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# Agency Best Practices to Manage Storage Consumption

## Best Practice: Reconcile the Bill with Agency Consumption Reports

The agency should always begin consumption management of GETS services by *reviewing* and *understanding* the reports that document its use of these services and *reconciling* that information with its monthly invoice. For storage, the agency should review the Invoice Detail Report for Server Storage on the GETS Portal. This report includes the following details:

| <b>SAN</b>       | <b>Backup - Legacy</b> | <b>Backup - Transformed</b> |
|------------------|------------------------|-----------------------------|
| Units            | Units                  | Units                       |
| Server Host Name | Server Host Name       | Server Host Name            |
| Usage Date       | Usage Date             | Usage Date                  |
| Cost Center      | Cost Center            | Cost Center                 |
| Array Name       | Dataset Name           |                             |
| Array Type       | Volume/Serial No.      |                             |
| Array Model      |                        |                             |

If a potential discrepancy is identified:

- The agency should first match the expected change with the invoice collection date. Some services do not roll off the agency's bill for almost two months depending on the request date.
- Once the agency determines that the discrepancy was not caused by the invoice collection date, the agency should submit a dispute using the Finance tab in the Remedy Service Request Catalog.

## Best Practice: Establish an Agency Data Management Program

The Georgia Technology Authority strongly recommends that each GETS agency establish a comprehensive data management program. This program, which will impact the tape and backup RUs, should:

- Set and enforce a data retention policy based on state and federal requirements.
  - Align backup schedules with best practices to maintain data integrity and manage costs.

- Use backup **only** for data recovery, **not** for long-term data retention
- After transformation, set appropriate backup parameters:
  - 3 to 7 versions of data (active and inactive copies) retained for 60 days (or less)
  - Inactive versions are removed from backup storage after 60 days (or less)
  - Inactive versions greater than 7 are removed from backup storage
- Set up long-term storage (Backup Archive RU) for data to be stored more than 60 days
- Establish cutoff dates for archived file storage and regularly review stored tapes and other media to identify those that are eligible for disposal.
- Using the RFS process, dispose of tapes and other media that are:
  - Past the agency's retention requirements
  - No longer needed due to transformation and the implementation of the new, transformed backup system (Tivoli Storage Management)
- Store only agency-related data.
  - Monitor agency data to identify and remove personal games, music (e.g., MP3 files), photographs (e.g., JPEG, GIF files), video files, etc.
- Eliminate data redundancy such as duplicate data files.
- Establish and enforce agency storage limitations for:
  - Email accounts
  - Personal folders
  - Department shared drives

### **Best Practice: Right-size SAN**

There are also best practices related to SAN and the associated SAN tier RUs that the agency should consider:

- Select the appropriate amount of SAN for new servers and applications during the requirements gathering phase of the RFS process. Excessive SAN that goes unused is an unnecessary cost for the agency, while too little SAN can negatively impact performance. In most cases, the third-party application vendor provides optimum SAN requirements to the agency, and the agency shares this information with IBM as part of requirements gathering.
- Select the appropriate SAN tier based on the agency's business need. As previously stated, over 90 percent of state data resides in Tier 2 SAN. This best practice is easy to implement for new servers and new or upgraded applications. However, for existing servers and applications, the agency should determine if the cost of moving the data to a lower tier outweighs the savings realized from the lower tier RU.