iSNS server registration requirement

ONTAP 9

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Table of Contents

iSNS server registration requirement . . . 1
What iSNS is . . . 1
How SVMs interact with an iSNS server . . . 1
Commands for managing iSNS . . . 3

iSNS server registration requirement

What iSNS is

The Internet Storage Name Service (iSNS) is a protocol that enables automated discovery and management of iSCSI devices on a TCP/IP storage network. An iSNS server maintains information about active iSCSI devices on the network, including their IP addresses, iSCSI node names IQN's, and portal groups.

You can obtain an iSNS server from a third-party vendor. If you have an iSNS server on your network configured and enabled for use by the initiator and target, you can use the management LIF for a storage virtual machine (SVM) to register all the iSCSI LIFs for that SVM on the iSNS server. After the registration is complete, the iSCSI initiator can query the iSNS server to discover all the LIFs for that particular SVM.

If you decide to use an iSNS service, you must ensure that your storage virtual machines (SVMs) are properly registered with an Internet Storage Name Service (iSNS) server.

If you do not have an iSNS server on your network, you must manually configure each target to be visible to the host.

What an iSNS server does

An iSNS server uses the Internet Storage Name Service (iSNS) protocol to maintain information about active iSCSI devices on the network, including their IP addresses, iSCSI node names (IQNs), and portal groups.

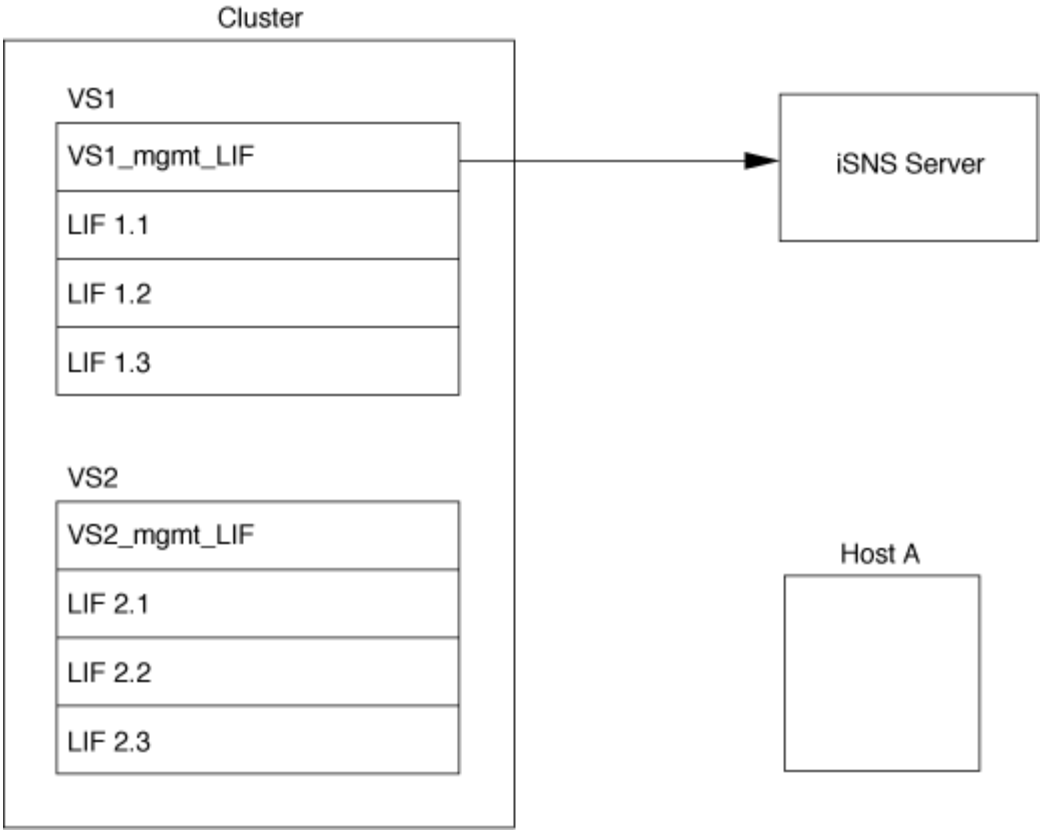
The iSNS protocol enables automated discovery and management of iSCSI devices on an IP storage network. An iSCSI initiator can query the iSNS server to discover iSCSI target devices.

NetApp does not supply or resell iSNS servers. You can obtain these servers from a vendor supported by NetApp.

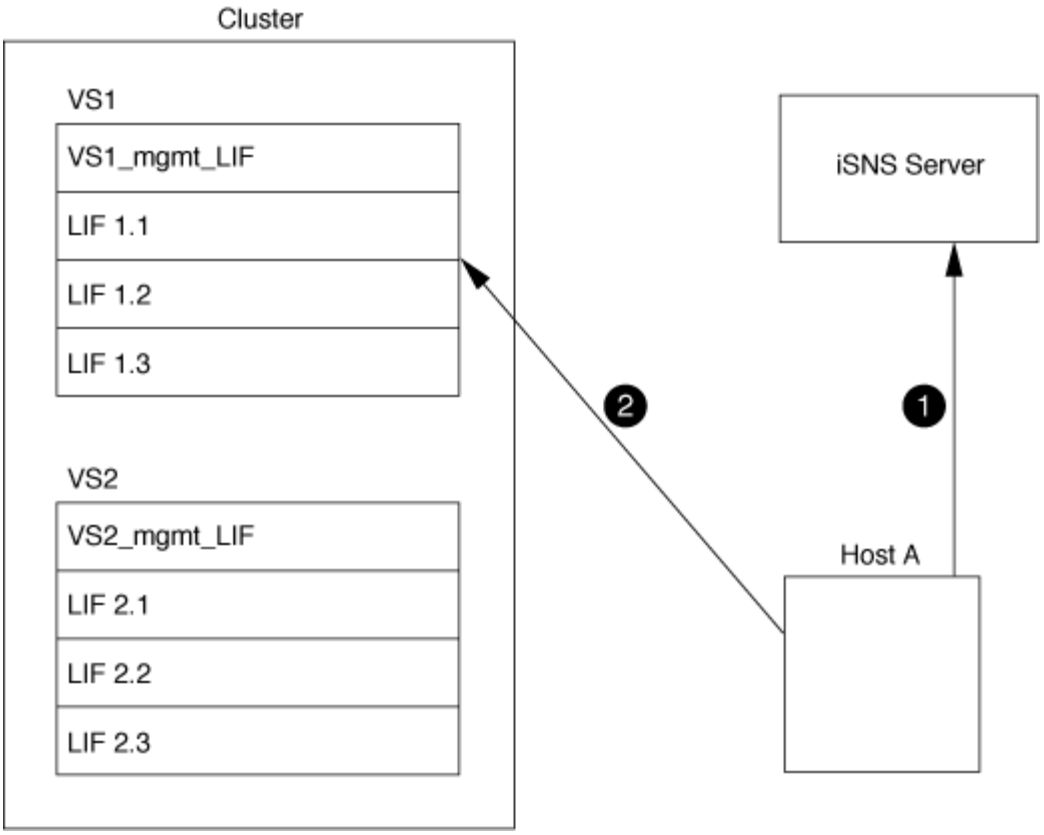
How SVMs interact with an iSNS server

The iSNS server communicates with each storage virtual machine (SVM) through the SVM management LIF. The management LIF registers all iSCSI target node name, alias, and portal information with the iSNS service for a specific SVM.

In the following example, SVM VS1 uses the SVM management LIF vs1_mgmt_lif to register with the iSNS server. During iSNS registration, an SVM sends all the iSCSI LIFs through the SVM management LIF to the iSNS Server. After the iSNS registration is complete, the iSNS server has a list of all the LIFs serving iSCSI in VS1. If a cluster contains multiple SVMs, each SVM must register individually with the iSNS server to use the iSNS service.



In the next example, after the iSNS server completes the registration with the target, Host A can discover all the LIFs for VS1 through the iSNS server as indicated in step 1. After Host A completes the discovery of the LIFs for VS1, Host A can establish a connection with any of the LIFs in VS1 as shown in step 2. Host A is not aware of any of the LIFs in VS2 until the management LIF VS2_mgmt_LIF for VS2 registers with the iSNS server.



However, if you define the interface access lists, the host can only use the defined LIFs in the interface access list to access the target.

After iSNS is initially configured, ONTAP automatically updates the iSNS server when the SVM configuration settings change.

A delay of a few minutes can occur between the time you make the configuration changes and when ONTAP sends the update to the iSNS server. Force an immediate update of the iSNS information on the iSNS server: `vserver iscsi isns update`

Commands for managing iSNS

ONTAP provides commands to manage your iSNS service.

If you want to…	Use this command…
Configure an iSNS service	`vserver iscsi isns create`
Start an iSNS service	`vserver iscsi isns start`
Modify an iSNS service	`vserver iscsi isns modify`
Display iSNS service configuration	`vserver iscsi isns show`
Force an update of registered iSNS information	`vserver iscsi isns update`

If you want to…	Use this command…
Stop an iSNS service	`vserver iscsi isns stop`
Remove an iSNS service	`vserver iscsi isns delete`
View the man page for a command	`man` *`command name`*

See the man page for each command for more information.

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