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| Requirement  properties | Description |
| Owner | UCB |
| Priority | Highest |
| Current status | Submitted |
| Requirement  information | Description |
| Name | (Subtopic 6.2) Stability and scalability of Data Management Services (REF: https://wiki.egi.eu/wiki/Track\_UMD\_Requirements)  -[#922 Management of many small files](https://rt.egi.eu/guest/Ticket/Display.html?id=922)  -[#919 Management of avalanches of job submission](https://rt.egi.eu/guest/Ticket/Display.html?id=919)  -[#916 DMS workload management](https://rt.egi.eu/guest/Ticket/Display.html?id=916) |
| Description | -[#922 Management of many small files](https://rt.egi.eu/guest/Ticket/Display.html?id=922) The community may handle millions of small files, while the grid storage managers are usually mostly dealing with fewer larger files (sometimes completely preventing the registration of new files; often leading to file access low efficiency).  -[#919 Management of avalanches of job submission](https://rt.egi.eu/guest/Ticket/Display.html?id=919) Although the requirement reads about avalanches of jobs it highly related to SE and LFC systems. Due to the many jobs those perform various storage related operations many jobs do fail in general because of SE and LFC stability.  -[#916 DMS workload management](https://rt.egi.eu/guest/Ticket/Display.html?id=916) DMS is easily overloaded, which causes time-out to data access and many job failures. This kind of problem is frequent since many embarrassingly parallel application are capable of causing a large number of simultaneous file access to one or a few data servers. A mechanism is expected to avoid such failures due to server overload (e.g. these should be postponed and retried until success). |
| GGUS REF | Storage Elements are easily overloaded by VO activity: <https://gus.fzk.de/ws/ticket_info.php?ticket=68110>  <https://gus.fzk.de/ws/ticket_info.php?ticket=68471>  <https://gus.fzk.de/ws/ticket_info.php?ticket=68888>  LFC also has a max number of connections before it breaks: <https://gus.fzk.de/ws/ticket_info.php?ticket=60834> |
| Goals and objectives | Stability and scalability of Data Management Services |
| Impact | Failing jobs, lost files. |
| Acceptance criteria | Expecting the service performance document where SE and LFC systems limitations are described and address these issues in the current requirements. If the limits defined are found too restrictive for EGI user communities, then these communities must define their expectations. |
| Original submitter | Life Sciences Grid Community (LSGC VRC - http://www.egi.eu/collaboration/LSGC.html) |

Catalogue of Requirements (CoR) was prepared by UCB based on TCB process management proposal (<https://documents.egi.eu/document/440>).

This document must be submitted to Face-to-Face TCB meeting which is scheduled on 23th of November, 2011 (Agenda: https://www.egi.eu/indico/conferenceDisplay.py?confId=672)

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| Requirement properties | Description |
| Owner | UCB |
| Priority | Lower |
| Current status | Submitted |
| Requirement  information | Description |
| Name | [#910 Disk space management](https://rt.egi.eu/guest/Ticket/Display.html?id=910) |
| Description | Migration of files over SEs should be automated to prevent filling up disk space on a specific storage resource. |
| GGUS REF | Proposed solution only based on Nagios alarms:  <https://ggus.eu/ws/ticket_info.php?ticket=74741>  Currently a short-term solution was offered to LSGC VRC: - Nagios probe for sending alarms if SE is filling up [#2766](https://rt.egi.eu/guest/Ticket/Display.html?id=2766) - VO Services team provided manual for using LFCBrowse to migrate all the needed files in case SE is filling up.REF: <https://wiki.egi.eu/wiki/VO_Services/Services_and_Tools_Portfolio#SE_intervention:_LFCBrowseSE> |
| Goals and objectives | Preserve the files and protect the SE from filling up the disk space. |
| Impact | Lost files. |
| Acceptance criteria | Long-term solution is needed and this is what LSGCexpects listed in three number points:  1. consider a semi-automatic file migration tool, used by VO managers to  migrate user files (e.g. Globus online)  2. provide storage "advices" based on the status of the current  resources (e.g. "you should store this file there")  3. propose a storage model (e.g. advised number of replicas and  placement) based on available resources and file types |
| Original submitter | Life Sciences Grid Community (LSGC VRC - http://www.egi.eu/collaboration/LSGC.html) |

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| Requirement  information | Description |
| Name | [#924 File updates](https://rt.egi.eu/guest/Ticket/Display.html?id=924) |
| Description | It should be possible to update an existing file content, including all its replicas (rather than removing and re-creating a file). |
| GGUS REF | No answer from GGUS DMSU yet: https://ggus.eu/ws/ticket\_info.php?ticket=76058 |
| Goals and objectives | To shorten the time and additional work for updating files and synchronizing replicas. |
| Impact | Takes too much time and additional work for updating files and their replicas. |
| Acceptance criteria | 'rsync' style file updates and automatic update of all its replicas. |
| Original submitter | Life Sciences Grid Community (LSGC VRC - http://www.egi.eu/collaboration/LSGC.html) |