EOS workshop



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HTTP(S) based APIs for EOS

Tuesday 5 February 2019 14:00 (15 minutes)

EOS is built on the XRootD framework and XRootD protocol. To provide HTTP protocol for data access (DAV) and metadata access (DAV, REST) libmicrohttpd has been added to the FST and MGM daemons. libmicrohttpd runs a separate threadpool and event loop and limits the request rate to ~100 Hz. In the recent past XRootD got a native HTTP protocol bridge (XrdHttp) which shares the same thread pool as XRootD protocol and scales better in terms of request/s. This presentation will explain how XrdHttp can be integrated to enable HTTP and HTTPS protocol out of the box bridging two APIs without rewriting the dedicated protocol handlers for DAV and CERNBOX (Owncloud) protocols.

A second add-on to the protocols is GRPC, which is a widely accepted standard to implement REST apis with synchronous and asynchronous IO. Both protocol extensions are currently in separate development branches but can be added to the next major release of EOS.

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