

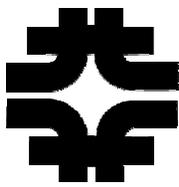
Lower Storage

Summary of activity on 2/7/2005



Project Drivers & Scope

Drivers - DRAFT V0.13 12/14/04			Top Leve	[1] Lower Storage								
	Character in Cells: X = development, I = integration, L = low priority, H = high priority, ? = ?	Priority & Date of next Milestone	Lower Storage [1]	DAY TO DAY OPERATIONS SUPPORT	SMALL PROJECTS	ENCP	DISTRIBUTED TAPE OPERATION	FTT SUPPORT	OPEN SCIENCE GRID DATA	Next Generation on Tape	SECOND GENERATION MONITORING	TAPE MIGRATION SUPPORT
	FTE months in FY05 Available/ Posted/ Needed/Outsourced:		44/8/51	2	12	4	16/8	1	2	2	2	3
COMMON	stakeholders		X									
COMMON	Common and/or interoperable Services with OSG and LCG								X			
COMMON	Common Job Submission and Management services											
COMMON	Distributed, diversely located, persistent data store		X				X					
COMMON	Distributed permanent & custodial data storage not only at FCC		X		X		X					X
D0	Continued Stable Operation	ongoing	X	X	X	X					X	X
D0	Tape migration support	12/1/2005	X									X
D0	More Efficient Tape Drive Usage		X									
CDF	Tape migration support		X									X
CMS	DC07 CMS 50% Data Challenge	3/1/2007	?							?		
Theory	Lattice Gauge Facility											
MINOS	Robust & Stable Operation	High Priority	X	X								



Project Milestones

- High Priority
 - Day to day support. This is supported in the framework of general Enstore system, have no specific requirements
- Ongoing
 - day to day support
 - Pnfs scans, cleanups, problem resolutions. Scanned d0 Pnfs area. 890 files were missing some metadata. Most of them were old and we believe they are not on tapes. 23 of these were recovered, 2 were M2, we do not have M2 tapes anymore.
 - Answering user's and administrator's questions, resolving problems
 - System updates and upgrades
 - FTT support. Cut v2_22 with stats db and extended firmware field.
 - ENCP Fixes, mods for encp, sdss get, product configuration changes requested by users. Fixed env of memory leaks, better optimization. Worked on optimization of sdsscp/get along with mover code to fix bugs and improve transfer rates for small files. Next encp cut will be in Feb. 2005



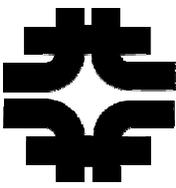
Project Milestones (continued)

- Small Projects.
 - Improvements of system security. Make valid hosts configurable. Finished 01/05
 - Addition of options to file, volume, info servers, modification of some library manager options. Finished 01/05
 - Helped Vanderbilt University to learn / install Enstore at their site. Finished 09/04. Helping them to resolve problems. Ongoing
 - Enstore code cleanup. Ongoing
 - Preparing for OS, Python upgrades.
 - Participation in the preparation for Pnfs db conversion
- Tape Migration Support
 - Migrated 4557 CDF 9940A tapes to 9940B. Finished 12/04
 - Migrated 1240 eagle tapes to 9940B. Finished 12/04
 - Migration of 9940A tapes to 9940B tapes. Ongoing. Working out plan.



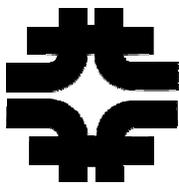
Project Milestones (continued)

- Distributed tape operations
 - Federation plan has been discussed internally. Preparing to present it to the stakeholders. Investigating and experimenting with combined file DB. Researching on tools for web administrator system access. Ongoing.
 - Multiple copy. Materials for discussion prepared.
 - New Pnfs servers. Ongoing. Preparing with meeting with stakeholders.
- Open Science Grid Data
 - No activity so far
- Next generation tape
 - Participation in tape strategy. Ongoing
- Second generation monitoring
 - Generate plots, add web pages upon request. Ongoing
 - New approach to data presentation on demand. On hold.
- Not covered in GDM list
 - Data storage for the University of Wisconsin Genome Project. Discussion.



Effort Profile

- 3 people work on Enstore project.
- Support and maintenance requires 2 FTE.
- Other main activity is concentrated on distributed tape operations. 1.5 FTE works now on the project. Requires 2 FTE. Hope for a new hire.



Risks

- I do not see or foresee any technical risks. The system is stable. We test new technologies before making decision to use them.
- Schedule Risk – understaffing. In a process of hiring a new developer.