

GridPP mini-DCs

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Jisc perspective

We build and operate Janet to support our members and customers.

The network backbone runs at up to 800 Gbps, with growth up to 1.2 Tbps on some links coming in the near future.

We want to be ready for the LHC-HL phase in 2028/29, thus these advance tests are very useful for us, as are the GridPP forward looks

But we also have members and customers who need Janet to be reliable and the usual quality that they expect - therefore we need to consider the impact of test traffic on them

mini-DC traffic - T2 tests in December

We understand the T2 tests will generally be at the level of DC24, so 20-30 Gbps for the T2 sites

We don't expect problems from this - there weren't in DC24

There is also a 'stretch goal' to exercise the 100G links and connectivity more

The question here is on timing of the tests, will they be concurrent? And between which sites? We can then model the traffic over our links to check potential congestion points

We believe each 100G site uses one 100G link for science (GridPP) and one for campus traffic. Manchester has an internal 40G cap. The Janet pieces to upgrade Glasgow to 100G are in place.

Campus IT teams (and Jisc RMs) at each site need to be aware of the test schedule

mini-DC tests - T1 traffic in February

We presume the T1 tests will use LHCOPN and some LHCONE capacity

The GÉANT peering is now 400G resilient - any LHCONE traffic will be carried over that along with general R&E traffic

An estimate of volumes for the T1 phase will be helpful

Is it just CERN to T1, or T1 on to certain T2s?

Other topics

We can assist with testing / configuration of 9000 MTU where needed

It would be good if the per-site ingress/egress monitoring made available for DC24 for many sites (~50 worldwide) were in place and accessible for the mini-DC tests

We should alert Janet-CSIRT about the test schedule; they keep an eye on larger than usual flows

Our new Grafana-based UK perfSONAR test mesh may be useful - <https://ps-mesh.perf.ja.net/grafana/d/aa15bb77-25d6-53d1-b3c7-bf51b6417afa/jisc-uk-tests?orgId=1>