

XSEDE Capability Delivery Plan

IAAS-08 - Dynamically acquire and manage hosted computer systems and/or storage volumes

Last revised 2017-11-16

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 IAAS-08 describes how science gateway developers need to develop applications that can programmatically acquire and manage hosted computer systems and/or storage volumes. The [full description of this use case](#) is available in the CSR's use case registry.

CDP summary

This use case is fully supported by the XSEDE system, and is in use by at least one service provider resource: Indiana University's and TACC's Jetstream system.

Gap(s) that we currently plan to address:

- None

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

- None

Time and effort summary:

- None

System components that support this use case

The following XSEDE operational components currently support this use case.

Component	Supported Functionality
XSEDE User Portal (XUP)	The front-end (web browser-based) user interface to the XSEDE system where individuals register with XSEDE, manage their user profile information, request allocations to use XSEDE SP resources, and manage membership in projects that have active allocations.
XSEDE Central Database (XCDB)	The database that stores all project team membership data, individual user profile data, and active allocation data for XSEDE resources.
AMIE	A messaging system that passes allocation assignments, individual user and project group data, and allocation usage data between XCDB and individual XSEDE resources.
OpenStack APIs on SP resources	An API provided by SP cloud resources based on OpenStack that allows programmatic control of the resource subject to locally enforced authorization.