

Project Summary/Abstract

CILogon-HA: Higher Assurance Federated Identities for DOE Science PI: James Basney, University of Illinois at Urbana-Champaign

The proposed activity, “CILogon-HA: Higher Assurance Federated Identities for DOE Science”, aims to extend CILogon (developed with funding from the National Science Foundation) to provide higher assurance credentials to users of DOE facilities for collaborative science. CILogon-HA leverages the InCommon identity federation’s assurance program, officially launched in February 2012, to translate higher assurance university credentials to internationally recognized certificates (through the International Grid Trust Federation). This approach is compatible with the DOE Public Key Infrastructure (PKI) and Grid Security Infrastructure (GSI), used by Open Science Grid, LHC Computing Grid, Earth System Grid, and many others, as described in the December 2011 Scientific Collaborations for Extreme-Scale Science workshop report. By leveraging the universities’ identity management services and the users’ existing high quality university identities, CILogon-HA eliminates the need for a separate identity vetting and credentialing process for scientific applications. CILogon-HA engages with the DOE Science Identity Federation participants to encourage continued growth in adoption of federated identities for collaborative science.

The CILogon-HA project combines technology development with community leadership and outreach, to share best practices and lessons learned and to encourage adoption of available federated identities for DOE science. The project provides a high assurance extension of the existing CILogon service, which bridges from university identities to PKI/GSI as needed for access to existing collaborative science environments. The project also encourages broader adoption of the InCommon assurance program and promotes use of a variety of standards-compliant federated identity and multi-factor authentication technologies (including commercially provided options). Additionally, the project develops international standards for higher assurance federated identities to support international scientific collaborations.

The CILogon-HA project has significant potential impact for both users and providers of collaborative science facilities, by enabling the use of existing, high-quality identities across a wide variety of applications that require varied levels of assurance. The CILogon-HA project eases the burden of identity management, enabling users and providers to focus more effort on the scientific research enabled by secure collaborative environments.