

Migrating Existing Data to the VS

This document summarizes the strategies available to migrate existing data on an SR for use by the VS. Because the existing data must be divided up into extents and the metadata must be stored in the same volume group as the data, there must be a process to convert data from a physical LUN to a logical LUN. This conversion can be performed in one of two ways, described below. Please refer to the VS User Manual and VS Principles of Operation for details about command usage.

Prerequisite: All SRs being used with the VS need to have a firmware version newer than 20071115 installed.

Method 1: Copy data from an existing SR LUN to a new VS LUN

Description: Create a new volume group and add physical volumes to it until your volume group has enough free space to hold your existing data. Create a filesystem on the volume group and copy the data from the existing filesystem to the new one.

Advantages: Simple, reliable.

Disadvantages: Requires a VS LUN with free space available greater than the existing data size. Data transfer, especially for large volumes, could take many hours.

Method 2: Use 'mklegacy' to convert an existing SR LUN to a VS LUN

Description: Create a new volume group and add a physical volume to it that will contain the metadata. Make a new logical unit in the same volume group from the existing data LUN using the 'mklegacy' command. See the VS Principles of Operation and VS Software Manual for details on 'mklegacy' syntax.

Advantages: Does not require as much additional space, takes very little time to run.

Disadvantages: Needs space for metadata, so you need free extents at the end of your LUN. A known bug prevents mklegacy from using the remainder of space at the end of a LUN that is smaller than an extent size, currently 4MB. If the filesystem extends into this area at the end of the LUN, it must be shrunk so that it will not be damaged in the resulting smaller LUN. Some filesystems do not support shrinking. Common filesystems that do are ext2, ext3, and ReiserFS. It is of particular note that XFS does not yet have official support for shrinking.