IBM Enterprise Mainframe Tape Solutions
TS7700 Grid Overview
SHARE in Orlando – Mainframe Virtual Tape Replication

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**TS7700 Grid Solutions**

- **WAN interconnected TS7700s form a Grid configuration**

- **Each TS7700 provides**
  - An Enterprise level Power7 pSeries
  - 256 independent virtual devices
  - 1536 total devices all having equal and automatic access to all data (6-way)
  - 4 - 4Gb FICON Channels
  - Optional support of back end tape attach

- **Interconnect is standard TCP/IP using dual or quad 1Gb links, or dual 10Gb links**
  - Supports 1000s of miles of separation

- **Transparently replicate to one or more peers**
  - Policy control for location of copies and how copies are made
  - Does not utilize disk based replication

- **Can be configured for disaster recovery and/or higher availability environments**
  - One to six site configurations
  - Add/Remove clusters for transparent data center migrations

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*Optimized for Recoverability and Automatic Failback*
**TS7700 Grid Solutions**

- **There are no primary or secondary clusters in a grid**
  - Each TS7700 cluster is an equal participant in the grid
  - Each TS7700 can be both a source and/or target for any volume in the grid
  - Independent of where a volume is created or replicated, all clusters can access all volumes
    - Any instance of the same volume (original or replica) can be accessed from any cluster’s devices without manual intervention.
    - TCP/IP can be used as an embedded channel extender to access remote content

- **DFSMS OAM Managed Library**
  - Seamless integration with standard z/OS applications
  - Leverages OAM library management native to z/OS
    - Library states, health, monitoring, console commands and tight integration with allocations

- **Volume granular DFSMS policy management**
  - Seamless integration with DFSMS policies through ACS routines at volume granularity
  - For example, independent of volume range, scratch pool, host or cluster connectivity point, a volume can easily be replicated to one or more peers
  - Policy managed volume characteristics such as Logical WORM are mirrored across all clusters
**TS7700 Grid Solutions**

- **Automatic disaster recovery**
  - Any cluster can concurrently access any volume before an outage
  - The ability to access any volume after an outage is equally easy
    - Only requirement is that a copy be available within any of the remaining clusters
    - If the devices are not already online, simply vary them on and go!
  - Any updates during the outage are automatically reconciled when the downed cluster returns
  - Switching production back to the original cluster(s) is just as easy

- **Disaster Recovery testing simplified**
  - With concurrent access to all volume from any cluster, both production and DR testing can occur in parallel while production replication continues

- **All clusters have real-time awareness of consistency**
  - All clusters are informed prior to host updates. This eliminates any ambiguity of surfacing stale data at a peer location prior to or after an outage.
  - In the event of an outage, all available clusters can access any previously replicated copies anywhere within the grid and know immediately if they are valid
  - Each cluster requiring a copy can utilize any peer for its source. This means there is no need for a primary node push style of replication.
TS7700 Grid Solutions

- Flexible Multiple Site Solutions
  - Dual Active data centers both replicating to a common DR location
  - Data centers can also replicate to each other
    - Different or same volume pools
  - Through remote access or optional FICON remote connectivity, business continuance is always present
Thank You
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