

In addition, if the filtered list returns clusters that have no devices that are configured within z/OS, all clusters in the grid become candidates. The candidate list is not ordered, meaning that all candidate clusters are viewed as equals and all clusters that are excluded from the list are not candidates.

Because this function introduces system burden into the z/OS scratch mount path, a new **LIBRARY REQUEST** option is introduced to globally enable or disable the function across the entire multi-cluster grid. SAA is disabled, by default. When this option is enabled, the z/OS JES software obtains the candidate list of mount clusters from a given composite library.

Use the **LIBRARY REQUEST, GRID[1] / [2], SETTING, DEVALLOC, SCRATCH, ENABLE** command to enable SAA. All clusters in the multi-cluster grid must be at R2.0 level before SAA is operational. A supporting z/OS APAR OA32957 is required to use SAA in a JES2 environment of z/OS. For JES3, the minimum supported release is z/OS R2.1. Any z/OS environment with earlier code can exist, but it continues to function in the traditional way regarding scratch allocations.

Assume that there are two main workloads. The *application* workload consists of logical volumes that are created and then retrieved on a regular, daily, weekly, or monthly basis. This workload can best be placed in the TS7700D deep cache. The *backup* workload is normally never retrieved and can best be placed directly in the TS7740 Cluster 1. SAA helps direct the mount point to the most efficient cluster for the workload:

- The application workload can best be set up in the following manner. In the MC construct, the MC is defined with a Copy Consistency Point of [R,D,D]. Cluster 0 is selected in all clusters as Scratch Mount Candidate. In Cluster 1, the SC can best be set as TVC Preference Level 1. This is advised because in cases where Cluster 0 is not available or no online devices are available in that cluster, Cluster 1 can be activated as the mount point. Cluster 2 can set Preference Level 0.

You can control the placement in cache per cluster by setting the **SETTING CACHE COPYFSC** option. When the **ENABLE** keyword is specified, the logical volumes that are copied into the cache from a peer TS7700 cluster are managed by using the actions that are defined for the SC construct associated with the volume as defined at the TS7740 cluster receiving the copy. The SC in Cluster 0 needs to have a Volume Copy Retention Group of Prefer Keep. Logical volumes can be removed from the TS7700D deep cache if more space is needed.

- The Backup workload can best be set up in the following manner. In the MC construct, the MC is defined with a Copy Consistency Point of [D,R,D] or [N,R,D]. Cluster 1 is selected in all clusters as Scratch Mount Candidate. In Cluster 1 and Cluster 2, the SC can best be set as TVC Preference Level 0. There is no need to keep the data in cache.

The SC in Cluster 0 can have a Volume Retention Group of Prefer Remove. If Cluster 0 is activated as mount point because of the unavailability of Cluster 1 or because there are no online devices in that cluster, the logical volumes with this MC can be removed first when cache removal policies in the TS7700D require the removal of volumes from cache.

With these definitions, the scratch allocations for the application workload are directed to TS7700D Cluster 0 and the scratch allocations for the Backup workload are directed to TS7740 Cluster 1. The devices of the remote clusters in the Disaster Site are not online. Allocation "BYDEVICES" is used. GRID1 has in total 60 devices online and GRID2 has 40 devices online. For each grid, the distribution of online devices is now not determined within the grid by the number of online devices, as in the scenario BYDEVICES, but by the SAA setting of the MC.