

Long Term Storage (LTS)

Long Term Storage (LTS) Service Parameters

Basically this service provides long-term storage for valuable data.

- Data repository for departments: Preservation of important, compressed and unstructured data. Recommended size of data objects is between 10GB and 200GB. The responsible person for the data is an AD-user in an AD group or a "functional" user in the AD or in an AD Group.
- File size of maximum 2 TB is supported.
- Systems use preliminary preprocessing via NFS or CIFS shares for controlled data writing on an archive-like storage. Mixed-mode access (CIFS and NFS) is not possible
- Back copying of data objects to local client file systems for reading or further processing
- Manual deletion of stored data
- Reports on the amount of data stored per share and, in exceptional cases, per directory

Differentiation

The LTS service is not to be understood as a digital long term data archive. The ETH library offers "Digital Curation" as part of their service portfolio. More details are published under:

<http://www.library.ethz.ch/en/ms/Digitaler-Datenerhalt-an-der-ETH-Zuerich>

Targeted Users

ETH internal: researchers, lecturers, employees, IT administrators, other ICT service providers

ETH external: researchers from other research institutions, ETH-related units

Specifications

Write access: For reliable and SLA-conform data writing, participating systems must be available. Authorized persons or clients write the data via NFS or their organisational unit's CIFS share. Authorizations and organisation of data storage are discussed in advance with ITS specialists. Valuable, compressed (i.e. .zip / .gz / .tar, etc.), unstructured data between 10GB and 200GB per data object can be stored.

Read-only access: The compressed files (i.e. .zip / .gz / .tar, etc.) are copied on local disks and can be read by authorized persons. We do not recommend opening files in the long-term storage infrastructure. Opening data objects in File Explorer directly should actually be avoided. Recovery time on local clients depends on the number and size of data objects to be restored.

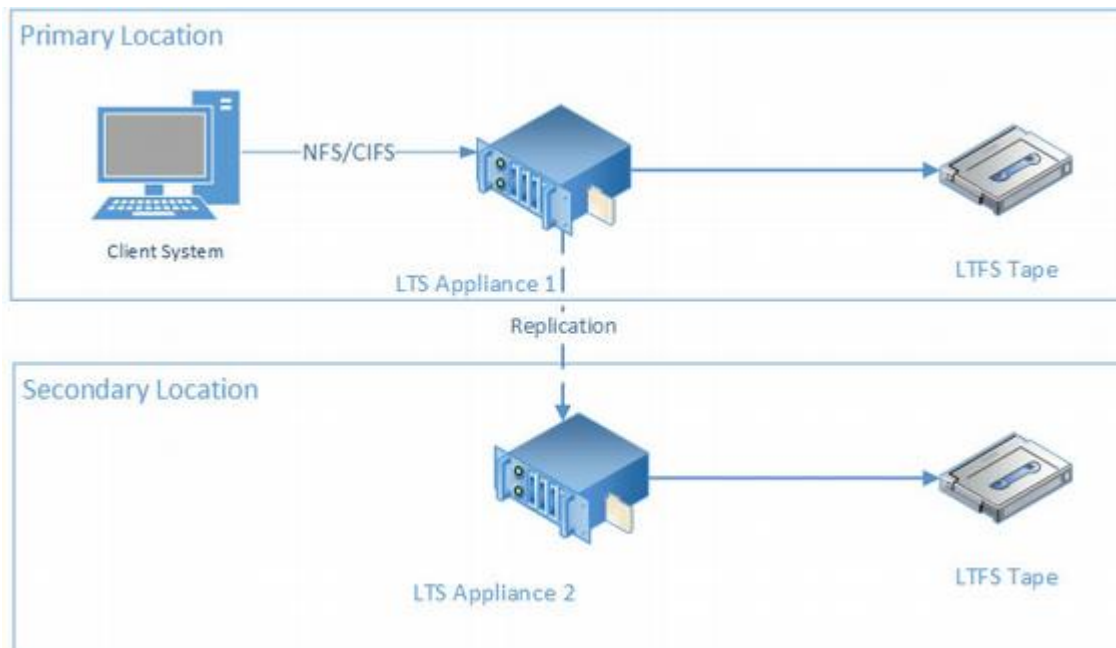
Registration for LTS

Interested users may contact their ISG (Informatics Support Group) or get in touch with the IT Services Storage Group (service provider) directly.

Data Security

Security management is implemented at different levels:

Redundancy: Data that has been accidentally deleted on the primary site is not automatically deleted at the replication site. To delete data on the replication site, the responsible or authorized person must submit a deletion request to the service operator.



LTS Setup

Deletion: Data that has been accidentally deleted on the primary site is not automatically deleted at the replication site. To delete data on the replication site, the responsible or authorized person must submit a deletion request to the service operator.

Responsible persons: The authorized AD group includes OU administrators with authorization to the share. The administrators define legitimate NFS clients for NFS access.

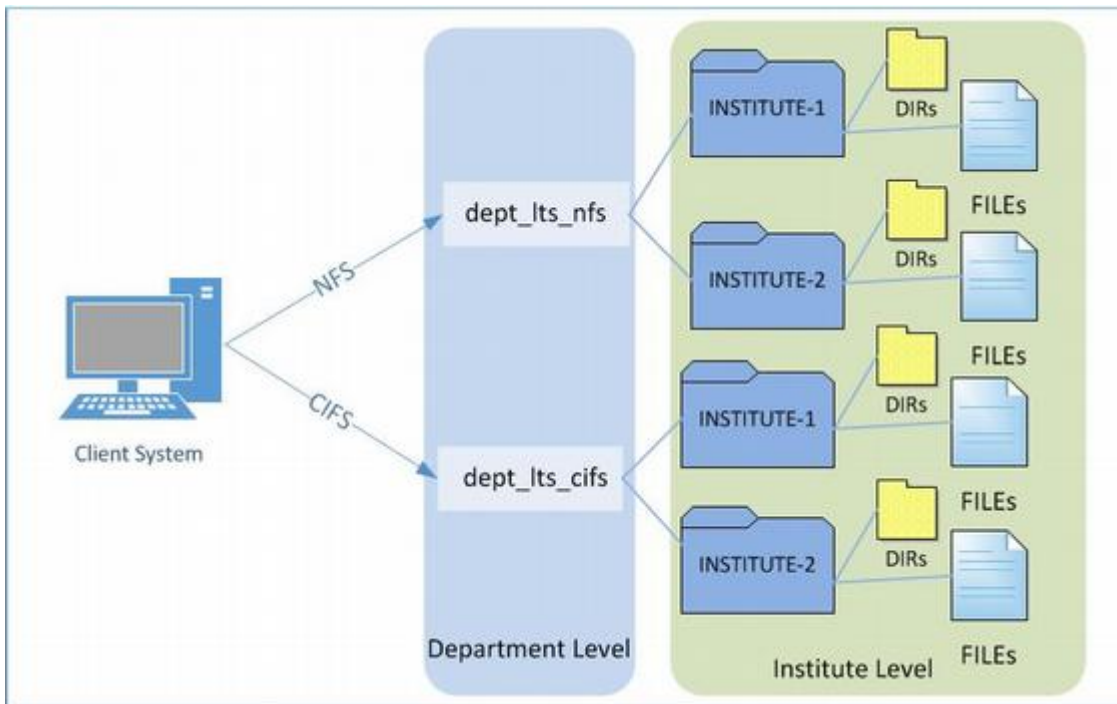
Encryption: Data objects can be stored encrypted. Encryption must be implemented on the client side or realized via pre-process before writing. Responsibility for the key lies solely with the customer. Please note that encrypted data results in a lower compression rate compared to unencrypted data. The IT Services recommend carefully weighing the pros and cons of encryption in the context of long-term data storage.

Access Structure

Department ISGs apply for NFS and CIFS shares. Folders are created for institutes or working teams. Individual files or other directories may be stored in these institute folders only.

Access via **CIFS Share:** The appliances use the AD service. Only AD groups are entitled.

Access via **NFS Export:** Only authorized clients can connect to the shares.



CIFS and NFS access

Maintenance Window

Maintenance window can take place during normal working hours.

- Scheduled and unscheduled maintenance windows will be announced via Sympa mailing list (its@sympa.ethz.ch).
- LTS user subscribe to "sympa.ethz.ch" in the list "Its", so they can be informed.
- **Each first Wednesday in a month is pre-reserved as a patch day.**
- That means, on this day upcoming maintenance would be done on HW & SW if needed.
- All maintenance work is going to be planed on these patch days. Exeptions are possible if the coordination with other services force us to do so.
- Five days earlier the users will be informed via Sympa about the procedure and the exact time slot of a monthly maintenance.

Quality Assurance

Capacity: For capacity management, the overall amount of data stored in the system is analyzed and documented. OUs receive verification of data amount stored for billing purposes.

Availability: Automatic service monitoring by ITS (not yet implemented at service start)

Media use: Analysis of write accesses per month

Costs

ETH internal OUs (departments, institutes) are charged in the form of an incentive tax. For standard LTS service the following rates apply:

CHF 40.- per TB per year

The IT Services reserve the right to offset any additional costs resulting from frequent read accesses to data objects.

Service Operators and SLA

For questions concerning this service please open a [ticket](#). In emergency cases you can reach us directly by phone:

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Patrick Stocker 24780

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[Default SLA Long Term Storage \(LTS\)](#)

Current information regarding the service will be published by the service providers on the Sympa mailing list. its@sympa.ethz.ch