

# Information Service Warehouse APIs

## User Guide

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*Version 0.9*

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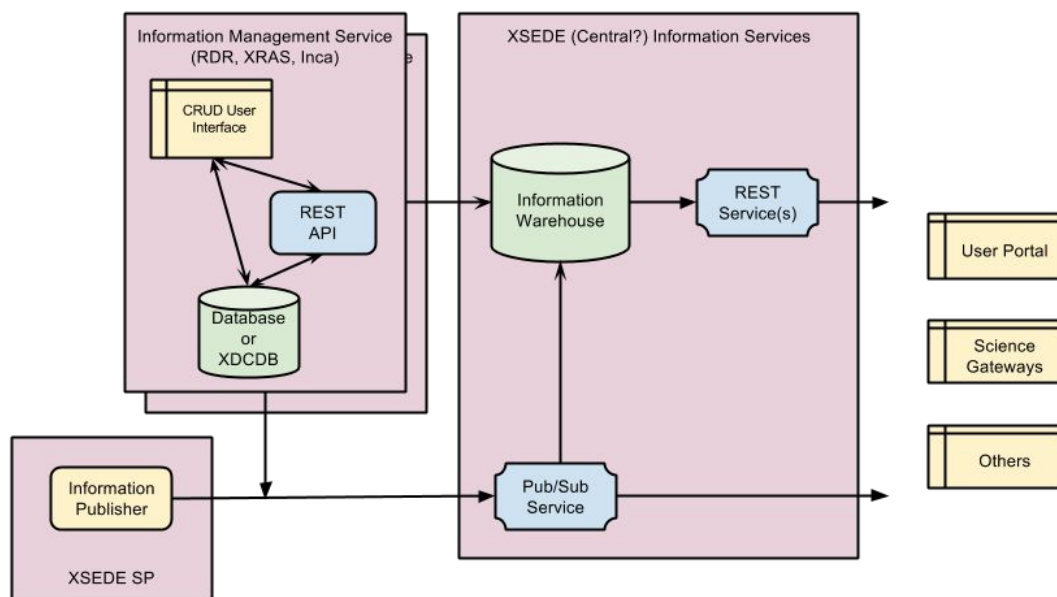
## A. Document History

Relevant Sections	Version	Date	Changes	Author
Initial draft	0.9	11/10/2015	Baseline	JP Navarro

## B. Introduction

XSEDE collects, manages, and provides access to a broad set XSEDE infrastructure information. The following diagram shows the general flow of information from software/service operators who integrate and operate infrastructure thru XSEDE wide central information services to information clients like the User Portal, science gateways, and other services. End users typically access information thru these information clients.

XSEDE Information Management Architecture



In this document we describe **XSEDE wide/central information services warehouse REST APIs** accessible to any information client that needs to access XSEDE infrastructure information.

Warehouse APIs are grouped based on the type of information and the function of the API.

## **B.1. Definitions, Abbreviations and Acronyms**

GLUE2 - Grid Laboratory Uniform Environment Version 2 Specification

RDR – Resource Description Repository

SDR – Software Description Repository

SP – Service Provider

XES – XSEDE Enterprise Services

## **B.2. Support and enhancements**

“XSEDE Warehouse API” support and enhancement requests should be e-mailed to [help@xsede.org](mailto:help@xsede.org).

## **C. Common Identifiers**

XSEDE’s Information Services Warehouse uses the following identifiers to cross-link related information:

### **Resource Identifier (ResourceID)**

Globally unique fully qualified and human readable identifier for a compute, storage, visualization, gateway, or other infrastructure resource.

Examples: `gordon.xsede.xsede.org`, `transfer.globus.org`

### **Component Identifier (ComponentName, AppName, InterfaceName)**

The name for software or service component available in XSEDE.

The field name *ComponentName* is used in APIs that provide access to both application software and service information.

The field name *AppName* is used in APIs that provide access to only application software information.

The field name *InterfaceName* is used in APIs that provide access to only service information.

## D. GLUE 2.0 APIs

GLUE 2.0 is an information model specification developed thru an international collaboration of research infrastructure operators to facilitate interoperability. GLUE 2.0 is designed to describe the distributed elements of infrastructures such as XSEDE's.

[GLUE 2.0 Information Model Specification](#)

### D.1 glue2-views-api

<b>Title</b>	Public XSEDE GLUE 2.0 information view/discovery
<b>Audience</b>	Any software needing access to XSEDE GLUE 2.0 infrastructure information
<b>Authentication</b>	None
<b>Summary</b>	Public API for use by any software that needs to access information covered by the GLUE 2.0 specification as implemented by XSEDE, which includes: <ul style="list-style-type: none"><li>• User facing software offered by service providers</li><li>• User facing services operated by service providers</li></ul>
<b>API Documentation</b>	<a href="https://info1.dyn.xsede.org/wh1/api-docs/#!/glue2-views-api">https://info1.dyn.xsede.org/wh1/api-docs/#!/glue2-views-api</a>
<b>API Base URL</b>	<a href="https://info1.dyn.xsede.org/wh1/glue2-views-api/v1/">https://info1.dyn.xsede.org/wh1/glue2-views-api/v1/</a>

### D.2 glue2-db-api

<b>Title</b>	Internal XSEDE GLUE 2.0 information discovery
<b>Audience</b>	Internal XSEDE services needing access to all available XSEDE GLUE 2.0 infrastructure information
<b>Authentication</b>	None
<b>Summary</b>	This is internal API for use by select XSEDE services that need raw access to all available XSEDE GLUE 2.0 information. It provides access to all XSEDE's GLUE 2.0 information in the warehouse, which includes: <ul style="list-style-type: none"><li>• location: infrastructure locations</li></ul>

	<ul style="list-style-type: none"> <li>• computingmanager, computingshare, executionenvironment: execution management services, shares (queues), and environments</li> <li>• computingactivity: queued and running jobs</li> <li>• abstractservice, endpoint: network accessible service and their endpoints</li> <li>• applicationenvironment, applicationhandle: compute/login node available application software and software access handles (such as modules)</li> </ul>
<b>API Documentation</b>	<a href="https://info1.dyn.xsede.org/wh1/api-docs/#!/glue2-db-api">https://info1.dyn.xsede.org/wh1/api-docs/#!/glue2-db-api</a>
<b>API Base URL</b>	<a href="https://info1.dyn.xsede.org/wh1/glue2-db-api/v1/">https://info1.dyn.xsede.org/wh1/glue2-db-api/v1/</a>

### D.3 glue2-provider-api

<b>Title</b>	Internal XSEDE GLUE 2.0 information warehouse processing
<b>Audience</b>	Internal XSEDE services providing new information to be stored in the information warehouse
<b>Authentication</b>	Username/password required
<b>Summary</b>	This is an internal API that processes and stores GLUE 2.0 compliant document in XSEDE's information services warehouse. It is primarily used to process and store documents service providers publish using XSEDE's pub/sub system.
<b>API Documentation</b>	<a href="https://info1.dyn.xsede.org/wh1/api-docs/#!/glue2-provider-api">https://info1.dyn.xsede.org/wh1/api-docs/#!/glue2-provider-api</a>
<b>API Base URL</b>	<a href="https://info1.dyn.xsede.org/wh1/glue2-provider-api/v1/">https://info1.dyn.xsede.org/wh1/glue2-provider-api/v1/</a>

## E. XSEDE Community Software Repository (XCSR) APIs

### E.1 xcsr-db

<b>Title</b>	Internal XSEDE Community Software Repository discovery
<b>Audience</b>	XSEDE monitoring and verification services
<b>Authentication</b>	None

<b>Summary</b>	This is an internal API providing access to information about XSEDE engineered and operated components
<b>API Documentation</b>	<a href="https://info1.dyn.xsede.org/wh1/api-docs/#!/xcsr-db">https://info1.dyn.xsede.org/wh1/api-docs/#!/xcsr-db</a>
<b>API Base URL</b>	<a href="https://info1.dyn.xsede.org/wh1/xcsr-db/v1/">https://info1.dyn.xsede.org/wh1/xcsr-db/v1/</a>

## E.1 XCSR Update

<b>Title</b>	Internal XSEDE Community Software Repository data entry interface
<b>Audience</b>	XSEDE operations and monitoring staff
<b>Authentication</b>	Username/password required
<b>Summary</b>	This is an internal interface providing engineering, operations, and monitoring staff the ability to manage which components are required at different service provider levels
<b>API Documentation</b>	Self documenting web forms to add, update, and delete XCSR records
<b>API Base URL</b>	<a href="https://info1.dyn.xsede.org/wh1/admin/xcsr_db/componentsrequirement/">https://info1.dyn.xsede.org/wh1/admin/xcsr_db/componentsrequirement/</a>

## F. Examples

None yet.