Veritas CloudPoint™ Quick Start Guide for Microsoft Azure

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 automate 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 Meet system requirements

Operating system	Ubuntu 16.04 LTS, RHEL 7.5
Virtual machine	D2S_V3 Standard
Virtual CPUs	2
RAM	8 GB
Root disk	30 GB solid-state drive (SSD)
Data volume	Data volume: 50 GB Premium SSD for the snapshot asset database; storage account type Premium_LRS; set Host Caching to Read/Write.

2 Create a volume and file system for CloudPoint data

1. Create a new disk and attach it to the virtual machine.

   https://docs.microsoft.com/en-us/azure/virtual-machines/linux/attach-disk-portal

2. Choose the managed disk option.

   https://docs.microsoft.com/en-us/azure/virtual-machines/linux/attach-disk-portal#use-azure-managed-disks

3. Initialize the disk and mount it to **/cloudpoint**. For details, see the section "Connect to the Linux VM to mount the new disk" in the following link:

   https://docs.microsoft.com/en-us/azure/virtual- machines/linux/add-disk

3 Gather Microsoft Azure configuration information

Before you configure the Azure plug-in, complete the following preparatory steps:

- Use the Microsoft Azure Portal to create an Azure Active Directory (AAD) application for the Azure plug-in.
- Assign the service principal to a role to access resources.

For more details, follow the steps in the following Azure documentation:

https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-create-service-principal-portal

Before you install CloudPoint, have the following information ready:

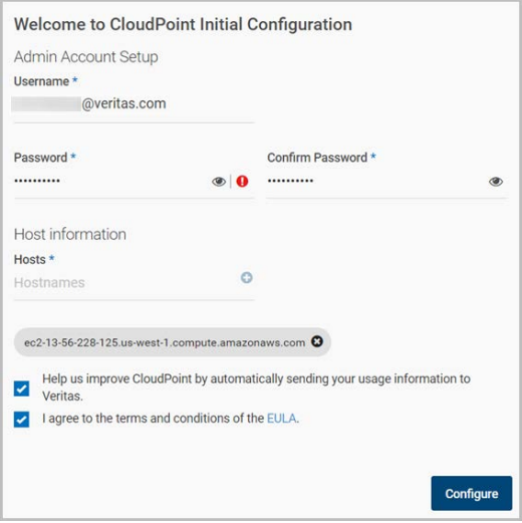| CloudPoint term	Microsoft term/description
Tenant ID	The ID of the AAD directory in which you created the application.
Client ID	The application ID.
Secret ID	The secret key of the application.

Install CloudPoint

1 Deploy CloudPoint

1. Create the 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 open to support multiple agents.

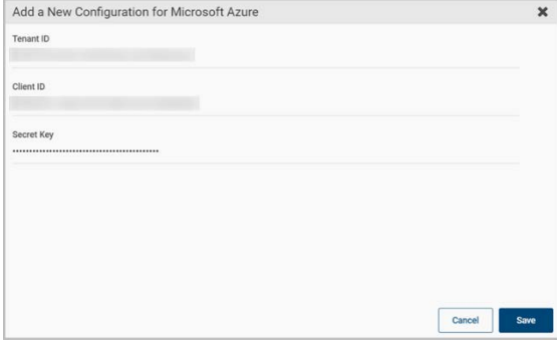6. Run the CloudPoint container.

   ```
   # 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 a 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. Click **Configure**.

5. On the sign in screen, enter your admin user name and password that you specified earlier.

3 Configure the Microsoft Azure plug-in

1. On the coffee screen, click **Manage clouds and arrays**.
2. On the *Clouds and Arrays* page**,** click on the **Microsoft Azure** row.
3. On the *Details* page, click **Add configuration**.
4. On the **Add a New Configuration for Microsoft Azure** page, enter the **Tenant ID**, **Client ID**, and **Secret Key**.

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 the CloudPoint Enterprise license.)
Application Consistent	Whether you 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 the 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**.

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