



SRM v2.2

Discussion of key concepts, methods and behaviour

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Proposed Short term goals



- Establish short, medium and long terms goals
 - Short = ?? - date and goals to be defined
 - Medium = ?? – goals to be defined
 - Long = ?? – date and goals to be defined
- Proposed short term goals (exact list and priorities to be agreed):
 - Selecting tape sets by means of tokens, directory paths, ??
 - It concerns dCache, CASTOR, StoRM
 - Making the token truly orthogonal to the path
 - It concerns StoRM
 - Protecting spaces from generic users usage
 - It concerns dCache, CASTOR
 - Implementations fully VOMS-aware
 - It concerns dCache, CASTOR

Discussion of key concepts/behaviour



- Definition of SRM v2.2 space
- Space properties (Permission and Size)
- Files and spaces
- Copies and spaces

Discussion of key methods



- `srmReserveSpace[/srmUpdateSpace]`
- `srmGetSpaceMetaData`
- `srmPrepareToGet/srmBringOnline`
- `srmCopy`
- `srmChangeSpaceForFiles`
- `srmPurgeFromSpace`

The SRM v2.2 space



- Definition of SRM v2.2 space

- An SRM space is a logical view of a physical space allocation that is reserved for read/write operations on files.

- Space properties

- Retention Policy Information (Retention Policy and Access Latency)
- Owner
- Group (**NEW**)
- Owner/Group Permission (Create, Release, Update, Read-from-Space, Write-to-Space, Remove-from-Space) (**NEW**) – VOMS FQAN to express permissions
- Connection Type (WAN , LAN)
- Supported File Access/Transfer Protocols
- Space Token [Description] (optional)
- Status
- Total Size
- Guaranteed Size
- Unused Size
- Assigned Lifetime
- Left Lifetime
- Supported Access Patterns (TRANSFER, PROCESSING) (**NEW**)
- Client Networks

The SRM v2.2 space



- Permissions are specified in terms of VOMS FQAN.
- In WLCG spaces are statically reserved, although support for truly dynamic reservation can be provided by some implementations.
- When a file is removed from a space, the space occupied by the file is returned back to the original space allocation.

Files and spaces



- *Definition:* A file is a set of data with the following properties defined on pag. 19 of the SRM v2.2 specification document.
- A file is furthermore characterized by a Site URL and by the space the file was first created into. This space is referred to as the *file master space* that determines the characteristics of the file.
- ***A file can have several copies in several spaces.***
- *Definition:* A copy of a file is physical instance of the file in a given space. It is characterized by the RequestID of the srm request that has generated the copy and by the properties defined on pag. 19 of the spec. The first copy of a file is referred to as the *file master copy*.