COMMVAULT®

# Remote Installation Assistance

## Commvault HyperScale™ X HS2300 and HS4300

Updated July 2020

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# Welcome to Commvault HyperScale™ X

## What is the Remote Installation Assistance program?

The Remote Installation Assistance (RIA) program is a complimentary service included with the purchase of your Commvault HyperScale X Appliance. This service guides you through the planning and installation process for your new appliance, so that you can start leveraging the capability of Commvault as quickly and seamlessly as possible.

## Program overview

Before we dive into the details, lets walk through what the RIA process looks like. This program will help you through the following steps to get you up and running:

1. What to do before you receive your Commvault HyperScale X Appliance
2. Rack and stack scheduling and requirements
3. How to prepare your Commvault HyperScale X Appliance once it arrives
4. How to schedule your remote installation session and what is required
5. Where to get help once your Commvault HyperScale X Appliance is deployed

## Before you receive your appliance hardware

Let's make sure you have everything you need for when your appliance arrives.

### Required space and power

| | Commvault HyperScale X HS2300 | Commvault HyperScale X HS4300 |
|---|---|---|
| **Required rack units (per node/appliance)** | 1U per node | 2U per node |
| | 3U per 3 node appliance | 6U per 3 node appliance |
| **Mounting rack depth** | 25.6" / 650mm | 25.5" / 647mm |
| **Power requirements** | 100-240v (50/60Hz) | 100-240v (50/60Hz) |
| **Max current (per node)** | 100 - 140Vac / 8 - 6A / 50-60Hz<br>200 - 240Vac / 4.5 - 3.8A / 50-60Hz | 100-127Vac / 13 – 9A / 50-60Hz<br>200-240Vac / 10 - 8A / 50-60Hz |
| **Power cabling** | 2x C14 - C13 1 Meter Power Cords | |

## Required network infrastructure and cabling

Commvault HyperScale X is a high-performance backup and recovery platform that has specific networking requirements in order to operate at peak performance.

| Minimum network requirements | Requirements for redundant networking (recommended) |
|---|---|
| 6x Ten-Gigabit (10G) Ethernet Ports (2x per node)<br>3x Gigabit (1G) Ethernet Ports for BMC (hardware controller) | 12x Ten-Gigabit (10G) Ethernet Ports (4x per Node)<br>3x Gigabit (1G) Ethernet Ports for BMC (hardware controller) |

### Cabling requirements

The network interface cards included with the server nodes support the use of either optical fiber or direct attach copper (twinax) cabling:

| For Optical Fiber Connections: | For Direct Attach Copper (Twinax) Connections: |
|---|---|
|  |  |
| 10G Base-SR SFP+ modules are included for all four interfaces on each node to support standard or redundant cabling.<br>You will need to provide 10G Base-SR SFP+ modules for your switch and compatible OM3 or OM4 Multimode Fiber Cabling. | Direct Attach Copper cables are not included with an appliance purchase. When purchasing cables, please ensure they meet the following requirements:<br>Any SFP+ passive or active limiting direct attach copper cable, that complies with the SFF-8431 v4.1 and SFF-8472 v10.4 specifications.<br>Maximum cable length for passive cables is 7 meters. |

### 10GBASE-T Support (Copper Twisted Pair)

10GBASE-T is not supported with the included SFP+ network interface cards. Optional 10GBASE-T network cards are available as an additional purchase. Please contact your Commvault representative for more information.

### Integrating with existing Commvault environments

If you are an existing Commvault customer and you will be adding the appliance to your current environment, you will need to ensure that your current software is at the same or newer version as the Commvault HyperScale X Appliance. Currently, Commvault HyperScale X Appliances ship with the following version:

Commvault Version 11.20.X

If your Commvault environment is a previous version of the software, please make sure to update to this version or higher before your RIA Session. For instructions, please see the following documentation link:

Installing Commvault Feature Release Updates

## Once you have received your appliance

Now that you've received your appliance, let's get it ready for your RIA! There are a handful of steps that need to be completed before we can schedule your RIA, which are:

- Racking your appliance
- Retrieving your Windows product keys
- Cabling your appliance
- Configuring the BMC Controller (IPMI)
- Completing the Pre-installation worksheet

### Racking your appliance

If you purchased the optional rack and stack service from Commvault, a Commvault representative will be reaching out to confirm that your appliance has arrived and schedule the service. This service includes unpacking the appliance, inspecting for damage and defective parts, mounting the nodes in your cabinet and performing the initial power-on and BMC configuration.

If you did not purchase the rack and stack service, you will need to unpack and install the servers in your cabinet. For rack mount instructions, please see the following documentation links: Racking the HS2300 Appliance and Racking the HS4300 Appliance

### Retrieving your Windows product keys

Please find the Microsoft Windows Server 2019 Standard product key sticker on the top of the server. Carefully scratch the remainder of the key and make note of the Windows product key. Each node will have an individual license.

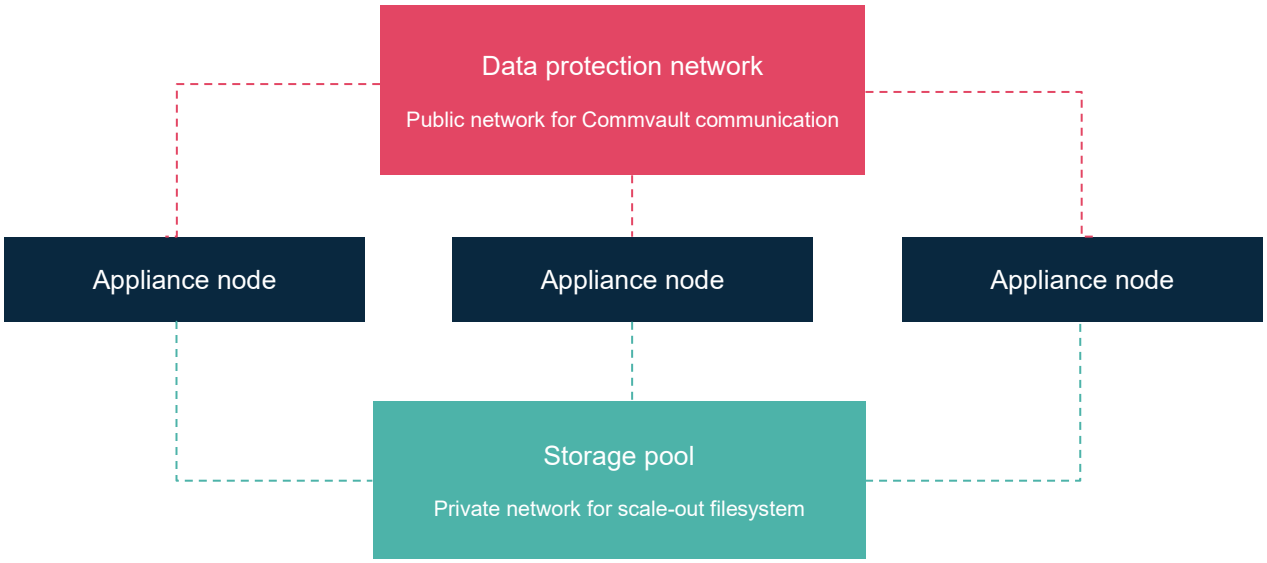
**Figure 1: Appliance node with Windows Server license**

## Switch configuration and cabling

We recommend configuring your switch for the appliance before connecting your 10G connections since this will simplify the cabling and configuration process.

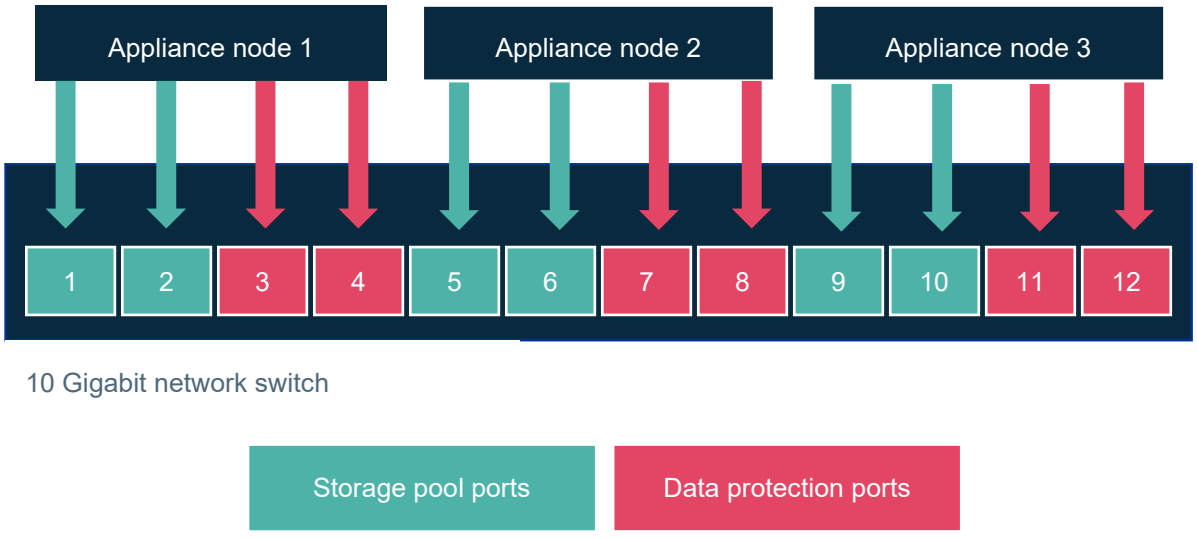
Each Commvault HyperScale node operates using two separate logical networks, a data protection network that is used for all Commvault communication and data transfer between Media Agents and clients, and a storage pool that is used strictly for the scale-out file system.

**Figure 2: Commvault HyperScale X network diagram**




Your switch will need to be configured with two ports for the data protection network and two ports for the storage pool network for each node when using a redundant configuration. For standard configurations, the ports are reduced to one data protection and one storage pool port per node. The following configuration is recommended to simplify cabling of the appliance nodes:

**Figure 3: Commvault HyperScale X port configuration**



It is important that the switch ports are configured properly for communication to work. Ports used for Commvault HyperScale X Appliances should have the following parameters set:

1. Should be in **access** mode also known as **untagged**
2. Port should **not** be part of a port channel or link aggregation group (LAG)

Once your switch is configured the appliance should be cabled using the following guide(s):

**Figure 4: HS2300 redundant connection guide**

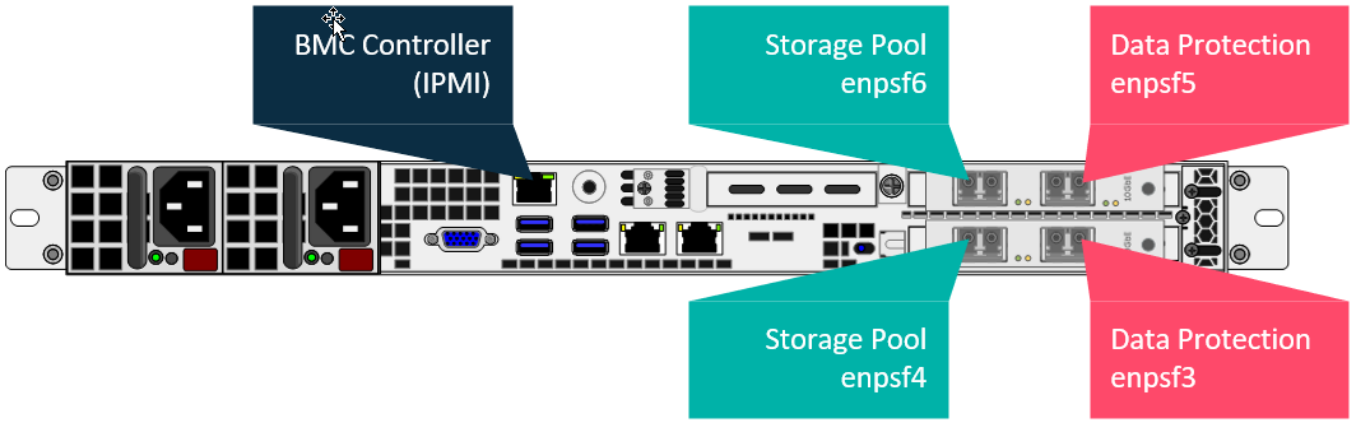



**Figure 5: HS2300 single connection guide**

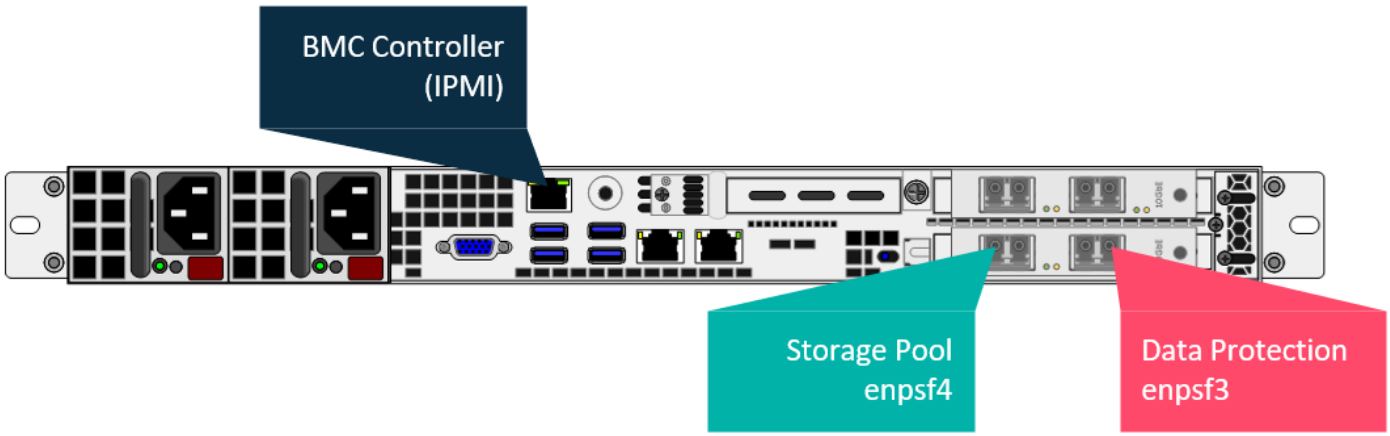


Figure 6: HS4300 redundant connection guide

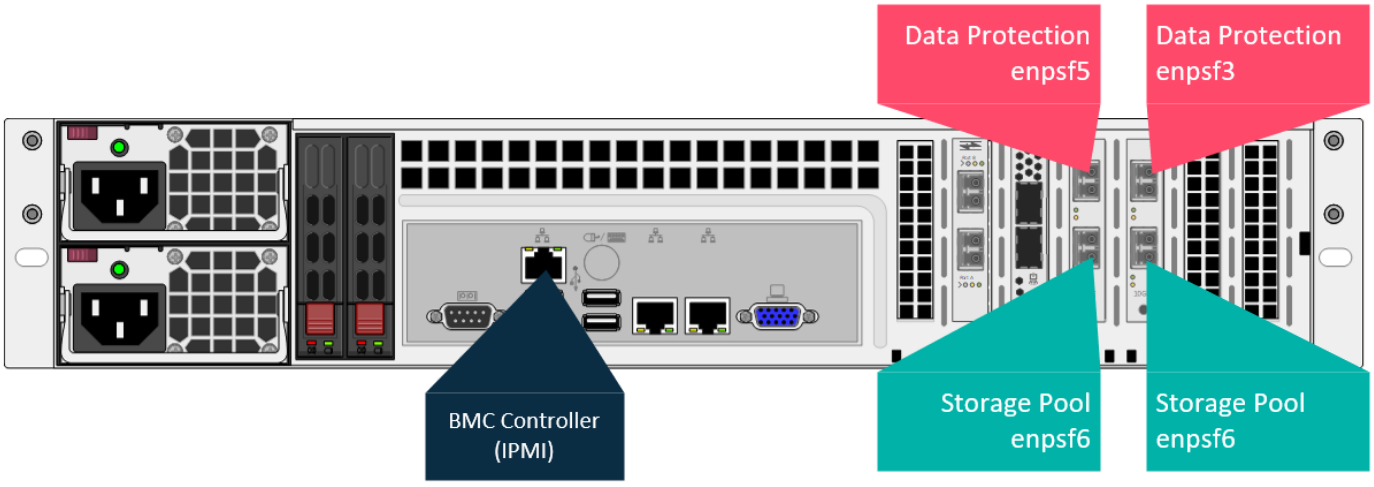
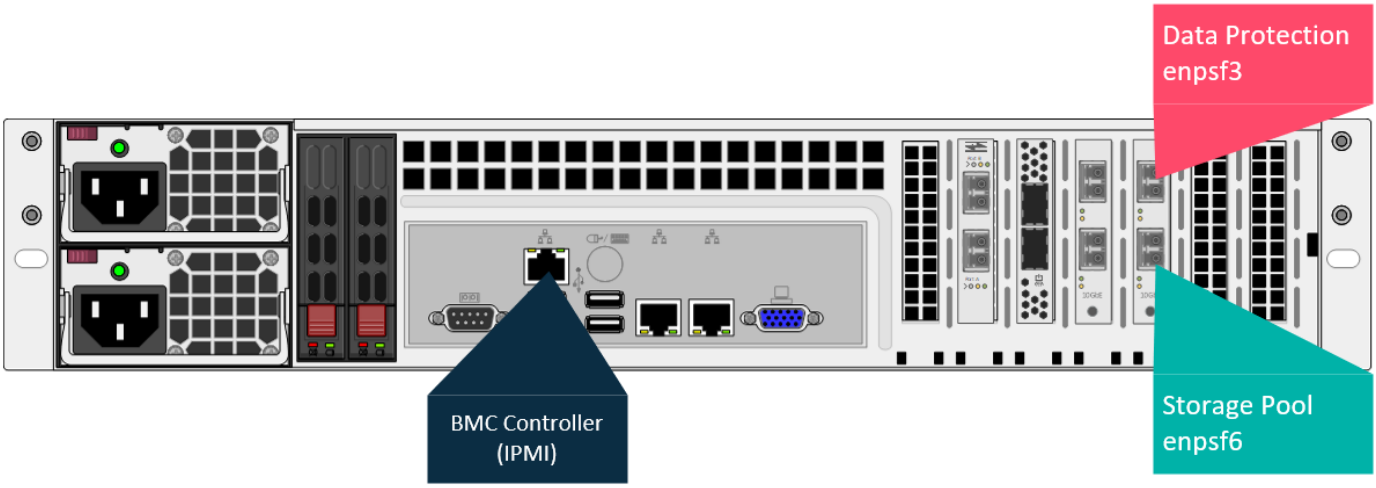



Figure 7: HS4300 single connection guide



## Configuring the baseboard management controller (BMC)

Once your appliance is cabled you will need to configure the BMC to be able to remotely access the system console and perform power management operations. For instructions on configuring the BMC, please see the following documentation link: Setting up the Baseboard Management Controller (BMC)

## Completing the pre-installation worksheet

Before your remote installation session can be scheduled, you will need to complete the Pre-installation Worksheet that was provided by your Commvault Representative.

Each node will require an IP address for both the data protection and storage pool networks. These will be used during your RIA session to configure your appliance.

**Example Completed Worksheet**

| | Node 1 | Node 2 | Node 3 |
|---|---|---|---|
| **Data protection IP address*** | 10.0.1.11 | 10.0.1.12 | 10.0.1.13 |
| **Data protection netmask*** | 255.255.255.0 | | |
| **Data protection gateway*** | 10.0.1.1 | | |
| **Data protection DNS 1*** | 10.0.1.5 | | |
| **Data protection DNS 2*** | 10.0.1.6 | | |
| **Data protection DNS 3** | | | |
| **Storage pool IP address*** | 192.168.1.11 | 192.168.1.12 | 192.168.1.13 |
| **Storage pool netmask*** | 255.255.255.0 | | |

*Required field

If you are a new customer without an existing Commvault environment and would like to deploy the appliance as an all-in-one backup and recovery solution, two additional IP addresses and associated hostnames will be required. These will be used for two virtual machines that will house the Commvault CommServe® role, which is a critical component of the Commvault architecture. It is responsible for coordinating all operations, storing metadata, and providing a central configuration and reporting server for your Commvault environment. On Commvault HyperScale X appliances it is deployed as active-passive pair to ensure availability in the event of a hardware or software failure.

**Please note that the IP addresses for each CommServe must reside in the same IP subnet as your node's data protection interfaces.**

| | Primary CommServe VM | Standby CommServe VM |
|---|---|---|
| **Fully qualified hostname (FQDN)*** | CSPrimary.domain.com | CSStandby.domain.com |
| **IP address*** | 10.0.1.9 | 10.0.1.10 |

*Required field

### Configuring DNS records

When deploying a Commvault HyperScale X Appliance, DNS records may need to be created depending on the desired configuration.

- When deploying a CommServe VM on the appliance, DNS records are always required. Both a forward (A) and reverse (PTR) record should be created for each VM being deployed.
- For Commvault HyperScale Nodes, DNS records are not required, and will default to using their serial numbers and IP addresses when configured in Commvault. To leverage your own DNS records, a Forward (A) and Reverse (PTR) record for each node's Data Protection interface will need to be created with the custom names desired.

## Remote installation assistance session

Now that you are ready for your RIA, there are a handful of things to have ready on the day of your session. During this session a Commvault representative will remotely control your desktop in order to access the appliance and configure it. The machine used for this session should meet the following requirements:

1. Should be a physical or virtual machine running a current Windows based operating system.
2. Should be on the data protection subnet (not required but highly recommended).
3. Will need to be able to join a Zoom session and perform remote screen sharing/control. You can test join a zoom call using this site: http://zoom.us/test.
4. Must have a modern web browser installed such as Google Chrome, Mozilla Firefox, or Microsoft Edge. Internet Explorer is not supported for HyperScale Installs.
5. Putty or similar ssh client installed for remote access and/or troubleshooting.

## Where to go next?

Congratulations, your appliance is deployed, and you are ready to start harnessing the capability of Commvault! You may be wondering where to go next. Below are a collection resources that will help leverage the capabilities of your appliance:

Commvault Quick Start Guide

Commvault HyperScale Documentation

Global Support Portal