DPM Python tools

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Introduction

- Dmlite Shell

- Dpm-listspaces

- Webdav interface of DPM Endpoints

Dmlite Shell

- Shell to administrate DMLite
- Made for admins and developers, not for users
- You can manage directories, files, replicas, pools, users, groups, ... (41 commands)
- A few commands are still to be done:
  - Filesystem related commands
  - Space related commands
  - Replicate and drain commands
- Now integrated to the core of dmlite

Dpm-listspaces

- Script to populate the GLUE BDIIs (1.3 and 2) with the informations of each DPM site

- Lots of improvements in DPM 1.8.8 and 1.8.9:
  - Correction of wrong capacity numbers
  - Correction of bugs to send correct information
  - Addition of new elements (version number, some GLUE2EndpointInterface added, …)

- Patchwork of fixes which need to be supervised (specially for the capacity numbers)

Webdav interface of DPM Endpoints

- 128 DPM Endpoints with a Webdav interface are registered in GLUE2.0.

- Tests made as a dteam user from CERN:
  - Reading access: ~40 out of 128 work
  - Writing access: ~25 out of 128 work

- It is necessary to improve this situation.

Testing Webdav access of an endpoint

- Nagios probe developed and sent to the SAM instance of EGI

- Internal web interface to list all the results from the tests on all the grid storage endpoints

- Please, test with a HTTP client from lxplus:

  davix-put -P grid /etc/services https://test.example.com:443/dpm/example.com/home/dteam/test

  davix-ls -P grid https://test.example.com:443/dpm/example.com/home/dteam/

Common errors to access to an endpoint through Webdav

- **HTTP server not running or firewall trouble:**
  - **Could not connect to server**
  - **Connection timed out**

- Wrong SSL configuration:
  - Neon error: SSL handshake failed: SSL error: sslv3 alert certificate expired
  - Neon error: Server certificate verification failed: certificate has expired, issuer is not trusted
  - Neon error: SSL handshake failed: SSL error: certificate verify failed

- Server misconfiguration:
  - HTTP 500: Unexcepted Server Error.

- Non-standard path:
  - HTTP 404: File not found.

- Wrong VOMS configuration:
  - HTTP 403: Permission refused.

Summary

- Dmlite Shell is a powerful tool to manage Dmlite for administrators

- Dpm-listspaces got a lot of updates recently and needs to be supervised

- ~20% of the DPM Endpoints have a Webdav interface correctly working and we need to improve this