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The NOTED software tool-set enables improved exploitation of WAN bandwidth for Rucio data transfers via FTS

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We describe the software tool-set being implemented in the contest of the NOTED [1] project to better exploit WAN bandwidth for Rucio and FTS data transfers, how it has been developed and the results obtained.

The first component is a generic data-transfer broker that interfaces with Rucio and FTS. It identifies data transfers for which network reconfiguration is both possible and beneficial, translates the Rucio and FTS information into parameters that can be used by network controllers and makes these available via a public interface.

The second component is a network controller that, based on the parameters provided by the transfer broker, decides which actions to apply to improve the path for a given transfer.

Unlike the transfer-broker, the network controller described here is tailored to the CERN network as it has to choose the appropriate action given the network configuration and protocols used at CERN. However, this network controller can easily be used as a model for site-specific implementations elsewhere.

The paper describes the design and the implementation of the two tools, the tests performed and the results obtained. It also analyses how the tool-set could be used for WLCG in the contest of the DOMA [2] activity.

[1] Network Optimisation for Transport of Experimental Data - CERN project
[2] Data Organisation, Management and Access - WLCG activity

Consider for promotion

No

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