



# Migrating to Cisco UCS 6500 Series Fabric Interconnects

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## Cisco UCS Fabric Interconnect Server Compatibility Matrix - Release 4.3(3a)

### Cisco UCS 6536 FI

Table 1: Cisco UCS 6536 FI - Cisco UCS Rack Servers

Cisco VIC	Direct Attach (40/100G)	Direct Attach (4x25G or 25G QSA28)	FEX		
			93180YC-FX3 (25G server ports)	93180YC-FX3 (10G server ports)	2348 UPQ (10G server ports)
15427 (UCSC-M-V5Q50GV2)	Not Supported	All Cisco UCS C-Series M6 and M7 servers  <b>Note</b> Reverse breakout is not supported.	All Cisco UCS C-Series M6 and M7 servers	SFP-10G-SR/SR-S only	All Cisco UCS C-Series M6 and M7 servers
15237 (UCSC-M-V5D200GV2)	All Cisco UCS C-Series M6 and M7 servers	Not Supported	Not Supported	Not Supported	Not Supported
15235 (UCSC-P-V5D200G)	All Cisco UCS C-Series M6 and M7 servers	Not Supported	Not Supported	Not Supported	Not Supported
15238 (UCSC-M-V5D200G)	All Cisco UCS C-Series M6 and M7 servers	Not Supported	Not Supported	Not Supported	Not Supported

Cisco VIC	Direct Attach (40/100G)	Direct Attach (4x25G or 25G QSA28)	FEX		
			93180YC-FX3 (25G server ports)	93180YC-FX3 (10G server ports)	2348 UPO (10G server ports)
15425 (UCSC-P-V5Q50G)	Not Supported	All Cisco UCS C-Series M6 and M7 servers  <b>Note</b> No reverse breakout supported	All Cisco UCS C-Series M6 and M7 servers	SFP-10G-SR/SR-S only	All Cisco UCS C-Series M6 and M7 servers
15428 (UCSC-M-V5Q50G)	Not Supported	All Cisco UCS C-Series M6 and M7 servers  <b>Note</b> No reverse breakout supported	All Cisco UCS C-Series M6 and M7 servers	SFP-10G-SR/SR-S only	All Cisco UCS C-Series M6 and M7 servers
1497-40G/100G (UCSC-MLOMC100-04)	All Cisco UCS C-series M5 servers	Not Supported	Not Supported	Not Supported	Not Supported
1495-40G/100G (UCSC-PCIEC100-04)	All Cisco UCS C-Series M6, C-Series M5, and S-series M5 servers	Not Supported	Not Supported	Not Supported	Not Supported
1477-40G/100G (UCSC-MV100-04)	All Cisco UCS C-series M6 servers	Not Supported	Not Supported	Not Supported	Not Supported
1467-10G/25G (UCSC-MV25-04)	Not Supported	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers	SFP-10G-SR/SR-S only	All Cisco UCS C-Series M6 servers
1457-10G/25G (UCSC-MLOMC25Q-04)	Not Supported	Cisco UCS C220 M5 and C240 M5	Cisco UCS C220 M5 and C240 M5	SFP-10G-SR/SR-S only	Cisco UCS C220 M5 and C240 M5
1455-10G/25G (UCSC-PCIEC25Q-04)	Not Supported	All Cisco UCS C-Series M5 and M6 servers and S-series M5 servers	All Cisco UCS C-Series M5 and M6 servers and S-series M5 servers	SFP-10G-SR/SR-S only	All Cisco UCS C-Series M5 and M6 servers and S-series M5 servers
1387 - 40G (UCSC-MLOM-C40Q-03)	All Cisco UCS C-Series M5 Servers (40G)	Not Supported	Not Supported	With QSA and SFP-10G-SR only	All Cisco UCS C-Series M5 servers (QSA at adapter)
1385 - 40G (UCSC-PCIE-C40Q-03)	All Cisco UCS C-Series M5 Servers (40G)	Not Supported	Not Supported	With QSA and SFP-10G-SR only	All Cisco UCS C-Series M5 servers (QSA at adapter)

Table 2: Cisco UCS 6536 FI - Cisco UCS Blade Servers

Cisco VIC	IOM	
	2304v1/v2 & /2408	UCSX-I-9108-25G or UCSX-I-9108-100G
15230 (UCSX-ML-V5D200GV2)	-	Cisco UCS X210c M6, X210c M7, and X410c M7
15420 + UCS VIC 15000 bridge connector (UCSX-V5-BRIDGE+) + 15422 (UCSX-ME-V5Q50G)	-	Cisco UCS X210c M6, X210c M7, and X410c M7

Cisco VIC	IOM	
	2304v1/v2 & /2408	UCSX-I-9108-25G or UCSX-I-9108-100G
15420 (UCSX-ML-V5Q50G)	-	Cisco UCS X210c M6, X210c M7, and X410c M7
15231 (UCSX-ML-V5D200G)	-	Cisco UCS X210c M6, X210c M7, and X410c M7
14425 + UCS VIC 14000 bridge connector (UCSX-V4-BRIDGE) + 14825 (UCSX-V4-Q25GME)	-	Cisco UCS X210c M6
14425 (UCSX-V4-Q25GML)	-	Cisco UCS X210c M6
15411 + Port Expander (UCSB-ML-V5Q10G + UCSB-MLOM-PT-01)	Cisco UCS B200 M6	-
15411 (UCSB-ML-V5Q10G)	Cisco UCS B200 M6	-
1440 + 1480 + Port Expander (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P) + UCSB-MLOM-PT-01	Cisco UCS B480 M5	-
1440 + 1480 + 1480 (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P+UCSB-VIC-M84-4P)	Cisco UCS B480 M5	-
1440 + 1480 (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P)	Cisco UCS B200 M6, B200 M5, B480 M5	-
1440 + Port Expander (UCSB-MLOM-40G-04 + UCSB-MLOM-PT-01)	Cisco UCS B200 M6, B200 M5, B480 M5	-
1440 (UCSB-MLOM-40G-04)	Cisco UCS B200 M6, B200 M5, B480 M5	-
1340 + 1380 + Port Expander	Cisco UCS B480 M5	-
1340 + 1380 + 1380	Cisco UCS B480 M5	-
1340 + 1380 (UCSB-MLOM-40G-03 + UCSB-VIC-M83-8P)	Cisco UCS B200 M5 and B480 M5	-
1340 + Port Expander - 10G/40G (UCSB-MLOM-40G-03 + UCSB-MLOM-PT-01)	Cisco UCS B200 M5 and B480 M5	-
1340 - 10G/40G (UCSB-MLOM-40G-03)	Cisco UCS B200 M5 and B480 M5	-

**Cisco UCS 6400 and 64108 FIs**

**Table 3: Cisco UCS 6400 and 64108 FIs - Cisco UCS Rack Servers**

Cisco VIC	Direct Attach (10G/25G)	Direct Attach (4x10G/4x25)	Direct Attach (40G/100G)	FEX		
				2232 PP (10G)	93180YC-FX3 (25G server ports)	93180YC-FX3 (10G server ports)
15427 (UCSC-M-V5Q50GV2)	All Cisco UCS C-Series M6 and M7 servers	All Cisco UCS C-Series M6 and M7 servers	Not Supported	Not Supported	All Cisco UCS C-Series M6 and M7 servers	SFP-10G-SR/SR-S only
15237 (UCSC-M-V5D200GV2)	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported
15235 (UCSC-P- V5D200G)	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported
15238 (UCSC-M -V5D200G)	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported
15425 (UCSC-P- V5Q50G)	All Cisco UCS C-Series M6 and M7 servers	All Cisco UCS C-Series M6 and M7 servers	Not Supported	Not Supported	All Cisco UCS C-Series M6 and M7 servers	SFP-10G-SR/SR-S only
15428 (UCSC-M -V5Q50G)	All Cisco UCS C-Series M6 and M7 servers	All Cisco UCS C-Series M6 and M7 servers	Not Supported	Not Supported	All Cisco UCS C-Series M6 and M7 servers	SFP-10G-SR/SR-S only
<b>Note</b> Break-out is supported (6400 side QSFP, on adapter side two ports can be connected to 1 VIC ( like ports 1 and 2) Reverse-breakout : Not supported						
1495-40G/100G (UCSC -PCIEC100 -04)	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported
1497-40G/100G (UCSC -MLOMC100 -04)	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported
1477-40G/100G (UCSC-MV100 -04)	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported
1467-10G/25G (UCSC -MV25-04)	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers	Not Supported	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers	SFP-10G-SR/SR-S only

Cisco VIC	Direct Attach (10G/25G)	Direct Attach (4x10G/4x25)	Direct Attach (40G/100G)	FEX		
				2232 PP (10G)	93180YC-FX3 (25G server ports)	93180YC-FX3 (10G server ports)
1457-10G/25G (UCSC-MLOM C25Q-04)	Cisco UCS C220 M5, C240 M5	Cisco UCS C220 M5, C240 M5	Not Supported	Cisco UCS C220 M5, C240 M5	Cisco UCS C220 M5, C240 M5	SFP-10G-SR/SR-S only
1455-10G/25G (UCSC-PCIE 25Q-04)	All Cisco UCS C-Series M5 and M6 servers, and S-Series M5 servers	All Cisco UCS C-Series M5 and M6 servers, and S-Series M5 servers	Not Supported	All Cisco UCS C-Series M5 and M6 servers, and S-Series M5 servers	All Cisco UCS C-Series M5 and M6 servers, and S-Series M5 servers	SFP-10G-SR/SR-S only
1387 - 40G (UCSC-MLOM -C40Q-03)	All Cisco UCS C-Series M5 servers  QSA at adapter)	Not Supported	Not Supported	All Cisco UCS C-Series M5 servers  QSA at adapter)	Not Supported	With QSA and SFP-10G-SR only
1385 - 40G (UCSC-PCIE -C40Q-03)	All Cisco UCS C-Series M5 and S-Series M5 servers (Except C125 M5)  QSA at adapter)	Not Supported	Not Supported	All Cisco UCS C-Series M5 and S-Series M5 servers (Except C125 M5)  QSA at adapter)	Not Supported	With QSA and SFP-10G-SR only

Table 4: Cisco UCS 6400 and 64108 FIs - Cisco UCS Blade Servers

Cisco VIC	IOM	
	2204/2208/2408	UCSX-I-9108-25G
15230 (UCSX-ML-V5D200GV2)	Not Supported	Cisco UCS X210c M6, X210c M7, and X410c M7
15420 + UCS VIC 15000 bridge connector (UCSX-V5-BRIDGE+) + 15422 (UCSX-ME-V5Q50G)	Not Supported	Cisco UCS X210c M6, X210c M7, and X410c M7
15420 (UCSX-ML-V5Q50G)	Not Supported	Cisco UCS X210c M6 and X210c M7 servers
15231 (UCSX-ML-V5D200G)	Not Supported	Cisco UCS X210c M6 and X210c M7 servers
14425 + UCS VIC 14000 bridge connector (UCSX-V4-BRIDGE) + 14825 (UCSX-V4-Q25GME)	Not Supported	Cisco UCS X210c M6

Cisco VIC	IOM	
	2204/2208/2408	UCSX-I-9108-25G
14425 (UCSX-V4-Q25GML)	Not Supported	Cisco UCS X210c M6
15411 + Port Expander (UCSB-ML -V5Q10G + UCSB-MLOM -PT-01)	B200 M6	Not Supported
15411 (UCSB-ML -V5Q10G)	B200 M6	Not Supported
1440 + 1480 + 1480 (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P + UCSB-VIC-M84-4P)	Cisco UCS B480 M5	Not Supported
1440 + 1480 + Port Expander (UCSB-MLOM-40G-04 + UCSB-VIC- M84-4P) + UCSB-MLOM-PT-01	Cisco UCS B480 M5	Not Supported
1440 + 1480 (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P)	Cisco UCS B200 M6, B200 M5, B480 M5	Not Supported
1440 + Port Expander (UCSB-MLOM-40G-04 + UCSB-MLOM-PT-01)	Cisco UCS B200 M6, B200 M5, B480 M5	Not Supported
1440 (UCSB-MLOM-40G-04)	Cisco UCS B200 M6, B200 M5, B480 M5	Not Supported
1340 + 1380 + 1380	Cisco UCS B480 M5	Not Supported
1340 + 1380 + Port Expander	Cisco UCS B480 M5	Not Supported
1340 + Port Expander - 10G/40G (UCSB-MLOM-40G-03 + UCSB-MLOM-PT-01)	Cisco UCS B200 M5 and B480 M5	Not Supported

Cisco VIC	IOM	
	2204/2208/2408	UCSX-I-9108-25G
1340 + 1380 (UCSB-MLOM-40G-03 + UCSB-VIC-M83-8P)	Cisco UCS B200 M5 and B480 M5	Not Supported
1340 - 10G/40G (UCSB-MLOM-40G-03)	Cisco UCS B200 M5 and B480 M5	Not Supported

**Cisco UCS 6300 FI**

**Table 5: Cisco UCS 6300 FI - Cisco UCS Rack Servers**

Cisco VIC	Direct Attach	Direct Attach (Break-out)	FEX	
			2232 PP	2348
15427 (UCSC-M-V5Q50GV2)	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers	Not Supported	All Cisco UCS C-Series M6 servers
15237 (UCSC-M-V5D200GV2)	All Cisco UCS C-Series M6 servers	Not Supported	Not Supported	Not Supported
15235 (UCSC-P-V5D200G)	All Cisco UCS C-Series M6 servers	Not Supported	Not Supported	Not Supported
15425 (UCSC-P-V5Q50G)	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers	Not Supported	All Cisco UCS C-Series M6 servers
15428 (UCSC-M-V5Q50G)	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers	Not Supported	All Cisco UCS C-Series M6 servers
15238 (UCSC-M-V5D200G)	All Cisco UCS C-Series M6 servers	Not Supported	Not Supported	Not Supported
1497-40G/100G (UCSC-MLOMC100-04)	Cisco UCS C220 M5, C240 M5 servers	Not Supported	Not Supported	Not Supported
1495-40G/100G (UCSC-PCIEC100-04)	All Cisco UCS C-Series M5 and M6 servers and S-Series M5 servers	Not Supported	Not Supported	Not Supported
1477-40G/100G (UCSC-MV100-04)	All Cisco UCS C-Series M6 servers	Not Supported	Not Supported	Not Supported
1467-10G/25G (UCSC-MV25-04)	All Cisco UCS C-Series M6 servers (10G speed with 6332-16UP)	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers	All Cisco UCS C-Series M6 servers

Cisco VIC	Direct Attach	Direct Attach (Break-out)	FEX	
			2232 PP	2348
1457-10G/25G (UCSC-MLOMC25Q-04)	Cisco UCS C220 M5 and C240 M5 (10G speed with 6332-16UP)	Cisco UCS C220 M5 and C240 M5	Cisco UCS C220 M5 and C240 M5	Cisco UCS C220 M5 and C240 M5
1455-10G/25G (UCSC-PCIEC25Q-04)	All Cisco UCS C-Series M5 and M6 servers and S-Series M5 servers (10G speed with 6332-16UP)	All Cisco UCS C-Series M5 and M6 servers and S-Series M5 servers	All Cisco UCS C-Series M5 and M6 servers and S-Series M5 servers	All Cisco UCS C-Series M5 and M6 servers and S-Series M5 servers
1387 - 40G (UCSC-MLOM-C40Q-03)	All Cisco UCS C-Series M5 servers (40G or 10G using QSA)	Not Supported	All Cisco UCS C-Series M5 servers (QSA at adapter)	All Cisco UCS C-Series M5 servers (QSA at adapter)
1385 - 40G (UCSC-PCIE-C40Q-03)	All Cisco UCS C-Series M5 servers (except UCS C125 M5) and S-Series M5 servers (40G or 10G using QSA)	Not Supported	All Cisco UCS C-Series M5 servers (except UCS C125 M5) and S-Series M5 servers (40G or 10G using QSA)	All Cisco UCS C-Series M5 servers (except UCS C125 M5) and S-Series M5 servers (40G or 10G using QSA)

Table 6: Cisco UCS 6300 FI - Cisco UCS Blade Servers

Cisco VIC	IOM
	2304v1/v2 2204/2208
15411 + Port Expander (UCSB-ML-V5Q10G + UCSB-MLOM-PT-01)	Cisco UCS B200 M6
15411 (UCSB-ML-V5Q10G)	Cisco UCS B200 M6
1440 + 1480 + 1480	Cisco UCS B480 M5
1440 + 1480 + Port Expander (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P) + UCSB-MLOM-PT-01	Cisco UCS B480 M5
1440 + 1480 (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P)	Cisco UCS B200 M5, B480 M5 and B200 M6 servers
1440 + Port Expander (UCSB-MLOM-40G-04 + UCSB-MLOM-PT-01)	Cisco UCS B200 M5, B480 M5 and B200 M6 servers
1440 (UCSB-MLOM-40G-04)	Cisco UCS B200 M5, B480 M5 and B200 M6 servers
1340 + 1380 + 1380	Cisco UCS B480 M5
1340 + 1380 + Port Expander	Cisco UCS B480 M5
1340 + Port Expander - 10G/40G (UCSB-MLOM-40G-03 + UCSB-MLOM-PT-01)	Cisco UCS B200 M5 and B480 M5 servers



<b>Cisco VIC</b>	<b>IOM</b>
	<b>2304v1/v2</b> <b>2204/2208</b>
1340 + 1380 (UCSB-MLOM-40G-03 + UCSB-VIC-M83-8P)	Cisco UCS B200 M5 and B480 M5 servers
1340 - 10G/40G (UCSB-MLOM-40G-03)	Cisco UCS B200 M5 and B480 M5 servers

**Cisco UCS 6324 FI**

**Table 7: Cisco UCS 6324 FI - Cisco UCS Rack Servers**

<b>Cisco VIC</b>	<b>Direct Attach (10G)</b>	<b>Direct Attach (Break-out)</b>
15428 (UCSC-M-V5Q50G)	Not Supported	Not Supported
15238 (UCSC-M-V5D200G)	Not Supported	Not Supported
1497-40G/100G (UCSC-MLOMC100-04)	Not Supported	Not Supported
1495-40G/100G (UCSC-PCIEC100-04)	Not Supported	Not Supported
1477-40G/100G (UCSC-MV100-04)	Not Supported	Not Supported
1467-10G/25G (UCSC-MV25-04)	Not Supported	Not Supported
1457-10G/25G (UCSC-MLOMC25Q-04)	Cisco UCS C220 M5 and C240 M5 servers	Cisco UCS C220 M5 and C240 M5 servers
1455-10G/25G (UCSC-PCIEC25Q-04)	All Cisco UCS C-Series and S-Series M5 servers	All Cisco UCS C-Series and S-Series M5 servers
1387 - 40G (UCSC-MLOM-C40Q-03)	All Cisco UCS C-Series M5 servers (QSA at the adapter)	Not Supported
1385 - 40G (UCSC-PCIE-C40Q-03)	All Cisco UCS C-Series M5 servers (QSA at the adapter)	Not Supported

**Table 8: Cisco UCS 6324 FI - Cisco UCS Blade Servers**

<b>Cisco VIC</b>	<b>IOM</b>	<b>6324 (Primary Chassis)</b>
	<b>2204/2208</b>	
15411 (UCSB-ML-V5Q10G)	Not Supported	Not Supported
15411 + Port Expander (UCSB-ML-V5Q10G + UCSB-MLOM-PT-01)	Not Supported	Not Supported

Cisco VIC	IOM	6324
	2204/2208	(Primary Chassis)
1440 + 1480 + 1480 (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P+UCSB-VIC-M84-4P)	Not Supported	Cisco UCS B480 M5
1440 + 1480 + Port Expander (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P) + UCSB-MLOM-PT-01	Not Supported	Cisco UCS B480 M5
1440 + 1480 (UCSB-MLOM-40G-04 + UCSB-VIC-M84-4P)	Not Supported	Cisco UCS B200 M5 and B480 M5
1440 + Port Expander (UCSB-MLOM-40G-04 + UCSB-MLOM-PT-01)	Not Supported	Cisco UCS B200 M5 and B480 M5
1440 (UCSB-MLOM-40G-04)	Not Supported	Cisco UCS B200 M5 and B480 M5
1340 + 1380 + 1380	Cisco UCS B480 M5	Cisco UCS B480 M5
1340 + 1380 + Port Expander	Cisco UCS B480 M5	Cisco UCS B480 M5
1340 + 1380 (UCSB-MLOM-40G-03 + UCSB-VIC-M83-8P)	Cisco UCS B200 M5 and B480 M5	Cisco UCS B200 M5 and B480 M5
1340 + Port Expander - 10G/40G (UCSB-MLOM-40G-03 + UCSB-MLOM-PT-01)	Cisco UCS B200 M5 and B480 M5	Cisco UCS B200 M5 and B480 M5
1340 - 10G/40G (UCSB-MLOM-40G-03)	Cisco UCS B200 M5 and B480 M5	Cisco UCS B200 M5 and B480 M5

## Cisco UCS 6400 Series Fabric Interconnect Migration

### Cisco UCS 6400 Series Fabric Interconnect Migration Considerations

Beginning with Cisco UCS Manager, Release 4.3(2b), You can migrate Cisco UCS 6400 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect with B-Series servers, C-Series, or S-Series servers.

To migrate from Cisco UCS 6400 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect:

- Cisco UCS 6400 Series Fabric Interconnects must be on Cisco UCS Manager 4.3(2b) or a later release.
- Cisco UCS 6536 Fabric Interconnect must be loaded with the same Infrastructure Firmware version that is on the Cisco UCS 6400 Series Fabric Interconnect that it will replace.

#### Prerequisites

Before performing the migration from Cisco UCS 6400 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect, ensure that the following prerequisites are met for a successful migration:

- Back up and export Cisco UCS Manager configuration before initiating the upgrade.
- Take an inventory of the Cisco UCS domain and remove any unsupported hardware.
- Ensure to enable the cluster failover.
- Do not attempt to implement new software features from the new Cisco UCS software version until all required hardware is installed.
- Validate the software features and configurations between Cisco UCS 6400 series and UCS 6536 Fabric Interconnects. Before migration, ensure that 6400 series Fabric Interconnect is reconfigured to only have features that are supported with 6536 Fabric Interconnects.



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**Note** This is one of the most common reasons for migration failures.

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- Make sure both Cisco UCS 6400 series and 6500 series Fabric Interconnects are on the same UCSM build before migration.
- Licenses from Cisco UCS 6400 Series Fabric Interconnects are not transferable to Cisco UCS 6500 Series Fabric Interconnects.
- Standalone installations should expect down time. In a cluster configuration, migrating the Fabric Interconnects can result in a small traffic disruption when the traffic fails over from one Fabric Interconnect to another. To avoid that there is no permanent traffic loss during migration, ensure that there is redundancy in the UCS domain on both Fabric Interconnects before migration and test the redundancy before starting the migration.
- Cisco UCS 6536 Fabric Interconnect use the IDLE fill pattern for FC uplink ports and FC storage ports when using 8 Gbps speed.

When migrating to Cisco UCS 6536 Fabric Interconnect and configuring FC Uplink Ports or FC Storage Ports at 8Gbps speed, ensure that the fill pattern is set as IDLE on the corresponding FC switch ports and the direct-attached FC storage array ports. If the fill pattern is not set as IDLE, FC uplink ports and FC storage ports operating at 8 Gbps might go to an errDisabled state, lose SYNC intermittently, or receive errors or bad packets.

Cisco UCS 6536 Fabric Interconnects supports 8 Gbps only with fill-pattern set to IDLE for direct-attached FC connectivity (FC uplink ports or FC storage ports). This limitation is not applicable for Cisco UCS 6536 Fabric Interconnects with Fibre Channel (FC) ports at 16 Gbps and 32 Gbps. When migrating to Cisco UCS 6536 Fabric Interconnect for direct-attached storage arrays that don't support IDLE fill-pattern at 8 Gbps do one of the following:

- Use a SAN switch between the Cisco UCS 6536 Fabric Interconnect and the storage array with 8 GB FC connectivity.
  - Upgrade the storage array to 16 GB or 32 GB FC connectivity.
- Ensure the latest firmware bundle is downloaded and upgraded through GUI or CLI. In case of attempting to upgrade the firmware bundle using other methods (loader prompt/erase configuration) can result in missing package version.

- Before migration, make sure that the FC Speed is 8Gbps on Cisco UCS 6400 Fabric Interconnects or the connected switch supports 8Gbps speed.




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**Note** Post migration, you can configure the FC Port (Scalability Port) speed on Cisco UCS 6500 Fabric Interconnects.

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- Migrating to different IOM models can result in peer communication issue between IOMs of the Primary and Secondary Fabric Interconnects.
- Make a detailed record of the cabling between FEX and fabric interconnects. You must preserve the physical port mapping to maintain the server pinning already configured and minimize down time.
- For a cluster configuration, both fabric interconnects must have symmetrical connection topologies between fabric interconnect and FEX.
- Use the same speed cables on all the adapter ports that are connected to same Fabric Interconnect. Cisco UCS VIC adapter ports connected to Cisco UCS 6536 fabric interconnect through a mix of 10G and 25G cables can result in UCS rack-mount server discovery failure and ports moving to suspended state.
- Cisco UCS 6536 Fabric Interconnect only supports 25/40/100G direct connectivity for C-series rack servers and 10G direct-connect is not supported on C-series rack servers. The Cisco UCS 6536 Fabric Interconnect supports 10G server connectivity only with 2348-UPQ FEX.
- A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the UCS infrastructure the source WWPNS is converted to a MAC address. You cannot use WWPNS pool which can translate to source multicast MAC addresses. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX
- Unconfigure the fibre channel ports on the migrating subordinate Cisco UCS 6400 series Fabric Interconnect and reconfigure on the Cisco UCS 6536 Fabric Interconnect.

### Recommendations

Following are the best practices for a successful migration:

- For minimal disruption during migration, ensure that there is redundancy for Ethernet and FC traffic from the servers in the UCS domain across both 6400 series fabric interconnects before migration.
- Changes to the topology, such as the number of servers or uplink connections, should be performed after the fabric interconnect migration is complete.
- During the migration of Fabric Interconnects, ensure the Cluster ID is not changed.
- During the migration, image synchronization between fabric interconnects is not allowed. This is done to prevent incompatible images from getting synchronized. It is necessary to download B-Series, C-Series, and S-Series server software bundles again after migration is complete.
- During the migration, ensure that VLAN is not created in the range of 3915 to 4042 which are the reserved VLAN range for Cisco UCS 6536 Fabric Interconnects.

- The Cisco UCS 6536 Fabric Interconnect supports only port-channel mode for chassis-discovery. Hence, change the Chassis/FEX discovery policy on the Cisco UCS 6400 series Fabric Interconnect to port-channel and immediately re-acknowledge the Cisco UCS 5108 chassis.



**Note** The migration can fail when the chassis is not immediately re-acknowledged.



**Note** For more information on migrating Cisco UCS 6400 series Fabric Interconnects to Cisco UCS 6500 series Fabric Interconnect with UCS Central, see [Considerations for migrating Cisco UCS 6400 Series Fabric Interconnects to Cisco UCS 6500 Series Fabric Interconnects with Cisco UCS Central](#), on page 14.

## Validating Feature Configurations for Cisco UCS 6536 before Upgrade

Cisco UCS 6536 Fabric Interconnect does not support some software features that were allowed with Cisco UCS 6400 Series Fabric Interconnect. Some of these features will become available at a later software release.

**Table 9: Features that needs special attention prior to upgrading**

Feature	Remediation
License Management	Licensing for Cisco UCS 6536 Fabric Interconnect is not a port-based license like in previous generation Fabric Interconnects.  All ports are enabled through a perpetual license in Cisco UCS 6536 Fabric Interconnect and no license installation is required.
Chassis and fabric extender I/O port channel	Select a port channel to the I/O module (IOM).
Multicast optimization	Verify that multicast optimization is not enabled under the LAN quality-of-service (QoS) system classes
Fabric forwarding mode for Ethernet	Verify that the Ethernet forwarding mode is set to <b>End Host Mode Only</b> .
Fabric forwarding mode for Fibre Channel	Verify that Fibre Channel forwarding mode is set to <b>End Host Mode or FC Switching Mode</b> .
Cisco NetFlow	Unconfigure NetFlow.
MAC Security	Select <b>Allow</b> for MAC security.
VM-FEX	Remove port profiles and Cisco UCS Manager ESXi or SCVMM related configurations.
Dynamic vNIC connection policies	Set the dynamic vNIC connection policy in the vNIC profile to <b>Not set</b> .

Feature	Remediation
Cisco Switched Port Analyzer (SPAN)	Use receive (RX) direction only. The installer will change SPAN to the RX direction and send an alert indicating that this setting is being changed.

Failure to comply with these remediation steps will result in a migration warning alert during the migration process and prevent the fabric interconnects from synchronizing.

## Considerations for migrating Cisco UCS 6400 Series Fabric Interconnects to Cisco UCS 6500 Series Fabric Interconnects with Cisco UCS Central

In addition to [Cisco UCS 6400 Series Fabric Interconnect Migration Considerations, on page 10](#), consider the following prerequisites when migrating with Cisco UCS Central:

- Before initiating the migration, ensure to have a complete backup of Cisco UCS Manager and UCS Central configurations.
- To avoid any configuration issues during migration, make sure the following policies on Policy Resolution Control is set to Local in UCS Central:
  - Infrastructure and Catalog Firmware Policy
  - Equipment Policy
  - Port Configuration Policy

## Migrating from UCS 6400 Series Fabric Interconnects to UCS 6536 Fabric Interconnects

Cisco UCS 6400 Series Fabric Interconnects include Cisco UCS 6454 and Cisco UCS 64108. You can migrate from Cisco UCS 6400 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect. After migrating to Cisco UCS 6536 Fabric Interconnect, Cisco recommends not to migrate back to UCS 6400 Series Fabric Interconnect.

The Cisco UCS 6536 Fabric Interconnect supports only port-channel mode for chassis-discovery. On changing the chassis or FEX discovery policy to port-channel, the chassis needs to be re-acknowledged before proceeding with the migration.

To acknowledge the chassis in Cisco UCS Manager, do the following:

1. In the Navigation pane of Cisco UCS Manager, click **Equipment**.
2. Click the **Equipment** node.
3. In the Work pane, click the **Policies** tab.
4. Click the **Global Policies** subtab.
5. In the **Chassis/FEX Discovery Policy** area, set the **Link Grouping Preference** field to **Port Channel**.
6. Expand **Equipment** > **Chassis**, and choose the chassis that you want to acknowledge.
7. In the Work pane, click the **General** tab.

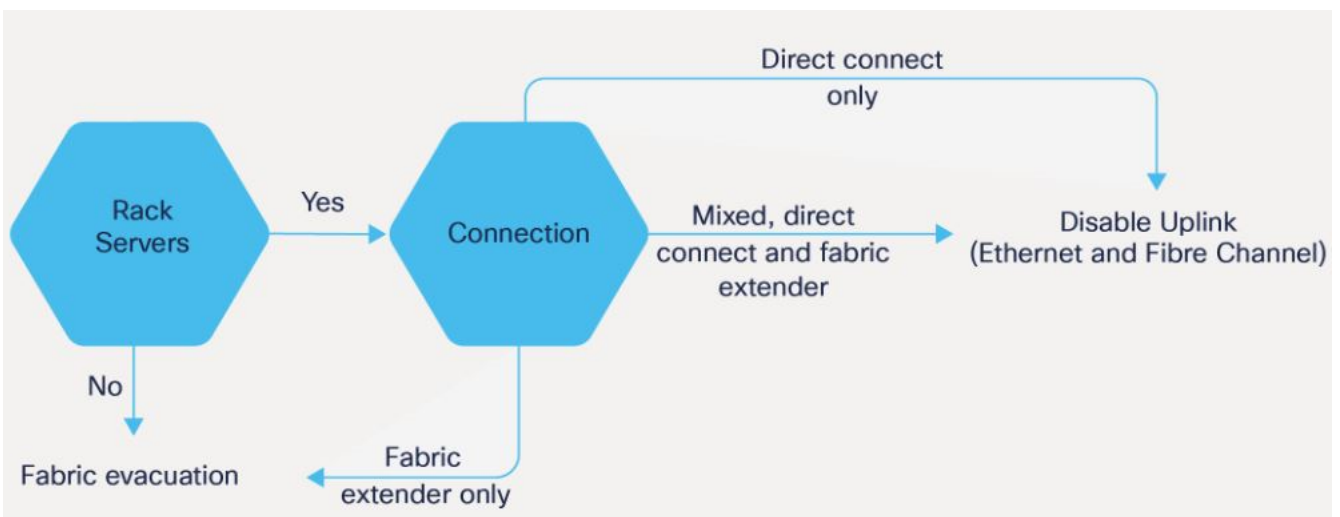
8. In the **Actions** area, click **Acknowledge Chassis**.



**Note** For more information about how to perform configuration procedures in Cisco UCS Manager, see the appropriate [Cisco UCS Manager Configuration Guide](#).

### Procedure

- Step 1** Move the traffic to the primary fabric interconnect. This can be performed in two ways: fabric evacuation and uplink disablement. Use the below flowchart to choose between the two based on your Cisco UCS domain server and



**Note** For direct-attached rack servers, only uplink disablement is supported.

- Step 2** Verify that all traffic has failed over to the primary fabric interconnect. Unconfigure all server ports or fibre channel ports on the subordinate fabric interconnect.

For more information, see the *Fabric Interconnect Traffic Evacuation* section in the *Guidelines and Prerequisites* chapter of the [Cisco UCS Manager Firmware Management Guide](#).

- Step 3** Power down the old subordinate fabric interconnect and disconnect the power and the L1/L2 cables.

If you are monitoring the migration using a KVM session to a server host, you may need to reconnect it after you powered down the secondary fabric interconnect.

- Step 4** Mount the replacement Cisco UCS 6536 Fabric Interconnect into either the same rack or an adjacent rack.

**Note** As a best practice, you should label the cables.

- Step 5** Connect the L1/L2 cables and the server ports according to your port mapping plan.

- Step 6** Power up the new fabric interconnect. If it is connected correctly, the new subordinate fabric interconnect will detect that it is being added to an existing cluster.

- Step 7** The subordinate Cisco UCS 6536 Fabric Interconnect will automatically synchronize the configuration and database/state information from the primary UCS 6400 Series Fabric Interconnect.
- Synchronization between primary and subordinate fabric interconnects can take several minutes. You may see an error message that will persist until the server ports are enabled.
- The port configuration is copied from the subordinate Fabric Interconnect to the new Fabric Interconnect.
- Note** Skip to Step 10 in case of replacing with a different IOM or FEX during migration. For more information on the compatibility matrix of supported IOM or FEX on the Fabric Interconnect, see [Ports on the Cisco UCS Fabric Interconnects](#)
- Step 8** Unified ports on the 6500 series fabric interconnect are different from the unified port ordering on the 6400 series Fabric Interconnect.
- Note**
- When you convert from ethernet ports to fibre channel ports, a reboot is required. Fibre channel ports are converted in blocks of four (breakout ports).
  - For more information on *Configuring FC Uplink port* or *Converting FC storage port to FC uplink port*, see the *LAN Ports and Port Channels* chapter in [Cisco UCS Manager Network Management Guide](#).
- Step 9** Reconfigure the server ports or fibre channel ports that were unconfigured in Step 2.
- a) If you have changed port mappings, you may need to reacknowledge the IOM, FEX, or direct-connect rack server connected to the subordinate fabric interconnect.
  - b) Verify and if necessary, you can reconfigure ethernet ports as server ports.
  - c) Skip to Step 11 to verify the data path.
- Step 10** To remove and replace the new IOM or FEX and reconfigure the server ports, do the following:
- a) Remove the existing IOM connected to the subordinate Fabric Interconnect and replace it with a supported IOM of Cisco UCS 6536 Fabric Interconnect.
  - b) Verify if any modifications are required for the cable connections.
- Note** For more information, see [Cisco UCS Fabric Interconnect Server Compatibility Matrix - Release 4.3\(3a\), on page 1](#).
- c) Reconfigure the new IOM to maintain the same port mappings. If port mapping were not preserved, configure the server ports accordingly.
  - d) Reacknowledge the IOM connected to the subordinate Fabric Interconnect.
- Note** When migrating from Cisco UCS 6400 to Cisco UCS 6536, IOM-220x can be replaced with IOM-2304v2 or IOM-2408.
- Step 11** Verify that the data path is ready.
- For more information, see the *Verifying that Dynamic vNICs Are Up and Running* section in the *Guidelines and Prerequisites* chapter of the [Cisco UCS Manager Firmware Management Guide](#).
- Ensure that all faults are resolved before proceeding with next step.
- a) Verify, and if necessary, reconfigure the SAN pin group for fibre channel ports in the associated service profile.
  - b) Verify, and if necessary, reconfigure the LAN pin group for ethernet ports in the associated service profile.
  - c) Verify, and if necessary, reconfigure the port channel for uplink ethernet ports.



- Step 12** Move the traffic back to the new subordinate fabric interconnect. If you used the fabric evacuation method, then deselect fabric evacuation. If you disabled the uplinks (Ethernet and Fibre Channel), then re-enable the uplinks. Verify that traffic is flowing correctly on the new subordinate fabric interconnect.
- Step 13** After verifying that traffic is flowing on the subordinate fabric interconnect, promote the subordinate fabric interconnect to primary using the below commands:
- `UCS-A #connect local-mgmt`: This command connects to the local management interface of the cluster.
  - `UCS-A (local-mgmt) #cluster{lead {a|b}}` or `UCS-A (local-mgmt) #cluster{force primary {a|b}}`: The cluster lead command and cluster force primary command are two separate commands that can be used for promoting the fabric interconnect.
- Note** Ensure that the primary fabric interconnect is Cisco UCS 6536 Fabric Interconnect.
- Step 14** Cable the second new fabric interconnect identically to the first and repeat the steps for the other fabric interconnect replacements to complete the migration.
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# Cisco UCS 6300 Series Fabric Interconnect Migration

## Cisco UCS 6300 Series Fabric Interconnect Migration Considerations

Beginning with Cisco UCS Manager, Release 4.2(3b), Cisco UCS Manager provides support for Cisco UCS 6536 Fabric Interconnect. You can migrate Cisco UCS 6300 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect with B-Series servers, C-Series, or S-Series servers.

To migrate from Cisco UCS 6300 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect:

- Cisco UCS 6300 Series Fabric Interconnects must be on Cisco UCS Manager 4.2(3b) or a later release.
- Cisco UCS 6536 Fabric Interconnect must be loaded with the same Infrastructure Firmware version that is on the Cisco UCS 6300 Series Fabric Interconnect that it will replace.

### Prerequisites

Before performing the migration from Cisco UCS 6300 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect, ensure that the following prerequisites are met for a successful migration:

- Back up and export Cisco UCS Manager configuration before initiating the upgrade.
- Take an inventory of the Cisco UCS domain and remove any unsupported hardware.
- Ensure to enable the cluster failover.
- Do not attempt to implement new software features from the new Cisco UCS software version until all required hardware is installed.
- Validate the software features and configurations between Cisco UCS 6300 series and UCS 6536 Fabric Interconnects. Before migration, ensure that 6300 series Fabric Interconnect is reconfigured to only have features that are supported with 6536 Fabric Interconnects.




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**Note** This is one of the most common reasons for migration failures.

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- Make sure both Cisco UCS 6300 series and 6500 series Fabric Interconnects are on the same UCSM build before migration.
- Licenses from Cisco UCS 6300 Series Fabric Interconnects are not transferable to Cisco UCS 6500 Series Fabric Interconnects.
- Standalone installations should expect down time. In a cluster configuration, migrating the Fabric Interconnects can result in a small traffic disruption when the traffic fails over from one Fabric Interconnect to another. To avoid that there is no permanent traffic loss during migration, ensure that there is redundancy in the UCS domain on both Fabric Interconnects before migration and test the redundancy before starting the migration.
- Cisco UCS 6536 Fabric Interconnect use the IDLE fill pattern for FC uplink ports and FC storage ports when using 8 Gbps speed.

When migrating to Cisco UCS 6536 Fabric Interconnect and configuring FC Uplink Ports or FC Storage Ports at 8Gbps speed, ensure that the fill pattern is set as IDLE on the corresponding FC switch ports and the direct-attached FC storage array ports. If the fill pattern is not set as IDLE, FC uplink ports and FC storage ports operating at 8 Gbps might go to an errDisabled state, lose SYNC intermittently, or receive errors or bad packets.

Cisco UCS 6536 Fabric Interconnects supports 8 Gbps only with fill-pattern set to IDLE for direct-attached FC connectivity (FC uplink ports or FC storage ports). This limitation is not applicable for Cisco UCS 6536 Fabric Interconnects with Fibre Channel (FC) ports at 16 Gbps and 32 Gbps. When migrating to Cisco UCS 6536 Fabric Interconnect for direct-attached storage arrays that don't support IDLE fill-pattern at 8 Gbps do one of the following:

- Use a SAN switch between the Cisco UCS 6536 Fabric Interconnect and the storage array with 8 GB FC connectivity.
- Upgrade the storage array to 16 GB or 32 GB FC connectivity.
- Ensure the latest firmware bundle is downloaded and upgraded through GUI or CLI. In case of attempting to upgrade the firmware bundle using other methods (loader prompt/erase configuration) can result in missing package version.
- Before migration, make sure that the FC Speed is 8Gbps on Cisco UCS 6300 Fabric Interconnects or the connected switch supports 8Gbps speed.




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**Note** Post migration, you can configure the FC Port (Scalability Port) speed on Cisco UCS 6500 Fabric Interconnects.

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- Migrating to different IOM models can result in peer communication issue between IOMs of the Primary and Secondary Fabric Interconnects.
- Make a detailed record of the cabling between FEX and fabric interconnects. You must preserve the physical port mapping to maintain the server pinning already configured and minimize down time.

- For a cluster configuration, both fabric interconnects must have symmetrical connection topologies between fabric interconnect and FEX.
- Use the same speed cables on all the adapter ports that are connected to same Fabric Interconnect. Cisco UCS VIC adapter ports connected to Cisco UCS 6536 fabric interconnect through a mix of 10G and 25G cables can result in UCS rack-mount server discovery failure and ports moving to suspended state.
- Cisco UCS 6536 Fabric Interconnect only supports 25/40/100G direct connectivity for C-series rack servers and 10G direct-connect is not supported on C-series rack servers. The Cisco UCS 6536 Fabric Interconnect supports 10G server connectivity only with 2348-UPQ FEX.
- A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF or from 50:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the UCS infrastructure the source WWPNS is converted to a MAC address. You cannot use WWPNS pool which can translate to source multicast MAC addresses. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool:  
20:00:00:25:B5:XX:XX:XX
- Unconfigure the fibre channel ports on the migrating subordinate Cisco UCS 6300 series Fabric Interconnect and reconfigure on the Cisco UCS 6536 Fabric Interconnect.

### Recommendations

Following are the best practices for a successful migration:

- For minimal disruption during migration, ensure that there is redundancy for Ethernet and FC traffic from the servers in the UCS domain across both 6300 series fabric interconnects before migration.
- Changes to the topology, such as the number of servers or uplink connections, should be performed after the fabric interconnect migration is complete.
- During the migration of Fabric Interconnects, ensure the Cluster ID is not changed.
- During the migration, image synchronization between fabric interconnects is not allowed. This is done to prevent incompatible images from getting synchronized. It is necessary to download B-Series, C-Series, and S-Series server software bundles again after migration is complete.
- During the migration, ensure that VLAN is not created in the range of 3915 to 4042 which are the reserved VLAN range for Cisco UCS 6536 Fabric Interconnects.
- The Cisco UCS 6536 Fabric Interconnect supports only port-channel mode for chassis-discovery. Hence change the Chassis/FEX discovery policy on the Cisco UCS 6300 series Fabric Interconnect to port-channel and immediately re-acknowledge the Cisco UCS 5108 chassis.



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**Note** The migration can fail when the chassis is not immediately re-acknowledged.

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## Validating Feature Configurations for Cisco UCS 6536 before Upgrade

Cisco UCS 6536 Fabric Interconnect does not support some software features that were allowed with Cisco UCS 6300 Fabric Interconnect. Some of these features will become available at a later software release.

Table 10: Features that needs special attention prior to upgrading

Feature	Remediation
License Management	Licensing for Cisco UCS 6536 Fabric Interconnect is not a port-based license like in previous generation Fabric Interconnects.  All ports are enabled through a perpetual license in Cisco UCS 6536 Fabric Interconnect and no license installation is required.
Chassis and fabric extender I/O port channel	Select a port channel to the I/O module (IOM).
Multicast optimization	Verify that multicast optimization is not enabled under the LAN quality-of-service (QoS) system classes
Fabric forwarding mode for Ethernet	Verify that the Ethernet forwarding mode is set to <b>End Host Mode Only</b> .
Fabric forwarding mode for Fibre Channel	Verify that Fibre Channel forwarding mode is set to <b>End Host Mode or FC Switching Mode</b> .
Cisco NetFlow	Unconfigure NetFlow.
MAC Security	Select <b>Allow</b> for MAC security.
VM-FEX	Remove port profiles and Cisco UCS Manager ESXi or SCVMM related configurations.
Dynamic vNIC connection policies	Set the dynamic vNIC connection policy in the vNIC profile to <b>Not set</b> .
Cisco Switched Port Analyzer (SPAN)	Use receive (RX) direction only. The installer will change SPAN to the RX direction and send an alert indicating that this setting is being changed.

Failure to comply with these remediation steps will result in a migration warning alert during the migration process and prevent the fabric interconnects from synchronizing.

## Migrating from UCS 6300 Series Fabric Interconnects to UCS 6536 Fabric Interconnects

Cisco UCS 6300 Series Fabric Interconnects include Cisco UCS 6332 and Cisco UCS 6332-16UP. You can migrate from Cisco UCS 6300 Series Fabric Interconnects to Cisco UCS 6536 Fabric Interconnect.

The Cisco UCS 6536 Fabric Interconnect supports only port-channel mode for chassis-discovery. On changing the chassis or FEX discovery policy to port-channel, the chassis needs to be re-acknowledged before proceeding with the migration.

To acknowledge the chassis in Cisco UCS Manager, do the following:

1. In the Navigation pane of Cisco UCS Manager, click **Equipment**.
2. Click the **Equipment** node.

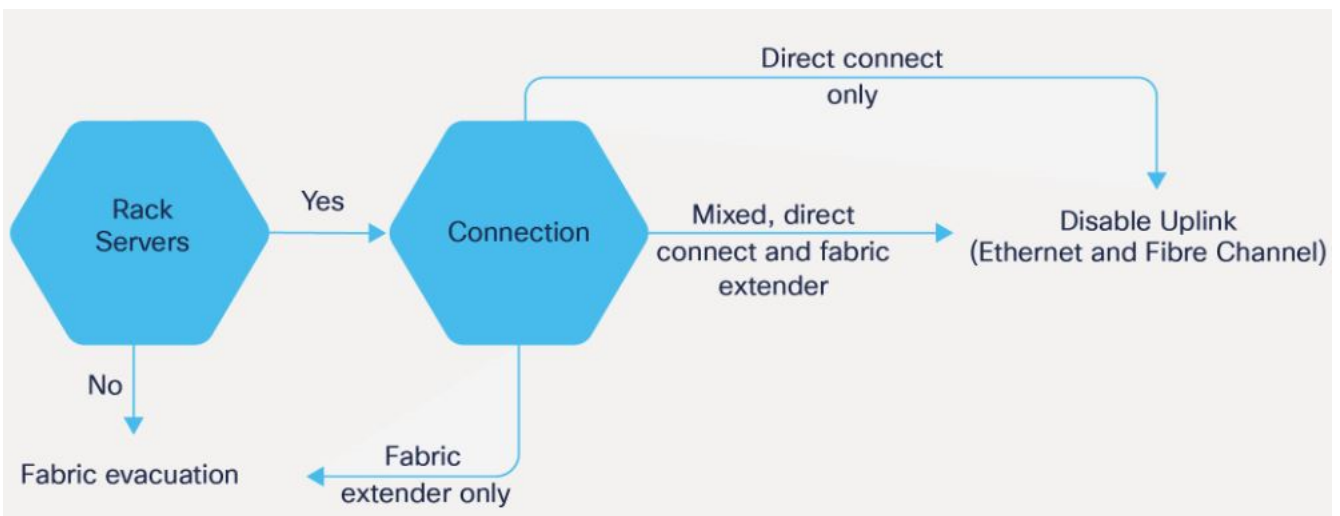
3. In the Work pane, click the **Policies** tab.
4. Click the **Global Policies** subtab.
5. In the **Chassis/FEX Discovery Policy** area, set the **Link Grouping Preference** field to **Port Channel**.
6. Expand **Equipment** > **Chassis**, and choose the chassis that you want to acknowledge.
7. In the Work pane, click the **General** tab.
8. In the **Actions** area, click **Acknowledge Chassis**.



**Note** For more information about how to perform configuration procedures in Cisco UCS Manager, see the appropriate [Cisco UCS Manager Configuration Guide](#).

### Procedure

- Step 1** Move the traffic to the primary fabric interconnect. This can be performed in two ways: fabric evacuation and uplink disablement. Use the below flowchart to choose between the two based on your Cisco UCS domain server and



**Note** For direct-attached rack servers, only uplink disablement is supported.

- Step 2** Verify that all traffic has failed over to the primary fabric interconnect. Unconfigure all server ports or fibre channel ports on the subordinate fabric interconnect.

**Note** For more information, see the *Fabric Interconnect Traffic Evacuation* section in the *Guidelines and Prerequisites* chapter of the [Cisco UCS Manager Firmware Management Guide](#).

- Step 3** Power down the old subordinate fabric interconnect and disconnect the power and the L1/L2 cables.

If you are monitoring the migration using a KVM session to a server host, you may need to reconnect it after you powered down the secondary fabric interconnect.

- Step 4** Mount the replacement Cisco UCS 6536 Fabric Interconnect into either the same rack or an adjacent rack.
- Note** As a best practice, you should label the cables.
- Step 5** Connect the L1/L2 cables and the server ports according to your port mapping plan.
- Step 6** Power up the new fabric interconnect. If it is connected correctly, the new subordinate fabric interconnect will detect that it is being added to an existing cluster.
- Step 7** The subordinate Cisco UCS 6536 Fabric Interconnect will automatically synchronize the configuration and database/state information from the primary UCS 6300 Series Fabric Interconnect.
- Synchronization between primary and subordinate fabric interconnects can take several minutes. You may see an error message that will persist until the server ports are enabled.
- The port configuration is copied from the subordinate Fabric Interconnect to the new Fabric Interconnect.
- Note** Skip to Step 10 in case of replacing with a different IOM or FEX during migration. For more information on the compatibility matrix of supported IOM or FEX on the Fabric Interconnect, see [Ports on the Cisco UCS Fabric Interconnects](#)
- Step 8** Unified ports on the 6500 series fabric interconnect are different from the unified port ordering on the 6300 series Fabric Interconnect.
- Note**
- When you convert from ethernet ports to fibre channel ports, a reboot is required. Fibre channel ports are converted in blocks of four (breakout ports).
  - For more information on *Configuring FC Uplink port* or *Converting FC Storage Port to FC Uplink port*, refer the *LAN Ports and Port Channels* chapter in [Cisco UCS Manager Network Management Guide](#).
- Step 9** Reconfigure the server ports or fibre channel ports that were unconfigured in Step 2.
- a) If you have changed port mappings, you may need to reacknowledge the IOM, FEX, or direct-connect rack server connected to the subordinate fabric interconnect.
  - b) Verify and if necessary, you can reconfigure ethernet ports as server ports.
  - c) Skip to Step 11 to verify the data path.
- Step 10** To remove and replace the new IOM or FEX and reconfigure the server ports, do the following:
- a) Remove the existing IOM connected to the subordinate Fabric Interconnect and replace it with a supported IOM of Cisco UCS 6536 Fabric Interconnect.
  - b) Verify if any modifications are required for the cable connections.
- Note** For more information, see [Cisco UCS Fabric Interconnect Server Compatibility Matrix - Release 4.3\(3a\), on page 1](#).
- c) Reconfigure the new IOM to maintain the same port mappings. If port mapping were not preserved, configure the server ports accordingly.
  - d) Reacknowledge the IOM connected to the subordinate Fabric Interconnect.
- Note** When migrating from Cisco UCS 6300 to Cisco UCS 6536, IOM-220x can be replaced with IOM-2304v2 or IOM-2408 and IOM-2304v1/v2 with IOM-2408.
- Step 11** Verify that the data path is ready.

For more information, see the *Verifying that Dynamic vNICs Are Up and Running* section in the *Guidelines and Prerequisites* chapter of the [Cisco UCS Manager Firmware Management Guide](#).

Ensure that all faults are resolved before proceeding with next step.

- a) Verify, and if necessary, reconfigure the SAN pin group for Fibre Channel ports in the associated service profile.
- b) Verify, and if necessary, reconfigure the LAN pin group for Ethernet ports in the associated service profile.
- c) Verify, and if necessary, reconfigure the port channel for uplink Ethernet ports.

**Step 12** Move the traffic back to the new subordinate fabric interconnect. If you used the fabric evacuation method, then deselect fabric evacuation. If you disabled the uplinks (Ethernet and Fibre Channel), then re-enable the uplinks. Verify that traffic is flowing correctly on the new subordinate fabric interconnect.

**Step 13** After verifying that traffic is flowing on the subordinate fabric interconnect, promote the subordinate fabric interconnect to primary using the below commands:

- `UCS-A #connect local-mgmt`: This command connects to the local management interface of the cluster.
- `UCS-A (local-mgmt) #cluster{lead {a|b}}` or `UCS-A (local-mgmt) #cluster{force primary {a|b}}`: The cluster lead command and cluster force primary command are two separate commands that can be used for promoting the fabric interconnect.

**Note** Ensure that the primary fabric interconnect is Cisco UCS 6536 Fabric Interconnect.

**Step 14** Cable the second new fabric interconnect identically to the first and repeat the steps for the other fabric interconnect replacements to complete the migration.

**Important** Migrating from Cisco UCS 6200 Series Fabric Interconnects to Cisco UCS 6500 Series Fabric Interconnect is supported with Cisco UCS Manager release 4.2(3a). For more information, see [Migration Guide for Cisco UCS Fabric Interconnects, 4.2](#)

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