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Third-party transfers in WLCG using HTTP

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Since its earliest days, the Worldwide LHC Computational Grid (WLCG) has relied on GridFTP to transfer data between sites. The announcement that Globus is dropping support of its open source Globus Toolkit (GT), which forms the basis for several FTP client and servers, has created an opportunity to reevaluate the use of FTP. HTTP-TPC, an extension to HTTP compatible with WebDAV, has arisen as a strong contender for an alternative approach.

In this paper, we describe the HTTP-TPC protocol itself, along with the current status of its support in different implementations, and the interoperability testing done within the WLCG DOMA working group's TPC activity. This protocol also provides the first real use-case for token-based authorisation. We will demonstrate the benefits of such authorisation by showing how it allows HTTP-TPC to support new technologies (such as OAuth, OpenID Connect, Macaroons and SciTokens) without changing the protocol. We will also discuss the next steps for HTTP-TPC, improving documentation and plans to use the protocol for WLCG transfers.

Consider for promotion

No

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