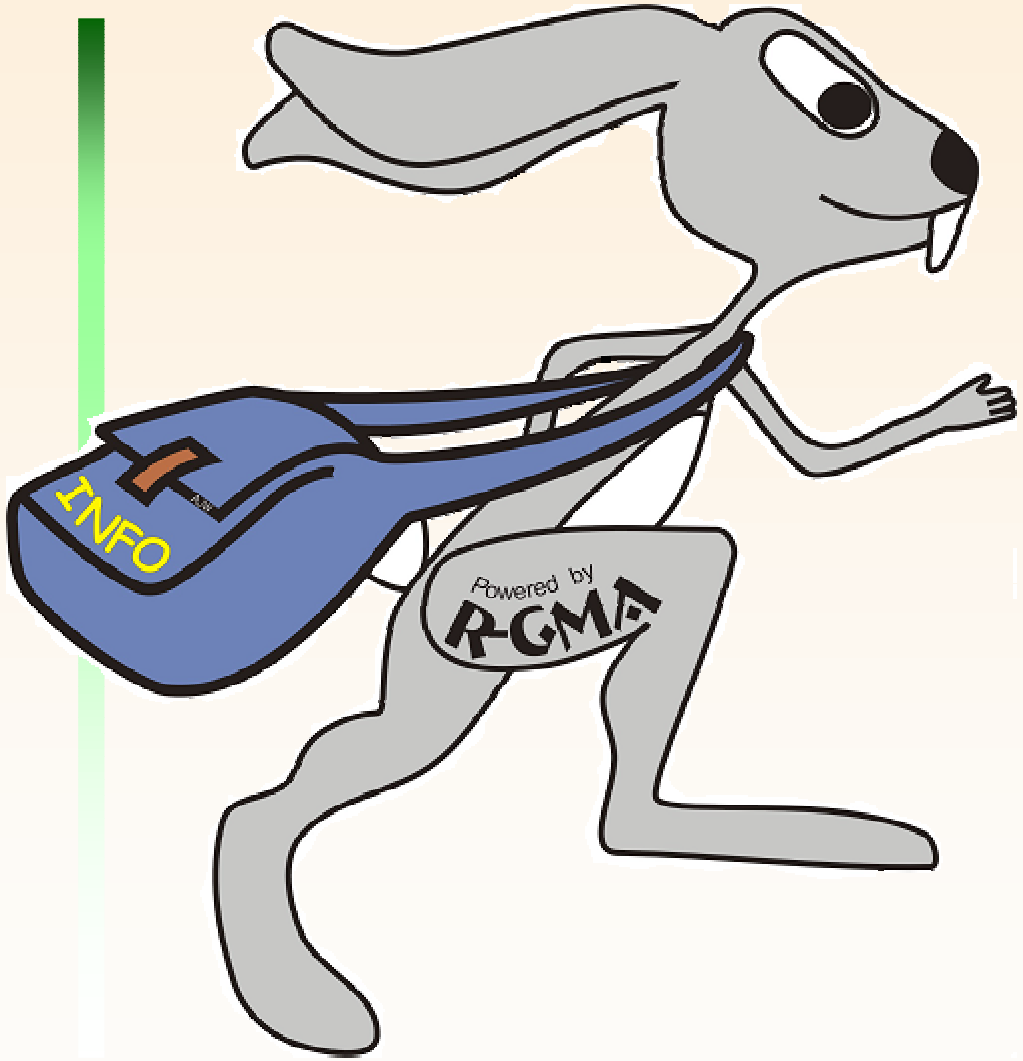

WP3 Status

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Plan of Talk

- EDG 2.0 Release
- Latest tag (2.1 candidate)
- Wrapping up EDG

R-GMA:

- **A general Grid Information and Monitoring System answering SQL queries**
- **Offers global view of distributed Grid monitoring information**

Status

- Release 2.0 on Application testbed showed a number of scalability problems
- These have all been fixed and tested on the WP3 testbed.
- Should be deployed ASAP

EDG 2.0 Release

- Revised APIs
  - The C API code totally rewritten
  - Removed deprecated methods throughout
- Improved tools
  - Command Line Interface (edg-rgma)
  - Browser
- New validation suite
  - edg-rgma-check
  - edg-rgma-examples
- Schema
  - GLUE 1.1
  - Service and ServiceStatus

Latest Tag

Latest Tag

- Robustness
- Performance
- Nagios Integration
- Security
- GRM/PROVE

With exception of GRM/PROVE integration all work related to making the system more robust

Performance

- OptimizeIt revealed a number of problems
  - Slow Java I/O – now use NIO for streaming
  - SQL parsing – now use hand coded parser for the inserts
  - XML parsing too slow – DOM replaced by SAX
  - Too many threads – now a big reduction

R-GMA metrics

- A range of measurements:
  - Freshness
  - Completeness of information
  - Response time
- Application, development and WP3 testbeds
- Scripts interpret the measurements
  - Is the absence of information correct?
  - If it is lost – where is it lost?
- Results linked from WP3 web page

Nagios integration

- We are using Nagios to monitor the status of EDG services
  - including R-GMA services
- Nagios provides:
  - Graphical displays
  - Alarm mechanism
- Will also use it to display R-GMA metrics

Security

- We now have authentication in place
- If switched on:
  - you must have a proxy
  - Tomcat machines must have a certificate
  - Otherwise invisible to the user

GRM/PROVE

- To understand the performance of parallel applications
  - Mainly of interest to WP9 and WP10
- GRM now uses the Mercury monitor (from GridLab) to deal with high data rates – but currently no security.
- Uses R-GMA to locate the application and Mercury contact point

Final months

Final months of EDG

- Most effort will be needed in
  - Support
  - Documentation
  - Attention to any new bugs
- And “demos” (as time permits) of
  - Multiple VO support
  - Registry & Schema replication
  - Authorisation
  - Ranglia (Ganglia integration)
    - Can probably be deployed independently
  - Grid Services

Support

- Help experiments and other users to make best use of R-GMA
  - RB / R-GMA interface
  - BOSS
  - GANGA
  - D0
  - BaBar
  - Network Monitoring
  - Logging and Bookkeeping
  - UK – e-Science

Ganglia Integration

- Ganglia is popular cluster monitoring system
- Completing a component (Ranglia) to make Ganglia information available as R-GMA tables
- Uses CanonicalProducer – i.e. on demand generation.

- Must also interface to LEMON

Grid Services

- Already have schema and registry as OGSI Grid services
- We will continue the transition to Grid services
  - Will provide wrappers for compatibility with our current APIs.

Summary

- All R-GMA problems seen on application testbed are now believed to be eliminated
- Will continue to focus on robustness and reliability to meet the needs of LCG for both Information **and** Monitoring.