FlexPod XCS

Summary of FlexPod Datacenter Cisco UCS Managed Mode and Cisco Intersight Managed Mode with VMware vSphere 7.0 U2 and NetApp ONTAP 9.9

FlexPod®, from Cisco and NetApp, is a leader in converged data center architectures that provide a single point of management through Cisco Intersight but allows you to scale each component to address the changing business needs. The composable architecture and the features provided by Cisco and NetApp make FlexPod an excellent hybrid cloud foundational infrastructure and comes with two options.
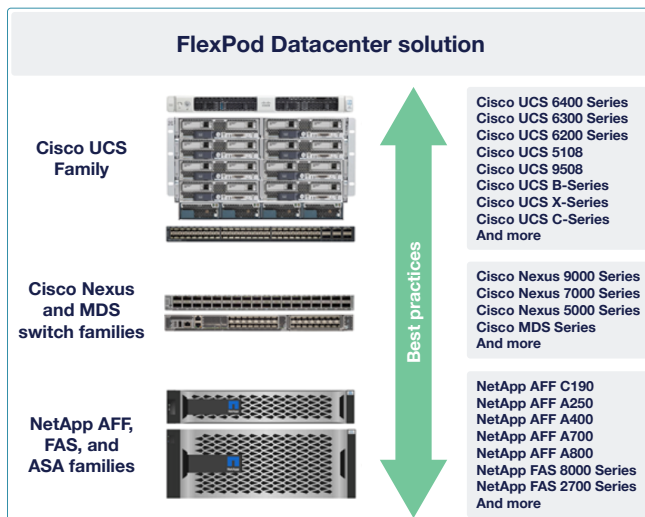
Cisco Intersight Managed Mode

Cisco Intersight Managed Mode (IMM) standardizes policy and operation management through a single pane of glass supporting the new Cisco Unified Computing System (UCS) X-Series as well as the existing UCS B-series. The compute nodes are configured using server profiles defined in Cisco Intersight. These server profiles derive all the server characteristics from various policies and templates.

Cisco UCS Managed Mode

Cisco UCS (Manager) Managed Mode (UMM) supports the entire Cisco UCS server portfolio except X-Series, which only runs in IMM mode. Cisco UMM enables server, fabric, and storage provisioning as well as device discovery, inventory, configuration, diagnostics, monitoring, fault detection, auditing, and statistics collection.

	X210c	B-Series	C-Series
X9508 chassis support	Yes	No	No
5108 chassis support	No	Yes	No
Rackmount	No	No	Yes
CPU support	Intel	Intel	Intel/AMD
Fabric Interconnects	4th generation	4th generation	4th generation + FEX
Managed mode	IMM only	UCSM/IMM	UCSM/IMM
Networking	Cisco MDS, Nexus 5/7/9K, and more		
Storage	NetApp AFF, FAS, ASA, and more		

FlexPod Datacenter solution

Cisco UCS Family

Cisco UCS 6400 Series
Cisco UCS 6300 Series
Cisco UCS 6200 Series
Cisco UCS 5108
Cisco UCS 9508
Cisco UCS B-Series
Cisco UCS X-Series
Cisco UCS C-Series
And more

Cisco Nexus and MDS switch families

Cisco Nexus 9000 Series
Cisco Nexus 7000 Series
Cisco Nexus 5000 Series
Cisco MDS Series
And more

NetApp AFF, FAS, and ASA families

NetApp AFF C190
NetApp AFF A250
NetApp AFF A400
NetApp AFF A700
NetApp AFF A800
NetApp FAS 8000 Series
NetApp FAS 2700 Series
And more

Best practices

Business justification

Industry trends indicate a vast data center transformation toward shared infrastructure and cloud computing. Business agility requires application agility, so IT teams need to provision applications quickly and resources must be able to scale up (or down) in minutes. FlexPod has been proven to be the optimal platform for virtualization and workload consolidation, enabling enterprises to standardize all their IT infrastructure.

Infrastructure as code

This FlexPod solution delivers a fully automated solution deployment that covers all sections of the infrastructure and application layer. This automation example provides the configuration of the NetApp storage, Cisco network and compute, and VMware layers that can be automated by leveraging Ansible playbooks that have been designed to set up the components as per the solution best practices. We have created and tested the automation we are providing to our partners as a baseline for them to leverage when creating additional FlexPod services. This fully tested automation example helps eliminate the human errors in manual tasks, accelerates the deployment, and delivers consistent and repeatable solution deployment with all the solution best practices.

Resources

- FlexPod Datacenter with Cisco UCS 4.2 in UCS Managed Mode, VMware vSphere 7.0 U2, and NetApp ONTAP 9.9
- FlexPod Datacenter with Cisco UCS X-Series in Intersight Managed Mode, VMware vSphere 7.0 U2, and NetApp ONTAP 9.9

FlexPod®

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