists filters for TYPE (Windows, Linux), PLANS, GROUP, and STATUS (Added, Capturing, Captured, Transferring). The bottom right shows 'Items per page: 10' and '1 - 1 of 1'.

<input type="checkbox"/>	Type	IP Address	DNS Host Name	Plan	Group	Size	Image State	Status	Action
<input type="checkbox"/>		10.1.0.18	centos7-vip			1010.13 MB		Cached	

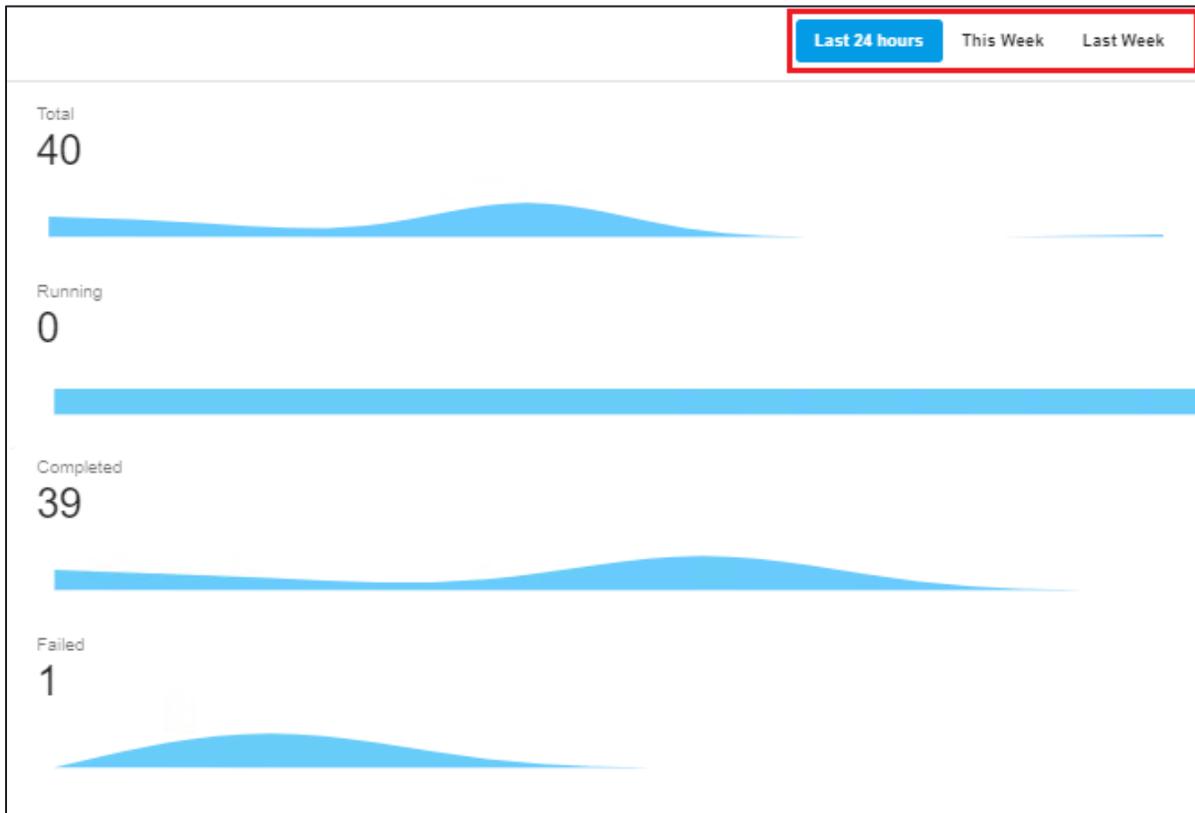
## Job Summary

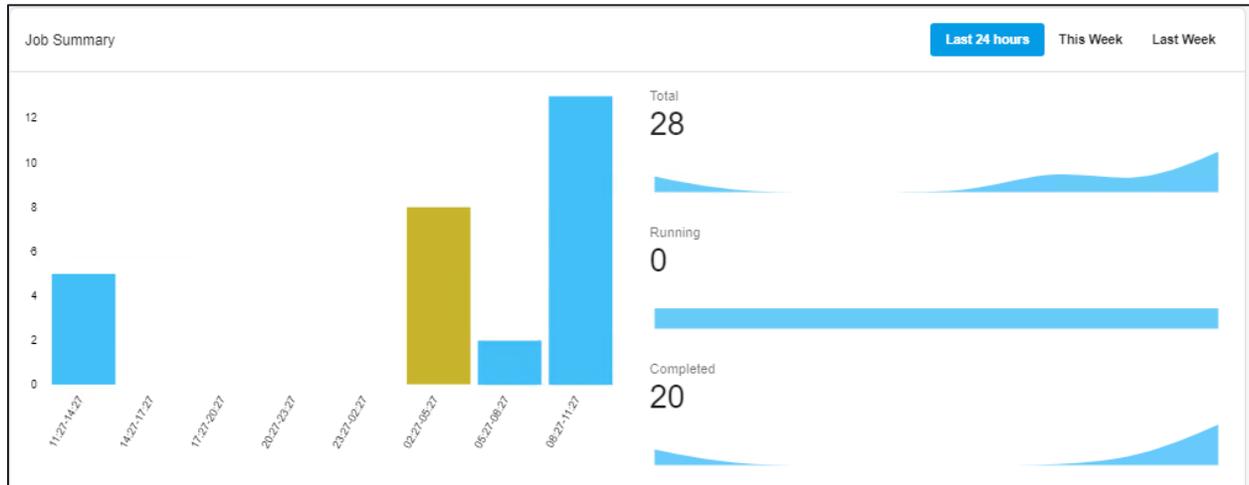
The Job Summary section of the dashboard gives different views of DR-related operations that have run over a given period of time:



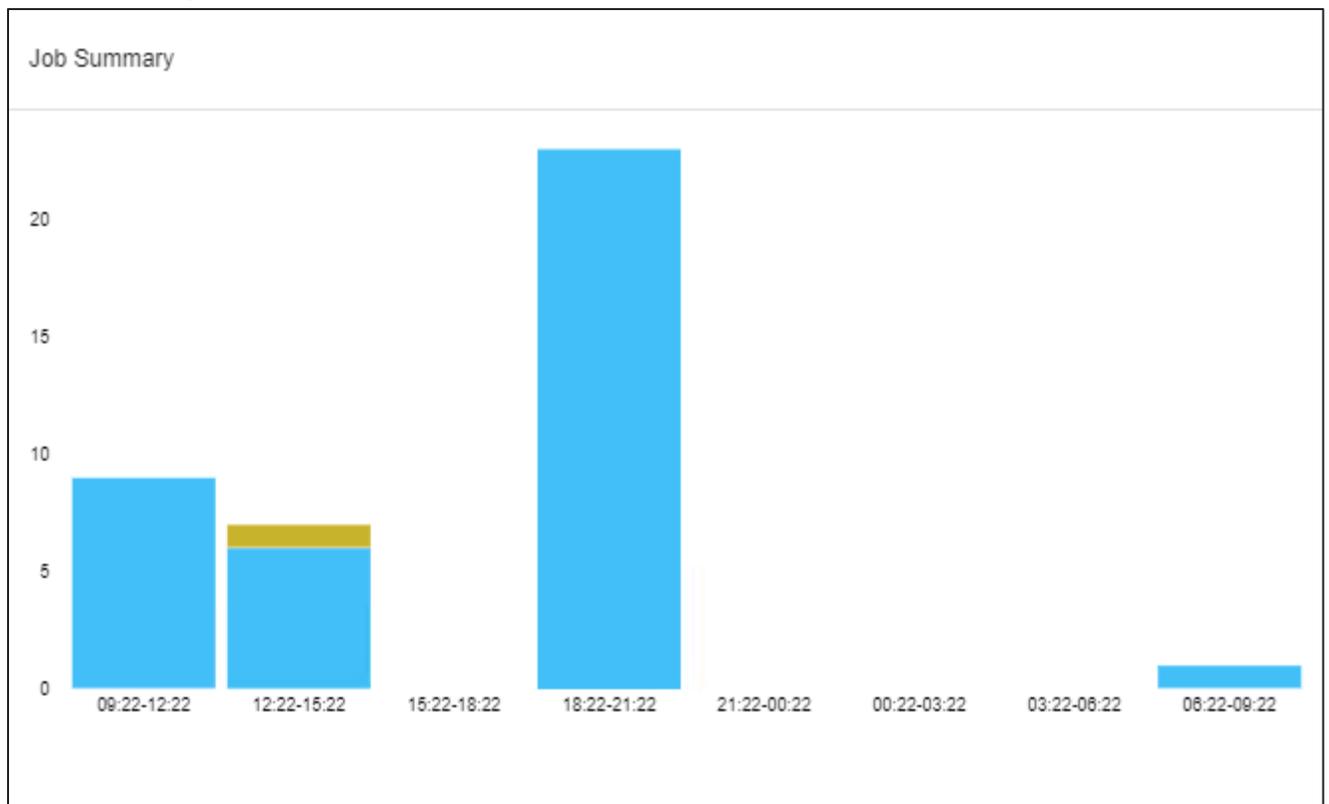


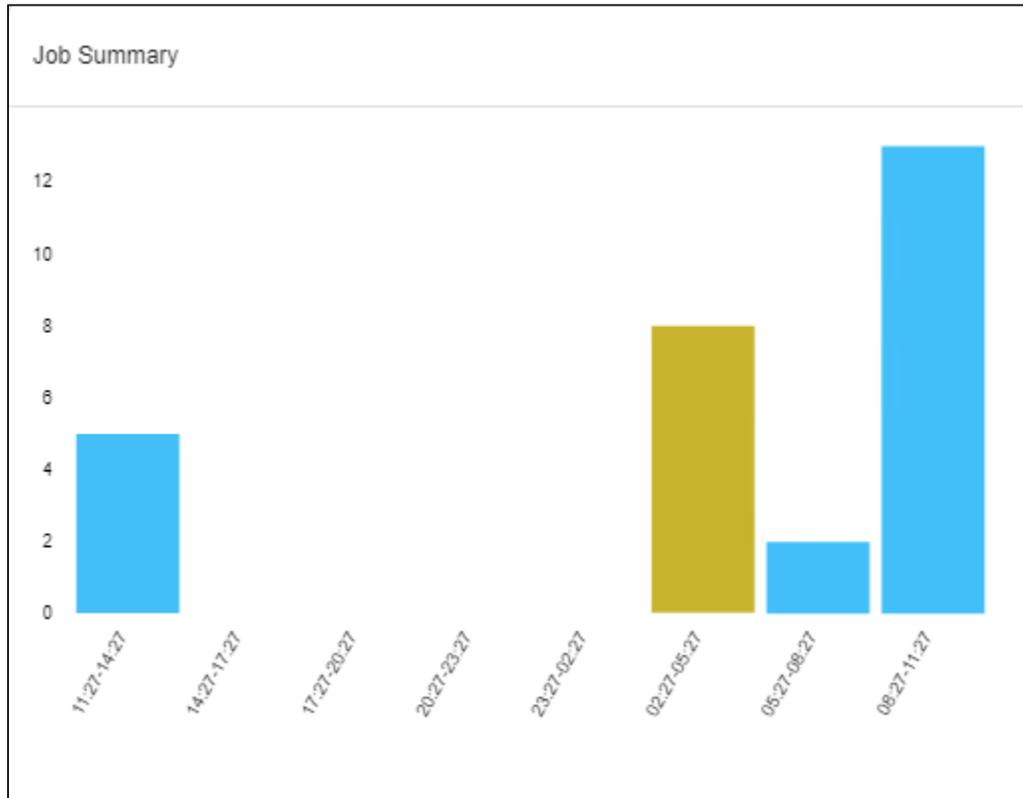
The time span represented in the **Job Summary** section can be set to the last twenty-four hours, the current week or the past week by selecting the desired time period from the list in the upper-right corner:





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:

Servers	Type	Start Time	Duration	Size	Status	Action
win2k19-vip	Transfer	Aug 5, 2021 11:13 AM	4 minutes		Completed	⋮
centos7-vip	ImageCaching	Aug 5, 2021 11:05 AM	7 minutes	870.33 KB	Completed	⋮
ubuntu18-vip	Transfer	Aug 5, 2021 11:03 AM	2 minutes		Completed	⋮
win2k19-vip	Capture	Aug 5, 2021 11:01 AM	11 minutes	429.23 MB	Completed	⋮
ubuntu18-vip	Capture	Aug 5, 2021 11:01 AM	a minute	16.57 MB	Completed	⋮
win2k19-vip	Transfer	Aug 5, 2021 10:55 AM	4 minutes		Completed	⋮

This grid can be searched and sorted to find information about a specific job. See the section on the [Jobs Column, Searching and Sorting](#) 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

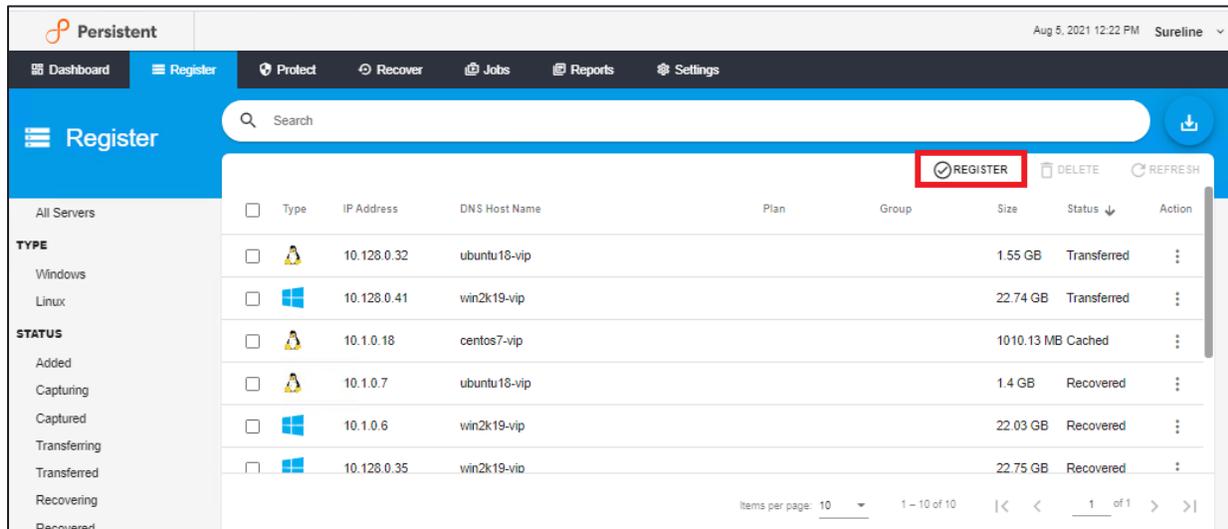
represent the number of jobs in that state which are in each state. Each jobs state is listed along with the number of jobs in that state:



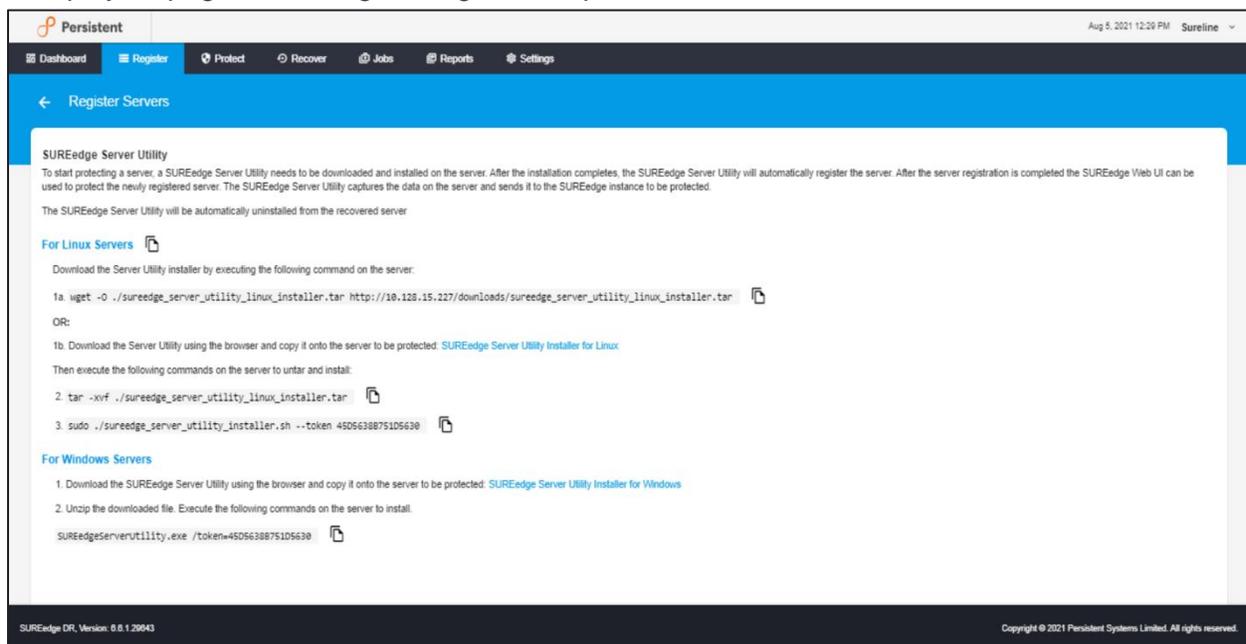
# Registering Servers

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:



It displays a page describing the registration process:

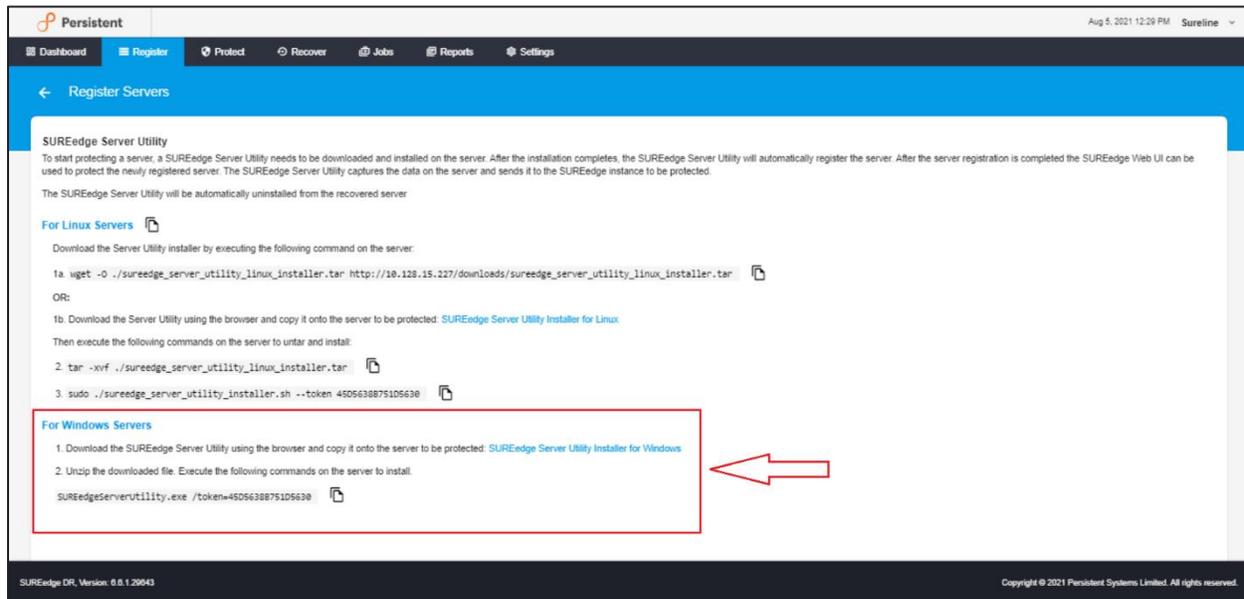


Download and install the SUREedge Server Utility on your servers as described in the following sections. After the SUREedge Server Utility is installed, it registers the server with your

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. [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. Use SUREedge Web UI to schedule protection. Press any key to exit.
    
```

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

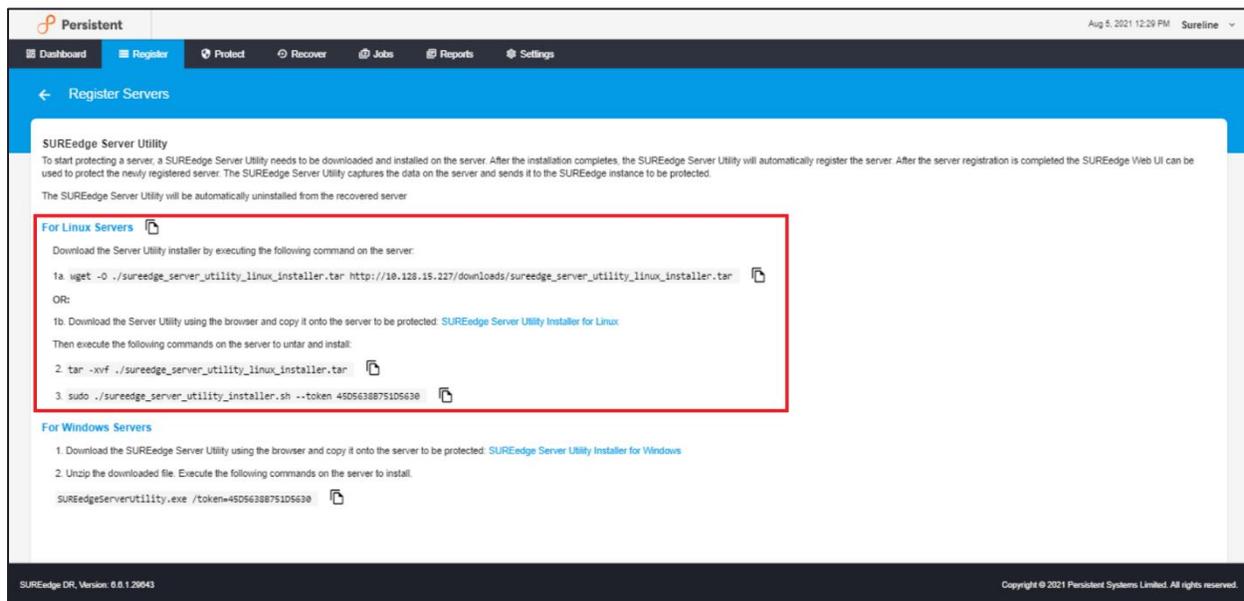
- perform discovery on the system being protected;
- register the server with the SUREedge DR instance for protection;
- submit the discovered system details;
- start the initial system image capture.

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, "[Recovering Servers](#)".

## 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 Server Utility to download and install the **SUREedge Server Utility Linux** on the server to be registered:



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”](#).

```
sureline@ubn1804-srv:~$ wget -O ./sureedge_server_utility_linux_installer.tar http://172.16.51.20/downloads/sureedge_server_utility_linux_installer.tar
--2020-09-22 06:11:35-- http://172.16.51.20/downloads/sureedge_server_utility_linux_installer.tar
Connecting to 172.16.51.20:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3383808 (3.2M) [application/x-tar]
Saving to: './sureedge_server_utility_linux_installer.tar'

./sureedge_server_utility_linux_100%[=====>] 3.23M --.-KB/s in 0.03s
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.sh --token 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 schedule 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.

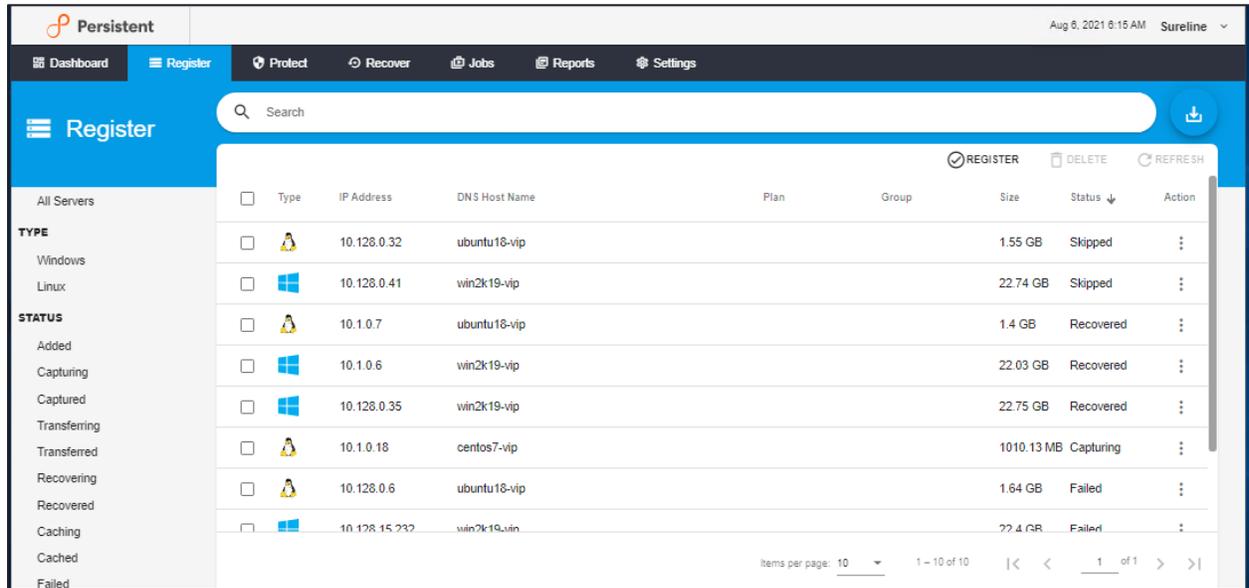
The image capture process transfers the system’s data image to the SUREedge DR instance from which you downloaded the Server Utility. In a single-instance deployment this is the DR instance in the target environment. In a dual-instance deployment this will be the site-side DR instance; and once capture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

Once a system image has arrived at your DR instance in GCP you can perform recovery; see Section, “[Recovering Servers](#)”.

## 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 [Filtering](#)) or filtered by system type or state (as described in [Filtering](#)).

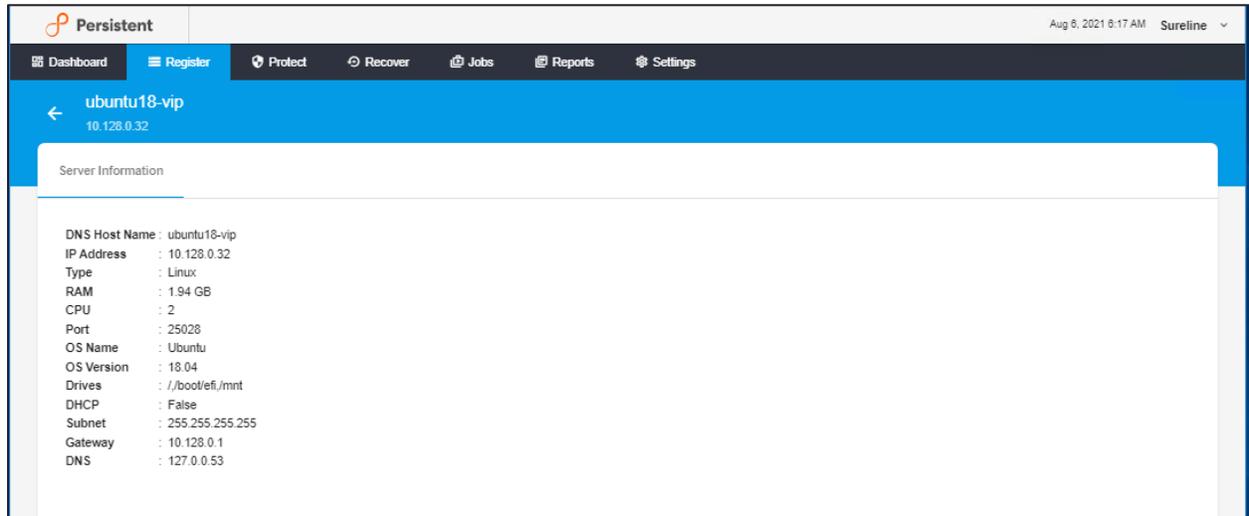
Each line in the Register tab represents a server that has been registered with SUREedge DR, and provides information about the registered server:



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

Type	The Operating System that the server is running (Windows, Linux)
IP Address	The host's IP address.
DNS Host Name	Username to be used to access the host.
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:



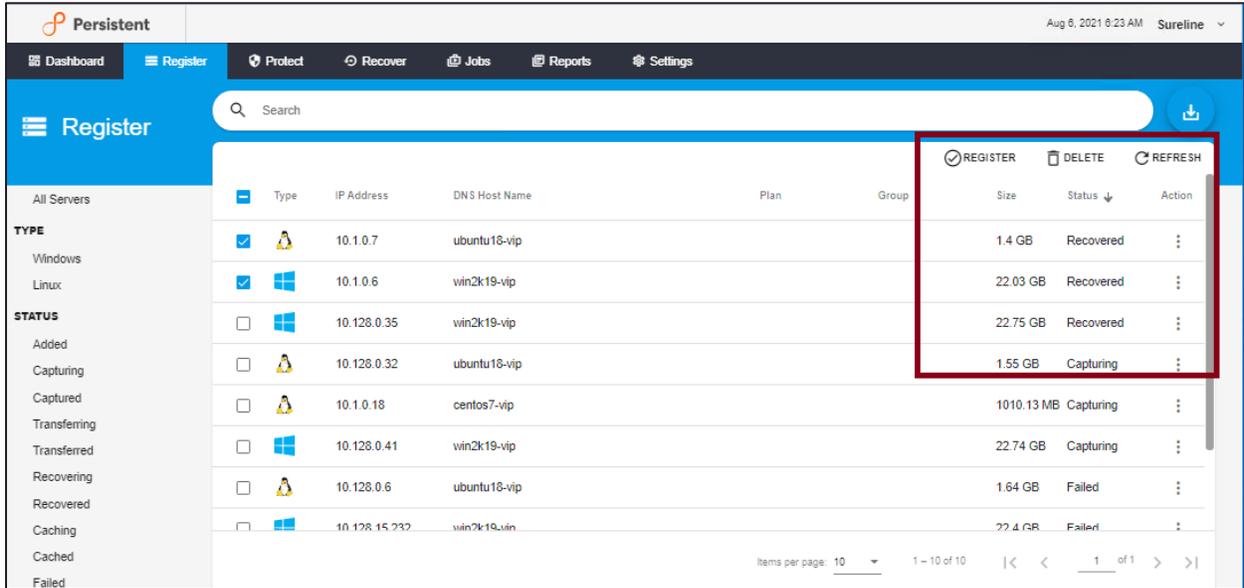
The following table provides Server Information page details:

Parameter	Description
DNS Host Name	The hostname of the server.
IP Address	The host's IP address.
Type	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

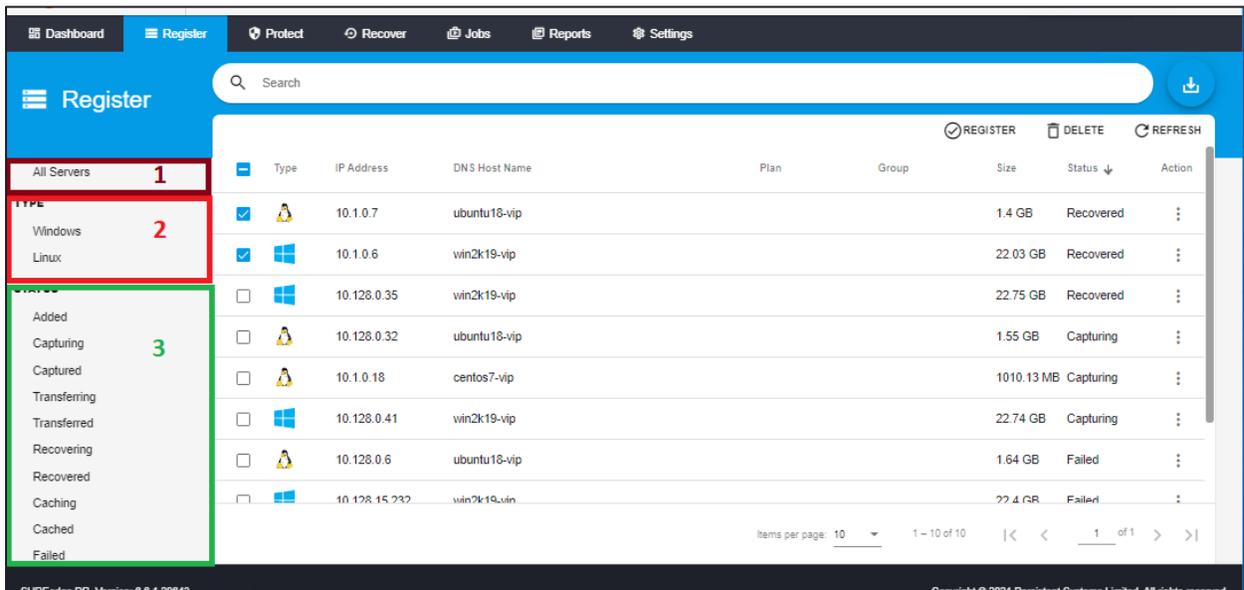
The Register tab has an additional workspace toolbar, along with the Register button it also has options to Delete and Refresh the servers.

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.



## 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):



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:

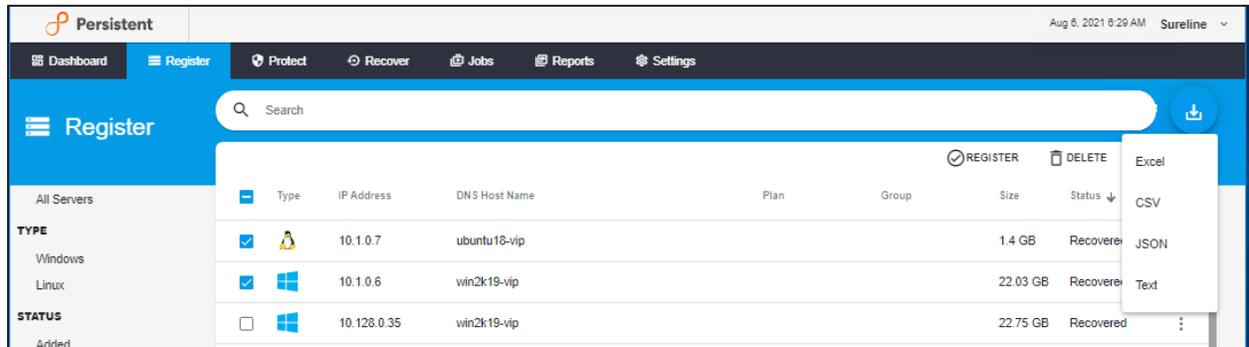
Windows	Display only servers running the Windows operating system.
Linux	Display only servers running a Linux-based operating system

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

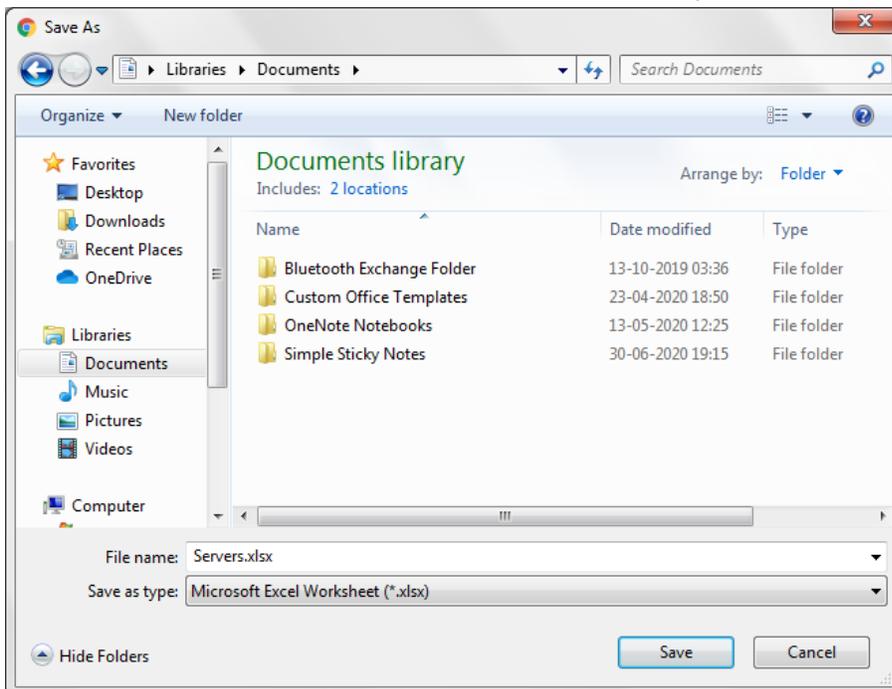
Added	Displays all the Added servers.
Capturing	Displays all the Capturing servers.
Captured	Displays all the Captured servers.
Transferring	Displays all the Transferring servers.
Transferred	Displays all the Transferred servers.
Recovering	Displays all the Recovering servers.
Recovered	Displays all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

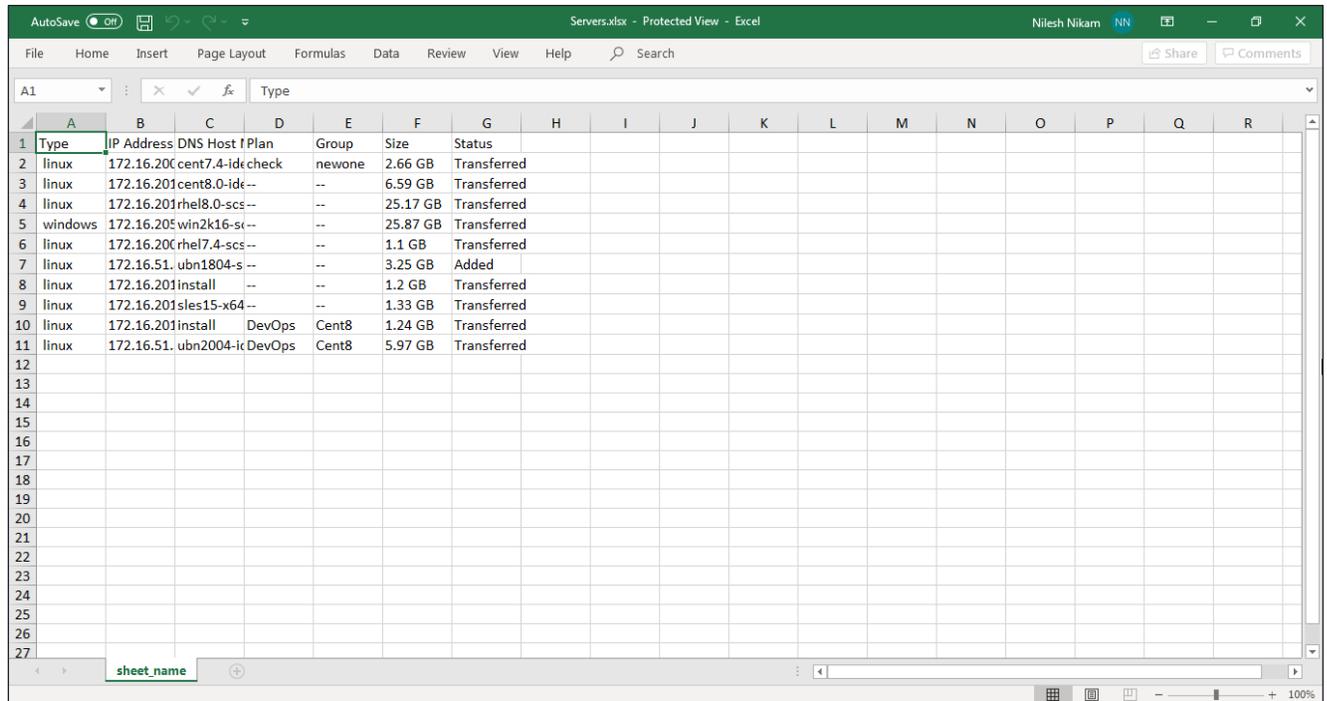
The **Export** button can be used to download a spreadsheet of server information in various file formats (Windows Excel, CSV, JSON and Text). This gives you access to server information in spreadsheet form for use in tracking, reports, etc.



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:



Type	IP Address	DNS Host Name	Plan	Group	Size	Status
linux	172.16.201	cent7.4-ide	check	newone	2.66 GB	Transferred
linux	172.16.201	cent8.0-ide	--	--	6.59 GB	Transferred
linux	172.16.201	rhel8.0-scs	--	--	25.17 GB	Transferred
windows	172.16.201	win2k16-scs	--	--	25.87 GB	Transferred
linux	172.16.201	rhel7.4-scs	--	--	1.1 GB	Transferred
linux	172.16.51.	ubn1804-s	--	--	3.25 GB	Added
linux	172.16.201	install	--	--	1.2 GB	Transferred
linux	172.16.201	sles15-x64	--	--	1.33 GB	Transferred
linux	172.16.201	install	DevOps	Cent8	1.24 GB	Transferred
linux	172.16.51.	ubn2004-ic	DevOps	Cent8	5.97 GB	Transferred

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
Type	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.

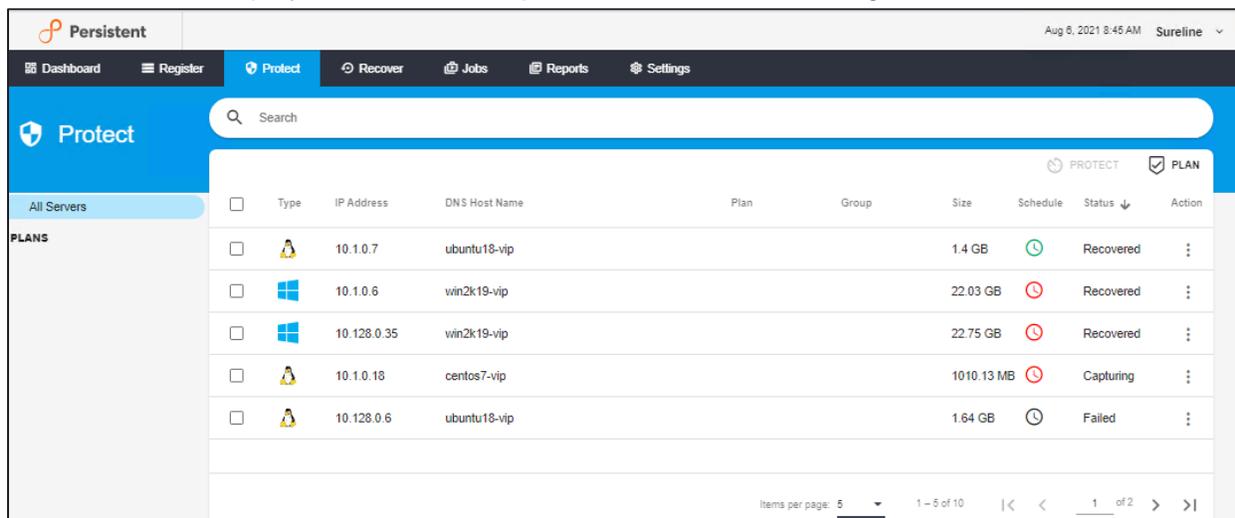
# Protecting Servers

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.

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

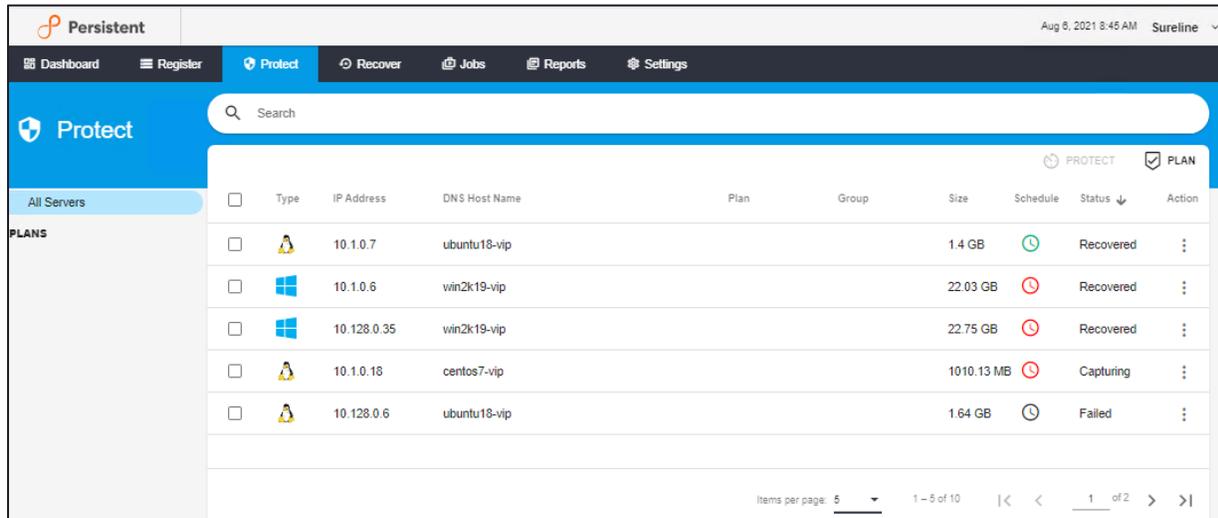


Each row in the Protection grid represents a server that has been registered for protection. The grid contents can be filtered by specifying search terms in the search bar above the grid. Servers can also be filtered by server group or recovery plan using the filters to the left of the grid.

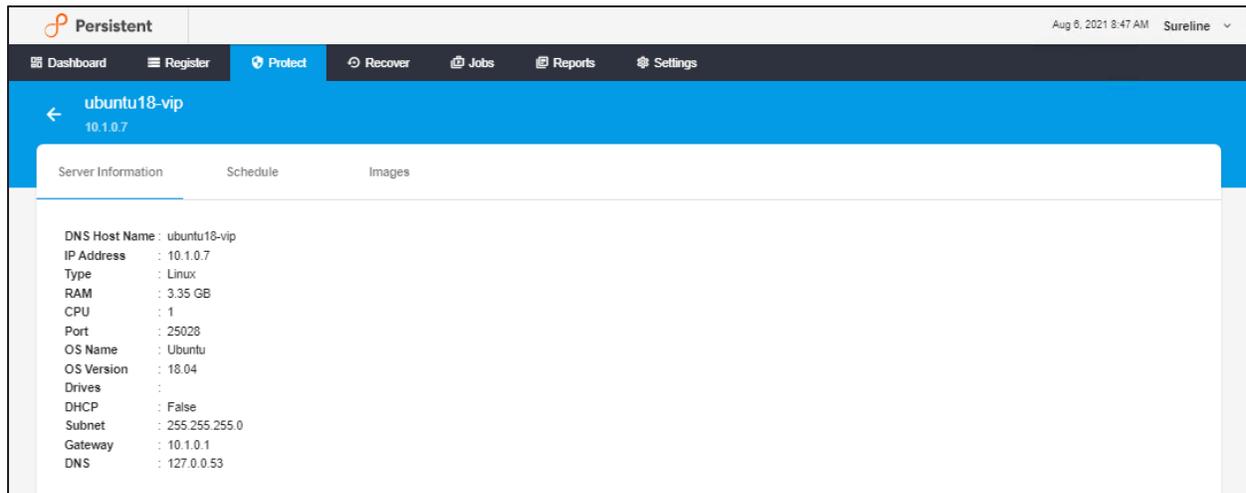
For each server you can see the following information in the grid:

Type	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.

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



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

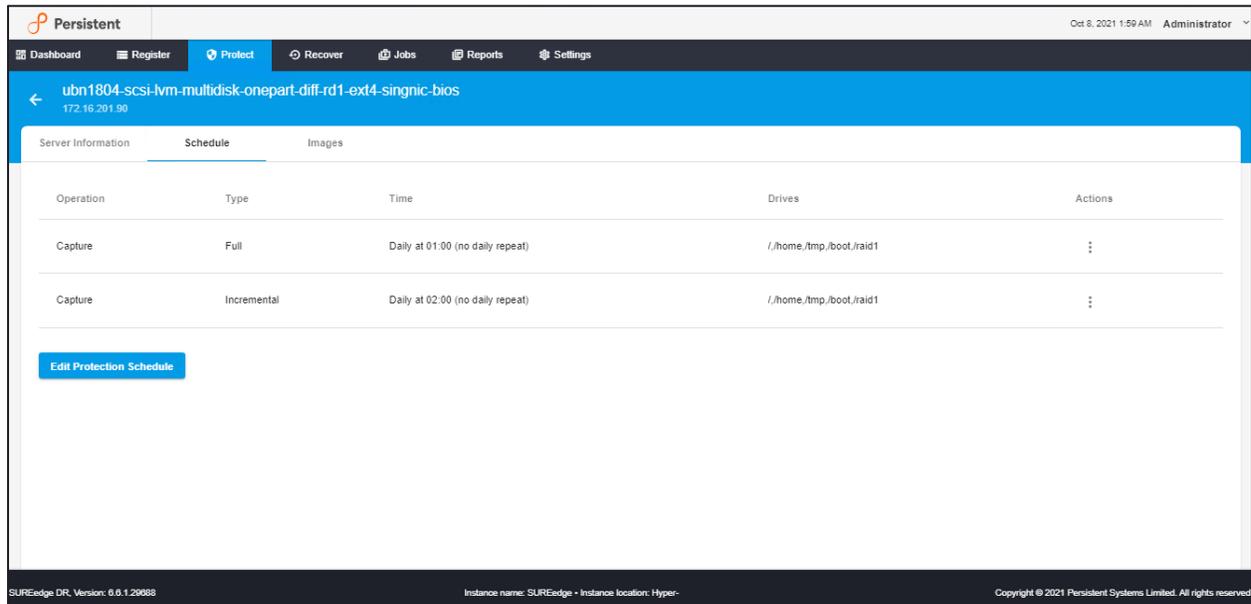


The following table describes the parameters of server information details page:

Parameter	Description
DNS Host Name	The hostname of the server.
IP Address	The server's IP address.
Type	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*:

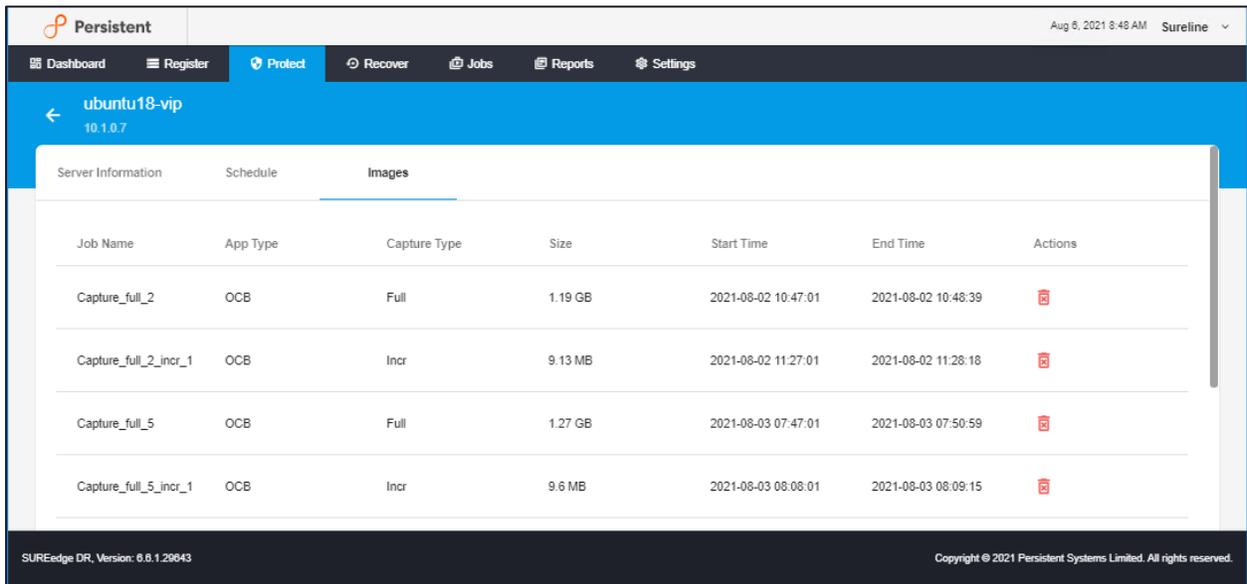


The protection schedule is a list of *capture operations* defined for the server. Each capture operation defines a type of image capture operation to perform (full or incremental) and when to perform it. Taken together all the operations define the desired recovery points available when a server needs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

The following table describes the attributes of a capture operation:

Parameter	Description
Type	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:

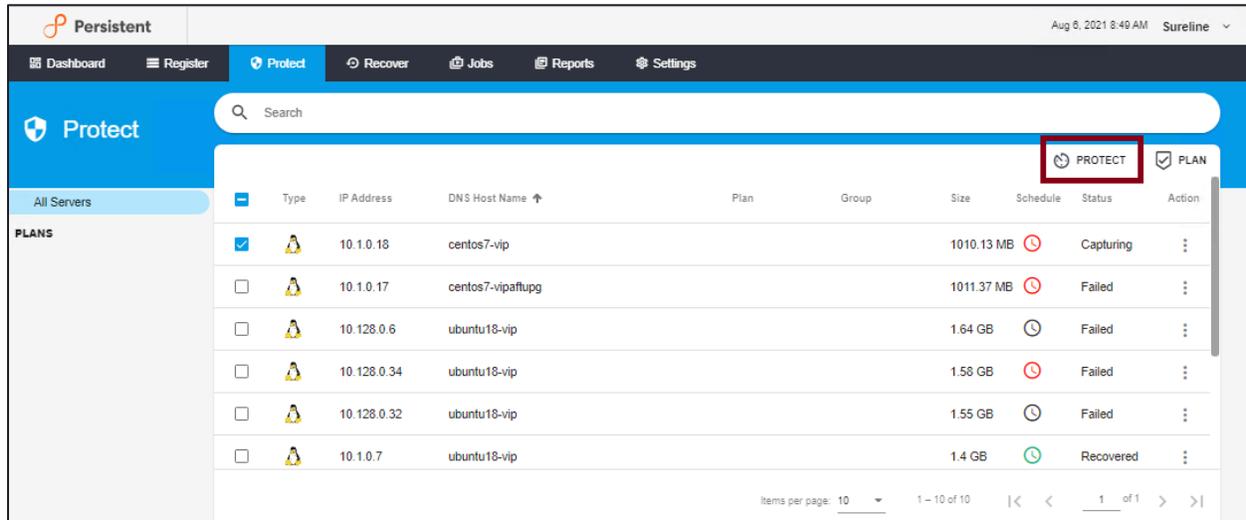


The following table describes the parameters of **Images** details page:

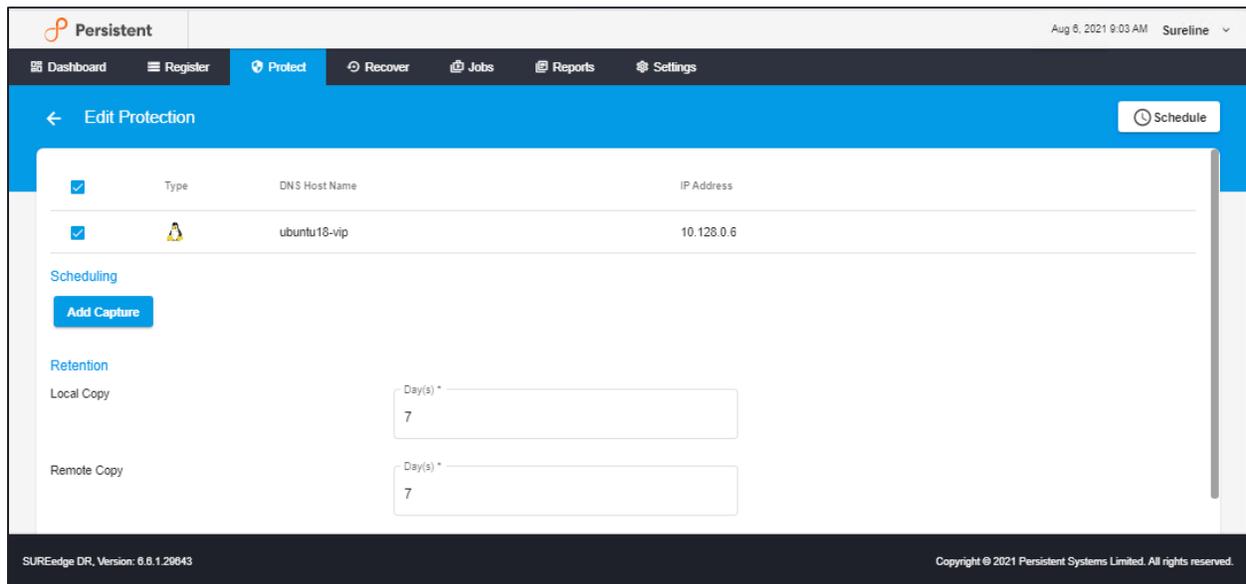
Parameter	Description
Job Name	The unique job name identifying the specific job that represents the capture operation performed to obtain the image.
App Type	Indicates the level at which the image capture was performed; this will always be OCB for system protection.
Capture Type	Indicates the type (full 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:



This will bring up the **Edit Protection** screen:



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

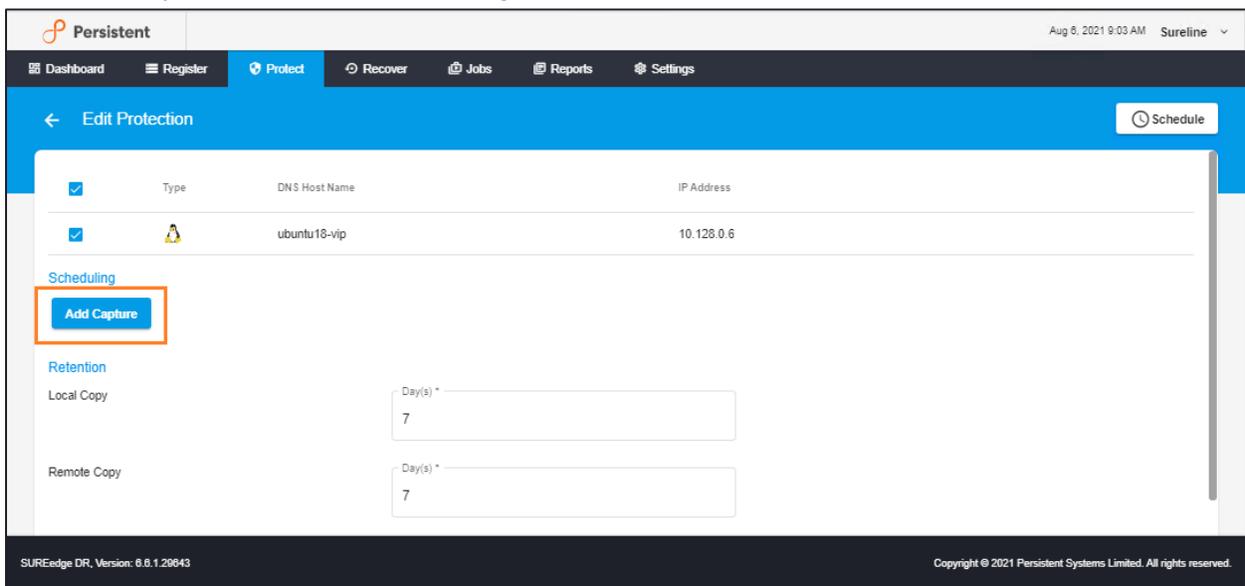
farthest back in time a recovery point for the server is available, another component of **RPO**.

- 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:



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

- 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.

- 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:

The screenshot shows a 'Set Schedule' dialog box with the following fields:

- Capture Type:** Full
- Schedule Type:** Daily
- At Time:** Hour: 0, Minute: 0
- Repeat After:** Hour: No Repeat, Minute: Minute
- Buttons:** Schedule

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 capture 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:

### Set Schedule ✕

**Capture Type**

Full

**Schedule Type**

Weekly

**At Time**

Hour \* 3 Minute \* 15

**On Days**

Sunday  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday

**Schedule**

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:

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:

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

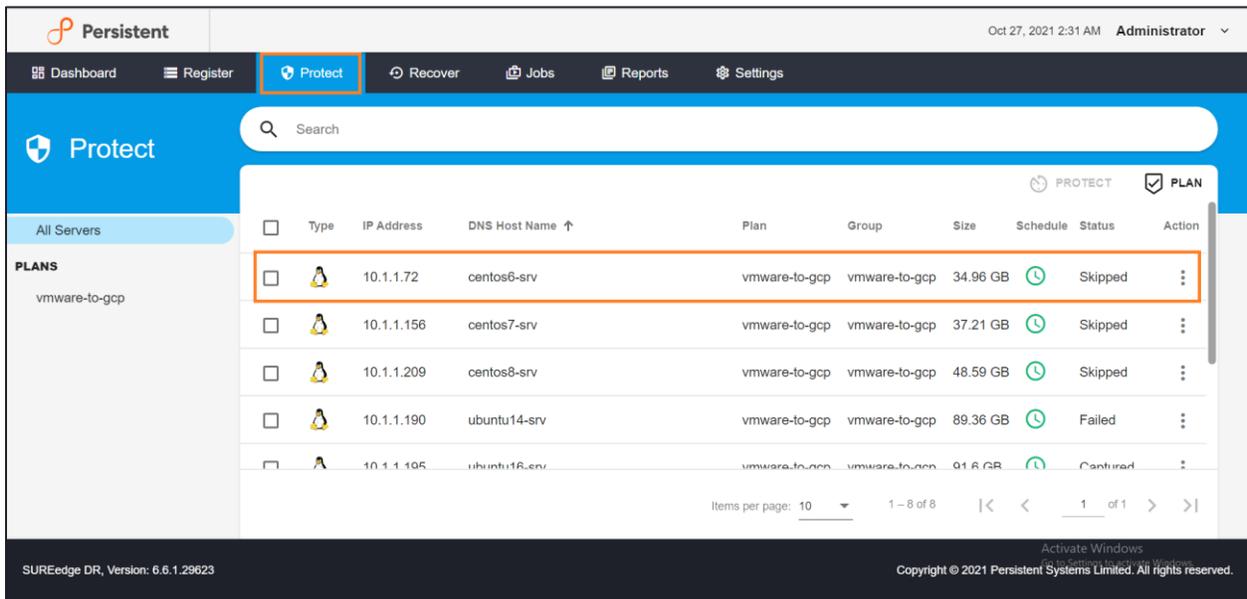
Enabling the **Hot DR** option causes SUREedge DR to maintain virtual device(s) containing the latest captured image for a server at the target site.

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

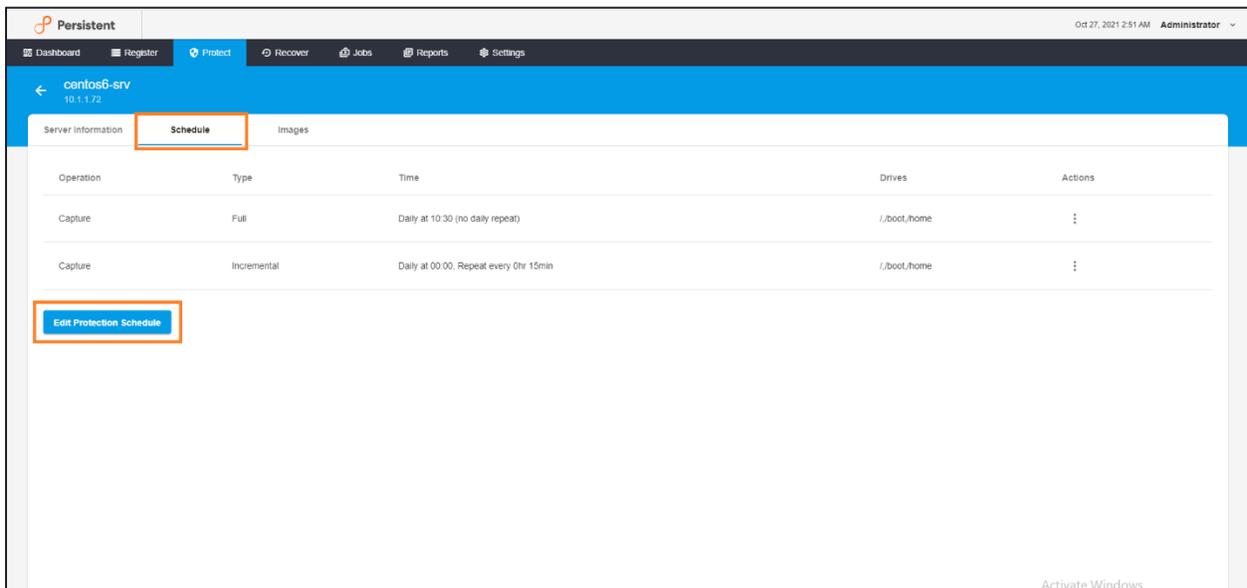
Once you are satisfied with the protection parameters for the server(s) you are protecting click the **Schedule** button in the upper-right corner (1 below); or, if you wish to discard the changes you have made on this page click the **back** button (2).

## Editing Existing Protection Schedules

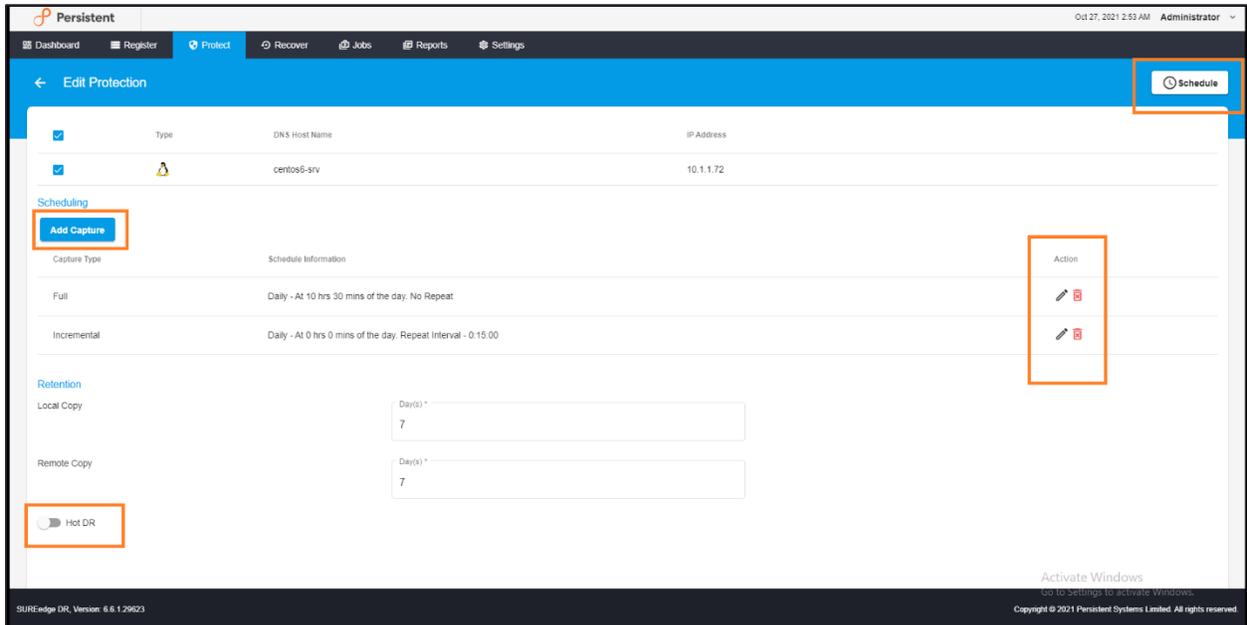
You can edit protection schedules by selecting a server row in the grid and then click on **Server Grid** in **Protect**:



Select **Schedule** on top pane. Click **Edit Protection Schedule**:

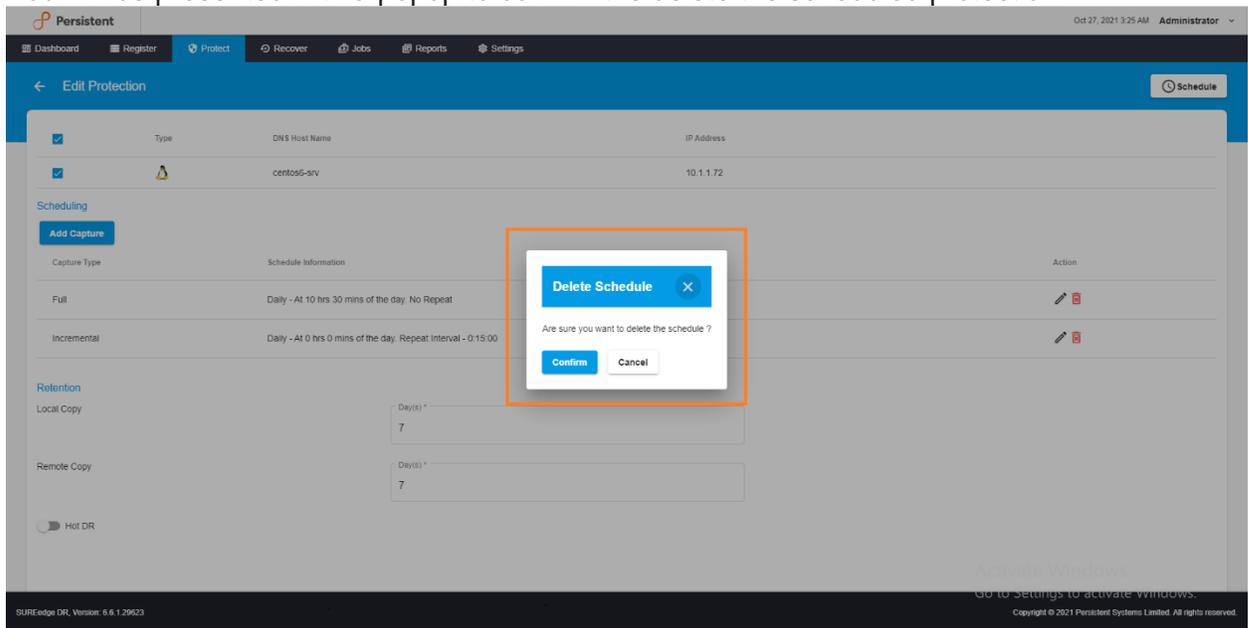


This will display the **Edit Protection** page:

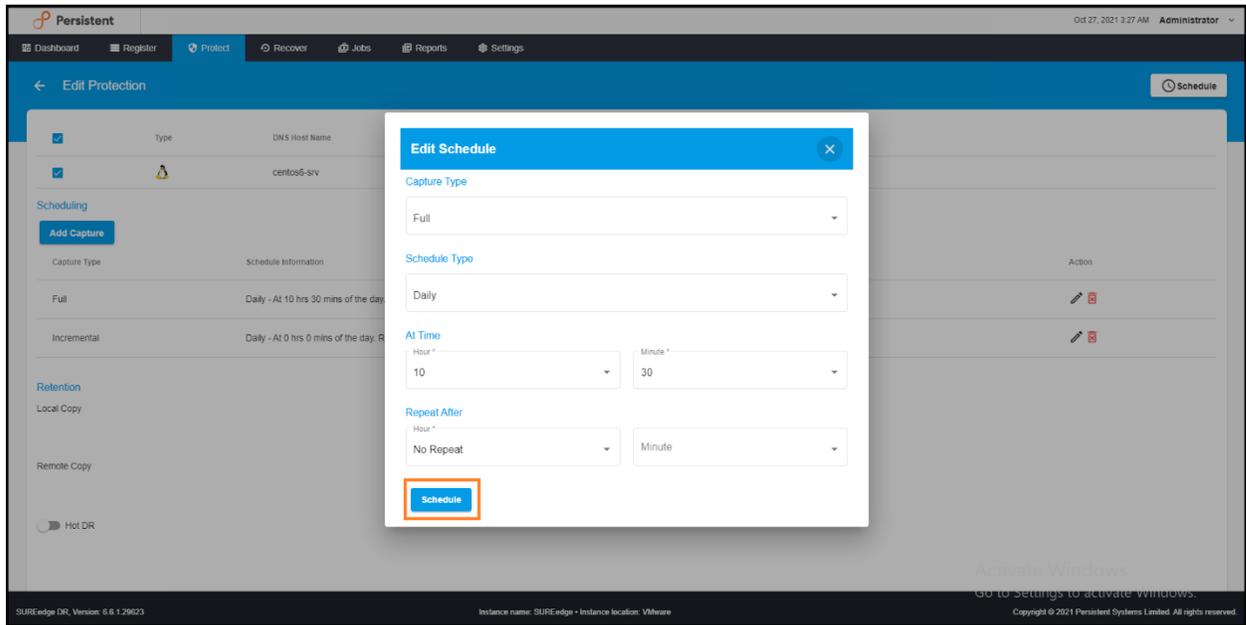


Here you can change the protection schedule by adding or deleting capture operations, adjusting the local and remote retention windows and enabling/disabling Hot DR.

- 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:



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:



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.

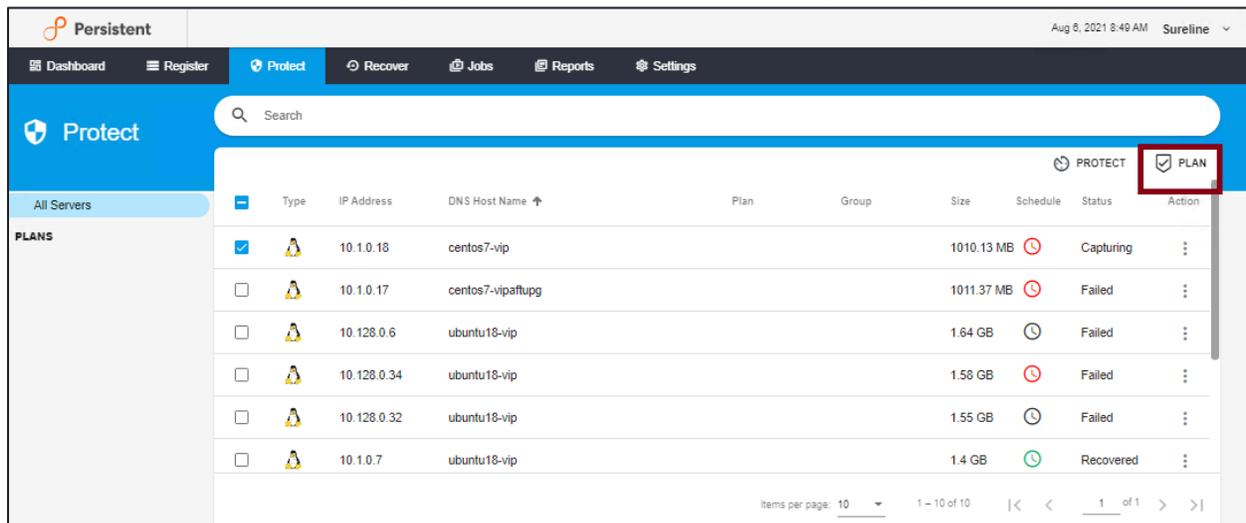
Click **Submit** to schedule the capture operation to occur at the specified time or click the **Cancel** button in the header to cancel.

## Creating a Plan

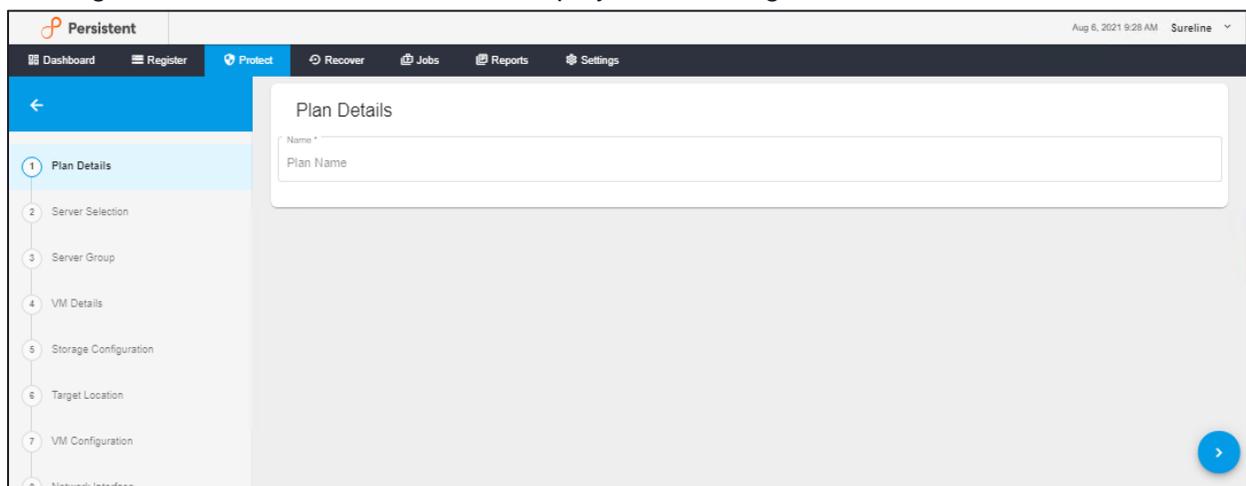
**Protect Plans** are collections of servers which are captured, transferred, and recovered as a group, along with the attributes changes that will be applied to them during recovery. The use of protect plans streamlines and automates the recovery process. Servers may be grouped into plans for any number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

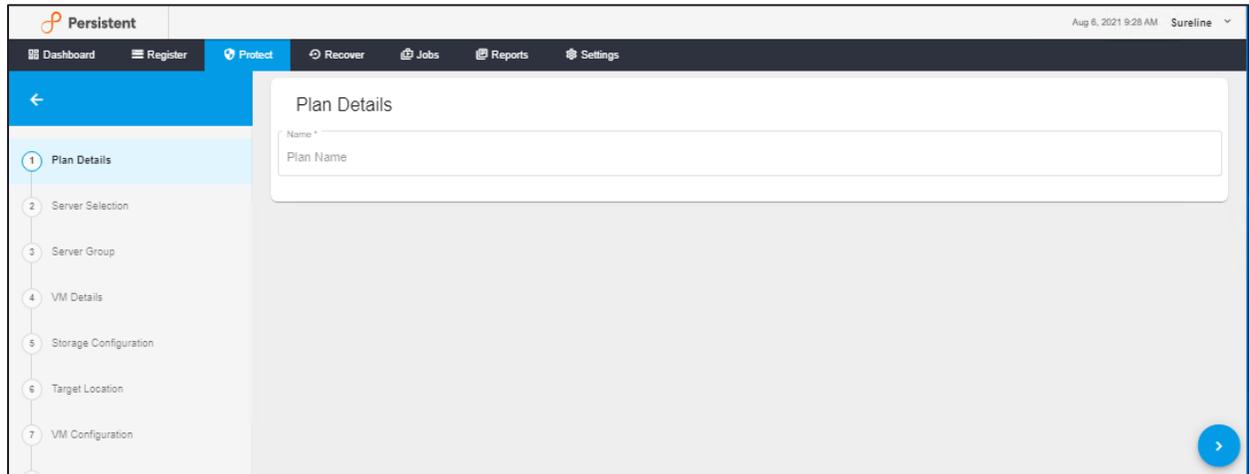
Plan creation is performed on the source side of the DR console by logging into the SUREedge DR instance running in the same environment as the servers to be recovered. Recovery plans are created and managed under the **Protect** tab in the SUREedge DR user interface.

Once you have added server, you can protect the new server by clicking on the **Plan** button.



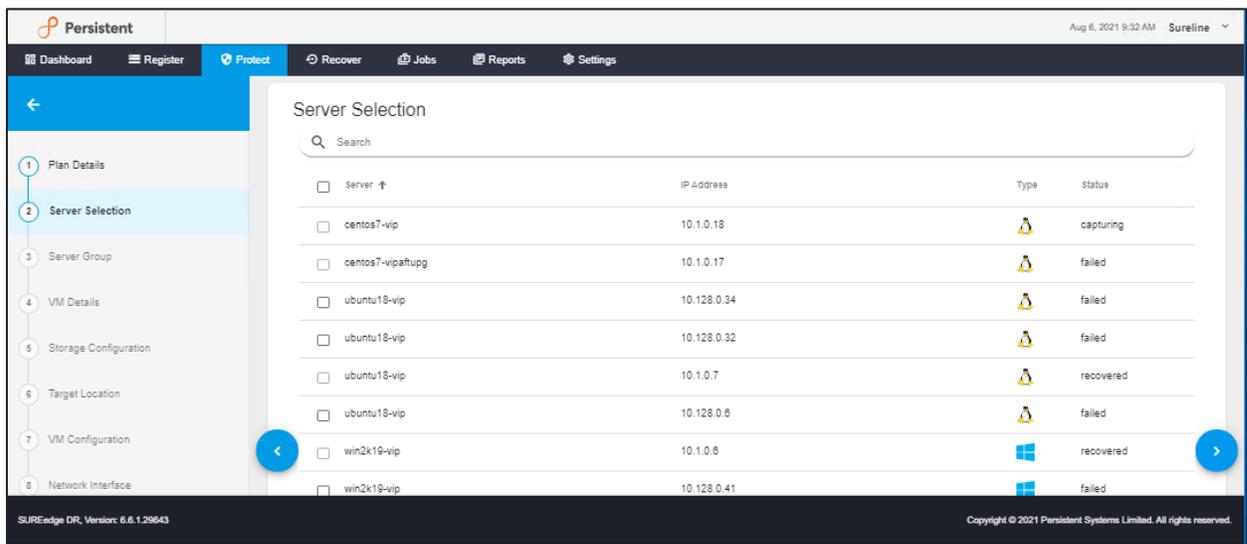
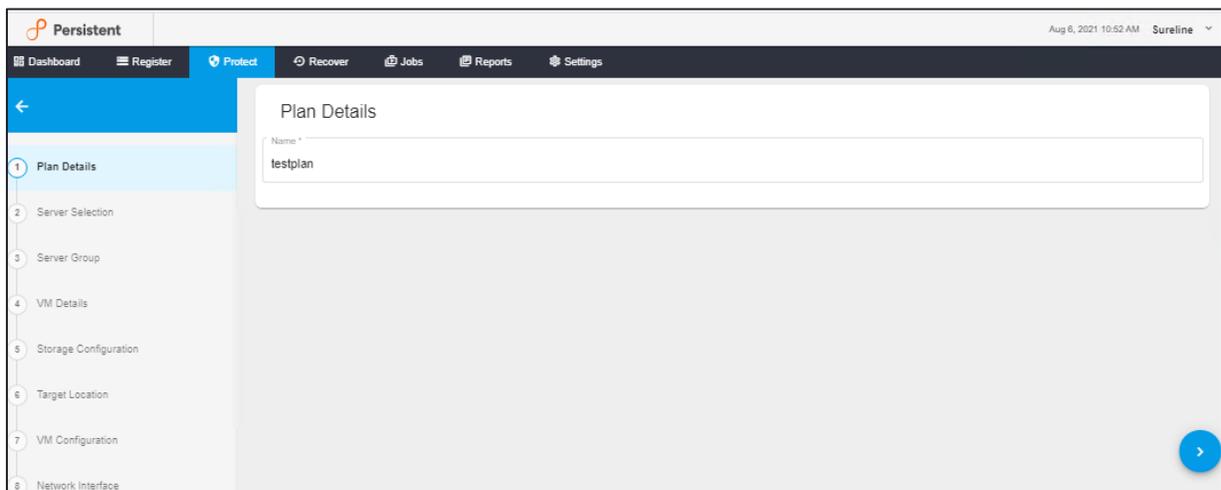
Clicking on the **Create Plan** button, will display the following screen:





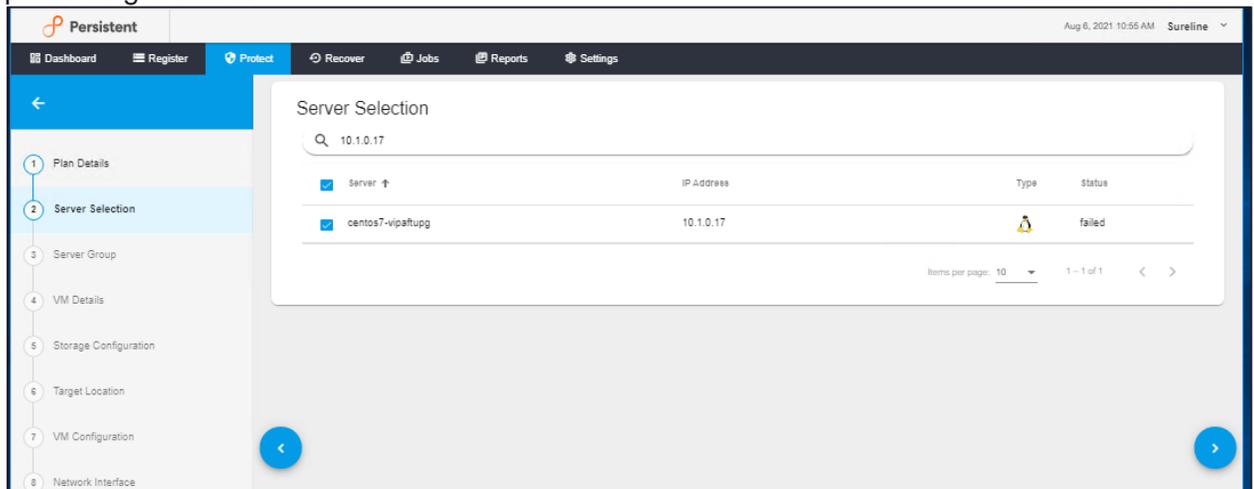
To create a Plan, please follow the steps as mentioned below:

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



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:

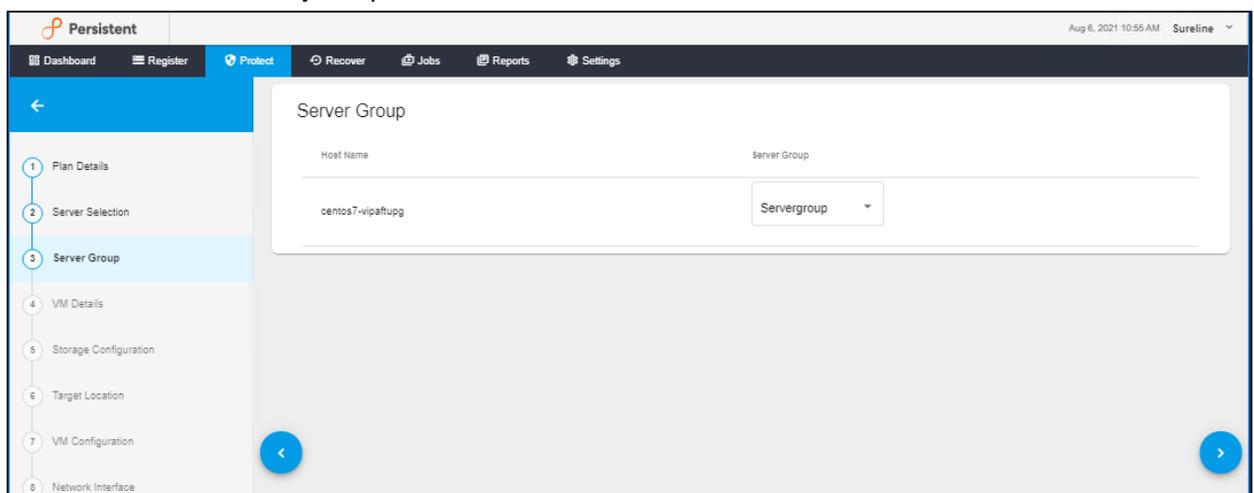


Select the servers to be included in the plan by checking the checkbox to the left of each server you wish to be part of the plan. You can also sort the list by clicking on the column headers, and filter the servers using the search box in the upper right corner. Click on **Next** button to define Server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

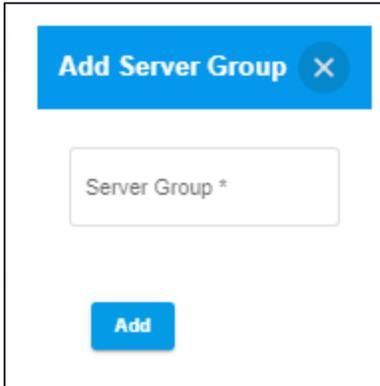
**3. Server Group**

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.

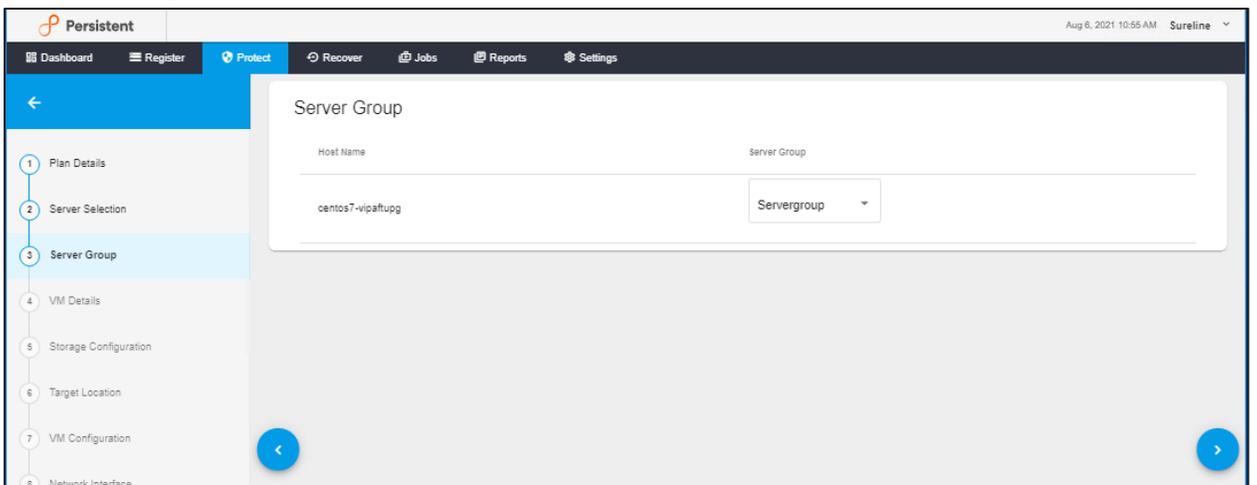


To create a new “**Server Group**,” click on (+) button, this will bring up the **Add to Group** dialog, this will bring up the **Add to Group** dialog:



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.



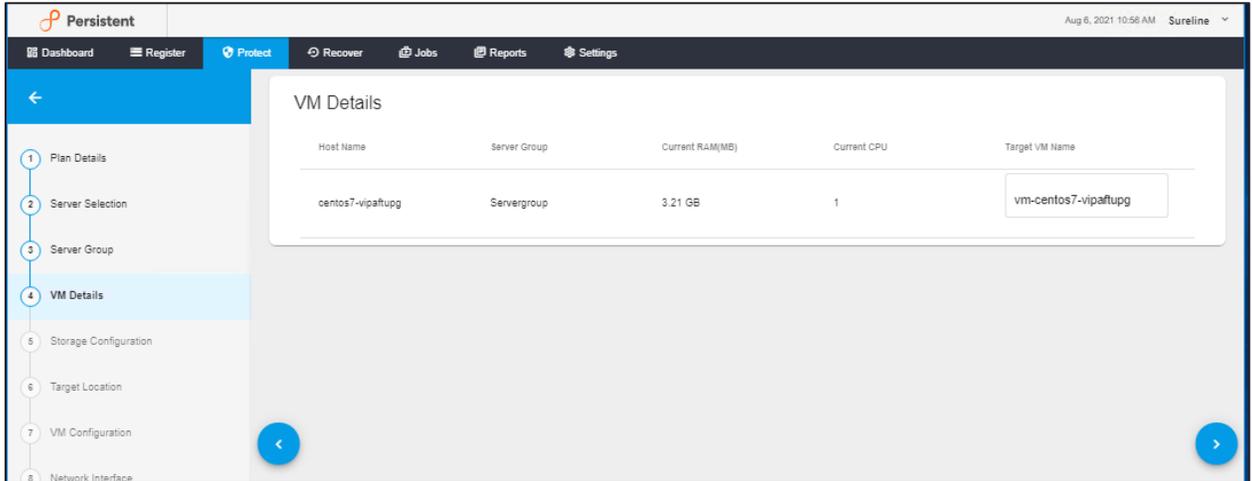
A server's Recovery Sequence Number can be specified in the **Recovery Sequence** column.

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.

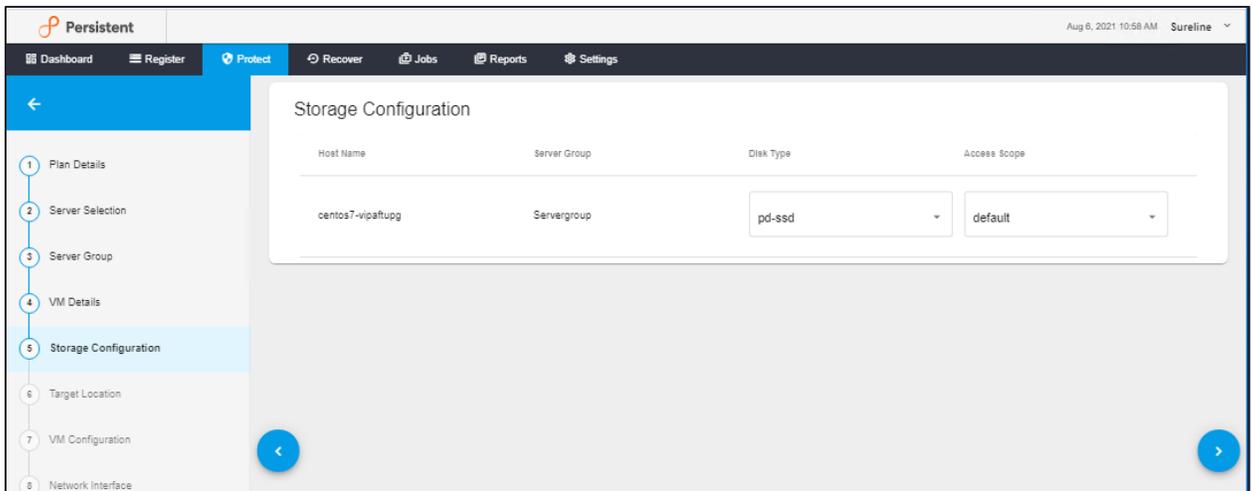


Each server's virtual machine can have certain attributes specified, such as the number of virtual CPU cores and memory size. You can also specify the target VM's name if the default is not satisfactory.

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:



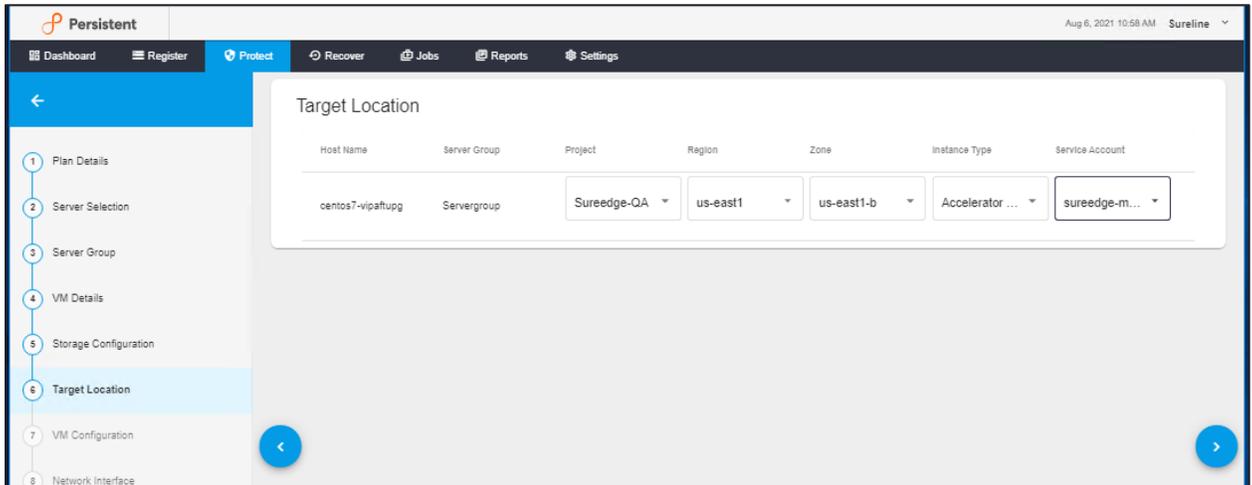
You can specify each system's storage configuration as follows:

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:

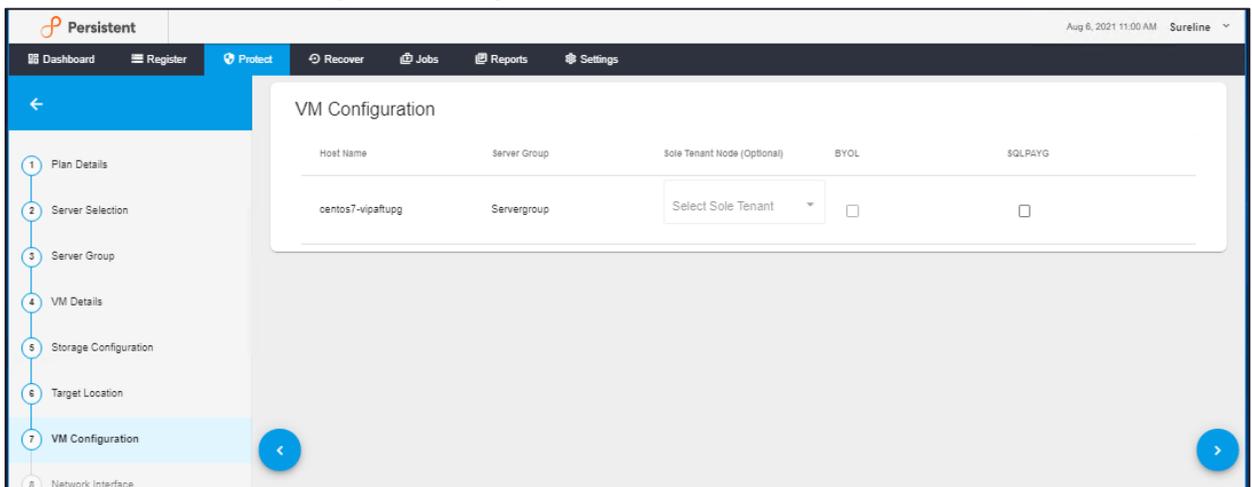


You can specify each system's storage configuration as follows:

Parameter	Description
Project	In the <i>Project name</i> field select the appropriate name of the deployment project.
Region	In the <i>Region</i> field select the appropriate region from the dropdown list.
Zone	In the <i>Zone</i> 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:

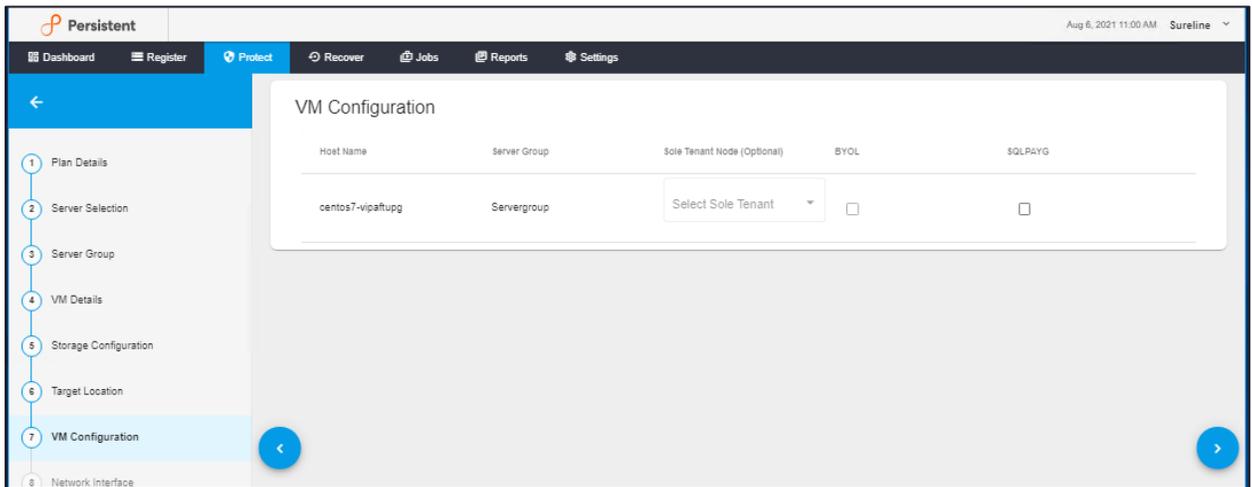


The **VM Configuration** page allows the specification of Project, Region, Zone, Instance Type, Network and Subnetwork characteristics and sole-tenancy options for the virtual machines created during recovery. You can specify each virtual machine's configuration as follows:

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 (Optional)	Sole Tenant Node should be enabled only if you have Sole Tenant Node 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

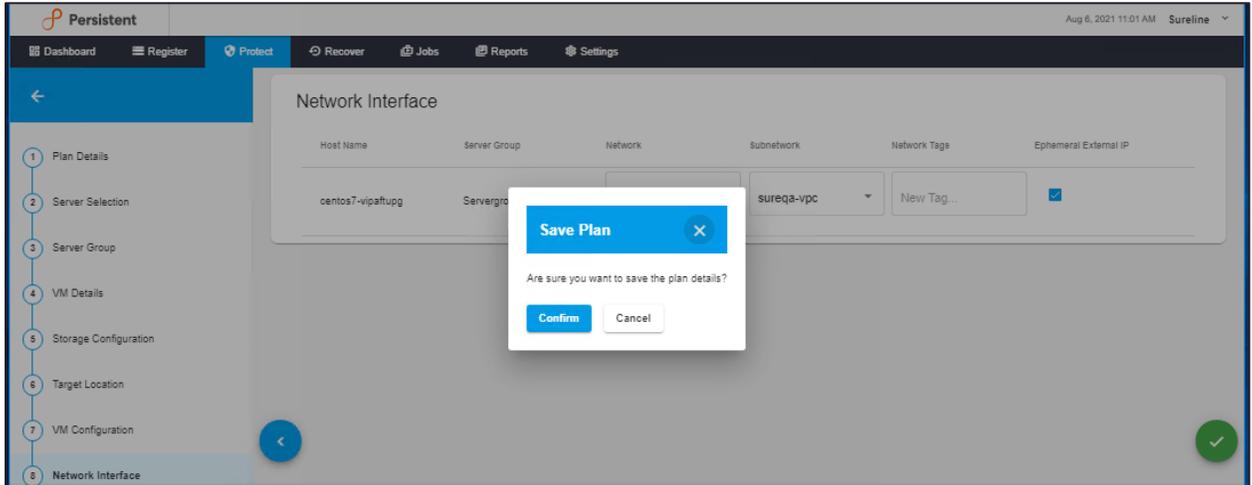
This shows the **Network Interface** page:



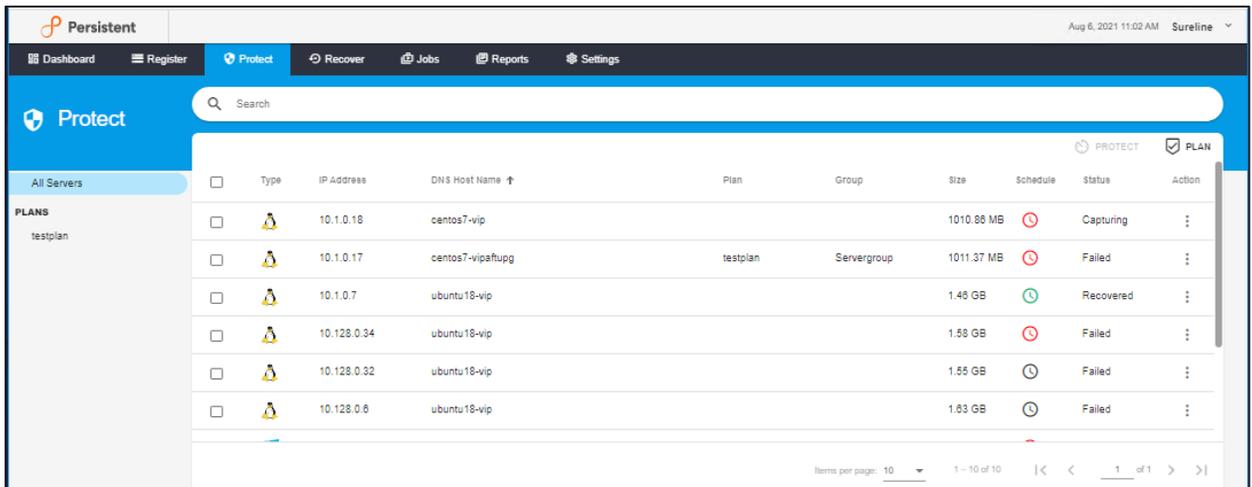
You can specify each Network Interface configuration as follows:

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 External IP	When this option is enabled a recovered server will be assigned an 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:

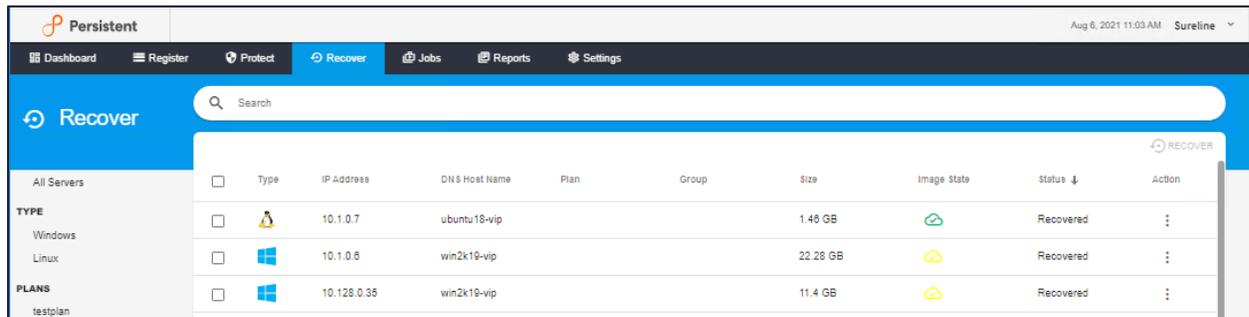


Review the plan and click **Confirm** button to save the plan. The new plan will now appear in the list of plans under the **Protect** tab:



# Recovering Servers

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



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
Type	Type of Server (Windows Server, Linux Server).
IP Address	IP address of the server.
DNS Host Name	The hostname of the server.
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:

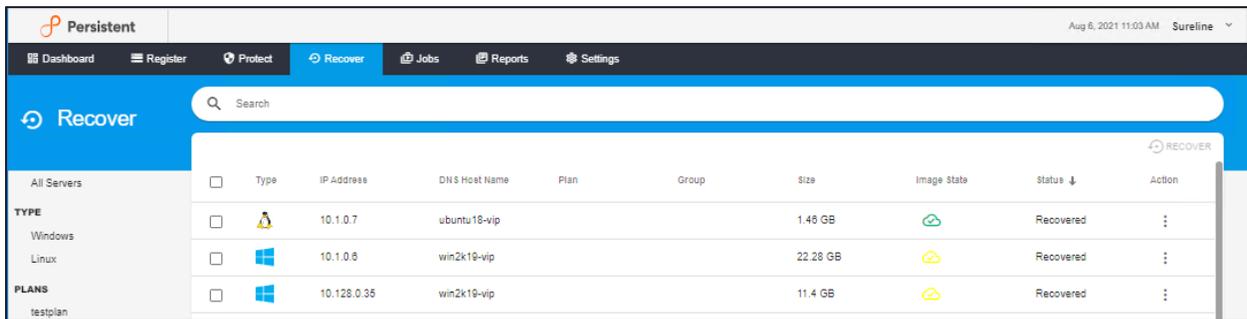
All	Clear any filters and display all servers.
<b>Type</b>	Filter the server list by operating system
Windows	Display only Windows servers.
Linux	Display only Linux servers.
<b>Plans</b>	Filter the server list by Plan
	Selecting a Plan name in this section will display only servers in the selected plan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

<b>Status</b>	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

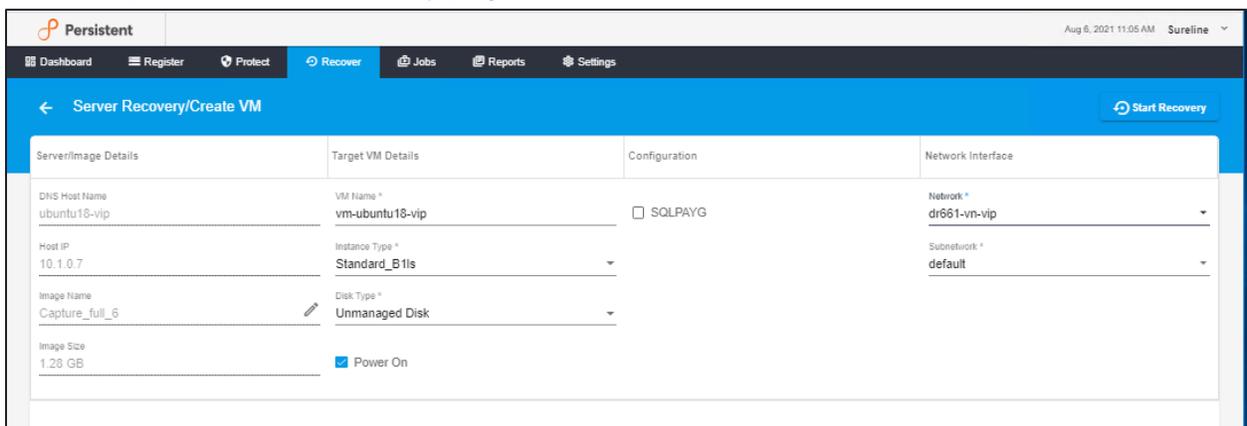
Recovering one or more servers in SUREedge DR is done by selecting the server(s) to be recovered and clicking the **Recover** button. You can use the filtering and sorting mechanisms to find and select the server(s) you wish to recover.

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



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:



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.
<b>Target VM Details</b>	
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.
<b>Configuration</b>	
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.
<b>Network Interface</b>	
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:

The screenshot shows the 'Jobs' page in the Persistent interface. The table lists various jobs with the following data:

Servers	Type	Start Time	Duration	Size	Status	Action
ubuntu18-vip	Capture	Aug 2, 2021 10:34 AM	5 minutes	1.19 GB	Completed	⋮
win2k19-vip	Capture	Aug 2, 2021 10:34 AM	22 minutes	22 GB	Completed	⋮
ubuntu18-vip	Capture	Aug 2, 2021 10:47 AM	2 minutes	1.19 GB	Completed	⋮
ubuntu18-vip	Transfer	Aug 2, 2021 10:49 AM	17 minutes		Completed	⋮
win2k19-vip	Transfer	Aug 2, 2021 10:56 AM	10 minutes		Completed	⋮
win2k19-vip	Capture	Aug 2, 2021 11:27 AM	13 minutes	458.24 MB	Completed	⋮
ubuntu18-vip	Capture	Aug 2, 2021 11:27 AM	a minute	9.13 MB	Completed	⋮

## 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

This is the original REST response from the Google Compute Engine service.

```

{
  {
    "type": "VIRTIO_SCSI_MULTIQUEUE"
  },
  {
    "type": "UEFI_COMPATIBLE"
  }
],
"index": 0,
"interface": "SCSI",
"kind": "compute#attachedDisk",
"licenses": [
  "projects/windows-cloud/global/licenses/windows-server-2019-dc",
  "projects/windows-sql-cloud/global/licenses/sql-server-2019-standard",
  "projects/sureline-public/global/licenses/sureline-migrated-vm"
],
"mode": "READ_WRITE",
"source": "projects/astute-backup-107519/zones/us-central1-f/disks/sureedge-vm-sql-server-2019-standarwindows2",
"type": "PERSISTENT"
}
],
"fingerprint": "JUFJTI9xqeM=",
"id": "5400584098432736902",
"kind": "compute#instance",

```

Line wrapping

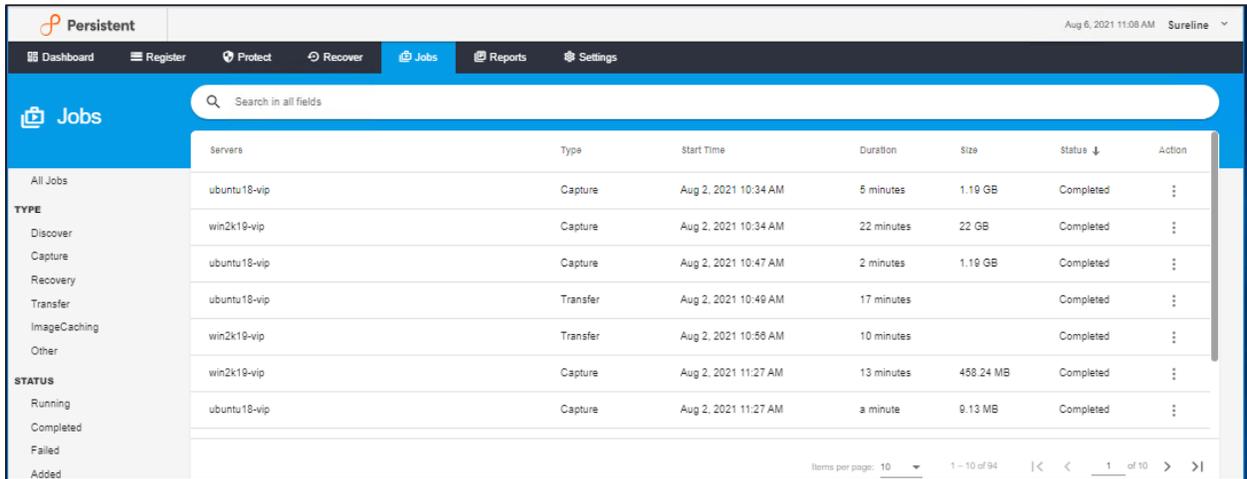
[REST API reference](#)

[CLOSE](#)

# 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.

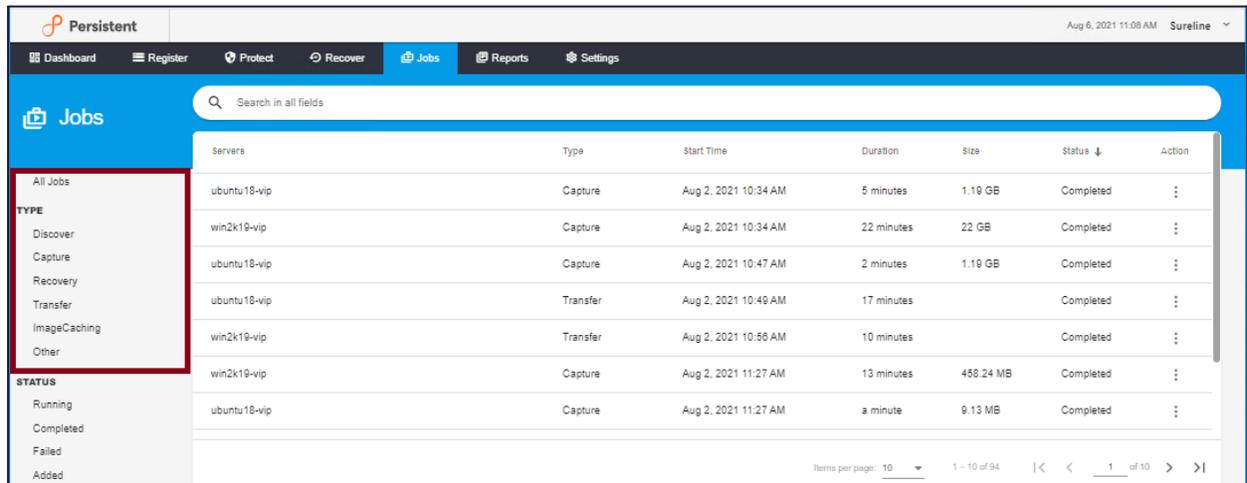
Like other SUREedge DR tabs the Jobs tab is a grid with each row representing a single operation and the columns providing details:



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:

<b>Servers</b>	The server for which the job is (was) performed.
<b>Type</b>	The type of operation (capture, transfer, etc.)
<b>Start Time</b>	The start time for the operation.
<b>Duration</b>	The time consumed performing the operation so far, or the total time taken for operations that have completed.
<b>Size</b>	Displays the amount of data associated with the operation (when appropriate).
<b>Status</b>	It displays the current status of the operation.
<b>Action</b>	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:



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.
<b>Type Filters</b>	<b>Description</b>
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
<b>Status Filters</b>	<b>Description</b>
Running	Filter the job list to contain only jobs that are currently running.
Completed	Filter the job list to contain only jobs that have successfully completed.
Failed	Filter the job list to contain only jobs that have failed.
Added	Filter the job list to contain only jobs that have newly added.
Pending	Filter the job list to contain only jobs whose start is pending.
Aborting	Filter the job list to contain only jobs that are in the process of aborting operations.

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:

Servers	Type	Start Time	Duration	Size	Status ↓	Action
ubuntu18-vip	Capture	Aug 2, 2021 10:34 AM	5 minutes	1.19 GB	Completed	⋮
win2k19-vip	Capture	Aug 2, 2021 10:34 AM	22 minutes	22 GB	Completed	⋮
ubuntu18-vip	Capture	Aug 2, 2021 10:47 AM	2 minutes	1.19 GB	Completed	⋮
ubuntu18-vip	Transfer	Aug 2, 2021 10:49 AM	17 minutes		Completed	⋮
win2k19-vip	Transfer	Aug 2, 2021 10:56 AM	10 minutes		Completed	⋮
win2k19-vip	Capture	Aug 2, 2021 11:27 AM	13 minutes	458.24 MB	Completed	⋮
ubuntu18-vip	Capture	Aug 2, 2021 11:27 AM	a minute	9.13 MB	Completed	⋮

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

Job GUID	fedf0ba0-f5dd-11eb-9387-9b3ec9783507
Status	COMPLETED
Host Name	win2k19-vip
IP Address	10.128.0.35
Start Time	Aug 5, 2021, 11:13:00 AM
End Time	Aug 5, 2021, 11:40:50 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:

The screenshot shows the 'Jobs' section of the Persistent SUREedge DR interface. The main heading is 'Recovery\_Capture\_full\_1\_incr\_3' with a sub-heading 'Job Details'. Below this, there are two tabs: 'Details' and 'Steps'. The 'Steps' tab is active, showing a vertical timeline of job steps on the left and their descriptions on the right. Each step is marked with a green checkmark, indicating successful completion.

Time	Step Description	Status
Aug 5, 2021, 11:41:16 AM	Executing post action	✓
Aug 5, 2021, 11:40:50 AM	Handling job update	✓
Aug 5, 2021, 11:40:49 AM	Executing post script	✓
Aug 5, 2021, 11:40:48 AM	Doing restore	✓

Target VM Name - vm-win2k19-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:

The screenshot shows the 'Jobs' section of the Persistent SUREedge DR interface. It features a search bar and a table of jobs. The table has columns for Servers, Type, Start Time, Duration, Size, Status, and Action. The 'Action' column contains a three-dot menu icon for each job. A sidebar on the left shows filters for 'TYPE' and 'STATUS'.

Servers	Type	Start Time	Duration	Size	Status	Action
win2k19server	Capture	Oct 8, 2021 12:01 AM	25 minutes	32.64 GB	Completed	⋮
sles123-x64-ide-nolvm-singledisk-default-xfs-singlic-bios	Capture	Oct 8, 2021 12:01 AM	8 minutes	3.5 GB	Completed	⋮
WIN-BVJBT7KO3K	Capture	Oct 7, 2021 2:00 AM	32 minutes	30.08 GB	Completed	⋮
ubn1804-scsi-lvm-multidisk-onpart-diff-rd1-ext4-singnic-b...	Capture	Oct 7, 2021 1:00 AM	6 minutes	10.55 GB	Completed	⋮
win2k19server	Capture	Oct 7, 2021 12:00 AM	26 minutes	32.64 GB	Completed	⋮
sles123-x64-ide-nolvm-singledisk-default-xfs-singlic-bios	Capture	Oct 7, 2021 12:00 AM	7 minutes	3.5 GB	Completed	⋮

Items per page: 10 | 1 - 10 of 13 | 1 of 2

SUREedge DR, Version: 6.6.1.29688 | Instance name: SUREedge | Instance location: Hyper | Copyright © 2021 Persistent 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.

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

	Host ip	Host Name	Type	Size	Updated On	Status
<b>Inventory</b>						
Client Inventory	10.128.0.41	win2k19-vip	Windows	22.73 GB	Aug 6, 2021, 11:31:03 AM	Failed
Capture Image Inventory	10.128.0.32	ubuntu18-vip	Linux	1.55 GB	Aug 6, 2021, 11:31:03 AM	Failed
<b>History</b>						
Capture History	10.1.0.18	centos7-vip	Linux	1010.86 MB	Aug 6, 2021, 11:25:01 AM	Failed
Recover History	10.1.0.17	centos7-vipaftupg	Linux	1011.37 MB	Aug 5, 2021, 7:47:00 AM	Failed
Transfer History	10.128.0.34	ubuntu18-vip	Linux	1.58 GB	Aug 5, 2021, 5:25:04 AM	Failed
Image Caching History	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, 6:16:50 AM	Failed
	10.128.0.8	ubuntu18-vip	Linux	1.83 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-vip	Linux	1.48 GB	Aug 5, 2021, 7:55:03 AM	Recovered

The following table describes the Reports that are available:

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

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

## Exporting Reports

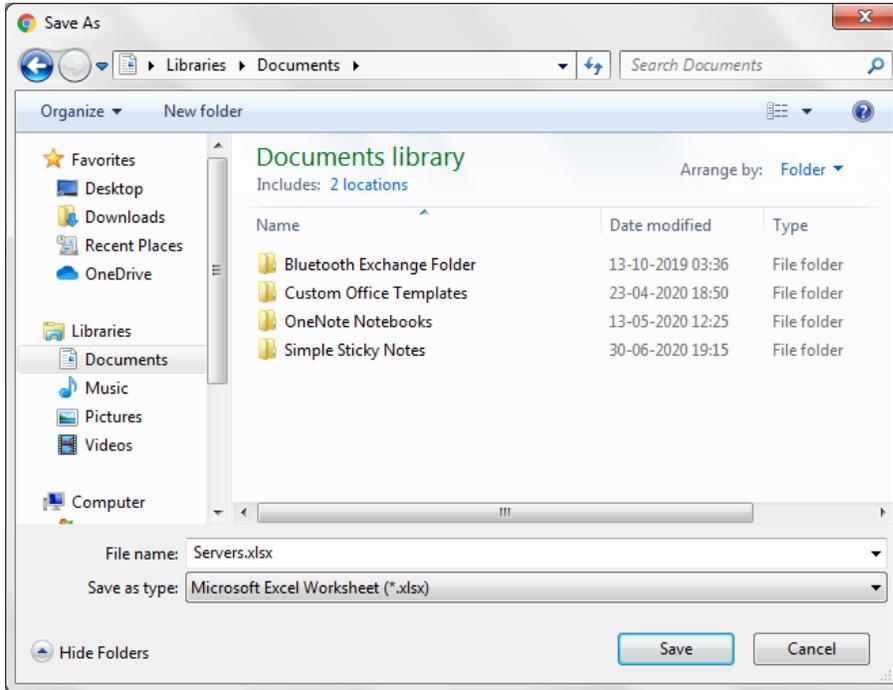
Once you have generated a report you can export it in various formats (Excel spreadsheet, CSV, JSON or text) file by clicking on the **Download Reports** button:

The screenshot shows the 'Reports' section of the Persistent Systems interface. The main content is a table with the following data:

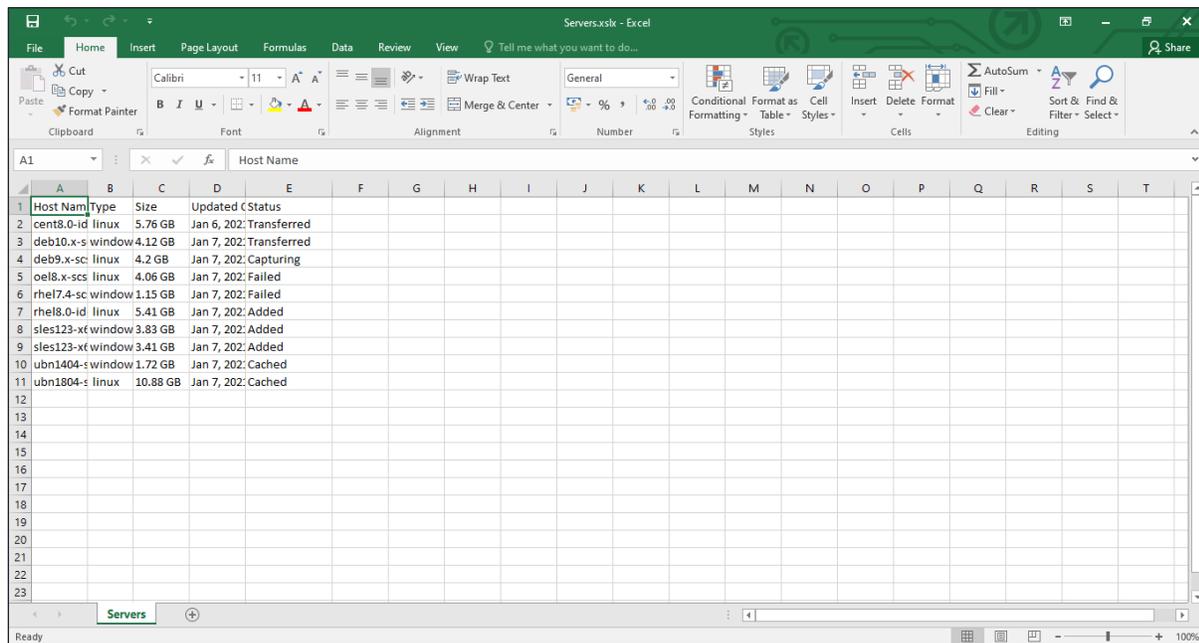
Host IP	Host Name	Type	Size	Updated On	
10.128.0.41	win2k19-vip	Windows	22.73 GB	Aug 8, 2021, 11:31:03 AM	
10.128.0.32	ubuntu18-vip	Linux	1.55 GB	Aug 8, 2021, 11:31:03 AM	
10.1.0.18	centos7-vip	Linux	1010.88 MB	Aug 6, 2021, 11:25:01 AM	
10.1.0.17	centos7-vipaftupg	Linux	1011.37 MB	Aug 5, 2021, 7:47:00 AM	Failed
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
10.128.16.232	win2k19-vip	Windows	10.62 GB	Aug 4, 2021, 8:18:50 AM	Failed
10.128.0.6	ubuntu18-vip	Linux	1.83 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-vip	Linux	1.46 GB	Aug 5, 2021, 7:55:03 AM	Recovered

The 'Download' button is located in the top right corner of the table area. A dropdown menu is open, showing the following options: Excel, CSV, JSON, and Text.

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:



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:



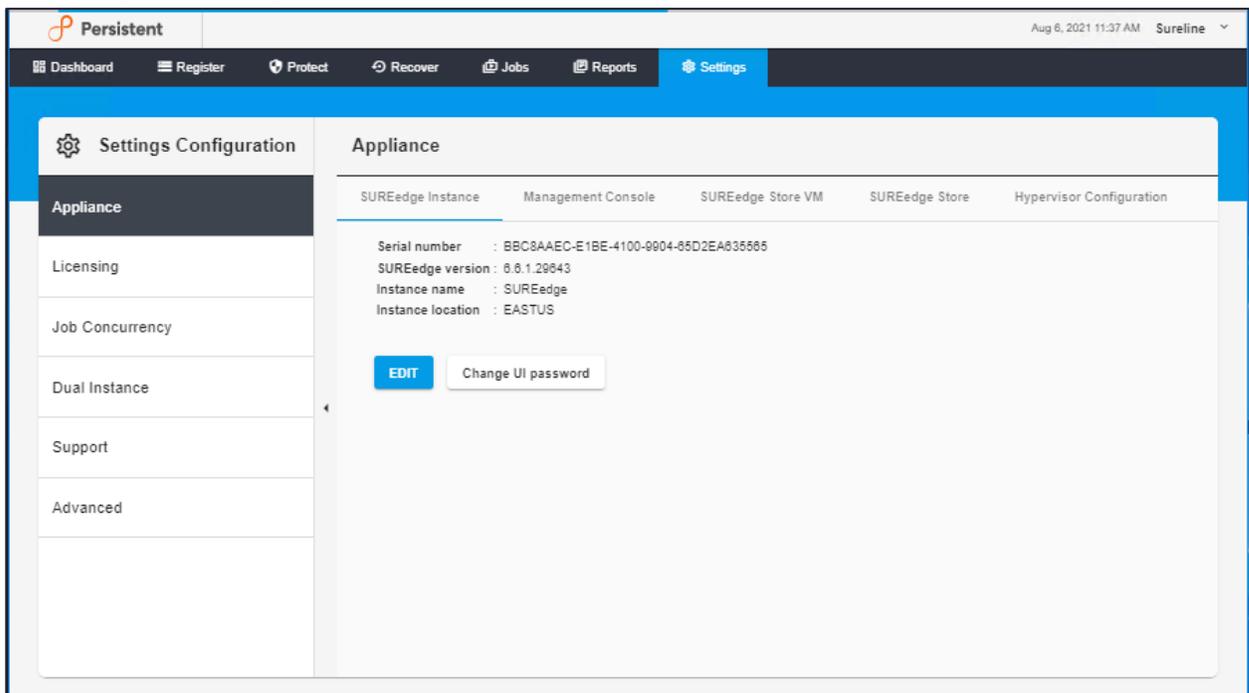
In the spreadsheet, each row represents one server and contains columns as defined below. Please note that the list is exported to obtain proper format of spreadsheet. Leave fields blank wherever applicable.

Column	Description
Host Name	Username to be used to access the host.
Type	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.
- \ **Dual Instance**: 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.

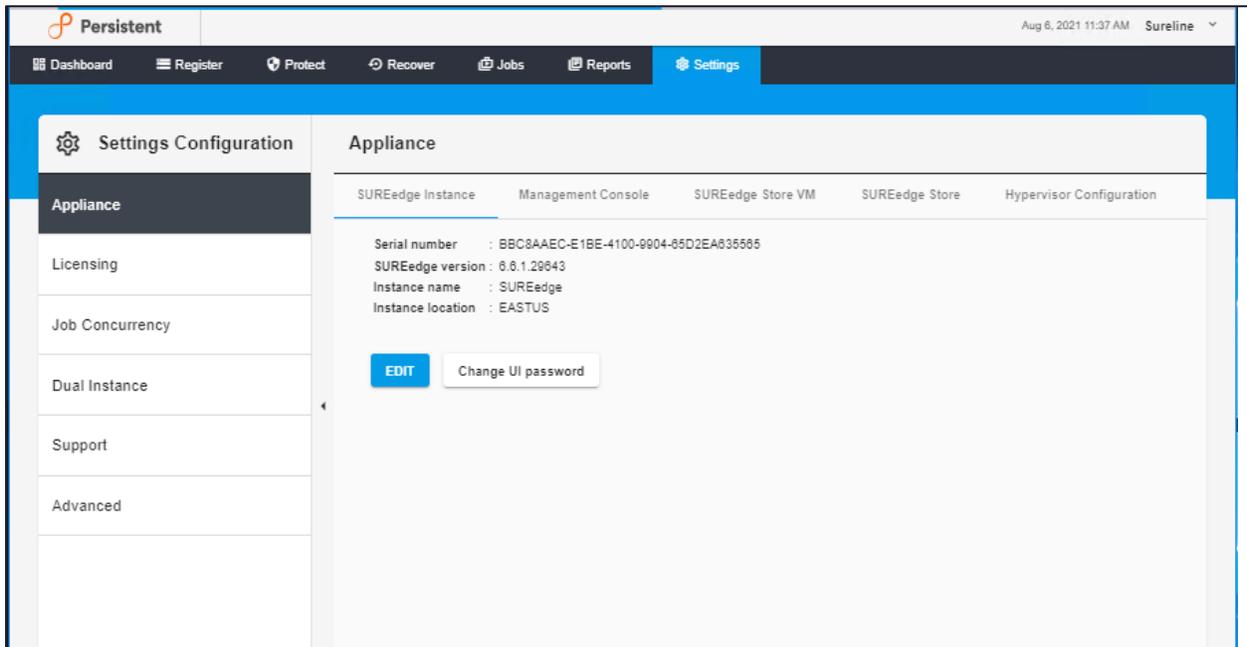


## Appliance Settings

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

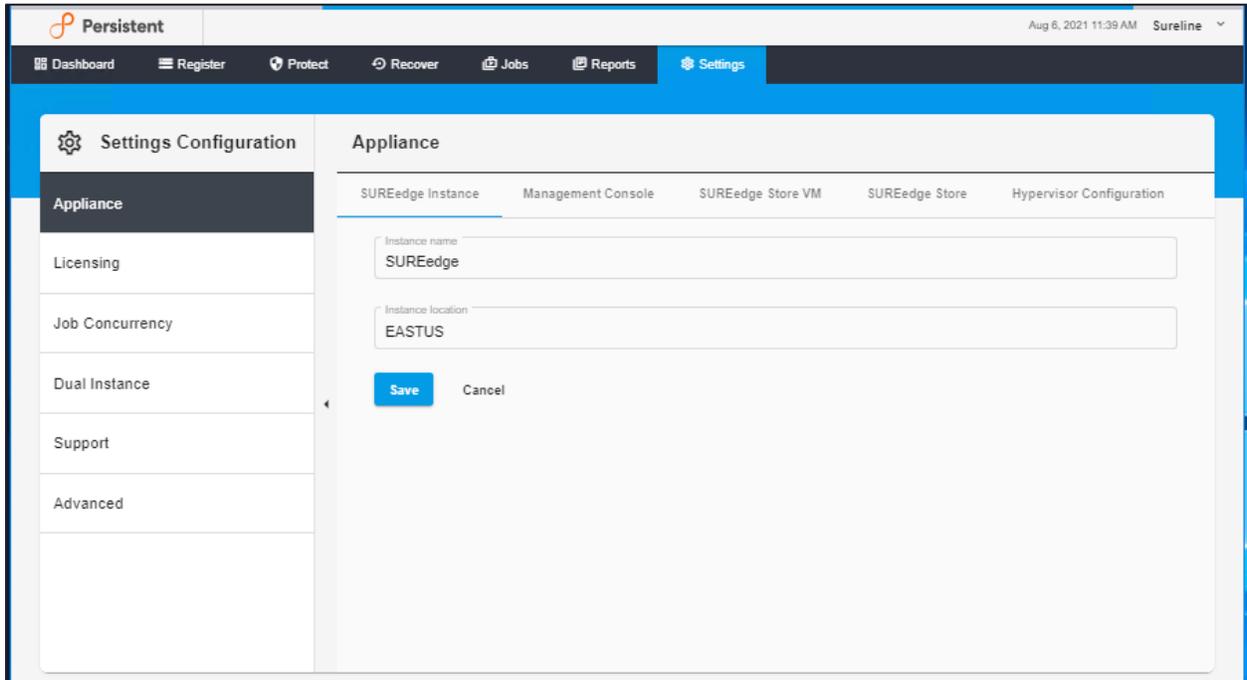
### SUREedge Instance

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.

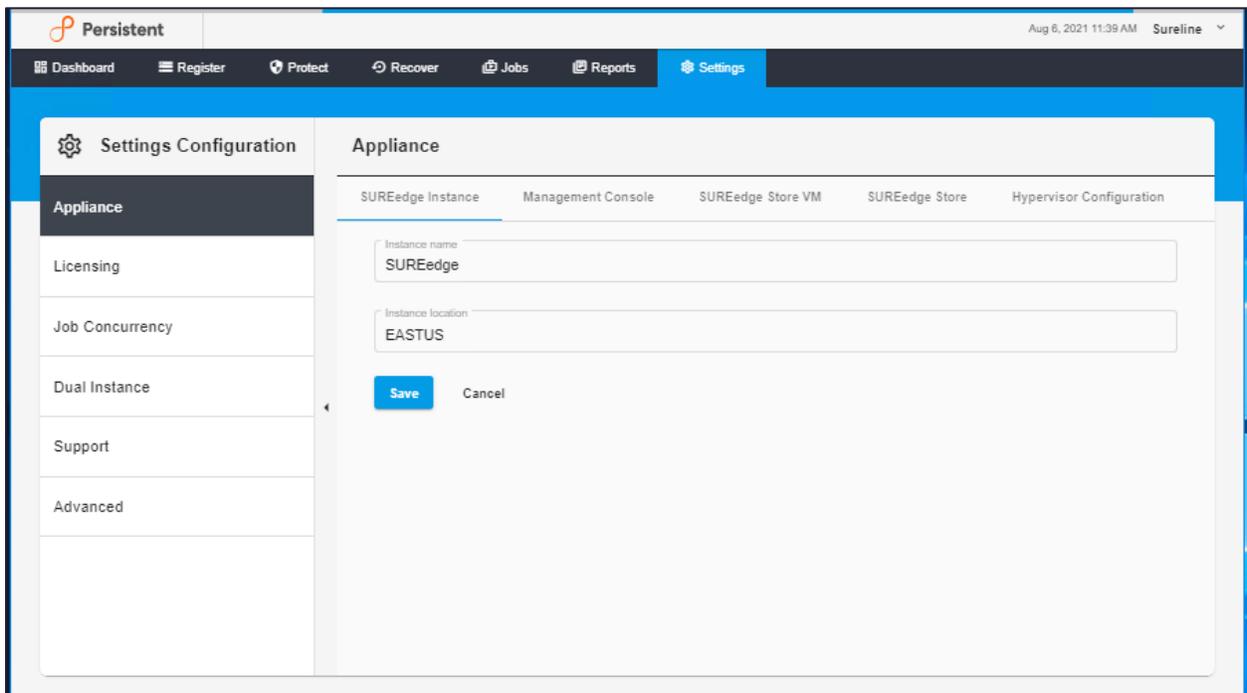


- \ The instance **Serial number** is used to uniquely identify a deployment of SUREedge DR and cannot be changed. You will need to provide it when obtaining licenses.
- \ The **SUREedge Version** is the release identifier for the version of SUREedge DR that is running in this instance. It should be 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.

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.



To change the UI Password (the password required to [log into the SUREedge DR instance](#)) click on the **Change UI Password** button which will bring up a password change dialog:

### Change UI password ✕

Please enter the current UI password and supply and confirm the new 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:	10.128.0.20			
Username:	sureline			
CPU:	4			
RAM:	13.75 GB			
Windows VM Name:	sureedge-dr-byol-3-windows-vm			
Operating System:	Windows Server 2016			

## Store VM

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

Appliance				
SUREedge Instance	Management Console	SUREedge Store VM	SUREedge Store	Hypervisor Configuration
IP Address	: 10.1.0.11			
Username	: sureline			
CPU	: 2			
RAM	: 7.78 GB			
Port	: 22			
Linux VM Name	: STORE-650-MB			
Operating System	: Ubuntu 20.04.2 LTS			
<a href="#">EDIT</a>				

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 \*  
sureline

---

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.

**Appliance**

SUREedge Instance    Management Console    SUREedge Store VM    SUREedge Store    Hypervisor Configuration

Capacity: 315 GB  
 Space Used: 0  
 Increase capacity by: 1024 GB  
 Minimum unused space to be maintained: 200 GB

SUREedge Store 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 de-duplicated 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 de-duplicated 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:

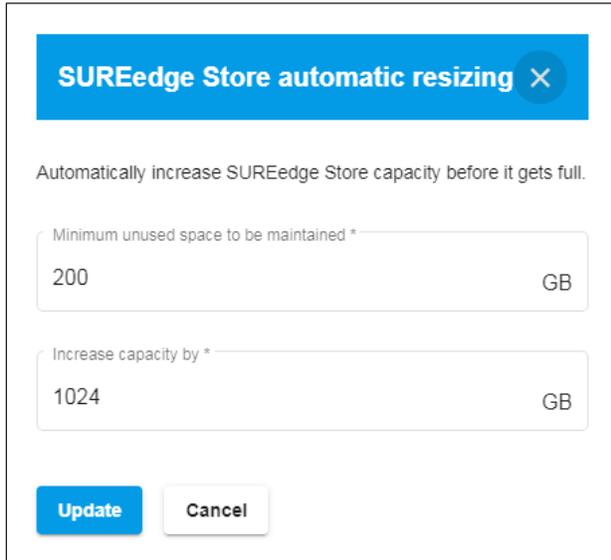
**Disable SUREedge Store automatic resizing**
✕

Are you sure you want to disable the SUREedge Store automatic resizing operation?

Confirm
Cancel

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:

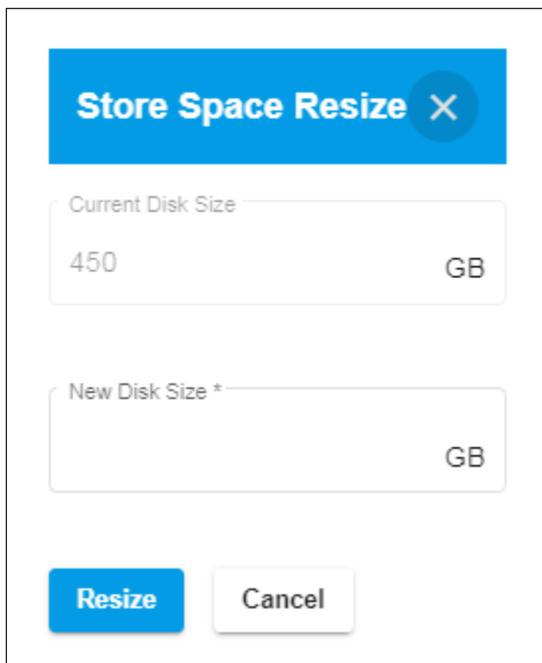


The dialog box is titled "SUREedge Store automatic resizing" with a close button (X) in the top right corner. Below the title, there is a subtitle: "Automatically increase SUREedge Store capacity before it gets full." There are two input fields: the first is labeled "Minimum unused space to be maintained \*" and contains the value "200" followed by "GB"; the second is labeled "Increase capacity by \*" and contains the value "1024" followed by "GB". At the bottom, there are two buttons: "Update" (highlighted in blue) and "Cancel".

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:



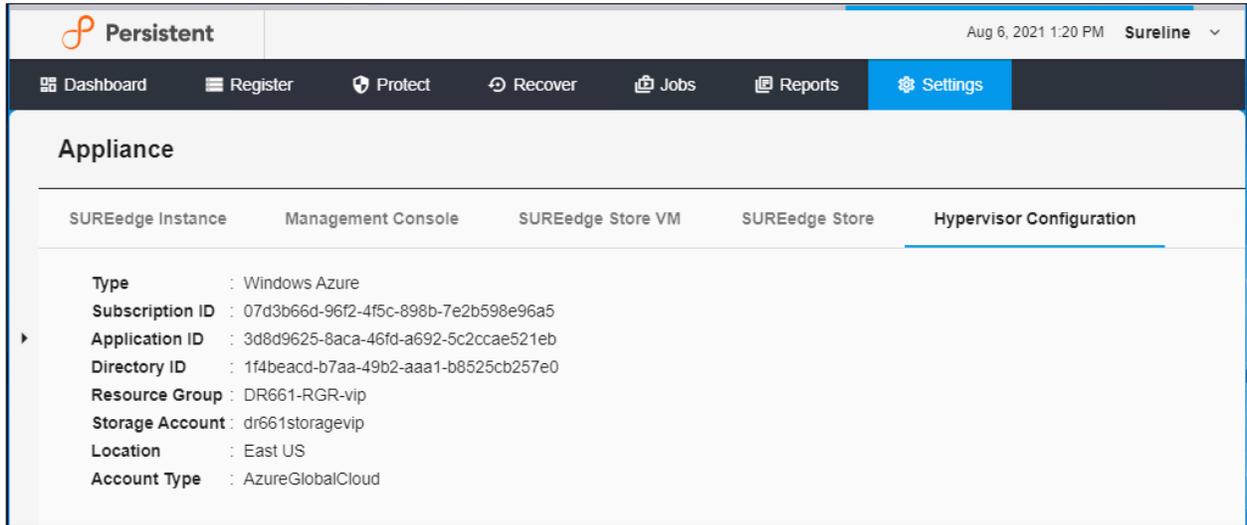
The dialog box is titled "Store Space Resize" with a close button (X) in the top right corner. Below the title, there are two input fields: the first is labeled "Current Disk Size" and contains the value "450" followed by "GB"; the second is labeled "New Disk Size \*" and is currently empty, followed by "GB". At the bottom, there are two buttons: "Resize" (highlighted in blue) and "Cancel".

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.



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

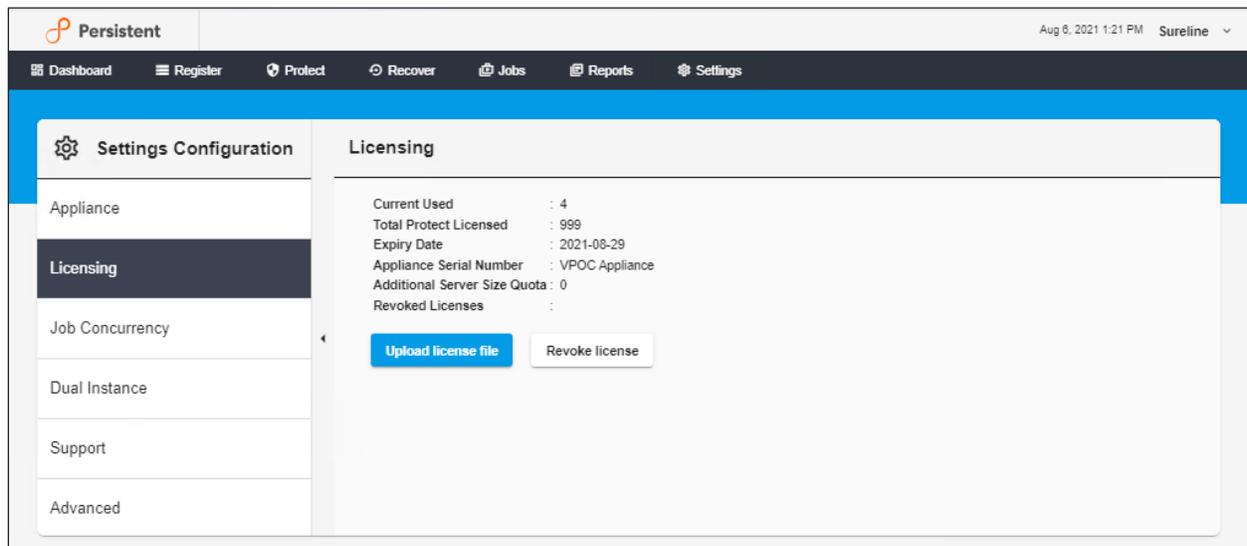
## Licensing

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](mailto: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:



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

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 Quota	Additional server size quota is displayed.
Revoke Licenses	Total number of licenses currently revoked.

**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.

### Revoke license ✕

Once revoked, the same license file cannot be used again.  
Are you sure you want to revoke the remaining licenses?

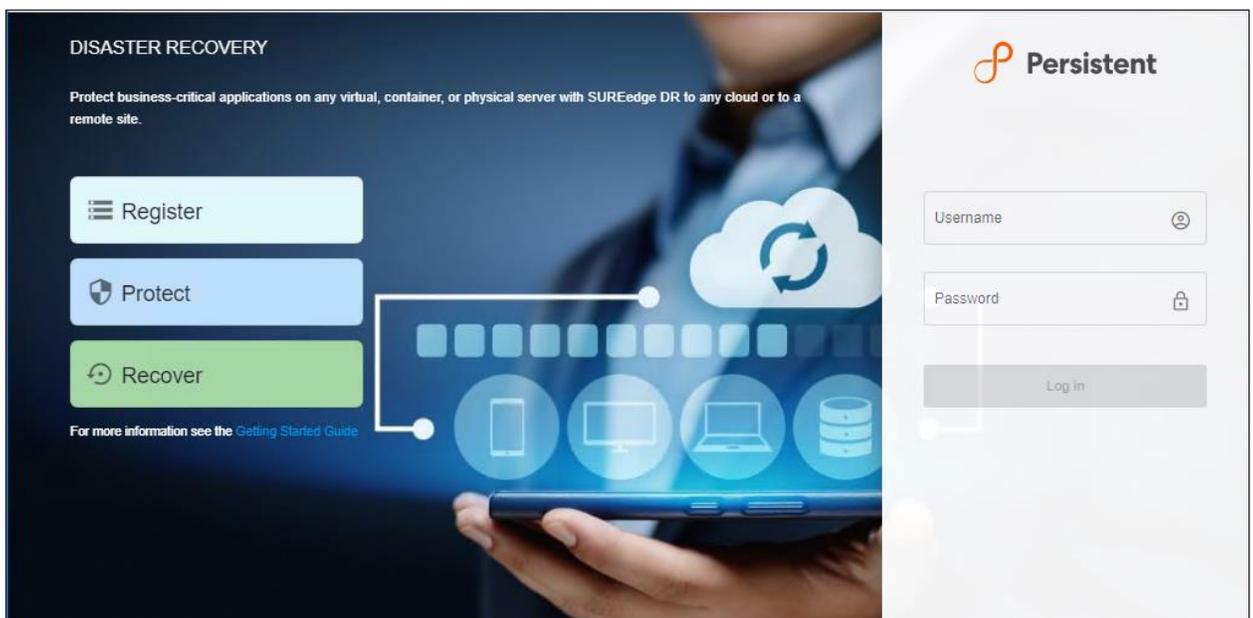
**Update** **Cancel**

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.

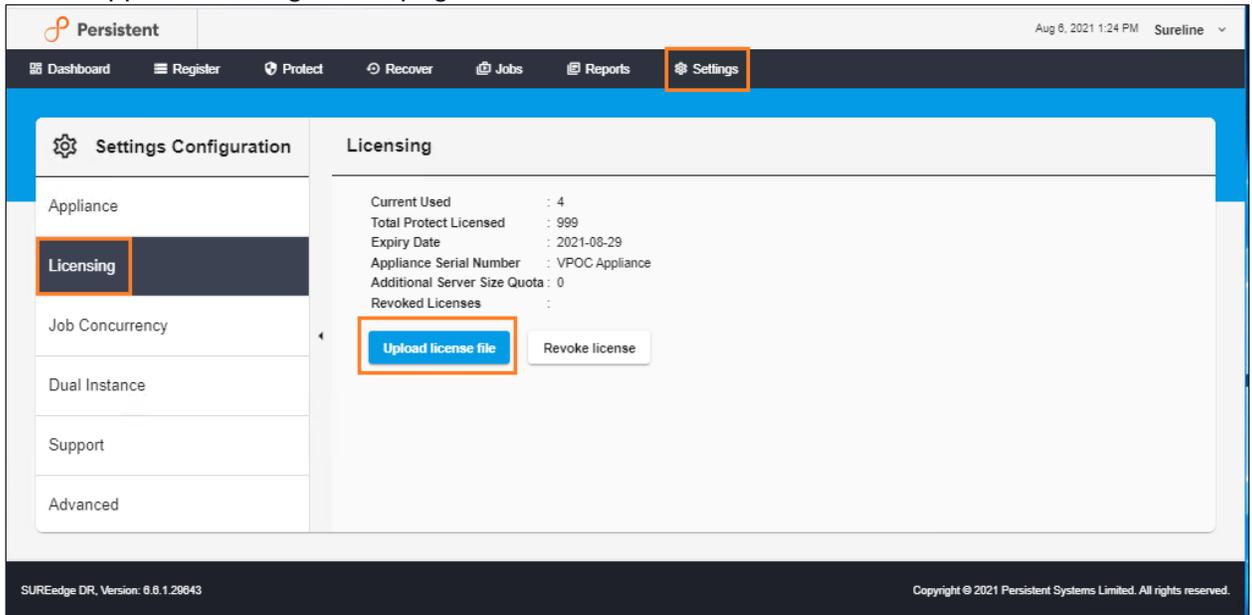
## Applying Licenses

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

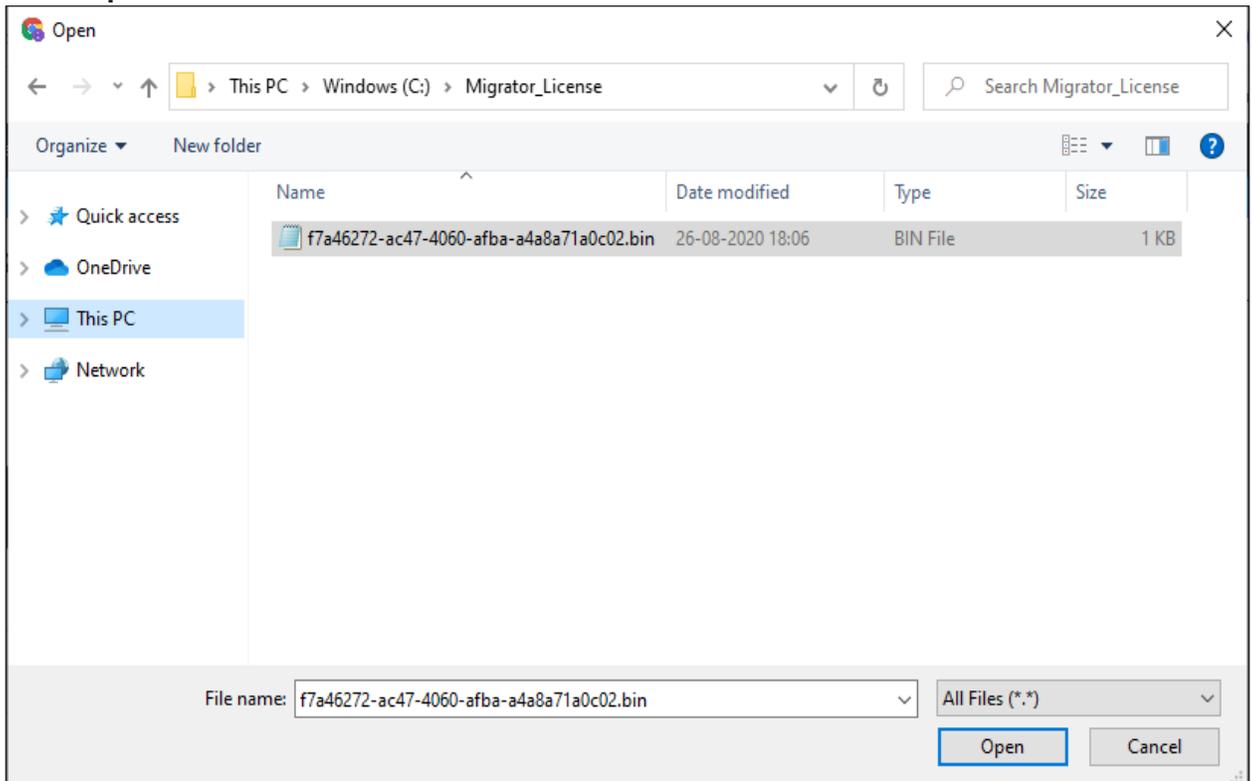
1. From your web browser, login to SUREedge management console with your login credentials. The **SUREedge Management Console** web application opens with the dashboard page on display.



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



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

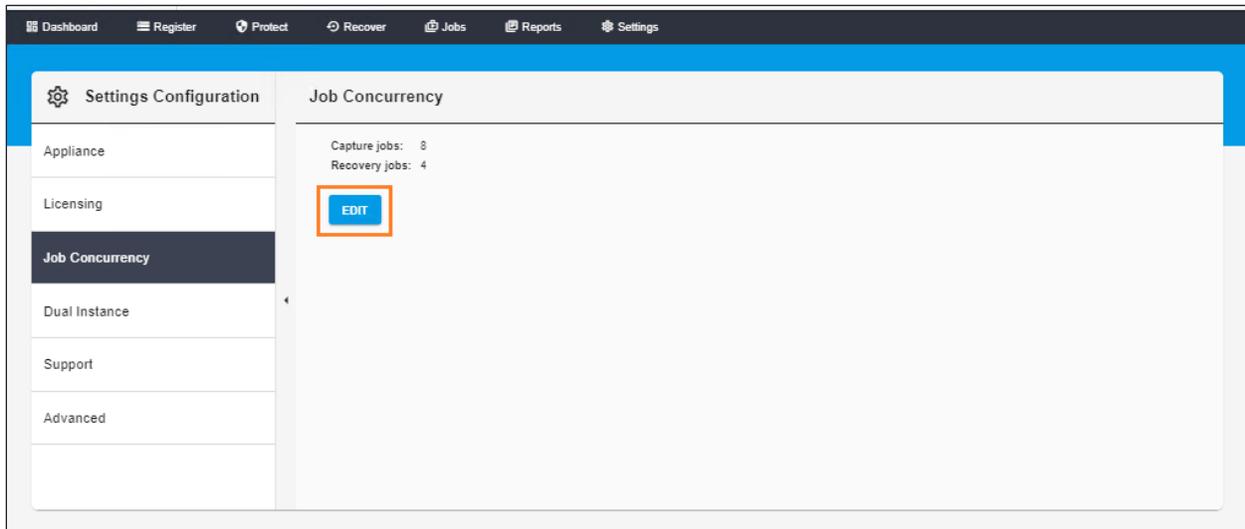


- In the **File Upload** window, browse to the folder containing the license file, select the license file and then click **Open**.
- In the **SUREedge License** dialog box, click on **Submit**. The management console accepts the license file and displays the appliance configuration page.

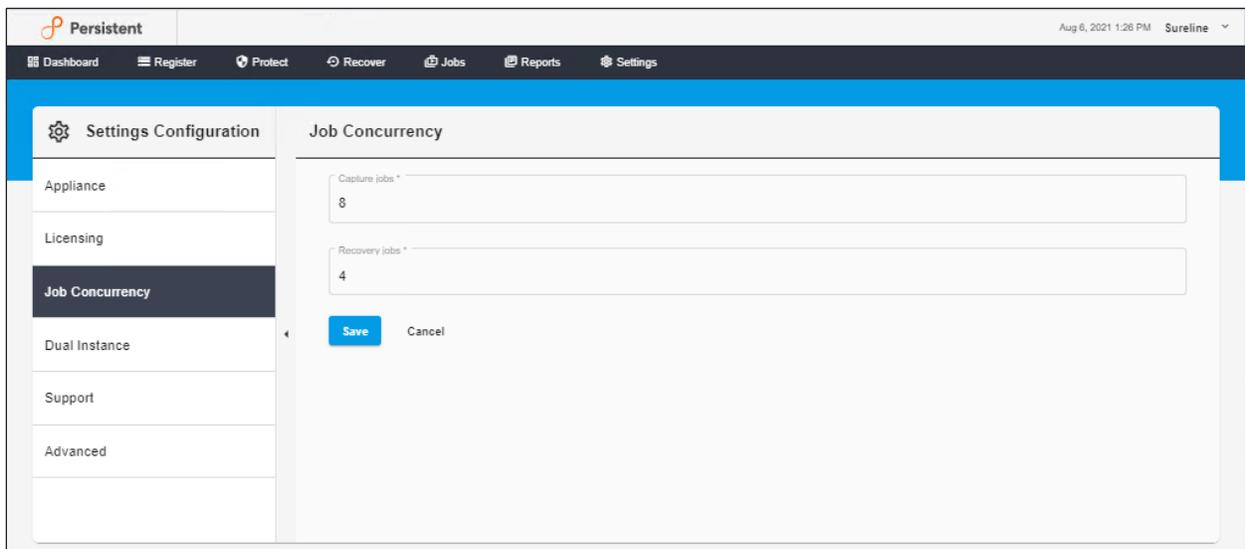
## Job Concurrency

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:



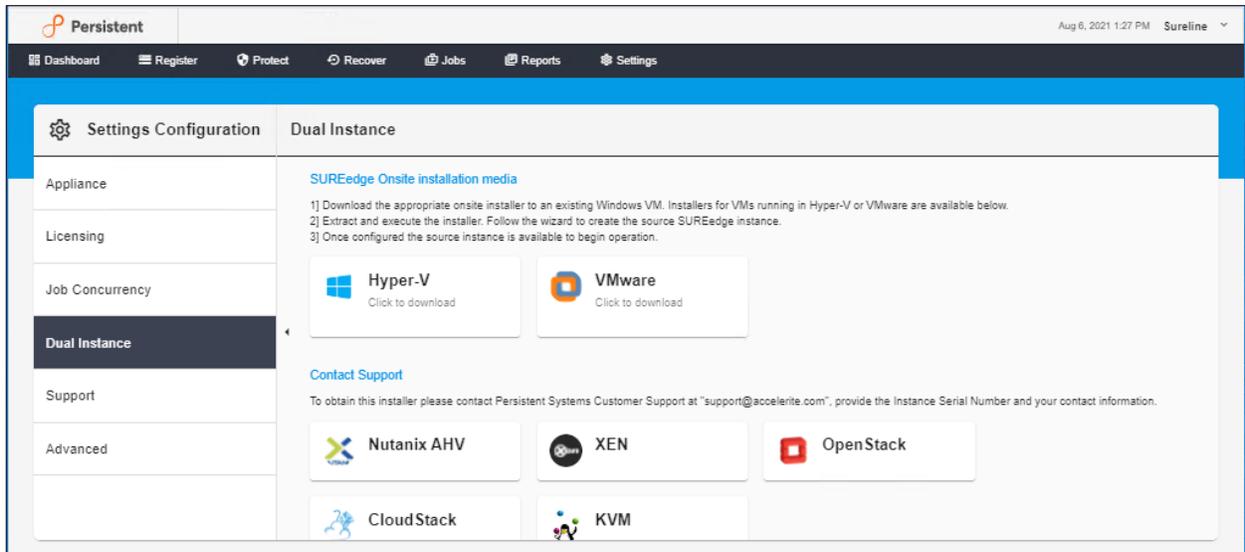
You'll be presented with a dialog where you can change the concurrency values:



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

## Dual Instance

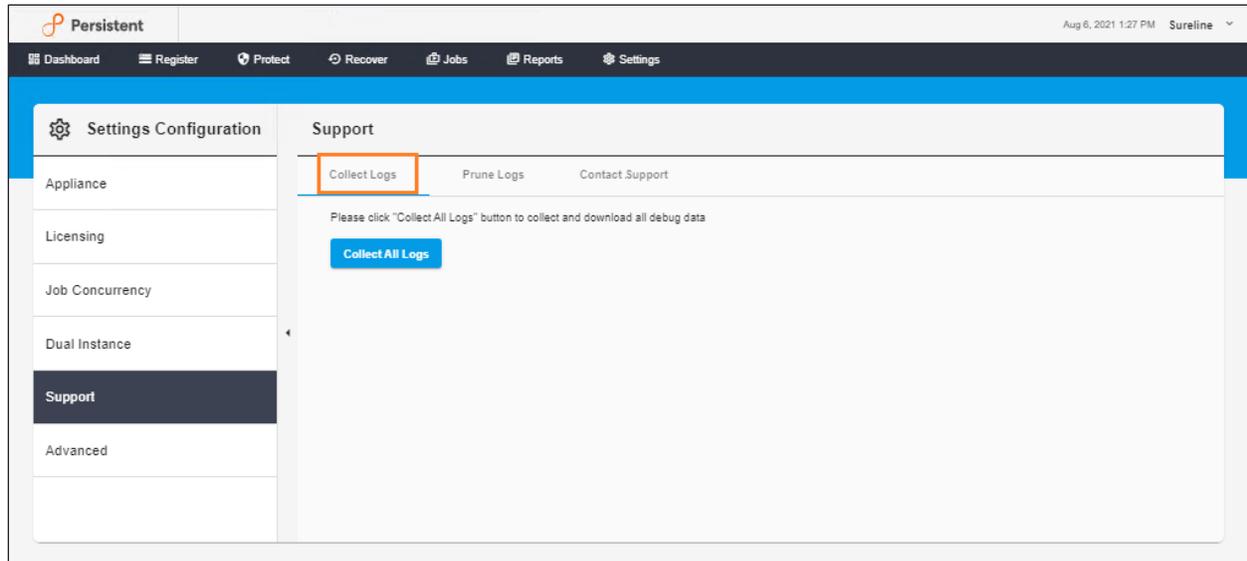
A Dual Instance Deployment for SUREedge DR involves deploying an instance of SUREedge DR within the source site, where the systems being migrated reside, which is used to capture and securely transfer system images to the SUREedge DR instance running in the cloud. The **Dual Instance** area of the setting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



Please refer to [Section Dual Instance Deployment](#), 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:



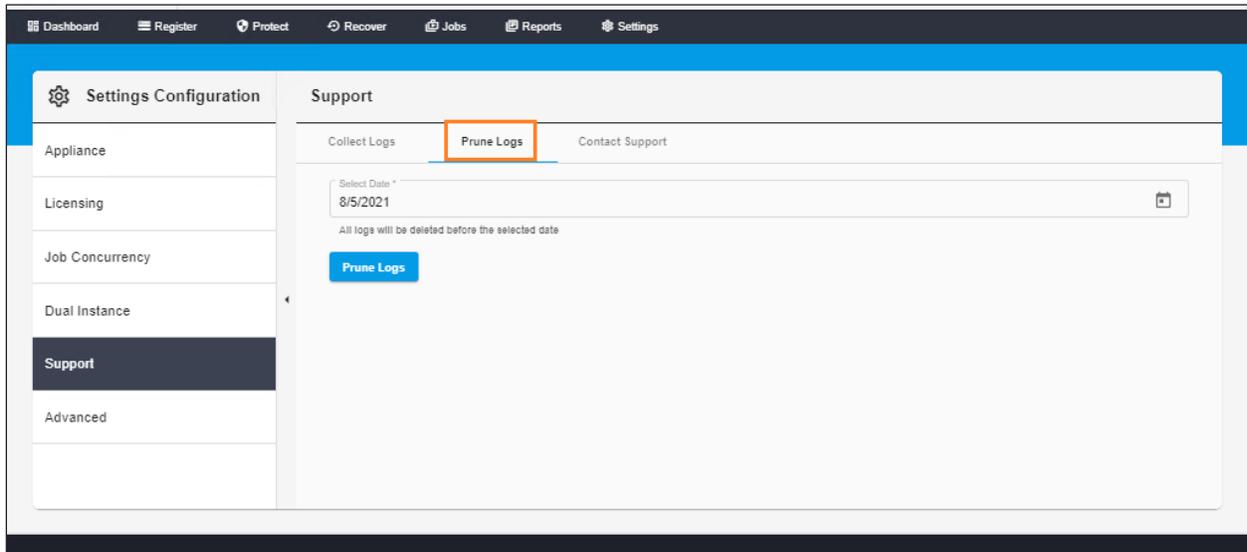
### Collect Logs

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.

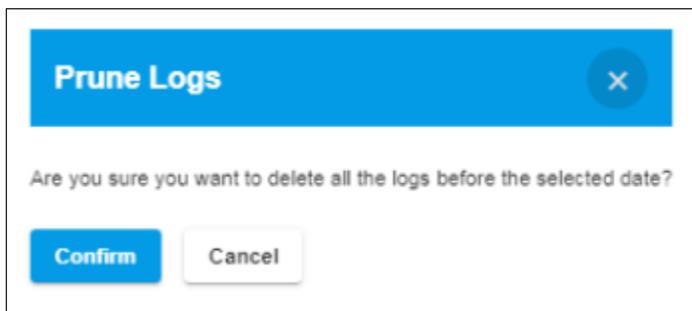
### Prune Logs

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:



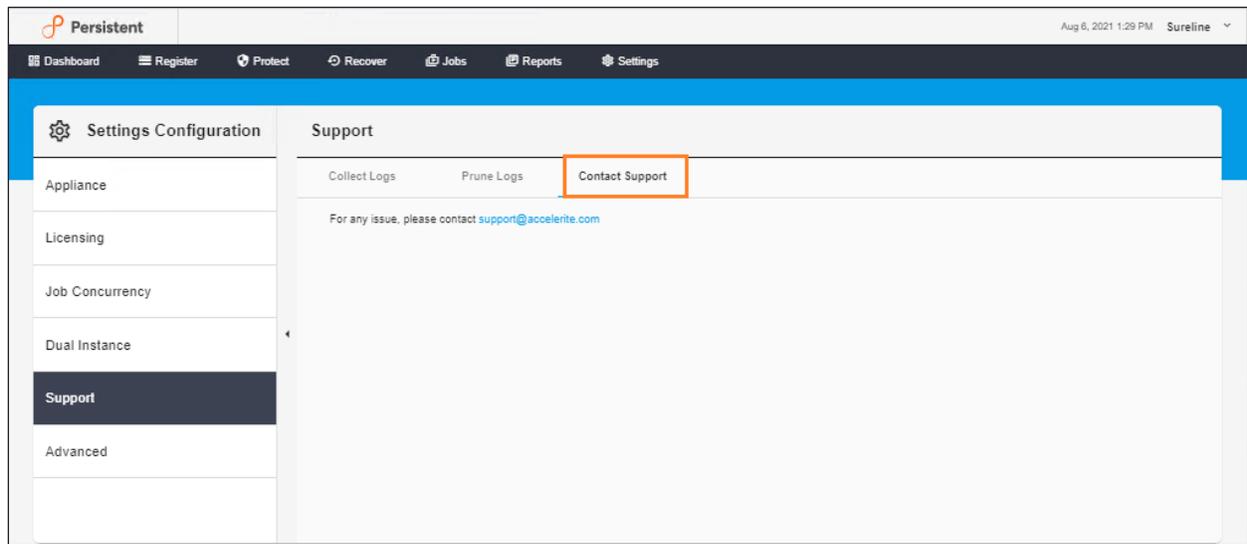
Choose a date for pruning in the **Select Date** entry; all log entries *prior* to this date will be removed. Then click the **Prune Logs** a button, which will bring up a confirmation dialog:



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

## Contact Support

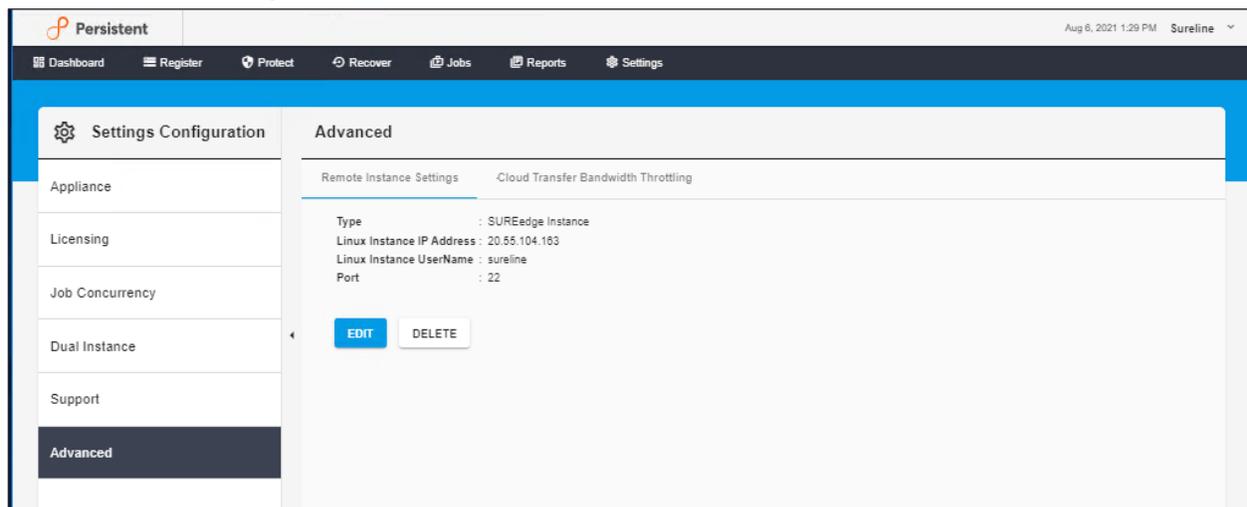
The **Contact Support** section provides the email address where you should send requests for assistance from the Accelerite support team. You can click on the link to automatically bring up your default email program with the proper email address where requests should be sent.



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

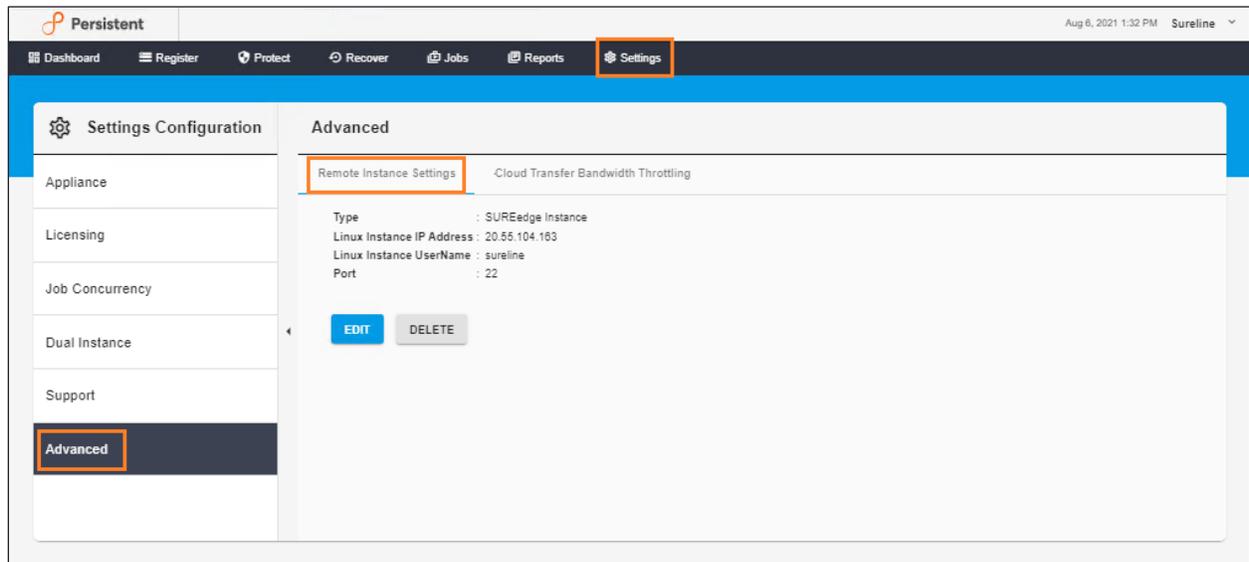
## Advanced Settings

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

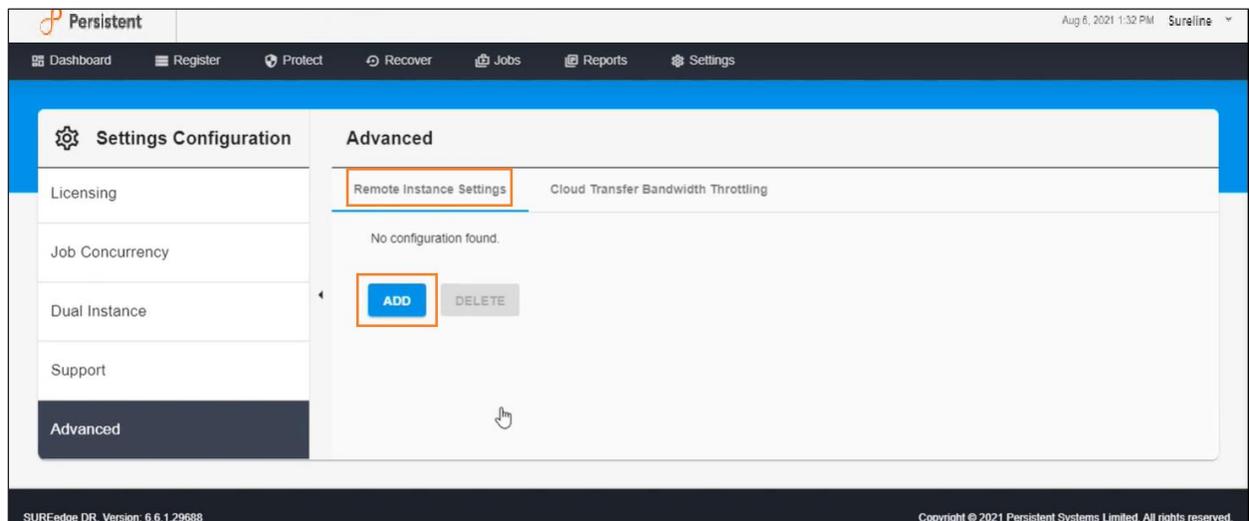


## Remote Instance Settings

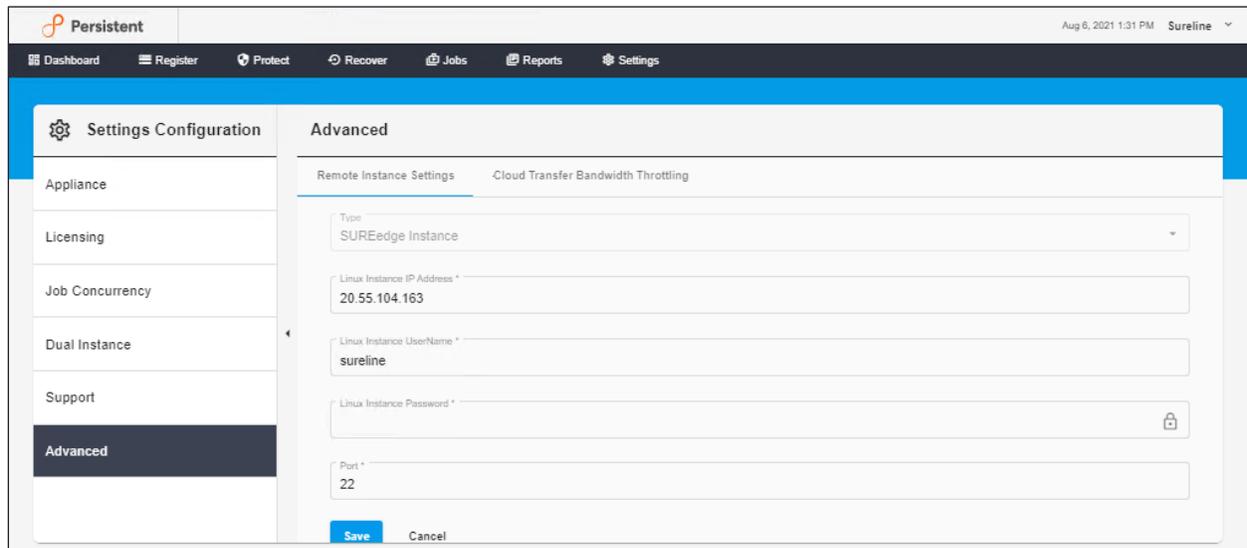
In the **Remote instance settings** subtab you will see the attributes describing how to connect to a target-side sever:



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:



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

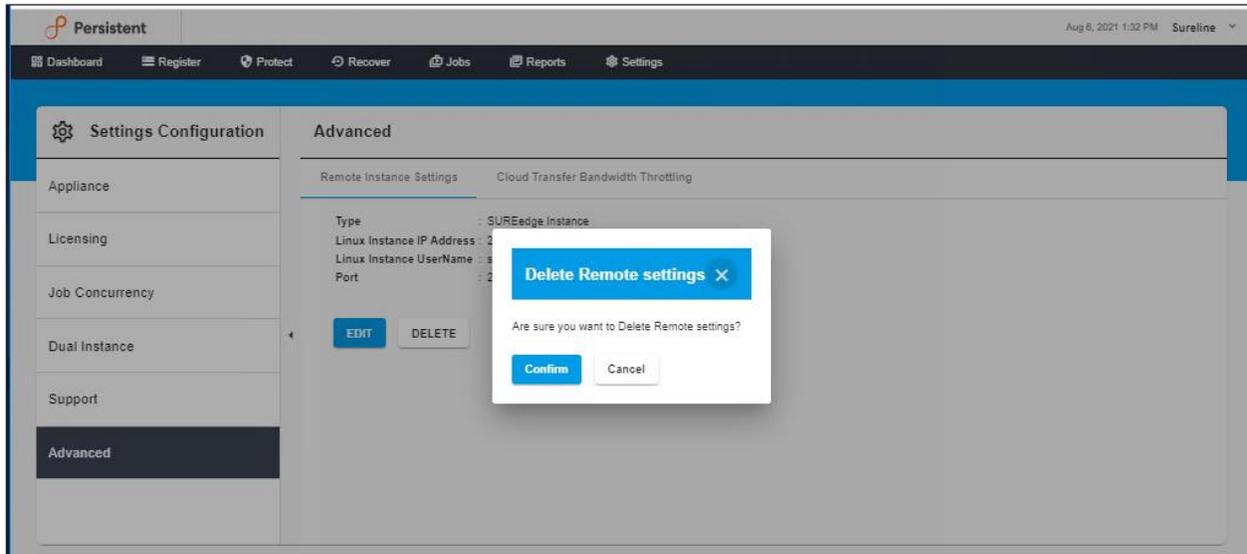


The following fields describe the current status of the Remote Settings:

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**” pop-up will get displayed:

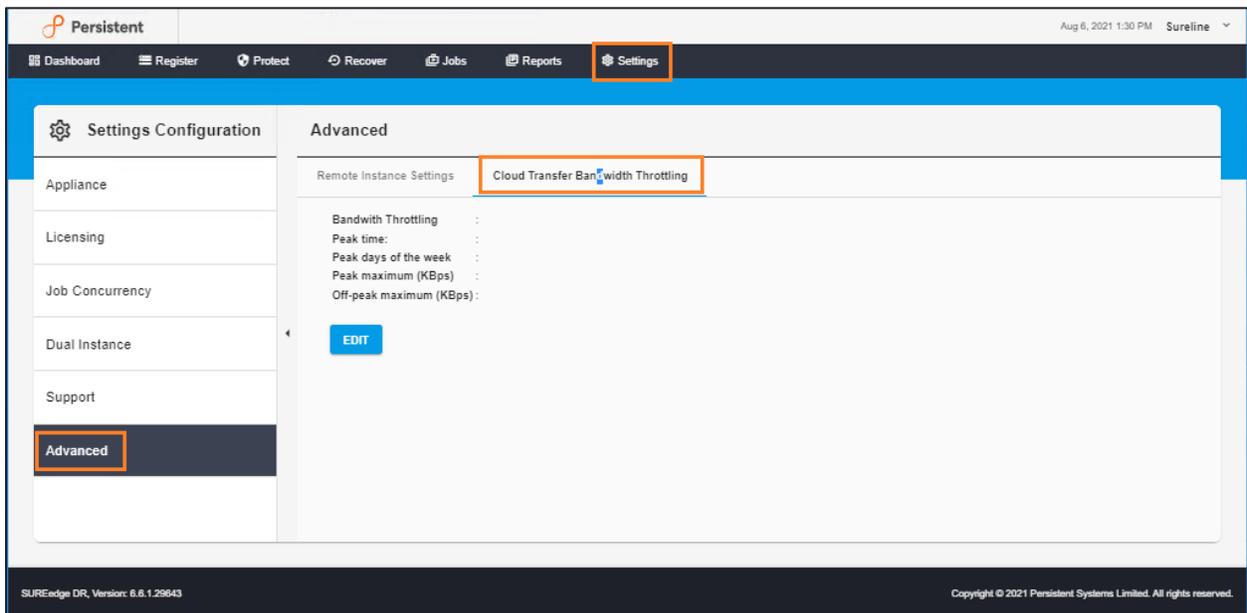


Once done, click on **Save** button to save the changes.

## 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.

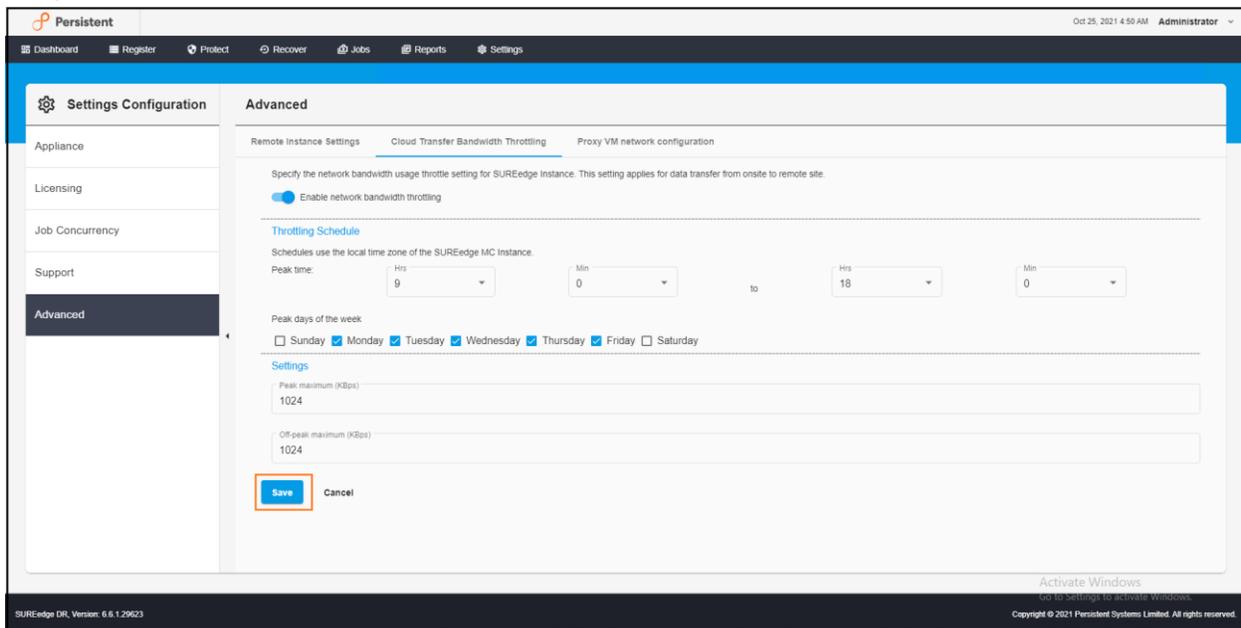
Each range can be defined to limit the amount of network resource consumed by image transfers. The **Cloud Transfer Bandwidth Throttling** section displays the current throttling settings:



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

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 (kbps)	Displays the maximum bandwidth consumption outside of peak time (in kbps).

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



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.

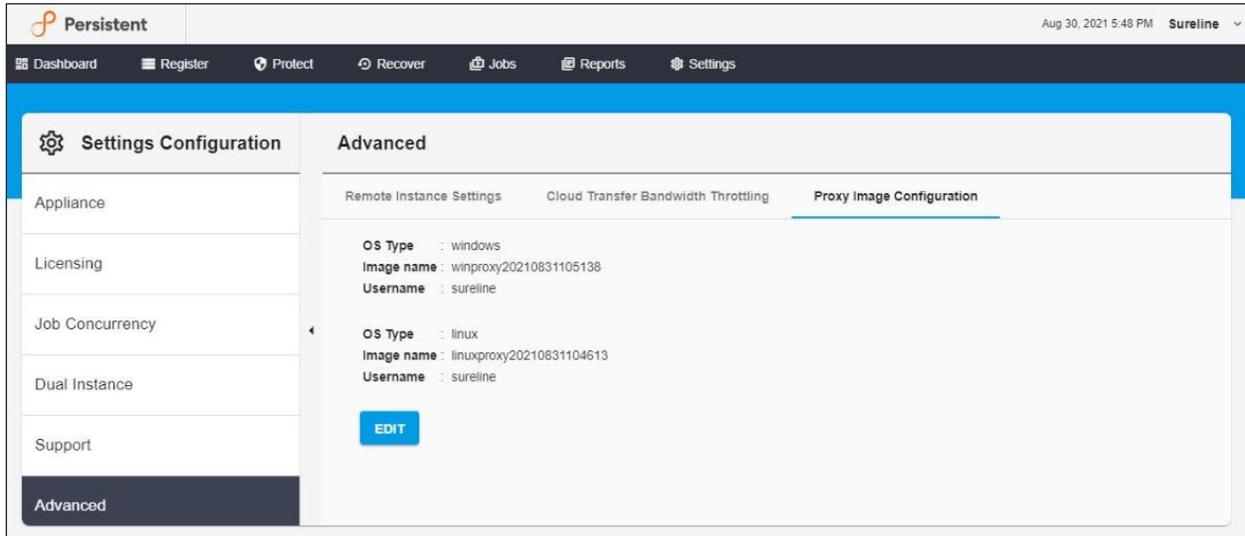
When you have your bandwidth throttling schedule and values set as desired click the **Save** button to apply the configuration; click **Cancel** to cancel your changes and revert to the prior settings.

## 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:



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

**Proxy VM configuration**
✕

Project \*  
sureline-dev-1264
▼

Region \*  
us-central1
▼

Service Account \*
▼

SubNetwork \*
▼

**Save**

**Cancel**

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.

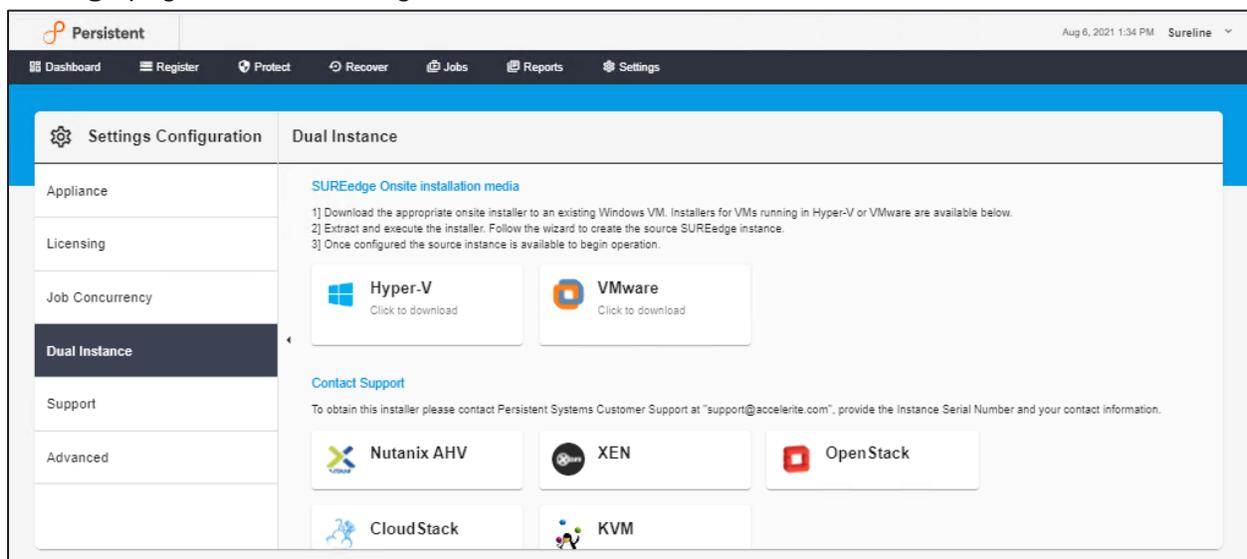
Click **Save** after filling in all the details, or click **Cancel** to discard any changes and return to the previous page.

# 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 [Introduction to this document](#).)

## 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:



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.
2. 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.

### Windows Server Utility Parameters

/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 antivirus 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. reenables 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 option'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.

## 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

<code>--help</code>	Displays information on the built-in shell commands and exits; no operations are performed
<code>--token &lt;TOKEN&gt;</code>	Required. The token attribute encodes a process' or thread 's security identity. The value for token should be obtained from the target server.
<code>--serverip &lt;IPADDR&gt;</code>	If the server has multiple IP addresses, specify the IP address you want to use.
<code>--precapture &lt;PATH&gt;</code>	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.)
<code>--postcapture &lt;PATH&gt;</code>	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.)
<code>--postrecovery &lt;PATH&gt;</code>	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.
<code>--exclude &lt;PATH&gt;[,&lt;PATH&gt;...]</code>	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

With over 13,500 employees around the world, Persistent Systems (BSE & NSE: PERSISTENT) is a global services and solutions company delivering Digital Engineering and Enterprise Modernization.

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