

XSEDE Capability Delivery Plan

UCCAN-4 Interactive Login

Last revised 2016-06-01

Background

Use cases describe community needs, requirements, and recommendations for improvements to cyberinfrastructure “CI” resources and services. Engineers analyze use cases to identify which aspects are supported by production components and which constitute gaps in functionality. A Capability Delivery Plan (CDP) is an executive summary of use case support gaps and plans to fill those gaps with new or enhanced capabilities.

Use Case Summary

Use case CAN-4 (“Canonical 4”) describes how an individual XSEDE user can establish a remote login session on an XSEDE resource using his/her XSEDE identity. The main challenge is that XSEDE resources are administered by independent service providers, while XSEDE identities are issued by the XSEDE organization.

Use case document: <http://hdl.handle.net/2142/46550>.

CDP Summary

The functionality in this use case is fully (or x%) supported by operational components listed below.

Unsupported gap(s) that will NOT be addressed:

- Web browser access
- Re-attach to a previous session (supported by some SPs)
- Verification of quality attributes

Time and effort summary:

- None at this time

Functionality Gaps

1. Web browser access

Since the architectural response was published, CAN4.b (Standard web browser) is no longer supported by XSEDE. Earlier versions of the XSEDE User Portal (XUP) provided a web browser interface for logging in to XSEDE resources, but this feature has been removed due to lack of

use. (One might assume that this user need was overstated in the canonical use case.) *There are no plans to address this gap.*

2. Re-attach to a previous session

The XSEDE system does not universally support CAN4.d (Reattach session). Individual service providers may support this feature on their own resources via the Unix “screen” tool, and when they do, it works seamlessly with XSEDE’s interactive login interface. Not all service providers choose to offer the tool, however. *There are no plans to address this gap.*

3. Verification of quality attributes

Verifying quality attributes requires significant one-time and ongoing testing. XSEDE has decided that the costs of this testing would not bring sufficient benefit. Instead XSEDE will monitor user satisfaction, usage, and available performance metrics and address quality issues when raised by users. *There are no plans to address this verification gap.*

System Components That Support This Use Case

The following XSEDE system components currently support this use case.

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

Component	Supported Functionality
XSEDE Single Sign On (SSO) Hub	An SSH service hosted by XSEDE that allows XSEDE end users to login using their XSEDE user identity and connect to XSEDE SP resources (where they are authorized) without entering additional user credentials
GSI-OpenSSH	Provides both the GSI-SSH client software (used by the XSEDE SSO Hub) and the GSI-SSH server software (used by XSEDE SP resources to support XSEDE SSO logins). (Note that many XSEDE SPs substitute their own GSI-SSH server implementation based on other OpenSSH or GSI-OpenSSH distributions.)
XSEDE User Portal (XUP)	The front-end user interface to the XSEDE system where end users register with XSEDE and request allocations to use XSEDE SP resources.
XSEDE Central Database (XCDB)	The repository that stores the mappings between XSEDE user identities (used by XUP) and any corresponding XSEDE SP user identities (used by independent SPs)
Globus Auth	Provides the authentication service used by end users to login to XUP

