WP4 Fault Tolerance Task

Task Report

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Most important things done

- Almost completely changed the way the Repository API is used
- Included functions to get the system time
- Added new data types: ANSI C string and boolean and the corresponding operators
- Provided (Linux like) start up scripts required by EDG
- Made edg-ftd more fault tolerant
- Started working on creating an LCFG object
- Established a well defined test plan
- Added more useful sample rules
- Improved documentation

Minor changes

- Removed some confusing text in the output
- Added time stamps to most important output lines in log file
- Some of the „helper" scripts are no longer needed

Change of use of Repository API

- Used to have exactly one subscription/callback for every metric needed
- Now only one large subscription/callback is made including all requested metrices
- This redesign took quite some time, but was worth the effort…
- …as now data received from the monitoring system is cached in an internal table for further lookup
- This may be a performance gain in case of many and complex rules involving a lot of metrices

Added timing function

- System time (hour, minute, second) can be accessed like data provided by a sensor…
- …This is already implemented in the edg-ftd core, but we have not yet decided how to express that functionality in XML
- This makes edg-ftd „cron like“.

Added new data types

- Data received from monitoring system can now be interpreted as text (string) without any conversion
- The corresponding operators for that type (e.g. string compare) where added

Added start up scripts

- As usual on Linux, the edg-ftd can now be started and stopped by a start up script
- The script is located in the usual directory /etc/rc.d/init.d
- The common options (start, stop, status,...) are supported

edg-ftd made more „faul tolerant“

- Made over optimistic assumption that Monitoring system does not crash and is always available
- Removed a bug which caused the edg-ftd to run in an endless loop in case it lost contact to the Monitoring repository
- Now a new „session“ with the monitoring system is established in case the connection is lost
- edg-ftd waits a couple of seconds before trying to reconnect to give Monitoring server time to come up again

Improved documentation and testing

- The RPM provides an HTML document explaining the configuration of the edg-ftd and the rules
- Also, a set of sample rules is provided which may be used as a starting point to create your own rules
- A plan was developped to test the major functions of the edg-ftd

Not to forget

- We have organised the conference which we hope you will enjoy!