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## Beyond X.509: token-based authentication and authorization in practice

*Thursday, 7 November 2019 11:30 (15 minutes)*

One of the key challenges identified by the HEP R&D roadmap for software and computing is the ability to integrate heterogeneous resources in support of the computing needs of HL-LHC. In order to meet this objective, a flexible Authentication and Authorization Infrastructure (AAI) has to be in place, to allow the secure composition of computing and storage resources provisioned across heterogeneous providers (e.g., Grid, private and commercial Clouds, HPC centers).

At CHEP 2018, we presented how a flexible AAI based on modern, standard Web technologies (OpenID Connect, OAuth and JSON Web Tokens (JWTs)) and centered on the INDIGO Identity and Access Management (IAM) service could support the transition of the WLCG infrastructure to a token-based AAI. In the meanwhile, INDIGO IAM has been selected by the WLCG Management Board as the solution that will be adopted by LHC experiments, and is also at the core of the AAI envisioned to support the computing needs of the ESCAPE project.

In this contribution, which represents a follow up to last-year plenary talk, we describe the work done in the past year on the IAM service, discussing the results of the initial integration activities with key middleware components for data management and computing (StoRM, dCache, DPM, XRootD, RUCIO, HTCondor). We also discuss how relevant standardization efforts (e.g., the WLCG Authorization WG activities and AARC) and emerging requirements from other communities are driving the IAM evolution agenda.

### Consider for promotion

Yes

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