



# NetApp components

## FlexPod

NetApp  
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# NetApp components

NetApp storage controllers provide the storage foundation in the FlexPod architecture for both boot and application data storage. NetApp components include storage controllers, cluster interconnect switches, drives and disk shelves, and licensing options.

## NetApp storage controller options

Redundant NetApp FAS, AFF, or AFF ASA controllers are required in the FlexPod architecture. The controllers run ONTAP software. When the storage controllers are ordered, the preferred software version can be preloaded on the controllers. For ONTAP, a complete cluster is ordered. A complete cluster includes a pair of storage controllers and a cluster interconnect (switch or switchless).

Different options and configurations are available, depending on the selected storage platform. Consult your sales representative for details about these additional components.

The controller families that are listed in the table below are appropriate for use in a FlexPod Datacenter solution because their connection to the Cisco Nexus switches is seamless. See the [NetApp Hardware Universe](#) for specific compatibility details on each controller model.

Storage controller family	Technical specifications
AFF A-Series	<a href="#">AFF A-Series Documentation</a>
AFF ASA A-Series	<a href="#">AFF ASA A-Series Documentation</a>
FAS Series	<a href="#">FAS Series Documentation</a>

## Cluster interconnect switch options

The following table lists the NetApp and Cisco Nexus cluster interconnect switches that are available for FlexPod architectures. In addition, FlexPod supports all ONTAP supported cluster switches including non-Cisco switches, provided they are compatible with the version of ONTAP being deployed. See the [NetApp Hardware Universe](#) for additional compatibility details for specific switch models.

Cluster interconnect switch	Technical specifications
NetApp CN1610	<a href="#">NetApp Documentation: CN1610 switches</a>
Cisco Nexus 3232C	<a href="#">NetApp Documentation: Cisco Nexus 3232C switches</a>
Cisco Nexus 3132Q-V	<a href="#">NetApp Documentation: Cisco Nexus 3132Q-V switches</a>

## NetApp disk shelf and drive options

A minimum of one NetApp disk shelf is required for all storage controllers.

The selected NetApp shelf type determines which drive types are available within that shelf.



For all disk shelves and disk part numbers, consult your sales representative.

For more information about the supported drives, click the [NetApp Hardware Universe](#) link in the following

table and then select Supported Drives.

Disk shelf	Technical specifications
DS224C	<a href="#">Disk Shelves and Storage Media Supported Drives on NetApp Hardware Universe</a>
DS212C	
DS460C	
NS224	

## NetApp software licensing options

The following table lists the NetApp software licensing options that are available for the FlexPod Datacenter architecture. NetApp software is licensed at the FAS and AFF controller level.

NetApp software licensing	Part number	Technical specifications
SW, Complete BNDL (Controller), -C	SW-8XXX-COMP-BNDL-C	<a href="#">Product Library A–Z</a>
SW, ONTAP Essentials (Controller), -C	SW-8XXX-ONTAP9-C	

## NetApp support licensing options

NetApp SupportEdge Premium licenses are required for the FlexPod architecture, but the part numbers for those licenses vary based on the options that you select in the FlexPod design. For example, software license part numbers are different depending on which FAS controller you choose. Consult your sales representative for information about the exact part numbers for individual support licenses. The table below shows an example of a SupportEdge license.

NetApp support licensing	Part number	Technical specifications
SupportEdge Premium 4 hours on site—months: 36	CS-O2-4HR	<a href="#">NetApp SupportEdge Premium</a>

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