

Cisco UCS M5 Server BIOS Tokens

First Published: 2017-08-18

Last Modified: 2018-03-21

UCS M5 Server BIOS Tokens

New and Changed Information

This section provides information about new and changed M5 server BIOS tokens in Cisco UCS Manager, Release 3.2.

Table 1: New and Changed BIOS Tokens in Cisco UCS Manager, Release 3.2(3)

New or Changed	BIOS Token Name	Description
New	<ul style="list-style-type: none"> • SBNVMe1 OptionROM • SBNVMe2 OptionROM • IOEMezz1 OptionROM • IOENVMe1 OptionROM • IOENVMe2 OptionROM • IOESlot1 OptionROM • IOESlot2 OptionROM • SBMezz1 OptionROM • SBMezz2 OptionROM • SIOC1 OptionROM • SIOC2 OptionROM • SIOCNvme1 OptionROM • SIOCNvme2 OptionROM • SBLom1 OptionROM • SBNVMe1 Link Speed • SBNVMe2 Link Speed • SIOCNVMe1 Link Speed • SIOCNVMe2 Link Speed • SIOC1 Link Speed • SIOC2 Link Speed • SBMezz1 Link Speed • SBMezz2 Link Speed • IOESlot1 Link Speed • IOESlot2 Link Speed • IOEMezz1 Link Speed • IOENVMe1 Link Speed • IOENVMe2 Link Speed 	Newly added for S3260 M5 platform.

New or Changed	BIOS Token Name	Description
New	<ul style="list-style-type: none">• PCIe Slot N3 OptionROM• PCIe Slot N4 OptionROM• PCIe Slot N5 OptionROM• PCIe Slot N6 OptionROM• PCIe Slot N7 OptionROM• PCIe Slot N8 OptionROM	Newly added for C220 M5, C240 M5, and C480 M5.
New	<ul style="list-style-type: none">• PCIe Slot N9 OptionROM• PCIe Slot N10 OptionROM	Newly added for C220 M5 and C480 M5.

New or Changed	BIOS Token Name	Description
New	<ul style="list-style-type: none"> • PCIe Slot N11 OptionROM • PCIe Slot N12 OptionROM • PCIe Slot N13 OptionROM • PCIe Slot N14 OptionROM • PCIe Slot N15 OptionROM • PCIe Slot N16 OptionROM • PCIe Slot N17 OptionROM • PCIe Slot N18 OptionROM • PCIe Slot N19 OptionROM • PCIe Slot N20 OptionROM • PCIe Slot N21 OptionROM • PCIe Slot N22 OptionROM • PCIe Slot N23 OptionROM • PCIe Slot N24 OptionROM • PCIe Slot Rear NVMe3 OptionROM • PCIe Slot Rear NVMe4 OptionROM • PCIe Slot Rear NVMe5 OptionROM • PCIe Slot Rear NVMe6 OptionROM • PCIe Slot Rear NVMe7 OptionROM • PCIe Slot Rear NVMe8 OptionROM 	Newly added for C480 M5.
New	<ul style="list-style-type: none"> • Energy Efficient Turbo • Autonomous Core C-state • ProcessorEppProfile • Patrol Scrub 	Newly added for all M5 servers.

New or Changed	BIOS Token Name	Description
Changed	<ul style="list-style-type: none"> • Memory Mapped IO above 4GB • Sub NUMA Clustering • XPT Prefetch • LLC Prefetch 	Updated the default value to Disabled
Changed	<ul style="list-style-type: none"> • PCIe Slot N1 OptionROM • PCIe Slot N2 OptionROM • PCIe Slot Rear NVMe1 OptionROM • PCIe Slot Rear NVMe2 OptionROM 	Updated to include support for C480 M5
Changed	P-SATA mode	Updated to include support for all M5 servers.
Changed	IMC Interleave	Updated the default value to Auto

Table 2: New and Changed BIOS Tokens in Cisco UCS Manager, Release 3.2(2)

New or Changed	BIOS Token Name	Description
New	<ul style="list-style-type: none"> • PCIe Slots 7 - 12 OptionROM • PCIe Slot RAID OptionROM • RAID Link Speed • PCIe Slot 7 -12 Link Speed • USB Port VMedia 	Newly added for C480 M5
Changed	<ul style="list-style-type: none"> • Boot Option Retry • Cool Down Time (sec) • Number of Retries • Tokens earlier supported by All M5 servers. 	Updated to include support for B480 M5 and C480 M5

New or Changed	BIOS Token Name	Description
Changed	<ul style="list-style-type: none"> • All Onboard LOM • LOM Port 1 - 2 OptionROM • PCIe Slot 1 - 6 OptionROM • PCIe Slot 1 - 6 Link Speed • Power On Password • USB Port Front • USB Port Rear • USB Port KVM • USB Port Internal • USB Port SD Card 	Updated to include support for C480 M5 only
Changed	XPT Prefetch	Updated the default value to Disabled
Changed	Sub NUMA Clustering	Updated the default value to Disabled
Changed	IMC Interleave	Updated the default value to Auto
Changed	LLC Prefetch	Updated the default value to Disabled

M5 Server BIOS Tokens in Release 3.2(3)

Cisco UCS Manager, Release 3.2(3) introduces S3260 M5 to the list of supported M5 platforms. The M5 platforms supported in this release are:

- B200 M5
- B480 M5
- C220 M5
- C240 M5
- C480 M5
- S3260 M5

The following table lists the BIOS token names, including the defaults and values for each supported M5 platform in this release.

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
Legacy USB Support	Enabled	Disabled , Enabled, Auto	All M5 Servers	
FRB-2 Timer	Enabled	Enabled, Disabled	All M5 Servers	
OS Boot Watchdog Timer Policy	Power Off	Power Off, Reset	All M5 Servers	Applicable only when OS Boot Watchdog Timer is Enabled .
OS Boot Watchdog Timer Timeout	10 minutes	5 minutes, 10 minutes, 15 minutes, 20 minutes	All M5 Servers	Applicable only when OS Boot Watchdog Timer is Enabled .
OS Boot Watchdog Timer	Disabled	Enabled, Disabled	All M5 Servers	
Flow Control	None	None, RTS-CTS	All M5 Servers	Applicable only when Console Redirection is COM 0 .
Baud Rate	115.2k	9.6k, 19.2k, 38.4k, 57.6k, 115.2k	All M5 Servers	Applicable only when Console Redirection is COM 0 .
Terminal Type	VT100	PC-ANSI, VT100, VT100-PLUS, VT-UTF8	All M5 Servers	Applicable only when Console Redirection is COM 0 .
Console Redirection	Disabled	COM 0, COM 1, Disabled	All M5 Servers	
Number of Retries	13	Infinite, 5, 13	B200 M5 B480 M5 C480 M5	Applicable only when Boot Option Retry is Enabled .
Cool Down Time (sec)	90	15, 45, 90	B200 M5 B480 M5 C480 M5	Applicable only when Boot Option Retry is Enabled .

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
Boot Option Retry	Disabled	Enabled, Disabled	B200 M5 B480 M5 C480 M5	
Trusted Platform Module (TPM)	Enabled	Enabled, Disabled	All M5 Servers	
Intel Virtualization Technology	Enabled	Enabled, Disabled	All M5 Servers	
Intel VT for directed IO	Enabled	Enabled, Disabled	All M5 Servers	
Intel Trusted Execution Technology Support	Enabled	Enabled, Disabled	All M5 Servers	Can be Enabled only when Trusted Platform Module (TPM) is Enabled . Enabling Intel Trusted Execution Technology Support auto enables Intel VT for directed IO and Intel Virtualization Technology .
Local X2 Apic	Disabled	Enabled, Disabled	All M5 Servers	Enabling Local X2 Apic auto enables Intel VT for directed IO .
Intel VTD coherency support	Disabled	Enabled, Disabled	All M5 Servers	
Intel VTD ATS support	Enabled	Enabled, Disabled	All M5 Servers	
NUMA optimized	Enabled	Enabled, Disabled	All M5 Servers	
Memory RAS configuration	Maximum Performance	Mirror Mode 1LM, Maximum Performance	All M5 Servers	
Memory Mapped IO above 4GB	Enabled	Enabled, Disabled	All M5 Servers	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
Hardware Prefetcher	Enabled	Enabled, Disabled	All M5 Servers	
Adjacent Cache Line Prefetcher	Enabled	Enabled, Disabled	All M5 Servers	
DCU Streamer Prefetch	Enabled	Enabled, Disabled	All M5 Servers	
DCU IP Prefetcher	Enabled	Enabled, Disabled	All M5 Servers	
Processor C1E	Disabled	Enabled, Disabled	All M5 Servers	
Processor C6 Report	Disabled	Enabled, Disabled	All M5 Servers	
Execute Disable Bit	Enabled	Enabled, Disabled	All M5 Servers	
Intel Turbo Boost Tech	Enabled	Enabled, Disabled	All M5 Servers	
P STATE Coordination	HW ALL	HW ALL, SW ALL, SW ANY	All M5 Servers	
Boot Performance Mode	Max Performance	Max Performance, Max Efficient, Set by Intel NM	All M5 Servers	
Enhanced Intel SpeedStep Tech	Enabled	Enabled, Disabled	All M5 Servers	Disabling Enhanced Intel SpeedStep Tech auto disables Intel Turbo Boost Tech .
Intel HyperThreading Tech	Enabled	Enabled, Disabled	All M5 Servers	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
CPU Performance	Custom	Enterprise, HPC, High Throughput, Custom	All M5 Servers	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
				<p>If set as Enterprise then:</p> <ul style="list-style-type: none"> • Hardware Prefetcher is Enabled • Adjacent Cache Line Prefetcher is Enabled • DCU Streamer Prefetch is Enabled • DCU IP Prefetcher is Enabled <p>If set as High Throughput then:</p> <ul style="list-style-type: none"> • Hardware Prefetcher is Disabled • Adjacent Cache Line Prefetcher is Disabled • DCU Streamer Prefetch is Disabled • DCU IP Prefetcher is Enabled <p>If set as HPC then:</p> <ul style="list-style-type: none"> • Hardware Prefetcher is Enabled • Adjacent Cache Line Prefetcher is Enabled

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
				<ul style="list-style-type: none"> • DCU Streamer Prefetch is Enabled • DCU IP Prefetcher is Enabled
CDN Control	Enabled	Enabled, Disabled	All M5 Servers	
Processor CMCI	Enabled	Enabled, Disabled	All M5 Servers	
All Onboard LOM	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5	If set as Disabled , then LOM Port 1 OptionROM and LOM Port 2 OptionROM are Disabled .
LOM Port 1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5	
LOM Port 2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5	
SBNVMe1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SBNVMe2 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
IOEMezz1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
IOENVMe1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
IOENVMe2 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
IOESlot1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
IOESlot2 OptionROM	Enabled	Disabled, Enabled	S3260 M5	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
SBMezz1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SBMezz2 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SIOC1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SIOC2 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SIOCNvme1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SIOCNvme2 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SBLom1 OptionROM	Enabled	Disabled, Enabled	S3260 M5	
SBNVMe1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
SBNVMe2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
SIOCNVMe1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
SIOCNVMe2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
SIOC1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
SIOC2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
SBMezz1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
SBMezz2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
IOESlot1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
IOESlot2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
IOEMezz1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
IOENVMe1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
IOENVMe2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	S3260 M5	
PCIe Slot 1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5	
PCIe Slot 2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5	
PCIe Slot 3 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5	
PCIe Slot 4 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5	
PCIe Slot 5 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5	
PCIe Slot 6 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5	
PCIe Slot 7 OptionROM	Enabled	Disabled, Enabled	C480 M5	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
PCIe Slot 8 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot 9 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot 10 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot 11 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot 12 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot MLOM OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5	
PCIe Slot MRAID OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5	
PCIe Slot RAID OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	
PCIe Slot N2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	
PCIe Slot N3 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	
PCIe Slot N4 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	
PCIe Slot N5 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	
PCIe Slot N6 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	
PCIe Slot N7 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	
PCIe Slot N8 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5, C480 M5	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
PCIe Slot N9 OptionROM	Enabled	Disabled, Enabled	C220 M5, C480 M5	
PCIe Slot N10 OptionROM	Enabled	Disabled, Enabled	C220 M5, C480 M5	
PCIe Slot N11 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N12 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N13 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N14 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N15 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N16 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N17 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N18 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N19 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N20 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N21 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N22 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N23 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot N24 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot Rear NVMe1 OptionROM	Enabled	Disabled, Enabled	C240 M5, C480 M5	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
PCIe Slot Rear NVMe2 OptionROM	Enabled	Disabled, Enabled	C240 M5, C480 M5	
PCIe Slot Rear NVMe3 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot Rear NVMe4 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot Rear NVMe5 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot Rear NVMe6 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot Rear NVMe7 OptionROM	Enabled	Disabled, Enabled	C480 M5	
PCIe Slot Rear NVMe8 OptionROM	Enabled	Disabled, Enabled	C480 M5	
MRAID Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5	
RAID Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5	
MLOM Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5	
PCIe Slot 1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5 C480 M5	
PCIe Slot 2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5 C480 M5	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
PCIe Slot 3 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5	
PCIe Slot 4 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5	
PCIe Slot 5 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5	
PCIe Slot 6 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5	
PCIe Slot 7 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5	
PCIe Slot 8 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5	
PCIe Slot 9 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5	
PCIe Slot 10 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5	
PCIe Slot 11 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5	
PCIe Slot 12 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5	
Front NVME1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5	
Front NVME2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
Rear NVME1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5	
Rear NVME2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5	
Power On Password	Disabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5	
P-SATA mode	LSI SW RAID	LSI SW RAID, Disabled	All M5 Servers	
VGA Priority	OnBoard	OnBoard, OffBoard, OnBoard VGA Disabled	C220 M5, C240 M5	
Core Multi Processing	All	All, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27	All M5 Servers	
USB Port Front	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5	
USB Port Rear	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5	
USB Port KVM	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5	
USB Port VMedia	Enabled	Enabled, Disabled	C480 M5	
USB Port Internal	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5	
USB Port SD Card	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5	
UEFI Boot Mode	Enabled	Enabled, Disabled	All M5 Servers	
Workload Configuration	IO Sensitive	Balanced, IO Sensitive	All M5 Servers	

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
IMC Interleave	Auto	1-way Interleave, 2-way Interleave, Auto	All M5 Servers	
Sub NUMA Clustering	Disabled	Enabled, Disabled	All M5 Servers	
KTI Prefetch	Enabled	Enabled, Disabled	All M5 Servers	
XPT Prefetch	Disabled	Enabled, Disabled	All M5 Servers	
Energy Performance Tuning	OS	OS, BIOS	All M5 Servers	If set as OS then Energy Performance is Balanced Performance . If set as BIOS then, Energy Performance is Performance, Balanced Performance, Balanced Power, or Power .
Energy Performance	Balanced Performance	Performance, Balanced Performance, Balanced Power, Power	All M5 Servers	
Package C State Limit	C0 C1 State	No Limit, Auto, C0 C1 State, C2, C6 Non Retention, C6 Retention	All M5 Servers	
LLC Prefetch	Disabled	Enabled, Disabled	All M5 Servers	
CPU Hardware Power Management	HWPM Native Mode	Disabled, HWPM Native Mode, HWPM OOB Mode, Native Mode with no Legacy	All M5 Servers	If set as HWPM OOB Mode then, ProcessorEppProfile is set as Performance, Balanced Performance, or Balanced Power, Power .

Name	Default Value	M5 Server Supported Values	Platform	Dependencies
IPV6 PXE Support	Disabled	Enabled, Disabled	All M5 Servers	
Energy Efficient Turbo	Disabled	Enabled, Disabled	All M5 Servers	
Autonomous Core C-state	Disabled	Enabled, Disabled	All M5 Servers	
ProcessorEppProfile	Balanced Performance	Performance, Balanced Performance, Balanced Power, Power	All M5 Servers	
Patrol Scrub	Enabled	Enabled, Disabled	All M5 Servers	

M5 Server BIOS Tokens in Release 3.2(2)

Cisco UCS Manager, Release 3.2(2) introduces B480 M5 and C480 M5 to the list of supported M5 platforms. The M5 platforms supported in this release are:

- B200 M5
- B480 M5
- C220 M5
- C240 M5
- C480 M5

The following table lists the BIOS token names, including the defaults and values for each supported M5 platform in this release.

Name	Default Value	M5 Server Supported Values	Platform
Legacy USB Support	Enabled	Disabled , Enabled, Auto	All M5 Servers
FRB-2 Timer	Enabled	Enabled, Disabled	All M5 Servers
OS Boot Watchdog Timer Policy	Power Off	Power Off, Reset	All M5 Servers
OS Boot Watchdog Timer Timeout	10 minutes	5 minutes, 10 minutes, 15 minutes, 20 minutes	All M5 Servers

Name	Default Value	M5 Server Supported Values	Platform
OS Boot Watchdog Timer	Disabled	Enabled, Disabled	All M5 Servers
Flow Control	None	None, RTS-CTS	All M5 Servers
Baud Rate	115.2k	9.6k, 19.2k, 38.4k, 57.6k, 115.2k	All M5 Servers
Terminal Type	VT100	PC-ANSI, VT100, VT100-PLUS, VT-UTF8	All M5 Servers
Console Redirection	Disabled	COM 0, COM 1, Disabled	All M5 Servers
Number of Retries	13	Infinite, 5, 13	B200 M5 B480 M5 C480 M5
Cool Down Time (sec)	90	15, 45, 90	B200 M5 B480 M5 C480 M5
Boot Option Retry	Disabled	Enabled, Disabled	B200 M5 B480 M5 C480 M5
Trusted Platform Module (TPM)	Enabled	Enabled, Disabled	All M5 Servers
Intel Virtualization Technology	Enabled	Enabled, Disabled	All M5 Servers
Intel VT for directed IO	Enabled	Enabled, Disabled	All M5 Servers
Intel Trusted Execution Technology Support	Enabled	Enabled, Disabled	All M5 Servers
Local X2 Apic	Disabled	Enabled, Disabled	All M5 Servers
Intel VTD coherency support	Disabled	Enabled, Disabled	All M5 Servers
Intel VTD ATS support	Enabled	Enabled, Disabled	All M5 Servers
NUMA optimized	Enabled	Enabled, Disabled	All M5 Servers

Name	Default Value	M5 Server Supported Values	Platform
Memory RAS configuration	Maximum Performance	Mirror Mode 1LM, Maximum Performance	All M5 Servers
Memory Mapped IO above 4GB	Enabled	Enabled, Disabled	All M5 Servers
Hardware Prefetcher	Enabled	Enabled, Disabled	All M5 Servers
Adjacent Cache Line Prefetcher	Enabled	Enabled, Disabled	All M5 Servers
DCU Streamer Prefetch	Enabled	Enabled, Disabled	All M5 Servers
DCU IP Prefetcher	Enabled	Enabled, Disabled	All M5 Servers
Processor C1E	Disabled	Enabled, Disabled	All M5 Servers
Processor C6 Report	Disabled	Enabled, Disabled	All M5 Servers
Execute Disable Bit	Enabled	Enabled, Disabled	All M5 Servers
Intel Turbo Boost Tech	Enabled	Enabled, Disabled	All M5 Servers
P STATE Coordination	HW ALL	HW ALL, SW ALL, SW ANY	All M5 Servers
Boot Performance Mode	Max Performance	Max Performance, Max Efficient, Set by Intel NM	All M5 Servers
Enhanced Intel SpeedStep Tech	Enabled	Enabled, Disabled	All M5 Servers
Intel HyperThreading Tech	Enabled	Enabled, Disabled	All M5 Servers
CPU Performance	Custom	Enterprise, HPC, High Throughput, Custom	All M5 Servers
CDN Control	Enabled	Enabled, Disabled	All M5 Servers
Processor CMCI	Enabled	Enabled, Disabled	All M5 Servers
All Onboard LOM	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5
LOM Port 1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5

Name	Default Value	M5 Server Supported Values	Platform
LOM Port 2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5
PCIe Slot 1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5
PCIe Slot 2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5 C480 M5
PCIe Slot 3 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5
PCIe Slot 4 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5
PCIe Slot 5 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5
PCIe Slot 6 OptionROM	Enabled	Disabled, Enabled	C240 M5 C480 M5
PCIe Slot 7 OptionROM	Enabled	Disabled, Enabled	C480 M5
PCIe Slot 8 OptionROM	Enabled	Disabled, Enabled	C480 M5
PCIe Slot 9 OptionROM	Enabled	Disabled, Enabled	C480 M5
PCIe Slot 10 OptionROM	Enabled	Disabled, Enabled	C480 M5
PCIe Slot 11 OptionROM	Enabled	Disabled, Enabled	C480 M5
PCIe Slot 12 OptionROM	Enabled	Disabled, Enabled	C480 M5
PCIe Slot MLOM OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot MRAID OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot RAID OptionROM	Enabled	Disabled, Enabled	C480 M5

Name	Default Value	M5 Server Supported Values	Platform
PCIe Slot N1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot N2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot Rear NVMe1 OptionROM	Enabled	Disabled, Enabled	C240 M5
PCIe Slot Rear NVMe2 OptionROM	Enabled	Disabled, Enabled	C240 M5
MRAID Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
RAID Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5
MLOM Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
PCIe Slot 1 Link Speed	Auto	Disabled, Auto, GEN1 , GEN2, GEN3	C220 M5, C240 M5 C480 M5
PCIe Slot 2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5 C480 M5
PCIe Slot 3 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5
PCIe Slot 4 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5
PCIe Slot 5 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5
PCIe Slot 6 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5 C480 M5
PCIe Slot 7 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5
PCIe Slot 8 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5

Name	Default Value	M5 Server Supported Values	Platform
PCIe Slot 9 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5
PCIe Slot 10 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5
PCIe Slot 11 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5
PCIe Slot 12 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C480 M5
Front NVME1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
Front NVME2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
Rear NVME1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
Rear NVME2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
Power On Password	Disabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5
P-SATA mode	LSI SW RAID	LSI SW RAID, Disabled	C220 M5, C240 M5
VGA Priority	OnBoard	OnBoard, OffBoard, OnBoard VGA Disabled	C220 M5, C240 M5
Core Multi Processing	All	All, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27	All M5 Servers
USB Port Front	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5
USB Port Rear	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5
USB Port KVM	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5

Name	Default Value	M5 Server Supported Values	Platform
USB Port VMedia	Enabled	Enabled, Disabled	C480 M5
USB Port Internal	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5
USB Port SD Card	Enabled	Enabled, Disabled	C220 M5, C240 M5 C480 M5
UEFI Boot Mode	Enabled	Enabled, Disabled	All M5 Servers
Workload Configuration	IO Sensitive	Balanced, IO Sensitive	All M5 Servers
IMC Interleave	Auto	1-way Interleave, 2-way Interleave, Auto	All M5 Servers
Sub NUMA Clustering	Disabled	Enabled, Disabled	All M5 Servers
KTI Prefetch	Enabled	Enabled, Disabled	All M5 Servers
XPT Prefetch	Disabled	Enabled, Disabled	All M5 Servers
Energy Performance Tuning	OS	OS, BIOS	All M5 Servers
Energy Performance	Balanced Performance	Performance, Balanced Performance, Balanced Power, Power	All M5 Servers
Package C State Limit	C0 C1 State	No Limit, Auto, C0 C1 State, C2, C6 Non Retention, C6 Retention	All M5 Servers
LLC Prefetch	Disabled	Enabled, Disabled	All M5 Servers
CPU Hardware Power Management	HWPM Native Mode	Disabled, HWPM Native Mode, HWPM OOB Mode, Native Mode with no Legacy	All M5 Servers
IPV6 PXE Support	Disabled	Enabled, Disabled	All M5 Servers

M5 Server BIOS Tokens in Release 3.2(1)

Cisco UCS Manager, Release 3.2(1) introduces support for M5 platforms. The M5 platforms supported in this release are:

- B200 M5
- C220 M5
- C240 M5

The following table lists the BIOS token names, including the defaults and values for each supported M5 platform in this release.

Name	Default Value	M5 Server Supported Values	Platform
Legacy USB Support	Enabled	Disabled , Enabled, Auto	All M5 Servers
FRB-2 Timer	Enabled	Enabled, Disabled	All M5 Servers
OS Boot Watchdog Timer Policy	Power Off	Power Off, Reset	All M5 Servers
OS Boot Watchdog Timer Timeout	10 minutes	5 minutes, 10 minutes, 15 minutes, 20 minutes	All M5 Servers
OS Boot Watchdog Timer	Disabled	Enabled, Disabled	All M5 Servers
Flow Control	None	None, RTS-CTS	All M5 Servers
Baud Rate	115.2k	9.6k, 19.2k, 38.4k, 57.6k, 115.2k	All M5 Servers
Terminal Type	VT100	PC-ANSI, VT100, VT100-PLUS, VT-UTF8	All M5 Servers
Console Redirection	Disabled	COM 0, COM 1, Disabled	All M5 Servers
Number of Retries	13	Infinite, 5, 13	B200 M5
Cool Down Time (sec)	90	15, 45, 90	B200 M5
Boot Option Retry	Disabled	Enabled, Disabled	B200 M5
Trusted Platform Module (TPM)	Enabled	Enabled, Disabled	All M5 Servers

Name	Default Value	M5 Server Supported Values	Platform
Intel Virtualization Technology	Enabled	Enabled, Disabled	All M5 Servers
Intel VT for directed IO	Enabled	Enabled, Disabled	All M5 Servers
Local X2 Apic	Disabled	Enabled, Disabled	All M5 Servers
Intel VTD coherency support	Disabled	Enabled, Disabled	All M5 Servers
Intel VTD ATS support	Enabled	Enabled, Disabled	All M5 Servers
NUMA optimized	Enabled	Enabled, Disabled	All M5 Servers
Memory RAS configuration	Maximum Performance	Mirror Mode 1LM, Maximum Performance	All M5 Servers
Memory Mapped IO above 4GB	Enabled	Enabled, Disabled	All M5 Servers
Hardware Prefetcher	Enabled	Enabled, Disabled	All M5 Servers
Adjacent Cache Line Prefetcher	Enabled	Enabled, Disabled	All M5 Servers
DCU Streamer Prefetch	Enabled	Enabled, Disabled	All M5 Servers
DCU IP Prefetcher	Enabled	Enabled, Disabled	All M5 Servers
Processor C1E	Disabled	Enabled, Disabled	All M5 Servers
Processor C6 Report	Disabled	Enabled, Disabled	All M5 Servers
Execute Disable Bit	Enabled	Enabled, Disabled	All M5 Servers
Intel Turbo Boost Tech	Enabled	Enabled, Disabled	All M5 Servers
P STATE Coordination	HW ALL	HW ALL, SW ALL, SW ANY	All M5 Servers
Boot Performance Mode	Max Performance	Max Performance, Max Efficient, Set by Intel NM	All M5 Servers
Enhanced Intel SpeedStep Tech	Enabled	Enabled, Disabled	All M5 Servers
Intel HyperThreading Tech	Enabled	Enabled, Disabled	All M5 Servers

Name	Default Value	M5 Server Supported Values	Platform
CPU Performance	Custom	Enterprise, HPC, High Throughput, Custom	All M5 Servers
CDN Control	Enabled	Enabled, Disabled	All M5 Servers
All Onboard LOM	Enabled	Enabled, Disabled	C220 M5, C240 M5
LOM Port 1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
LOM Port 2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot 1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot 2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot 3 OptionROM	Enabled	Disabled, Enabled	C240 M5
PCIe Slot 4 OptionROM	Enabled	Disabled, Enabled	C240 M5
PCIe Slot 5 OptionROM	Enabled	Disabled, Enabled	C240 M5
PCIe Slot 6 OptionROM	Enabled	Disabled, Enabled	C240 M5
PCIe Slot MLOM OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot MRAID OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot N1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot N2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot Rear NVMe1 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
PCIe Slot Rear NVMe2 OptionROM	Enabled	Disabled, Enabled	C220 M5, C240 M5
MRAID Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
MLOM Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5

Name	Default Value	M5 Server Supported Values	Platform
PCIe Slot 1 Link Speed	Auto	Disabled, Auto, GEN1 , GEN2, GEN3	C220 M5, C240 M5
PCIe Slot 2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
PCIe Slot 3 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
PCIe Slot 4 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
PCIe Slot 5 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
PCIe Slot 6 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
Front NVME1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
Front NVME2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C220 M5, C240 M5
Rear NVME1 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
Rear NVME2 Link Speed	Auto	Disabled, Auto, GEN1, GEN2, GEN3	C240 M5
Power On Password	Disabled	Enabled, Disabled	C220 M5, C240 M5
VGA Priority	OnBoard	OnBoard, OffBoard, OnBoard VGA Disabled	C220 M5, C240 M5
Core Multi Processing	All	All, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27	All M5 Servers
USB Port Front	Enabled	Enabled, Disabled	C220 M5, C240 M5
USB Port Rear	Enabled	Enabled, Disabled	C220 M5, C240 M5
USB Port KVM	Enabled	Enabled, Disabled	C220 M5, C240 M5
USB Port Internal	Enabled	Enabled, Disabled	C220 M5, C240 M5

Name	Default Value	M5 Server Supported Values	Platform
USB Port SD Card	Enabled	Enabled, Disabled	C220 M5, C240 M5
P-SATA mode	LSI SW RAID	LSI SW RAID, Disabled	C220 M5, C240 M5
UEFI Boot Mode	Enabled	Enabled, Disabled	All M5 Servers
Workload Configuration	NUMA	NUMA, UMA	All M5 Servers
IMC Interleave	1-way Interleave	1-way Interleave, 2-way Interleave	All M5 Servers
Sub NUMA Clustering	Enabled	Enabled, Disabled	All M5 Servers
KTI Prefetch	Enabled	Enabled, Disabled	All M5 Servers
XPT Prefetch	Enabled	Enabled, Disabled	All M5 Servers
Energy Performance Tuning	OS	OS, BIOS	All M5 Servers
Energy Performance	Balanced Performance	Performance, Balanced Performance, Balanced Power, Power	All M5 Servers
Package C State Limit	C0 C1 State	No Limit, Auto, C0 C1 State, C2, C6 Non Retention, C6 Retention	All M5 Servers
LLC Prefetch	Enabled	Enabled, Disabled	All M5 Servers
CPU Hardware Power Management	HWPM Native Mode	Disabled, HWPM Native Mode, HWPM OOB Mode, Native Mode with no Legacy	All M5 Servers
IPV6 PXE Support	Enabled	Enabled, Disabled	All M5 Servers

