

Understand FMC-x700 Platforms

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Introduction

This document describes the Cisco Secure Firepower Management Center(FMC)-x 700 Platforms.

Requirements

FMC 4600/2600/1600 (M5 FMC) based on UCS hardware UCS C220-M5 is reaching end-of-sale around the end of 2023. So, we are required to migrate to the newer UCS C225-M6 hardware.M6 FMC platforms (BullsEye project) would be supported only with 7.4.0 and later releases.

[c2250-m6-sff-Specsheet](#)

Components Used

The information in this document is based on these software and hardware versions:
Cisco Firewall Management Center (FMC) 4600/2600/1600 running 7.4

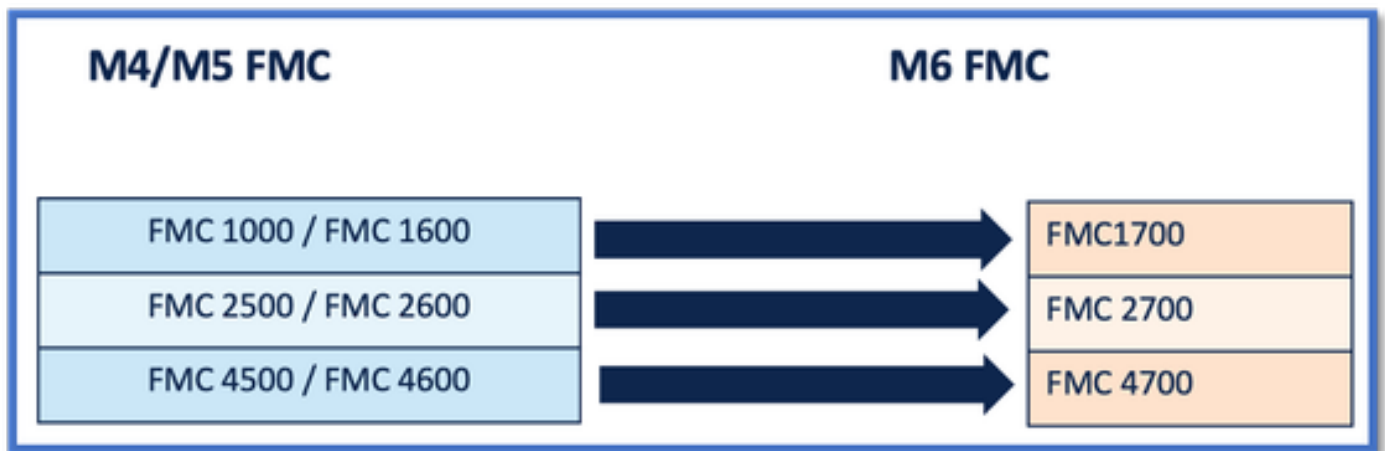
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Solution

The goal of M6 FMC platforms is to have transparent/seamless transition from old M5-based FMC models to new M6-based FMC models. You would not notice any difference in usage of the M6-based FMC models, except

for improved performance for FMC4700.M6-based FMC models use the same ISO file which is used for installation of M5-based FMC models.

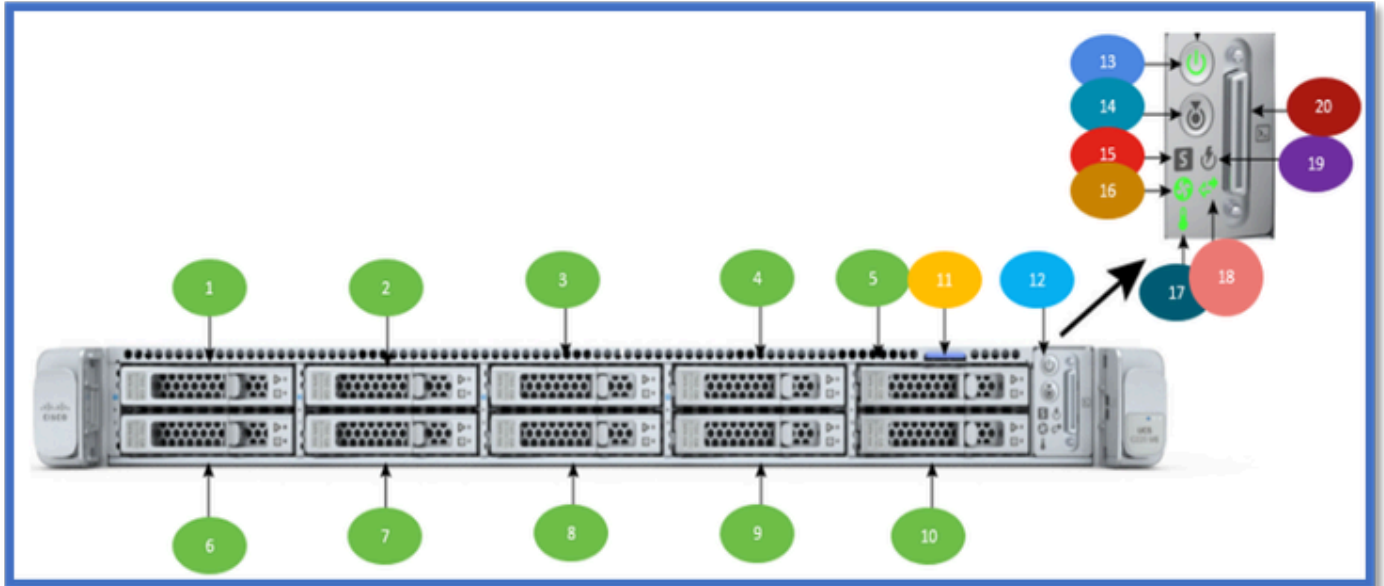
Transition from M4 and M5 to M6-Based FMC Models



Difference Between M5 and M6 Based FMC

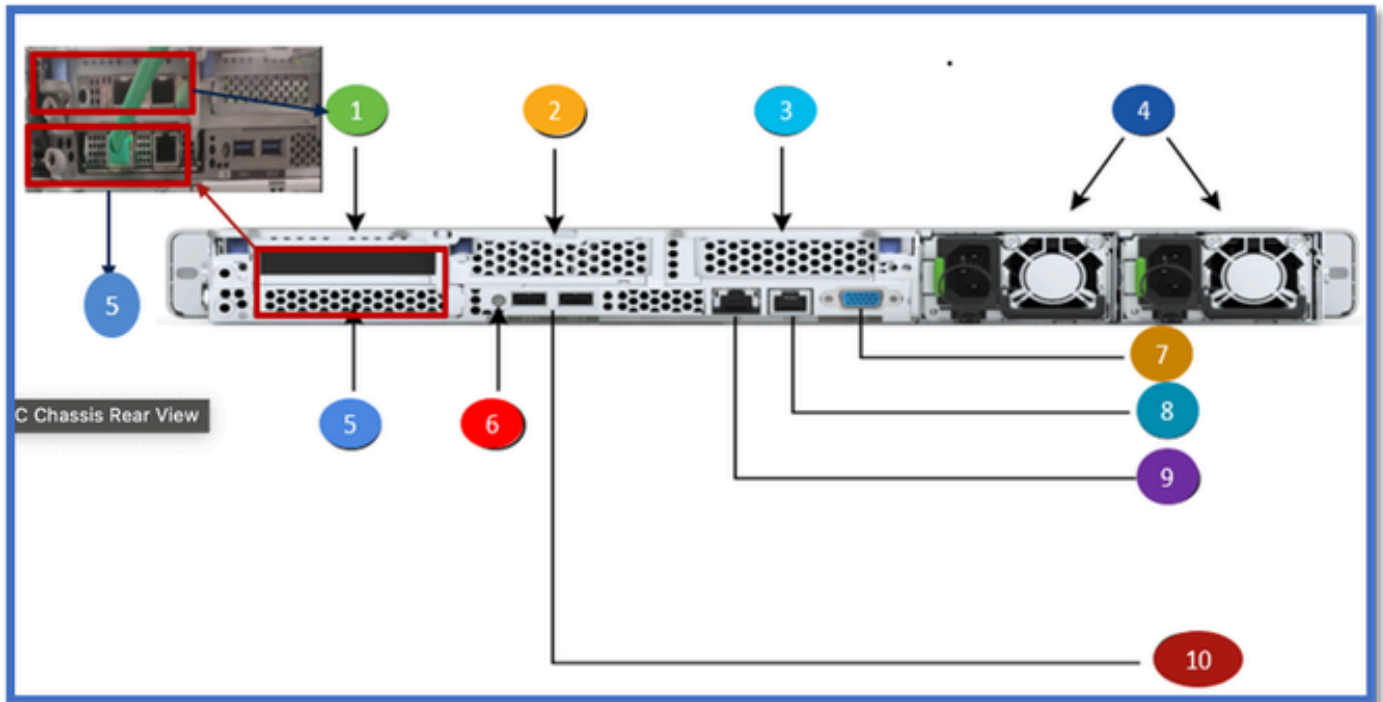
	M5 FMC			M6 FMC		
	FMC1600	FMC2600	FMC4600	FMC1700	FMC2700	FMC4700
CPU	Intel Cascade Lake	Intel Cascade Lake	Intel Cascade Lake	AMD Rome	AMD Rome	AMD Rome
Recovery Mechanism	32GB(single) SD Card	32GB(single) SD Card	32GB(single) SD Card	240 GB (2 drives in Raid 1 mode) M2 Drive	240 GB (2 drives in Raid 1 mode) M2 Drive	240 GB (2 drives in Raid 1 mode) M2 Drive
Power supply	770W	770W	770W	1050W	1050W	1050W
NIC	10G	10G	10G	10G	10G	10/25G
Max sensors	50	300	750	50	300	1000
Max IPS events	30 Million	60 Million	300 Million	30 Million	60 Million	400 Million
Max Flow Rate	5K FPS	12K FPS	20K FPS	5K FPS	12K FPS	30K FPS

M6 FMC Chassis Front View



- 1-10 SAS/SATA Hard drive or SSDs or NVME PCIe drives
- 11 Asset Tag Location
- 12 Control Panel
- 13 Power Button/Power Status LED
- 14 Unit Identification Button/LED
- 15 System Status LED
- 16 Fan Status LED

M6 FMC Chassis Rear View



- 1 Riser 1 (PCIe NIC Card, eth2 & eth3)
- 2 Riser 2 Blanking Panel
- 3 Riser 3 Blanking Panel
- 4 Power Supplies
- 5 Modular LAN on Mother board (mLOM)/OCP 3.0 slot(eth0 & eth1)
- 6 System ID Pushbutton/LED
- 7 VGA Display Port (DB15 Connector)

Recovery Drives for M6-Based FMC

On M5-based FMC models, a single SD card used for recovery was corrupted in some cases. To address this problem, the M6-based FMCs support two M2 drives and RAID1 would be pre-configured before shipping the units. Two drives are used to support redundancy, even if one drive is corrupted, data must be intact in another drive. Effectively, 240GB would be available after configuring with RAID1.

SFPs Supported

The 10G SFPs which were qualified for M5 FMC would be supported for M6 FMC as well.

This list of SFPs can be used on eth2 & eth3 across all models.

- SFP-10G-SR
- SFP-10G-LR

These SFPs are qualified for 25G speed on eth2 and eth3 for FMC4700. FEC must be configured with RS-IEEE on peer side switch for 25G.

- SFP-25G-SR-S
- SFP-10/25G-LR-S
- SFP-10/25G-CSR-S

NIC Cards Supported: M5 and M6 Compared

FMC1600	FMC2600	FMC4600	FMC1700	FMC2700	FMC4700
Built-in ports for eth0 and eth1	Built-in ports for eth0 and eth1	Built-in ports for eth0 and eth1	UCSC-O-ID10GC (eth0, eth1 used for management)	UCSC-O-ID10GC (eth0, eth1 used for management)	UCSC-O-ID10GC (eth0, eth1 used for management)
UCSC-PCIE-ID10GF (eth2, eth3 additional ports)	UCSC-PCIE-ID10GF (eth2, eth3 additional ports)	UCSC-PCIE-ID10GF (eth2, eth3 additional ports)	UCSC-PCIE-ID10GF (eth2, eth3 additional ports)	UCSC-PCIE-ID10GF (eth2, eth3 additional ports)	UCSC-P-18D25GF (eth2, eth3 additional ports)

Used for 10/25G

Model Migration Support

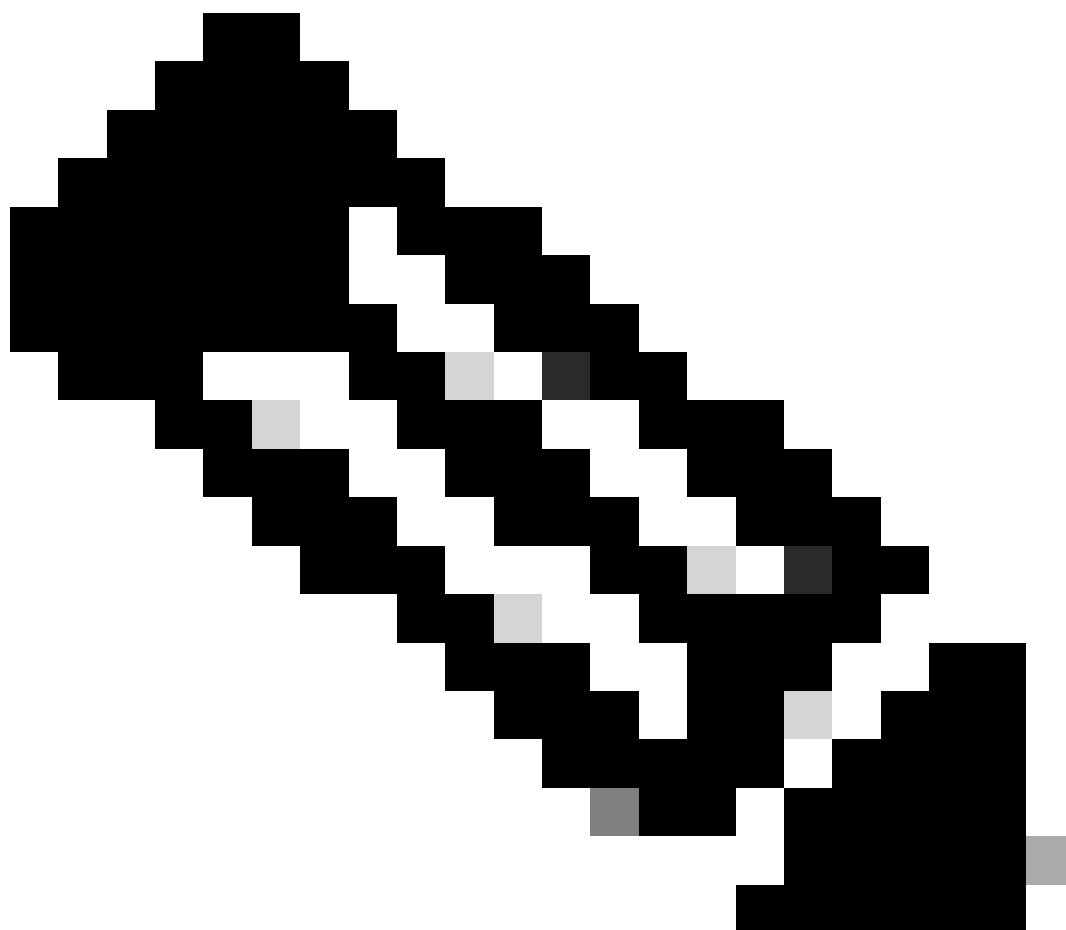
	To	1700	2700	4700
M4-based	1000	supported	supported	supported
	2500	not supported	supported	supported
	4500	not supported	not supported	supported
M5-based	1600	supported	supported	supported
	2600	not supported	supported	supported
	4600	not supported	not supported	supported
M6-based	1700	(use backup and restore)	supported	supported
	2700	not supported	(use backup and restore)	supported
	4700	not supported	not supported	(use backup and restore)

Configuration File

```
cat /etc/sf/ims.conf (this is not the full content of ims.conf file)
CSMVERSION=7.4.0
MODELNUMBER=66
MODEL="Secure Firewall Management Center 4700"
MODELID=U
PRODUCT_ID=FMC4700-K9
```

Firmware Version, PID, CPU Used from dmidecode

dmidecode : This utility can be used to get the hardware information and firmware running on the device.



Note: dmidecode command must be run as a root user.

```
root@firepower:~# dmidecode --type 0
```

-> command to get the BIOS firmware version

BIOS Information

Vendor: Cisco Systems, Inc. M6 FMC

Version: C225M6.4.2-2c.0.0731220910 -> BIOS firmware version

Release Date: 07/31/2022

```
root@firepower:~# dmidecode --type 1 -> command to get the product id
```

Product Name: FMC4700-K9

Serial Number: WZP254500YD

<#root>

```
root@firepower:~# dmidecode | grep -i processor
```

-> command to get CPU information

Type: Central Processor

Version: AMD EPYC 7352 24-Core Processor

Q&As

Q: Would M6 also support CIMC?

No, as of now model migration is supported within M6 FMC models, model migration support from M5 to M6 is forthcoming in future releases.

Q: Please confirm that for the IFT software, we can only load a backup from other M6 FMCs and not from an M5 FMC.

There is a plan to support migration from M4 and M5 FMCs to M6 FMCs.