MySQL and GRID status

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Objectives / Status

Four points in order of priority described in the proposal

- Database network monitoring tools
  - As the network grows, tools are needed to manage complexity
  - Single point to execute queries and commands on remote server
  - The console is ready and used
  - New feature are being added as the tool is used

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Objectives / Status

- Automatic mirror setup
  - Investigation has been done on how to best implement this
  - No implementation has been done
- Database catalog
  - No substantial work has been done here
  - The database to be used is found in an XML file that can be different for each farm or user

Objectives / Status

- GRID authentication
  - MySQL work on authentication with keys and certificates doesn't seem to proceed fast
  - Only available in version 4.0, which is too unstable to use anyway

Monitoring tool

- Basic concept is to be able to execute queries and commands on all database servers from the same tool
- Be able to easily execute the same query on multiple servers and compare results
- Have the most used queries and commands available at the touch of a button

Monitoring tool

- Executing queries
  - This is done through a normal MySQL connection
  - Any query can be sent, including data manipulation (SELECT, UPDATE, DELETE), schema manipulation (ALTER, DROP, CREATE), or database administration (GRANT, SHOW, ...)

Monitoring tool

- Command execution
  - This is done through SSH, and authentication is done by key exchange
  - Any command line can be remotely executed, including monitoring commands (vmstat, ...), file transfer and modification to database server status and setup (start and stop server, configuration file manipulation)

Monitoring tool

- With basic functionality we can build on top everything we want:
  - Database user management
  - Database network status analysis
  - Automatic mirror setup
  - Distribute server maintenance scripts
  - ...

Monitoring tool

- Features implemented
  - Manage the server list, and saves all parameter in an XML file
  - Start/stop servers
  - Show the list of connections to the server
  - Automatic slave detection from the master
  - Show server variables, and compare them to the master server to compare server settings and version numbers
  - Compare master and slave status and check if they are in synch
  - Display all the databases, tables and table row counts compared to the master server
  - Execute a query on multiple servers and compare the result