

## **NOTED: a framework to optimise network traffic via the analysis of data from File Transfer Services**

*Tuesday, 18 May 2021 15:26 (13 minutes)*

Network traffic optimisation is difficult as the load is by nature dynamic and random. However, the increased usage of file transfer services may help the detection of future loads and the prediction of their expected duration. The NOTED project seeks to do exactly this and to dynamically adapt network topology to deliver improved bandwidth for users of such services. This article introduces, and explains the features of, the two main components of NOTED, the Transfer Broker and the Network Intelligence component.

The Transfer Broker analyses all queued and on-going FTS transfers, producing a traffic report which can be used by network controllers. Based on this report and its knowledge of the network topology and routing, the Network Intelligence (NI) component makes decisions as to when a network reconfiguration could be beneficial. Any Software Defined Network controller can then apply these decision to the network, so optimising transfer execution time and reducing operating costs.

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**Session Classification:** Facilities and Networks

**Track Classification:** Distributed Computing, Data Management and Facilities