If the customer decides not to us AONLINE, the devices need to be varied online again by using the MI. The original z/OS command (**`Vary Online`**) cannot be used to online the devices in the z/LPAR. The manual function (through the MI) will also online the drives according to the “list” that has been produced by the CUIR. There is no option today to online drives only partially (for example, to test a system) for quality assurance tests before the cluster is varied online to all systems again.

Note: If a device is varied offline for CUIR reasons, and is unintentionally left in this state, the existing **`MVS™ VARY XXXX,RESET`** command can be used to reset the device for CUIR reasons. This command should only be used if there are devices that are left in this state, and should no longer be in this state.

CUIR has the following limitations:

- Can be enabled only when all clusters in grid are at R4.1.2 or later.
- Only native LPARS with z/OS 2.2 or later and JES2 can exploit CUIR.
- Only Service preparation/Service mode is currently supported. The CUIR function might be extended in the future.

The following APARs needs to be installed: OA52398, OA52390, OA52376, OA52379, and OA52381.

New LI REQ commands are provided to enable/disable CUIR and AONLINE, and to get a overview of the current logical drive/path group information. The default is disabled.

For more information, see *IBM TS7700 Series Control Unit Initiated Reconfiguration (CUIR) User’s Guide*, WP102743:

`https://www.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/WP102743`

2.4 Grid configuration examples

Several grid configuration examples are provided. These examples describe the requirements for high availability (HA) and DR planning.

2.4.1 Homogeneous versus hybrid grid configuration

Homogeneous configurations contain only TS7700Ds, TS7700Ts, TS7760Cs, or only TS7740s. If you have an intermix of disk-only and tape-attached models, it is a *hybrid configuration*. Consider the following information when you choose whether a TS7720, TS7740, TS7760, or a mixture of the three types is appropriate.

Requirement: Fast read response times and many reads

When your environment needs to process many reads in a certain amount of time, or it needs fast response times, the TS7700Ds or TS7700Ts CP0 is the best choice. The TS7740 is susceptible to disk cache misses, resulting in a recall, making the TS7740 not optimal for workloads that need the highest cache hit read percentages.

Although TS7760 disk-only configurations can store over 1.3 PB of post-compressed content in disk cache, your capacity needs might be far too large, especially when a large portion of your workload does not demand the highest read hit percentage. This is when the introduction of a TS7700T makes sense.