Veritas CloudPoint™ Quick Start Guide for Amazon Web Services (AWS)

What is CloudPoint?

CloudPoint is a lightweight, snapshot-based data protection solution for public clouds and modern data centers. CloudPoint introduces important new data protection and orchestration capabilities needed in the cloud and aligns closely with Veritas' multi-cloud data management strategy.

Veritas CloudPoint is purposely built for the data center and multi-cloud.

It delivers:

- Native, multi-cloud data protection
- Streamline and automated snapshots
- Application-consistent snapshots
- Faster recovery with finer controls
- Modular architecture for rapid workload integration

KEY FEATURES

- Snapshot-based data protection
- Automated scheduling and creation
- Multi-cloud visibility and orchestration
- Auto-deletion of expired snapshots
- Fast RPO and RTO
- Deep integration with storage arrays, and public and private cloud platforms
- Modular architecture for rapid workload proliferation
- Intuitive interface and reporting
- RESTful APIs for storage management and administration

Prepare for installation

1 Verify system requirements

Operating system	Ubuntu 16.04 LTS, RHEL 7.x
Virtual machine	Elastic Compute Cloud (EC2) instance type: t2.large
Virtual CPUs	2
RAM:	8 GB
Root disk	64 GB with a solid-state drive (GP2)
Data volume	50 GB Elastic Block Store (EBS) volume of type GP2 with encryption for the snapshot asset database Use this as a starting value and expand your storage as needed.

2 Create a volume and a file system for the CloudPoint data

1. On the EC2 dashboard, click **Volumes > Create Volumes**.
2. Follow the instructions on the screen and specify the following:
   - Volume type: General Purpose SSD
   - Size: 50 GB
3. Create a file system and mount the device to `/cloudpoint` on the instance host.

   Refer to the instructions available here: http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs- using-volumes.html

3 Verify AWS permissions and get keys

The Amazon Web Services (AWS) plug-in lets you create, restore, and delete snapshots of the following assets in an Amazon cloud:

- Elastic Compute Cloud (EC2) instances
- Elastic Block Store (EBS) volumes
- RDS instances
- Aurora clusters

Note: The following privileges are required to use this plug-in:

- **AmazonEC2FullAccess**
- **AmazonRDSFullAccess**

Before you install CloudPoint, have the following information ready:

Access key	The access key ID, when specified with the secret access key, authorizes CloudPoint to interact with the AWS APIs.
Secret key	The secret key.
Regions	One or more AWS regions in which to discover cloud assets.

Install CloudPoint

1 Deploy CloudPoint

1. Create an instance or prepare the physical host to install CloudPoint.
   - Choose an OS instance image that meets CloudPoint installation requirements.
   - Add sufficient storage to the instance to meet the installation requirements.
2. Install Docker.

Ubuntu: https://docs.docker.com/install/linux/docker-ce/ubuntu/

RHEL: https://docs.docker.com/install/linux/docker-ee/rhel/#prerequisites

On RHEL, enable shared mounts. In `docker.service` system unit file, change parameter **MountFlags=slave** to **MountFlags=shared**.

3. Download the CloudPoint image on the host.

   You can use the free edition or purchase a licensed version. Refer to the following:

   https://www.veritas.com/product/backup-and-recovery/cloudpoint/buy

4. Load the image.

   # sudo docker load –i /<*install_directory*>/<*cloudpoint_image*>

5. On the instance, open the following ports:

   443 CloudPoint user interface uses this port as the default HTTPS port.

   5671 The RabbitMQ server uses this port for communications. This port must be opened to support multiple agents.

6. Run the CloudPoint container.

```
# sudo docker docker run -it –rm -v
/fullpath_volume_name:/fullpath_to_volume_name
-v /var/run/docker.sock:/var/run/docker.sock
veritas/flexsnap-cloudpoint:<version> install
```

Here, *<version>* represents the CloudPoint version.

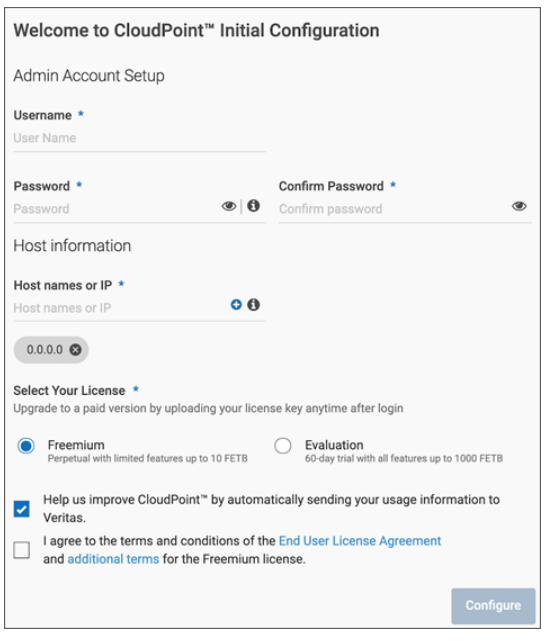
2 Configure CloudPoint

1. Open your browser and point it to the host on which CloudPoint is installed.

   https://*cloudpoint_hostFQDN*

   Here, *cloudpoint_hostFQDN* is the Fully Qualified Domain Name of the host.

   The configuration screen is displayed.

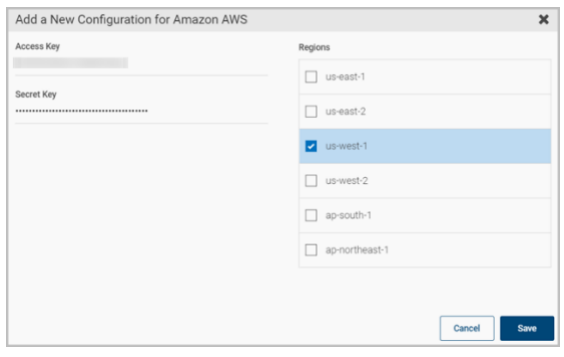


2. Enter a valid email address for the CloudPoint administrator user name and enter a password.
3. Enter any additional host names that are used to connect to the CloudPoint host.

   CloudPoint uses the specified host names to generate a server certificate for authentication. The name (CloudPoint host FQDN) that you used to launch the initial configuration screen earlier is added to the list by default.
4. Select a CloudPoint license that you wish to install.
5. Click **Configure**.
6. On the sign in screen, enter your admin user name and password that you specified earlier.

3 Configure the AWS plug-in

1. On the coffee screen, click **Manage clouds and arrays**.
2. On the *Clouds and Arrays* page**,** click on the **Amazon AWS** row.
3. On the *Details* page, click **Add configuration**.
4. On the **Add a New Configuration for Amazon AWS** page, enter the **Access Key**, **Secret Key**, and one or more **Regions**.

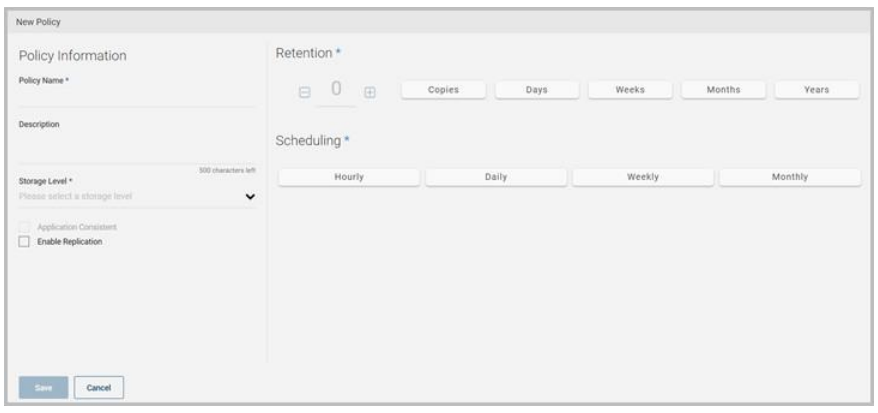


5. Click **Save**.

Protect an asset

1 Create a protection policy

1. On the CloudPoint dashboard, in the **Administration** area, find **Policies,** and click **Manage**.
2. On the Policies page, click **New Policy**.
3. Complete the **New Policy** page.

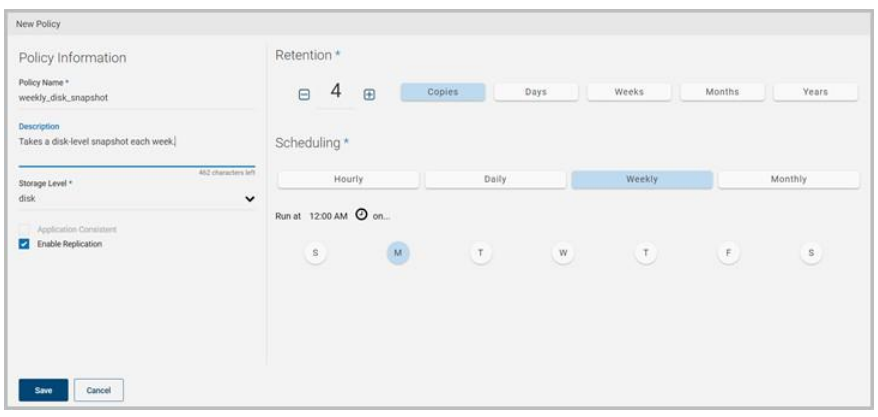


Enter the following:

Policy Information

Policy Name	Enter lower case letters, numbers, and hyphens. The name should begin and end with a letter.
Description	Summarize what the snapshot does. (Optional)
Storage Level	Select disk, host, or application. (An application snapshot requires a CloudPoint Enterprise license.)
Application Consistent	Specify whether to take an application-consistent snapshot or a crash-consistent snapshot. An application-consistent snapshot is recommended for taking snapshots of database applications. (An application consistent snapshot requires a CloudPoint Enterprise license.)
Enable replication	Select this check box if you want to copy snapshots to another physical location for added protection.
Retention	Specify the number of snapshot versions to keep for each asset associated with this policy.
Scheduling	Select how often a snapshot is taken: hourly, daily, weekly, or monthly. Depending on your choice, also specify the time (by clicking the clock icon), the date, or the day of the week.

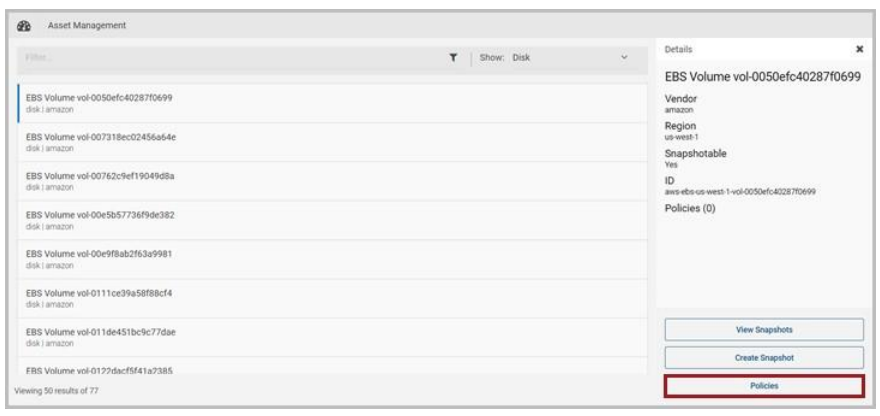
The following example creates a weekly disk level snapshot policy.



4. Click **Save**.

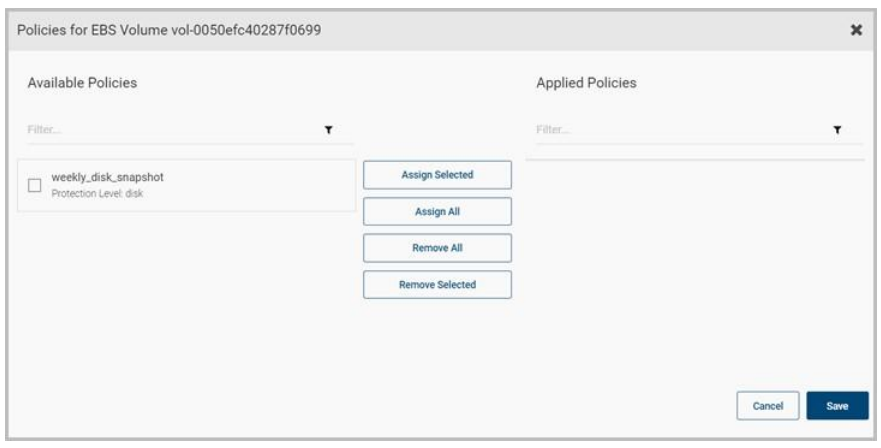
2 Assign an asset to a policy

1. On the CloudPoint dashboard, in the **Environment** area, find the asset type you want to protect, and click **Manage**. This example protects an application.
2. On the **Asset Management** page, select the asset you want to protect.
3. On the **Details** page, click **Policies**.



4. On the **Policies for *asset name*** screen assign one or more policies to the asset. In the **Available Policies** column, click the policy you want to assign.

   Repeat this step for as many policies as you want to add.



5. When you are done assigning policies, click **Save**.