

WBS 2.3.2 CSR Vision, Strategy, Design, and Rollout

- 1 Vision
 - 1.1 XSEDE Vision
 - 1.2 CSR Vision
- 2 Strategy
- 3 CSR Information
- 4 CSR Phased Delivery and Priorities

Vision

XSEDE Vision

XSEDE aims to be a Connector of Cyberinfrastructure (CI) Resources, Software, and Services. Driven by user community requirements and use cases XSEDE prioritizes software integration activities and collaborations that enable researchers to leverage cyberinfrastructure.

CSR Vision

A collaborative community of software and services providers that engage with users to document their use cases, that prioritize use case capability gaps to maximize user benefit and return on investment, who integrate quality software and services into a coherent Cyberinfrastructure, and who share their software or leverage the software of others to enable users.

Strategy

To achieve our vision we intend to focus on these areas:

1. Creating and evolving the *Community Software Repository/Catalog (CSR)* service as the focal point for sharing, discovering, and discussing driving the use cases, Cyberinfrastructure integration activities, and software available to users, developers, and operators. The CSR needs to enable software sharing and discovery in all its states, whether it is ready to use or needs installation/provisioning, and in all its formats, whether in conventional packages, VMs, containers, as SaaS, on a file-system on an HPC machine, or in other formats.
2. Engage with software providers to encourage them to share software valuable to the community thru the CSR.
3. Engage with software providers/integrators to identify software that is valuable to the community and facilitate preparing the software in the formats that are most useful to the community.
4. Engage with software consumers (users, developers, operators) to ensure that the CSR provides them the discovery capabilities they need using via web browser and via web API interfaces.

CSR Information

High-level information types and associated descriptive information.

Information Types	Descriptive Information
Use Cases	Descriptions and target audience summaries, community sizes, status, area/sub-area, last proposed and last approved dates, document pointers, capability delivery plans, and UREP priorities
Integration Activities	Capability integration activities and how they map to use cases, packaged software, and operational software
Software Description	Textual description, global categories/tags, and vendor details
Packaged Software	Information about a VM, a container, RPM, tar, or other bundle of software that can be installed/provisioned, including: repository pointers, installation/provisioning instructions, and who supports it
Operational Software	Information about deployed and operational software available from the command line (on an SP resource) or thru the network (SaaS, portal, gateway, etc.), including: how to access and use the software, and who supports it
Resources	Cyber-infrastructure resources where Operational Software is made available to users, including HPC/HTC/Viz/storage/Gateways /Portals/etc.
Staff Services	The services that XCI provides to its various customers.
Discussions	Open community discussions on the driving use cases, priorities, delivery plans, delivery activities, designs, testing, deployment, and use of software.

CSR Phased Delivery and Priorities

Period	Features / Content
PY6 IPR1	<ul style="list-style-type: none"> • Use cases that drive XSEDE's current and future software • Operational Software Phase 1: available for users of XSEDE federated resources • Packaged Software Phase 1: for XSEDE federated resource providers, for unfederated campus operators
PY6 IPR2	<ul style="list-style-type: none"> • Use case and capability deliver priorities established by the UREP • XSEDE federated L1-3 resource status console including declared RDR status, outage status, monitoring status, and publishing status
PY6 IPR3 (planned)	<ul style="list-style-type: none"> • Component ratings from Service Providers • Software Descriptions Phase 1: possible vetting process? • Operational Software Phase 2: add software support information, manually entered user facing enterprise services and science gateway software
PY7 (ideas)	<ul style="list-style-type: none"> • Packages Software Phase 2: VMs repository; what about a container repository?; enhance information for XSEDE federated resource providers • Operational Software Phase 3: enable community software area (CSA) and science gateway publishing thru IPF • Comprehensive Use Case views: includes Operational Software for users, Packaged Software for developers/operators, priorities and integration (JIRA) activities • Comprehensive Software views and discovery: Descriptions, Packages, and Operational • Engagements to make new software available thru the CSR (VM images, etc.)