Partner Logo

Title

Subtitle

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Replica Management Tests

- Goal is ensure correct behaviour of RM utils
- Can be used in middleware certification:
  - RMRepCycle_full
  - RMRepStorm
- and site validation:
  - RMRepCycle
  - RMRepCycle_alt
  - RMRepCycle_mss

RM::RMRepCycle

- It covers the most usual replication cycle
  - copyAndRegisterFile
  - replicateFile
  - deleteFile
  - listReplicas

- RC queries and file integrity checks performed to ensure the operations were performed correctly

RM::RMRepCycle_mss

- Same as before, but forces a MSS capable SE to retrieve the file from the MSS.
  - copyAndRegisterFile
  - replicateFile
  - deleteFile
  - listReplicas
- RC queries and file integrity checks performed to ensure the operations were performed correctly

RM::RMRepCycle_alt

- It uses alternative commands to perform a replica operation:
  - copyFile
  - registerEntry
  - unregisterEntry
  - replicateFile
  - Edg-replica-manager(ls,cd,pwd,cat)
- The operations are also verified
- It was intended to use getBestFile but could not figure the way it works (if it does).

RM::RMRepCycle_full

- Performs a more complex test involving all RM utilities (excluding getBestFile and rcDump)
- It is slower, useful for MW certification / site validation, but not to be run often

RM::RMRepStorm

- Destructive test, designed to be "bad", trying things like:
  - Fill the disk on SE
  - Reach the maximum parallel file transfer
  - Reach the maximum parallel streams
  - Overcome the RC
- On the design table by now.
- Cannot test it in a production environment (dangerous!)

RCIntegrityCheck (or RCConsistencyCheck)

- Checks for the files registered on a RC
- Tries to locate all the registered replicas on the corresponding SE
- Verifies all replicas are actually the same (CRC check)
- It checks RC consistency, but does not start any corrective action.

```
BaseTest: setContext
RCIntegrityCheck: setContext
BaseTest: checkArguments
BaseTest: setDefaults
BaseTest: checkPrerequisites
BaseTest: setupTest
RCIntegrityCheck: runTest
ENTERING DIR: edg_testing/
edg_testing/dummy_file_RM.030310122347: No replicas for that file
edg_testing/dummy_file_RM.030322172136: No replicas for that file
edg_testing/dummy_file_RM.030322185501: No replicas for that file
edg_testing/dummy_file_RM.030324123414: No replicas for that file
edg_testing/dummy_file_RM.030409153747: No replicas for that file
EssentialJobData.txt: [OK]
cmkin.err.030422095838: Replica not found on tuber6.phy.bris.ac.uk
cmkin.err.030422100035: Replica not found on tuber6.phy.bris.ac.uk
cmkin.err.030422103128: Replica not found on se010.fzk.de
cmkin.err.030422105659: Replica not found on se010.fzk.de
cmkin.err.030422105725: Replica not found on se010.fzk.de
cmkin.err.030422105853: [OK]
cmkin.err.030423092001: [OK]
```