MetroCluster release notes

ONTAP MetroCluster

NetApp
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MetroCluster release notes

What's new in MetroCluster configuration support for ONTAP features

Each release of the ONTAP 9 data management software delivers new and enhanced features that improve the capabilities, manageability, and performance of ONTAP MetroCluster configurations.

For details about known issues, limitations, and upgrade cautions affecting ONTAP MetroCluster configurations, refer to the ONTAP 9 Release Notes. You must sign in with your NetApp account or create an account to access the Release Notes.

Supported features in MetroCluster configuration	Description	Available beginning
MetroCluster IP support for NVMe	The NVMe/TCP front-end host protocol is supported on four-node MetroCluster IP configurations. SAN configurations in a MetroCluster environment	ONTAP 9.15.1
S3 object storage support on mirrored and unmirrored aggregates	You can enable an S3 object storage server on an SVM in a mirrored or unmirrored aggregate in MetroCluster IP and FC configurations. S3 configuration overview	ONTAP 9.14.1
Support for provisioning an S3 bucket on mirrored and unmirrored aggregates in a MetroCluster cluster	You can create a bucket on a mirrored or unmirrored aggregate in MetroCluster configurations. Create a bucket on a mirrored or unmirrored aggregate in a MetroCluster configuration	ONTAP 9.12.1
MetroCluster IP support for NVMe	The NVMe/FC protocol is supported on four-node MetroCluster IP configurations. SAN configurations in a MetroCluster environment	ONTAP 9.12.1
IPsec support for front-end host protocol in MetroCluster IP and MetroCluster fabric-attached configurations	IPsec support for front-end host protocol (such as NFS and iSCSI) is available in MetroCluster IP and MetroCluster fabric-attached configurations. Configure IP security (IPsec) over wire encryption	ONTAP 9.11.1
Consistency groups	Consistency groups are supported in MetroCluster configurations.	ONTAP 9.7

Supported features in MetroCluster configuration	Description	Available beginning
FabricPool mirrors on MetroCluster configurations	You can set up a mirrored FabricPool on MetroCluster configurations to tier cold data to two different fault zones. Setting up object stores for FabricPool in a MetroCluster configuration	ONTAP 9.7
SVM disaster recovery	Active storage virtual machines (SVMs) in a MetroCluster configuration can be used as sources with the SnapMirror SVM disaster recovery feature.	ONTAP 9.5

What's new in MetroCluster features

Learn about the new MetroCluster features.

Supported features in MetroCluster configuration	Description and where to learn more	Available beginning
MetroCluster IP support for end-to-end encryption	End-to-end encryption is supported on AFF A400, FAS8300, and FAS8700 systems to encrypt back-end traffic, such as NVlog and storage replication data, between the sites in a MetroCluster IP configuration. Configure end-to-end encryption in a MetroCluster IP configuration	ONTAP 9.15.1
Volume limit increase for four-node MetroCluster IP configurations on AFF A800 and AFF C800 systems	In four-node MetroCluster IP configurations, the following volume limits for AFF A800 and AFF C800 systems have increased: • The maximum number of FlexVol volumes per aggregate increased from 200 to 625. • The maximum number of FlexVol volumes per node increased from 800 to 1250. • The maximum number of FlexVol volumes per high-availability (HA) pair increased from 1600 to 2500.	ONTAP 9.15.1
Volume limit increase for four-node MetroCluster IP configurations on AFF A900 systems	In four-node MetroCluster IP configurations, the following volume limits for AFF A900 systems have increased: • The maximum number of FlexVol volumes per aggregate increased from 200 to 625. • The maximum number of FlexVol volumes per node increased from 800 to 1250. • The maximum number of FlexVol volumes per high-availability (HA) pair increased from 1600 to 2500.	ONTAP 9.14.1

Supported features in MetroCluster configuration	Description and where to learn more	Available beginning
Transition from MetroCluster FC to MetroCluster IP using a shared switch for MetroCluster IP and Ethernet attached storage	You can transition nondisruptively from a MetroCluster FC to a MetroCluster IP configuration using a shared storage switch. Transitioning nondisruptively from a MetroCluster FC to a MetroCluster IP configuration (ONTAP 9.8 and later)	ONTAP 9.13.1
Nondisruptive transitions from an eight-node MetroCluster FC configuration to a MetroCluster IP configuration	You can nondisruptively transition workloads and data from an existing eight-node MetroCluster FC configuration to a new MetroCluster IP configuration. Transitioning nondisruptively from a MetroCluster FC to a MetroCluster IP configuration	ONTAP 9.13.1
Four-node MetroCluster IP configuration upgrades using switchover and switchback	You can upgrade controllers in a four-node MetroCluster IP configuration using switchover and switchback with `system controller replace` commands. Upgrade controllers in a four node MetroCluster IP configuration	ONTAP 9.13.1
Mediator-assisted automatic unplanned switchover (MAUSO) is triggered for an environmental shutdown	If one site shuts down gracefully due to an environmental shutdown, MAUSO is triggered. How the ONTAP Mediator supports automatic unplanned switchover	ONTAP 9.13.1
Eight-node MetroCluster IP configurations support	You can upgrade the controllers and storage in an eight-node MetroCluster IP configuration by expanding the configuration to become a temporary twelve-node configuration and then removing the old DR groups. Refreshing a four-node MetroCluster IP configuration	ONTAP 9.13.1
MetroCluster IP configuration conversion to a shared storage MetroCluster switch configuration	You can convert a MetroCluster IP configuration to a shared storage MetroCluster switch configuration. Replacing an IP switch	ONTAP 9.13.1

Supported features in MetroCluster configuration	Description and where to learn more	Available beginning
MetroCluster automatic forced switchover feature in a MetroCluster IP configuration	You can enable the MetroCluster automatic forced switchover feature in a MetroCluster IP configuration. This feature is an extension of the Mediator-assisted unplanned switchover (MAUSO) feature. Automatic switchover limitations	ONTAP 9.12.1
S3 on an SVM on an unmirrored aggregate in a MetroCluster IP configuration	You can enable an ONTAP Simple Storage Service (S3) object storage server on an SVM on an unmirrored aggregate in a MetroCluster IP configuration. S3 configuration with System Manager and the ONTAP CLI	ONTAP 9.12.1
Transitioning from a MetroCluster FC configuration to an AFF A250 or FAS500f MetroCluster IP configuration	You can transition from a MetroCluster FC configuration to an AFF A250 or FAS500f MetroCluster IP configuration. Move the local cluster connections	ONTAP 9.11.1
Configuration of layer 3 MetroCluster IP address in MetroCluster IP configurations	You can edit the MetroCluster IP address, netmask, and gateway for nodes in a layer 3 configuration. Modifying address, netmask, and gateway in a MetroCluster IP	ONTAP 9.10.1
Simplified controller upgrade of nodes in a MetroCluster FC configuration	The upgrade procedure for the upgrade process using switchover and switchback has been simplified. Upgrading controllers in a MetroCluster FC configuration using switchover and switchback	ONTAP 9.10.1
IP support for shared link at layer 3	MetroCluster IP configurations can be implemented with IP-routed (layer 3) back-end connections. Considerations for layer 3 wide-area networks	ONTAP 9.9.1
Support for 8-node clusters	Permanent 8-node clusters are supported in IP and Fabric-attached configurations. Installing and cabling MetroCluster components	ONTAP 9.9.1
Simplified interface to manage IP MetroCluster operations with System Manager	You can manage IP MetroCluster operations with System Manager, including setting up IP MetroCluster sites, pairing the sites, and configuring the clusters. Manage MetroCluster sites	ONTAP 9.8

Supported features in MetroCluster configuration	Description and where to learn more	Available beginning
IP MetroCluster switchover and switchback with System Manager	You can use System Manager to perform all the steps of planned or unplanned switchover and switchback procedures for IP MetroCluster configurations. MetroCluster switchover and switchback	ONTAP 9.8
Transition from MetroCluster FC to MetroCluster IP configurations	Transition of workloads and data from an existing four-node MetroCluster FC configuration to a new MetroCluster IP configuration is supported. Upgrade, refresh, or expand the MetroCluster configuration Transition from MetroCluster FC to MetroCluster IP	ONTAP 9.8
New upgrade and refresh procedures	Hardware upgrade or refresh of four-node MetroCluster FC and IP configurations is supported. Upgrade, refresh, or expand the MetroCluster configuration Transition from MetroCluster FC to MetroCluster IP	ONTAP 9.8
Unmirrored aggregates	Unmirrored aggregates are supported in MetroCluster IP configurations. Considerations for unmirrored aggregates	ONTAP 9.8
MetroCluster compliant switches	MetroCluster IP configurations can support switches which are not NetApp validated provided that they are compliant with NetApp specifications. Considerations for using MetroCluster-compliant switches	ONTAP 9.7
Private layer 2 network sharing	MetroCluster IP configurations with supported Cisco switches can share existing networks for ISLs, rather than using dedicated MetroCluster ISLs. Earlier ONTAP versions require dedicated ISLs. The MetroCluster IP switches are dedicated to the MetroCluster configuration and cannot be shared. Only the MetroCluster ISL ports on the MetroCluster IP switches can connect to the shared switches.  If using a shared network, the customer is responsible for meeting the MetroCluster network requirements in the shared network. MetroCluster IP installation and configuration	ONTAP 9.6

Supported features in MetroCluster configuration	Description and where to learn more	Available beginning
MetroCluster switchover and switchback	You can allow one cluster site to take over the tasks of another cluster site. This capability allows you to facilitate maintenance or recovery from disasters. MetroCluster switchover and switchback	ONTAP 9.6

What's new in MetroCluster IP platform support

Platform support

Supported platforms in MetroCluster IP configurations	Available beginning
AFF A150	ONTAP 9.13.1 and later ONTAP releases ONTAP 9.12.1P1 ONTAP 9.11.1P8 ONTAP 9.10.1P12
AFF C250, AFF C400, AFF C800	ONTAP 9.12.1P1 ONTAP 9.13.1 GA and later ONTAP releases.
AFF A900	ONTAP 9.10.1
AFF A250	ONTAP 9.8
FAS500f	ONTAP 9.8
All-Flash SAN Array platforms In the MetroCluster documentation, the information for AFF models applies to the corresponding ASA system. For example, all cabling and other information for the AFF A400 system also applies to the ASA AFF A400 system.	ONTAP 9.7
AFF A320	ONTAP 9.6P3
AFF A220 and FAS2750	ONTAP 9.6
AFF A300 and FAS8200	ONTAP 9.5

Switch support

Broadcom IP switches	Available beginning
Quanta IX8	ONTAP 9.6

Cisco IP switches	Available beginning
Nexus 9336C-FX2	ONTAP 9.9.1
9336C	ONTAP 9.8

NVIDIA switches	Available beginning
Multiple MC IP configs on the same NVIDIA SN2100 switch	ONTAP 9.14.1
SN2100	ONTAP 9.12.1

What's new in MetroCluster FC platform and switch support

Platform support

Supported platforms in MetroCluster FC configurations	Available beginning
AFF A900	ONTAP 9.10.1
ASA AFF A700 and ASA AFF A400	ONTAP 9.7P5
AFF A400 and FAS8300	ONTAP 9.7
AFF A300 and FAS8200	ONTAP 9.5

Switch support

Brocade FC switches	Available beginning
G720	ONTAP 9.8
G620-1, G630-1	ONTAP 9.8
G630	ONTAP 9.6

What's new in ONTAP Mediator support

New enhancements to the ONTAP Mediator are provided with each release. Here's what's new.

For details on installing or upgrading ONTAP Mediator in your MetroCluster configuration, you can go Prepare to install the ONTAP Mediator service.

ONTAP Mediator capability	ONTAP Version
Mediator-assisted automatic unplanned switchover (MAUSO) is supported in the case of an environmental shutdown. If one site shuts down gracefully due to an environmental shutdown, MAUSO is triggered. How the ONTAP Mediator supports automatic unplanned switchover	ONTAP 9.13.1
Initial support for the ONTAP Mediator service in MetroCluster IP configurations	ONTAP 9.7

What's new in MetroCluster Tiebreaker support

Enhancements to the MetroCluster Tiebreaker software are provided with each release. Here's what's new in recent releases of MetroCluster Tiebreaker.

Enhancements

ONTAP Tiebreaker version	Enhancements
1.6	• Improved ease of installation • Supporting libraries update • Security enhancements
1.5	• Supporting libraries update • Security enhancements
1.4	• Supporting libraries update

OS support matrix

Tiebreaker version	CentOS 7 - 7.9	Red Hat 7 - 7.9	Red Hat 8.1 - 8.7	Red Hat 8.8 -9.2	Rocky Linux 9.0
1.6	No	No	Yes	Yes	Yes

Tiebreaker version	CentOS 7 - 7.9	Red Hat 7 - 7.9	Red Hat 8.1 - 8.7	Red Hat 8.8 -9.2	Rocky Linux 9.0
1.5	No	No	Yes	No	No
1.4	Yes	Yes	Yes	No	No

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