EOS HTTP TPC status

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on behalf of the **EOS team**

A bit of context …

- **EOS** uses plugins from vanilla XRootD to provide HTTP and HTTP TPC support
    - **XrdHttp** – base HTTP
    - **XrdTpc** – HTTP TPC
    - **XrdMacaroons** – Macaroons support
    - **XrdSciTokens** – SciTokens/WLCG JWT support

- Production release **EOS 4.8.25** based on **XRootD 4.12.5**

- Expect move to **XRootD5** in Q1 2021

EOS instances status

- **EOSATLAS**
  - 4.8.25 based on XRootD 4.12.5
  - Ongoing tests and issues discovered by Petr V.

- **EOSLHCb**
  - 4.8.25 based on XRootD 4.12.5
  - Tests are ongoing with experiment representatives

- **EOSCMS**
  - 4.8.25 based on XRootD 4.12.5
  - Not aware of anyone using this (HTTP/TPC) functionality for the moment

Past/present items (1)

- **XrdHttp** handle proxy, multi-proxy certificates in the presence of gridmap-file
    - Discovered in EOSATLAS which heavily uses this functionality
    - Fixed 4.12.4 (3rd of September)

- **XrdHttp** looping requests when handling large/incomplete headers
    - Discovered in EOSATLAS in production since it was affecting the performance of the instance
    - Triggered by a Storm endpoint
    - Finally fixed in 4.12.5 (16th of October)

Past/present items (2)

- **XrdTpc** does not encode redirection URLs
  - Discovered in EOSATLAS by Petr V.
  - Fixed in 4.12.5

- **XrdTpc** Pull race condition when querying for checksum
  - Issue discovered by Petr V.
  - Fixed in the master branch
  - Will there be a backport to 4.12.* branch?

- **XrdSciTokens** needs to be updated to support group-based authorization
  - Item on the EOS team – to be addressed soon

Future items

- Integrate and test WLCG group-based authorization in EOS

- Test and adapt the current stack of plugins wrt. to **XRootD5**

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