

Figure 2-4 shows the components of a TS7740 cluster.

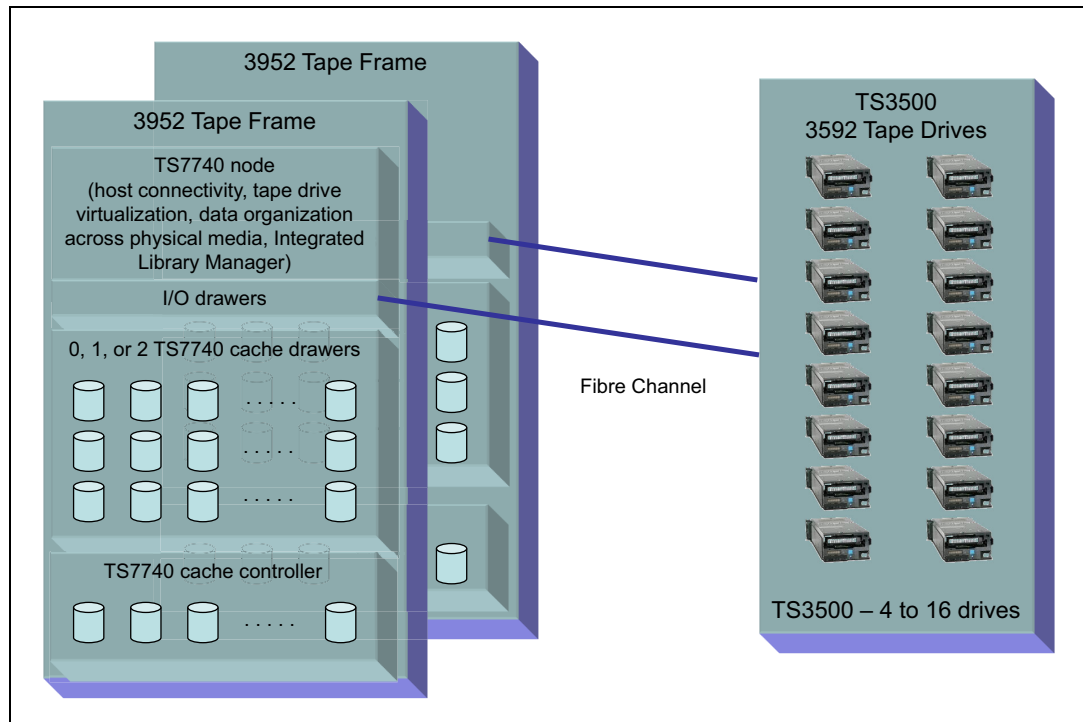


Figure 2-4 TS7740 cluster components

The TS7700 Cache Controller and associated disk storage media act as cache storage for data. The capacity of each disk drive module (DDM) depends on your configuration.

The TS7700 Cache Drawer acts as an expansion unit for the TS7700 Cache Controller. One or more controllers and their expansion drawers are collectively referred to as the TS7700 Tape Volume Cache, or often named the *TVC*. The amount of cache available per TS7700 Tape Volume Cache depends on your configuration.

The TS7760 Cache (CSA, CXA) provides TVC protection, called *Dynamic Disk Pooling* (DDP).

The TS7740 Cache provided a RAID 6 (since CC9) and RAID 5 (up to CC8) protected TVC to temporarily contain compressed virtual volumes before they are off-loaded to physical tape.

The TS7720 and TS7720T CS9/CS9 use RAID 6 protection. If an existing installation is upgraded, the existing cache is protected by RAID6, where the new CSA/CXA cache uses DDP for protection.

### 2.1.3 Previous Peer-to-Peer Virtual Tape Server design

In the IBM 3494 PtP VTS, you needed external Virtual Tape Controller (VTC) hardware to present two VTs as a single library to the host. The VTCs were connected to the host through IBM Enterprise Systems connection (ESCON) or FICON. Each VTC was connected to both VTs. Only two VTs were supported in P2P configuration.

This limited P2P design was one of the main reasons that the previous VTS needed to be redesigned. The new TS7700 replaced the P2P concepts with an industry-leading new technology referred to as a *grid*.