

XCRI New Use Case Drafts

CB-12 Setup monitoring and usage reporting for a campus HPC resource

A campus IT administrator wants to reuse XSEDE practices concerning compute resource monitoring and reporting needs. The administrator would like to have the ability to easily monitor load on the HPC environment and generate detailed usage reports based on resource manager logs. We assume XSEDE has built a consensus around its own "common environment" expectations, for HPC-specific monitoring and metric-gathering.

In most cases, the campus IT administrator would like to experience it as follows.

1. The administrator finds software packages on XSEDE's website to install standard monitoring solutions in an HPC environment.
2. The administrator finds documentation on XSEDE's website that he/she can use with minimal alterations for the local environment.
3. After installation and configuration, the administrator is able to see load and job activity over time of the cluster environment under administration

We'll accept any solution to this problem, as long as the following are true.

1. Documentation and training materials provided by XSEDE must be released with a license that allows reuse and modification, such as the CC BY 3.0 license. [5]
2. Documentation and training materials should be provided in editable, commonly used formats.
3. Software provided by XSEDE must be available for use under a free-use license.
4. This solution does not require participation in XSEDE allocation processes.
5. It does not take longer than 1 day to set up these services on local resources.
6. The solution should provide an option to aggregate monitoring data from multiple systems. At this time, doesn't matter which format or mechanism is used.

CB-13 Deploy a Campus Cloud computing resource

A campus IT administrator or director of research computing wants to reuse XSEDE practices concerning campus clouds. They would like to provide researchers the ability to create their own virtual machines, storage, and cloud networking, with access to image repositories and either a GUI or API for using the cloud resource.

In most cases, the campus IT administrator would like to experience it as follows.

1. The administrator finds software packages on XSEDE's website that she/he can use to build a local cloud, provided appropriate hardware is available.
2. The administrator finds documentation on XSEDE's website that he/she can use with minimal alterations for the local environment, including guidelines on appropriate hardware.
3. The administrator is able to receive support in implementing this resource from XSEDE.

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2. Documentation and training materials should be provided in editable, commonly used formats.
3. Software provided by XSEDE must be available for use under a free-use license.
4. This solution does not require participation in XSEDE allocation processes.
5. This solution offers a lightweight, maintainable configuration for resource providers, to alleviate administrator burden.