

Access to user data via HTTP and HTTPS

Thursday 10 May 2007 11:20 (20 minutes)

Describe the scientific/technical community and the scientific/technical activity using (planning to use) the EGEE infrastructure. A high-level description is needed (neither a detailed specialist report nor a list of references).

Report on the experience (or the proposed activity). It would be very important to mention key services which are essential for the success of your activity on the EGEE infrastructure.

With a forward look to future evolution, discuss the issues you have encountered (or that you expect) in using the EGEE infrastructure. Wherever possible, point out the experience limitations (both in terms of existing services or missing functionality)

Describe the added value of the Grid for the scientific/technical activity you (plan to) do on the Grid. This should include the scale of the activity and of the potential user community and the relevance for other scientific or business applications

We describe the advantages of HTTP and HTTPS as data transfer protocols for users of grid environments, with particular reference to GridFTP, concentrating on the widespread support for the HTTP protocol in all languages, the robustness and maturity of their implementations, the straightforward way in which X.509, GSI and VOMS security credentials may be transmitted via HTTPS, and the existing support for read/write access, transfer continuation, third-party transfers, and multistream data flows

which are implicit in the HTTP(S) IETF standards and common implementations. In addition, we discuss how the GridSite/Apache framework which is used by EGEE for some web services can also support data transfers, and the ease with which users can share data in ad-hoc or dynamic groups on the Grid using these tools. Finally, we present new comparisons of the performance of HTTP and other data transfer protocols across the production network.

Primary authors: Dr MCNAB, Andrew (UNIVERSITY OF MANCHESTER); Dr LI, Yibiao (UNIVERSITY OF MANCHESTER)

Presenter: Dr MCNAB, Andrew (UNIVERSITY OF MANCHESTER)

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