



Zoning in a configuration with storage arrays

ONTAP FlexArray

NetApp
September 20, 2021

This PDF was generated from https://docs.netapp.com/us-en/ontap-flexarray/install/reference_requirements_for_zoning_in_a_configuration_with_storage_arrays.html on September 20, 2021. Always check docs.netapp.com for the latest.

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Zoning in a configuration with storage arrays

Zoning enables a storage administrator to restrict the array LUNs that a particular ONTAP system can access. ONTAP requires that an array LUN be visible on only one target port for each initiator port.

Configuring zoning on a Fibre Channel (FC) switch enables you to define paths between connected nodes, restricting visibility and connectivity between devices connected to a common FC SAN.

Requirements for zoning in a configuration with storage arrays

You must follow the zoning requirements in your ONTAP configuration with storage arrays to ensure that the ONTAP system can access the correct set of LUNs.

- The *Interoperability Matrix* must identify a switch and the switch firmware as supported for the ONTAP configuration.
- Zoning must be configured to restrict each initiator port to a single target port on each storage array.
- On the switch, ports on the ONTAP system and ports on the storage array must be assigned to the same zone.

This enables the ONTAP systems to access the LUNs on the storage arrays.

- When storage array ports are shared across heterogeneous systems, array LUNs from the ONTAP system cannot be exposed to other systems.

LUN security or array LUN masking must be used to ensure that the array LUNs for ONTAP storage are visible only to the ONTAP systems.

- A host configuration port must not be included in the same zone as a target port.

Zoning recommendation for a configuration with storage arrays

The recommended type of zoning for a configuration with storage arrays is 1:1 zoning. With 1:1 zoning, each zone contains a single FC initiator port and a single storage array target port.

The benefits of creating 1:1 zoning are as follows:

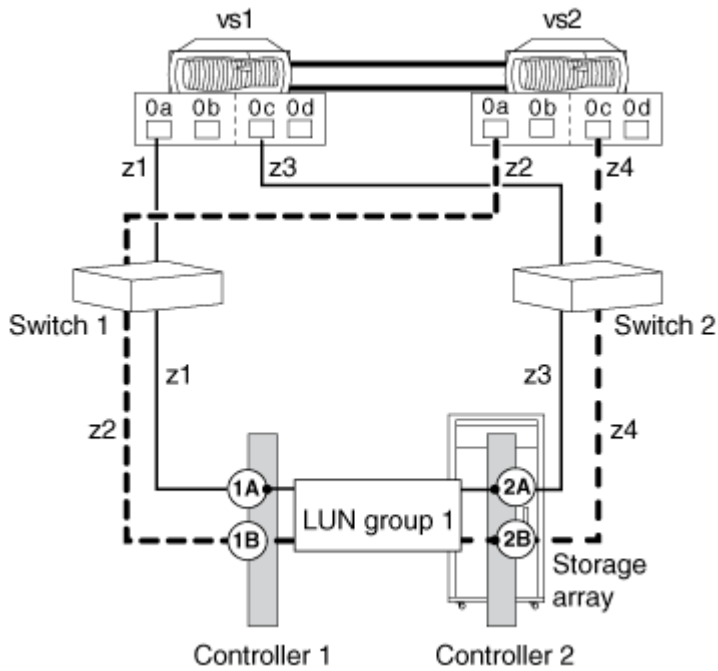
- You limit the number of ports over which a specific array LUN can be accessed.
- There are discovery and boot time improvements because the FC initiators ONTAP systems do not attempt to discover each other.

Example of zoning in a configuration with storage arrays

Using LUN security when configuring the switches for zoning ensures that different hosts

do not see LUNs mapped to another host.

Zoning in a single 4-port LUN group configuration



The following table shows zoning for this example configuration of ONTAP systems in an HA pair. Single-initiator zoning is the recommended zoning strategy.

Zone	ONTAP system		Storage array	
Switch 1				
z1	vs1	Port 0a	Controller 1	Port 1A
z2	vs2	Port 0a	Controller 1	Port 1B
Switch 2				
z3	vs1	Port 0c	Controller 2	Port 2A
z4	vs2	Port 0c	Controller 2	Port 2B

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