SRM-less operation

Petr Vokáč

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DPM Upgrade

Not finished with SRM
(SRM is part of legacy stack)

SRM-less operation

- New storage implementation doesn't implement SRM
  - some VO never used / relied on SRM
  - VO must adapt infrastructure
  - not difficult for (gfal) transfers
    - SRM is used together with GridFTP
    - can be replaced with pure gsiftp location
      - requires GridFTP redirection enabled on DPM
  - SRM used to provide additional information
    - storage space reporting → WLCG SSR (dpm-storage-summary.py)
    - list of available spacetokens → WLCG SSR
    - data for BDII (dpm-listspaces) → dome-info-provider.py
    - still not sufficient info for VO (e.g. consistency checks) → dpm-dump
- SRM is still necessary for tapes
  - CTA frontend provides access via xrootd
  - migration will take a time → can't completely get rid of SRM now

ATLAS

- Already using non-SRM endpoints
  - ECHO – never had SRM
  - EOS ATLAS – replaced TPC in 2018, SRM removed in 2019
  - SLACXRD, NERSC, …
- SRM configured mostly for TPC
- Rucio configured through AGIS (CRIC predecessor)
  - protocol configuration (e.g. example)
  - SE storage summary configuration (e.g. example)
  - changes made in AGIS picked by Rucio daemons within an hour
    - running configuration available via Rucio-UI or CLI
      rucio-admin rse info PRAGUELCG2_DATADISK
  - srm:// and gsiftp:// – same TPC group within Rucio
- Same applies to other Rucio users (CMS, DUNE, …)
  - except configuration interface can be different

ATLAS – AGIS – protocol config

ATLAS Grid Information System

RC Site   ATLASSite   DDMEndpoint   PANDA Queue   Service   Central Services   DDM Groups   Ser

Service

Name: praguelcg2_SE_0	Site.state: ACTIVE	State: ACTIVE
Type: SE	Last modified: 2017-12-05 14:06	State updated: *Not set*
Site: praguelcg2	Implementation:	State comment: Migrated from old SE golias100.farm.particle.cz
is_new: True		Description: golias100.farm.particle.cz

Associated Protocols

Name	Flavour	Endpoint	Basepath	State	Status	Activities
praguelcg2-SE-WEBDAV-golias100.farm.particle.cz	WEBDAV	davs://golias100.farm.particle.cz:443		ACTIVE	production	delete_wan/0, read_wan/3, third_party_copy/3, write_wan/3
praguelcg2-SE-GRIDFTP-golias100.farm.particle.cz	GRIDFTP	gsiftp://golias100.farm.particle.cz:2811		ACTIVE	production	delete_wan/1, read_wan/0, third_party_copy/0, write_wan/0
praguelcg2-SE-XROOTD-golias100.farm.particle.cz	XROOTD	root://golias100.farm.particle.cz:1094	/	ACTIVE	production	read_lan/0, read_wan/2, third_party_copy/2, write_lan/0, write_wan/2
praguelcg2-SE-SRM-golias100.farm.particle.cz	SRM	srm://golias100.farm.particle.cz:8446 /srm/managerv2?SFN=		ACTIVE	production	delete_wan/2, read_lan/1, read_wan/1, third_party_copy/1, write_wan/1

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ATLAS – AGIS – storage config

ATLAS Grid Information System

RC Site   ATLASSite   DDMEndpoint   PANDA Queue   Service   Central Services   DDM Gro

DDM endpoint info

Operations: Clone object [new RSE form]

Name:	PRAGUELCG2_DATADISK
Type:	DATADISK
Token:	ATLASDATADISK
Phys Group:	
Is Rucio enabled:	No
Domain:	(?=.*golias100.farm.particle.cz.*/atlasdatadisk/.*)(?=^(?!.*atlasdatadisk/ruciotest).*$)
mkdir:	No
Is cache:	No
Is Deterministic:	Yes
Is Volatile:	No
Space method:	storage
Space Usage:	davs://golias100.farm.particle.cz/dpm/farm.particle.cz/home/SSR/storagesummary.json
Tape:	No
Pledged:	No

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ATLAS – Rucio config

```
Protocols:
==========
  davs
    extended_attributes: None
    hostname: golias100.farm.particle.cz
    prefix: /dpm/farm.particle.cz/home/atlas/atlasdatadisk/rucio/
    domains: {u'wan': {u'read': 4, u'write': 4, u'third_party_copy': 4, u'delete': 1}, u'lan': {u'read': 0,
u'write': 0, u'delete': 1}}
    scheme: davs
    port: 443
    impl: rucio.rse.protocols.gfal.Default
  gsiftp
    extended_attributes: None
    hostname: golias100.farm.particle.cz
    prefix: /dpm/farm.particle.cz/home/atlas/atlasdatadisk/rucio/
    domains: {u'wan': {u'read': 1, u'write': 1, u'third_party_copy': 1, u'delete': 2}, u'lan': {u'read': 0,
u'write': 0, u'delete': 2}}
    scheme: gsiftp
    port: 2811
    impl: rucio.rse.protocols.gfal.Default
  root
    extended_attributes: None
    hostname: golias100.farm.particle.cz
    prefix: //dpm/farm.particle.cz/home/atlas/atlasdatadisk/rucio/
    domains: {u'wan': {u'read': 3, u'write': 3, u'third_party_copy': 3, u'delete': 0}, u'lan': {u'read': 1,
u'write': 1, u'delete': 0}}
    scheme: root
    port: 1094
    impl: rucio.rse.protocols.gfal.Default
  srm
    extended_attributes: {u'space_token': u'ATLASDATADISK', u'web_service_path': u'/srm/managerv2?SFN='}
    hostname: golias100.farm.particle.cz
    prefix: /dpm/farm.particle.cz/home/atlas/atlasdatadisk/rucio/
    domains: {u'wan': {u'read': 2, u'write': 2, u'third_party_copy': 2, u'delete': 3}, u'lan': {u'read': 2,
u'write': 0, u'delete': 3}}
    scheme: srm
    port: 8446
    impl: rucio.rse.protocols.gfal.Default
```

Other VO

- Auger
  - all new data managed with DIRAC
  - older files registered in LFC
    - SRM path
    - no migration plan from LFC to DIRAC catalog
      - data gets rarely used → will be dropped in future
      - too much work with migration and questionable results (rely on full path)
- CTA
  - use DIRAC including their DFC catalog
  - protocol independent catalog
    - configurable
    - doesn't support multiple protocols per activity

- DIRAC – much greater variability
  - integration with external catalogs

BACKUP