### Extra cables, fabric components, and cabling solutions

Conversion cables from SC Duplex to LC Duplex are available as features on IBM Z platforms if you are using cables with SC Duplex connectors that now require attachment to fiber components with LC Duplex connections. Extra cable options, along with product support services, such as installation, are offered by IBM Global Technology Services.

See the *IBM Virtualization Engine TS7700 Introduction and Planning Guide*, GA32-0568, for Fibre Channel cable planning information.

If Grid Enablement (FC4015) is ordered, Ethernet cables are required for the copper/optical 1 Gbps and optical LW adapters to attach to the communication grid.

## 7.2 TS7700 component upgrades

Several field-installable upgrades give an existing TS7700 more functions or capacities. This section reviews the TS7700 component FC upgrades.

### 7.2.1 TS7700 concurrent system component upgrades

Concurrent system upgrades can be installed while the TS7700 is online and operating. The following component upgrades can be made concurrently to an onsite TS7700:

► Enable 1 TB Active Premigration Queue capacity (FC 5274).

Each instance of FC 5274 (Enable 1 TB Active Premigration Queue Capacity) enables up to 1 TB of data to be pending migration to physical tape or cloud storage tier. Up to 10 instances can be installed.

► Enable 5 TB Active Premigration Queue Capacity (FC 5279).

Each instance of FC 5279 (Enable 5 TB Active Premigration Queue Capacity) enables up to 5 TB of data to be pending migration to physical tape or cloud storage tier. Up to 10 instances can be installed after 10 instances of FC 5274 are installed for a active premigration queue size to 60 TB and higher.

► Incremental disk cache capacity enablement (TS7740 only).

You can add a 1 TB (0.91 tebibytes (TiB)) increment of disk cache to store virtual volumes, up to 28 TB (25.46 TiB). Use FC 5267 (1 TB cache enablement) to achieve this upgrade.

► Enable 8 Gb or 16 Gb FICON second port. Use FC 3401.

► Incremental data throughput.

You can add a 100 MBps increment of peak data throughput, up to your system's hardware capacity. When the maximum number of performance increments are installed, the system no longer restricts performance. Use FC 5268 (100 MBps increment) to achieve this upgrade.

Peak data throughput increments of 100 MBps are available as transferred from a host to a vNode before compression. If more peak data throughput capacity is needed, up to 10 more increments can be ordered for the 3957-V07/VEB when FC 3441/3442/3443 (4 Gb FICON) is installed, or up to 24 can be ordered for the 3957-V07/VEB/VEC when FC 3438/3439 (8 Gb FICON) is installed (to complement FC 9268, Plant installation of 100 MBps throughput installed at the plant). The 3957-VEC with FC 3402/3403 (16 Gbps FICON) allows a max of 40 performance increments.