XSEDE Capability Delivery Plan
CAN-09 User management
Last revised 2017-08-24

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 the current gaps in our support for a use case, current plans to fill those gaps with new or enhanced capabilities, and the operational components that currently support the use case.

Use Case Summary

Use case CAN-09 describes one of XSEDE’s enabling functions. Collectively, the enabling functions provide the basic building blocks that are needed to support XSEDE’s use cases in all stakeholder areas. CAN-09 describes how a person can (1) establish, manage, and disable his/her XSEDE identity, and (2) define, configure, manage, and disable XSEDE groups (logical collections that reference multiple XSEDE identities). Use case document: http://hdl.handle.net/2142/45237.

CDP Summary

This revised CDP is being written because the previous version combined use cases CAN-06 and CAN-09, and a new CDP describing changes for CAN-06’s implementation has since been written. Also, one of the gaps previously identified has been resolved.

Gap(s) that we currently plan to address:
  ● User-defined groups

Gap(s) that will not be addressed at this time:
  ● Disabling one’s own identity
  ● Verification of quality attributes

Time and effort summary:
  ● None at this time. (Plans to close the first gap are still being prioritized/planned.)
Functionality Gaps

1. User-defined groups (suggested priority: high)
Steps 6, 7, 8, and 9 of CAN-09 describe the ability for users to define their own groups of XSEDE users that can then be used to customize access to other XSEDE services. (For example, an XSEDE user may create a group whose membership controls access to specific files in his/her account on a particular XSEDE SP resource.)

Plans: During the first year of the XSEDE-2 project (2016-2017), XCI conducted a comprehensive needs assessment for group management functionality across XSEDE stakeholder areas, identifying more detailed use cases and tracking which cases are needed by which stakeholders. We are now waiting for management and UREP prioritization of the detailed use cases for delivery in the remainder of 2017 or 2018. We have not selected a group management service for implementation at this time.

2. Disabling one's own identity (suggested priority: none)
Step 10 in CAN-09 describes the user disabling his/her XSEDE identity so that it can no longer be used. There is no plan to address this gap and we don't know of any specific instances in which it is needed by scientific users.

2. Verification of quality attributes (suggested priority: low)
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 current plans to address this verification gap.

System Components That Support This Use Case

The following XSEDE operational components currently support this use case.

<table>
<thead>
<tr>
<th>Component</th>
<th>Supported Functionality</th>
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</thead>
<tbody>
<tr>
<td>XSEDE User Portal (XUP)</td>
<td>The front-end (web browser-based) user interface to the XSEDE system where individuals register with XSEDE, manage their user profile information, and request allocations to use XSEDE SP resources.</td>
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<tr>
<td>XSEDE Central Database (XCDB)</td>
<td>The repository that stores XSEDE user profile data, including everything except usernames and passwords (see Kerberos, below) and links with non-XSEDE identities (see Globus Auth, below)</td>
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<tr>
<td>Globus Auth</td>
<td>A cloud service provided by the Globus team at University of Chicago; provides the user authentication function used by the XUP and the ability for end users to link their XSEDE identities with non-XSEDE identities (e.g., InCommon campus identities, DOE and other agency identities, etc.)</td>
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<tr>
<td>XSEDE OIDC</td>
<td>A basic OpenID Connect (OIDC) service operated by the Globus team on behalf of XSEDE that allows OAuth2/OIDC authentication using XSEDE’s Kerberos service and the XSEDE user profile REST API (see below)</td>
</tr>
<tr>
<td>XSEDE user profile REST API</td>
<td>This REST API (api.xsede.org) provides access to user profile information (from XCDB) needed by XSEDE OIDC</td>
</tr>
<tr>
<td>XSEDE Kerberos</td>
<td>The repository that stores XSEDE usernames and passwords and authenticates XSEDE identities for XSEDE OIDC</td>
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