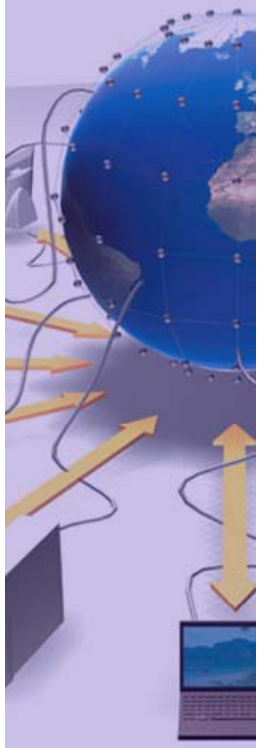


# FTS Monitoring

**Ricardo Rocha**

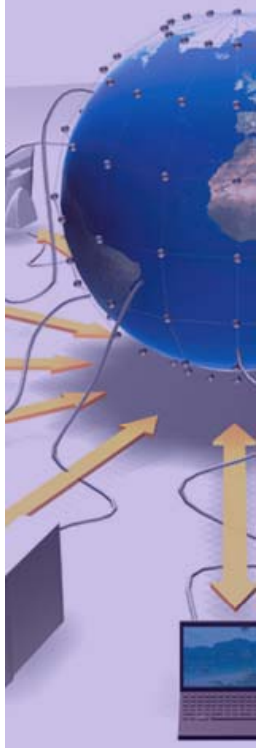
**WLCG 2008 Data-Taking Readiness Planning Workshop**

14th November 2008

CERN IT Department
CH-1211 Geneva 23
Switzerland
**www.cern.ch/it**

CERN

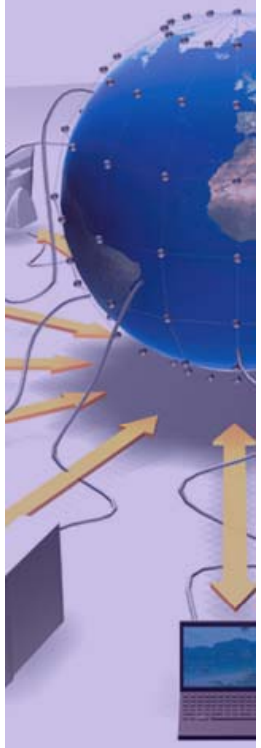
# FTS Dashboard Summary



- 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*

CERN IT Department
CH-1211 Genève 23
Switzerland
**www.cern.ch/it**

# Available Data



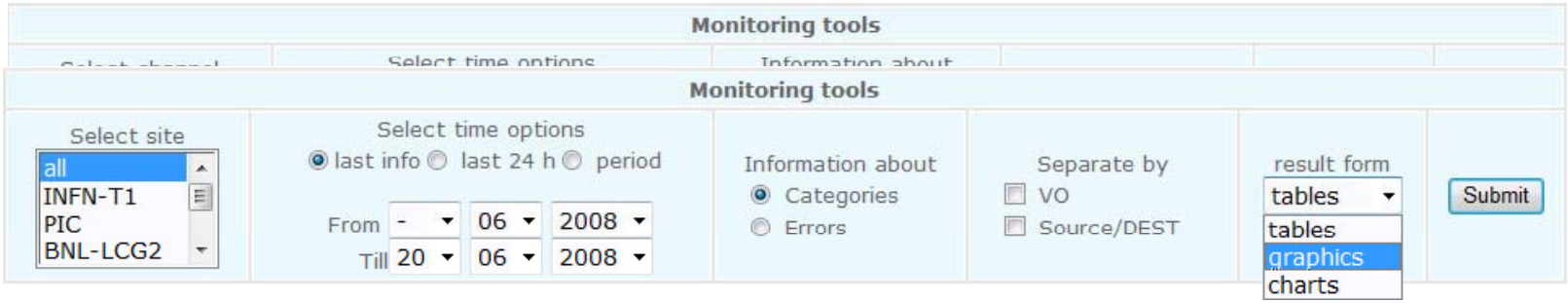
- Activity Summaries
  - Per source site, destination site, VO
  - Throughput, number of files transferred, average retries, …
- Activity Snapshots
  - Real time view channel activity, queues, file states, …
- Error Summaries, by:
  - Scope: Source, Destination, Transfer
  - Category: File Exists, No 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

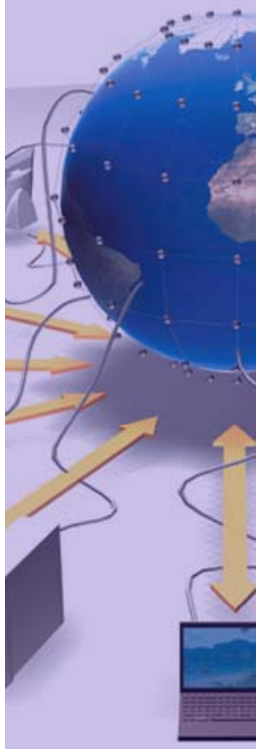
CERN IT Department
CH-1211 Genève 23
Switzerland
**www.cern.ch/it**

# Examples



## Multiple Filters

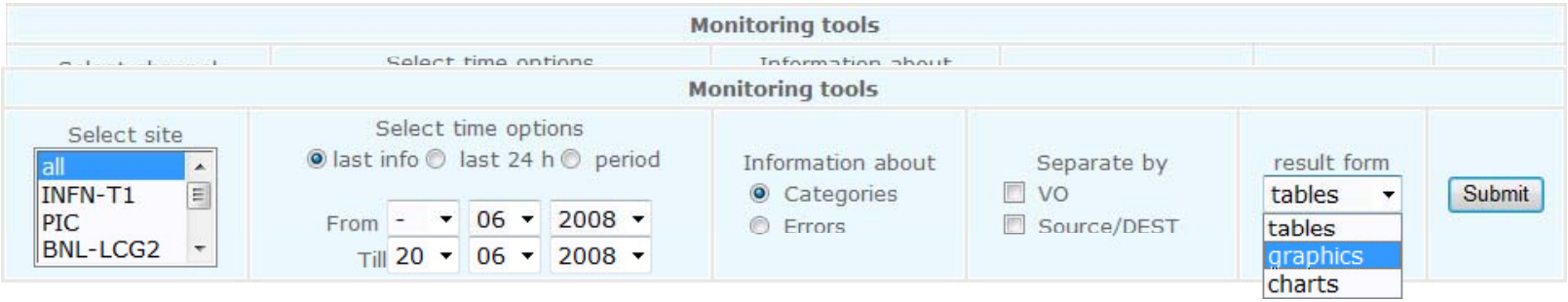


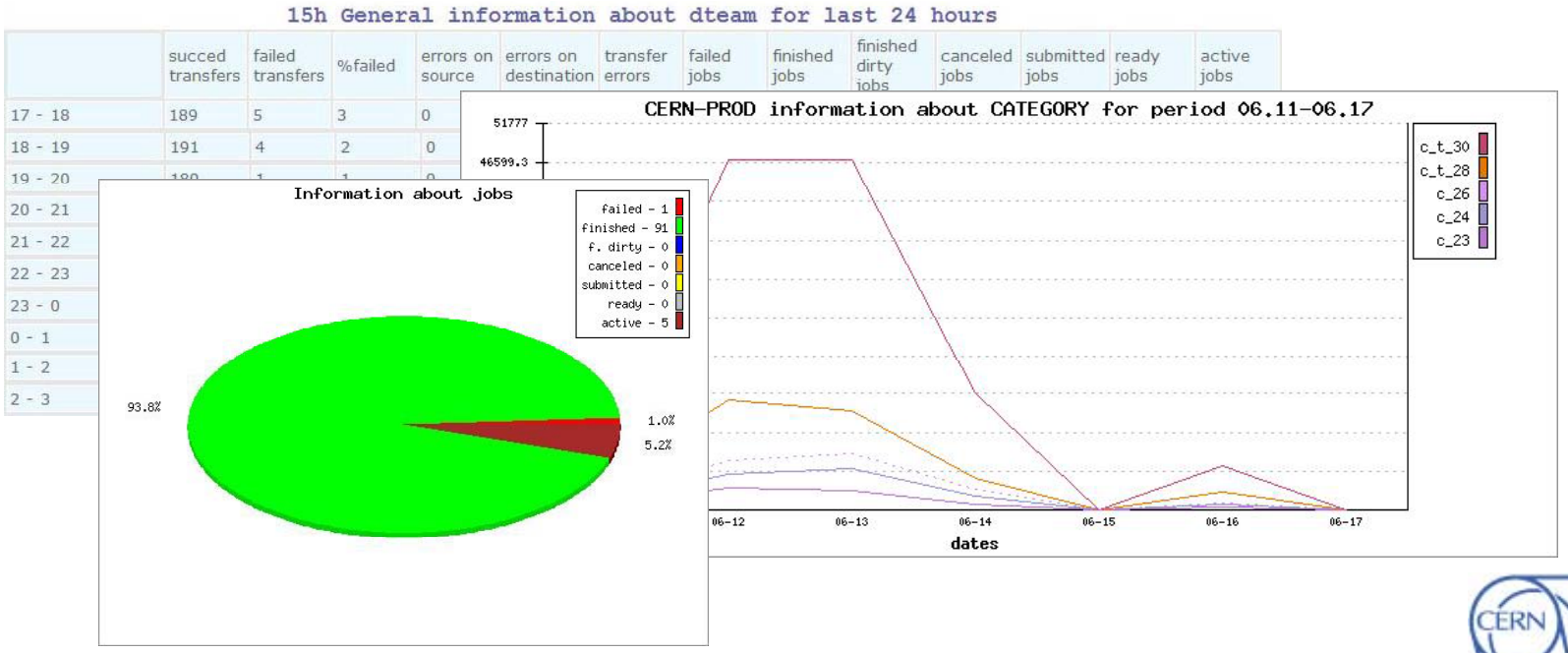
CERN IT Department
CH-1211 Genève 23
Switzerland
**www.cern.ch/it**

# Examples

## Multiple Filters




## Multiple Visualization Options



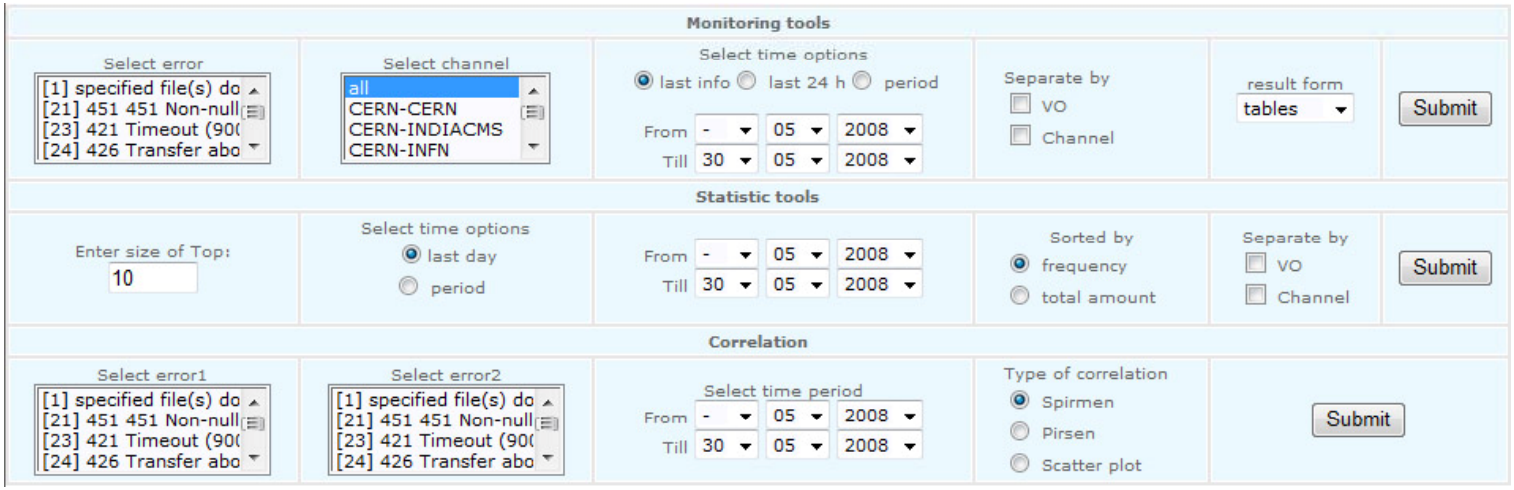


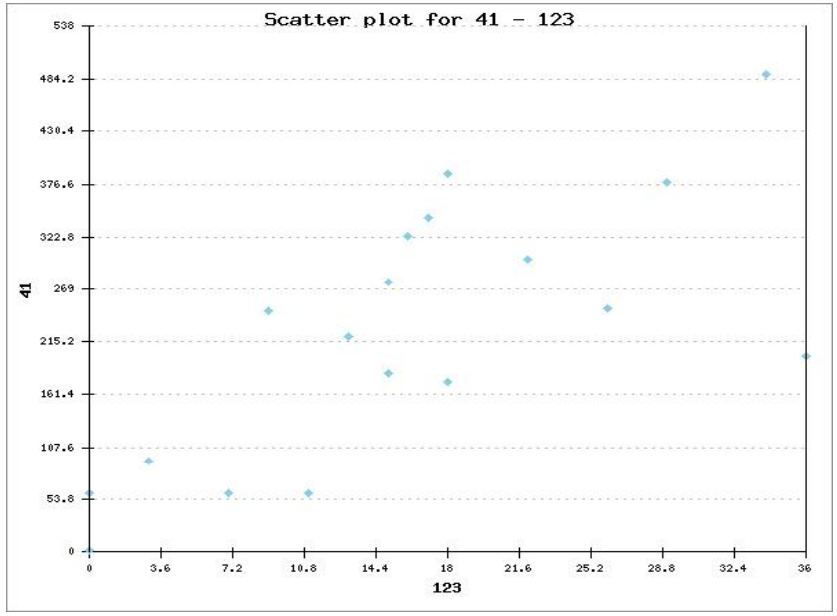
CERN IT Department
CH-1211 Genève 23
Switzerland
**www.cern.ch/it**

# Examples



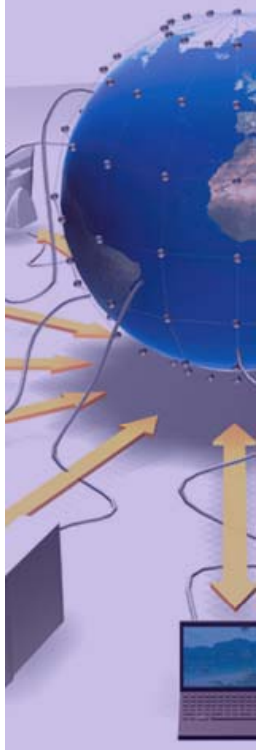
## Statistics Tools

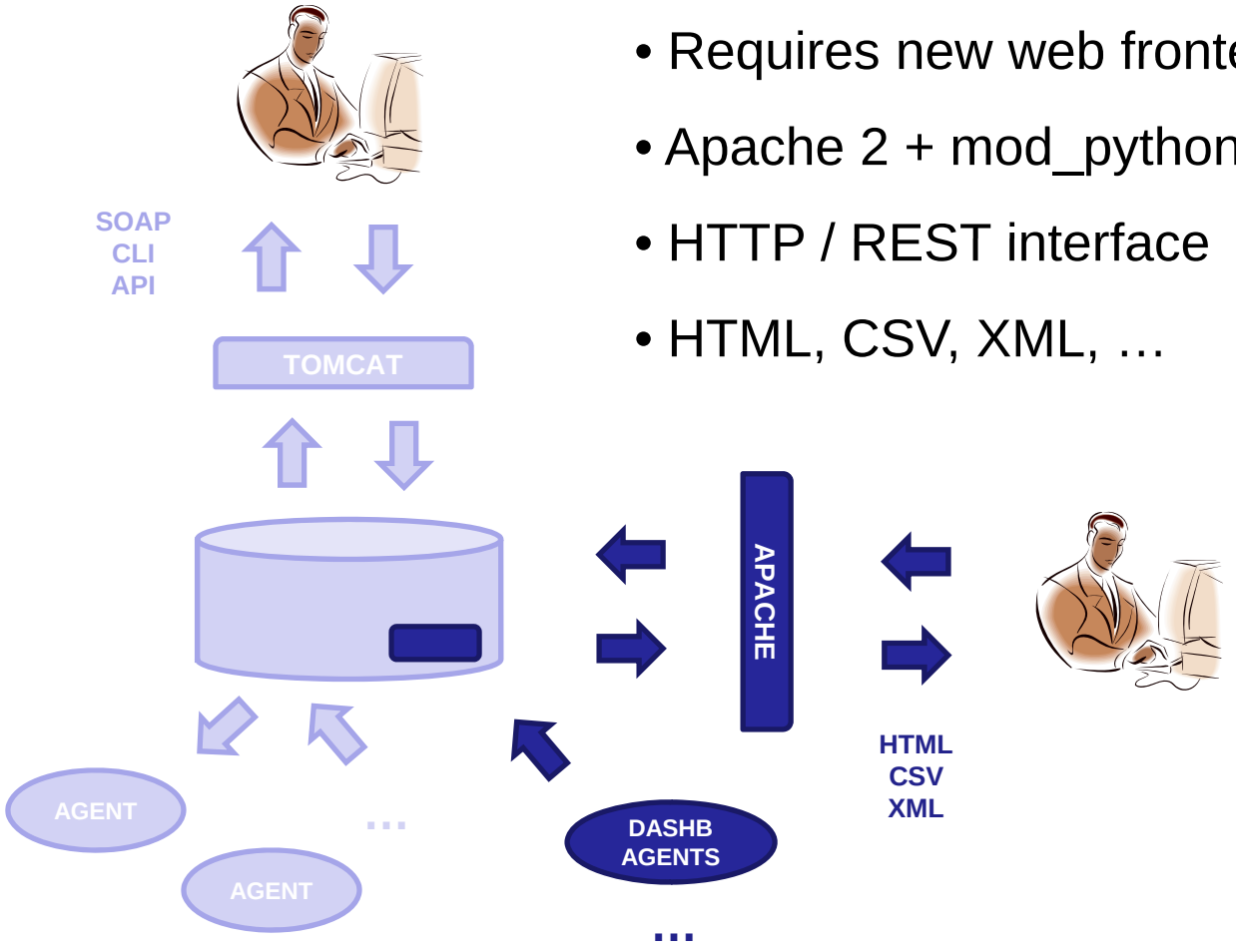



CERN IT Department
CH-1211 Genève 23
Switzerland
**www.cern.ch/it**

# Deployment



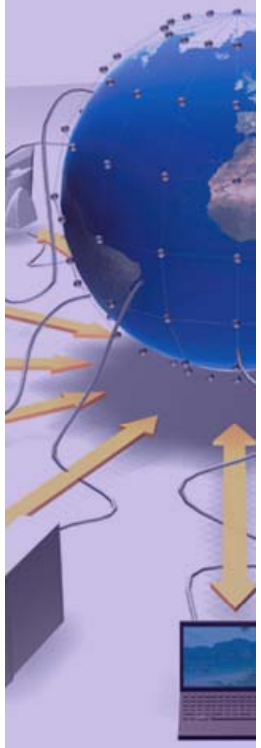



- Requires new web frontend
- Apache 2 + mod_python + mod_ssl
- HTTP / REST interface
- HTML, CSV, XML, …

CERN IT Department
CH-1211 Genève 23
Switzerland
**www.cern.ch/it**

# Planning

- 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



# Future

- 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