

Clone of Technical Bulletin #521: HPSS Yearly Growth Quotas

The High Performance Storage System (HPSS) archival storage system at Livermore Computing (LC) imposes a yearly growth-based quota. Reset each year on fiscal year boundaries, the FY17 (10/1/2017-9/30/2018) storage quotas per user are as follows:

- Open Computing Facility (OCF) yearly growth quota: 255TB
- Secure Computing Facility (SCF) yearly growth quota: 285TB

User may arrange with their program to receive additional allocation from programmatic "pools" if their yearly growth may go beyond these boundaries. Contact an LC Accountant Specialist (925-422-4531, option 2) to get information on your pool contact.

The archival quota system will notify users, administrators, and managers of any users exceeding their archival data growth allowance during a fiscal year. In addition, users who have far exceeded their annual growth allowance for five consecutive weeks will be automatically blocked.

When a quota is exceeded, the notification system sends weekly email with the following messages:

Warning	Users exceed yearly allocations
Critical	Users excessively (by ~50%) grow beyond the yearly allocations.
Blocked	After five weeks and reminders to clean up, users will be denied access to the archives.

Access will be restored within 24 hours if users either clean up below their total allowance or receive additional allocation from a programmatic pool manager.

Archival Pools

A user is automatically given quota allocations in three pools as they store data. Every user is assigned a 1.5 TB allocation in the *Default* pool. As they pass 1.5 TB of growth, users are automatically given a 13.5 TB allocation in the *midpool*. Users exceeding 15 TB of growth are automatically given an allocation in *largepool*. The *largepool* allocation in OCF is 255TB, and in SCF it is 285TB. Users growing beyond their allocation in all three pools will need to receive allocations from programmatic pools.

The AQUOTA Tool

To manage the quota system, the aquota (archive quota) is available from any Oslic node on the OCF (for CZ-only users), RZslic (for CZ/RZ users), and any Cslic node on the SCF. In particular, the show allowance command will reveal a user's current yearly growth along with details of their programmatic pools, as illustrated below:

```
>aquota
Welcome to HPSS Quota Server oslici.llnl.gov
aq> show allowance
Pool Name                Pool Manager    Allowance
-----                -
Default                  lc-hotline      1.5 TB
midpool                  lc-hotline      13.5TB
largepool                lc-hotline      310.0 TB
Total                    325.0 TB

From 10/01/2017 through 10/04/2017:
608 files created
16.6 TB of data used. 7.06% of total.
Avg. Per Month: 16.6 TB
Total Data: 79.9 TB
Total files: 11909
```

More Information

For more information on yearly quota, please see Technical Bulletins **459**, **502** and **511**.

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