

Data transfer challenge: sending data at 400Gbps from CERN to NL-T1

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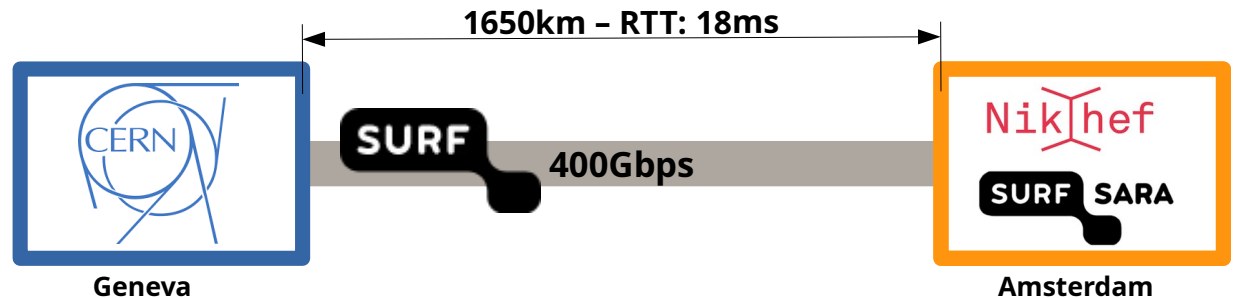


Some fact and observation

SURF (Dutch NREN) will provision a 400Gbps link between CERN and Science Park in Amsterdam. It will be delivered by the end of March 2020

The link can be easily used to connect the CERN Tier0 to the SARA/NIKHEF Tier1 (NL-T1)

Data transfer test of 20TB from CERN to NL-T1 didn't fill the existing 100Gbps (test for NOTED project)



The project

Generate a large data transfer between CERN and NL-T1 to:

- validate the 400Gbps link
- stress test file transfer services (FTS, EOS) and the necessary hardware and infrastructure (storage elements, network...)

Support

Participation confirmed by SARA and NIKHEF. Some improvements needed in their local network to support full 400Gbps.

Support confirmed by SURFnet. They should provide a temporary 100Gbps link before the 400Gbps will arrive, to pre-test the full-chain of network equipment (TBC in the coming days)

Support confirmed by CERN IT for FTS, EOS and servers. New servers with 100Gbps NICs will also be used.

Plan

Second half of March 2020: pre-test with 100Gbps GVA-AMS link (or NL-T1 LHCOPN link)

End of April 2020: full test with 400Gbps GVA-AMS link

Questions?

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