

Hitachi Content Platform S Series Node

3.1.1

HCP S Series Node Demo Edition Deployment

This book contains all the information you need for deploying the HCP S Series Node Demo Edition. The Demo Edition is an S Series Node that runs in a virtual machine in VMware Workstation Player or on a VMware ESXi host. You can use the Demo Edition to demonstrate various S Series Node features and functionality.

© 2016, 2020 Hitachi Vantara LLC. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including copying and recording, or stored in a database or retrieval system for commercial purposes without the express written permission of Hitachi, Ltd., or Hitachi Vantara LLC (collectively, "Hitachi"). Licensee may make copies of the Materials, provided that any such copy is: (i) created as an essential step in utilization of the Software as licensed and is used in no other manner; or (ii) used for archival purposes. Licensee may not make any other copies of the Materials. "Materials" mean text, data, photographs, graphics, audio, video, and documents.

Hitachi reserves the right to make changes to this Material at any time without notice and assumes no responsibility for its use. The Materials contain the most current information available at the time of publication.

Some of the features described in the Materials might not be currently available. Refer to the most recent product announcement for information about feature and product availability, or contact Hitachi Vantara LLC at https://support.hitachivantara.com/en_us/contact-us.html.

Notice: Hitachi products and services can be ordered only under the terms and conditions of the applicable Hitachi agreements. The use of Hitachi products is governed by the terms of your agreements with Hitachi Vantara LLC.

By using this software, you agree that you are responsible for:

1. Acquiring the relevant consents as may be required under local privacy laws or otherwise from authorized employees and other individuals; and
2. Verifying that data continues to be held, retrieved, deleted, or otherwise processed in accordance with relevant laws.

Notice on Export Controls. The technical data and technology inherent in this Document may be subject to U.S. export control laws, including the U.S. Export Administration Act and its associated regulations, and may be subject to export or import regulations in other countries. Reader agrees to comply strictly with all such regulations and acknowledges that Reader has the responsibility to obtain licenses to export, re-export, or import the Document and any Compliant Products.

Hitachi and Lumada are trademarks or registered trademarks of Hitachi, Ltd., in the United States and other countries.

AIX, AS/400e, DB2, Domino, DS6000, DS8000, Enterprise Storage Server, eServer, FICON, FlashCopy, GDPS, HyperSwap, IBM, Lotus, MVS, OS/390, PowerHA, PowerPC, RS6000, S/390, System z9, System z10, Tivoli, z/OS, z9, z10, z13, z14, z/VM, and z/VSE are registered trademarks or trademarks of International Business Machines Corporation.

Active Directory, ActiveX, Bing, Excel, Hyper-V, Internet Explorer, the Internet Explorer logo, Microsoft, the Microsoft Corporate Logo, MS-DOS, Outlook, PowerPoint, SharePoint, Silverlight, SmartScreen, SQL Server, Visual Basic, Visual C++, Visual Studio, Windows, the Windows logo, Windows Azure, Windows PowerShell, Windows Server, the Windows start button, and Windows Vista are registered trademarks or trademarks of Microsoft Corporation. Microsoft product screen shots are reprinted with permission from Microsoft Corporation.

All other trademarks, service marks, and company names in this document or web site are properties of their respective owners.

Copyright and license information for third-party and open source software used in Hitachi Vantara products can be found at <https://www.hitachivantara.com/en-us/company/legal.html>.



Contents

Preface	5
Intended audience	5
Product version	5
Release notes	5
Syntax notation	6
Related documents	6
Accessing product documentation	7
Getting help	8
Comments	8
Chapter 1: Introduction to the HCP S Series Node Demo Edition	9
Chapter 2: Deploying the HCP S Series Node Demo Edition for VMware Workstation Player	11
System requirements for the S Series Node Demo Edition for VMware Workstation Player	12
Resources you need for deploying the S Series Node Demo Edition for VMware Workstation Player	12
Step 1: Download the S Series Node Demo Edition .zip file for VMware Workstation Player	13
Step 2: Determine valid network settings for the S Series Node (VMware Workstation Player)	14
Step 3: Deploy the S Series Node virtual machine in VMware Workstation Player	16
Step 4: Configure the virtual machine network adapters (VMware Workstation Player)	17
Step 5: Configure access to the S Series Node (VMware Workstation Player)	19
Step 6: Verify that the S Series Node is accessible (VMware Workstation Player)	23

Chapter 3: Deploying the HCP S Series Node Demo Edition for VMware ESXi	27
System requirements for the S Series Node Demo Edition for VMware ESXi	28
Resources you need for deploying the S Series Node Demo Edition for VMware ESXi	28
ESXi host networking requirements	29
ESXi host storage requirements	30
Step 1: Download the S Series Node Demo Edition .zip file for VMware ESXi	30
Step 2: Determine valid network settings for the S Series Node (ESXi)	31
Step 3: Deploy the S Series Node virtual machine on the ESXi host	32
Step 4: Configure access to the S Series Node (ESXi)	34
Step 5: Verify that the S Series Node is accessible (ESXi)	41
Appendix: Forms	43
HCP S Series Node Configuration Information (VMware Workstation Player)	44
HCP S Series Node Configuration Information (VMware ESXi)	45



Preface

This book contains all the information you need for deploying the HCP S Series Node Demo Edition. The Demo Edition is an S Series Node that runs in a virtual machine either in VMware® Workstation Player™ or on a VMware ESXi™ host. You can use the Demo Edition to demonstrate various S Series Node features and functionality.

Intended audience

This book is intended for Hitachi Vantara product managers and technical sales personnel who need to demonstrate HCP S Series Node features and functionality to prospective customers. The book assumes you are familiar with S Series Node concepts, configuration, and usage.

This book is internal to Hitachi Vantara and should not be given to customers.

Product version

This book applies to release 3.1.1 or later of the HCP S Series Node.

Release notes

Read the release notes before installing and using this product. They may contain requirements or restrictions that are not fully described in this document or updates or corrections to this document. Release notes are available on Hitachi Vantara Support Connect:

<https://knowledge.hitachivantara.com/Documents>

Syntax notation

The table below describes the conventions used for the syntax of commands and URLs in this book.

Notation	Meaning	Example
boldface	Type exactly as it appears in the syntax (if the context is case insensitive, you can vary the case of the letters you type)	This book shows: ping <i>access-network-virtual-ip-address</i> You enter: ping 192.168.31.101
<i>italics</i>	Replace with a value of the indicated type	

Related documents

The following documents contain additional information about HCP S Series Nodes:

- *HCP S Series Node Help* for HCP S11 and S31 Nodes (MK-HCPS022) — This Help system contains information about configuring, monitoring, and managing an HCP S11 or S31 Node. The Help includes information you need to effectively use the HCP S Series Management Console. The Help also describes the physical specifications of and environmental requirements for S11 and S31 Nodes. Additionally, the Help contains a complete reference for the HCP S Series management API.
- *HCP S11 and S31 Node API Reference* (MK-HCPS023) — This book contains all the information you need for using the HCP S Series management API with an HCP S11 or S31 Node. This RESTful HTTP-based API enables you to configure, monitor, and manage an S11 or S31 Node programmatically. The book explains how to use the management API to retrieve information about and manipulate S11 and S31 Node resources. The book also includes an introduction to the S Series Node concepts that underlie the management API resources.
- *HCP S11 and S31 Node Site Requirements* (FE-HCPS025) — This book describes the site requirements for deploying an HCP S11 or S31 Node. The book also contains forms to help you determine whether a customer site meets those requirements.

- *HCP S11 and S31 Node Assembly and Configuration* (FE-HCPS016) — This book contains complete instructions for building an HCP S11 or S31 Node. The book takes you from assembling and racking component hardware to installing the HCP S Series software to packing components for shipping. The book also describes the physical specifications of and environmental requirements for S11 and S31 Nodes and includes information to help you troubleshoot issues that may arise during the assembly and configuration process. Additionally, the book explains how to prepare both add-on expansion enclosures for increasing S11 or S31 Node capacity and S31 Node server modules for use in converting S11 Nodes to S31 Nodes.
- *HCP S11 and S31 Node On-site Setup* (FE-HCPS017) — This book contains instructions for deploying an HCP S11 or S31 Node at a customer site, from installing the S11 or S31 Node in a rack to configuring the S11 or S31 Node for the customer computing environment. The book also describes the physical specifications of and environmental requirements for S11 and S31 Nodes. Additionally, the book contains information about configuring S11 and S31 Nodes in DNS and integrating S11 and S31 Nodes with the Hitachi Remote Ops monitor agent.
- *HCP S11 and S31 Node Maintenance* (FE-HCPS018) — This book contains instructions both for maintaining the physical components of an HCP S11 or S31 Node and for upgrading or reinstalling the HCP S Series operating system and software. The book includes instructions for adding drives and enclosures to increase capacity, for replacing faulty components, and for converting an S11 Node to an S31 Node. The book also contains information about monitoring S11 and S31 Nodes. Additionally, the book describes the physical specifications of and environmental requirements for S11 and S31 Nodes.
- *Hitachi Universal V2 PDU Installation, Replacement, and Removal* (FE-97RK001) — This book is a guide to the Hitachi Universal V2 PDU used with Hitachi hardware products. The book describes the PDU configurations and contains instructions for installing, replacing, and removing a Hitachi Universal V2 PDU in a rack.

Accessing product documentation

Product documentation is available on Hitachi Vantara Support Connect: <https://knowledge.hitachivantara.com/Documents>. Check this site for the most current documentation, including important updates that may

have been made after the release of the product.

Getting help

[Hitachi Vantara Support Portal](https://support.hitachivantara.com/en_us/contact-us.html) is the destination for technical support of products and solutions sold by Hitachi Vantara. To contact technical support, log on to Hitachi Vantara Support Connect for contact information: https://support.hitachivantara.com/en_us/contact-us.html.

[Hitachi Vantara Community](https://community.hitachivantara.com/s) is a global online community for Hitachi Vantara customers, partners, independent software vendors, employees, and prospects. It is the destination to get answers, discover insights, and make connections. **Join the conversation today!** Go to community.hitachivantara.com/s, register, and complete your profile.

Comments

Please send us your comments on this document to doc.comments@hitachivantara.com. Include the document title and part number, including the revision (for example, -01), and refer to specific sections and paragraphs whenever possible. All comments become the property of Hitachi Vantara LLC.

Thank you!

Introduction to the HCP S Series Node Demo Edition

The **Hitachi Content Platform (HCP) S Series Node Demo Edition** is an S Series Node that runs in a virtual machine either in VMware Workstation Player or on a VMware ESXi host. In these environments, the S Series Node has a single server module, one OS drive, one database drive, and three data drives.

You can use the S Series Node Demo Edition to demonstrate various S Series Node features and functionality. However, you cannot use the Demo Edition to demonstrate features that require two server modules (such as virtual IP failover), hardware procedures, or S Series Node performance.



Important: The HCP S Series Node Demo Edition is for use by Hitachi Vantara Technical Sales, Product Management, Engineering, and partners to demonstrate the S Series Node product and perform limited functional testing. The Demo Edition is not available for sale to customers and may not be deployed on internal Hitachi Vantara networks, except for the sole purpose of testing in a lab setting. The Demo Edition comes with no warranty and is not supported by GSC or HCP S Series Node Engineering.

The HCP S Series Node Demo Edition comes preconfigured with known user accounts and passwords and, as such, does not meet Hitachi Vantara corporate security guidelines. HCP S Series Node Engineering does not guarantee that the Demo Edition is suitable for any given purpose.

By deploying and using the HCP S Series Node Demo Edition, you agree that you do so with full and complete understanding of the above information.

The S Series Node Demo Edition comes with a predefined *admin* user account password, domain name, and serial number. You configure the S Series Node networks as part of the Demo Edition deployment. The instructions in this book explain how to determine the network settings to use and how to specify those settings.

If you plan to demonstrate access to the S Series Node by domain name, after you deploy the S Series Node Demo Edition, you need to use the HCP S Series Management Console or management API to change the default domain name to a domain name that is valid for your location. You also need to add the domain to the local DNS configuration. For information about configuring an S Series Node domain in DNS, see the HCP S Series Node Help either for S10 and S30 Nodes or for S11 and S31 Nodes.

If you plan to demonstrate use of the S Series Node with an HCP system, after you deploy the S Series Node Demo Edition, you need to use the HCP S Series Management Console or management API to specify one or more time servers for the S Series Node to use for setting and maintaining its internal clock time. These time servers should be the same time servers as those used by the HCP system.

Deploying the HCP S Series Node Demo Edition for VMware Workstation Player

The HCP S Series Node Demo Edition for VMware Workstation Player runs in a virtual machine on any operating system that VMware Workstation Player supports. This chapter contains requirements and instructions for deploying the Demo Edition for VMware Workstation Player on Microsoft® Windows®.

Windows computers should have the most recent applicable Windows service pack installed.

System requirements for the S Series Node Demo Edition for VMware Workstation Player

The computer on which you deploy the S Series Node Demo Edition for VMware Workstation Player must meet these minimum requirements:

- Quad-core, 2.4 Ghz or faster processor
- 64-bit capable hardware
- 4 GB of RAM
- 10 GB of free disk space
- 1GB network interface card (NIC)
- Virtualization technology (VT) enabled in the system BIOS

For more information about system requirements for VMware Workstation Player, go to <https://docs.vmware.com/en/VMware-Workstation-Player/index.html>. Then, on the left side of the page, select the release notes for the version of VMware Workstation Player installed on your computer.

Resources you need for deploying the S Series Node Demo Edition for VMware Workstation Player

To deploy the S Series Node Demo Edition for VMware Workstation Player, you need:

- VMware Workstation Player version 15.5.1 or later. You can download VMware Workstation Player from <https://www.vmware.com/products/workstation-player/workstation-player-evaluation.html>.
- The .zip file that contains the deployment files for the S Series Node Demo Edition for VMware Workstation Player. For instructions on getting this file, see [Step 1: "Download the S Series Node Demo Edition .zip file for VMware Workstation Player"](#) on the next page.

Step 1: Download the S Series Node Demo Edition .zip file for VMware Workstation Player

- The login password for each of these:
 - Configuring access to the deployed S Series Node Demo Edition. This password is for the *install* user account.
 - Accessing the deployed S Series Node Demo Edition. This password is for the *admin* user account.

If you are a Hitachi Vantara employee, you download these login passwords from the Hitachi Vantara SharePoint site at:

https://hitachivantara.sharepoint.com/sites/hcps/Shared%20Documents/Passwords/hcps_demo_edition_passwords.pdf

If you are deploying the Demo Edition for demonstration on behalf of an authorized S Series Node distributor, you get these login passwords from the HCP S Series Node Product Management team.

Step 1: Download the S Series Node Demo Edition .zip file for VMware Workstation Player

The deployment files for the HCP S Series Node Demo Edition for VMware Workstation Player are in a .zip file named `HCPS_Demo_VMX_release-number.zip` (for example, `HCPS_Demo_VMX_3.1.1.2.zip`). This file is available from the Hitachi Vantara Technical Information Service Center (TISC).

To download the S Series Node Demo Edition .zip file for VMware Workstation Player from TISC:

1. Log in to [TISC](#).
2. Go to **The Download Center (TDC)**.
3. If the **Internal Export Control Statement and Download Acknowledgment** page appears, select **I have read and accept the above terms**. Then click **Continue**.
4. Open **Software Downloads**.
5. In the **And/Or Program Product Name** field, select **Hitachi Content Platform S Series Node**. Then click **Search**.

6. Under **Product Code**, click **DEMO-HCP-S-VMPlayer** for the version of the Demo Edition you want to deploy in the VMware Workstation Player virtual machine.
7. Under **Component Number**, click the link for the version of the Demo Edition you want to deploy.
8. Click **Download image file**.
9. Click the link for the Demo Edition .zip file.
10. Save the Demo Edition .zip file to the location of your choice on your laptop computer.

Step 2: Determine valid network settings for the S Series Node (VMware Workstation Player)

For communication over the HCP S Series Node access network, the S Series Node virtual machine can use either a network address translation (NAT) connection or a bridged connection:

- With a NAT connection, you can access the S Series Node only from the computer on which the virtual machine is running.
- With a bridged connection, you can access the S Series Node from other computers.

By default, the S Series Node Demo Edition has these settings for the access network on server module 1:

- Physical IP address: 192.168.140.110
- Virtual IP address: *undefined*
- Subnet: 192.168.140.0/24 (subnet mask 255.255.255.0)
- Gateway IP address: 192.168.140.1
- VLAN ID: 0

The S Series Node Demo Edition supports only IPv4 for the access network IP mode. Do not configure the access network with IPv6 addresses.

The HCP S Series Node Demo Edition for VMware Workstation Player does not support access over the S Series Node management network. By default, the server module 1 IP address for this network is 10.2.2.1. Do not change this value.

By default, the subnet for the server interconnect network is 10.1.1.0/24, and the server module 1 IP address on this network is 10.1.1.1. You cannot change these values.

Because the Demo Edition has only one server module, network settings for server module 2 are undefined. Do not change them.

You need to decide whether to use a NAT connection or a bridged connection for the access network. For a NAT connection, you then need to determine access network settings that are valid for your computer, as described below. For a bridged connection, you need to ask the network administrator at your location for the settings to use.



Note: If you've deployed other virtual machines on your computer, you need to ensure that the IP addresses you use for the access network are not being used by one of those virtual machines.



Tip: You can use the [HCP S Series Node Configuration Information \(VMware Workstation Player\)](#) form on page 44 to record the access network settings for the S Series Node.

To determine valid access network settings for a NAT connection on a Windows computer:

1. In a Windows **Command Prompt** window, enter: *ipconfig*

The output from this command is the IP configuration of each network adapter on the computer.

2. Record the settings to use for the S Series Node access network:

- For the physical IP address, use the IPv4 address displayed for the VMnet8 adapter, replacing the last octet with a different number in the range 100 through 255.

For example, if the displayed IP address is 192.168.31.1, you could use 192.168.31.100 for the access network physical IP address.

- For the virtual IP address, use the IPv4 address displayed for the VMnet8 adapter, replacing the last octet with a different number in the range 100 through 255. Be sure to use a different number from the last octet of the physical IP address.

For example, if you use 192.168.31.100 for the access network physical IP address, you could use 192.168.31.101 for the access network virtual IP address.

- For the subnet, use the subnet derived from the access network physical IP address and the subnet mask displayed for the VMnet8 adapter.

For example, if you use 192.168.31.100 for the access network physical IP address and the VMnet8 adapter subnet mask is 255.255.255.0, the access network subnet would be 192.168.31.0/24

- For the gateway IP address, use a valid gateway IP address on the derived subnet. For the last octet, be sure to use a different number from the last octets of the access network physical and virtual IP addresses.

For example, if the subnet is 192.168.31.0/24 and you used 192.168.31.100 and 192.168.31.101 for the access network physical and virtual IP addresses, you could use 192.168.31.2 for the access network gateway IP address.

- For the VLAN ID, use 0.

Step 3: Deploy the S Series Node virtual machine in VMware Workstation Player

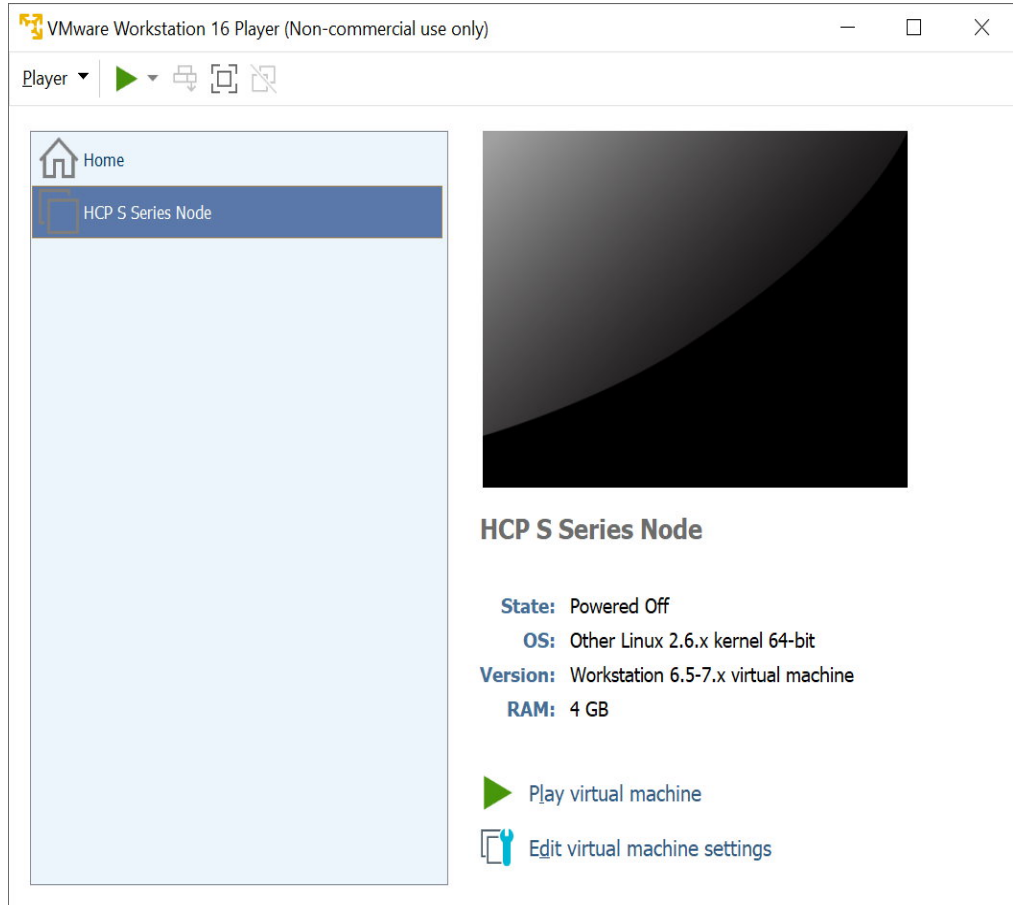
To deploy the S Series Node virtual machine in VMware Workstation Player:

1. Unzip the S Series Node Demo Edition .zip file for VMware Workstation Player to the location of your choice on your laptop computer.
2. Start VMware Workstation Player.
3. In the **VMware Workstation Player** window, click **Open a Virtual Machine**.
4. In the **Open Virtual Machine** window, navigate to the directory into which you unzipped the Demo Edition .zip file.

Step 4: Configure the virtual machine network adapters (VMware Workstation Player)

5. Select the `hcp_s_series_node_vm.vmx` file. Then click **Open**.

The HCP S Series Node virtual machine appears in the left side of the **VMware Workstation Player** window.



Step 4: Configure the virtual machine network adapters (VMware Workstation Player)

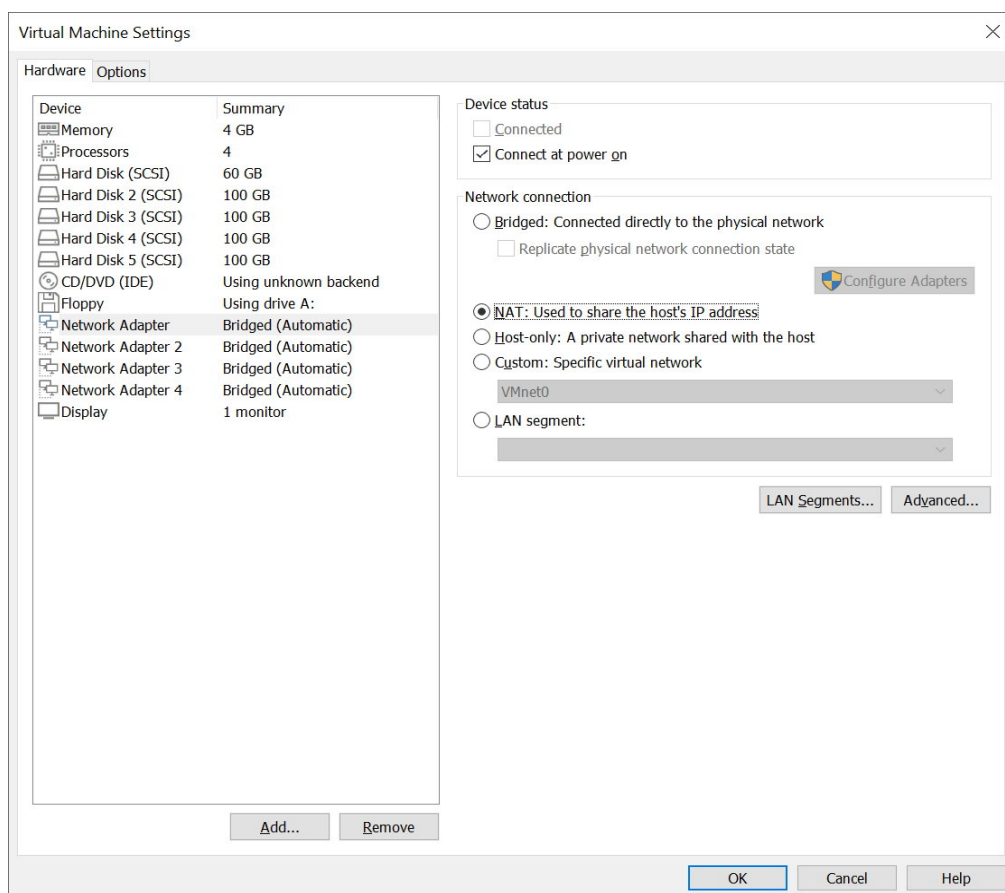
By default, a VMware Workstation Player virtual machine has four network adapters. The first one is unnumbered. The other three are numbered 2, 3, and 4.

The S Series Node uses the unnumbered adapter and adapter 3 for the access network. It uses adapter 2 for the management network and adapter 4 for the server interconnect network.

To configure the virtual machine network adapters for the S Series Node:

1. In the **VMware Workstation Player** window, select **HCP S Series Node**.

2. Click **Edit virtual machine settings**.
3. Under **Device** in the **Virtual Machine Settings** window, select **Network Adapter** (the unnumbered one). Then, in the **Network connection** section, select either **Bridged** or **NAT**, as applicable for the access network.



4. Under **Device**, select **Network Adapter 2**. Then, in the **Network connection** section, select **Host-only**.
5. Under **Device**, select **Network Adapter 3**. Then, in the **Network connection** section, select either **Bridged** or **NAT**, as applicable for the access network.
6. Under **Device**, select **Network Adapter 4**. Then, in the **Network connection** section, select **Host-only**.
7. Click **OK**.

Step 5: Configure access to the S Series Node (VMware Workstation Player)

To configure access to the S Series Node:

1. In the **VMware Workstation Player** window, select **HCP S Series Node**.
2. Click **Play virtual machine**.

The **HCP S Series Node** virtual machine console window opens, and the S Series Node starts in the HCP S Series Node virtual machine. When startup processing is almost complete, a login prompt appears in the window.

```
HCPSOS Operating System release 3.1
Kernel

Press ALT+F5 for Hitachi Content Platform Storage Application Status
Press ALT+F6 for Hitachi Content Platform Storage Process Status
Press ALT+F8 for Hitachi Content Platform Storage Diagnostics

Press ALT+F1 to return to this login screen

vm login: _
```

The release shown for the HCPSOS Operating System depends on the which version of the S Series Node Demo Edition you deployed.

3. Click in the **HCP S Series Node** console window.



Tips:

- If you don't see the login prompt, press Alt+F1 to display it.
- To move the cursor out of the console window, press Ctrl+Alt.

4. Log in to the S Series Node:
 - a. At the login prompt, enter: *install*
A password prompt appears.
 - b. Enter the password for the *install* user account.
The characters you enter do not appear in the window.
 - c. In response to the prompt to continue, press Enter.

The **HCP S Series Node Service Menu** appears.



Note: If the S Series Node has not finished its startup processing, the login prompt reappears instead of the **HCP S Series Node Service Menu**. Wait a minute. Then try logging in again.

```
HCP S Series Node Service Menu
=====

[1] Display HCP S Series Node Status
[2] Configure HCP S Series Node Networks
[3] HCP S Series Node Diagnostics

[S] Shut down HCP S Series Node
[q] Exit Wizard

Enter a selection [Default: 1]: _
```

5. Enter 1 to check the status of the S Series Node.

S Series Node status information appears. A **Cluster Status** of **Available** means that S Series Node startup processing is complete.

```
Cluster Status (Available)
Server Module: VM (Online)

Master Database (Online)
Slave Database (Offline)

Tomcat Web Server
VM (Online)

Network Interface Status
VM (OK)

Network Status
network.service (active)
network.target (active)
sshd_be (active)
sshd_fe (active)

[r] Refresh status
[b] Go Back to the Previous Menu

Enter a selection [Default: b]: _
```

6. Do either of these:

- If **Cluster Status** is **Available**, enter *b* to return to the **HCP S Series Node Service Menu**.
- If **Cluster Status** is **Unavailable** or **Degraded**, enter *r* to display the status again. Continue redisplaying the status until **Cluster Status** is **Available**. Then enter *b* to return to the **HCP S Series Node Service Menu**.

7. Enter 2 to configure the S Series Node networks.

The **Network Configuration Menu** appears.

```
Network Configuration Menu
=====

[1] Access Network IPv4 Configuration
[2] Management Network IPv4 Configuration

[b] Go Back to the Previous Menu
[q] Exit Wizard

Enter a selection [Default: 1]: _
```

8. Configure the access network:

- a.** Enter 1 to configure the access network.

The **Access Network IPv4 Configuration** menu appears.

```
Access Network IPv4 Configuration
=====

Name: [access]
Bond Mode: active-backup
Speed Duplex: auto
MTU: 1500

[1] IPv4 (True)
[2] VLAN ID (0)
[3] Server Module 1, IP1 (192.168.140.110)
[4] Server Module 2, IP1 (0.0.0.0)
[5] Server Module 1, VIP1 (::)
[6] Server Module 2, VIP1 (::)
[7] Subnet 1 (192.168.140.0/24)
[8] Gateway 1 (192.168.140.1)

[x] Apply Network Configuration Changes
[b] Go Back to the Previous Menu
[q] Exit Wizard

Enter a selection [Default: 1]: _
```

- b.** Optionally, enter 2 to change the VLAN ID for the access network to a value other than zero. Then, at the **vlanId** prompt, enter the new VLAN ID.

- c. Enter 3 to set the physical IP address for server module 1 on the access network. Then, at the **node1Ip1** prompt, enter the applicable IP address.
- d. Enter 5 to set the virtual IP address for server module 1 on the access network. Then, at the **node1Vip1** prompt, enter the applicable IP address.
- e. Enter 7 to set the subnet for the access network. Then, at the **subnet1** prompt, enter the applicable subnet using CIDR notation.
- f. Enter 8 to set the gateway IP address for the access network. Then, at the **gateway1** prompt, enter the applicable IP address.
- g. Enter x to apply the network configuration changes.
- h. In response to the confirming prompt, enter y to confirm your entries or n to try again.

If an error occurs when you enter y, the most likely cause is that the specified physical or virtual IP address is not valid for the specified combination of subnet and gateway IP address. To see the error message, use Shift+PageUp to scroll up. To return to the **Access Network IPv4 Configuration** menu, press Enter.

- 9. Enter q to exit the configuration wizard.
- 10. In response to the confirming prompt, enter y to confirm that you want to exit or n to try again.

When you enter y, the login prompt reappears.

Step 6: Verify that the S Series Node is accessible (VMware Workstation Player)

To verify that the S Series Node is accessible in the virtual machine:

- 1. Wait a couple of minutes for the S Series Node to apply the new network configuration.
- 2. In a Windows **Command Prompt** window, enter:

```
ping access-network-physical-ip-address
```

Step 6: Verify that the S Series Node is accessible (VMware Workstation Player)

For example:

```
ping 192.168.31.100
```

If the network settings are valid, the response to the **ping** request should look something like this:

```
C:\>ping 192.168.31.100

Pinging 192.168.31.100 with 32 bytes of data:
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.31.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If the **ping** request is unsuccessful, ensure that the network settings you chose are valid, as described in [Step 2: "Determine valid network settings for the S Series Node \(VMware Workstation Player\)"](#) on page 14. Then follow the instructions in [Step 5: "Configure access to the S Series Node \(VMware Workstation Player\)"](#) on page 19 to reconfigure the access network.

3. In the **Command Prompt** window, enter:

```
ping access-network-virtual-ip-address
```

For example:

```
ping 192.168.31.101
```

If the **ping** request is unsuccessful, the S Series Node has probably not yet finished applying the new network configuration. Wait a minute. Then try again.

4. In the address field in a web browser, enter the URL for access to the HCP S Series Management Console in this format:

```
https://access-network-virtual-ip-address:8000
```

For example:

```
https://192.168.31.101:8000
```

5. Accept the untrusted connection.

Step 6: Verify that the S Series Node is accessible (VMware Workstation Player)

The HCP S Series Management Console login page appears.

- 6.** In the **Username** field, enter: *admin*
- 7.** In the **Password** field, enter the password for the *admin* user account.
- 8.** Click **Log In**.

You can now demonstrate S Series Node features and functionality.

Deploying the HCP S Series Node Demo Edition for VMware ESXi

The HCP S Series Node Demo Edition for VMware ESXi runs in a virtual machine on an ESXi host. This chapter contains requirements and instructions for using the VMware vSphere® Client in a web browser to deploy the S Series Node Demo Edition.

System requirements for the S Series Node Demo Edition for VMware ESXi

The ESXi host computer on which you deploy the S Series Node Demo Edition for VMware ESXi must meet these minimum requirements:

- VMware ESXi version 6.7 or later
- 64-bit capable hardware
- 4 GB of RAM
- 10 GB of free disk space
- 1GB network interface card (NIC)
- Four CPUs that support the SSE4_2 instruction set



Important: All the CPUs must meet the instruction set requirement. If any of the CPUs do not meet this requirement, the S Series Node will not work reliably.

- Virtualization technology (VT) enabled in the system BIOS

For more information about VMware ESXi system requirements, go to <https://docs.vmware.com>. Then select **vSphere ► vSphere applicable-release ► ESXi and vCenter Server ► VMware ESXi Installation and Setup ► Installing and Setting Up ESXi ► ESXi Requirements ► ESXi Hardware Requirements**.

Resources you need for deploying the S Series Node Demo Edition for VMware ESXi

To deploy the S Series Node Demo Edition for VMware ESXi, you need:

- A computer from which you can access the VMware vCenter Server[®] that manages the ESXi host on which you want to deploy the S Series Node Demo Edition for VMware ESXi.

- The .zip file that contains the deployment files for the S Series Node Demo Edition for VMware ESXi. For instructions on getting this file, see [Step 1: "Download the S Series Node Demo Edition .zip file for VMware ESXi"](#) on the next page.
- The login password for each of these:
 - Configuring access to the deployed S Series Node Demo Edition. This password is for the *install* user account.
 - Accessing the deployed S Series Node Demo Edition. This password is for the *admin* user account.

If you are a Hitachi Vantara employee, you download these login passwords from the Hitachi Vantara SharePoint site at:

https://hitachivantara.sharepoint.com/sites/hcps/Shared%20Documents/Passwords/hcps_demo_edition_passwords.pdf

If you are deploying the Demo Edition for demonstration on behalf of an authorized S Series Node distributor, you get these login passwords from the HCP S Series Node Product Management team.

ESXi host networking requirements

Before you can deploy the S Series Node Demo Edition for VMware ESXi, the ESXi host must be configured with virtual switches. These switches and their associated virtual networks provide the S Series Node virtual machine with connectivity to the S Series Node access and management networks:

- For the access network, you need a virtual switch that provides access to an external network.
- For the management network, you need one of these:
 - If you plan to use the management network, a virtual switch that provides access to an external network. This can be the same switch as the one you use for the access network.
 - If you do not plan to use the management network, a private virtual switch. This can be the same switch as the one you use for the server interconnect network.
- For the server interconnect network, you need a private virtual switch.



Tip: You can use the [HCP S Series Node Configuration Information \(VMware ESXi\)](#) form on page 45 to record which virtual network on the ESXi host to associate with each S Series Node network.



Note: You can configure a new S Series Node virtual machine to use a virtual network that is already used by an existing S Series Node virtual machine. However, you cannot configure access and management network IP addresses on the new S Series Node while the existing S Series Node virtual machine is powered on.

ESXi host storage requirements

An S Series Node virtual machine that's created on an ESXi host stores objects in a datastore. Before you can deploy the S Series Node Demo Edition for VMware ESXi, the ESXi host must be configured with at least one datastore that has at least 10 GB of free space.

Step 1: Download the S Series Node Demo Edition .zip file for VMware ESXi

The deployment files for the HCP S Series Node Demo Edition for VMware ESXi are in a .zip file named `HCPS_Demo_OVF_release-number.zip` (for example, `HCPS_Demo_OVF_3.1.1.2.zip`). This file is available from the Hitachi Vantara Technical Information Service Center (TISC).

To download the S Series Node Demo Edition .zip file for VMware ESXi from TISC:

1. Log in to [TISC](#).
2. Go to **The Download Center (TDC)**.
3. If the **Internal Export Control Statement and Download Acknowledgment** page appears, select **I have read and accept the above terms**. Then click **Continue**.
4. Open **Software Downloads**.
5. In the **And/Or Program Product Name** field, select **Hitachi Content Platform S Series Node**. Then click **Search**.

6. Under **Product Code**, click **DEMO-HCP-S-VM-ESXi** for the version of the Demo Edition you want to deploy in a virtual machine on the ESXi host.
7. Under **Component Number**, click the link for the version of the Demo Edition you want to deploy.
8. Click **Download image file**.
9. Click the link for the Demo Edition .zip file.
10. Save the Demo Edition .zip file to the location of your choice on your laptop computer.

Step 2: Determine valid network settings for the S Series Node (ESXi)

By default, the S Series Node Demo Edition has these settings for the access network on server module 1:

- Physical IP address: 192.168.140.110
- Virtual IP address: *undefined*
- Subnet: 192.168.140.0/24 (subnet mask 255.255.255.0)
- Gateway IP address: 192.168.140.1
- VLAN ID: 0

By default, the Demo Edition has these settings for the management network on server module 1:

- IP address: 10.2.2.1
- Subnet: 10.2.2.0/24 (subnet mask 255.255.255.0)
- Gateway IP address: 10.2.2.154
- VLAN ID: 0

The management network does not support virtual IP addresses.

The S Series Node Demo Edition supports only IPv4 for the IP mode of each network. Do not configure the access or management network with IPv6 addresses.

By default, the subnet for the server interconnect network is 10.1.1.0/24, and the server module 1 IP address on this network is 10.1.1.1. You cannot change these values.

Because the Demo Edition has only one server module, network settings for server module 2 are undefined. Do not change them.

You need to ask the network administrator at your location for valid settings to use for the access and management networks in the local networking environment.



Tip: You can use the [HCP S Series Node Configuration Information \(VMware ESXi\)](#) form on page 45 to record the network settings for the S Series Node.

Step 3: Deploy the S Series Node virtual machine on the ESXi host

To deploy the S Series Node virtual machine on the VMware ESXi host:

1. Unzip the S Series Node Demo Edition .zip file for VMware ESXi to the location of your choice on your laptop computer.
2. In the address bar of a web browser, enter the URL of the VMware vCenter Server that manages the ESXi host on which you want to deploy the S Series Node Demo Edition for VMware ESXi.
3. To launch the VMware vSphere web client, click **LAUNCH VSPHERE CLIENT (HTML5)**.

The page with the launch options may not appear if you have already launched the vSphere Client at least once.

4. On the VMware vSphere login page, type your username and password. Then click **LOGIN**.
5. At the top of the pane on the left in the vSphere Client window, click the **VMs and Templates** icon (). Then navigate to and select the folder in which you want to create the S Series Node virtual machine.

6. At the top of the main pane, select **ACTIONS ► Deploy OVF Template**.

7. On the **Select an OVF template** page in the **Deploy OVF Template** window:

- a. Select **Local file**.
- a. Click **Browse**.
- b. Navigate to the folder into which you unzipped the S Series Node Demo Edition .zip file for VMware ESXi.
- c. Select all the files in the folder.
- d. Click **Open**.

Then click **NEXT**.

8. On the **Select a name and folder** page in the **Deploy OVF Template** window:

- Optionally, type a different name for the S Series Node virtual machine.

Virtual machine names can be at most 80 characters long and should include only UTF-8 characters. Because ESXi is Linux-based, virtual machine names should not include spaces or special characters other than hyphens (-) and underscores (_).

The virtual machine name must be unique within the folder you selected in step Step 3 above.

- For the virtual machine location, select the same folder as you selected in step Step 3 above.

Then click **NEXT**.

9. On the **Select a compute resource** page in the **Deploy OVF Template** window, select the cluster that includes the ESXi host on which you want to create the S Series Node virtual machine. Then click **NEXT**.

10. On the **Review details** page in the **Deploy OVF Template** window, review the OVF template details. Then click **NEXT**.

11. On the **Select storage** page in the **Deploy OVF Template** window:

- For the virtual disk format, select **Thin Provision**.

Step 4: Configure access to the S Series Node (ESXi)

The value in the **Select virtual disk format** field may change automatically when you select a datastore. Before you click **NEXT** on this page, if the value for the virtual disk format is not **Thin Provision**, select **Thin Provision** again.

- For the virtual machine storage policy, leave the default value, if any. Otherwise, leave the field empty.
- In the list of datastores, select the datastore from which to allocate storage for the objects stored by the S Series Node.

Then click **NEXT**.

12. On the **Select networks** page in the **Deploy OVF Template** window:

- For **BuildVMDistNetwork**, select the virtual network you want to associate with the S Series Node access network.
- For **Management**, select the virtual network you want to associate with the S Series Node management network.

Then click **NEXT**.

13. On the **Ready to complete** page in the **Deploy OVF Template** window, review the settings for the S Series Node virtual machine. Then:

- If the settings are correct, click **Finish**.

vCenter Server creates the S Series Node virtual machine. This process can take a few minutes.
- If the settings are not correct, use the **BACK** button to go back and make corrections. Then return to the **Ready to complete** page and click **Finish**.

Step 4: Configure access to the S Series Node (ESXi)

To configure access to the S Series Node:

- 1.** In the pane on the left in the **vSphere Client** window, right-click the S Series Node virtual machine. Then select **Power ► Power On**.

The S Series Node virtual machine powers on, and the S Series Node begins startup processing. The virtual machine console appears in a small box in the upper left corner of the main pane in the **vSphere Client** window.

2. Click **Launch Web Console** below the virtual machine console.
3. In the **Launch Console** window:
 - a. Select **Web Console**.
 - b. Optionally, select **Remember my choice**.

Then click **OK**.

The virtual machine console opens in a new browser window.

When the S Series Node startup processing is almost complete, a login prompt appears in the virtual machine console.

```
HCPSOS Operating System release 3.1
Kernel

Press ALT+F5 for Hitachi Content Platform Storage Application Status
Press ALT+F6 for Hitachi Content Platform Storage Process Status
Press ALT+F8 for Hitachi Content Platform Storage Diagnostics

Press ALT+F1 to return to this login screen

vm login: _
```

The release shown for the HCPSOS Operating System depends on the which version of the S Series Node Demo Edition you deployed.

4. Click in the console window.



Tips:

- If you don't see the login prompt, press Alt+F1 to display it.
- To move the cursor out of the console window, press Ctrl+Alt.

5. Log in to the S Series Node:
 - a. At the login prompt, enter: *install*

A password prompt appears.

Step 4: Configure access to the S Series Node (ESXi)

- b.** Enter the password for the *install* user account.

The characters you enter do not appear in the window.

- c.** In response to the prompt to continue, press Enter.

The **HCP S Series Node Service Menu** appears.



Note: If the S Series Node has not finished its startup processing, the login prompt reappears instead of the **HCP S Series Node Service Menu**. Wait a minute. Then try logging in again.

```
HCP S Series Node Service Menu
=====

[1] Display HCP S Series Node Status
[2] Configure HCP S Series Node Networks
[3] HCP S Series Node Diagnostics

[S] Shut down HCP S Series Node
[q] Exit Wizard

Enter a selection [Default: 1]: _
```

- 6.** Enter *1* to check the status of the S Series Node.

S Series Node status information appears. A **Cluster Status** of **Available** means that S Series Node startup processing is complete.

```

HCP S Series Node Status
=====

Cluster Status (Available)
Server Module: um (Online)

Master Database (Online)
Slave Database (Offline)

Tomcat Web Server
um (Online)

Network Interface Status
um (bond0 (OK) eth0 (OK) eth1 (OK) eth2 (OK) eth3 (OK))

Network Status
network.service (active)
network.target (active)
sshd_be (active)
sshd_fe (active)

[r] Refresh status
[b] Go Back to the Previous Menu

Enter a selection [Default: b]: _

```

7. Do either of these:

- If **Cluster Status** is **Available**, enter *b* to return to the **HCP S Series Node Service Menu**.
- If **Cluster Status** is **Unavailable** or **Degraded**, enter *r* to display the status again. Continue redisplaying the status until **Cluster Status** is **Available**. Then enter *b* to return to the **HCP S Series Node Service Menu**.

8. Enter 2 to configure the S Series Node networks.

The **Network Configuration Menu** appears.

```
Network Configuration Menu
=====

[1] Access Network IPv4 Configuration
[2] Management Network IPv4 Configuration

[b] Go Back to the Previous Menu
[q] Exit Wizard

Enter a selection [Default: 1]: _
```

9. Configure the access network:

- a. Enter 1 to configure the access network.

The **Access Network IPv4 Configuration** menu appears.

```
Access Network IPv4 Configuration
=====

Name: [access]
Bond Mode: active-backup
Speed Duplex: auto
MTU: 1500

[1] IPv4 (True)
[2] VLAN ID (0)
[3] Server Module 1, IP1 (192.168.140.110)
[4] Server Module 2, IP1 (0.0.0.0)
[5] Server Module 1, VIP1 (::)
[6] Server Module 2, VIP1 (::)
[7] Subnet 1 (192.168.140.0/24)
[8] Gateway 1 (192.168.140.1)

[x] Apply Network Configuration Changes
[b] Go Back to the Previous Menu
[q] Exit Wizard

Enter a selection [Default: 1]: _
```

- b. Optionally, enter 2 to change the VLAN ID for the access network to a value other than zero. Then, at the **vlanId** prompt, enter the new VLAN ID.

- c. Enter 3 to set the physical IP address for server module 1 on the access network. Then, at the **node1Ip1** prompt, enter the applicable IP address.
- d. Enter 5 to set the virtual IP address for server module 1 on the access network. Then, at the **node1Vip1** prompt, enter the applicable IP address.
- e. Enter 7 to set the subnet for the access network. Then, at the **subnet1** prompt, enter the applicable subnet using CIDR notation.
- f. Enter 8 to set the gateway IP address for the access network. Then, at the **gateway1** prompt, enter the applicable IP address.
- g. Enter x to apply the network configuration changes.
- h. In response to the confirming prompt, enter y to confirm your entries or n to try again.

If an error occurs when you enter y, the most likely cause is that the specified physical or virtual IP address is not valid for the specified combination of subnet and gateway IP address. To see the error message, use Shift+PageUp to scroll up. To return to the **Access Network IPv4 Configuration** menu, press Enter.

- 10. Optionally, configure the management network:
 - a. Enter b to return to the **Network Configuration Menu**.
 - b. Enter 2 to configure the management network.

The **Management Network IPv4 Configuration** menu appears.

```
Management Network IPv4 Configuration
=====

Name: [management]
Bond Mode: none
Speed Duplex: auto
MTU: 1500

[1] IPv4 (True)
[2] VLAN ID (0)
[3] Server Module 1, IP1 (10.2.2.1)
[4] Server Module 2, IP1 (0.0.0.0)
[5] Server Module 1, VIP1 (::)
[6] Server Module 2, VIP1 (::)
[7] Subnet 1 (10.2.2.0/24)
[8] Gateway 1 (10.2.2.254)

[x] Apply Network Configuration Changes
[b] Go Back to the Previous Menu
[q] Exit Wizard

Enter a selection [Default: 1]: _
```

- c. Optionally, enter 2 to change the VLAN ID for the management network to a value other than zero. Then, at the **vlanId** prompt, enter the new VLAN ID.
- d. Enter 3 to set the IP address for server module 1 on the management network. Then, at the **node1Ip1** prompt, enter the applicable IP address.
- e. Enter 7 to set the subnet for the management network. Then, at the **subnet1** prompt, enter the applicable subnet using CIDR notation.
- f. Enter 8 to set the gateway IP address for the management network. Then, at the **gateway1** prompt, enter the applicable IP address.
- g. Enter x to apply the network configuration changes.
- h. In response to the confirming prompt, enter y to confirm your entries or n to try again.

If an error occurs when you enter *y*, the most likely cause is that the specified IP address is not valid for the specified combination of subnet and gateway IP address. To see the error message, use Shift+PageUp to scroll up. To return to the **Management Network IPv4 Configuration** menu, press Enter.

11. Enter *q* to exit the configuration wizard.
12. In response to the confirming prompt, enter *y* to confirm that you want to exit or *n* to try again.

When you enter *y*, the login prompt reappears.

Step 5: Verify that the S Series Node is accessible (ESXi)

To verify that the S Series Node is accessible in the virtual machine:

1. Wait a couple of minutes for the S Series Node to apply the new network configuration.
2. In a Windows **Command Prompt** window, enter:

```
ping access-network-physical-ip-address
```

For example:

```
ping 192.168.31.100
```

If the network settings are valid, the response to the **ping** request should look something like this:

```
C:\>ping 192.168.31.100

Pinging 192.168.31.100 with 32 bytes of data:
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64
Reply from 192.168.31.100: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.31.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If the **ping** request is unsuccessful, ensure that the network settings you chose are valid, as described in [Step 2: "Determine valid network](#)

Step 5: Verify that the S Series Node is accessible (ESXi)

[settings for the S Series Node \(ESXi\)](#) on page 31. Then follow the instructions in [Step 4: "Configure access to the S Series Node \(ESXi\)"](#) on page 34 to reconfigure the access network.

3. In the **Command Prompt** window, enter:

```
ping access-network-virtual-ip-address
```

For example:

```
ping 192.168.31.101
```

If the **ping** request is unsuccessful, the S Series Node has probably not yet finished applying the new network configuration. Wait a minute. Then try again.

4. In the address field in a web browser, enter the URL for access to the HCP S Series Management Console in this format:

```
https://access-network-virtual-ip-address:8000
```

For example:

```
https://192.168.31.101:8000
```

5. Accept the untrusted connection.

The HCP S Series Management Console login page appears.

6. In the **Username** field, enter: *admin*
7. In the **Password** field, enter the password for the *admin* user account.
8. Click **Log In**.

You can now demonstrate S Series Node features and functionality.



Forms

This appendix contains forms on which you can record the networking information you need when configuring access to the S Series Node:

- [HCP S Series Node Configuration Information \(VMware Workstation Player\)](#) lets you record network settings for the S Series Node in VMware Workstation Player.
- [HCP S Series Node Configuration Information \(VMware ESXi\)](#) lets you record network settings for the S Series Node on an ESXi host.

Keep the applicable completed form with you when you configure the S Series Node networks so the information you need is readily available.

HCP S Series Node Configuration Information (VMware Workstation Player)

Use this form to record the networking information you need when deploying an S Series Node in VMware Workstation Player.

Property	Value
Access network	
Connection type	☐ NAT ☐ Bridged
Physical IP address	
Virtual IP address	
Subnet (CIDR notation)	
Gateway IP address	
VLAN ID	

HCP S Series Node Configuration Information (VMware ESXi)

Use this form to record the networking information you need when deploying an S Series Node on an ESXi host.

Property	Value
<i>Virtual machine network/ESXi host virtual network associations</i>	
Access network	
Management network	
<i>Access network</i>	
Server module 1 physical IP address	
Server module 1 virtual IP address	
Subnet (CIDR notation)	
Gateway IP address	
VLAN ID	
<i>Management network</i>	
Server module 1 IP address	
Subnet (CIDR notation)	
Gateway IP address	
VLAN ID	

Hitachi Vantara



Corporate Headquarters
2535 Augustine Drive
Santa Clara, CA 95054 USA
HitachiVantara.com | community.HitachiVantara.com

Contact Information
USA: 1-800-446-0744
Global: 1-858-547-4526
HitachiVantara.com/contact