

SC4 SERVICES - Planning

Legenda		Feature available with the next deployed release of LCG	Feature that will be deployed in 2006 as available	Feature not available
References on:		https://uimon.cern.ch/wiki/bin/view/LCG/SummaryOpenIssuesTF		
ID		References	Notes Comments	
GLITE RUNTIME ENVIRONMENT				
	ALL	Run-time environment compatible with experiments and application software	8.a	On going effort with Dirk and Andrea. Please check: http://cern.ch/sciaba/Dependencies.xls
		Software configuration compatible with experiments and application software	8.a	
AUTHORIZATION AND AUTHENTICATION				
	VOMS API and server: v1.6.16; admin: 1.2.15; Oracle: 2.0.6	Groups and roles implemented by services	1.b	LFC Yes; DPM Yes; WMS yes;
		User Metadata	1.c	User Alias retrievable from VOMS server with provided script. Not available in user proxy.
		Mirroring available	1.a	High availability but not mirroring off site.
	myproxy v0.6.1	Automatic proxy renewal for services (not VOMS enabled)	1.d	LFC Not needed; DPM No; FTS No; RB gLite 3.0 OK.
		Proxy renewal service VOMS enabled	1.d	Provided by gLite 3.0 WMS. No services beside WMS are interfaced with it.
		Automatic proxy renewal for Kerberos	1.e	Not available
INFORMATION SYSTEM				
	BDII v3.5.4 GLUE 1.2.2	Mechanism to identify SE type (disk, tape)	9.d	Available
	Not available	Cached access to static information	2.a	Not available
DATA MANAGEMENT				
	FTS v1.5.0 (agents 2.2.0; api 3.1.0; server 3.2.0; url-copy 1.5.0)	Automatic retry (keep trying till the service is told to stop)	4.1b,4.1.c	FTS 1.4.1 allowed for channels configuration with a fixed number of retries. FTS 1.5.0: the service keeps trying till told to stop. The default retry agent applies the same retries to all conditions. However VO specific agents can be provided by a VO. They can therefore apply different actions to different error conditions.
		Real-time monitoring of errors	4.1b,4.1.c	FTS 1.4.1 allowed for status query providing all transfer information and errors. No automatic error or status notification was provided. FTS 1.5.0: Partial monitoring available for error conditions. No automatic status monitoring. Call-backs for VO specific FTS agents are provided. VO specific monitoring can therefore be implemented.
		Full VOMS integration	1.b	FTS >= 1.4.1: Integrated with VOMS roles; DN; groups; subgroups
		Priority and reshuffling support	4.1b,4.1.h	FTS >= 1.4.1: Reshuffling, cancellations possibles. VO managers can change order of jobs.
		Support for experiments plug-ins	4.1b,4.1.i	FTS 1.5.0: Catalogues and retries plug-ins.
		Error and event handling (signal conditions such as source file missing, etc.)	4.1b,4.1.c	FTS 1.5.0: Not automatic signaling of error conditions. Partially available via call-backs and VO specific agents implementation.
	Not available	Central entry point for all transfers	4.1b,4.1e	No central service (probably with 1.6.0).
		Automatic routing	4.1b,4.1d	Not available
		Automatic proxy renewal	4.1b,4.1.f,1.d	No automatic proxy renewal
		SRM integration	4.1b,4.1.g	Not available. Available 2 months after SRM v2 (last quarter of 2006).
	FPS not available	Support for experiments plug-ins	4.2.a	Not available
		Support for high-level operations	4.2.b	Not available
	LFC v1.5.4	VOMS enabled. LFC supports dirs and files permissions based on VOMS roles, groups, subgroups and user DN. No automatic proxy renewal is available (not needed). No VOMS metadata associated to user DN is available	1.b, 1.c, 1.d	LFC version >= 1.4.3
		Replica attributes	4.3.b	LFC version >=1.4.x: Custodial flag requested by CMS available as filetype (file type). No replica attributes since they are available from SE via getFileMetadata (SRM v1) or srmLs (SRM v2). DLI interface available in LFC v1.4.5.

		Interface to POOL	4.3.c	POOL >= 2.1.0 available plugins.
		Improved read performance for experiment access patterns	4.3.d	LFC version >= 1.4.3: It is possible to use DNS switch to balance servers load. Not possible to serve 100Hz requests per server if security is on. The performance measured is 150Hz requests served on a normal 2GHz PC. SSL sessions will be available in next release. Bulk operations not available, but there is support for sessions (no failure prone) and transactions (failure prone).
	lcg-utils v1.3.6	Reliable bulk file replica deletion; checking for replica integrity	4.4.e, 3.d	No bulk operations, no retries, no checksum, no check for different SRM implementations. Only SRM v1 supported.
	GFAL v1.7.7	Posix file access via LFN	4.4.b	GFAL >= 1.7.3: Posix file access via LFN available
		Best replica selections	4.4.b	GFAL >= 1.7.3: Best replica selection based on site location only.
		Accessing multiple instances of LFC	4.4.c	GFAL >= 1.7.3: If LFC replicated via DNS switch, this feature OK.
	RRS not available	ACL propagation through storage and catalogues	4.4.d	Not available
		Bulk operations	4.4.d	Not available
	Staging Service not available	Staging Service: New service to manage collections of files	4.4.f	Not available - It can come with lcg-utils and SRM v3 (2007?)
WORKLOAD MANAGEMENT				
	RB gLite v3.0 (server: 1.5.5; client: 1.5.9)	Interactive access to running jobs information	5.l	Available. Peek possible (retrieve output sandbox while job is running). Top and ls not available.
		Capability to handle 10**5 jobs/day, 1 Hz submission rate	5.b	Available. The restriction comes really from Condor. ClassAds to be recompiled with optimization on. DAG helps.
		Improved ranking and match-making capability	5.c	Available.
	Non available features	Redundant fault-tolerant service (allow for a primary set of RB services to be defined per VO)	5.a	Not available: It depends on redundancy/fault tolerance availability in Condor, Logging and Bookkeeping, cancel and match-making operations
		Caching of sandboxes	5.d	Not available.
		Job latency proportional to expected duration	5.e	Not available.
		Support for priorities for users, groups and roles at global level	5.f, 5.g	Not available.
		Fair share across users in same group	5.h	Not available.
JOB SUBMISSION				
	CE gLite 3.0	CE interface publicly available	-----	CE gLite 3.0 probably deployed together with Classic LCG 2.7.0 CE at sites that have available resources to do so.
	CE Web Service	CE interface publicly available	5.j	CREAM not available in gLite 3.0. Available in next release.
	glexec v0.5.2	Allow identity change to jobs on worker nodes	5.k, 5.l	glexec not designed to work with user jobs but only with CE services. Not available
POLICY MANAGEMENT				
	g-Pbox v1.0.16	Availability of service	5.f, 5.h	Not available
MONITORING				
	RGMA v5.0.n	VO specific information	6.c	Available. R-GMA has Authentication based on VOMS proxies. Available in 2006: coarse-grained, local site configured, control of operations and fine grained VO control of data access.
		Logging and bookkeeping information available	6.d	Available. R-GMA Monitoring of transfer traffic and L&B info is currently provided on LCG.
		Availability of local batch events	6.d	Available. Job wrappers are publishing the state of the process running a job every 5 minutes for each running job on a WN.
	Not available	Monitoring of transfer traffic	6.a	Not available
		SE monitoring (dataset transfers)	6.b	Not available
	GridICE v1.5.0	VO specific information	6.c	Available. VO-specific information for global operations: wide set of measures (both raw and aggregate one); to enable the VO to check several aspects related to the operations (e.g., what are the accessible CE/SE, their status and load). VO-specific information for jobs: all Grid jobs are monitored in terms of both status and resources usage; the

				jobs are monitored in terms of both status and resources usage; the exit status refers to the one returned by the LRMS Available in June 2006: sensor for passive monitoring of WMS; filtering of information based on a given BDII; integration of GOC DB downtimes; integration of the L&B job status.
	Not available	Monitoring of transfer traffic	6.a	Not available. It will be available by June 2006 for Castor, Classic, DPM and d-Cache.
		SE monitoring	6.b	Not available. Available by June 2006: monitoring of the local access to files (e.g., number of opening, read/write bytes). We will consider the various SEs in the following order: Castor, DPM, d-Cache. The measures can be associated to user Grid credentials.
		Publish/Subscribe of Logging and bookkeeping information.	6.d	Not available. Partially available in June 2006. See previous point.
		Availability of local batch events	6.d	Not available.
ACCOUNTING				
	DGAS v1.1.n	Support for granular accounting (users, site, groups)	7.a	dgas >= v1.1.14 offers granularity at site and VOMS user, role, group, subgroup.
		Possibility for aggregation based on VO specific tags	7.b	dgas >= v1.1.14 offers aggregation per Vos
	Not available	SE accounting aggregation by datasets	7.c	Not available
	APEL v.1.0.0	Support for granular accounting (users, site, groups)	7.a	Accounting for site, EGEE region, dn and local Unix Group. No connection with VOMS.
		Possibility for aggregation based on VO specific tags	7.b	Offers aggregation per Vos but not VO tags.
	Not available	SE accounting aggregation by datasets	7.c	Not available
APPLICATIONS				
	POOL v2.3.0	Provide software configuration matching with the middleware	8.a	POOL >= 2.3.0 compatible with available middleware
		Interface to POOL	4.3.c	POOL >= 2.1.0 available plugins.
		ATLAS/CMS-specific features: PFN metadata	8.b	POOL >= 2.3.0 LFC features exposed. PFN metadata available.
	ROOT	Interface with GFAL	-----	Available
		xrootd interface with SRM	12.a	Not available
EXPERIMENT AGENTS				
	VOBOX v1.0.1-3	No special software requirements. Only requirements concerning deployment. Check site plans.	9.f, 9.g	Available
STORAGE MANAGEMENT (SRM2)				
	CASTOR2 pending	Fix problem between SRM "isCached" and Castor2 multi-diskpools	11.a	Available in February 2006
		Fix Castor/DPM rfo conflicts	8.a	Available in June 2006.
	Not available	Allow for multiple pools to be used by the same DN	11.b	Not available. Available when VOMS integration completed.
	CASTOR2 Pending	SRM V2.1.1 interface implemented	3.a	Available
		Same semantics for all implementations (ex. Delete)	3.b	Available during 2006
		High-level tools working simultaneously with V1 and V2	3.b	GFAL 1.3.4: Provides interface for V1 only
	Not available	Support for disk quota management (user, groups, level)	3.c	Not available
		Checksum validation of copy operations	3.d	Not available
		Performant SRM client tools available to C, C++ and Python	3.e	GFAL 1.3.4: Provide some interface in C.
	dCache pending	SRM V2.1.1 interface implemented	3.a	Available during 2006
		Same semantics for all implementations (ex. Delete)	3.b	Available during 2006
		High-level tools working simultaneously with V1 and V2	3.b	GFAL 1.3.4: Provides interface for V1 only
	Not available	Support for disk quota management (user, groups, level)	3.c	Not available
		Checksum validation of copy operations	3.d	Not available
		Performant SRM client tools available to C, C++ and Python	3.e	GFAL 1.3.4: Provide some interface in C.
	DPM v1.5.4 Pending	SRM V2.1.1 interface implemented	3.a	Available without srm-copy nor global space reservation
		Same semantics for all implementations (ex. Delete)	3.b	Available during 2006
		High-level tools working simultaneously with V1 and V2	3.b	GFAL 1.3.4: Provides interface for V1 only
	Not available	Support for disk quota management (user, groups, level)	3.c	Not available
		Checksum validation of copy operations	3.d	Not available
		Performant SRM client tools available to C, C++ and Python	3.e	GFAL 1.3.4: Provide some interface in C.