

XSEDE Capability Delivery Plan

CB-1 Campus Bridging InCommon-based Authentication

Last revised 2016-11-22

Background

Use cases describe community needs, requirements, and recommendations for improvements to cyberinfrastructure “CI” resources and services. A Capability Delivery Plan “CDP” is an executive summary of use case support gaps, of plans to fill those gaps with new or enhanced capabilities, and of existing operational components that already support aspects of a use case.

Use Case Summary

The campus bridging (CB) use cases describe how campus information technology (IT) administrators and campus-based research projects: (a) treat XSEDE's resources as extended branches of their campus environments, and (b) offer their campus' services to others in the XSEDE community.

Use case CB-1 (InCommon-based authentication to XSEDE resources) describes how campus IT administrators enable researchers at their campus to login to XSEDE resources using InCommon-based authentication mechanisms. InCommon is the research and education identity federation in the United States. InCommon uses the SAML (Security Assertion Markup Language) protocol.

Use case document(s): <http://hdl.handle.net/2142/43882>

CDP Summary

The functionality described in this use case is 90% supported by the operational components listed below.

Gap(s) that we currently plan to address:

- None

Gap(s) that will not be addressed at this time:

- XSEDE authentication still required
- Relationship with 3rd-party InCommon Identity Provider not established
- Web based interface to shell window not provided

Time and effort summary:

- None

Functionality Gaps

1. XSEDE authentication still required (suggested priority: medium)

Use case CB-1 states, "Any researcher at the administrator's campus can select their InCommon IDP while logging in to an XSEDE resource, authenticate to the IDP, and then (if they are authorized) access the resource without further authentication." However, currently users must also authenticate with an XSEDE identity (either new or existing) and link that XSEDE identity to their campus identity before proceeding.

Plans: There are no plans to address this gap.

2. Relationship with 3rd-party InCommon Identity Provider not established

(suggested priority: low)

Use case CB-1 assumes "that XSEDE has established a relationship with a 3rd-party InCommon Identity Provider for individuals at institutions that are not members of InCommon." However, these users can easily obtain XSEDE identities for authentication to XSEDE resources and campus IT resources (using Globus Auth).

Plans: There are no plans to address this gap.

3. Web based interface to shell window not provided (suggested priority: medium)

Version 1.5 of use case CB-1 requires, "InCommon/SAML-based authentication put into production use, with the capability of moving from a web based interface to a shell window within the web-based session." However, XSEDE does not provide a web based interface to a shell window. This requirement was dropped in Version 2.0 of use case CB-1, because web browser interface to interactive login is already covered by CAN-4 (Interactive Login).

Plans: There are no plans to address this gap.

System Components That Support This Use Case

The following XSEDE operational components currently support this use case:

(Hyperlink the component <Name> to the XCSR Component Description Repository)

Component	Supported Functionality
CILogon	CILogon enables XSEDE users to log in using InCommon SAML authentication. CILogon is an InCommon SAML Service Provider. CILogon provides an OAuth (OpenID Connect) interface for integration

	with other XSEDE components (e.g., Globus Auth) and an IGTF accredited Certification Authority for issuing certificates based on InCommon SAML authentication for use with XSEDE certificate-enabled services (e.g., GSISSH , GridFTP , UNICORE).
Globus Auth	Globus Auth is an identity and access management (IAM) platform service. Globus Auth relies on CILogon for InCommon SAML authentication. Globus Auth provides an OAuth (OpenID Connect) interface for integration of IAM capabilities with XSEDE-operated services, XSEDE Level 1-3 resources, and campus IT resources. Globus Auth provides the mapping between InCommon identities and XSEDE identities, authorization, group management, and accounting functions.
XSEDE User Portal	The XSEDE User Portal (XUP) supports InCommon-based authentication (currently via CILogon, soon via Globus Auth). The XUP also provides a front-end to the XSEDE Resource Allocation Service (XRAS), with support for InCommon-based authentication.