WP4 - Monitoring

Progress report

sylvain.chapeland@cern.ch

Work plan 3Q02 – 1Q03

- *Repository server*
- *TCP transport*
- *C-Implementation of the repository API*
- *Alarm display*
- *Packaging, documentation and unit testing for release 2*
- *Integration and deployment on release 2 Testbed*
- *Dynamic proxy logic in TCP transport*
- *Perl implementation of the repository API*
- *Java implementation of the repository API*
- *Extended EDG sensor set*
- *ORACLE interface*
- *Database survey*
- *Interface open source Database*
- *Investigation on metric schemas*
- *Revisit the metric configuration*
- *Security*
- *Web based report GUI*

Repository server

- Released

- Multithreaded
- Uses MR API for insertion of samples
- Much better performance noticed for UDP transport (packet loss)
- SOAP connectivity for metric subscription

TCP transport

- Released

- End to end reliable push transport of blobs with cache and recovery if server down
- Stress tests to be completed with a large number of clients
- Proxy configuration currently manual

C-Implementation of the repository API

- Released

- Implements the flat file system
- Includes subscription mechanism (SOAP)

Alarm display

- On going

- Java implementation
- SOAP connectivity causing delays

Packaging, documentation and unit testing for release 2

- Completed

- Integrated successfully
- LCFGng object

Integration and deployment on release 2 Testbed

- Waiting for the testbed

Dynamic proxy logic in TCP transport

- Not started

- Planned beginning 2003
- Logic to be defined
- Need large scale deployment to test behavior

Perl implementation of the repository API

- On going

- Requires a simplified MR API
- String oriented interface
- First tests successful with SWIG
  - Tcl prototype works fine

Java implementation of the repository API

- To be done

Extended sensor set

- On going (forever?)
- Some new metrics:
  - spaceUsed
  - daemonCheck
  - executeScript
  - file.dump
  - file.tail (including pipe from lcfg logs)
  - processAccounting
  - snmp
- Activity will go on with deployment, following demand

ORACLE interface

- On going

- But an advanced prototype is ready
- More details in following presentation

Database survey

- Completed
- Prototyping necessary to confirm results in real-life environment

Interface open source Database

- Not started

- … but soon
- Should be faster because table structures now defined

Investigation on metric schemas

- A few thoughts already

- Planned for next year
- Deals with sample types
- Complex: can have arrays, etc.

Revisit the metric configuration

- Not started

- Schema defined already
- But need some updates

Security

- Not started

- Concerns mainly transport
- Also some sensible configuration items

Web based report GUI

- On going

- First prototype released
- CGI interface for DB query available

Out of plan items

- Various MSA improvements
  - Daemon facilities
  - Now using EDG environment variables
  - Syslog redirection of logs
  - Multiple transports at the same time

- Tutorial *... to be tested next Thursday*

Users

- MSA used extensively at CERN : CCS project
  - use UDP transport, with central PVSS DB/alarm
  - local correlation connected to SURE
  - 19 clusters with different configurations (CCS system)
  - 900 nodes (half computer center)
  - CCS sensors
  - production quality
  - mainly exception monitoring

Users

- Good feedback from Rutherford RAL
- Connectivity to fault tolerance

Plans after 1Q2003

- Complete previous list
- Then…
  - Final picture has not many gaps left
  - Test and consolidate newer components
  - Deploy on larger scale

Conclusion

- Software package starts to be complete and usable
- Architecture and software stable
- No major problem foreseen

- It's going on well ☺