

The TS7700 with SAA function activated uses policy management with z/OS host software to direct scratch allocations to specific clusters within a multi-cluster grid. The Management Class construct determines which clusters should be used for a workload when SAA is enabled by using the **LI REQ DEVALLOC** command.

2.2.6 Mounting a specific virtual volume

In a stand-alone environment, the mount is directed to the virtual drives of this cluster. In a grid environment, specific mounts are more advanced. For more information, see 2.4.12, “Mounting a specific virtual volume” on page 71.

In the stand-alone environment, the following scenarios are possible:

- ▶ A valid copy exists in the TVC. In this case, the mount completes quickly and the host can access the data immediately.
- ▶ A valid copy does *not* exist in the TVC. In this case, the following options are available:
 - If it is a TS7700T, the volume exists in CP1-CP7 and was copied to physical tape. The virtual volume also is recalled from a stacked volume. Mount completion is signaled to the host system only after the entire volume is available in the TVC.
 - If it is a TS7700C, the volume exists in CP1-CP7 and was copied to an object store. The virtual volume also is recalled from the cloud tier. Mount completion is signaled to the host system only after the entire volume is available in the TVC.
 - Assuming a stand-alone cluster, if no consistent copy exists in disk cache or within attached tape or cloud, the mount fails. If in a grid, a peer’s TVC can be chosen as well.

Any recalled virtual volume remains in the TVC until it becomes the least recently used (LRU) volume, unless the volume was assigned a Preference Group of 0 or the *Recalls Preferred to be Removed from Cache* override is enabled by using the **TS7700 Library Request** command.

If a recalled volume is modified, the new instance of the volume is premigrated to tape or cloud and the previous instance is invalidated. If the recalled volume is not modified, no premigration occurs unless a pool configuration change occurred as part of the mount.

For example, if the primary or secondary pool changes as part of a mount operation, a premigration occurs to one or both pools. Any instance in a previous pool is invalidated. Furthermore, copies to remote TS7700 clusters in a grid configuration are not required if modifications were not made, unless the Management Class also changed and retain copy modes is not enabled.

Any specific or private mount must target a logical volume that is assigned to a non-scratch category. The tape management system (TMS) prevents a scratch volume from being mounted in response to a specific mount request.

Also, the TS7700 treats any specific mount that targets a volume that is assigned to a scratch category, which is also configured through the MI as scratch. If this process occurs, the temporary tape header is created, and no recalls take place. The DFSMS Removable Media Manager (DFSMSrmm) or other TMS likely fail the mount operation because the expected last written data set for the private volume was not found. Because no write operation occurs, the original volume’s contents are left intact, which accounts for categories that are incorrectly configured as scratch within the MI.