

# Cisco Connected Safety and Security UCS Platform Series

The Cisco<sup>®</sup> Connected Safety and Security Unified Computing System<sup>™</sup> (Cisco UCS<sup>®</sup>) platform series offers you performance and density for deploying and managing Cisco Video Surveillance Manager. Cisco Connected Safety and Security UCS comprises a suite of two server models and a wide array of features in a single, easy-to-use, and easy-to-deploy configuration.

- The Cisco Connected Safety and Security UCS C220 model (**CSS UCS C220 M4**) is an enterprise-class server in a one-rack unit (1 RU) form factor with Intel<sup>®</sup> Xeon<sup>®</sup> E5-2600 series processor family CPUs that deliver significant performance and efficiency. In addition, it supports up to four 3.5-inch drives for added density in a compact 1 RU package.
- The Cisco Connected Safety and Security UCS C240 model (**CSS UCS C240 M4**) is an enterprise-class server in a 2RU form factor with dual Intel Xeon E5-2600 series processor family CPUs that deliver significant performance and efficiency. In addition, it supports up to twelve 3.5-inch drives for storage expandability and performance.

Figures 1 and 2 show the C220 model and C240 model, respectively. Tables 1 and 2 address the software application available on each server.

**Figure 1.** Cisco Connected Safety and Security UCS C220 M4



**Table 1.** Cisco Connected Safety and Security UCS C220 M4 Software Application

Software Application	Options
<b>Video Surveillance Manager</b>	<ul style="list-style-type: none"> <li>• Video Surveillance Manager Version 7.8</li> <li>• Drive and RAID configurations               <ul style="list-style-type: none"> <li>◦ 2 x CPS-HDD2T12F213 or CPS-HD4T7KS3-E in RAID 1</li> <li>◦ 4 x CPS-HDD2T12F213 or CPS-HD4T7KS3-E in RAID 5</li> </ul> </li> <li>• 1 x CPS-PSU-770W Redundant Power Supply (optional)</li> </ul> Supports the following option card: <ul style="list-style-type: none"> <li>• 1 x N2XX-AEPCI05—Emulex LPE 12002 Dual Port 8 Gb Fibre Channel card</li> </ul>

**Figure 2.** Cisco Connected Safety and Security UCS C240 M4



**Table 2.** Cisco Connected Safety and Security UCS C240 M4 Software Application

Software Application	Options
<b>Video Surveillance Manager</b>	<ul style="list-style-type: none"> <li>• Video Surveillance Manager Version 7.8</li> <li>• Drive and RAID configurations                             <ul style="list-style-type: none"> <li>◦ 2 x CPS-HDD2T12F213 or CPS-HD4T7KS3-E or CPS-HD6T7KL4K in RAID 1</li> <li>◦ 6 x CPS-HDD2T12F213 or CPS-HD4T7KS3-E or CPS-HD6T7KL4K in RAID 5</li> <li>◦ 6 x CPS-HDD2T12F213 or CPS-HD4T7KS3-E or CPS-HD6T7KL4K in RAID 6</li> <li>◦ 12 x CPS-HDD2T12F213 or CPS-HD4T7KS3-E or CPS-HD6T7KL4K in RAID 5</li> <li>◦ 12 x CPS-HDD2T12F213 or CPS-HD4T7KS3-E or CPS-HD6T7KL4K in RAID 6</li> </ul> </li> </ul> <p>Supports the following option card:</p> <ul style="list-style-type: none"> <li>• 1 x N2XX-AEPCI05—Emulex LPE 12002 Dual Port 8Gb Fibre Channel card</li> </ul>

**Table 3.** Cisco Connected Safety and Security UCS M4 Platform Overview

Feature	Benefit
<b>Intel Xeon processor E5-2600 product family</b>	<p>The Intel Xeon processor E5-2600 v4 and v3 product family is designed to deliver the best combination of performance, built-in capabilities, and cost-effectiveness:</p> <ul style="list-style-type: none"> <li>• Over twice the performance than the previous generation Intel Xeon processor.</li> <li>• Low power, high performance DDR4 memory technology.</li> <li>• Increased performance with Intel AVX2.</li> <li>• Increased virtual machine density.</li> <li>• Automated energy efficiency reduces energy costs by automatically putting the processor and memory in the lowest available power state while still delivering the performance required.</li> </ul>
<b>Integrated dual-port Gigabit Ethernet</b>	<ul style="list-style-type: none"> <li>• Outstanding network I/O performance and increased network efficiency and flexibility.</li> </ul>
<b>High capacity, flexible internal storage</b>	<ul style="list-style-type: none"> <li>• 7200-RPM 3.5" SAS drives for high capacity and performance.</li> <li>• Up to 4 SAS drives on C220 M4 and up to 12 SAS drives on C240 M4.</li> </ul>
<b>RAID 1, 5, 6</b>	<ul style="list-style-type: none"> <li>• .</li> </ul>
<b>Hot-swappable SAS drives</b>	<ul style="list-style-type: none"> <li>• Up to 4 LFF (U220) or 12 LFF (U240) front-accessible, hot-swappable SAS drives.</li> <li>• Included Cisco 12Gbps SAS Modular RAID Controller with FBWC Cache module.</li> <li>• RAID 0, 1, 5, 6, 10, 50, and 60 supported.</li> </ul>

Feature	Benefit
<b>Cisco UCS C-Series Integrated Management Controller (IMC)</b>	<ul style="list-style-type: none"> <li>• Web user interface for server management; remote keyboard, video, and mouse (KVM).</li> <li>• Intelligent Platform Management Interface (IPMI) 2.0 support for out-of-band management through third-party enterprise management systems.</li> <li>• Virtual media support for remote CD and DVD drives as if local.</li> <li>• Command-line interface (CLI) for server management.</li> <li>• Provides Cisco UCS visibility and control to management ecosystem partners using a comprehensive XML API.</li> </ul>
<b>Advanced reliability, availability, and serviceability (RAS) features</b>	<ul style="list-style-type: none"> <li>• Hot-swappable, front-accessible drives.</li> <li>• Redundant Cisco FlexFlash SD cards.</li> <li>• Dual-redundant fans and hot-swappable, redundant power supplies for enterprise-class reliability and uptime (C240 standard; C220 optional).</li> <li>• Convenient latching lid for easy access to internal server components.</li> <li>• Tool-free CPU insertion allows for processor upgrades and replacements with reduced risk of damage.</li> <li>• Tool-free access to all serviceable items and color-coded indicators to guide users to hot-pluggable and serviceable items.</li> </ul>
<b>Health monitoring</b>	<ul style="list-style-type: none"> <li>• Health status monitoring from Video Surveillance Operations Manager</li> </ul>

## Connectors

Table 4 describes the connectivity and connectors of the Cisco Connected Safety and Security UCS M4 platform series.

**Table 4.** Cisco Connected Safety and Security UCS M4 Platform I/O Connections

Item	Specification
<b>USB 3.0</b>	2 ports
<b>10/100/1000M Ethernet</b>	2 ports 1 port for management
<b>Serial RS-232 (RJ-45)</b>	1 port
<b>Video ports</b>	1 VGA video port (15-pin)
<b>KVM</b>	1 KVM console connector (supplies 2 USB, 1 VGA, 1 serial (DB-9) connectors)
<b>Fibre Channel (optional PCIe card)</b>	2 ports

## Specifications

Tables 5 and 6 provide specifications for the Cisco Connected Safety and Security UCS platform series.

**Table 5.** CSS UCS C220 M4 Technical Specifications

Item	Specification
<b>Housing</b>	1-RU, 4 x SAS front-loading drive bays
<b>Motherboard</b>	Intel E5-2620v3 2.4 GHz Xeon 6-core CPU, 16 GB DDR4 RAM
<b>RAID Controller PCIe Card</b>	Cisco 12-Gbps RAID 0/1/5/6/50/60 8 ports SAS
<b>LEDs</b>	Power, hard-drive activity, network activity, system overheat/fan fail
<b>Gross weight</b>	40 lbs. (14.3kg) base system with 4 HDD, 1 CPU, and 1 power supply
<b>Dimensions</b>	1.7 x 16.9 x 29.8 in. (4.32 x 43 x 75.6 cm)
<b>Power supply</b>	1 x 770W power supply
<b>Redundant power supply</b>	1 x 770W redundant power supply (optional)

Item	Specification
<b>Power requirements (4 HDD)</b>	<ul style="list-style-type: none"> <li>• Max watts: 252</li> <li>• 50 % load watts: 171</li> <li>• Idle watts: 88</li> </ul>
<b>Operating temperature</b>	41 to 95°F (5 to 35°C)
<b>Nonoperating temperature</b>	-40 to 149°F (-40 to 65°C)
<b>Operating humidity</b>	10 to 90% noncondensing
<b>Nonoperating humidity</b>	5 to 93% noncondensing
<b>Operating altitude</b>	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1°C per 300m
<b>Nonoperating altitude</b>	0 to 40,000 ft (12,000m)
<b>Cooling BTU/hr</b>	582 BTU/hour @ 50% utilization and 4 HDD
<b>Onboard storage option</b>	2 TB or 4 TB SAS hard-disk drive in 2- or 4-drive configurations
<b>Onboard storage capacity (preformatted)</b>	<ul style="list-style-type: none"> <li>• 2 x 2 TB with RAID 1 ~ 2 TB storage available</li> <li>• 2 x 4 TB with RAID 1 ~ 4 TB storage available</li> <li>• 4 x 2 TB with RAID 5 ~ 6 TB storage available</li> <li>• 4 x 4 TB with RAID 5 ~ 12 TB storage available</li> </ul>
<b>Number of onboard storage repositories</b>	<ul style="list-style-type: none"> <li>• 1 for RAID-5 configuration for video surveillance application</li> </ul>

**Table 6.** CSS UCS C240 Technical Specifications

Item	Specification
<b>Housing</b>	2-RU, 12 x SAS front-loading drive bays
<b>Motherboard</b>	Dual Intel E5-2620v3 2.4 GHz Xeon 6-core CPU, 16 GB DDR4 RAM
<b>RAID Controller PCIe Card</b>	Cisco 12 Gbps RAID 0/1/5/6/50/60 8 ports SAS
<b>LEDs</b>	Power, hard drive activity, network activity, system overheat/fan fail
<b>Gross weight</b>	67.5 lbs. (30.6kg) base system with 12 HDD, 2 CPUs, and 2 power supplies
<b>Dimensions</b>	3.4 x 17.65 x 29.0 in. (8.7 x 44.8 x 73.8 cm)
<b>Power supply</b>	2 x 650W power supply
<b>Power requirements (12 HDD)</b>	<ul style="list-style-type: none"> <li>• Max watts: 559</li> <li>• 50 % load watts: 380</li> <li>• Idle watts: 208</li> </ul>
<b>Operating temperature</b>	41 to 95° F (5 to 35° C) reduce the maximum temperature by 1°C per every 305 m of altitude above sea level
<b>Nonoperating temperature</b>	-40 to 149°F (-40 to 65°C)
<b>Operating humidity</b>	10 to 90% noncondensing
<b>Nonoperating humidity</b>	5 to 93% noncondensing
<b>Operating altitude</b>	0 to 10,000 ft (0 to 3000m); maximum ambient temperature decreases by 1°C per 305m
<b>Nonoperating altitude</b>	0 to 40,000 ft (0 to 12,000m)
<b>Cooling BTU/hr</b>	1295 BTU/hour @50% utilization & 12 HDD
<b>Onboard storage option</b>	2 TB, 4 TB, or 6 TB SAS hard-disk drive in 2, 6, or 12 drive increments
<b>Onboard storage capacity (preformatted)</b>	<ul style="list-style-type: none"> <li>• 2 x 2 TB with RAID 1 ~ 2 TB storage available</li> <li>• 2 x 4 TB with RAID 1 ~ 4 TB storage available</li> <li>• 2 x 6 TB with RAID 1 ~ 6 TB storage available</li> <li>• 6 x 2 TB with RAID 5 ~ 10 TB storage available</li> <li>• 6 x 4 TB with RAID 5 ~ 20 TB storage available</li> <li>• 6 x 6 TB with RAID 5 ~ 30 TB storage available</li> <li>• 12 x 2 TB with RAID 5 ~ 22 TB storage available</li> <li>• 12 x 4 TB with RAID 5 ~ 44 TB storage available</li> </ul>

Item	Specification
	<ul style="list-style-type: none"> <li>• 12 x 6 TB with RAID 5 ~ 66 TB storage available</li> <li>• 6 x 2 TB with RAID 6 ~ 12 TB storage available</li> <li>• 6 x 4 TB with RAID 6 ~ 16TB storage available</li> <li>• 6 x 6 TB with RAID 6 ~ 24 TB storage available</li> <li>• 12 x 2 TB with RAID 6 ~ 20 TB storage available</li> <li>• 12 x 4 TB with RAID 6 ~ 40 TB storage available</li> <li>• 12 x 6 TB with RAID 6 ~ 60 TB storage available</li> </ul>
<b>Number of onboard storage repositories</b>	1 for video surveillance application

## Certifications

For country approval status, visit the Product Approval Status (PAS) tool: <http://tools.cisco.com/cse/prdapp>.

## Ordering Information

To place an order, visit the [Cisco Ordering homepage](#). To download firmware, visit the [Cisco Software Center](#).

Table 7 provides ordering information for the Cisco Connected Safety and Security UCS platform series.

**Table 7.** Cisco Connected Safety and Security UCS M4 Platform Series Ordering Information

Item	Specification
<b>CPS-UCSM4-1RU-K9</b>	Cisco Connected Safety and Security UCS C220 M4 1-RU chassis with motherboard, one 2.4 GHz 6 core CPU, 16 GB DDR4 memory, and one 770W power supply (no drives and no option cards)
<b>CPS-UCSM4-2RU-K9</b>	Cisco Connected Safety and Security UCS C240 M4 2-RU chassis with motherboard, dual 2.4 GHz 6 core CPU, 16GB DDR4 memory, and dual 650W power supply (no drives and no option cards)
<b>CPS-HDD2TI2F213</b>	2 TB SAS 7.2K RPM 3.5 inch HDD
<b>CPS-HD4T7KS3-E</b>	4 TB SAS 7.2K RPM 3.5 inch HDD
<b>CPS-HD6T7KL4K</b>	6 TB SAS 7.2K RPM 3.5 inch HDD
<b>CPS-PSU1-770W</b>	770W power supply for CPS UCS C220 M4
<b>CPS-AECI05</b>	Emulex Lpe 12002 Dual Port 8 Gb FC HBA
<b>CPS-PCI-1A-240M4</b>	Right PCIe riser board (riser 1) (x8 + GPU) for C240 M4

## Availability

Cisco Connected Safety and Security UCS platforms are available through Cisco Authorized Technology Provider partners.

## Service and Support

Cisco and our certified partners can help you accelerate success and improve the return on your investment in a Cisco Connected Safety and Security solution. The Cisco lifecycle approach to services defines the requisite activities at each phase of the solution lifecycle:

- Reduces deployment costs by identifying the features that will best meet your business requirements
- Accelerates migration by assessing the readiness of your network to support the system and by developing a sound design
- Supports smooth implementation through effective planning and expert installation, configuration, and integration
- Increases operational efficiency and extends the value of your investment with superior technical support

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### For More Information

For more information about the Cisco Connected Safety and Security UCS platform series, contact your local account representative or visit <http://www.cisco.com/go/physec>.



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