



# Cisco HyperFlex HX-Series

Next-Generation, Multicloud Hyperconvergence is Here  
Unify Compute, Storage, and Networking with Cloud Management



## HX-E-220M5SX

Hybrid Node	Intel Xeon Scalable	Max 28 Cores per Socket	2 CPU Sockets	Max 3 TB Memory	24 Memory Slots
Max 800 GB Cache	Max 14.4 TB Capacity	10 2.5 inch SFF Slots	VMware vSphere 6 & 6.5	HXDP Edge Software	



## HXAF240C-M5SX

All-Flash Node	Intel Xeon Scalable	Max 28 Cores per Socket	2 CPU Sockets	Max 3 TB Memory	24 Memory Slots
Max 1.6 TB Cache	Max 87.4 TB Capacity	24 + 2 2.5 inch SFF Slots	VMware vSphere 6 & 6.5	Microsoft Hyper-V	HXDP Std/Ent Software

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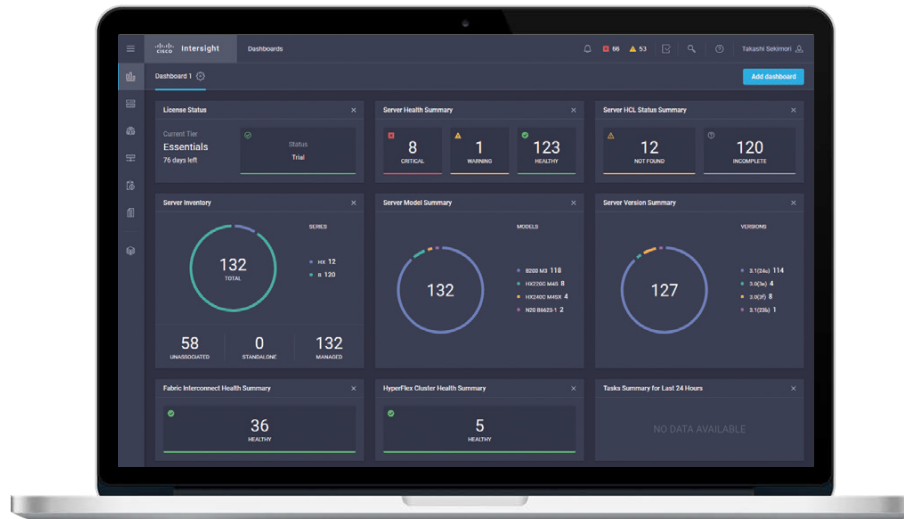
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# Cisco Intersight

Intelligent Cloud-Powered Management for Cisco UCS



DC-MGT-SAAS-EST-C

Cloud-based Management

Manage UCS

Manage HyperFlex

Monitoring Server Alerts

Monitoring Server Health

User Customizable Dashboard

Tagging & Basic Search

Element Managers

Policy-based Configuration

Remote Management & vKVM

Firmware Management

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Cisco Nexus 9348GC-FXP Switch

Cisco HyperFlex HX220c Edge M5

Cisco UCS C220 M5 Rack Server

Cisco UCS C240 M5 Rack Server

Any Other Type of UCS

3rd Vendor Servers/Systems

Cloud Managed  
Computing

Free Version Available!!



Cisco Intersight

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## Superior Multilayered Protection

The Cisco UCS C-Series Rack Servers provide a rack-server entry point to Cisco UCS. With world-record-setting performance for 2- and 4-socket servers, Cisco UCS C-Series Rack Servers can integrate into Cisco UCS through a single set of cables. Cisco UCS C-Series Rack Servers provide a wide range of I/O, memory, internal disk, and solid-state disk (SSD) drive capacity, enabling you to easily match servers to workloads.

### Highlights: Cisco UCS C-Series M5 Rack Servers

Designed to provide your computing infrastructure now and into the future, Cisco UCS C-Series M5 Rack Servers give you the benefits of the latest Intel Xeon Scalable processors:

- More Cores to accelerate parallelized virtualized and bare-metal workloads
- Larger Memory Capacity for better performance and larger in-memory databases
- Higher Memory Bandwidth to accelerate the flow of information to and from the CPU
- Ready for Intel 3D XPoint nonvolatile memory
- Up to 6 PCIe GPU Accelerators for a smooth user experience in virtual desktop environments
- Cloud Managed by Cisco Intersight



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**Positioning Map**

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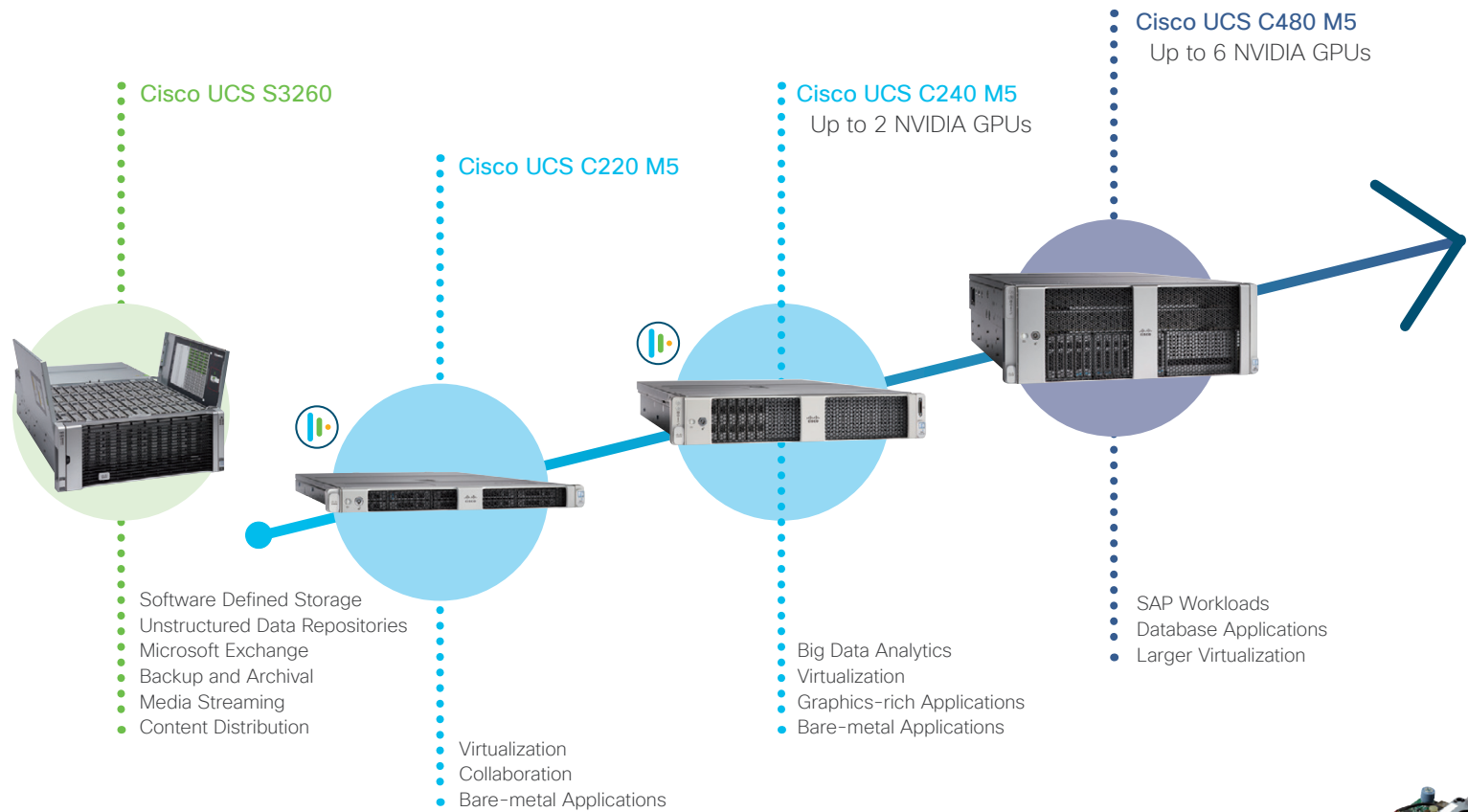
SmartPlay Rack Paks

Why UCS?

**Massive Storage Capacity**  
for Data-intensive Workloads

**Performance and Expandability**  
for Enterprise-class Workloads

**Superior Performance**  
for Mission-Critical Workloads



All models support  
**Cisco UCS Virtual Interface Card (VIC)**  
in PCIe or MLOM form factor



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## Cisco UCS C-Series M5 Rack Servers

Product SKU	Processor			Memory		Internal Storage						PCIe Gen3		mLOM Slots	Ports		Rack Mount
	Sockets	Processor Supported	Max Cores per Socket	Slots	Max Memory	2.5 inch SFF Slots	3.5 inch LFF Slots	Max Internal Storage				Slots	Max GPUs		10GB-T	Mgmt GE	
								HDD	SSD	Self-Encrypted HDD/SDD	PCIe NVMe						
UCSC-C220-M5L	2	Intel Xeon Scalable	28	24	12 TB	-	4	48 TB	7.6 TB	24 TB	6.4 TB	2	1	1	2	1	1 RU
UCSC-C220-M5SX	2	Intel Xeon Scalable	28	24	12 TB	10	-	24 TB	76 TB	38 TB	15.2 TB	2	1	1	2	1	1 RU
UCSC-C220-M5SN	2	Intel Xeon Scalable	28	24	12 TB	10	-	-	-	-	76 TB	2	1	1	2	1	1 RU
UCSC-C240-M5S	2	Intel Xeon Scalable	28	24	12 TB	8 + 2	-	24 TB	76 TB	38 TB	30.4 TB	6	2	1	2	1	2 RU
UCSC-C240-M5L	2	Intel Xeon Scalable	28	24	12 TB	2	12	148.8 TB	38 TB	79.6 TB	15.2 TB	6	2	1	2	1	2 RU
UCSC-C240-M5SX	2	Intel Xeon Scalable	28	24	12 TB	24 + 2	-	62.4 TB	197.6 TB	98.8 TB	15.2 TB	6	2	1	2	1	2 RU
UCSC-C240-M5SN	2	Intel Xeon Scalable	28	24	12 TB	24 + 2	-	38.4 TB	121.6 TB	60.8 TB	76 TB	6	2	1	2	1	2 RU

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Why UCS?

## Cisco UCS C220 M5 SFF Rack Server SmartPlay Rack Paks

Product SKU	Bundle					
	Processor	Memory	RAID Controller	PCIe Riser	Additional Storage	Power Supply
UCS-SPR-C220M5-B3	1 x Intel Xeon Bronze 3106 8 Cores, 1.70 GHz, 11 MB L3, 85 W	1 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	1 x 770 W AC
UCS-SPR-C220M5-B4	2 x Intel Xeon Bronze 3106 8 Cores, 1.70 GHz, 11 MB L3, 85 W	2 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC
UCS-SPR-C220M5-S3	1 x Intel® Xeon Silver 4110 8 Cores, 2.10 GHz, 11 MB L3, 85 W	1 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	1 x 770 W AC
UCS-SPR-C220M5-S4	2 x Intel® Xeon Silver 4110 8 Cores, 2.10 GHz, 11 MB L3, 85 W	2 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC
UCS-SPR-C220M5-EP2	2 x Intel Xeon Silver 4114 10 Cores, 2.20 GHz, 13.75 MB L3, 85 W	2 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC
UCS-SPR-C220M5-A4	2 x Intel Xeon Silver 4116 12 Cores, 2.10 GHz, 16.5 MB L3, 85 W	2 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC
UCS-SPR-C220M5-A2	2 x Intel Xeon Silver 4116 12 Cores, 2.10 GHz, 16.5 MB L3, 85 W	2 x 32 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC
UCS-SPR-C220M5-A5	2 x Intel Xeon Gold 5120 14 Cores, 2.20 GHz, 19.25 MB L3, 105 W	2 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC
UCS-SPR-C220M5-C1	2 x Intel Xeon Gold 5120 14 Cores, 2.20 GHz, 19.25 MB L3, 105 W	2 x 32 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC
UCS-SPR-C220M5-C2	2 x Intel Xeon Gold 6130 16 Cores, 2.10 GHz, 22 MB L3, 125 W	2 x 32 GB DDR4 2,666 MHz	12G SAS RAID Controller with 2 GB FBWC	-	32 GB SD Card	2 x 770 W AC

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## Cisco UCS C240 M5 SFF Rack Server SmartPlay Rack Paks

Product SKU	Bundle					
	Processor	Memory	RAID Controller	PCIe Riser	Additional Storage	Power Supply
UCS-SPR-C240M5-B2	1 x Intel Xeon Bronze 3106 8 Cores, 1.70 GHz, 11 MB L3, 85 W	1 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 4 GB FBWC	Riser Card 1B 3 PCIe Slots (x8, x8, x8)	32 GB SD Card	1 x 1,050 W AC
UCS-SPR-C240M5-S4	1 x Intel® Xeon Silver 4110 8 Cores, 2.10 GHz, 11 MB L3, 85 W	1 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 4 GB FBWC	Riser Card 1B 3 PCIe Slots (x8, x8, x8)	32 GB SD Card	2 x 1,050 W AC
UCS-SPR-C240M5-S5	2 x Intel® Xeon Silver 4110 8 Cores, 2.10 GHz, 11 MB L3, 85 W	2 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 4 GB FBWC	Riser Card 1A 3 PCIe Slots (x8, x16, x8)	32 GB SD Card	2 x 1,050 W AC
UCS-SPR-C240M5-S6	2 x Intel Xeon Silver 4114 10 Cores, 2.20 GHz, 13.75 MB L3, 85 W	2 x 16 GB DDR4 2,666 MHz	12G SAS RAID Controller with 4 GB FBWC	Riser Card 1A 3 PCIe Slots (x8, x16, x8)	32 GB SD Card	2 x 1,050 W AC
UCS-SPR-C240M5-A1	1 x Intel Xeon Gold 5120 14 Cores, 2.20 GHz, 19.25 MB L3, 105 W	1 x 32 GB DDR4 2,666 MHz	12G SAS RAID Controller with 4 GB FBWC	Riser Card 1B 3 PCIe Slots (x8, x8, x8)	32 GB SD Card	1 x 1,050 W AC
UCS-SPR-C240M5-C1	2 x Intel Xeon Gold 5120 14 Cores, 2.20 GHz, 19.25 MB L3, 105 W	2 x 32 GB DDR4 2,666 MHz	12G SAS RAID Controller with 4 GB FBWC	Riser Card 1A 3 PCIe Slots (x8, x16, x8)	32 GB SD Card	2 x 1,050 W AC
UCS-SPR-C240M5-C2	2 x Intel Xeon Gold 6130 16 Cores, 2.10 GHz, 22 MB L3, 125 W	2 x 32 GB DDR4 2,666 MHz	12G SAS RAID Controller with 4 GB FBWC	Riser Card 1A 3 PCIe Slots (x8, x16, x8)	32 GB SD Card	2 x 1,050 W AC

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## Cisco UCS C220/240 M5 SFF Rack Server SmartPlay Rack Paks Accessories

Product Category	Product SKU	Description	Compatible Models	
			C220 M5 SFF	C240 M5 SFF
DDR4 DIMM	UCS-MR-X16G1RS-H	16 GB, DDR4, 2,666 MHz RDIMM, PC4-21300, Dual Rank, x4, 1.2 v	•	•
	UCS-MR-X32G2RS-H	32 GB, DDR4, 2,666 MHz RDIMM, PC4-21300, Dual Rank, x4, 1.2 v	•	•
SSD	UCS-SD150G61X-EV	150 GB, 6G SATA, SFF SSD	•	•
HDD	UCS-HD300G10K12N	300 GB, 12G SAS, 10K RPM, SFF HDD	•	•
	UCS-HD600G10K12N	600 GB, 12G SAS, 10K RPM, SFF HDD	•	•
	UCS-HD1T7K12N	1 TB, 12G SAS, 7.2K RPM, SFF HDD	•	•
	UCS-HD300G15K12N	300 GB, 12G SAS, 15K RPM, SFF HDD	•	•
PCIe	UCSC-PCIE-IRJ45	Intel i350 Quad Port 1GE Adapter	•	•
	N2XX-AIPCI01	Intel X520 Dual Port 10GE SFP+ Adapter	•	•
	UCSC-PCIE-C40Q-03	Cisco VIC 1385 Dual Port 40GE QSFP+, CNA, RDMA	•	•
	UCSC-PCIE-BD32GF	Broadcom LPe32002 Dual-Port 32GE FC, HBA	•	•
PCIe MLOM	UCSC-MLOM-C40Q-03	Cisco VIC 1387 Dual Port 40GE QSFP+, CNA, MLOM	•	•
PCIe Riser 2	UCSC-PCI-2A-240M5	Riser Card 2A, 3 x PCIe Slots (x8, x16, x16) Supports GPU	-	•
	UCSC-PCI-2B-240M5	Riser Card 2B, 3 x PCIe Slots (x8, x16, x8) Supports GPU + Rear NVMe	-	•
	UCSC-PCI-2C-240M5	Riser Card 2C, 3 x PCIe Slots (x8, x8, x8) Supports Front + Rear NVMe	-	•

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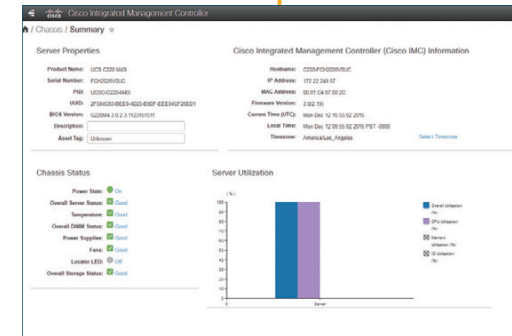
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**Simple, Flexible, and Powerful Management Capabilities: Cisco Integrated Management Controller (IMC)**

The Cisco Integrated Management Controller (IMC) is a baseboard management controller that provides embedded server management for the Cisco UCS C-Series Rack Servers. The Cisco IMC enables system management in the datacenter and across distributed branch-office locations. Cisco IMC supports multiple management interfaces, including a web user interface (Web UI), a command-line interface (CLI), and an XML API that is consistent with the one used by the Cisco UCS Manager. Cisco IMC also supports industry-standard management protocols, including Simple Network Management Protocol Version 3 (SNMPv3) and Intelligent Platform Management Interface Version 2.0 (IPMIv2.0). Cisco IMC is available in Chinese, English, Japanese, Korean, Russian, and Spanish.



Dedicated Management Port for Cisco IMC



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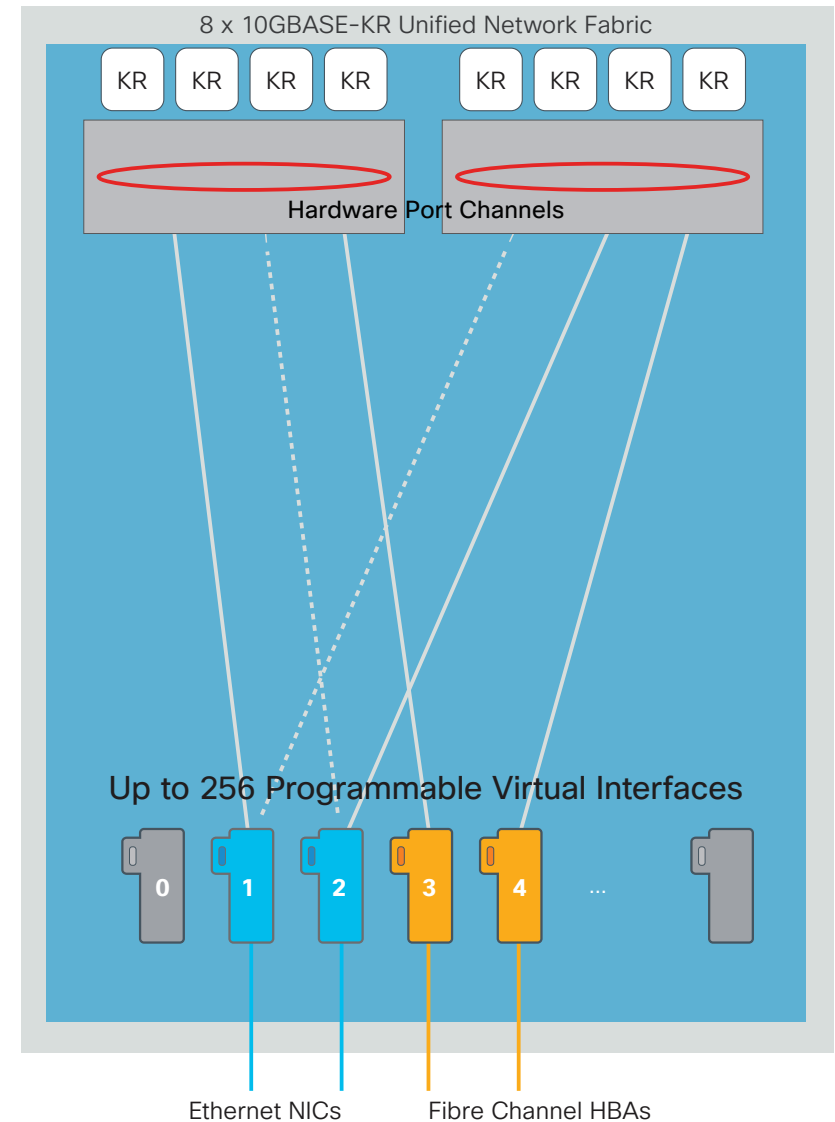


**Powerful and Configurable Networking: Cisco Virtual Interface Cards (VIC)**

The Cisco Virtual Interface Cards (VIC) is PCIe-compliant interfaces that support up to 256 PCIe devices with dynamically configured type (NIC or HBA), identity [MAC address or worldwide name (WWN)], fabric failover policy, bandwidth, and QoS policy settings. With Cisco VICs, server configuration — including I/O configuration — becomes configurable on demand, making servers stateless resources that can be deployed to meet any workload need at any time, without any physical reconfiguration or recabling required.

**Cisco UCS Virtual Interface Card (VIC)**

	UCS VIC 1385	UCS VIC 1387
Form Factor	PCIExpress (half height)	Modular LOM
Connectivity	PCIe 3.0 x 16 form factor	PCIe 3.0 x 8 form factor
Network Throughput	80 GB	80 GB
VXLAN/NVGRE	•	•
SMB Direct	•	•
RDMA	•	•
usNIC	•	•



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Ability to Integrate into a Fully Managed Environment: Cisco UCS Manager & Cisco UCS Fabric Interconnects

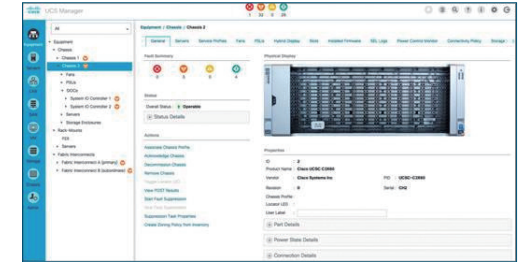
The Cisco UCS Manager integrates blade and rack servers into a single self-aware, self-integrating, unified system. It quickly and accurately configures computing, network, storage, and storage-access resources to increase compliance and reduce the chance of errors that can cause downtime. It uses a role- and policy-based approach that helps organizations more easily align policies and configurations with workloads, and it automates system configuration through a “create once, deploy many” approach. Cisco UCS Manager acts as a single point of management and monitoring for the entire system. It is embedded software that runs on the system’s fabric interconnects, typically in a redundant, high-availability configuration. It can be accessed through an intuitive GUI, command-line interface (CLI), or XML API. The Cisco UCS Fabric Interconnects provide a single point of connectivity and management for the entire system. Typically deployed as an active-active pair, the system’s fabric interconnects integrate all components into a single, highly

available management domain controlled by Cisco UCS Manager. The fabric interconnects manage all I/O efficiently and securely at a single point, resulting in deterministic I/O latency regardless of a server or virtual machine’s topological location in the system.

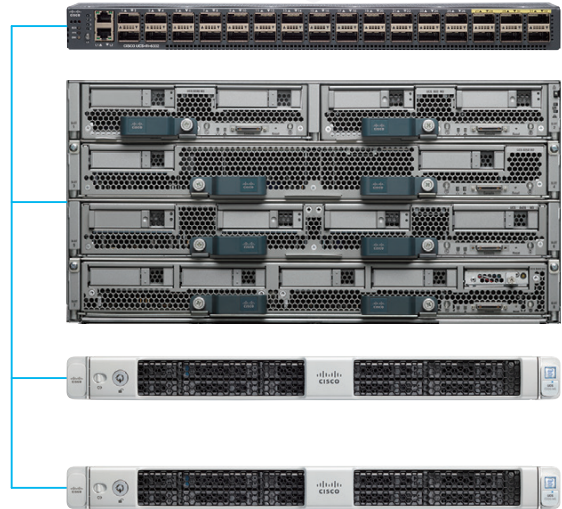
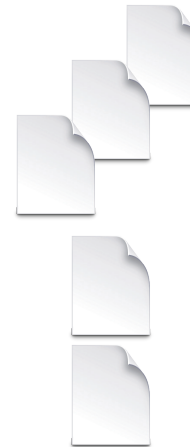
- Cisco UCS 6200 Series Fabric Interconnects support line-rate, lossless 10 Gigabit Ethernet and FCoE connectivity
- Cisco UCS 6200 Series Fabric Interconnects can be used to create Cisco UCS domains containing blade or rack servers
- Cisco UCS 6300 Series Fabric Interconnects support line-rate, lossless 40 Gigabit Ethernet and FCoE connectivity
- Cisco UCS 6324 Fabric Interconnects can be used to create a self-contained Cisco UCS Mini solution for branch offices and remote locations



Server Deployment with Service Profiles Takes Only Minutes



UCS Manager Embedded in UCS Fabric Interconnect



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## Why HyperFlex?

## Cisco HyperFlex Systems: Hyperconverged Multicloud Platform

You need infrastructure that can adapt to match the speed of your business—whether deploying enterprise applications or containers in multicloud environments. The **Cisco HyperFlex Systems** with Intel Xeon Scalable processors deliver hyperconvergence with the power and simplicity for **any application**,

on **any cloud**, and at **any scale**. Engineered on the Cisco Unified Computing System (UCS), Cisco HyperFlex Systems deliver the agility, scalability, and pay-as-you-grow economics of the cloud with the benefits of onpremises infrastructure.



### Cisco HyperFlex HX-Series

The **Cisco HyperFlex HX-Series** provides unified compute, storage, and networking with cloud management. Physically, the Cisco HyperFlex System is delivered as a cluster of the Cisco HyperFlex HX-Series nodes.

A HyperFlex cluster requires a minimum of three homogeneous nodes (with disk storage). Data is replicated across at least two of these nodes, and a third node is required for continuous operation in the event of a single-node failure. Each node is equipped with at least one high-performance SSD drive for data caching and rapid acknowledgment of write requests.

- Hybrid nodes use SSD drives for caching and HDDs for the capacity layer
- All Flash nodes use SSD drives or NVMe storage for caching, and SSD drives for the capacity layer

#### ● Cisco HyperFlex HX220c Edge M5 Nodes

These nodes are designed to work in simplified three-node clusters using existing Gigabit Ethernet networks. Cisco HyperFlex Edge systems offer the same easy deployment and management as all Cisco HyperFlex systems.

#### ● Cisco HyperFlex HX220c M5 Hybrid and All-Flash Nodes

These nodes balance up to 8 drives of disk capacity in a 2-socket, 1-rack-unit (1RU) package ideal for small-footprint environments.

#### ● Cisco HyperFlex HX240c M5 Hybrid and All-Flash Nodes

These nodes balance high disk capacity (up to 23 drives) in a 2-socket, 2RU package ideal for storage-intensive applications.

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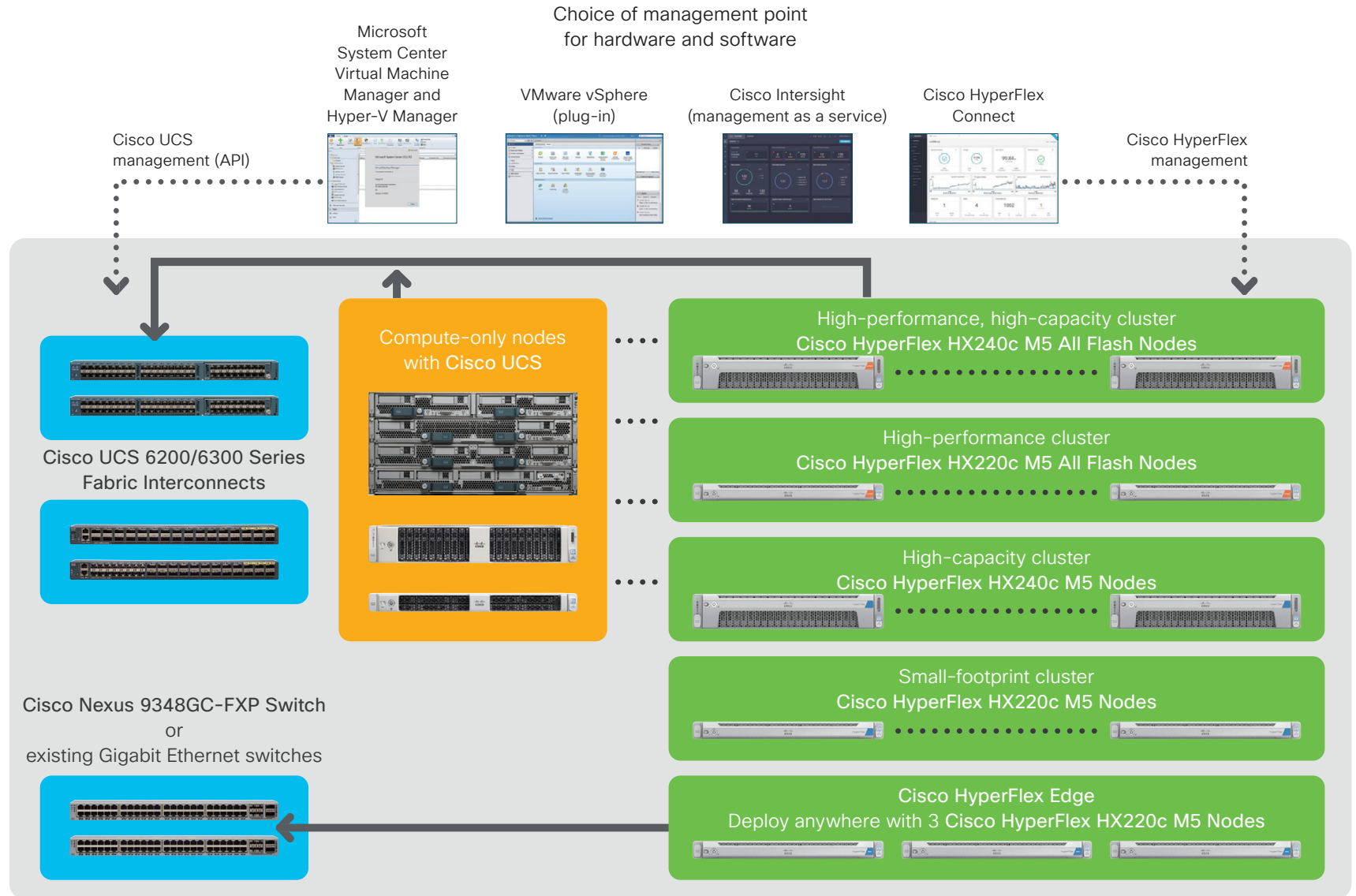
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Cisco HyperFlex HX-Series

Product SKU	Processor			Memory		Internal Storage						PCIe Gen3		Ports		Rack Mount		
	Sockets	Processor Supported	Max Cores per Socket	Slots	Max Memory	2.5 inch SFF Slots	3.5 inch LFF Slots	Max Cache		Max Capacity			Slots	Max GPUs	mLOM Slots		10 GB-T	Mgmt GE
								SSD	PCIe NVMe	HDD	SSD	Self-Encrypted HDD/SDD						
HX-E-220M5SX <sup>*1</sup>	2	Intel Xeon Scalable	28	24	3 TB	10	-	800 GB	-	19.2 TB	-	-	2	1	1	2	1	1 RU
HXAF-E-220M5SX <sup>*1</sup>	2	Intel Xeon Scalable	28	24	3 TB	10	-	1.6 TB	-	-	30.4 TB	-	2	1	1	2	1	1 RU
HX220C-M5SX <sup>*2</sup>	2	Intel Xeon Scalable	28	24	3 TB	10	-	800 GB	-	19.2 TB	-	9.6 TB	2	1	1	2	1	1 RU
HXAF220C-M5SX <sup>*3</sup>	2	Intel Xeon Scalable	28	24	3 TB	10	-	1.6 TB	1.6 TB	-	30.4 TB	30.4 TB	2	1	1	2	1	1 RU
HXAF220C-M5SN <sup>*3</sup>	2	Intel Xeon Scalable	28	24	3 TB	10	-	-	375GB	-	40 TB	-	2	1	1	2	1	1 RU
HX240C-M5L <sup>*2</sup>	2	Intel Xeon Scalable	28	24	3 TB	2	12	3.2 TB	-	144 TB	-	-	6	2	1	2	1	2 RU
HX240C-M5SX <sup>*2</sup>	2	Intel Xeon Scalable	28	24	3 TB	24 + 2	-	1.6 TB	-	55.2 TB	-	27.6 TB	6	2	1	2	1	2 RU
HXAF240C-M5SX <sup>*3</sup>	2	Intel Xeon Scalable	28	24	3 TB	24 + 2	-	1.6 TB	1.6 TB	-	87.4 TB	87.4 TB	6	2	1	2	1	2 RU

\*1 HX-E-M5S-HXDP is required in CCW. See [Ordering Guide](#) for details. \*2 HX-M5S-HXDP is required in CCW. See [Ordering Guide](#) for details.

\*3 HXAF-M5S-HXDP is required in CCW. See [Ordering Guide](#) for details.

Cisco HyperFlex HX Data Platform (HXDP) Licenses for Cisco HyperFlex HX220c Edge M5 Nodes

Product SKU <sup>*1</sup>					Description
1-Year	2-Years	3-Years	4-Years	5-Years	
HXDP-E001-1YR=	HXDP-E001-2YR=	HXDP-E001-3YR=	HXDP-E001-4YR=	HXDP-E001-5YR=	Cisco HyperFlex Data Platform Edge Edition

\*1 HX-E-M5S-HXDP is required in CCW. See [Ordering Guide](#) for details.

Cisco HyperFlex HX Data Platform (HXDP) Licenses for Cisco HyperFlex HX220c/240c M5 Hybrid and All-Flash Nodes

Product SKU <sup>*1</sup>					Description
1-Year	2-Years	3-Years	4-Years	5-Years	
HXDP-S001-1YR=	HXDP-S001-2YR=	HXDP-S001-3YR=	HXDP-S001-4YR=	HXDP-S001-5YR=	Cisco HyperFlex Data Platform Standard Edition
HXDP-P001-1YR=	HXDP-P001-2YR=	HXDP-P001-3YR=	HXDP-P001-4YR=	HXDP-P001-5YR=	Cisco HyperFlex Data Platform Enterprise Edition

\*1 HX-M5S-HXDP or HXAF-M5S-HXDP is required in CCW. See [Ordering Guide](#) for details.

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**SmartPlay HyperFlex**

Why HyperFlex?

Cisco HyperFlex HX220c M5 Nodes Hybrid SmartPlay HyperFlex

Product SKU	Bundle					
	Processor	Memory	RAID Controller	PCIe Option Card	Additional Storage	Power Supply
HX-SP-220M5SX-E*1	2 x Intel Xeon Bronze 3106 8 Cores, 1.70 GHz, 11 MB L3, 85 W	8 x 16 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 770 W AC

\*1 HX-SP-220M5-E is required in CCW.

Cisco HyperFlex HX220c M5 Nodes All-Flash SmartPlay HyperFlex

Product SKU	Bundle					
	Processor	Memory	RAID Controller	PCIe Option Card	Additional Storage	Power Supply
HXAF-SP-220M5SX-V*1	2 x Intel Xeon Silver 4114 10 Cores, 2.20 GHz, 13.75 MB L3, 85 W	12 x 16 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 770 W AC

\*1 HXAF-SP-220M5-V is required in CCW.

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## SmartPlay HyperFlex

## Why HyperFlex?

## Cisco HyperFlex HX240c M5 Nodes Hybrid SmartPlay HyperFlex

Product SKU	Bundle					
	Processor	Memory	RAID Controller	PCIe Option Card	Additional Storage	Power Supply
HX-SP-240M5L-V2*1	2 x Intel Xeon Silver 4114 10 Cores, 2.20 GHz, 13.75 MB L3, 85 W	12 x 32 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 1,050 W AC
HX-SP-240M5SX-V1*2	2 x Intel Xeon Silver 4114 10 Cores, 2.20 GHz, 13.75 MB L3, 85 W	12 x 32 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 1,600 W AC
HX-SP-240M5SX-P*3	2 x Intel Xeon Gold 6140 18 Cores, 2.30 GHz, 24.75 MB L3, 140 W	12 x 32 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 1,600 W AC

\*1 HX-SP-240M5LFF-V2 is required in CCW. \*2 HX-SP-240M5-V1 is required in CCW. \*3 HX-SP-240M5-P is required in CCW.

## Cisco HyperFlex HX240c M5 Nodes All-Flash SmartPlay HyperFlex

Product SKU	Bundle					
	Processor	Memory	RAID Controller	PCIe Option Card	Additional Storage	Power Supply
HXAF-SP-240M5SX-V*1	2 x Intel Xeon Silver 4114 10 Cores, 2.20 GHz, 13.75 MB L3, 85 W	12 x 32 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 1,600 W AC
HXAF-SP-240M5SX-P1*2	2 x Intel Xeon Gold 6130 16 Cores, 2.10 GHz, 22 MB L3, 125 W	12 x 32 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 1,600 W AC
HXAF-SP-240M5SX-P2*3	2 x Intel Xeon Gold 6148 20 Cores, 2.40 GHz, 27.5 MB L3, 150 W	12 x 32 GB DDR4 2,666 MHz	Cisco 12G SAS HBA	Cisco VIC 1387 Dual Port 40 GB QSFP CNA MLOM	32 GB SD Card 240 GB SATA M.2 SSD	2 x 1,600 W AC

\*1 HXAF-SP-240M5-V is required in CCW. \*2 HXAF-SP-240M5-P1 is required in CCW. \*3 HXAF-SP-240M5-P2 is required in CCW.

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Cisco HyperFlex HX-Series SmartPlay HyperFlex Accessories

Product Category	Product SKU	Description	Compatible Models			
			HX220c M5		HX240c M5	
			Hybrid	All-Flash	Hybrid	All-Flash
Fabric Interconnect	UCS-HX-FI48P	Cisco UCS 6248UP 48-Port Fabric Interconnect, 12-port License, 2 x Power Supply 4 x Cisco 10GBASE-SR SFP+, 4 x Cisco Fibre Channel Shortwave SFP+	●	●	●	●
	UCS-HX-FI96P	Cisco UCS 6296UP 96-Port Fabric Interconnect, 18-port License, 2 x Power Supply 4 x Cisco 10GBASE-SR SFP+, 4 x Cisco Fibre Channel Shortwave SFP+	●	●	●	●
	HX-SP-FI6332	Cisco UCS 6332 Fabric Interconnect 4 x Cisco 40GBASE-SR QSFP+, 2 x Power Supply	●	●	●	●
	HX-SP-FI6332-16UP	Cisco UCS 6332-16UP Fabric Interconnect 4 x Cisco 40GBASE-SR QSFP+, 2 x Power Supply	●	●	●	●
DDR4 DIMM	HX-SP-M16G1-RSH	16 GB, DDR4, 2,666 MHz RDIMM, PC4-21300, Single Rank, x4, 1.2 v	●	●	●	●
	HX-SP-M32G2-RSH	32 GB, DDR4, 2,666 MHz RDIMM, PC4-21300, Dual Rank, x4, 1.2 v	●	●	●	●
HDD Pack (Standard)	HX-STD-01A	1 x 480 GB SAS (Cache), 1 x 240 GB SATA (Log), 6 x 1.2 TB SAS (Capacity)	●	-	-	-
	HX-STD-02A	1 x 480 GB SATA (Cache), 1 x 240 GB SATA (Log), 6 x 1.8 TB SAS (Capacity)	●	-	-	-
	HX-STD-03A	1 x 400 GB SAS (Cache), 1 x 240 GB SATA (Log), 6 x 960 GB SATA (Capacity)	-	●	-	-
	HX-STD-04A	1 x 400 GB SAS (Cache), 1 x 240 GB SATA (Log), 6 x 3.8 TB SATA (Capacity)	-	●	-	●
	HX-STD-05A	1 x 400 GB SAS (Cache), 1 x 240 GB SATA (Log), 11 x 3.8 TB SATA (Capacity)	-	-	-	●
	HX-STD-06A	1 x 1.6 TB SAS (Cache), 1 x 240 GB SATA (Log), 15 x 1.8 TB SAS (Capacity)	-	-	●	-
	HX-STD-07A	1 x 1.6 TB SAS (Cache), 1 x 240 GB SATA (Log), 15 x 1.2 TB SAS (Capacity)	-	-	●	-
	HX-STD-08A	1 x 400 GB SAS (Cache), 1 x 240 GB SATA (Log), 11 x 960 GB SATA (Capacity)	-	-	-	●
	HX-STD-10A	1 x 3.2 TB SAS (Cache), 1 x 240 GB SATA (Log), 6 x 8 TB SATA (Capacity)	-	-	● <sup>*1</sup>	-
	HDD Pack (Encrypted)	HX-ENCR-01A	1 x 800 GB SAS (Cache), 1 x 240 GB SATA (Log), 6 x 1.2 TB SAS (Capacity)	●	-	-
HX-ENCR-03A		1 x 800 GB SAS (Cache), 1 x 240 GB SATA (Log), 6 x 960 GB SATA (Capacity)	-	●	-	-
HX-ENCR-04A		1 x 800 GB SAS (Cache), 1 x 240 GB SATA (Log), 6 x 3.8 TB SATA (Capacity)	-	●	-	●
HX-ENCR-05A		1 x 800 GB SAS (Cache), 1 x 240 GB SATA (Log), 11 x 3.8 TB SATA (Capacity)	-	-	-	●
HX-ENCR-06A		1 x 1.6 TB SAS (Cache), 1 x 240 GB SATA (Log), 15 x 1.2 TB SAS (Capacity)	-	-	●	-
HX-ENCR-07A		1 x 800 GB SAS (Cache), 1 x 240 GB SATA (Log), 11 x 960 GB SATA (Capacity)	-	-	-	●

\*1 HX-SP-240M5L-V2 only.

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Performance Matters

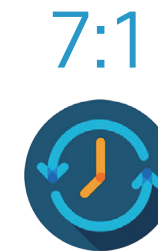
The Cisco HyperFlex's HX Data Platform (HXDP) is engineered to deploy mission-critical applications on hyperconverged infrastructure, providing simplified installation and management, reduced storage footprint, reduction in IOPS variability, reduced read/write latency, and lower TCO.



Higher Virtual Machine Density



Reduced Read/Write Latency



Reduction in IOPS Variability

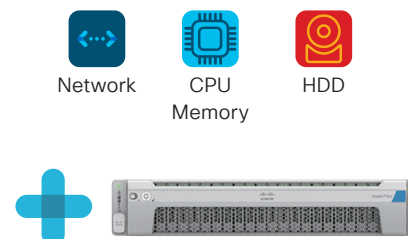
Independent Resource Scaling

The Cisco HyperFlex Systems include a purpose-built, high-performance distributed file system that expands the boundaries of hyperconverged infrastructure. You can scale your environment simply by adding nodes to the configuration.

Unlike with any other hyperconverged product, you can choose to independently scale computing or storage capacity to meet the specific needs of your applications. Our predefined networking resources expand to incorporate the new nodes.



Scale up with Cisco HyperFlex nodes  
Add storage



Scale out with Cisco HyperFlex nodes  
Add more nodes with computing and storage



Scale computing capacity  
with Cisco UCS blade and rack servers

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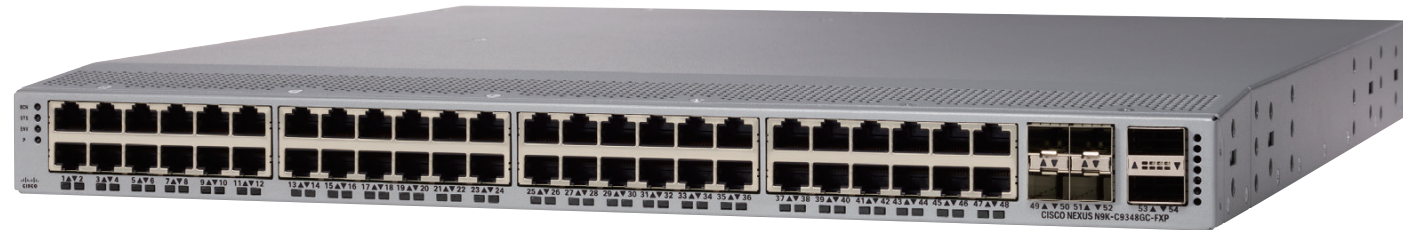
## Platform Spec

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## Gigabit Ethernet ToR Switch with Proven Performance and Density

The Cisco Nexus 9348GC-FXP Switch is a 1RU switch that supports 696 Gbps of bandwidth and over 250 mpps. The 48 1GBASE-T downlink ports on the switch can be configured to work as 100-Mbps, 1-Gbps ports. The 4 ports of SFP28 can be configured as 1/10/25-Gbps and the 2 ports of QSFP28 can be configured as 40- and 100-Gbps ports.

Cisco Nexus 9348GC-FXP Switch is designed to meet the changing needs of data centers, big data applications, and automated cloud environments.



### Highlights

- Powered by Cisco Cloud Scale ASIC technology
- Support for Cisco NX OS Software and Cisco ACI (Application Centric Infrastructure) architecture
- High-performance, Layer 2 and 3 non-blocking architecture
- Easily deployed into either a hot-aisle or cold-aisle configuration
- Cisco Tetration Analytics Platform support with built-in hardware sensors for rich traffic flow telemetry and line-rate data collection
- Cisco Nexus Data Broker support for network traffic monitoring and analysis
- Robust hardware system specifications feature 4-core CPU, 24 GB of system memory, and respectively 128-GB SSD drive
- The 40-MB buffer supporting highly scalable data centers and big data applications
- 696 Gbps of bandwidth and over 250 mpps
- Fixed downlinks with 48 x FE/GE
- Fixed uplinks with 4 x 25GE SFP28, 2 x 100GE QSFP28

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Cisco Nexus 9348GC-FXP Switch

Product SKU	System Buffer	Switching Capacity (Bandwidth)	Downlinks	Uplinks		Power Supply				Fan		Rack Mount
			FE/GE	SFP/ SFP+ / SFP28	QSFP+ / QSFP28	Default PS	Dual PS	Port Side Exhaust	Port Side Intake	Port Side Exhaust	Port Side Intake	
N9K-C9348GC-FXP	40 MB	696 Gbps	48	4	2	350 W AC	●	●	●	●	●	1 RU

Cisco Nexus 9348GC-FXP Switch Bundle

Product SKU	Bundle		
	Switch	QSFP+	QSFP28
N9K-C9348-FX-B14Q	2 x N9K-C9348GC-FXP	4 x QSFP-40G-SR-BD	-
N9K-C9348-FX-B24C	2 x N9K-C9348GC-FXP	-	4 x QSFP-100G-SR4-S or QSFP-100G-PSM4-S



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## Cisco Nexus 9348GC-FXP Switch Licenses for ACI

Product SKU	Description
ACI-ES-GF	ACI Essentials License
ACI-AD-GF	ACI Advantage License
ACI-SEC-GF	Security License
ACI-STRG	Storage License

## Cisco Nexus 9348GC-FXP Switch Accessories

Product SKU	Description
NXK-ACC-KIT-2P	Fixed Accessory Kit with 2-Post Rack Mount Kit

## Cisco Nexus 9348GC-FXP Switch Licenses for NX-OS

Product SKU	Description
NXOS-ES-GF	NX-OS Essentials License
NXOS-AD-GF	NX-OS Advantage License
NXOS-SEC-GF	Security License
NXOS-STRG-GF	Storage License
NXOS-NDB	Nexus Data Broker License

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## Adaptive Computing with Cloud-Powered Intelligence

The Cisco Intersight delivers a new era of computing for Cisco UCS and HyperFlex systems. This adaptive, cloud-powered management platform enables you to be anywhere and act everywhere. It delivers pervasive simplicity at a global level with connected technical support, so daily activities are easier for everyone.

Intersight provides actionable intelligence based on insights gained from analytics and best practices to enable faster, proactive operations. Intersight is an open platform that will be integrated with Cisco and third party tools and infrastructure to enable agile delivery, so IT can empower the business to respond quickly to change.

### Highlights

● **Pervasive Simplicity**

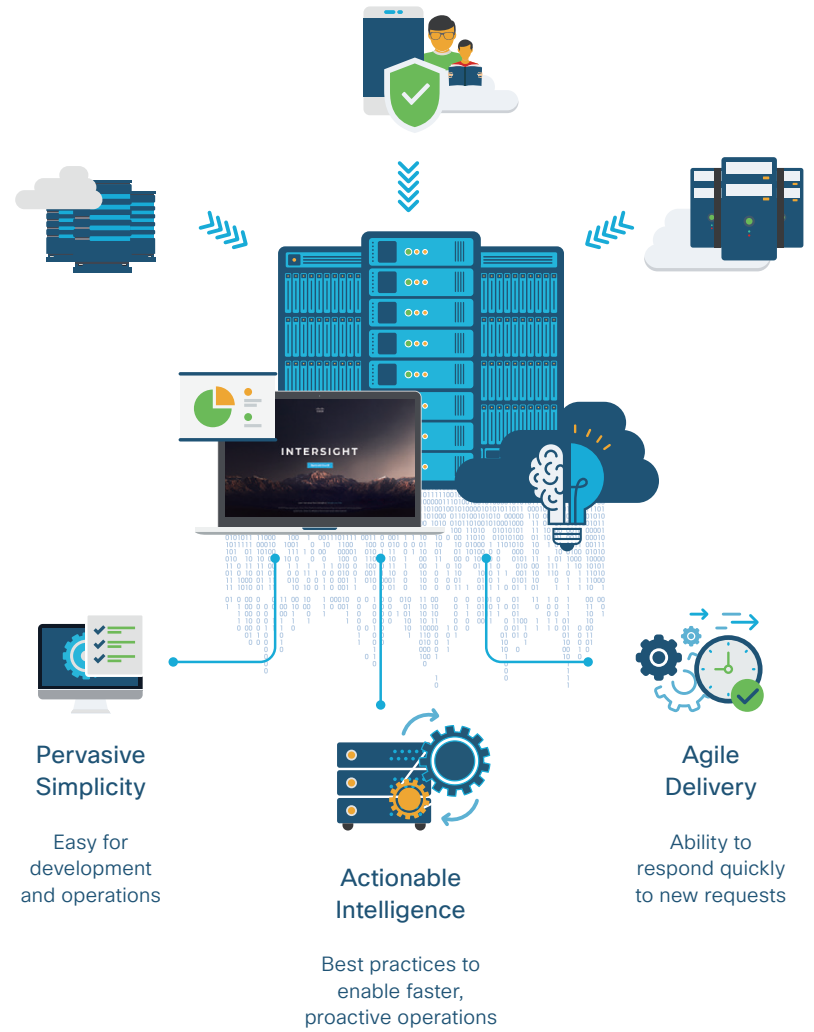
Use a GUI or API to meet the needs of your development teams. Simplify the user experience with the capability to manage your infrastructure regardless of where it is installed.

● **Actionable Intelligence**

Use best practices to enable faster, proactive operations. Gain actionable insight for ongoing improvement and problem avoidance.

● **Agile Delivery**

Respond quickly to new requests and manage the unpredictable. Deploy edge clusters as quickly as you deploy virtual machines in your data center.



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### ■ Cisco Intersight Editions (Licenses)

The Cisco Intersight uses a subscription-based license with multiple editions. Customers can purchase a Subscription duration of one, three, or five years and choose the Cisco UCS server volume tier they need for the selected subscription duration.

Each Cisco UCS server or Cisco HyperFlex system automatically includes a Cisco Intersight Base edition at no additional cost when the customer accesses the Cisco Intersight portal and claims the device. In addition, customers can purchase the Cisco Intersight Essentials edition using the Cisco ordering tool.

#### ● Base

The Cisco Intersight Base offering is available at no cost to customers with platforms enabled to support Cisco Intersight. Enabled platforms are those Cisco UCS and Cisco HyperFlex systems with a Cisco Intersight device connector, including eligible Cisco UCS Manager, Cisco IMC, and Cisco HyperFlex software.

Cisco Intersight Base provides access to a portal that delivers centralized monitoring and basic inventory of managed systems, organizational capabilities including tagging and search, and the capability to launch native end-point management interfaces including Cisco UCS Manager.

#### ● Essentials

The Cisco Intersight Essentials offering builds on the functions provided in the Base edition. It includes centralized setup and configuration capabilities through a policy engine, firmware management, compliance tool integration, and other features.

Cisco Intersight Essentials enables customers to centralize configuration management through a unified policy engine, determine compliance with the Cisco UCS Hardware Compatibility List (HCL), and initiate firmware updates. The Essentials edition provides a single interface for monitoring, management, and operations, with the capability to launch the virtual keyboard, video, and mouse (vKVM) console directly from Cisco Intersight.

Editions	Base	Essentials
Product SKU <sup>*1</sup>	-	DC-MGT-SAAS-EST-C
Free version, supports Cisco UCS and HyperFlex	●	●
Global monitoring of health and inventory status	●	●
User customizable dashboard	●	●
Tagging and basic search	●	●
Context launch of element managers	●	●
Policy-based configuration with service profiles	-	●
Remote management and vKVM	-	●
Firmware management with scheduled updates	-	●
HCL compliance check and upgrade recommendations	-	●

\*1 DC-MGT-SAAS is required in CCW.

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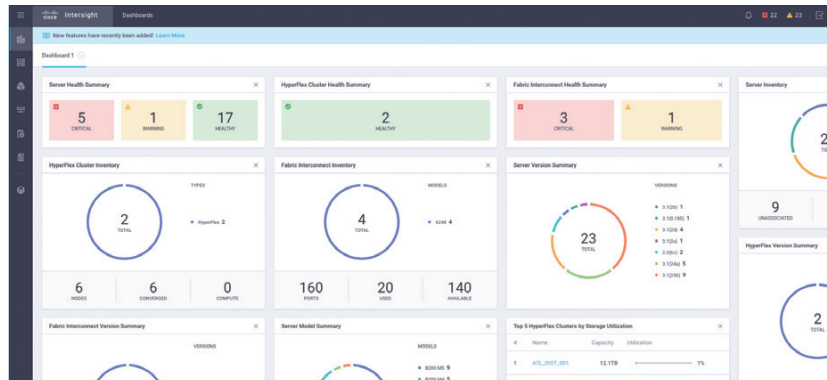
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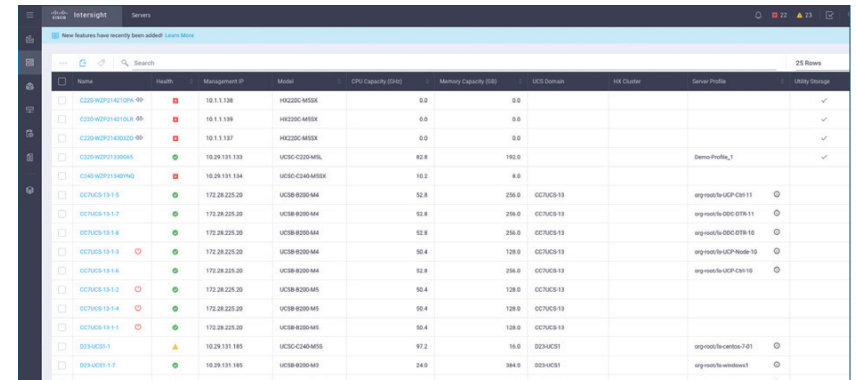
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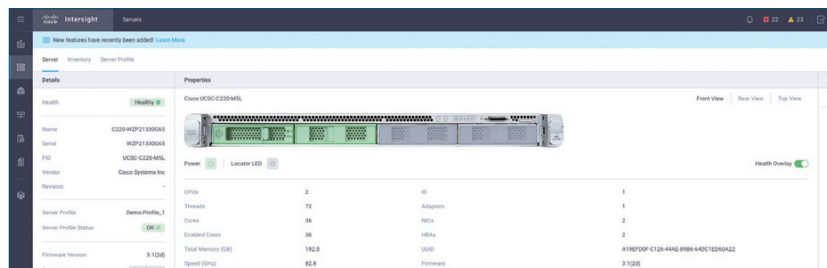
Gallery



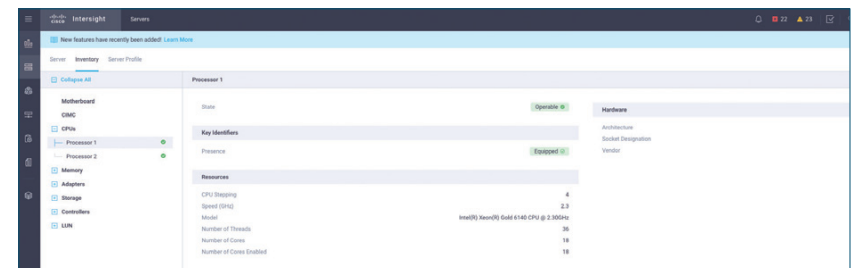
- Customizable dashboard to show overall faults/health/inventory for all managed infrastructure
- Can create unique dashboards for individual Intersight users
- Can add/remove widgets as desired
- Can move (drag and drop) widgets to desired positions
- Can click on various widgets for more detailed information



- Main server tab shows all servers managed by Cisco Intersight, and provides basic Health/Model/IP information
- Desired column details can be added/removed as user sees fit
- Clicking on any server name dials in to that server – detailed server overview/inventory information



- Server name, model, serial number, and other basic properties are displayed
- Health overlay for front/back/top views can be turned on/off as needed
- Alarms/faults visible on right hand side
- Server actions available as well — IMC cross-launch, vKVM, power operations, tagging



- Detailed information for all server peripherals — CPUs, memory, adapters, storage, etc.
- Can dial in to specific peripheral for additional component information
- Server actions tab available here as well

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