



MAPPER Status Update



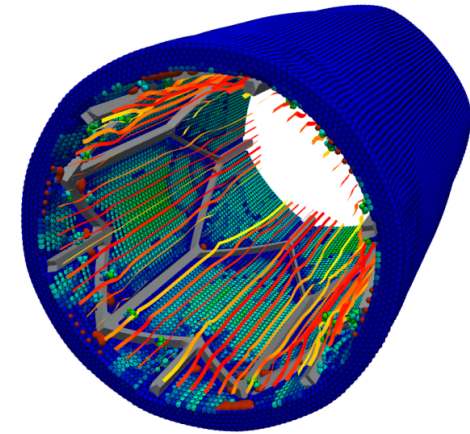
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MAPPER & Multiscale Systems



- The world is multiscale
 - Scale of biomedical applications:
 - Temporal scale $O(10^{15})$
 - Spatial scale $O(10^9)$
- MAPPER objectives:
 - Develop models for multiscale computing
 - Work and develop services supporting novel computational paradigms
 - Bring multiscale computing to European e-Infrastructures



Requirements



- Resource allocation
 - Common policies for resource allocation across European e-Infrastructures
- Resource access
 - Support for advance reservation and co-allocation
- Authentication
 - Common authentication mechanisms

Requirements



- Accounting
 - Extensive, integrated accounting solutions
- User support
 - Common policies for user support
- Monitoring
 - End-user centred monitoring systems



- Collaboration of EGI, MAPPER and PRACE projects
 - Synchronise policies and procedures
 - Exchange best practices
 - Deploy and support services for multiscale computing
- Supported by MoUs
- Coordination of joint activities

EMP Task Force Actions



- Advance reservation support on EGI computing resources
 - Five EGI sites in Poland
 - Interest from selected UK sites
 - In discussion with NGIs of Germany, the Netherlands, Switzerland and Sweden

EMP Task Force Actions



- Advance reservation support on PRACE computing resources
 - Advance reservation supported by:
 - EPCC HECToR
 - SARA Huygens
 - In discussion with PRACE Tier-0 and Tier-1 partners

EMP Task Force Actions



- Definition of monitoring metrics
 - Availability and functionality of services
 - Monitoring of job status across multiple systems
 - Status of cross-cluster advance reservation and co-allocation services
 - Network performance

EMP Task Force Actions



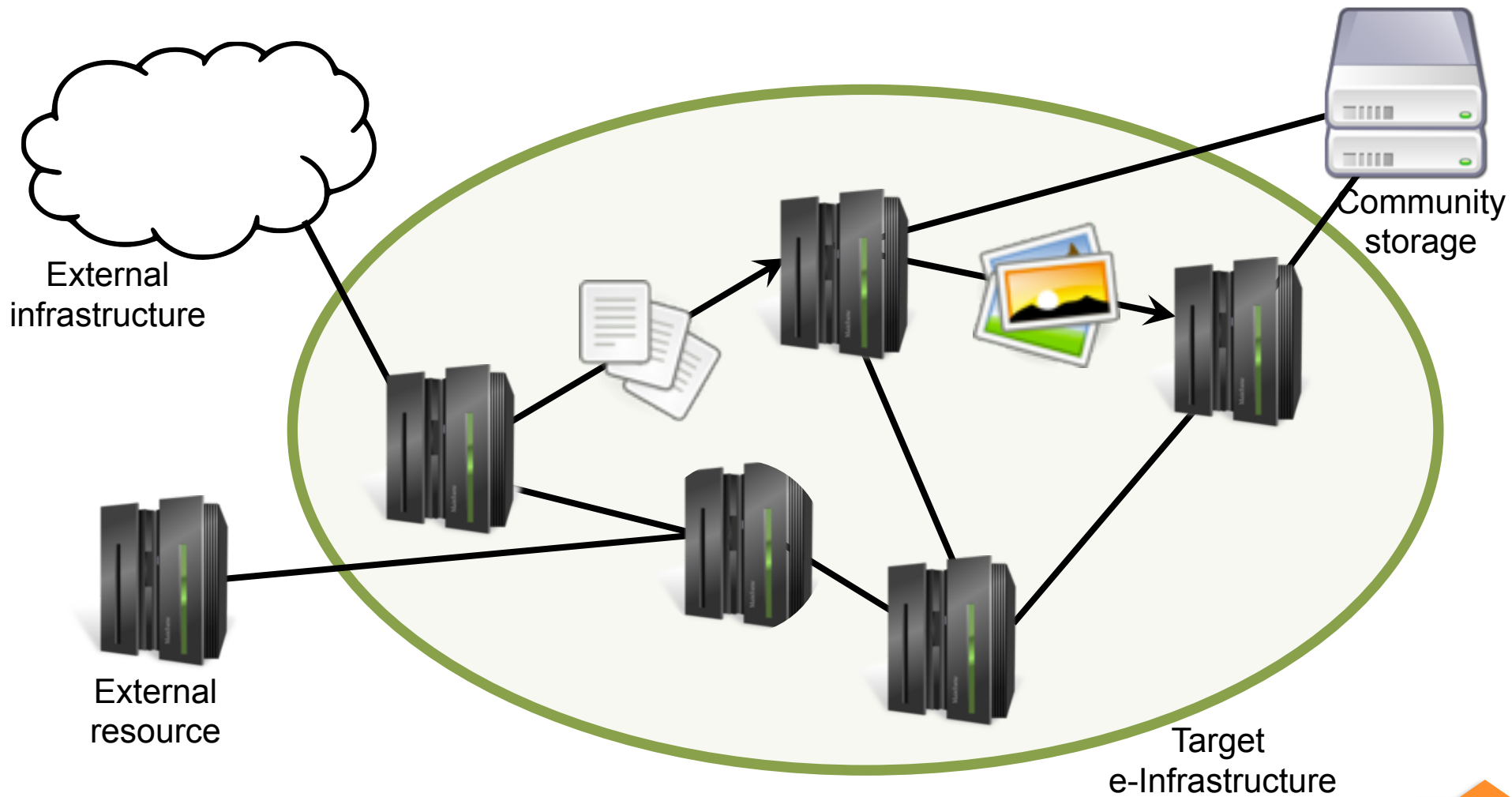
- Integration of EGI and PRACE accounting systems
 - Integration of QCG middleware with EGI APEL accomplished in July 2012
 - Ongoing integration with Grid-SAFE
 - Support for exchange of accounting records between EGI and PRACE

EMP Task Force Actions



- Integration of EGI and PRACE help desk systems
 - Ongoing integration of EGI and PRACE help desk systems
 - Evaluation of EGI XGUS solution for MAPPER internal help desk
 - Synchronisation of support policies across EGI and PRACE

Data management



Data management



- Flexible policies for high-performance, real-time data exchange and transfer
- GridFTP for intra-infrastructure data transfer
- Support of external data services are of a lesser importance



Questions?

Fast- and deep-track components



	Fast Track	Deep Track
High-level, End-user Tools	AHE	Accounting
	GridSpace	AHE
	MAD, MaMe	GridSpace
	QCG-Broker	MAD, MaMe
	SAGA	QCG-Broker
	Vine Toolkit	
Low-level, Resource-level Services	Nagios	MPWide, QCG-OMPI
	GridFTP	MUSCLE
	MPI	QCG-Computing
	MUSCLE	SPRUCE
	QCG-Computing	UMD
	UNICORE	