

Cloudbian Hyperstore for AWS Outposts Servers Deployment Guide



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|--|----|
| Preface | 2 |
| Introduction | 3 |
| Hardware Deployment | 3 |
| Network Requirements for Clouidian Hyperstore node | 4 |
| Rack & Stack | 4 |
| Cabling | 6 |
| IPMI configuration | 7 |
| Software Deployment and Configuration | 11 |

Preface

This document is meant to assist with deploying a Clouidian Hyperstore for AWS Servers node and performing initial steps to prepare for a remote installation by Clouidian managed services. It includes the following steps:

- Rack & stack
- Cabling
- IPMI configuration

Introduction

Cloudian HyperStore for AWS Outposts Servers is an S3-compatible, fully managed local storage offering. This 1U high storage system, deployed alongside AWS Outposts Servers at any on-premises or edge location, provides 112TB of local storage capacity to satisfy data locality, regulatory or information security requirements.

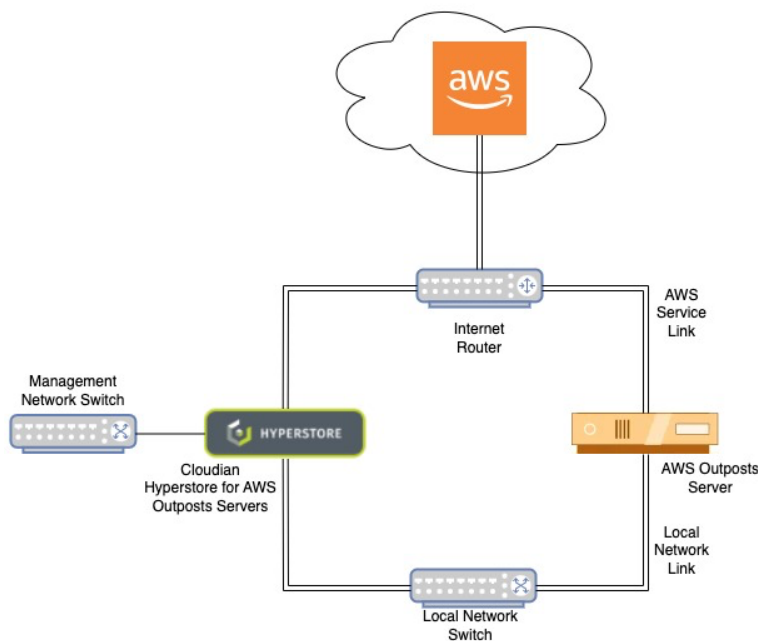
Co-located with your Outposts Servers, Cloudian HyperStore on-prem storage integrates easily with applications that employ the AWS S3 protocol. You get fast deployment and the capacity you need for data-intensive applications such as imaging, documents, IoT data collection, or data analysis.

This guide will provide you with the basic steps required to prepare the Cloudian Hyperstore node for full software deployment configuration performed by the Cloudian’s Managed Services team.

Hardware Deployment

In a typical deployment, the Cloudian Hyperstore node will be deployed alongside your AWS Outposts Server and the network connectivity between the Cloudian Hyperstore node, and the AWS Outposts server should be provided by a LAN switch. The AWS servers should have two network connectivity ports, one for the AWS Service Link and one for the Local Network Link. The AWS Outposts Servers will connect to the Cloudian Hyperstore service via its Local Network Link.

The physical Installation of the Cloudian Hyperstore node should take approximately one hour to complete and you should expect the software installation and configuration performed by Cloudian Managed Services to be completed in approximately one hour also.



Requirements for Clodian Hyperstore node

In order to deploy the Clodian Hyperstore node, you will need the following:

- IP address and network mask for management port (IPMI)
- IP address, network mask and default route IP address for the Clodian Hyperstore node Data Network port(s)
- The Data Network ports need to be configured with an LACP bond (802.5) on the local network switch
- DNS entries for Hyperstore node IP and services. You will need the following DNS entries to resolve to the IP address of the Clodian Hyperstore Data Network port(s):
 - cmc.domain
 - iam.domain
 - s3-admin.domain
 - s3-region.domain
 - *. s3-region.domain

You will need to provide this information to the Clodian Managed Services resource for them to complete the software installation.

The Clodian Hyperstore node will come pre-installed with Operations System and Software required for the installations. There will be no need for any additional software to acquire or install.

Rack & Stack

Follow the documentation that is included in the package. The L shaped rails are screwless and click into place. The rails are marked with LEFT and RIGHT to indicate which side of the rack they should be installed. The Left rack rail is fitted to the Left of the rack from the front of the rack.

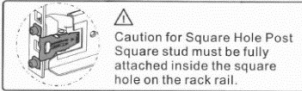
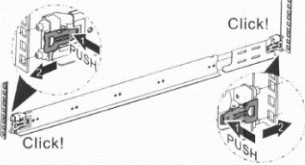
The rails can be extended between 720 mm and 915 mm in order to fit the internal 19-inch rails. Ideally the front rails should not be positioned at around than 100 mm from the front of the rack.

Once the rail kit has been installed the Clodian Hyperstore node can now be slid onto the rails. It rests loosely on the rails. Use the front thumb screws to attach it to the front side of the rack.

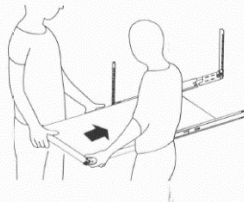
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Installation

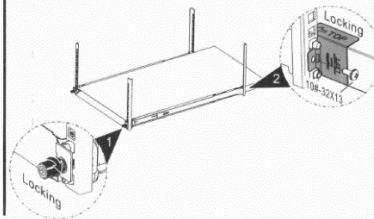
1) Attach the rails to the rack.



2) Install the chassis. Must be done with at least 2 people. Properly place the chassis directly on the bracket and install.

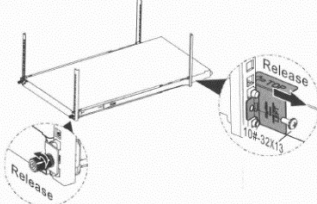


3) (1) Fasten the chassis ear to the front surface of chassis. (2) Fasten the stopper R&L to the rear end of chassis by 10-32*13 screws.

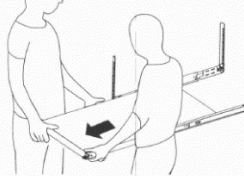


Removal

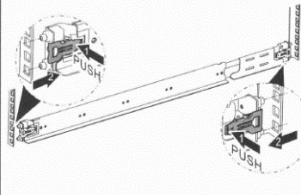
1) (1) Release the chassis ear by loosening the screw. (2) Release the stopper R&L by loosening 10-32*13 screws.



2) Pull out the chassis half way to the lock position. (Caution: Remove the chassis from the rack carefully. Must be done with at least 2 people.)



3) Remove slide rail from rack.



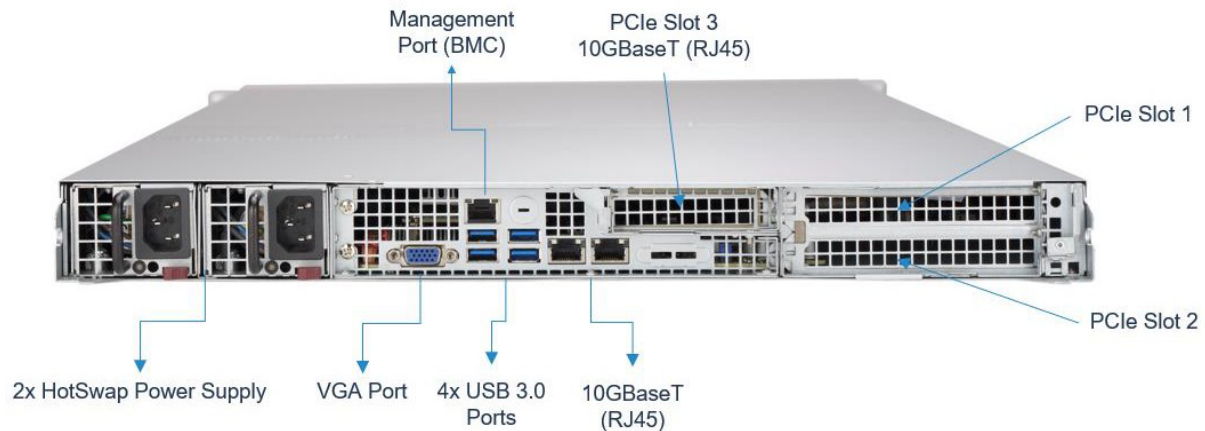
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Cabling

Please connect the following:

- 2 x Power (2x 2M power cables included)
- 1 x BMC (1 Gbit RJ45), sometimes called “Management” or “Out of band”
- 2 x 25 Gbit SFP+ (Compatible with 10Gbit SFP’s or Twinax(DAC))
- Optionally 2x 10GbaseT RJ45 could be used instead



The Cloudian Hyperstore node doesn't come with any cable management because it is not pulled out for disk servicing. The HDD's are located in a drawer that can be pulled out on the front, while the chassis isn't moved. The draw can be pulled out and the HDD's swapped whilst the appliance is powered on.

IPMI configuration

IPMI needs to be configured so that Cloudbian Professional Services can access the appliance on the network.

Power up the appliance. The power button is on the front right-hand side:



Connect a VGA monitor and a USB keyboard to the appliance. Wait for the boot process to finish. You'll see a Linux login prompt (the Kernel version may differ):

```
CentOS Linux 7 (Core)
Kernel 3.10.0-862.el7.x86_64 on an x86_64

localhost login: _
```

Login to the Hyperstore appliance as the 'root' user with password "**HSAppliance**". You will be prompted to change the 'root' user's password on first login.

```
You are required to change your password immediately (root enforced)

Changing password for root.
(current) UNIX password:
New password:
Retype new password:
```

```
[root@hs-node-p01 ~]#
```

Run the Cloudbian Hyperstore system_setup script

```
[root@hs-node-p01 ~]# /root/CloudbianTools/system_setup.sh
```

Select option 'B' - 'BMC Configuration'

System Setup

- 1) Configure Networking
- 2) Change Timezone
- 3) Setup Disks
- 4) Setup Survey.csv File
- 5) Change root Password
 Please Change Password
- 6) Install & Configure Prerequisites
- 7) Run Commands on each Cluster Node
- 8) Copy Local File to each Cluster Node
- 9) Prep New Node to Add to Cluster

- B) BMC Configuration

- R) Run Pre-installation Checks

- S) Script Settings
- A) About system_setup.sh

- X) Exit

Choice:

Select option '2' - 'Toggle IP source (DHCP)'

System Setup » BMC Configuration

- 1) Print BMC LAN configuration
- 2) Toggle IP source (DHCP)
- 3) Change IP address (192.168.0.40)
- 4) Change Subnet Mask (255.255.255.0)
- 5) Change Default Gateway Address (192.168.0.254)
- 6) Change ipmi user passwords

- P) Return to the Previous Menu

System Setup » BMC Configuration

Setting IP source to static ... Done
Press any key to continue ...

Select option '3' - 'Change IP address (192.168.0.40)'

System Setup » BMC Configuration

- 1) Print BMC LAN configuration
- 2) Toggle IP source (Static)
- 3) Change IP address (192.168.0.40)
- 4) Change Subnet Mask (255.255.255.0)
- 5) Change Default Gateway Address (192.168.0.254)
- 6) Change ipmi user passwords

P) **Return to the Previous Menu**

Type in the required IPMI IP Address and press 'Enter'

System Setup » BMC IP address

IP Address: [192.168.0.40] 10.22.184.129

System Setup » BMC IP address

IP Address: 10.22.184.129

Setting IP address for ipmi channel 1 to 10.22.184.129 ... Done

Press any key to continue ...

Select option '4' - 'Change Subnet Mask (255.255.255.0)'

System Setup » BMC Configuration

- 1) Print BMC LAN configuration
- 2) Toggle IP source (Static)
- 3) Change IP address (10.22.184.129)
- 4) Change Subnet Mask (255.255.255.0)
- 5) Change Default Gateway Address (192.168.0.254)
- 6) Change ipmi user passwords

P) **Return to the Previous Menu**

Type in the required IPMI Subnet Mask and press 'Enter'

System Setup » BMC Subnet Mask

Subnet Mask: [255.255.255.0] 255.255.255.192

System Setup » BMC Subnet Mask

Subnet Mask: 255.255.255.192

Setting subnet mask for ipmi channel 1 to 255.255.255.192 ... Done

Press any key to continue ...

Select option '5' - 'Change Default Gateway Address (192.168.0.254)'

System Setup » BMC Configuration

- 1) Print BMC LAN configuration
 - 2) Toggle IP source (Static)
 - 3) Change IP address (10.22.184.129)
 - 4) Change Subnet Mask (255.255.255.192)
 - 5) Change Default Gateway Address (192.168.0.254)
 - 6) Change ipmi user passwords
- P) Return to the Previous Menu

Type in the required IPMI Default Gateway and press 'Enter'

System Setup » BMC Default Gateway

Default Gateway: [192.168.0.254] 10.22.184.190

System Setup » BMC Default Gateway

Default Gateway: 10.22.184.190

Setting default gateway for ipmi channel 1 to 10.22.184.190 ... Done

Press any key to continue ...

Confirm all IPMI values are configured as required

System Setup » BMC Configuration

- 1) Print BMC LAN configuration
 - 2) Toggle IP source (Static)
 - 3) Change IP address (10.22.184.129)
 - 4) Change Subnet Mask (255.255.255.192)
 - 5) Change Default Gateway Address (10.22.184.190)
 - 6) Change ipmi user passwords
- P) Return to the Previous Menu

Software Deployment and Configuration

Now that you have configured the IP address on the Cloudfian Hyperstore node management port (IPMI), the node is ready for software deployment. Contact Cloudfian Support to schedule Cloudfian Managed Services to complete the installation and configuration of your Cloudfian Hyperstore node.