Testing Activities on the CERT-TB Status report

- Outline :
  - Using and improving framework facilities
  - Integration issues of existing INFN Install&Config tests
  - Collaborative tools
  - On-going work

Using and improving framework facilities

Framework facilities should be usable in different contexts and configured easily to fit the needs

Goals :

- Run test scripts locally on each cluster node in standalone mode and step by step
- Launch tests centrally from UI using the dg-tests-menu and produce HTML report
- Merge the tests into Gilbert's main perl script

Using and improving framework facilities

As previously mentioned by Gonzalo Merino in Bologna
http://datagrid.ifae.es/testing/talks/20021209_tstg_talk/tstg-Bologna.html

Propositions detailed here, could be fixed shortly with help of René, Gonzalo...

Improvements required :

- organize tests in a more convenient way
- implement ssh launching

Suggestion:

- enhancement of HTML_1D report

Using and improving framework facilities

Prerequisites : (on each machine)

- framework installation
- user account creation
- user ssh public keys distribution
- running ssh agent

Those issues not addressed on the CERT-TB

...Thanks to NFS and YP servers

- user shell configuration :

```
export EDG_TESTROOT=/your/installation/path
export PATH="$EDG_TESTROOT/bin:$PATH"
. $EDG_TESTROOT/etc/edg-test.conf
```

Using and improving framework facilities

Organize tests in a more convenient way :

- Test the new definition of test proposed by René : already re-write and test UI, CE Install and Config tests
- Reorganize tests grouping verifications by functional block

```
./CE_config_test.sh -i
        Step 1: Op. System required services
        Step 2: EDG mndatory variables and files
        Step 3: Check Globus Configuration
        Step 4: check MDS configuration
        Step 5: check necessary grid services
        Step 6: Check the user environment : $PATH, $LD_LIBRARY_PATH
        Step 7: Check the NFSmount
        Step 8: RPM List installation check for EDG CE $EDG_VERSION
        Step 9: MDS / GRIS check
        Step 10: MDS / GRIS query
        Step 11: PBS check
```

step : functional block of several verifications
keep the most severe return code as the global status

- When possible, define specific functions : verifyCEGlobusConf.sh

Using and improving framework facilities

ssh launching :

- Use hostname variables set in test_site.conf
- Adds-on in the test definition .conf file

```
#to allow remote execution
TEST_RSH=/usr/bin/ssh
# Remote command executed
RCOMMAND="export EDG_TESTROOT=$EDG_TESTROOT;source
    $EDG_TESTROOT/etc/edg-test.conf;$TEST_FILE"
# Remote node on which the test is performed
RNODE=$RBhostname
```

- Modification of HTML-0D_parser-script.sh :

```
# if the test is done remotely from UI then
$TEST_RSH $RNODE $RCOMMAND $TEST_ARGS -s $i &> $HTML_DIR/$HTML_LOG
# else
$TEST_FILE $TEST_ARGS -s $i -l $HTML_DIR/$HTML_LOG
```

Using and improving framework facilities

- Merging individual tests into Gilbert's perl main script
  - specify the inputs and the outputs with a dedicated test configuration file

    `/home/fchollet/TSTG/etc/config_tests/RB_config_test.conf`
  - import configuration

```
#!/usr/bin/perl -w
$ENV{EDG_TESTROOT} = "/home/fchollet/TSTG/edg-tests/v1.5";
## Import TST framework configuration file
&import("sh", "$ENV{EDG_TESTROOT}/etc/edg-test.conf");
## Import site configuration file
&import("sh", " "$ENV{EDG_TESTROOT}/test_site.conf");
```

  - launch test calling the proper parser

```
my $resRBCONF = `$ENV{EDG_TESTROOT}/sbin/HTML_0D_parser-script.sh -c
  /home/fchollet/TSTG/etc/config_tests/RB_config_test.conf`;
```

  - access the HTML report

```
exec "$ENV{EDG_TEST_WEBBROWSER} $ENV{HTML_DIR}&";
```

Integration issues of existing Install&Config tests

Running without being root :

- use of sudo on a per-host and per-command basis
  The user running tests must be a permitted user for a limited number
  - change userid and check environment of specific user: dguser
  - grep in protected file: /home/dguser/CondorG/etc/condor_config

- /etc/sudoers file needs to be modified by sys admin

```
[fchollet@lxshare0304]$ sudo -l
User fchollet may run the following commands on this host:
(root) NOPASSWD: /bin/su - [A-z]* -c /usr/bin/env
(root) NOPASSWD: !/bin/su - root -c /usr/bin/env
(root) NOPASSWD: /bin/grep
```

- 2 core functions has been added, checkUserEnv.sh modified

Integration issues of existing Install&Config tests

- UI, RB, CE Install and Config test running correctly when launched from UI
  - HTML outputs of tests run 2/5/2003 : UI, RB, CE
- COMMOM Security test :
  - part of the overall install and config testsuite
  - may be launched from UI on all machines of the cluster
  - To allow this
    - test configuration file has been modified
    - suggestion is made to enhance HTML_1D parser
  - HTML outputs of test run 2/5/2003 : Security

Collaborative tools

- bugs have been reported to EDG Bug Tracking system
  - http://marianne.in2p3.fr/datagrid/bugzilla/
  - product :Testsuite
  - bugs forwarded to E.Fede in charge of the dispatching

- cvs repository :
  - http://datagrid.in2p3.fr/cgi-bin/cvsweb.cgi/edg-tests/
  - TBD urgently : minimal TSTG SW chart
    - Fix the package structure
    - Tag the existing Generate a release
    - Be able to develop the packages against the release

LCG tools will be set up as well. Shall we use both ?

On going work

- foundations are there to go futher but..
- validation of tests contents requires an in-depth understanding of middleware components
  - EDG 1.4.x compliance
    EDG installation guide and IT-Team contact should help
    some tests require an update
  - missing verifications in existing tests, as well as reusable
  - redundancy between tests
  - missing tests for some middleware components
- test suites integration requires a clear understanding of
  - the goal and the contents of the needed test suites
  - the terminology we use
  - what exists
  - how it can be re-used
  - what is missing