

Storage Manager for SANs is a new Microsoft Management Console (MMC) snap-in that helps you create and manage logical unit numbers (LUNs) on Fibre Channel and iSCSI disk drive subsystems that support Virtual Disk Service (VDS) in your storage area network (SAN).

You can use Storage Manager for SANs to create and manage LUNs on both Fibre Channel and iSCSI disk storage subsystems in your SAN.

A LUN is a logical reference to a portion of a storage subsystem. A LUN can comprise a disk, a section of a disk, a whole disk array, or a section of a disk array in the subsystem. Using LUNs simplifies the management of storage resources in your SAN because they serve as logical identifiers through which you can assign access and control privileges.

Because of hardware, protocol, and security differences, LUN configuration and management on Fibre Channel and iSCSI environments is different. This section explains those differences.

Managing LUNs in a Fibre Channel environment

In a Fibre Channel environment, LUNs created on a Fibre Channel disk storage subsystem are assigned directly to a server or cluster, which accesses the LUN through one or more Fibre Channel host bus adapter (HBA) ports. You only need to identify the server or cluster that will access the LUN, and then select which HBA ports on that server or cluster will be used for LUN traffic.

When a server or cluster is identified, Storage Manager for SANs will automatically discover the available Fibre Channel HBA ports on that server or cluster. You can also add ports manually by entering their World Wide Name (WWN).

Managing LUNs in an iSCSI environment

Unlike in a Fibre Channel environment, LUNs created on an iSCSI disk storage subsystem are not only assigned to a server or cluster. For iSCSI, LUNs are first assigned to logical entities called targets.

Targets are created in order to manage the connections between an iSCSI device and the servers that need to access it. A target defines the portals (IP addresses) that can be used to connect to the iSCSI device, as well as the security settings (if any) that the iSCSI device requires in order to authenticate the servers requesting access to its resources.

Note

In most cases, you can create and manage targets yourself. However, some iSCSI storage subsystems only support simple target configurations, where targets are automatically created when you create a LUN. With simple target configurations, you also cannot delete a target or manually assign LUNs to it. LUNs are automatically assigned when they are created. For this

type of subsystem, you just need to identify the server or cluster that will access the LUN, and the iSCSI subsystem will enable access from that server or cluster to the LUN.

To connect to a target, a server in the SAN uses an iSCSI initiator. An iSCSI initiator is a logical entity that enables the server to communicate with the target. The iSCSI initiator first logs on to the target. After access is granted by the target, the server can start reading and writing to all LUNs assigned to that target. Each iSCSI initiator can have one or more network adapters through which communication is established.

As with Fibre Channel environments, you only need to identify the server or cluster that will access the LUN. Storage Manager for SANs automatically discovers the iSCSI initiators on that server or cluster, and lists all the available adapters in those initiators. After the iSCSI adapters have been discovered, you can select which adapters will be used for LUN traffic.