TB of free space is available in it. For more information about rules and allowed values in effect for this window, see the TS7700 R5.0 IBM Knowledge Center.

The TS7700 Transparent Cloud Tiering allows the TS7700 to off load data to public or private clouds. When data is stored in the cloud by a cluster, all clusters in the grid that are cloud-attached enabled can access that object store instance. IBM COS (on-premises cloud) and AWS S3 (public cloud) are supported. The TS7700 Transparent cloud tiering is enabled through the FC 5278 (Enable Cloud Storage Tier) and it is mutually exclusive with Tape Attach function (FC 5273).

Note: Cloud Enablement requires a minimum of 64 GB of RAM memory, which is the default in the VED models. VEC models can upgrade memory size by using FC 3466.

DS8000 Object Store (FC 5282)

The TS7770 with R5.0 level of code, with the DS8000 and DFSMShsm, delivers a new capability called *DS8000 object store*. This new feature enables DS8000 transparent cloud tiered object data and traditional FICON logical volume data to coexist within the same physical TS7700 cluster.

When DS8000 Object Storage is enabled, one of the CP1 through CP7 partitions is reserved exclusively for DS8000 objects and can be sized dynamically, as with all other partitions.

DS8000 Object Store capability is enabled by way of FC 5282 on the VED or VEC cluster models at R5.0 or higher level. DS8000 Object Store is supported in TS7700 configurations from a single cluster (stand-alone) up to an 8-cluster grid configuration. Multiple DS8000 connections to a single VED or VEC are supported, although only one object partition exists at R5.0 level. Because DS8000 connections use the same grid links, no extra hardware is required.

Note: The Object partition cannot become overcommitted (no partition overspill).

DS8000 objects in the Object partition are not policy managed; objects are not candidates to premigrate to tape or cloud nor replicated to other clusters in the grid. Also, objects are accessible only to the DS8000 to which the objects belong. Data redundancy in DS8000 objects is achieved by DS8000 targeting up to two different clusters in the same TS7700 grid, with DS8000 forking the data and controlling the synchronism of the process.

For more information about cache partitions, cloud tiering, DS8000 Object Store, and use cases, see in Chapter 2, "Architecture, components, and functional characteristics" on page 13.

For more information about practical implementation guidance of the new feature of the TS7700, see *IBM TS7760 R5.0 Cloud Storage Tier Guide*, REDP-5573.

Considerations: No partition can be created if Resident-Only (CP0) has 2 TB or less of free space. Creating partitions is blocked by a FlashCopy for DR in progress, or by one of the existing partitions being in an overcommitted state.