# **Configure Integrated UCS C-Series Servers to Standalone Mode**

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# Introduction

This document describes how to configure a UCS-C Series server integrated into UCS Manager to standalone mode and reimage its firmware version.

# Prerequisites

#### Requirements

Cisco recommends that you have knowledge of these topics:

- Basic understanding of Unified Computing Systems servers(UCS)
- Basic understanding of UCS Manager (UCSM)
- Basic understanding of Cisco Integrated Management Controller (CIMC)
- Basic understanding of Networking.

#### **Components Used**

This document is not restricted to specific software versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

# **Background Information**

Ensure that you have these requirements before you attempt this configuration.

- Computer to connect to C-Series Server.
- KVM cable
- Monitor
- Keyboard
- 1G cable to connect to the management port

## Configure



Note: Do not perform this process without TAC recommendation.



Warning: Ensure your server is powered off before you start this procedure.

#### Step 1. Decommission the Server

Go to your UCS Manager web Interface.

Navigate to Equipment > Rack-Mounts > Server x



Click on Server Maintenance and select Decommission





**Note**: When a server is decommissioned it is not shown over Rack-Mounts, it is shown under **Equipment > Decommisioned > Rack-Mounts** 

#### **Step 2. Unconfigure Server Ports**

 $Navigate \ to \ Equipment > Fabric \ Interconnects > Fabric \ Interconnect \ A > Fixed \ Module > Ethernet \ Ports > Port \ x.$ 

Click on Unconfigure.





Repeat the same steps for Fabric Interconnect B

 $Navigate \ to \ Equipment > Fabric \ Interconnects > Fabric \ Interconnect \ B > Fixed \ Module > Ethernet \ Ports > Port \ x.$ 

Click on Unconfigure.

#### Step 3. Change CIMC to Default Settings

Power off the server and remove the power cords.

Wait for 2 minutes and connect the power cords again.

Connect a KVM cable to the server with a monitor and keyboard.

Monitor the server boot process until you reach the Cisco menu and press  ${\bf F8}$  to enter to Cisco IMC Configuration Utility.

# ıılıılıı cısco

Copyright (c) 2022 Cisco Systems, Inc.

Press <F2> BIOS Setup : <F6> Boot Menu : <F7> Diagnostics Press <F8> CIMC Setup : <F12> Network Boot Bios Version : C240M5.4.2.2b.0.0613220203 Platform ID : C240M5 / Loading Marvell SCSI Driver 1.1.17.1002

Processor(s) Intel(R) Xeon(R) Gold 6230 CPU @ 2.10GHz Total Memory = 128 GB Effective Memory = 128 GB Memory Operating Speed 2933 Mhz M.2 SWRAID configuration is not detected. Switching to AHCI mode.

Cisco IMC IPv4 Address : 10.31.123.32 Cisco IMC MAC Address : 7C:31:0E:9F:12:80

Entering CIMC Configuration Utility ...

Cisco IMC Configu	uration Ut.	ility Ve ******	rsion 2.	) Cisco Syst	tems, Inc. www.www.www.	olokokokokokok
NIC Properties						
NIC mode			NIC	redundancy		
Dedicated:	[X]		Non	е:	[X]	
Shared OCP:	[]		Act	ive-standby:	[]	
Cisco Card:			Act	ive-active:	[]	
Riser1:	[]		VLAN	(Advanced)		
Riser3:	[]		VLA	V enabled:	[]	
MLom:	[]		VLA	N ID:	1	
Shared OCP Ext:	[]		Pri	ority:	0	
IP (Basic)						
IPV4:	[X]	IPV6:	[]			
DHCP enabled	[]					
CIMC IP:	1.1.1.11					
Prefix/Subnet:	255.255.25	55.0				
Gateway:	1.1.1.1					
Pref DNS Server:	1.1.1.2					
Smart Access USB						
Enabled	[]					
	*****	<del>kokokokokok</del>	okokokokokoko	*****	******	okokokokokokokok
<up down="">Selection</up>	n <f10>Sa</f10>	ave KS	pace>Ena	ole/Disable	<f5>Refresh</f5>	<esc>Exit</esc>
<f1>Additional set</f1>	ttings					

Press F1 and enable Factory Default.

Cisco IMC Configuration Util	lity Version 2.0	Cisco Syste	ems, Inc. National	aksialaininia
Common Properties	edeledestedestedestedestedestedestedes	and a factor of the factor of		edente ferte ferte ferte
Hostname: C220-WZP263607	761			
Dynamic DNS: [X]				
DDNS Domain:				
FactoryDefaults				
Factory Default: [X]				
Default User(Admin)				
Enter New Default User passw	word:			
Re-Enter New Default User pa	issword:			
Port Properties				
Auto Negotiation: [X]				
A	admin Mode	Operation Mo	ode	
Speed[1000/100/10Mbps]:	Auto	1000		
Duplex mode[half/full]:	Auto	full		
Port Profiles				
Reset: []				
Name:				
***************************************				okołołokołołok
<up down="">Selection <f10>Sav</f10></up>	/e <space>Enabl</space>	le∕Disable	<f5>Refresh</f5>	<esc>Exit</esc>
<f2>Previous Page</f2>				

Press F10 to save changes and reboot the server.

#### Step 4. Configure CIMC to Standalone Mode

Monitor the server boot process until you reach the Cisco menu and press  ${\bf F8}$  to enter to Cisco IMC Configuration Utility again.

Apply the next configuration:

- NIC mode selected to Dedicated
- IP to IPV4
- CIMC IP with an IP in the same subnet as your computer.
- NIC redundancy to none
- No VLAN

Cisco IMC Config אממאממאממאמא	uration Utili	ity Version 2.0 Cisco Sy Южжержжержжержжержжер	stems, Inc.	жжжжжж
NIC Properties				
NIC mode		NIC redundancy		
Dedicated:	[ <u>X]</u>	None:	[X]	
Shared OCP:	[]	Active-standby	: []	
Cisco Card:		Active-active:	[]	
Riser1:	[]	VLAN (Advanced)		
Riser3:	[]	VLAN enabled:	[]	
MLom:	[]	VLAN ID:	1	
Shared OCP Ext:	[]	Priority:	0	
IP (Basic)				
IPV4:	[X] IF	PV6: []		
DHCP enabled	[]			
CIMC IP:	11.11.11.11			
Prefix/Subnet:	255.255.255.	.0		
Gateway:	11.11.11.1			
Pref DNS Server:				
Smart Access USB				
Enabled	[]			
****		******************		*****
<up down="">Selection</up>	n <f10>Save</f10>	e <space>Enable/Disable</space>	<pre><f5>Refresh</f5></pre>	<esc>Exit</esc>
<f1>Additional set</f1>	ttings			

Press F10 to save changes and reboot the server.

Connect your computer to the physical Management Port on the server and open a web browser.

Use the IP you configured https://x.x.x.x





#### Note: Default password for admin user is password

CIMC Prompt view and current CIMC version

→ → → → → → → → → → → → → → → → → → →	Integrated Management Controlle	ſ			+ 🗹 0	admin@ - C240-WZP23510VY7 🌣
A / Chassis / Sum	mary 🚖				Refresh   Host Power   Laun	ch vKVM   Ping   CIMC Reboot   Locator LED   Ø
Server Proper	ties	Cisco Integrated I	Management Controller (Cisco	MC) Information		
Product Name:	UCS C240 M5SD	Hostname:	C240-WZP23510VY7			
Serial Number:	WZP23510VY7	IP Address:	188.00110000			
PID:	UCSC-C240-M5SD	MAC Address:	7C:31:0E:9F:12:80			
UUID:	F0E2F2ED-AD46-4328-8E14-C3E1970B9539	Firmware Version:	4.2(2a)			
BIOS Version:	C240M5.4.2.2b.0.0613220203	Current Time (UTC):	Mon Sep 25 03:04:40 2023			
Description:		Local Time:	Mon Sep 25 03:04:40 2023 UTC +0000 (NTP)			
Asset Tag:	Unknown	Timezone:	UTC	Select Timezone		
Chassis Status Power Post Completion 5 Overall Bitwer 5 Overall DIMM 5 Power 5up Locato Overall Storage 5	State: © On Natus: © Completed Natus: © Good Natus: © Good Piene: © Good Fane: © Good r LED: © Ort	Server Utilization		Overatl Utilization (%)  CPU Utilization (%)  Menery Utilization (%)  I U Utilization (%)		
	3					

## **Reimage Firmware Version**



**Note**: In case your Server is integrated back into UCSM, it is highly recommended to reimage the firmware version

#### Step 1. Download Host Upgrade Utility(HUU) ISO.

Reimage is done through HUU. You can download HUU ISO at Download Page for Cisco

#### Step 2. Launch KVM and Map HUU ISO.

Once you download HUU for the current version, go to CIMC and click on Launch KVM

÷ dualu Cisco	Integrated Management Controlle	r			+ 🖸 0	admin@ - C240-W	ZP23510VY7 🏠
A / Chassis / Sum	mary 🖈				Refresh Host Power Launch	vKVM Ping CIMC Reboot Loca	ator LED   🔞 🔞
Server Proper	ties	Cisco Integrated M	Anagement Controller (Cisco I	MC) Information			
Product Name:	UCS C240 M5SD	Hostname:	C240-WZP23510VY7				
Serial Number:	WZP23510VY7	IP Address:	HE-181 1520-382				
PID:	UCSC-C240-M5SD	MAC Address:	7C:31:0E:9F:12:80				
UUID:	F0E2F2ED-AD46-4328-8E14-C3E1970B9539	Firmware Version:	4.2(2a)				
BIOS Version:	C240M5.4.2.2b.0.0613220203	Current Time (UTC):	Mon Sep 25 03:04:40 2023				
Description:		Local Time:	Mon Sep 25 03:04:40 2023 UTC +0000 (NTP)				
Asset Tag:	Unknown	Timezone:	UTC	Select Timezone			
Chassis Statu: Power Posit Completion 1 Overall Server 1 Tempe Overall DIMM 1 Power Su Locato Overall Storage 1	S Status: © On Status: © Completed Status: © Good Status: © Good Status: © Good Pfans: © Good r LED: © Off Status: © Good	Server Utilization	Senar	Oversit UBlastion (%) CPU Ublastion (%) Money Ublastion (%) 10 Ublastion (%)			
						Save Changes	Reset Values

Once vKVM is launched, click on Virtual Media and Activate Virtual Devices

File View Macros Tools Power Boot Device Virtual Media Help

Create Image Activate Virtual Devices

Cisco Systems, Inc. Configuring and testing memory..

Cisco IMC IPu4 : 10.31.123.32 MAC ADDR : 7C:31:0E:9F:12:80

Map HUU on Map CD/DVD



#### Step 3. Boot Using HUU ISO.

Monitor the server boot process until you reach the Cisco menu and press F6 to enter to Boot Menu.



Select vKVM-Mapped vDVD option to boot HUU ISO mapped.

Г

Please select boot device:
UEFI: Built-in EFI Shell UEFI: PXE IPv4 Intel(R) Ethernet Controller X550 UEFI: HTTP IPv4 Intel(R) Ethernet Controller X550 UEFI: HTTP IPv6 Intel(R) Ethernet Controller X550 UEFI: PXE IPv4 Intel(R) Ethernet Controller X550 UEFI: HTTP IPv4 Intel(R) Ethernet Controller X550 UEFI: HTTP IPv6 Intel(R) Ethernet Controller X550 UEFI: HTTP IPv6 Intel(R) Ethernet Controller X550 UEFI: PXE IPv4 Cisco NIC 5c:71:0d:c4:0f:d0
UEFI: HTTP IPv4 Cisco NIC 5c:71:0d:c4:0f:d0 UEFI: HTTP IPv6 Cisco NIC 5c:71:0d:c4:0f:d0 UEFI OS UEFI: Cisco vKVM-Mapped vDVD1.24 Enter Setup
↑ and ↓ to move selection ENTER to select boot device ESC to boot using defaults

- A - - I -

٦



Note: Load HUU ISO can take several minutes.

#### **Step 4.- Reimage Current Version.**

Wait until HUU ISO loads and accepts the Cisco Software License Agreement.



Switch to Advanced Mode and select all the components, then click Update & Activate.

	Slot	Running Version	Package Version	Status
		5.2(2b)	5.2(2b)	
		0x800016F9-1.826.0	0x800016F9-1.826.0	
	MLOM	5.2(2b)	5.2(2b)	
	MRAID	20.00.02.01	20.00.02.01	
	MSTOR-RAID	2.3.17.1014	2.3.17.1014	
	N/A	4.2(2a)	4.2(2a)	
	N/A	C240M5.4.2.2b.0.06	C240M5.4.2.2b.0.06	
ted 7 of 7 Show Selected Unselect All				[K] < _ 1_ of 1 ≥
Toggle 'Advanced Mode' for factory reset, CMC se	cure boot, update, a	nd activate a single or grou	p of components.	C Advanced

Wait until it finishes the reimage and the server reboots.

#### **Integrate Server to UCS Manager**

#### Step 1. Set CIMC to Factory Default.

Repeat the same steps as in Step 3 on Put Server in Standalone Mode

#### **Step 2.- Reconfigured Ports as Server Ports**

 $Navigate \ to \ Equipment > Fabric \ Interconnects > Fabric \ Interconnect \ A > Fixed \ Module > Ethernet \ Ports > Port \ x.$ 

Click Reconfigure and select Configured as Server Port.

_			
æ	Al v	Equipment / Fabric Interconnects / Fabric Interconnect A (sub	Jordin / Fixed Module / Ethernet Ports / Port 4
	* Equipment	General Faults Events FSM Statistics	
	Chassis	Each Commany	Dhuwled Disabar
윪	* Rack-Mounts	raun ourimary	r r paciel Magnay
	Enclosures	8 7 4 0	
	FEX	0 0 0 0	
ē	* Servers		🛛 Up 🖬 Admin Down 📕 Fail 🔲 Link Down
	Server 2 00	Status	Properties
=	<ul> <li>Server 3 0</li> </ul>	Overall Status :  Link Down Artificional Info : Link failure or not-connected	D 4 SwD-1
	<ul> <li>Server 5 O</li> </ul>	Admin State : Disabled	no . •
	Server 6 00		uar uson - 2024;54:25:75:48
	* Fabric Interconnects	Actions	Mode : Trunix
30	<ul> <li>Fabric Interconnect A (subordinate) </li> </ul>	Enable Port	Port Type : Physical Role : Unconfigured
	<ul> <li>Fans</li> </ul>	Disable Port	Transceiver
	<ul> <li>Fixed Module</li> </ul>	Reconfigure	Type : H100B CU1M
	✓ Ethernet Ports	Configure as Uplink Port	Model: 1-2053783-1
	Port 1	Configure as FCoE Uplink Port	Vendor: CISCO-TYCO
	Port 2	Configure as Server Port	Serial : TED2433A1P6
	Port 3	Configure as FCoE Storage Port	
	Dog 4	Configure as Appliance Port	License Details
	PULL		License State : Not Applicable
	Port 5		License Grace Period : 0
	Port 6		
	Port 7		
	Port 8		
	Port 9		

Repeat the same steps for Fabric Interconnect B

Navigate to **Equipment** > **Fabric Interconnects** > **Fabric Interconnect B** > **Fixed Module** > **Ethernet Ports** > **Port x**.

Click Reconfigure and select Configured as Server Port.

#### **Step 3. Connect Adapter Cables**

Connect port 1 to FI-A and port 3 to FI-B of the VIC Card.

#### **Step 4. Recommission Server.**

Go to **Equipment > Decommsioned > Rack-Mounts**, select the checkbox for **Recommission**, and **Save Changes**.



Wait until you see your server again.



You can monitor server discovery over Server FSM.

æ	Al 🗸	Equipment / Rack-Mounts /	Servers / Server 1					
8	* Equipment	General Inventory	Virtual Machines Hybrid Display Installed Firmware	SEL Logs CIMC Sessions VIF Par	ths Power Control Monitor Hea	Ith Diagnostics Faults Ev	ants FSM Statistics Temperatures	Power
	Chassis	FSM Status	: In Progress					
器	✓ Rack-Mounts	Current ESM Name	Discour					
	Enclosures	Completed at						
1	FEX	Progress Status		14%				
	<ul> <li>Servers</li> </ul>	Remote Invocation Result	Not Applicable					
e	Secure 1	Remote Invocation Error Code	: None					
_		Remote Invocation Description	n:					
-	<ul> <li>Server 2 V</li> </ul>	<ul> <li>Step Sequence</li> </ul>						
_	<ul> <li>Server 3 (2)</li> </ul>							
	<ul> <li>Server 5 0</li> </ul>	Order	Name	Description	Status	Timestamp	Retried	
30	<ul> <li>Server 6 O</li> </ul>	1	Discover Sw Port Details Local	Fetching adaptor connectivity details for	Skip	2023-09-26T17:02:14Z	0	0
	<ul> <li>Fabric Interconnects</li> </ul>	2	Discover Sw Port Details Peer	Fetching adaptor connectivity details for	Skip	2023-09-26T17:02:14Z	0	
	<ul> <li>Fabric Interconnect A (subordinate) </li> </ul>	3	Discover Sw Configure Port Channel Local	Configuring port channel for server 1(FS	Skip	2023-09-26T17:02:14Z	0	
	<ul> <li>Fans</li> </ul>	4	Discover Sw Configure Port Channel Peer	Configuring port channel for server 1(FS	Skip	2023-09-26T17:02:14Z	0	
	<ul> <li>Fixed Module</li> </ul>	5	Discover Bmc Configure Conn Local	Configuring connectivity on CIMC of serv-	Success	2023-09-26T17:02:14Z	1	
	<ul> <li>Ethernet Ports</li> </ul>	6	Discours Su Costauro Cose Local	Configuring Solution interconnect connecti	Success	2023-09-26T17:02:15Z		
	Port 1							
	Port 2	Name :						
	Port 3	Status :						
	Port 4	Description :						
	Port 5	Order :						
	Port 6	Timestamp :						
	Port 7							
	Port 8							
		U						



Note: Discovery can take several minutes to start

Once the server finishes the discovery process, the association of the Service Profile (SP) starts.

æ	All v	Equipment / Rack-Mounts / S	Servers / Server 1													
	* Equipment	General Inventory Vi	rtual Machines Hybrid Display	Installed Firmware	SEL Logs	CIMC Sessions	VIF Paths	Power Control Monitor	Health	Diagnostics	Faults	Events	FSM	Statistics	Temperatures	Power
	Chassis	FSM Status	In Progress													
쁆	▼ Rack-Mounts	Current ESM Name	Associate													
	Enclosures	Completed at														
<b>.</b>	FEX	Progress Status				33%										
ē	✓ Servers	Remote Invocation Result	Not Applicable													
9	Server 1 🙆	Remote Invocation Error Code :	None													
=	<ul> <li>Server 2 😗</li> </ul>	Step Sequence														
	<ul> <li>Server 3 ①</li> </ul>	() step sequence														
	<ul> <li>Server 5 (0)</li> </ul>	Order	Name		Description		Stat	US		Timestamp			Retr	ried		
Jo	Server 6 ①	1	Associate Downl	ad Images	Download image	es from operations r	mana Skip	)		2023-09-26	T23:03:45Z		0			0
	<ul> <li>Fabric Interconnects</li> </ul>	2	Associate Copy I	ternote	Copy images to	peer node(FSM-ST	AGE: Skip			2023-09-26	T23:03:45Z		0			
	<ul> <li>Fabric Interconnect A (subordinate) </li> </ul>	3	Associate Updat	IBMC Fw	Update CIMC fir	rmware of server 10	FSM Skip			2023-09-26	T23:03:45Z		0			
	<ul> <li>Fans</li> </ul>	4	Associate Wait F	or IBMC Fw Update	Wait for CIMC fi	mware completion	on se Skip			2023-09-26	T23:03:45Z		0			
	<ul> <li>Fixed Module</li> </ul>	5	Associate Config	User Access	Configuring exte	emal user access(FS	SM-S In Pr	rooress		2023-09-26	T23:03:47Z		1			
	<ul> <li>Ethernet Ports</li> </ul>	6	Accociate Action	a IBMC Day	Antinato CBAC 6	temures of converti	(EC14. Chin			2023-09-26	T23:03:45Z		0			
	Port 1															
	Port 2	Name :														
	Port 3	Status :														
	Port 4	Description :														
	Port 5	Retried :														
	Port 6	Timestamp :														
	Port 7															
	Port 8															

After discovery and association finish, you can boot your server and get it back to production.

# **Related Information**

- <u>UCS C-Series Integration with Cisco UCS Manager</u>
- <u>UCS C-Series Server Utilities</u>
- Technical Support & Documentation Cisco Systems