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The WLCG Authorisation Working Group formed in July 2017 with the objective to understand and meet the needs of a future-looking Authentication and Authorisation Infrastructure (AAI) for WLCG experiments. Much has changed since the early 2000s when X.509 certificates presented the most suitable choice for authorisation within the grid; progress in token based authorisation and identity federation has provided an interesting alternative with notable advantages in usability and compatibility with external (commercial) partners. The need for interoperability in this new model is paramount as infrastructures and research communities become increasingly interdependent.

Over the past two years, the Working Group has made significant steps towards identifying a system to meet the technical needs highlighted by the community during staged requirements gathering activities. Enhancement work has been possible thanks to externally funded projects, allowing existing AAI solutions to be adapted to our needs. A cornerstone of the infrastructure is the reliance on a common token schema in line with evolving standards and best practices, allowing for maximum compatibility and easy cooperation with peer infrastructures and services.

We will present the work of the group and an analysis of the anticipated changes in authorisation model by moving from X.509 to token based authorisation. A concrete example of token integration in Rucio, FTS and storage (dCache and StoRM) will be discussed.