UCS X-Series Modular Servers

Simplify and Accelerate Your Hybrid Cloud Journey March 2022 Product Update

Contents

General

Q. What did Cisco announce on March 23?

A. Cisco announced:

- Cisco UCS X-Fabric Technology options
- Cisco UCS 5th Generation Unified Fabric
- GPU options for Cisco UCS X210c M6 Compute Nodes
- HyperFlex Express
- HyperFlex Nodes with AMD EPYC Processors
- HyperFlex Containerized Local Witness for Edge
- Cisco Intersight Kubernetes Service attached clusters
- Cisco Intersight integration with Amazon EC2 and Amazon EKS

Q. When are these new options orderable?

A. The UCS X-Series options and 5th Generation Unified Fabric **will be available in April of 2022**. HyperFlex Express will be available at the end of March 2022, the HyperFlex local witness feature will be available in April 2022, and HyperFlex Nodes with AMD EPYC Processors will be orderable in May 2022.

Q. Where can I find more detailed information about the new UCS X-Series?

A. For more information, go to https://cisco.com/go/ucsx.

Q. Where can I find more detailed information about the new HyperFlex options?

A. For more information, go to https://www.cisco.com/site/us/en/products/computing/hyperconverged-infrastructure/index.html

Cisco UCS X-Fabric Technology

Q. What Cisco UCS X-Fabric Technology options have been added?

A. The Cisco UCS X9416 X-Fabric Module and the Cisco UCS X440p PCIe Node.

Q. What is the Cisco UCS X9416 X-Fabric Module?

A. The UCS X9416 X-Fabric Module is a PCIe Gen 4 fabric for the Cisco UCS X9508 Chassis.

Q. What is the Cisco UCS X440p PCIe Node?

A. The UCS X440p PCIe Node allows you to add up to four GPUs to a Cisco UCS X210c M6 Compute Node when used with the UCS X9416 X-Fabric Modules.

Cisco UCS 5th Generation Unified Fabric

Q. What Cisco UCS 5th Generation Unified Fabric options have been added?

A. There are the following: the Cisco UCS 6536 Fabric Interconnect, the Cisco UCS 9108 100G Intelligent Fabric Module, and Cisco UCS VICs 15000 Series.

Q. What is the Cisco UCS 6536 Fabric Interconnect?

A. The Cisco UCS 6536 Fabric Interconnect is a 100G solution for Cisco UCS. It has 36 100G ports, 1/10/25/40/100G capable, with up to 16 8G/16G/32G Fibre Channel connections using breakout cables.

Q. What is Cisco UCS 9108 100G Intelligent Fabric Module?

A. The Cisco UCS 9108 100G IFM is an eight-port 100G unified fabric module for the UCS X9508 chassis. They are deployed in redundant pairs, providing 1600G aggregate bandwidth per chassis.

Q. What Fabric Interconnects are supported by the Cisco UCS 9108 100G IFM?

A. The Cisco UCS 6536 Fabric Interconnect is supported.

Q. What IFM and Cisco UCS 5108 Chassis FEXs are supported by the Cisco UCS 6536 Fabric Interconnect?

A. For X-Series, both the 25G and 100G IFMs are supported. For the UCS 5108 chassis, the 2408 and 2304 (post FCS) FEX are supported.

Q. What adapters are included in the Cisco UCS VICs 15000 Series family?

A. There are the following:

- Cisco UCS VIC 15231 for X-Series
- Cisco UCS VIC 15428 for C-Series
- More models will follow post FCS

Q. What makes the 15000 series different from the 14000 series?

A. The 15000 series offer many improvements:

- PCIe Gen 4, 10G/25G/40G/50G/100G/200G across different SKUs, improved performance for ROCEv2, GENEVE, and DPDK and in overall throughput.
- SR-IOV, SIOV, and RSSv2 support (post FCS)
- L3 ECN HW-capable for improved performance on congested networks support (post FCS)
- HW PTP and 16K Rx Ring size support

Q. What Cisco VICs are supported by the Cisco UCS 6536 Fabric Interconnect?

A. The 1400, 14000, and 15000 UCS VICs are supported.

Q. Which generations of UCS servers are supported by the Cisco UCS 6536 Fabric Interconnect?

A. The following are supported:

- M6 UCS X-Series
- M5/M6 UCS B-Series
- M5/M6 UCS C-Series
- M5 UCS S-Series

Q. What is the UCS management platform supported with Cisco UCS 6536 Fabric Interconnect?

A. The 6536 Fabric Interconnect will be supported by Cisco Intersight. Post FCS, support for Cisco UCS Manager will be added.

Cisco UCS X210c M6 Compute Node

Q. What is new feature in the UCS X210c M6 Compute Node?

A. A new front mezzanine adapter has been added – the UCS X10c Compute Node GPU Front Mezz.

Q. What is the UCS X10c Compute Node GPU Front Mezz?

A. The UCS X10c Compute Node GPU Front Mezz allows you to add up to two Nvidia T4 Tensor Core GPUs and two drives to the UCS X210c M6.

Q. Is the Nvidia T4 Tensor Core GPU the only GPU supported in the UCS X210c M6 Compute Node?

A. Yes. Additional GPUs will be supported in the future.

Q. What types of drives are supported?

A. NVMe drives are supported when using the front mezzanine GPU adapter.

Q. Is RAID supported with the two drives?

A. Hardware RAID through a secondary adapter such as the LSI 3900 is not supported but Intel® VROC RAID is supported.

HyperFlex Express

Q. What is HyperFlex Express?

A. HyperFlex Express comprises our most popular node configurations, now made even easier to order and install. HyperFlex Express makes on-boarding infrastructure easy with simplified ordering and fast delivery. With HyperFlex Express, we have taken our most popular Cisco HyperFlex node configurations, added a few simple and important options, priced them attractively to deliver optimal value, and reduced transaction times to help keep your plans on track. You can easily size your configuration with our sizing tool, buy with prices that deliver value, deploy in hours rather than days, manage your entire solution with Intersight, and support your environment knowing we have your interests in mind.

Q. What node types are there?

A. Both HyperFlex HX220c and HX240c M6 servers with all-flash, all-NVMe, and hybrid nodes are available for configuration as HyperFlex Express, with a wide range of storage options available.

Q. Do HyperFlex Express configurations require Fabric Interconnects?

A. HyperFlex Express configurations can be deployed with or without Fabric Interconnects.

Q. What workloads are supported by HyperFlex Express?

A. HyperFlex Express supports the same workloads that are supported by M6 HyperFlex nodes. HyperFlex Express nodes are especially well suited to server consolidation using virtualization, virtual desktops and applications, single infrastructure for virtual machines and containers, and private cloud instances.

Q. Are HyperFlex Express configurations managed by Cisco Intersight?

A. Yes, Cisco Intersight provides an essential hybrid-cloud control point for your HyperFlex Express and all your infrastructure. With Intersight, you can get more value by simplifying operations across on-premises data centers, edge sites, and public clouds, continuously optimizing and accelerating your ability to deliver services. With Intersight, your teams can intelligently visualize, optimize, and orchestrate all your applications and infrastructure anywhere they are.

HyperFlex with AMD EPYC CPUs

Q. What new HyperFlex servers have AMD CPUs?

A. The new HX225c and new HX245c M6 servers have AMD CPUs. They are available for edge and data-center nodes using hybrid or all-flash storage.

Q. Can I mix and match HyperFlex nodes with Intel and AMD CPUs in the same cluster?

A. No. Currently, all HyperFlex nodes in a single cluster must have the same CPU vendor, either all AMD or all Intel.

HyperFlex Containerized Local Witness for Edge

Q. What is a containerized local witness?

A. A containerized local witness is a lightweight, efficient, low-cost HyperFlex cluster witness for edge-location HyperFlex installations.

Q. What is a cluster witness?

A. Refer to the Cisco HyperFlex Invisible Cloud Witness Powered by the Cisco Intersight Platform White Paper which explains a cluster witness in detail.

Q. What is the difference between having Cisco Intersight provide the cluster witness and a containerized witness?

A. Not every customer can manage their HyperFlex servers with Intersight, so containerized witnesses add new options for those customers. Furthermore, a local witness does not rely on WAN connectivity and provides a higher level of availability to the local cluster. Lastly, the local witness efficiently uses local infrastructure, such as a Cisco router, or any other device that can host a container, thus saving VM hosting and licensing costs.

Q. What Cisco products support a containerized witness?

A. Cisco Nexus 9000 and Catalyst 9000 switches, Cisco ASR 1000 Series Aggregation Services Routers and Cisco 4000 Series Integration Services Routers, Catalyst Series IR1101 Rugged Series Routers, and Catalyst 9100 Access Points all support HyperFlex containerized witnesses.

Q. Do you have to run the containerized witness on Cisco hardware?

A. No. The container can be deployed on the hardware of your choice.

Cisco Intersight Kubernetes Service attached clusters

Q. What are attached clusters?

A. The Cisco Intersight Kubernetes Service (IKS) attached clusters feature provides the ability to attach native public cloud Kubernetes clusters in IKS.

Q. Which cloud providers and third-party vendors are supported with attached clusters?

A. The attached-clusters functionality provides visibility into AWS EKS, Azure AKS, and GCP EKG clusters. It also supports third-party vendor Kubernetes clusters such as Rancher and Red Hat OpenShift.

Intersight Virtualization Service

Q. What is Intersight Virtualization Service?

A. Intersight Virtualization Service (IVS) simplifies the cloud experience by providing visibility of virtualization infrastructure and normalizing operations across multiple clouds.

Q. What public cloud does Intersight Virtualization Service support?

A. Today Intersight Virtualization Service supports AWS virtualization infrastructure.

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