



CSPC Collection Platform Software Installation and Configuration Guide

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Introduction

Introduction to CSPC Collection Platform Software

The Cisco Common Service Platform Collector (CSPC) is an SNMP-based tool that discovers and collects information from the Cisco devices installed on your network. The CSPC software provides an extensive collection mechanism to gather various aspects of customer device data. Information gathered by the collector is used by several Cisco Service offers, such as Smart Net Total Care, Partner Support Service, and Business Critical Services. The data is used to provide inventory reports, product alerts, configuration best practices, technical service coverage, lifecycle information, and many other detailed reports and analytics for both the hardware and operating system (OS) software.

This guide explains how to use install and configure CSPC Server. Refer to CSPC User Guide to use the application.

For program updates and important notes, refer to CSPC Release Notes and README documentation.

Who Should Use This Guide

This guide is written for Network and Security Administrators and Cisco Network Engineers and also for new users.

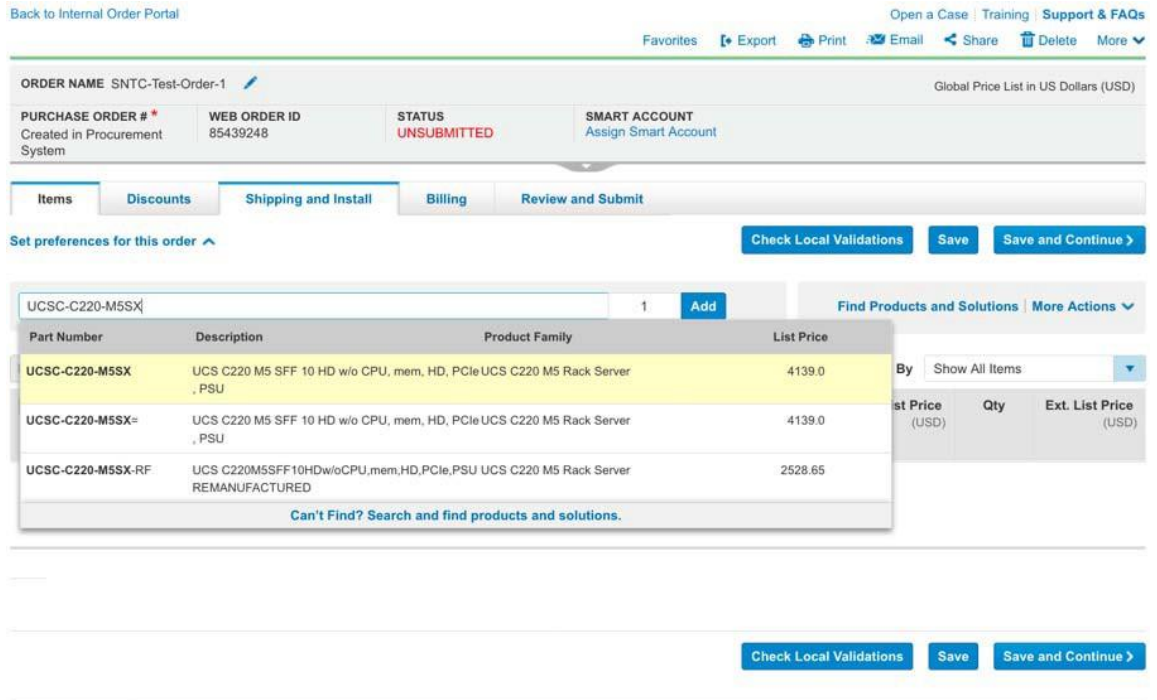
The user should have Administrative privileges on the machine to install CSPC.

Ordering Process

To order a M5 hardware you need to do the following:

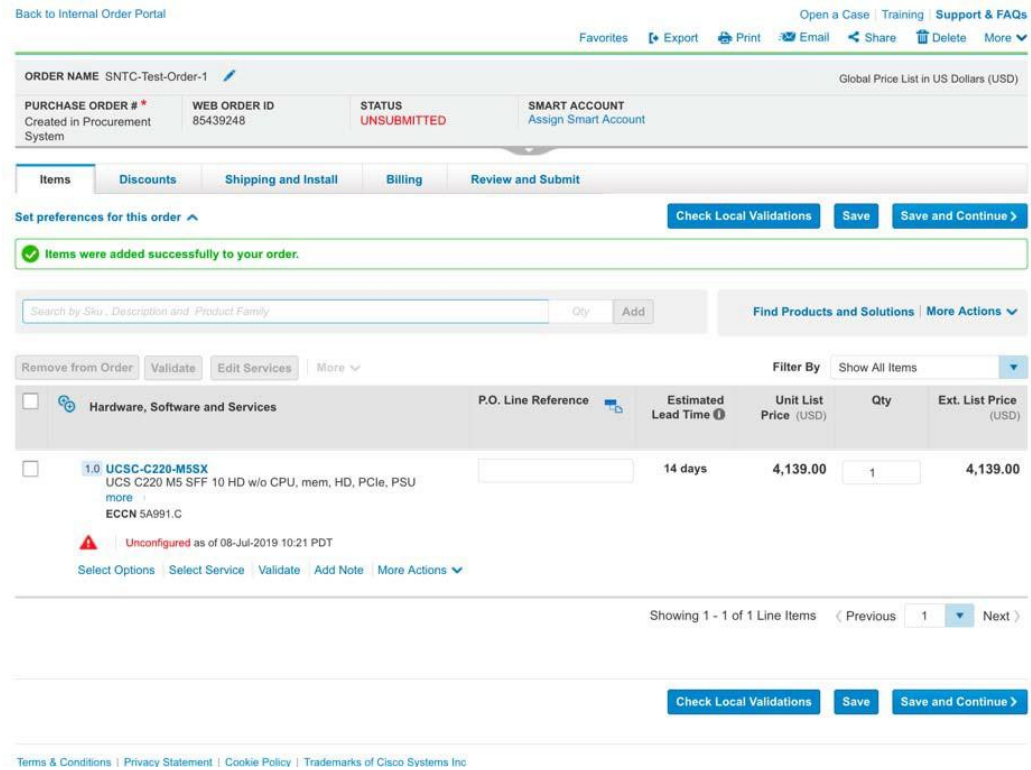
-
- Step 1** Navigate to Cisco Commerce Website [CCW](#) and to learn how to using CCW navigate to [Cisco_Commerce_User_Guide.pdf](#)
 - Step 2** Enter the chassis part number **UCSC-C220-M5SX** to search as shown below and select the exact part number from the list and then click **Add**

Figure 1-1 Search



Step 3 Click **Select Options** link at the bottom of the page to select all the hardware components for the selected UCSC-C220M5SX chassis

Figure 1-2 Options



Step 4 After the **Select Options** link is selected, the following screen will be displayed. On LNP, select the **Country** where this M5 hardware will be installed. Although this is optional, it is recommended to select the correct country so that proper cabling that apply to the selected country will be applied

Figure 1-3 Country

OPTION SELECTION UCSC-C220-M5SX Global Price List (USD)

Configuration Summary [View Full Summary](#)

Country Specification

Category Qty Extended List Price (USD)

PROCESSOR

Processor

MEMORY

Memory

DC Persistent Memory Operational Mode

Advanced Memory Settings

RAID

RAID Controller

LOCAL STORAGE

Subtotal 4,139.00

Estimated Lead Time 14 days

Reset Configuration

Warnings (8):

- The quantity of Power Cables must be equal to the quantity of Power Supply selected. Please adjust the quantity. (CE200050)
- UCSC-C220-M5SX requires a minimum of 1 and allows maximum of 2 from Processor. (CE100015)

Option Search Multiple Options Search

Power Consumption

UCSC-C220-M5SX > Processor Key

Cisco Recommended Processor | 8000 Series Processor | 6000 Series Processor | 5000 Series Processor | 4000 Series Processor

3000 Series Processor

SKU	Qty	Estimated Lead Time	Unit List Price (USD)
<input type="radio"/> UCS-CPU-8276 [X]	<input type="text" value="Qty"/>	26 days	28,250.00
Intel 8276 2.2GHz/165W 28C/38.50MB DCP DDR4 2933 MHz			
<input type="radio"/> UCS-CPU-8260 [X]	<input type="text" value="Qty"/>	26 days	16,150.00
Intel 8260 2.4GHz/165W 24C/35.75MB DCP DDR4 2933 MHz			
<input type="radio"/> UCS-CPU-6262V [X]	<input type="text" value="Qty"/>	61 days	10,360.00
Intel 6262V 1.9GHz/135W 24C/33MB DCP DDR4 2400 MHz			
<input type="radio"/> UCS-CPU-6248 [X]	<input type="text" value="Qty"/>	26 days	10,500.00
Intel 6248 2.5GHz/150W 20C/27.5MB DCP DDR4 2933 MHz			
<input type="radio"/> UCS-CPU-6238 [X]	<input type="text" value="Qty"/>	61 days	8,950.00
Intel 6238 2.1GHz/140W 22C/30.25MB DCP DDR4 2933 MHz			
<input checked="" type="radio"/> UCS-CPU-6230 [X]	<input type="text" value="Qty"/>	26 days	6,500.00
Intel 6230 2.1GHz/125W 20C/27.50MB DCP DDR4 2933 MHz			
<input type="radio"/> UCS-CPU-5220 [X]	<input type="text" value="Qty"/>	26 days	5,460.00
Intel 5220 2.2GHz/125W 18C/24.75MB DCP DDR4 2666 MHz			
<input type="radio"/> UCS-CPU-5218 [X]	<input type="text" value="Qty"/>	26 days	4,725.00
Intel 5218 2.3GHz/125W 16C/22MB DCP DDR4 2666MHz			
<input type="radio"/> UCS-CPU-4216 [X]	<input type="text" value="Qty"/>	26 days	3,780.00
Intel 4216 2.1GHz/100W 16C/22MB DDR4 2400MHz			

Step 5 On LNP click **Processor**, then from right side select the **UCS-CPU-4110** processor from the processor list as show below

Figure 1-4 Processor

Open a Case Training CCW Support Community Cisco Feature Navigator

OPTION SELECTION UCS-C220-M5SX Global Price List (USD)

Configuration Summary [View Full Summary](#)

Country Specification UNITED STATES

Category	Qty	Extended List Price (USD)
PROCESSOR		
Processor		
UCS-CPU-4110	1	1,750.00
MEMORY		
Memory		
DC Persistent Memory Operational Mode		
Advanced Memory Settings		
RAID		
RAID Controller		
Subtotal		5,889.00
Estimated Lead Time		14 days

Reset Configuration Cancel Done

Warnings (8):

- 1 QTY of Processor requires a minimum of 1 and allows maximum of 12 from Memory Option in increment of 1 (i.e. 1,2,3,4, ..., 12). (CE100015)
- The quantity of Power Cables must be equal to the quantity of Power Supply selected. Please adjust the quantity. (CF200006)

Option Search Multiple Options Search

Power Consumption

UCSC-C220-M5SX > Processor Key

[Cisco Recommended Processor](#) |
 [8000 Series Processor](#) |
 [6000 Series Processor](#) |
 [5000 Series Processor](#) |
 [4000 Series Processor](#) |
 [3000 Series Processor](#)

SKU	Qty	Estimated Lead Time	Unit List Price (USD)
<input type="radio"/> UCS-CPU-44216	<input type="text" value="Qty"/>	26 days	3,780.00
Intel 4216 2.1GHz/100W 16C/22MB DDR4 2400MHz			
<input type="radio"/> UCS-CPU-44215	<input type="text" value="Qty"/>	26 days	2,900.00
Intel 4215 2.5GHz/85W 8C/13.75MB DCP/DDR4 2400MHz			
<input type="radio"/> UCS-CPU-44214Y	<input type="text" value="Qty"/>	26 days	2,870.00
Intel 4214Y S5 2.2GHz/85W 12/10/8C 16.75MB DDR4 2400MHz			
<input type="radio"/> UCS-CPU-44214	<input type="text" value="Qty"/>	26 days	2,600.00
Intel 4214 2.2GHz/85W 12C/16.75MB DDR4 2400MHz			
<input type="radio"/> UCS-CPU-44210	<input type="text" value="Qty"/>	26 days	1,750.00
Intel 4210 2.2GHz/85W 10C/13.75MB DDR4 2400MHz			
<input type="radio"/> UCS-CPU-44208	<input type="text" value="Qty"/>	26 days	1,530.00
Intel 4208 2.1GHz/85W 8C/11MB DDR4 2400MHz			
<input type="radio"/> UCS-CPU-4116	<input type="text" value="Qty"/>	14 days	3,600.00
2.1 GHz 4116/85W 12C/16.50MB Cache/DDR4 2400MHz			
<input type="radio"/> UCS-CPU-4114	<input type="text" value="Qty"/>	14 days	2,600.00
2.2 GHz 4114/85W 10C/13.75MB Cache/DDR4 2400MHz			
<input type="radio"/> UCS-CPU-4112	<input type="text" value="Qty"/>	14 days	1,675.00
2.6 GHz 4112/85W 4C/8.25MB Cache/DDR4 2400MHz			

Step 6 ON LNP click the **Memory**, then from the right side select the **UCS-MR-X16G1RS-H** from the memory list as shown below

Figure 1-5 Memory

Open a Case | Training | CCW Support Community | Cisco Feature Navigator

OPTION SELECTION UCSC-C220-M5SX Global Price List (USD)

Configuration Summary [View Full Summary](#)

Country Specification ⓘ
Select Country (Not Required) ▼

Category ⓘ Qty Extended List Price (USD)

MEMORY

Memory

SKU	Qty	Extended List Price (USD)
UCS-MR-X16G1RS-H	1	1,009.00

[DC Persistent Memory Operational Mode](#)
[Advanced Memory Settings](#)

RAID ▲

[RAID Controller](#)

LOCAL STORAGE ▲

[SAS/SATA HDD](#)

Subtotal **6,898.00**
Estimated Lead Time **14 days**

[Reset Configuration](#) Cancel Done

Warnings (7):

- The quantity of Power Cables must be equal to the quantity of Power Supply selected. Please adjust the quantity. (CE200050)
- Please see best recommended DIMMs configuration: <https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/ucsc-rack-servers/memory-us-cate-220-240-250-m5-n5-n6-n7-CPFSR046.pdf>

Option Search ⓘ Multiple Options Search ⓘ ▼

Power Consumption

UCSC-C220-M5SX > Memory Key ▼

Memory

SKU	Qty	Estimated Lead Time ⓘ	Unit List Price (USD)
<input type="checkbox"/> UCS-ML-128G4RT-H ⓘ 128GB DDR4-2933-MHz LRDIMM/4Rx4/1.2v	<input type="text" value="Qty"/>	26 days	14,500.00
<input type="checkbox"/> UCS-ML-X64G4RT-H ⓘ EOP *** 64GB DDR4-2933-MHz LRDIMM/4Rx4/1.2v	<input type="text" value="Qty"/>	26 days	4,495.00
<input type="checkbox"/> UCS-MR-X64G2RT-H ⓘ 64GB DDR4-2933-MHz RDIMM/2Rx4/1.2v	<input type="text" value="Qty"/>	26 days	4,086.00
<input type="checkbox"/> UCS-MR-X32G2RT-H ⓘ 32GB DDR4-2933-MHz RDIMM/2Rx4/1.2v	<input type="text" value="Qty"/>	26 days	2,043.00
<input type="checkbox"/> UCS-MR-X16G1RT-H ⓘ 16GB DDR4-2933-MHz RDIMM/1Rx4/1.2v	<input type="text" value="Qty"/>	26 days	1,009.00
<input type="checkbox"/> UCS-MP-512GS-A0 ⓘ Intel Optane DC Persistent Memory, 512GB, 2666MHz	<input type="text" value="Qty"/>	42 days	40,000.00
<input type="checkbox"/> UCS-MP-256GS-A0 ⓘ Intel Optane DC Persistent Memory, 256GB, 2666MHz	<input type="text" value="Qty"/>	42 days	13,000.00
<input type="checkbox"/> UCS-MP-128GS-A0 ⓘ Intel Optane DC Persistent Memory, 128GB, 2666MHz	<input type="text" value="Qty"/>	42 days	3,900.00
<input type="checkbox"/> UCS-MR-128GBRS-H ⓘ EOP *** 128GB DDR4-2666-MHz TSV-RDIMM/PC4-21300/octal rank/v4/1.2v	<input type="text" value="Qty"/>	14 days	16,000.00
<input type="checkbox"/> UCS-MR-X64G4RS-H ⓘ EOP *** 64GB DDR4-2666-MHz TSV-RDIMM/PC4-21300/quad rank/v4/1.2v	<input type="text" value="Qty"/>	14 days	5,020.00
<input type="checkbox"/> UCS-ML-X64G4RS-H ⓘ EOP ***	<input type="text" value="Qty"/>	14 days	4,720.00

Step 7 On LNP click the **SAS/SATA HDD**, then from the right side select the **UCS-HD1T7K6GAN** from the SATA HDD list shown below

Figure 1-6 SAS/SATA HDD

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OPTION SELECTION UCSC-C220-M5SX Global Price List (USD)

Configuration Summary [View Full Summary](#)

Country Specification
 Select Country (Not Required)

Category
 LOCAL STORAGE

SAS/SATA HDD

UCS-HD1T7K6GAN Qty: 1 Extended List Price (USD): 936.00

[SAS/SATA SSD EP](#)

[SAS/SATA SSD EV](#)

[Self-Encrypting HDD/SSD \(SED\)](#)

[PCIe / NVMe 2.5](#)

PCIe MLOM OPTION

[PCIe MLOM Option](#)

Subtotal 7,834.00

Estimated Lead Time 14 days

[Reset Configuration](#) [Cancel](#) [Done](#)

Warnings (7):

- The quantity of Power Cables must be equal to the quantity of Power Supply selected. Please adjust the quantity. (CE200050)
- Please see best recommended DIMMs configuration: https://www.cisco.com/c/dam/en/us/products/collateral/servers-unified-computing/hps_u-series-4-rack-servers/memory-us-4-220-r24/h200-m5.pdf (PDF55874)

Option Search | Multiple Options Search

Power Consumption

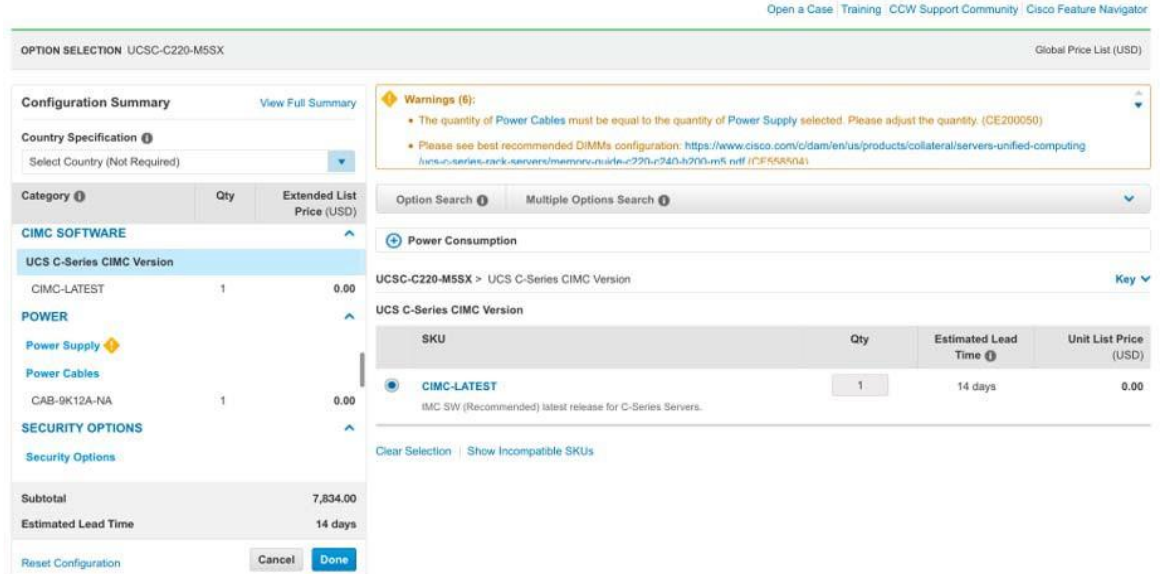
UCSC-C220-M5SX > SAS/SATA HDD Key

SAS/SATA HDD

SKU	Qty	Estimated Lead Time	Unit List Price (USD)
<input type="checkbox"/> UCS-HD300G15K12N EOP*** 300GB 12G SAS 15K RPM SFF HDD	Qty	14 days	1,235.00
<input type="checkbox"/> UCS-HD600G15K12N EOP*** 600GB 12G SAS 15K RPM SFF HDD	Qty	56 days	2,117.00
<input type="checkbox"/> UCS-HD300G10K12N EOP*** 300GB 12G SAS 10K RPM SFF HDD	Qty	14 days	650.00
<input type="checkbox"/> UCS-HD600G10K12N EOP*** 600GB 12G SAS 10K RPM SFF HDD	Qty	14 days	1,022.00
<input type="checkbox"/> UCS-HD12TB10K12N EOP*** 1.2 TB 12G SAS 10K RPM SFF HDD	Qty	14 days	1,533.00
<input type="checkbox"/> UCS-HD18TB10K4KN EOP*** 1.8TB 12G SAS 10K RPM SFF HDD (4K)	Qty	14 days	1,918.00
<input type="checkbox"/> UCS-HD1T7K12N EOP*** 1 TB 12G SAS 7.2K RPM SFF HDD	Qty	21 days	1,161.00
<input type="checkbox"/> UCS-HD2T7K12N EOP*** 2 TB 12G SAS 7.2K RPM SFF HDD	Qty	14 days	2,379.00
<input checked="" type="checkbox"/> UCS-HD1T7K6GAN EOP*** 1 TB 6G SATA 7.2K RPM SFF HDD	1	14 days	936.00
<input type="checkbox"/> UCS-HD900G15K12N EOP*** 900GB 12G SAS 15K RPM SFF HDD	Qty	28 days	2,342.00

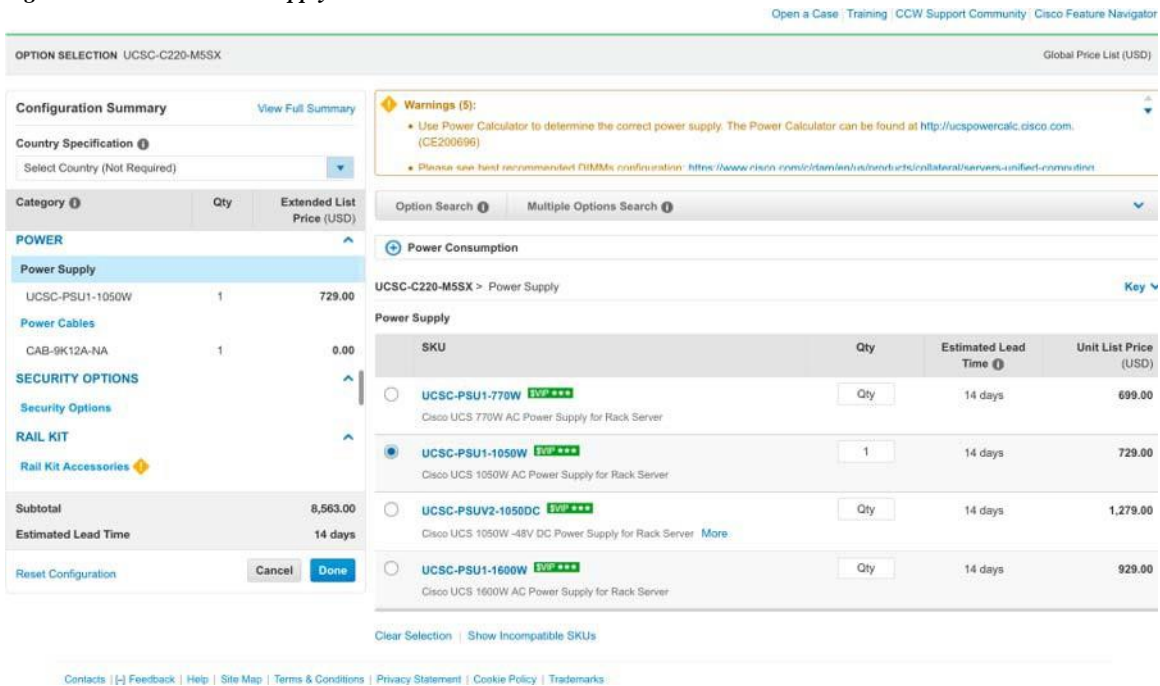
Step 8 On LNP click **UCS C-Series CIMC Version**, then from the right side select the **CIMC-Latest** from the CIMC version list as shown below

Figure I-7 UCS C-Series CIMC



Step 9 On LNP click **Power Supply**, then from the right side select **UCSC-PSU1-1050W** as shown below

Figure I-8 Power Supply



Note

Once the power supply type is selected, the system automatically adds the correct power cable and in this example the product part number for the corresponding cable is CAB-9K12A-NA.

Step 10 On LNP click the **Rail Kit Accessories**, then from the right side select **UCSC-RAILB-M4** from the Rail Kit Accessories list as shown below

Figure 1-9 Rail Kit Accessories

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OPTION SELECTION UCSC-C220-M5SX Global Price List (USD)

Configuration Summary [View Full Summary](#)

Country Specification ⓘ

Select Country (Not Required) ▼

Category ⓘ

Category	Qty	Extended List Price (USD)
RAIL KIT		
Rail Kit Accessories		
UCSC-RAILB-M4	1	220.00
BIOS SETTINGS		
Server Boot Mode		
Management Configuration		
BIOS Configuration		
CISCO SOFTWARE		
UCS Director		
Subtotal		8,783.00
Estimated Lead Time		14 days

[Reset Configuration](#) Cancel Done

Warnings (4):

- Use Power Calculator to determine the correct power supply. The Power Calculator can be found at [\(CE20069B\)](http://ucspowercalc.cisco.com)
- Please see latest recommended DIMMs configuration: <https://www.cisco.com/c/portal/en/us/products/collateral/servers/uniflex/configuration>

Option Search ⓘ Multiple Options Search ⓘ ▼

Power Consumption

UCSC-C220-M5SX > Rail Kit Accessories Key ▼

Rail Kit Accessories

SKU	Qty	Estimated Lead Time ⓘ	Unit List Price (USD)
<input type="checkbox"/> UCSC-RAILF-M4 EVP***	1	14 days	175.00
Friction Rail Kit for C220 M4 and M5 rack servers			
<input checked="" type="checkbox"/> UCSC-RAILB-M4 EVP***	1	14 days	220.00
Ball Bearing Rail Kit for C220 & C240 M4 & M5 rack servers			
<input type="checkbox"/> UCSC-CMAF-M4 EVP***	1	14 days	85.00
Reversible CMA C220/C240 M4/M5 rack srvs - Ships Separately			
<input type="checkbox"/> UCSC-RAIL-NONE	1	14 days	0.00
NO RAIL KIT OPTION			

[Show Incompatible SKUs](#)

Step 11 On LNP click **Infrastructure Options**, then from the right side select **UCS-SID-INFR-OI** from the Infrastructure Options list as shown below

Figure 1-10 Infrastructure Options

Open a Case | Training | CCW Support Community | Cisco Feature Navigator

OPTION SELECTION UCSC-C220-M5SX Global Price List (USD)

Configuration Summary [View Full Summary](#)

Country Specification ⓘ

Select Country (Not Required) ▼

Category ⓘ

Category	Qty	Extended List Price (USD)
Microsoft		
Red Hat		
VMWARE		
SUSE		
SLES SAP Option		
SOLUTION TRACKING		
Infrastructure Options		
UCS-SID-INFR-OI	1	0.00
Workload Options ⚡		
Subtotal		8,783.00
Estimated Lead Time		14 days

[Reset Configuration](#) Cancel Done

Warnings (3):

- Use Power Calculator to determine the correct power supply. The Power Calculator can be found at [\(CE20069B\)](http://ucspowercalc.cisco.com)
- Please see latest recommended DIMMs configuration: <https://www.cisco.com/c/portal/en/us/products/collateral/servers/uniflex/configuration>

Option Search ⓘ Multiple Options Search ⓘ ▼

Power Consumption

UCSC-C220-M5SX > Infrastructure Options Key ▼

Infrastructure Options

SKU	Qty	Estimated Lead Time ⓘ	Unit List Price (USD)
<input type="radio"/> UCS-SID-INFR-BD	1	14 days	0.00
Big Data and Analytics Platform (Hadoop/IT/TOAA/ML)			
<input type="radio"/> UCS-SID-INFR-AIML	1	14 days	0.00
Artificial Intelligence/ Machine Learning			
<input type="radio"/> UCS-SID-INFR-CFS	1	14 days	0.00
Converged-FlashStack			
<input type="radio"/> UCS-SID-INFR-CFP	1	14 days	0.00
Converged-FlexPod			
<input type="radio"/> UCS-SID-INFR-CVS	1	14 days	0.00
Converged-VersaStack			
<input type="radio"/> UCS-SID-INFR-CVB	1	14 days	0.00
Converged-Vblock/VxBlock			
<input type="radio"/> UCS-SID-INFR-DTP	1	14 days	0.00
Data Protection Platform			
<input type="radio"/> UCS-SID-INFR-SOSP	1	14 days	0.00
Scale-out Storage Platform			

Step 12 On LNP click **Workload Options**, then from the right side select **UCS-SID-WKL-OW** from the Workload Options list as shown below

Figure 1-11 Workload Option

The screenshot displays the 'OPTION SELECTION UCSC-C220-M53X' page. On the left, the 'Configuration Summary' shows a subtotal of 8,783.00 and an estimated lead time of 14 days. The 'Workload Options' section is active, showing a list of options with checkboxes. The 'UCS-SID-WKL-OW' option is checked. A table below lists the following options:

SKU	Qty	Estimated Lead Time	Unit List Price (USD)
<input type="checkbox"/> UCS-SID-WKL-AIML AI/ ML/ DL (Accelerated Compute with GPU) More	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-BD Big Data and Analytics (Hadoop/HT/TOA)	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-CTN Containers/DevOps/PaaS	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-DP Data Protection (Commvault, Veeam only)	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-MSFT Microsoft	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-ORCL Oracle	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-SAP SAP	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-VDI VDI	1	14 days	0.00
<input type="checkbox"/> UCS-SID-WKL-SOS Scale Out Storage (Scality, SwiftStack, COS, Cloudian only)	1	14 days	0.00
<input checked="" type="checkbox"/> UCS-SID-WKL-OW Other Workload	1	14 days	0.00

Step 13 A prompt appears, click **Done**

Figure 1-12 Prompt

The 'Done Messages' dialog box displays the following content:

Your product configuration has some warnings

Warnings (3):

- Use Power Calculator to determine the correct power supply. The Power Calculator can be found at <http://ucspowercalc.cisco.com>. (CE200696)
- Please see best recommended DIMMs configuration: <https://www.cisco.com/.../products/collateral/resources/unified-computing>

Software Subscription Issues

Your Software Subscription configuration has some warnings.

System will cascade the maximum Subscription duration to Technical Services for this configuration. If required, the Technical Service duration can be modified by navigating to 'Edit Service/Subscriptions' page later. (C0970)

Buttons: **Return to configuration** and **Done**

In the main screen, if you expand the + sign for the USCS-C220-M5SX chassis the entire components will be expanded, and you will see the following configurations for your M5.

Figure I-13 M5 Configuration

The screenshot shows the 'M5 Configuration' page in the CSPC Collection Platform Software. The page includes a header with navigation links like 'Back to Internal Order Portal', 'Favorites', 'Export', 'Print', 'Email', 'Share', 'Delete', and 'More'. Below the header, there are sections for 'ORDER NAME', 'PURCHASE ORDER #', 'WEB ORDER ID', 'STATUS', and 'SMART ACCOUNT'. A 'Set preferences for this order' section is also visible. The main content is a table of items, with the first item expanded to show a list of components. The table columns are: P.O. Line Reference, Estimated Lead Time, Unit List Price, Qty, and Est. List Price.

P.O. Line Reference	Estimated Lead Time	Unit List Price	Qty	Est. List Price
1.0	14 days	4,138.00	1	4,138.00
1.1	14 days	1,009.00	1	1,009.00
1.2	14 days	806.00	1	806.00
1.3	14 days	0.00	1	0.00
1.4	14 days	729.00	1	729.00
1.5	7 days	0.00	1	0.00
1.6	14 days	220.00	1	220.00
1.7	14 days	0.00	1	0.00
1.8	14 days	0.00	1	0.00
1.9	14 days	0.00	1	0.00
1.10	14 days	0.00	9	0.00
1.11	14 days	0.00	1	0.00
1.12	14 days	0.00	1	0.00
1.13	14 days	1,750.00	1	1,750.00



Note

These remaining items will be automatically added based on the configuration:

UCS-HS-C220M5
 UCSC-BBLKD-S2
 UCSC-SATAIN-220M5
 UCSC-PSU-M5BLK



Installation and Configuration

CSPC Server image comes with a preloaded application that consists of server software, database, and all the necessary tools.

Important Note: Before you begin

On Installation: If 2.11 installation shows direct login prompt instead of asking for setting admin password then reboot the server once.

```
#####  
Please configure IP address to access CSP collector  
  
#####  
localhost login:
```

Post reboot, it will land on the setting admin password prompt.

OVA Installation

This section describes detailed installation procedures for different installation stages.

Prerequisites

- *xxx.ova* file form the [download center](#)
- CSPC static IP address, default gateway IP address and subnet mask. This is recommended only if DHCP is not enabled

Deploy CSPC OVA

This section describes the steps to deploy CSPC OVA using VMWare vSphere Client:

- Step 1** Get the *xxx.ova* file either to a web server or local file system where vSphere client is available
- Step 2** Launch vSphere client and login using credentials with the privilege to deploy an OVA file
- Step 3** Use vSphere client and select the ESXi host or IP address that manages CSPC virtual machine

- Step 5** There are two ways to select the OVF file to deploy:

- Select the OVF file residing on local or a remote web server using web browser. If this option is

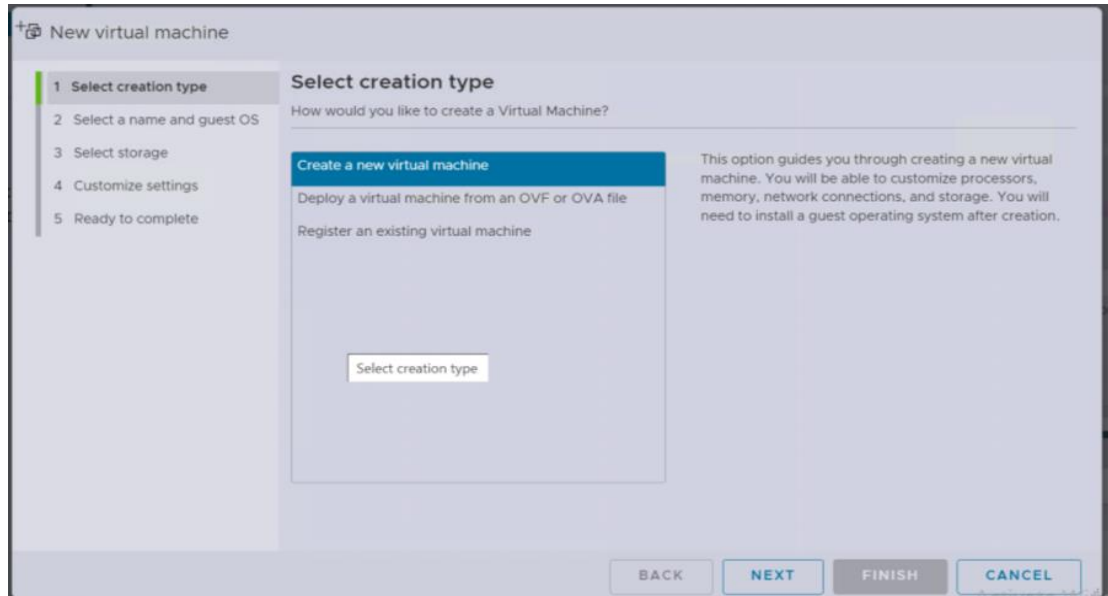
selected, type the URL for the file *xxx.ova*, then click **Next**

- Select the OVF file residing locally using the file explorer. If this option is selected, click **Browse...** and navigate the file explorer to locate the file *xxx.ova*, then click **Next**

**Note**

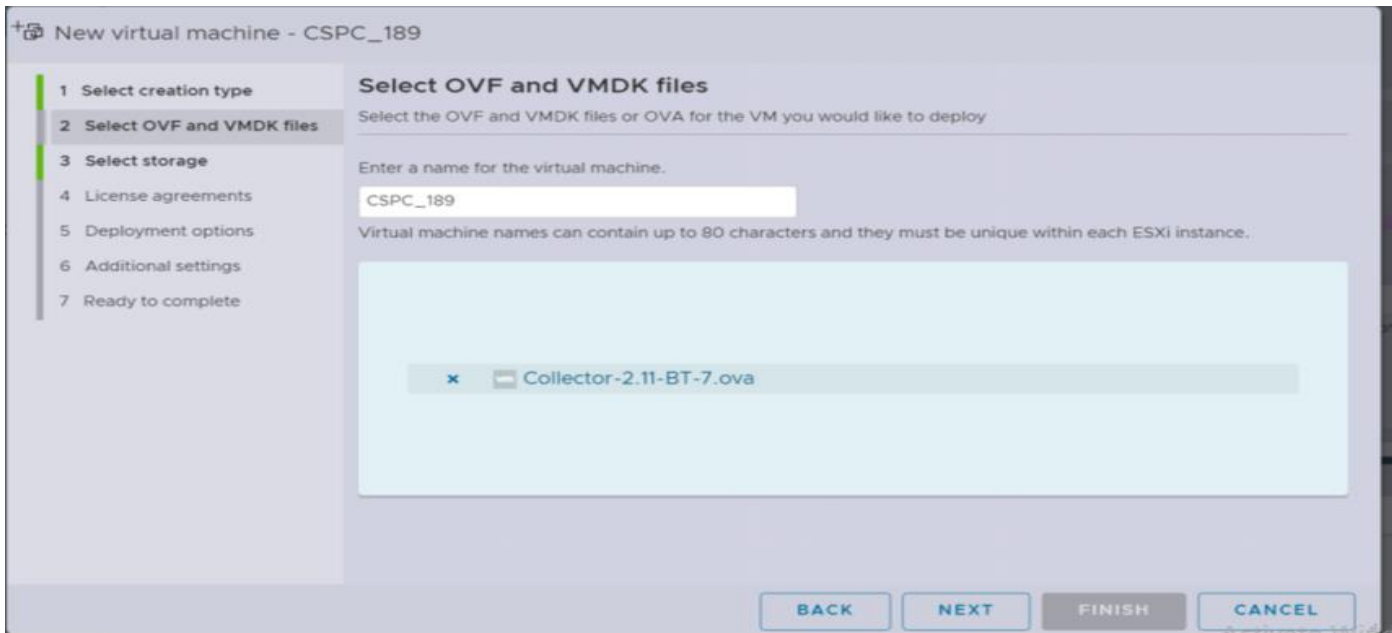
All the screens below are just for illustration and not actual ones.

Figure 2-1 *Select creation type*



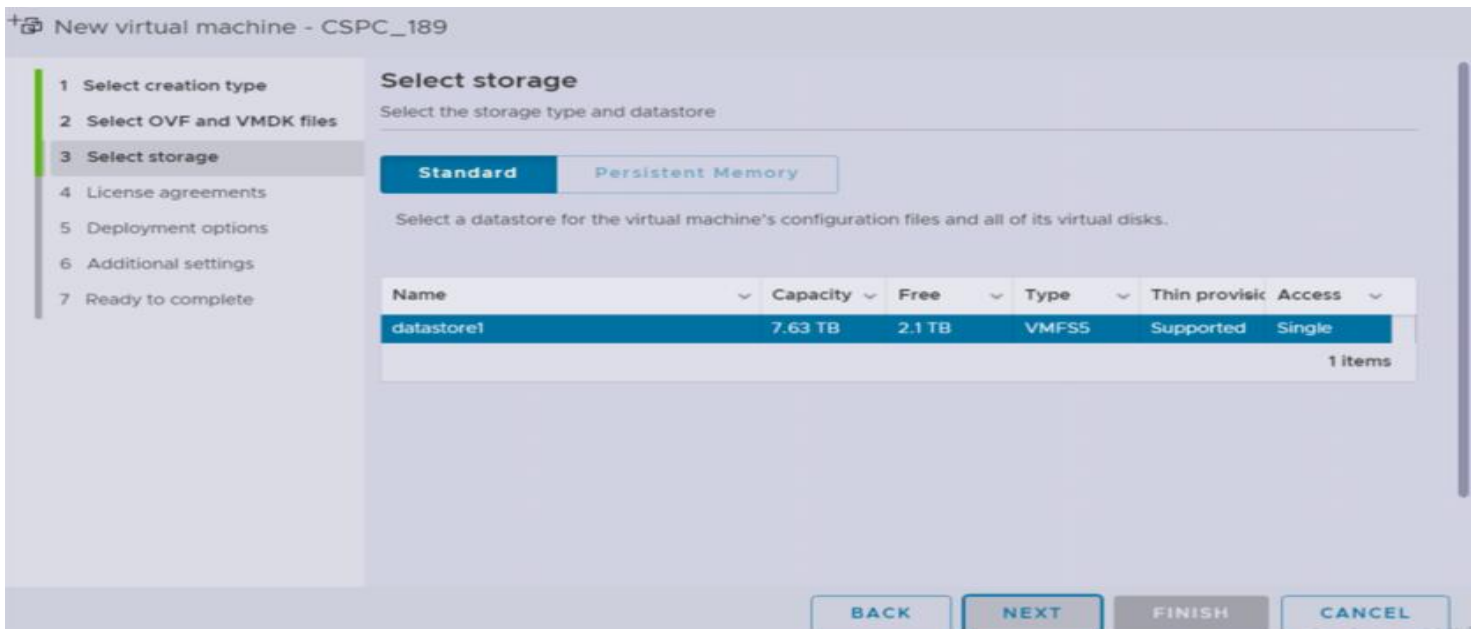
Step 6 click **Next** to proceed

Figure 2-2 Select OVF and VMDK files



Step 7 Click **Next** to proceed.

Figure 2-3 Select storage



Step 8 Select VM Network And Click **Next** to proceed

Figure 2-4 Deployment options

The screenshot shows the 'Deployment options' step of a wizard titled 'New virtual machine - cspc-189'. A sidebar on the left lists five steps: 1. Select creation type, 2. Select OVF and VMDK files, 3. Select storage, 4. Deployment options (highlighted), and 5. Ready to complete. The main area is titled 'Deployment options' and contains a table of settings:

Select deployment options	
Network mappings	VM Network: VM Network
Deployment type	Small
Disk provisioning	<input checked="" type="radio"/> Thin <input type="radio"/> Thick
Power on automatically	<input checked="" type="checkbox"/>

At the bottom right, there are four buttons: BACK, NEXT, FINISH, and CANCEL.

Step 9 Click Finish

Figure 2-5 Ready to complete

The screenshot shows the 'Ready to complete' step of a wizard titled 'New virtual machine - CSPC_189'. The sidebar on the left lists five steps: 1. Select creation type, 2. Select OVF and VMDK files, 3. Select storage, 4. Deployment options, and 5. Ready to complete (highlighted). The main area is titled 'Ready to complete' and contains a table of settings:

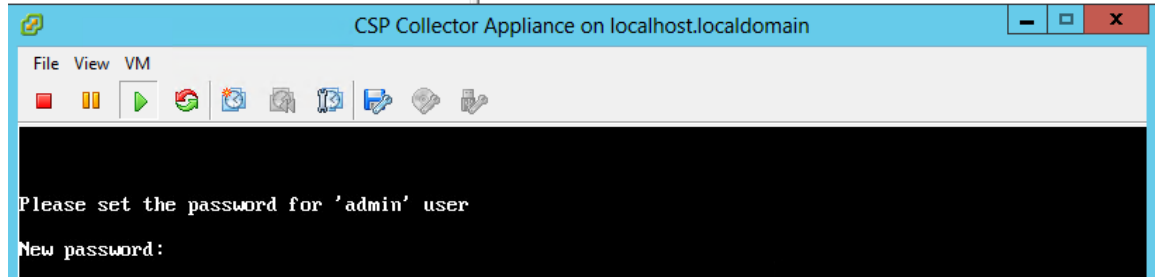
Review your settings selection before finishing the wizard	
Product	CSPC_211
VM Name	CSPC_189
Files	Collector-2.11-BT-7-disk1.vmdk
Datastore	datastore1
Provisioning type	Thin
Network mappings	VM Network: VM Network
Guest OS Name	Unknown
Profile	

Below the table is a warning icon and the text: 'Do not refresh your browser while this VM is being deployed.' At the bottom right, there are four buttons: BACK, NEXT, FINISH (highlighted), and CANCEL.

After Successful installation of CSPC OVA, you have to configure IP address.

Step 1 Click on the new installed CSPC OVA

Figure 2-11 Set Admin Password



You will be prompted to enter your password. First enter the password and confirm the password.



Note Be sure to save this password in a secure, accessible location. The Admin password is needed to access the Admin Shell (CLI).

If 2.11 startup job(/etc/rc.d/rc.local) is running for more than 20 mins then try pressing Alt+F1 through Alt+F6 to shift to alternate virtual terminals and you may see one of them waiting for with the admin password prompt. (if so, enter password).

Once you enter your password, you will be able to configure the IP from the menu or in the command shell prompt.

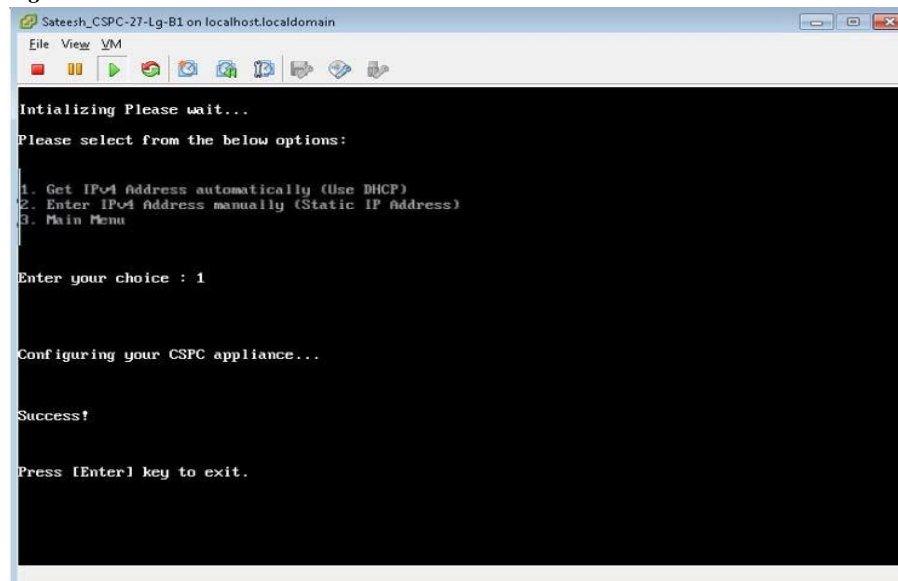
No matter which method you use to configure the IP address, be sure to connect to the admin shell to initialize the collector login and root users.

Step 2 Select one of the options

Figure 2-12 *Main Menu*

Configure IPv4 address

- Step 1** Select **1** to configure IPv4 address
- Select the any one option:
 - Select **1** to fetch IP address automatically

Figure 2-13 *DHCP*

- Select **2** to enter the IP Address manually

Figure 2-14 IP Address Manually

```
Please select from the below options:
1. Get IPv4 Address automatically (Use DHCP)
2. Enter IPv4 Address manually (Static IP Address)
3. Main Menu

Enter your choice : 2

Enter IP Address : XXXXXXXXXX
Enter Prefix(Value between 1 - 32) : 26
Enter Default Gateway : XXXXXXXXXX

Configuring your CSPC appliance...

tput: No value for $TERM and no -T specified
Success!
Press [Enter] key to continue_
```

- Select 3 to go back to main menu

```
CSPC210_LatestBuild13_200
IPv4 Configured Successfully.
Choose option 1 to Reconfigure IPv4, Choose option 2 to Configure IPv6 or choose option 3 to go to C
ommand line.
Please use below URL to login to CSP Collector
IPv4 URL : https://XXXXXXXXXX8001

***Tip: Note the URL***

Please enter your choice from the below options to configure the appliance :

1. IPv4 Configuration
2. IPv6 Configuration
3. Go to Command Line (Shell)

Enter your choice :
```

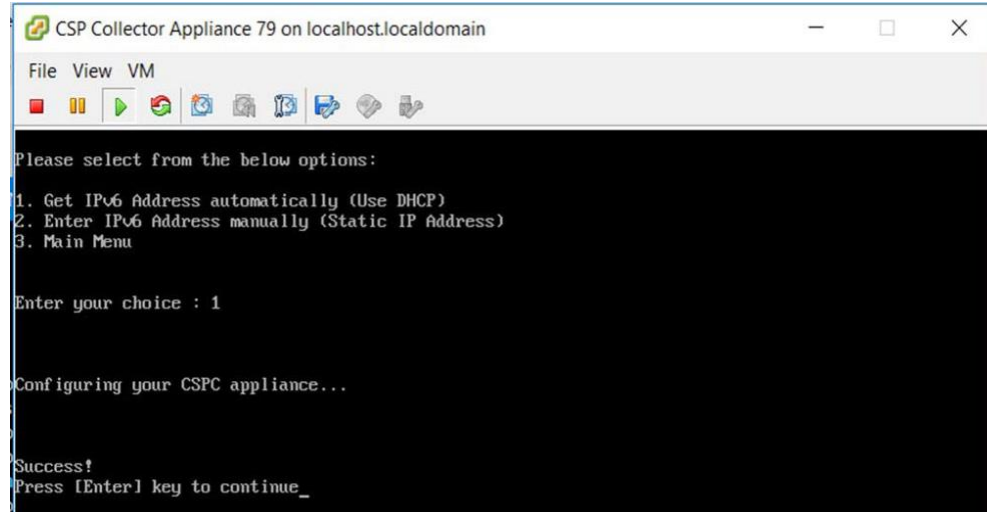
Choose option 1 to reconfigure IPv4 address, choose option 2 to reconfigure IPv6 address or choose option 3 to go to command line.

After selecting option 3, ssl certificate will be generated during installation instead of static certificates

Configure IPv6 Address

- Step 2** Select 2 to configure IPv6 address
- Select any one option:
 - Select **1** to fetch IP address automatically

Figure 2-15 DHCP



- Select **2** to enter the IP Address manually

Figure 2-16 IP Address Manually

```

Please enter your choice from the below options to configure the appliance :

1. IPv4 Configuration
2. IPv6 Configuration
3. Go to Command Line (Shell)

Enter your choice : 2

tput: No value for $TERM and no -T specified
Please select from the below options:

1. Get IPv6 Address automatically (Use DHCP)
2. Enter IPv6 Address manually (Static IP Address)
3. Main Menu

Enter your choice : 2

Enter IPv6 Address : 2001:420:54ff:4::156:17
Enter IPv6 Prefix ( Netmask in CIDR formart ) : 64
Enter IPv6 Default Gateway : 2001:420:54ff:4::156:17

```

- Select 3 to go back to main menu.

Configure the IP address directly on shell

Step 1 Select 3 to view Command line (Shell)



Note Only admin users can configure IP. Before configuring IP switch over as an admin user

Step 2 Enter the command `Conf ip -v4 eth0` or `Conf ip -v6 eth0` and enter IP Address, Subnet mask, and gateway as show in the figure

Figure 2-17 Conf ip command

```

admin# conf ip *
-----
Usage:
admin# conf ip <type> <intf> <ipaddr> <netmask> <gateway>
admin# conf ip -v4 <intf> <ipaddr> <netmask> <gateway>
admin# conf ip -v6 <intf> <ipaddr/prefix> <gateway>
where prefix should be between 1 and 128
Eg:
admin# conf ip -v4 eth0 192.168.155.2 255.255.255.0 192.168.155.1
admin# conf ip -v6 eth0 2001:420:54ff:4::156:17/24 2001:420:54ff:4::156:1
admin#

```

Confirm your IP address settings

```
# show ip
```

Enable Default Account

To initially set or reset the password use the below command:

Step 1 Enable the Linux user login "collectorlogin"

```
# pwdreset collectorlogin 90
```


This generates a password for the username "collectorlogin."

Step 2 Enable the Linux root login

```
# pwdreset root 90
```

This generates a password for the username " root".

To connect to root first connect to the collectorlogin prompt and then use the command `su root`

```
$ su root
```



Note

- Be sure to save both the collectorlogin and root passwords in a secure, accessible location!
- You are not allowed to connect directly to root, attempts to connect directly to the user root will cause a lock on that account!

Figure 2-18 Password set/reset

```
=====
Cisco Network Appliance Administration
=====

To see the list of all the commands press '?'
admin# pwdreset collectorlogin 90

Password for 'collectorlogin' reset to - Bqsyfg4+ successfully
Password expires in 90 days
Shell is enabled
passwd: all authentication tokens updated successfully

*** Please memorize the new password ***
Lost passwords cannot be recovered. The only alternative to recover is to reinstall the server.

admin# pwdreset root 90

Password for 'root' reset to - Cdptfsu3+ successfully
Password expires in 90 days
Shell is enabled
passwd: all authentication tokens updated successfully

*** Please memorize the new password ***
Lost passwords cannot be recovered. The only alternative to recover is to reinstall the server.

admin#
```



Note

- You can now connect to the server using SSH or through a browser at address `https://<IP Address of the Collector>:8001`
- There are additional commands on the admin shell. To display them just do the following:
`# ?`
- Even though IPV4 is configured, login banner message shows the URL with default IPV6 address in some cases, but you should be able to login via configured IPV4 address. If you want to remove IPV6 address from login banner message then comment the following line from `/etc/NetworkManager/system-connections/<interfacename>.nmconnection` file.

```
#[ipv6]
#addr-gen-mode=default
#method=auto
```

Set GRUB Password

Step 1 Login as a root user

Step 2 Execute the command `grub2-setpassword`

Step 5 Provide the password and make sure you save this password



Note

Save the grub password in a secure and accessible location for future use. Password recovery and other troubleshooting is not possible without grub password.

Figure 2-19 GRUB Password

```
[root@localhost collectorlogin]# grub2-setpassword
Enter password:
Confirm password:
[root@localhost collectorlogin]# █
```

TACACS Authentication

To enable TACACS authentication for collector CLI login as root user, perform the following:

-
- Step 1** `vi /etc/pam.d/tac_plus` add the following at start and enter the parameters in the braces.
- ```
auth sufficient /usr/local/lib/security/pam_tacplus.so debug
server=<TACACS Server IP> secret=<TACACS Server secret key>

account sufficient /usr/local/lib/security/pam_tacplus.so debug
server=<TACACS Server IP here> secret=<TACACS Server secret key here>
service=shell protocol=ssh

session sufficient /usr/local/lib/security/pam_tacplus.so debug
server=<TACACS Server IP here> secret=<TACACS Server secret key here>
service=shell protocol=ssh
```
- Step 2** `vi /etc/pam.d/sshd` add the following line at the start.
- ```
auth      include      tac_plus
```
- Step 3** Restart the service `sshd restart`

ESXi 7.0 Patch Installation

ESXi 7.0 version less than to build-21930508 then upgrade to 7.0 latest version by using following steps:

1. To download ESXi 7.0 latest build locally by click on below url:

URL: [ESXi 7.0-2193058](https://www.vmware.com/resources/compatibility/details.php#networking)

2. Follow steps in the document “Release Notes for ESXI_7.0_21930508”.

CSPC NAT OVA Installation

You require all these noted below before you start deploying.

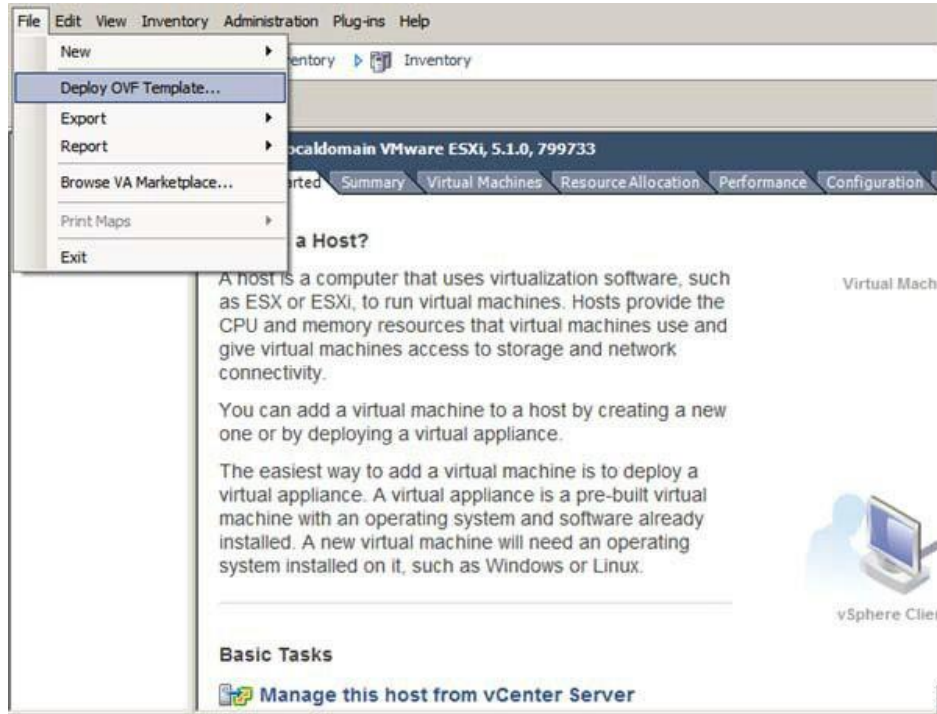
- ESXI Login IP and credentials
- Existing NAT router / CSR V1000VVM login IP and credentials
- Copy of NAT rules and other customized configuration on old NAT router VM that required to be replaced
- VSphere client to connect to ESXI
- CSPC NAT OVA available locally or on network to deploy. Default credentials of the OVA

This section describes steps to deploy CSPC NAT OVA using VMWare vSphere Client:

-
- Step 1** Get the xxx.ova file either to a web server or local file system where vSphere client is available
- Step 2** Launch vSphere client and login using credentials with the privilege to deploy an OVA file

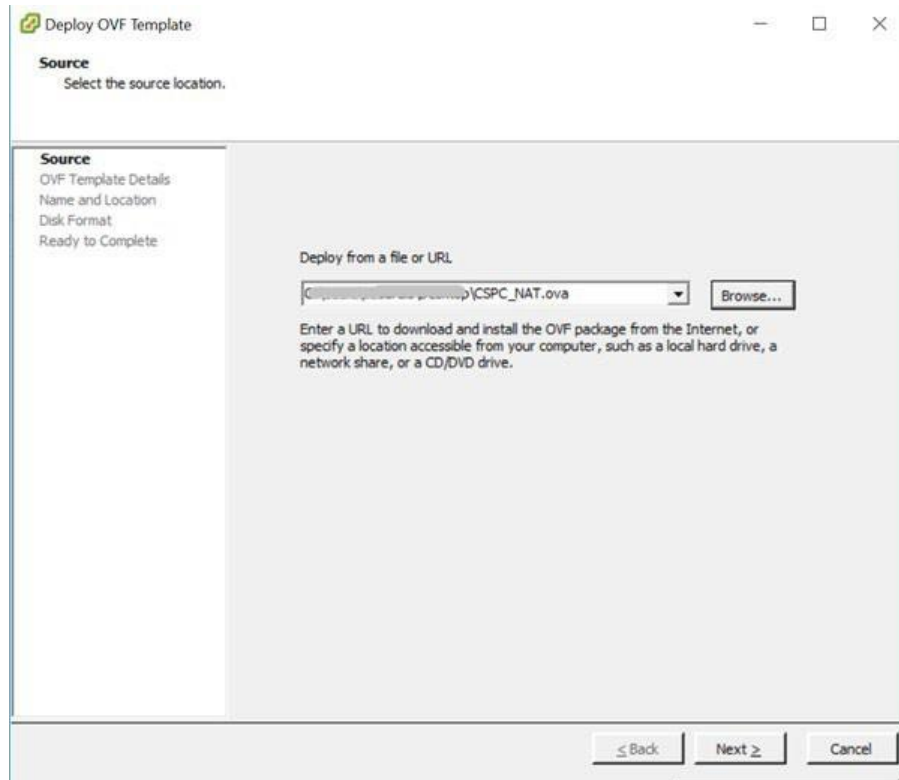
- Step 3** Use vSphere client and select the ESXi host or IP address that manages NAT virtual machine
- Step 4** Use vSphere client and select the File menu and then select the **Deploy OVF Template...** menu item shown in the file menu
- Step 5** Select the OVA file residing locally using the file explorer. If this option is used, click **Browse...** and navigate the file explorer to locate the file *xxx.ovf*, then click **Next**

Figure 2-20 *Deploy OVF Template*



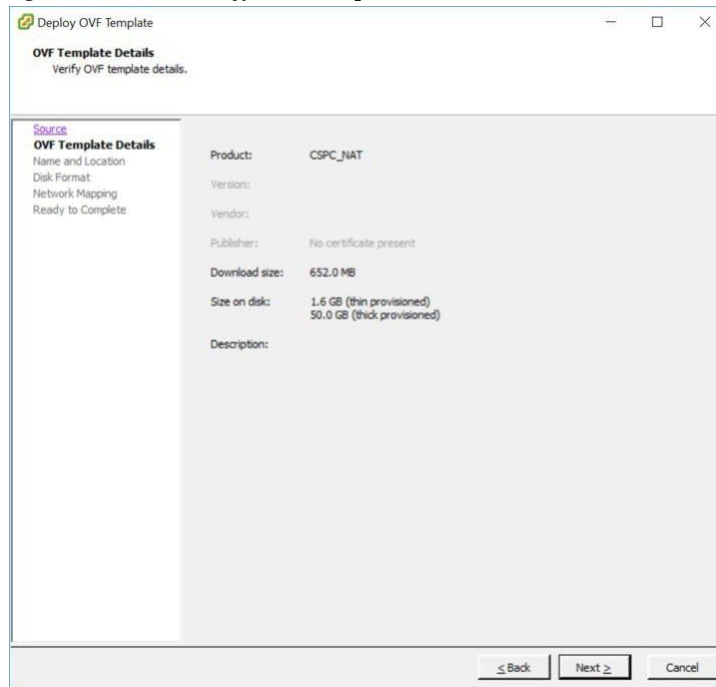
- Step 6** Enter the path or Browse to select the CSPC NAT OVA and click **Next** to proceed

Figure 2-21 Source



Step 7 Click **Next** to proceed

Figure 2-22 Verify OVF Template Details



Step 8 Select the appropriate storage to store the virtual machine then click **Next** to proceed

Figure 2-23 *Name and Location*

The screenshot shows a window titled "Deploy OVF Template" with a sub-header "Name and Location" and the instruction "Specify a name and location for the deployed template". On the left, a navigation pane lists "Source", "OVF Template Details", "Name and Location" (which is selected), "Disk Format", "Network Mapping", and "Ready to Complete". The main area has a "Name:" label and a text input field containing "CSPC_NAT_ROUTER". Below the input field, it says "The name can contain up to 80 characters and it must be unique within the inventory folder." At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

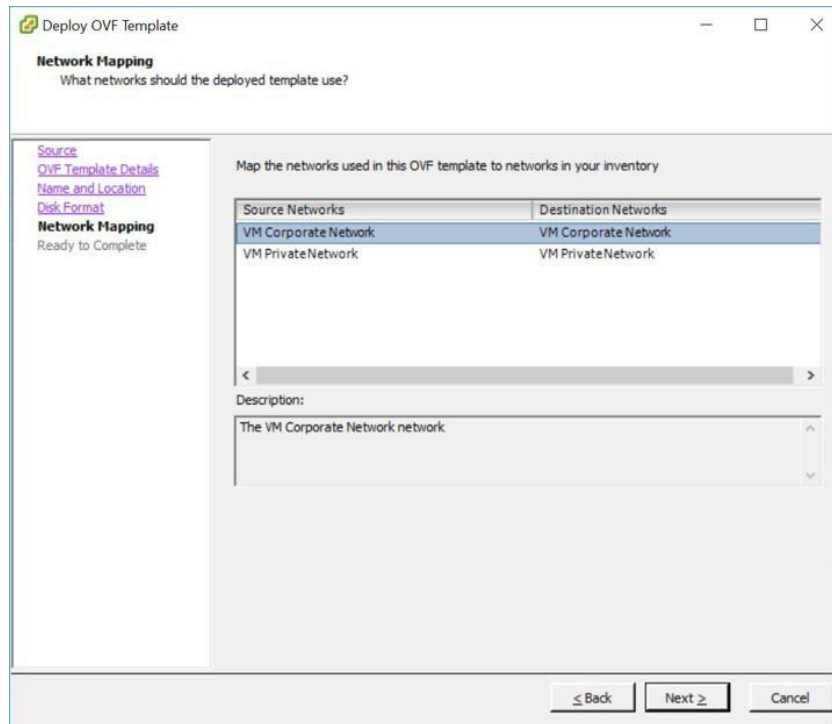
Step 9 "Thick provision Lazy Zeroed" is selected by default, click **Next** to proceed

Figure 2-24 *Disk Format*

The screenshot shows a window titled "Deploy OVF Template" with a sub-header "Disk Format" and the instruction "In which format do you want to store the virtual disks?". On the left, a navigation pane lists "Source", "OVF Template Details", "Name and Location", "Disk Format" (which is selected), "Network Mapping", and "Ready to Complete". The main area has a "Datstore:" label and a text input field containing "datstore1". Below it, "Available space (GB):" is shown with a value of "3057.6". There are three radio button options: "Thick Provision Lazy Zeroed" (which is selected), "Thick Provision Eager Zeroed", and "Thin Provision". At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

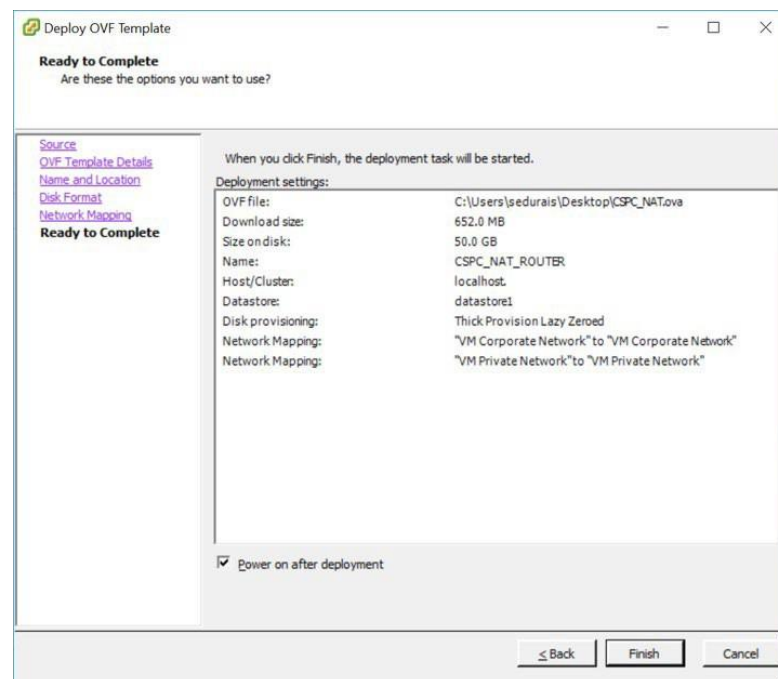
- Step 10** Select Destination Networks, as "VM Corporate Network" to "VM Corporate Network" and "VM Private Network" to "VM Private Network" and click **Next**

Figure 2-25 Network Mapping



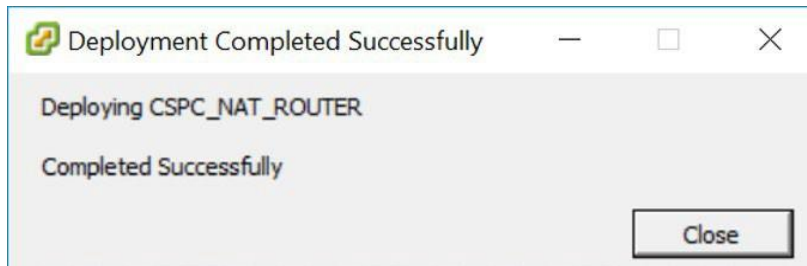
- Step 11** Choose the **Power on after deployment**, then click **Finish**

Figure 2-26 Ready to Complete



- Step 12** Deployment is completed. Click **Close**

Figure 2-27 Deployment progress

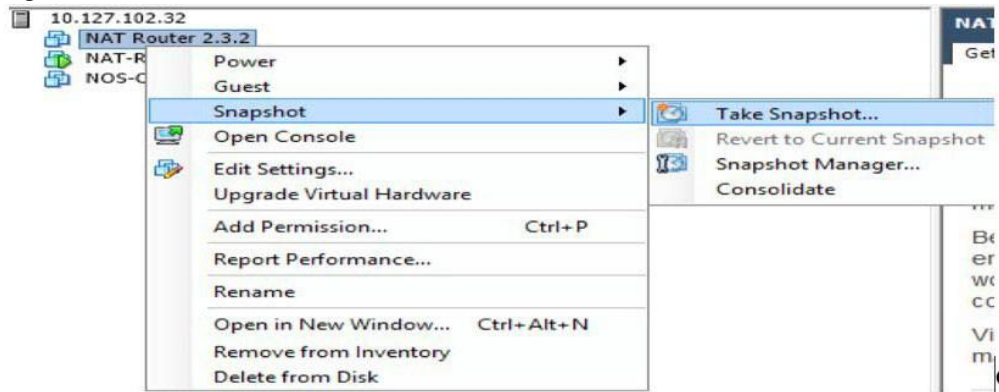


After Successful installation of OVA, you have to configure CSPC NAT OVA.

To configure CSPC NAT OVA, perform the following:

- Step 1** Take Snapshot of old CSRV1000 and Power OFF old CSRV1000 VM

Figure 2-28 Old CSRV1000



- Step 2** Right click on new CSPC NAT VM, and select **Open Console**. Once Router up and running, Login as root user and provide default password "XXxxXX\$" (contact CSPC support for default password)
- Step 3** You need to provide IP address and Netmask for eth0 external interface

```
# nmcli con edit eth0
> set ipv4.method manual
> set ipv4.addresses <ip_address/prefix>
> set ipv4.gateway <gateway IP>
> save
> quit

# nmcli con up eth0
```

Figure 2-29 Console

```

root@localhost ~]#
root@localhost ~]# nmcli con edit eth0

==| nmcli interactive connection editor |==

Editing existing '802-3-ethernet' connection: 'eth0'

Type 'help' or '?' for available commands.
Type 'print' to show all the connection properties.
Type 'describe [<setting>.<prop>]' for detailed property description.

You may edit the following settings: connection, 802-3-ethernet (ethernet), 802-ix, dcb, sriov, ethtool, match, ipv4, ipv6, tc, proxy
nmcli> set ipv4.method manual
nmcli> set ipv4.addresses 10.126.77.183/24
nmcli> set ipv4.gateway 10.126.77.1
nmcli> save
Connection 'eth0' (5fb86bd0-8bb8-7ffb-45f1-d6edd65f3e83) successfully updated.
nmcli> quit
root@localhost ~]# nmcli con up eth0
Connection successfully activated (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection/3)
root@localhost ~]#

```

Step 4 CENTS OS7 NAT Router
 “Reload Firewall rules firewall-cmd-reload”

Step 5 NAT Rules
 Firewall-cmd –list-all –zone=cspzone



Note

This CenOS7 Nat routeNote: This CenOS7 Nat router OVA can be accessed from ESXI console or CLI using ssh as ‘admin’ user from port 1022 then switch to root.r OVA can be accessed from ESXI console or CLI using ssh as ‘admin’ user from port 1022 then switch to root”

Now you will be able to login to CSPC UI and other VMs UI successfully.

CIMC Patch Installation

- Step 1** Login to collector appliance as admin
- Step 2** To check updates for CIMC execute below command:
 #check update cimc
- Step 3** To download the CIMC patch execute below command (M3 server):
 #download jeos-101.0.3-0-lnx64
- Step 4** To download the CIMC patch execute below command (M4 server):
 #download jeos-101.0.4-0-lnx64
- Step 5** To check download status execute below command:
 #show download

- Step 6** Once the patch is downloaded to /opt/LCM/tmp, unzip the patch and follow the instructions from Read_me_CIMC_3.0(4i).docx

NOS Configurer

Installation Sequence For nos_configurer



Note This is only for NOS.

This section shows the instructions on how to install nos_configurer_2.11 on CSPC 2.11, and to configure CSPC for NOS specific functionalities.



- Note**
- The NOS Configurer, RI Addons should be installed manually which are present in the \$CSPCHOME/installer/manual folder.
 - There is no updates on nos configurer in CSPC 2.11. So, you can follow the same steps below.



Note This only for fresh nos installation.

It performs the following tasks:

1. Schedule jobs to carry out NOS functionalities

Following jobs are scheduled:

- a. Weekly Inventory Job
- b. Daily Upload Job
- c. Daily DAV Job
- d. Daily Health Upload Job

2. Adds dependency rules to maintain data consistency

Follow the steps given below to install nos_configurer_2.11 on CSPC 2.11:

-
- Step 1** Terminal login to CSPC appliance
- Step 2** Navigate to path \$CSPCHOME/installs/manual
- Step 3** Unzip the file nos_configurer_2.11.zip
- Step 4** On unzipping, a folder named nos_configurer_2.11 is created
- Step 5** Enter the command:
- a. `cd nos_configurer_2.11`
 - b. `sh nos_cspc_2.11_patch.sh <username> <pwd> <fullInventoryDay> <hourOfFullInventory> <hourOfUpload>`
- Example:** `sh nos_cspc_2.11_patch.sh <username> <pwd> 1 22 23`



Note You can install the installer without giving above three optional arguments. This will install support installer with default values as 1, 23 and 23.

In the above example:

1..7 = Sunday to Saturday

1...23 = hours in a day.

- Step 6** On triggering the above command, it will prompt for user confirmations. Provide them accordingly
- a. Do you want to cancel installation and rerun with additional arguments? Enter Y or N: (y/n)? **N**
 - b. Do you want to cancel installation and rerun with different scheduling day and hours ? Enter Y or N: (y/n)? **N**
 - c. Do you want to schedule health job immediately Enter Y or N: (y/n)? **Y**
 - d. Do you want to schedule inventory/DAV/Upload job immediately Enter Y or N: (y/n)? **Y**
 - e. Restarting the server to make sure inventory is not running. Do you want to continue? Enter Y or N: (y/n)? **N**



Note You have option to schedule the job now or later.
