12.3.3 Workload profile from your hosts

In general, the following types of workloads are available:

- Planned workload: This type of workload is driven by predictable action, mostly batch jobs. These planned actions can be influenced by the operation team regarding the execution time of the jobs.
- Unplanned workload: This workload is the user driven workload; for example, hierarchical storage management (HSM) or object access method (OAM) processing requests. This workload also consists of the event-driven workload; for example, database log archiving or System Management Facilities (SMF) processing exists.

Unplanned read workload might have peaks that can affect the response times of these actions (read/recall times). However, these actions can also influence the deferred copy times and in a TS7700T, the reclamation execution.

Changes in the workload profile might affect the replication time of deferred copies and can lead to throttling situations. Therefore, review the performance charts of the TS7700 to identify workload profile changes, and to take appropriate performance tuning measurements if necessary.

12.3.4 Lifecycle Management of your data

This specific aspect is important for a TS7700T. Depending on your amount of data (and logical volumes) with a short expiration date, the TS7700T must run more reclamation. This process affects your back-end drives and TS7700T processor cycles.

In a hybrid grid, such data can be placed in the TS7700D, and can be replicated with the Time Delayed copy mode, which can lead to the reduction of the backend activities in the TS7700T. The use of the delay premigration queue on a TS7700T can also reduce the back-end activities for migrate and reclaim.

12.3.5 Parameters and customization of the TS7700

The TS7700 offers various tuning possibilities, especially for cache management and replication and backend activities.

TS7700 tuning activities include the following examples:

- Preference group of the data (data is preferably in cache or not)
- Number of the tape cache partitions in a TS7700T
- Use of the premigration delay feature in the TS7700T
- Premigration threshold and control of premigration tasks for TS7700T
- Deferred Copy Throttling (to prioritize the host workload)
- Number of concurrent copy tasks
- Schedule for reclamation
- Number of physical volume pools

Consider that some of these activities include dependencies.

If you change the preconfigured values, review your adjustment with the performance monitoring tools.

For more information, see *IBM Virtualization Engine TS7700 Series Best Practices - Understanding, Monitoring and Tuning the TS7700 Performance*, WP101465.