



Test Suite: Status and Plans

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TSTG Targets



- TSTG is involved in 2 main areas
- Site Validation (I&C, up to Unit Testing for a rather limited site)
 - initial check of the install
 - check when changes occur
 - regular re-checking (daily checks) <- this precisely implies Unit Testing
 - filesystem full, memory exhaustion, DB full, list full, no more inodes
- M/W Certification (Functionalities, Robustness, Stress Testing)
 - Globus/Condor <- VDT developers
 - Unit Tests for subsystems <- EDG developers
 - Basic Functional Tests of components (services)
 - Basic Grid Functionalities, on a local TB, like the Cert TB
 - Full Grid Functionalities on a full TB, including remote sites
 - Beyond (HEPCAL and Exp. Beta Testing) is outside of TSTG scope



TSTG tasks



- It was made clear that:
 - Our role is to be Software developers/providers
 - One of our customers will be Cert TB people indeed
 - And another one is also EDG itself (on the Integration TB ?)
- We have to provide a tool which can be included into a regression suite for M/W certification
 - the major requirement being then **automated running**
 - no prompting
 - no passphrases



Current Testing S/W structure



- It reflects the 2 main targets indeed, and is including 2 different frameworks:
 - a Bash framework, which was initially mainly developed to target I&C tests
 - and therefore is associated to the Site Validation task
 - this part is intrusive: it requires some privileges to run on the target nodes
 - thru ssh, and more
 - a Perl one, which roughly covers now the Certification goal
 - much less intrusive by now
 - uses mainly EDG APIs as low level commands
- A Perl script driver is federating/unifying these 2 branches
 - allowing for a common CLI, making possible to include it in a regression test
 - presenting the results in a common fashion (HTML result array)



Priorities / Software Plan



- The following priorities were strongly suggested :
 - 1 Adapt/validate/migrate the **Existing Certification** tests to EDG 2.0
 - 2 Develop **Missing Certification** tests for EDG 2.0
 - 3 **Migrate Site Validation** tests to EDG 2.0

- Point 3 is clearly **delayed**, but must **NOT** be dropped
 - the I&C part is **frozen**, since the dismantling of the INFN test team (Dec03)
 - in fact we have no manpower for it
 - neither for developing the missing parts
 - nor for achieving the migration towards EDG 2.0

- Manpower issues
 - Current stable staff is **only 3 FTE** (2 CNRS+0.5*(2 IFAE))
 - We expected 3 more members from IFAE (forget about it)
 - We now have 3 more part-time people from Russia (3 months each)
 - we expect them to be diving into R-GMA I&C and/or Unit Testing



Deliverable issues



- Until now, we tried to have **tarball** deliveries once a week or so
 - providing a relocatable tree of subdirs
- Rather new:
 - everything is stored into the EDG **CVS** repository, into 2 CVS modules
 - 1 edg-tests
 - 2 edg-site-certification
 - a rather simple procedure was designed to install them side by side
 - an automated script is well under way for producing **Tarball + RPMs**
 - although this does not seem to be required
- The release style should be "Release Soon, Release Often", and we will try to achieve a release every other week at least (with strong suggestion to achieve it every week in fact).



The different kinds of Tests



- **Watch out:** several test names are currently far from meaningful

- **CEGate2:** Globus Gatekeeper Unit Testing (CEs) WORKS ?
 - 6 tests achieved on each node
 - **FTP:** GridFTP functionality tests (RB, CEs, SEs) WORKS
 - **DNS:** reverse DNS Tests (RB, CEs, SEs, MDS, PX) WORKS
 - **RB:** Functionality tests for RB (Unit testing) WORKS
 - it's a suite of 6 small jobs submitted through JDL files Migrated
 - CheckVOVars added recently
 - **SESetup:** Checkup of SE setup (SEs)
 - **RMSetup:** Checkup of RM setup (SEs, RC), for EDG-1.1.2 Not migrated
 - **JStorm:** Job Storm (All components, Global & Stress testing) Not migrated
 - Simple jobs with InpOut sandbox transfers, and check of output
 - **CStorm:** Copy Storm (All components, Global & Stress testing) Migrated
 - Achieves above GridFTP tests from jobs submitted to the RB
 - **RStorm:** Replica Storm (All components, Global & Stress testing) Migrated
 - Achieves above Replica Manager tests from jobs submitted to the RB
- Not migrated



The different kinds of Tests (2)



- **MDS**: Consistency tests for MDS + BDII (2 tests in serie) **Not tested**
- **ProXyf**: Security Test for RB (stealing proxies - better if failing) **WORKS**
- **SEs**: GridFTPUMask checks for Ses
 - GridFTPClient added recently **Not tested**
- **RLS**: a suite of 5 tests provided by Cal for EDG-2.0 RLS/RM **Not migrated**

- Next 4 I&C tests are intrusive:
 - **CEfch2**: Install&Config + Security tests **Not migrated**
 - **RBfch2**: Install&Config + Security tests for RB
 - **UIfch2**: Install&Config + Security tests for UI
 - **SECfch**: Global Security tests (RB, CE, SEs, UI)
 - overlaps somewhat with above 3 tests

- Near future:
 - **RMSuite**: merging of GM/MB RM suite
 - **Andrea's Storm**

Not migrated



The different available Options



- . MainScript --TList="test" (default: DNS)
 - test = CEGate2 FTP DNS RB SESetup RMSetup JStorm CStorm Rstorm
 - also: MDS ProXyf SEs SEcfch CEfch2 RBfch2 UIfch2
- . MainScript --TGroup="bundleName" :
 - To select a bundle of tests.
- . "MainScript --help" :
 - Prints this README file, plus the full option List.
- . "MainScript --MDebug" :
 - Prints some Environment Variable values from inside the MainScript.
- . "MainScript --TList="test" --fullHelp" :
 - To Force printing of a detailed Help about the selected Tests
 - in addition to a detailed list of the commands required in each test
- . "MainScript --TList="test" --showME" :
 - To Force printing of option values and machine names for the selected Tests.
- --[insert|erase|replace][T|P]Conf :
 - transient/permanent modification of the TB site configuration file



The different Options (2)



- . MainScript --TList="test" --addOptionList="--opt1=val1 --opt2=val2 ..."
 - To Provide a list of additionnal Options to the Tests to be achieved.
- . MainScript --TList="test" --forceMachineList="node1 node2"
 - To Provide a list of Machines to be used in the tests, overriding the default
- . MainScript --TList="test" --addMachineList="node1 node2 ..."
 - To Provide a list of Machines to be used in the tests, adding them to the default ones
- . MainScript --TList="test" --forcingVO="otherVO"
 - To Force a VO other than "tstg". Useful in a few tests only.
- . MainScript --TList="test" --forcingTB="otherTB"
 - To Force a TB other than "tstgTB". Useful everywhere.
- . MainScript --TList="test" --glueSchema
 - To Force using GLUE schema when selecting CEs. Useful in a few tests only.
- . MainScript --TList="test" --forceSubItem="somevalue"
 - To Force execution of only one subitem of the selected. Useful in a few tests only.

- Can use [showME](#) with some/all of the above
 - could be a smart way to figure out their actual action
- All above options can be used together
- Their usefulness is NOT guaranteed for all tests



Visible Future



- We really need to develop Unit Testing, with the help of WPs M/W developers and teams
- But also restart migrating/developing I&C tests
- The scope is currently
 - Globus/CondorG: VDT testers should provide us with Unit Tests
 - Frédérique is evaluating a Globus 2.2.4 Testing Suite: under way
 - RB: WP1/WMS Unit Tests: Andrea Guarini
 - R-GMA: Install&Config + Unit Tests: Elena Slabopitskaya (+ S. Fisher ?)
 - VOMS: Install&Config + Unit Tests
 - NMON: Install&Config + Unit Tests (F. Bonnassieux ?)
 - New SE: (Install&Config) + Unit Tests: Regina Tam
 - SRM: Unit Tests: (P. Kunszt ?)
 - Proxy Server: Unit Tests:
 - RLS: Install&Config



« Criteria for Cutting 2.0 » Testing



- Currently ability of the TSTG Test Suite to be used ?
- Job Submission task
 - Blocks of 50 minimal jobs: ready **JobStorm**
 - Block of 250 long jobs: ready **JobStorm**
 - Block of 5 jobs w/ I/O sandbox: ready **JobStorm**
- Data Management with replication and access to MSS
 - Upload and Register: Ready
 - Replicate to MSS: nothing ready **RMSetup, needs migration**
 - Register Storm: almost ready
- Proxy renewal
 - Almost ready: but needs hints about how to register a proxy to the PX **RepStorm**
- Matchmaking **JobStorm**
 - Not ready
- **Warning**: may be not possible to tests this for multiple VOs