



# Technology requirements

## FlexPod

NetApp  
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# Technology requirements

A FlexPod Express system requires a combination of hardware and software components. FlexPod Express also describes the hardware components that are required to add hypervisor nodes to the system in units of two.

## Hardware requirements

Regardless of the hypervisor chosen, all FlexPod Express configurations use the same hardware. Therefore, even if business requirements change, you can use a different hypervisor on the same FlexPod Express hardware.

The following table lists the hardware components that are required for FlexPod Express configuration and implementation. The hardware components that are used in any implementation of the solution might vary based on customer requirements.

Hardware	Quantity
AFF C190 two-node cluster	1
Cisco C220 M5 server	2
Cisco Nexus 31108PC-V switch	2
Cisco UCS virtual interface card (VIC) 1457 for Cisco UCS C220 M5 rack server	2

This table lists the hardware that is required in addition to the base configuration for implementing 10GbE.

Hardware	Quantity
Cisco UCS C220 M5 server	2
Cisco VIC 1457	2

## Software requirements

The following table lists the software components that are required to implement the architectures of the FlexPod Express solutions.

Software	Version	Details
Cisco Integrated Management Controller (CIMC)	4.0.4	For Cisco UCS C220 M5 rack servers
Cisco nenic driver	1.0.0.29	For VIC 1457 interface cards
Cisco NX-OS	7.0(3)I7(6)	For Cisco Nexus 31108PC-V switches
NetApp ONTAP	9.6	For AFF C190 controllers

This table lists the software that is required for all VMware vSphere implementations on FlexPod Express.

Software	Version
VMware vCenter server appliance	6.7U2
VMware vSphere ESXi hypervisor	6.7U2
NetApp VAAI Plug-In for ESXi	1.1.2
NetApp VSC	9.6

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