



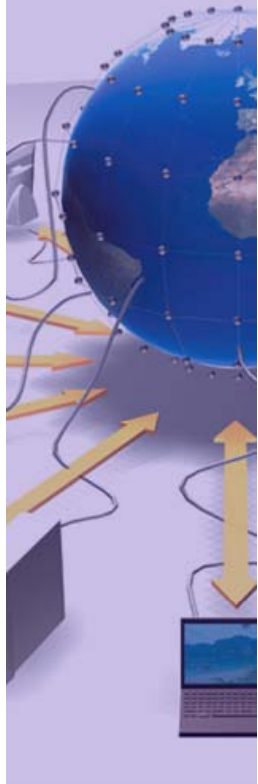
FTS Monitoring

Ricardo Rocha

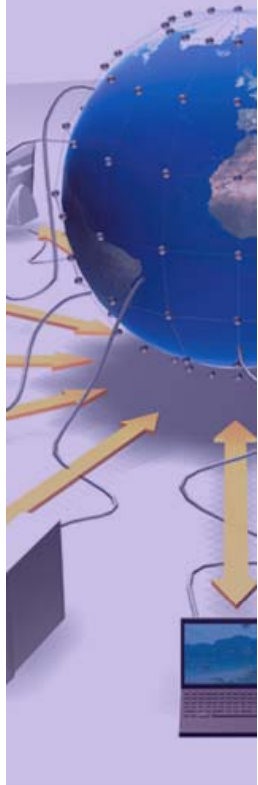
WLCG 2008 Data-Taking Readiness Planning Workshop

14th November 2008

- Work done by Alexander Uzhinskiy and Andrey Nechaevskiy
- Built using the dashboard framework
- Requires SLC4 FTS
- Different use cases for different people
 - Site administrators / operators
 - Channel settings, real time activity, summaries of errors, ...
 - Grid and VO managers
 - Historic data (daily, weekly, monthly, ...) on channels and site activity
- Tight integration with the other FTS components
 - Extension to the existing database backend (but not touching any of the existing objects)
 - Relying on the existing error classification when generating summaries
 - <https://twiki.cern.ch/twiki/bin/view/EGEE/FTSErrorClassification>
- Flexibility allowing creation of new monitoring *objects*



- Activity Summaries
 - Per source site, destination site, VO
 - Throughput, number of files transferred, average retries, ...
- Activity Snapshots
 - Real time view channel activity, queues, file states, ...
- Error Summaries, by:
 - Scope: Source, Destination, Transfer
 - Category: File Exists, No space left, GridFTP error, ...
 - Phase: Allocation, Preparation, Transfer
 - Message: Pattern matching (400 and growing...)
- Channel Settings
 - Same as the `glite-transfer-*` command line but in a nice web interface
- Agent Status
- Automated Reports



Multiple Filters

Monitoring tools

Select site Select time options Information about

Monitoring tools

Select site

- all
- INFN-T1
- PIC
- BNL-LCG2

Select time options

last info last 24 h period

From: - 06 2008

Till: 20 06 2008

Information about

Categories

Errors

Separate by

VO

Source/DEST

result form

- tables
- tables
- graphics
- charts

Submit

Multiple Filters

Monitoring tools

Select site: **all**, INFN-T1, PIC, BNL-LCG2

Select time options: last info last 24 h period

From: - 06 2008, Till: 20 06 2008

Information about: Categories Errors

Separate by: VO Source/DEST

result form: tables, **graphics**, charts

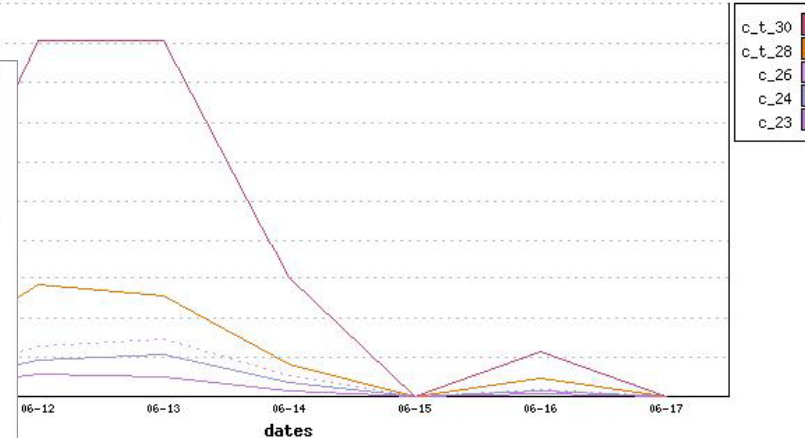
Submit

Multiple Visualization Options

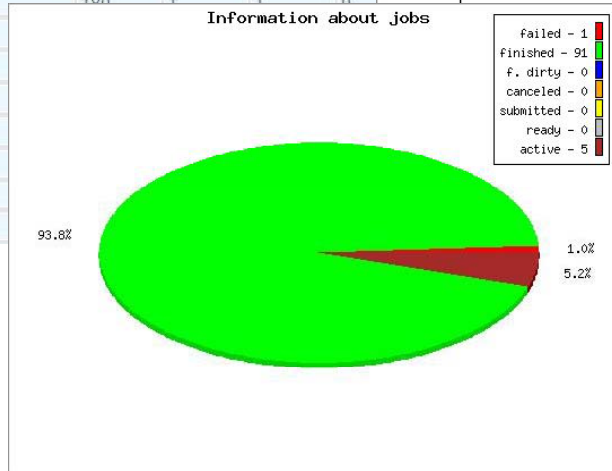
15h General information about dteam for last 24 hours

	succed transfers	failed transfers	%failed	errors on source	errors on destination	transfer errors	failed jobs	finished jobs	finished dirty jobs	canceled jobs	submitted jobs	ready jobs	active jobs
17 - 18	189	5	3	0									
18 - 19	191	4	2	0									
19 - 20	180	1	1	0									
20 - 21													
21 - 22													
22 - 23													
23 - 0													
0 - 1													
1 - 2													
2 - 3													

CERN-PROD information about CATEGORY for period 06.11-06.17

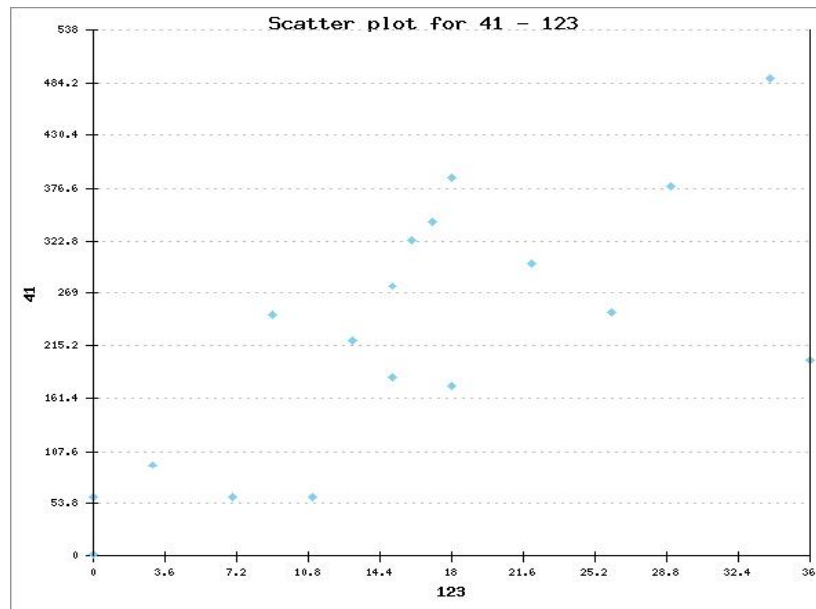


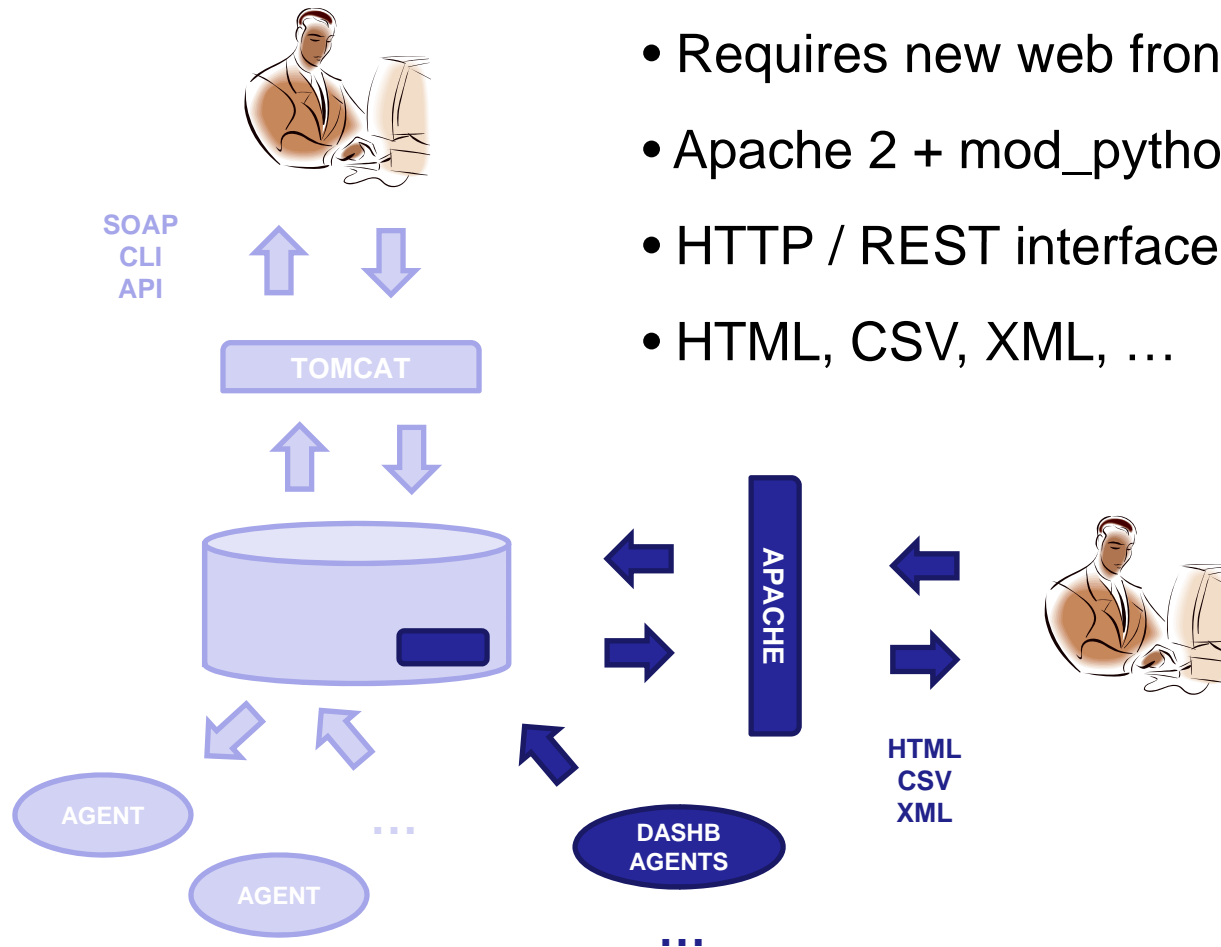
Information about jobs



Statistics Tools

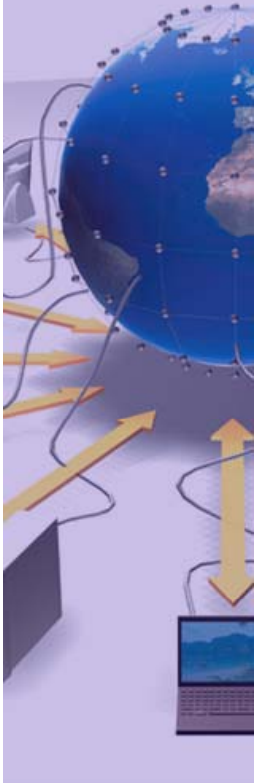
Monitoring tools				
Select error [1] specified file(s) do [21] 451 451 Non-null [23] 421 Timeout (900 [24] 426 Transfer abo	Select channel all CERN-CERN CERN-INDIACMS CERN-INFN	Select time options <input checked="" type="radio"/> last info <input type="radio"/> last 24 h <input type="radio"/> period From - 05 2008 Till 30 05 2008	Separate by <input type="checkbox"/> VO <input type="checkbox"/> Channel	result form tables Submit
Statistic tools				
Enter size of Top: 10	Select time options <input checked="" type="radio"/> last day <input type="radio"/> period	From - 05 2008 Till 30 05 2008	Sorted by <input checked="" type="radio"/> frequency <input type="radio"/> total amount	Separate by <input type="checkbox"/> VO <input type="checkbox"/> Channel Submit
Correlation				
Select error1 [1] specified file(s) do [21] 451 451 Non-null [23] 421 Timeout (900 [24] 426 Transfer abo	Select error2 [1] specified file(s) do [21] 451 451 Non-null [23] 421 Timeout (900 [24] 426 Transfer abo	Select time period From - 05 2008 Till 30 05 2008	Type of correlation <input checked="" type="radio"/> Spirmen <input type="radio"/> Pirsen <input type="radio"/> Scatter plot	Submit





- Requires new web frontend
- Apache 2 + mod_python + mod_ssl
- HTTP / REST interface
- HTML, CSV, XML, ...

- Application tested in the FTS pilot instance
- Next steps
 - 1) Finish Packaging
 - SLC4 RPMs are available
 - Integrate with package configuration tools (quattor, yaim)
 - It will be a module of the FTM node
 - 2) Deployment at CERN
 - Implement missing features, fix bugs, re-pilot
 - Then deploy at the CERN production instance
 - 3) Rollout to Tier1s



- Expand usage of monitoring data
 - By making it available to other tools
- Channel / site activity messages put into the MSG system, available for subscription
- First use case: an overview of all WLCG data movement activity
 - Collection of summary data from all FTS instances (subscription to all monitoring messages)
 - GridMap (or other visualization widgets like google earth?) on top, linking back to local dashboards

