

# Open Science Grid as XSEDE Service Provider

December 4, 2011

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#### Overview

OSG will provide computational resources as an XSEDE Service Provider - Target Availability is April 1, 2012

- Create presence in XSEDE systems by December 15 to allow requests for OSG resources in the next XRAC cycle
- Understand and develop "bridges" between the OSG and XSEDE there are some important differences
  - People and roles
  - Technology
  - Operational Methods
- Establish working interfaces to enable effective environments and support for science users with XSEDE allocations using OSG

OSG is working to quickly learn details of the XSEDE environment but this is new territory; so we plan to be conservative in the initial offering



## Introduction to OSG

The resources accessible through the OSG are contributed by the community, organized by the OSG, and governed by the OSG Consortium



- >30 research communities
- >100 sites
- >70,000 cores accessible

Users communities (aka VOs) and Campus Grids bring:

1) Users, and/or 2) Resources

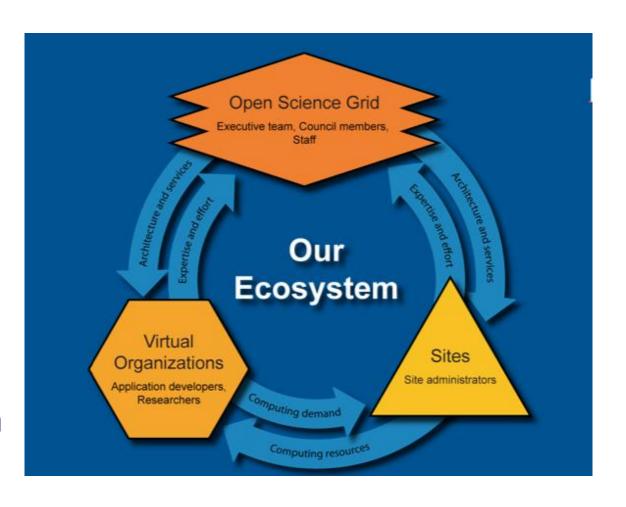


# **OSG** Ecosystem

Consortium
Infrastructures
Project
Satellites

Services:

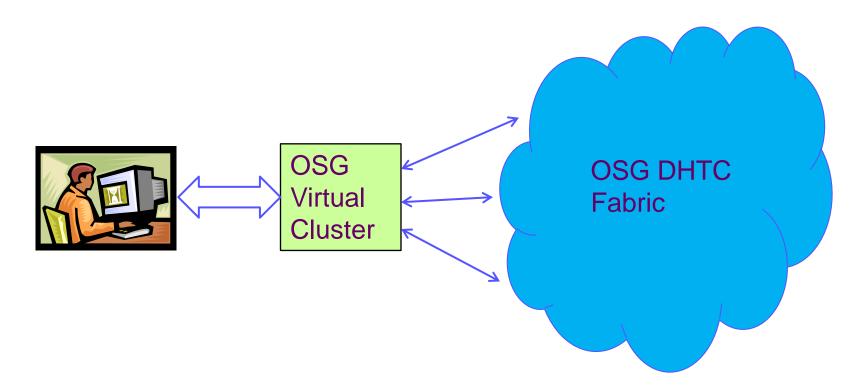
Consulting Production Software



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## **OSG-XSEDE** Interface



XSEDE users "login" to the "OSG Virtual Cluster" that provides an abstraction layer to access the distributed OSG fabric. This interface allows XSEDE users to view the OSG as one resource where they submit their jobs, provide the inputs and retrieve the outputs.



#### **POPS & Allocations**

For the quarter starting April 1, 2012, OSG will provide an "initial" allocation

- Name = Open Science Grid
- Nickname = OSG
- Quarterly Allocation = 2,000,000 SUs (1 SU = 1 core hour)
- Startup Allocation Limit = 100,000 SUs
- User guide = In-progress; available Dec 15, 2011 (establishing connections to XSEDE documentation contacts)
- Support contact = <u>osg-xsede-support@opensciencegrid.org</u>

We plan to be adapt and evolve this offering as we gain experience with this user community and the types of applications



## Some Contacts

OSG Staff	Responsibility
Miron Livny (Wisconsin)	OSG Technical Director and representative at XSEDE SP Forum
Dan Fraser (ANL)	OSG Production and Campus Grids lead; Alternate on XSEDE SP Forum; Campus Champions liaison
Ruth Pordes (Fermilab)	OSG Executive Director
Rob Quick (Indiana)	OSG Operations Lead
Chander Sehgal (Fermilab)	OSG User Support Lead and Project Manager
Mats Rynge (USC-ISI)	OSG User Support for XSEDE; links to other technical support within OSG; helps adapt applications to run on OSG

#### **OSG Home Page:**

http://www.opensciencegrid.org/

#### Introduction to OSG:

http://osg-docdb.opensciencegrid.org/0008/000839/004/OSG%20Intro%20v23.pdf

#### General OSG User Documentation:

https://twiki.grid.iu.edu/bin/view/Documentation/WebHome



## Wrap-up

- OSG offers a rich Distributed High Throughput Computing (DHTC) environment which supports science computation at broad scales in the compute and data dimensions
- The "initial" OSG offering to XSEDE is optimized for ease-of-use (and brings some limits in data and storage)
- As we learn more about how XSEDE users want to use OSG, we can leverage other OSG methods
- As we identify other use cases, we want to work with that science community to enable their computation on OSG