

DOMA TPC

A. Forti

DPM workshop

14 June 2019



TPC Phase 2

- Third Party Copy (TPC) WLCG working group setup at Chep2018 to evaluate and put in production TPC protocols alternative to gridftp.
 - 3 phases
 - Phase 1 test and iron out problems between storages
 - Phase 2 early deployment on larger sites end of June 2019
 - Phase 3 complete deployment by the end of 2019
- Phase 2 (deadline 30 June 2019): All sites providing more than 3PB of storage to WLCG experiments are required to have one non-GridFTP endpoint in production.
 - All sites have non-GridFTP endpoints used for transfers and other activities
 - xrootd
 - http(s)
 - Not used for TPC yet

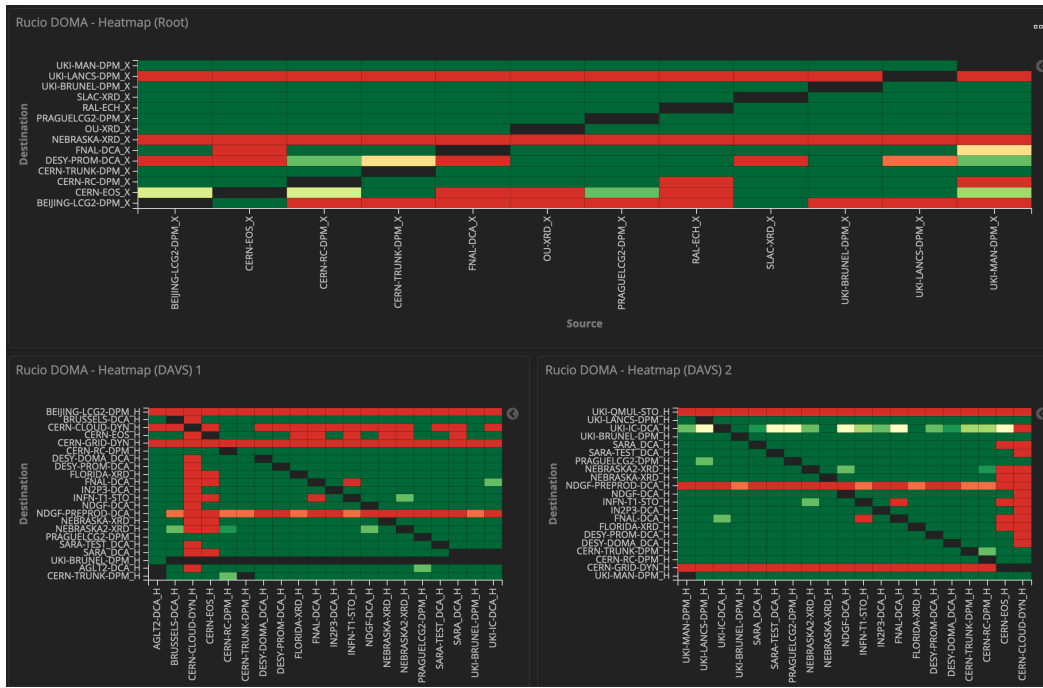


DOMA Tests

- Http smoke tests
 - Run once a day very detailed tests to pinpoint the exact problem of why the transfer might be failing
 - Push/pull
 - Capture detail diagnostic
 - Sys admins can run them manually to see the effect of changes
 - Xrootd version being worked on
- Rucio functional tests
 - Any site that asks to participate http/xrootd



DOMA tests



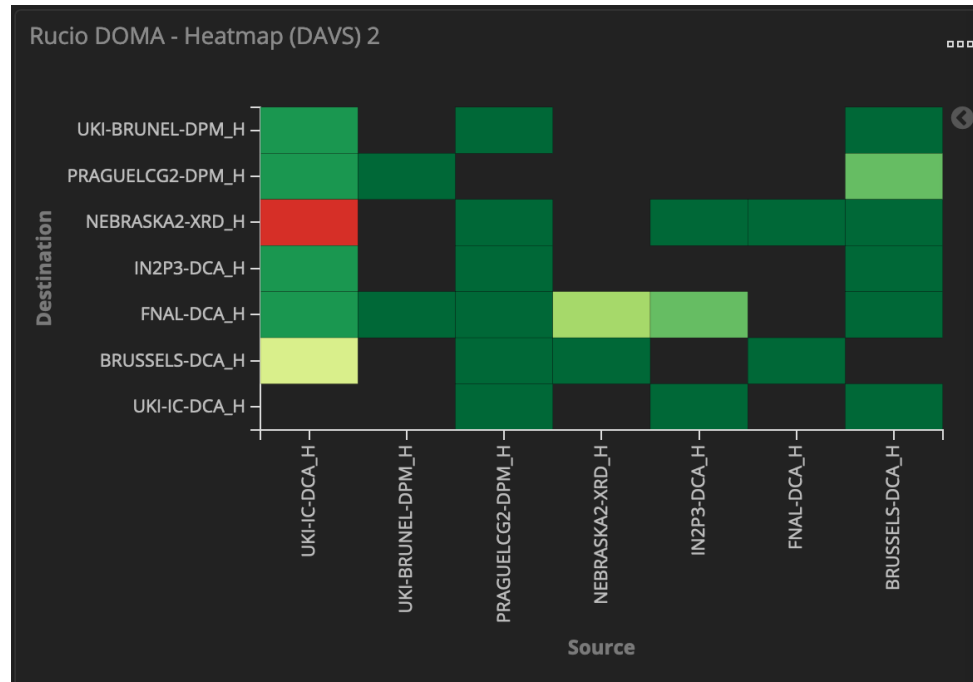
- >25 sites participating to the http functional tests
 - Hit a limit with kibana
- Xrootd is taking off now has less sites
 - 7/14 sites have DPM

- Error pattern indicates problems are mostly the sites rather than protocol.

- Either standard problems or configuration ones



DOMA stress tests



- Stress tests
 - For http since January
 - >500TB / week across participating sites
 - Adapting now for xrootd too



Extending to experiments

- CMS can add already non-gridftp protocols for TPC to phedex
- ATLAS needs development in rucio
 - Rucio feature to handle sites with different TPC protocols preferences in AGIS is under development
 - Setting up stress tests in ATLAS
 - For now tests protocol is hardcoded (both http, xrootd)
 - Not yet “stressing”

	AGLT2_SCRATCHDISK	AUSTRALIA-ATLAS_SCRATCHDISK	BNL-OSG2_SCRATCHDISK	CA-VICTORIA-WESTGRID-T2_SCRATCHDISK	CERN-PROD_SCRATCHDISK	DESY-HH_SCRATCHDISK	UNI-BONN_LOCALGROUPDISK
AGLT2_SCRATCHDISK	-	100%	-	100%	100%	100%	100%
AUSTRALIA-ATLAS_SCRATCHDISK	0%	-	0%	0%	0%	0%	0%
BNL-OSG2_SCRATCHDISK	-	100%	-	100%	100%	75%	100%
CA-VICTORIA-WESTGRID-T2_SCRATCHDISK	100%	100%	100%	-	100%	0%	100%
CERN-PROD_SCRATCHDISK	0%	0%	0%	0%	-	0%	0%
DESY-HH_SCRATCHDISK	0%	0%	0%	0%	0%	-	0%
PRAGUELCG2_SCRATCHDISK	0%	0%	0%	0%	0%	0%	-
UKI-NORTHGRID-MAN-HEP_SCRATCHDISK	100%	100%	100%	100%	83%	83%	100%
UNI-BONN_LOCALGROUPDISK	100%	67%	0%	0%	0%	50%	100%



Policies

- For functional tests we will keep on adding sites that want to participate
 - However feeling that some sites are not proactive in fixing problems
 - Universal truth sites have to be chased but now we will give them a week to solve the problem if it can be solved otherwise they will be dropped
 - Testbeds welcome
- For scale tests
 - We need production sites
 - For this phase large sites
 - They'll need to upgrade to the latest releases of their storages to support all the functionalities
- ATLAS and CMS can add sites too but again need baseline



What is needed

- To participate to the effort baseline releases
 - DPM: 1.12.0
 - Xrootd: 4.9.1
- Features
 - Authorization
 - Xrootd: delegation
 - user proxy rather than servers or robot proxies
 - Http: tokens
 - Checksums
- Legacy or DOME?
 - For functional tests legacy is ok though not very useful
 - For stress tests you need to be DOME'd



More sites

- We since March we have added a number of extra sites particularly to the functional tests
 - We need more production sites willing to upgrade to the baseline and enable the required features
 - Particularly DPM sites, for which there is already a WLCG organised TF sites can refer to.

