

Storage as a Service (StaaS)

[2022-07-11: StaaS will be superseded by S3DF beginning in FY23. Please refer to <https://sdf.slac.stanford.edu/public/doc> for more information.]

Description: Storage as a Service (StaaS) is a SLAC shared file service operated by Scientific Computing Services (SCS) within the OCIO division of Business and Technology Services (BTS). It is designed for groups who need approximately 5TB to 75TB of shared Unix storage and is currently targeted at moderate science workloads and larger average file sizes rather than hundreds of batch jobs and millions of small files (see quota information below). Access is available via NFS (versions 2 through 4) or an optional GPFS client, and is currently limited to the SLAC network.

Status: In production. Established 10/1/2015 (FY16).

Pricing: US\$65 per terabyte per year during FY19 (10/1/2018 through 9/30/2019), with at least a 1-year commitment. The charge is based on disk allocation rather than disk usage and has a minimum requirement (see quota information below). Charges accumulate daily (to allow for mid-year adjustments in allocation) while billing is done quarterly in arrears. This means your October through December allocation is billed in January, January through March is billed in April, and so forth. The last billing may occur in September to accommodate the end of each fiscal year. Pricing is reviewed before each new fiscal year, with an intent to keep it as low possible and stable throughout the following year.

Quotas: The minimum starting disk quota is 5TB; the maximum will vary according to available disk space. As long as you maintain the minimum level, your disk quota may be increased or decreased in terabyte increments when needed, with rates being prorated from the date of change. The default inode (file and directory) quota is 1 million inodes per terabyte, which allows for an average file size of 1MB. A reasonably higher inode quota is available for free upon request to allow for a smaller average file size.

To Request Space: If interested in using StaaS, please email unix-admin@slac.stanford.edu and provide the following information:

- o Your name
- o Your directorate and group/experiment name (to help us suggest a directory path)
- o The number of terabytes (5TB minimum) needed and an estimate for how long (1 year minimum)
- o A charge number for quarterly billings
- o The hostname(s) or batch cluster(s) requiring read/write access
- o The Unix username and groupname that will own the directory
- o If you would like optional tape backups for your StaaS space, please specify a retention period (how long a file must remain on tape after it's deleted from disk). The default retention period is 31 days; longer retentions will generally be more expensive due to higher tape counts. NOTE: tape backups have a separate charge from StaaS. We can discuss that with you when you make your request.

To Release Space: If you will no longer need your StaaS space, please email unix-admin@slac.stanford.edu as early as possible to aid in our capacity planning. Please be sure to migrate your data elsewhere (if you need to preserve it) before giving us your permission to reclaim the space. Once you tell us to reclaim the space, StaaS fees will stop accruing and we'll remove the space for reassignment to other groups. Your final StaaS bill will appear at the next billing cycle.

Questions or Changes: Please contact unix-admin@slac.stanford.edu for any questions about StaaS or for any changes needed to your StaaS space.