

# HyperStore Quick Start for Software-Only Users

This Quick Start document is for users who have obtained the HyperStore software package (.bin file) and a HyperStore license and who have host machines running the required operating system: CentOS 7.x or RHEL 7.x. It's best to also have the *HyperStore Installation Guide* available in case you need more detail for some steps.

## 1. Verify that your host machines meet HyperStore requirements:

- For minimal install: 1 Intel x86-64 node with 16GB RAM and 1GB hard drive space
- For rigorous evaluation: 3 Intel x86-64 nodes each with an 8-core CPU, 64GB RAM, 2 x 480GB SSD (for mirrored OS and system metadata), and 12 x 4TB HDD (for object data)

## 2. Configure HyperStore service entries on your DNS server: (for detail see *HyperStore Installation Guide* section 2.1)

**Note:** For a non-production system, if you wish you can skip this step and instead use *dnsmasq* as described later in this procedure.

- `s3-<region>.<domain>` (example: `s3-region1.enterprise.com`)
- `*.s3-<region>.<domain>` (example: `*.s3-region1.enterprise.com`)
- `s3-admin.<domain>` (example: `s3-admin.enterprise.com`)
- `cmc.<domain>` (example: `cmc.enterprise.com`)

Resolve these entries to load balancers that distribute load across all HyperStore nodes, or alternatively for a non-production system you can use round-robin DNS for services other than the CMC (which requires sticky sessions).

## 3. Install HyperStore prerequisites: (for detail see *HyperStore Installation Guide* section 3.2)

- a. On one of your hosts, copy the HyperStore package (.bin file) and license file into any working directory.
- b. In that directory run these commands to unpack the package:

```
[any-directory]# chmod +x CloudianHyperStore-7.2.bin
[any-directory]# ./CloudianHyperStore-7.2.bin <license-file-name>
```

This creates an installation staging directory named `/opt/cloudian-staging/7.2`, and extracts the HyperStore package contents into the staging directory. Do not delete this staging directory after the install.

- c. Change into the installation staging directory. Then launch the `system_setup.sh` tool:

```
[7.2]# ./system_setup.sh
```

- d. At the main menu, enter **4** for Setup Survey.csv File and follow the prompts to enter basic cluster information including each node's hostname and the IP address to which the hostname resolves.
- e. At the main menu enter **5** to Change root Password. Use the same password for all nodes.
- f. At the main menu enter **6** to Install & Configure Prerequisites. This pushes prerequisites out to all nodes.

## 4. Format and mount data disks: (for detail see *HyperStore Installation Guide* section 3.3)

**Note** If each node has just a single disk skip ahead to Step 5.

- a. Still on the Puppet Master node, at the setup tool's main menu enter **3** to Setup Disks. Use the sub-menu to format and mount the Puppet Master node's data disks. Selected disks display in green. Enter **c** to format selected disks. When done return to the tool's main menu. Then enter **2** to set the time zone for the node.
- b. At the setup tool's main menu enter **9** to Prep New Node to Add to Cluster. When prompted enter the IP address and password for one of your other nodes (a node other than the Puppet Master), then use the sub-menu to set up disks for that node and set the time zone for that node. Then return to the main menu and enter **9** again to prep another node, repeating until you've formatted the disks and set the time zone for each node in your cluster.

If you do not use the setup tool to set up your data disks because you've already done it through other means:

- You must use *ext4* file systems
- You must use UUIDs in your *fstab* file
- In your installation staging directory on your Puppet Master node you must create a text file named *fslist.txt* that lists the mount points for your hosts' object data disks, with each line in the file formatted as follows:

```
<deviceName> <mountPoint>
```

(for detail or if not all hosts have the same mount points see *HyperStore Installation Guide* section 5.4.)

5. **Run the pre-installation check:** (for detail see *HyperStore Installation Guide* section 3.4)

Still on the Puppet Master node, at the setup tool's main menu enter **r** and then in the sub-menu enter **r** again to Run Pre-Install Checks that verify your cluster meets all HyperStore installation requirements. Review any Warnings and **resolve any Errors** that the tool reports. When you're done exit the system setup tool.

6. **Install HyperStore software:** (for detail see *HyperStore Installation Guide* section 4)

- a. Still in the installation staging directory, launch the HyperStore installation tool in one of these two ways.
  - If you are resolving HyperStore service endpoints by having configured them on your DNS server:

```
[7.2]# ./cloudianInstall.sh -s survey.csv
```

- If you want instead to use the bundled *dnsmasq* utility to resolve HyperStore service endpoints:

```
[7.2]# ./cloudianInstall.sh -s survey.csv configure-dnsmasq
```

- b. At the installer main menu, enter **1** to Install Cloudian HyperStore on all your nodes. During the install you will be prompted to provide:
  - The default internal network interface for your nodes (such as "eth1")
  - The replication strategy that you want to protect system metadata like user profiles and reporting data. Use format "<datacentername>:<#replicas>" (such as "DC1:3").
  - Your domain (such as "enterprise.com"). From this the script derives HyperStore service endpoints that you can accept or customize at the prompts.

When installation completes, on the "Install Cloudian HyperStore" menu the "Load Schema and Start Services" item should show "OK". For troubleshooting see *HyperStore Installation Guide* section 5.1.

- c. After installation completes successfully, at the installer main menu enter **2** for Cluster Management and then enter **d** for Run Validation Tests, to confirm that your new HyperStore system works properly.

7. **Get started with HyperStore:**

- a. Point a browser to [https://<IP\\_address\\_of\\_any\\_HyperStore\\_node>:8443/Cloudian](https://<IP_address_of_any_HyperStore_node>:8443/Cloudian)

When the certificate warning displays follow the prompts to add an exception, and you will then see the Cloudian Management Console (CMC) login screen. Log in with user ID *admin* and password *public*.

- b. In the upper right of the CMC UI, hold your cursor over your user ID ("admin"). From the drop-down select **Security Credentials**, then change the admin user's password.
- c. Under the **Cluster** tab select **Storage Policies -> Create Storage Policy**, then create a default storage policy for your system. For guidance click **Help**.
- d. Create an S3 storage user account so you can test the system's storage services: Under the **Users & Groups** tab, select **Manage Groups -> New Group** to create a user group. Then select **Manage Users -> New User** to create a user in that group.
- e. Log out of the CMC and then log back in with the new group and user you created.
- f. Use the **Buckets & Objects** tab to create a storage bucket and upload objects.