



Open Science Grid

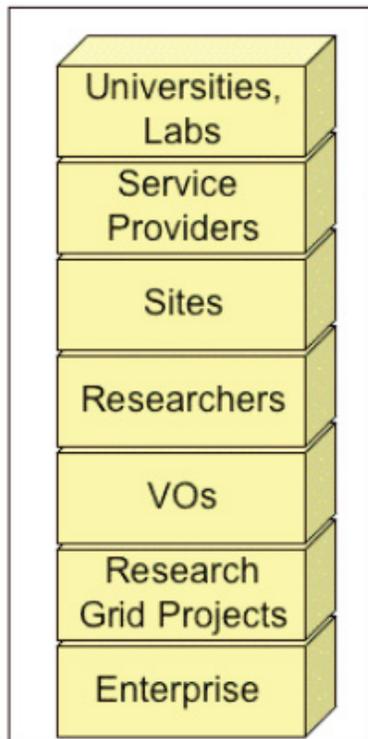


# **Open Science Grid Organization Core middleware & Interoperability with LCG**

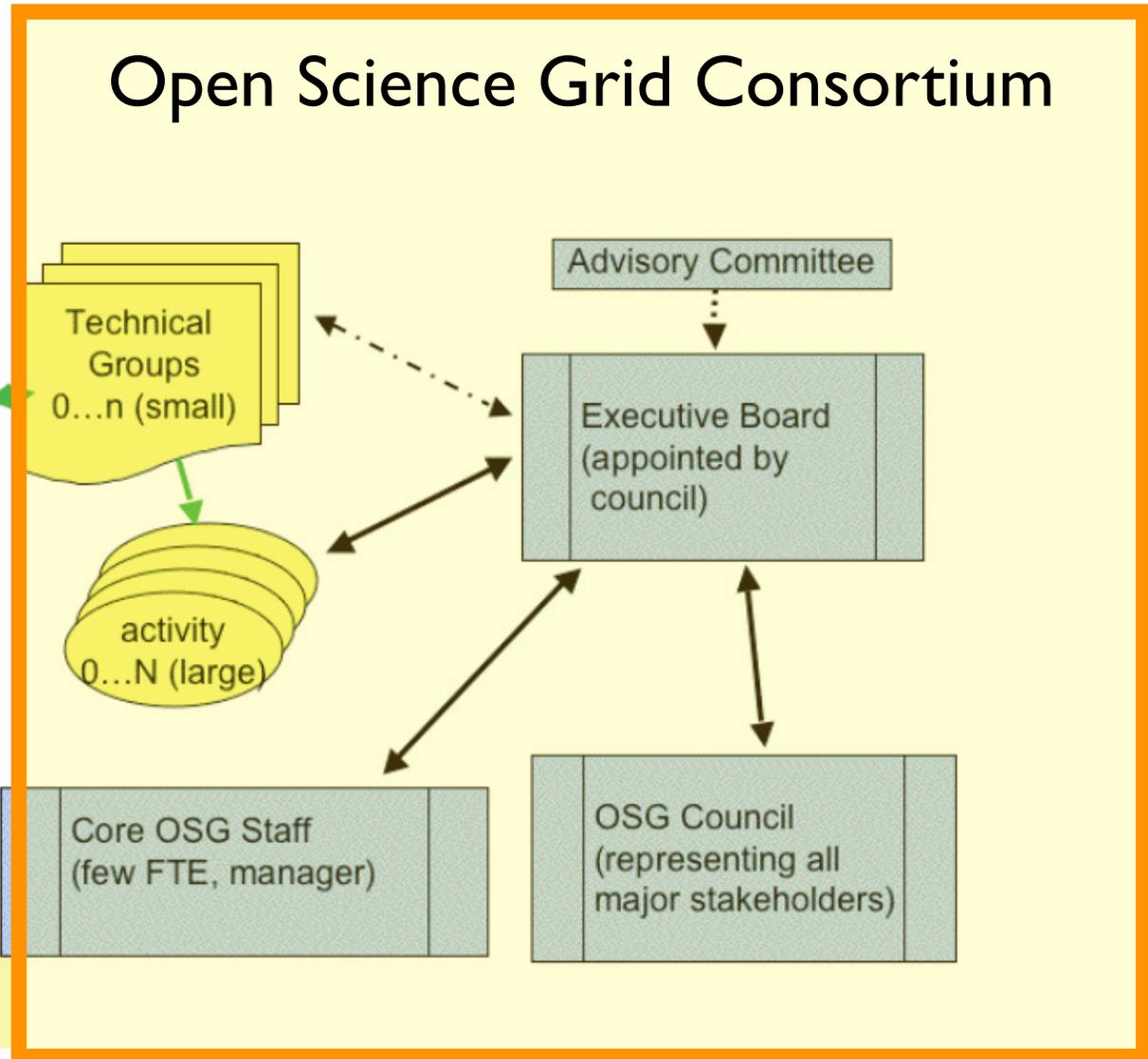
Ruth Pordes  
Fermilab



## Contributors



Participants provide:  
resources, management,  
project steering groups



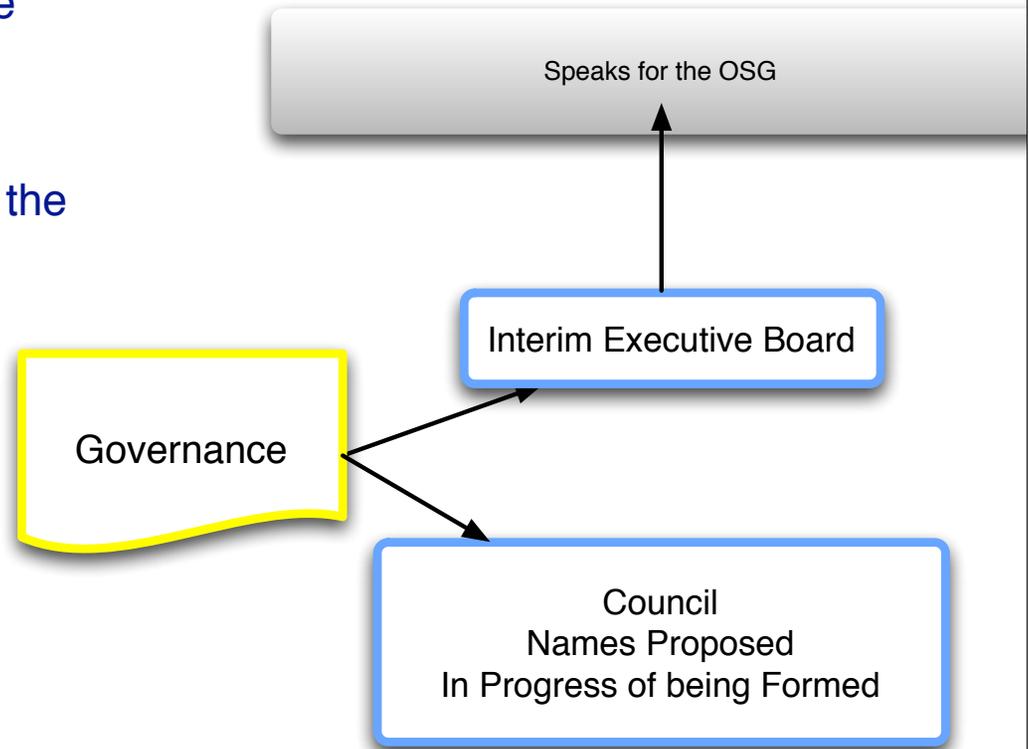


The Interim Executive Board speaks for the Consortium.

The Council includes representatives from the Stakeholders and Contributors:

- Hardware Resource Providers
- Experiments
- Software Providers

By-laws and draft Governance Procedures



## **Organizational Structure of the Open Science Grid Consortium:**

The governing bodies of the OSG Consortium are the OSG council and the OSG executive board....

Users of and providers to the OSG are not required to be affiliated with OSG member organizations.

## **Membership of the OSG Council:**

The OSG council represents the organizations that comprise the OSG Consortium...

New organizations may apply for membership in the OSG council if supported by at least one existing member organization in the OSG council. ..

## **Appendix 1: Open Science Grid Consortium Council**

Facilities: Argonne National Laboratory, Brookhaven National Laboratory, Center for Computational Research, SUNY-Buffalo, Fermi National Laboratory, Thomas Jefferson National Facility, Lawrence Berkeley National Laboratory, Stanford Linear Accelerator Center

Application Communities: US Atlas, BaBar, CDF, US CMS, D0, GRASE, LIGO, SDSS, STAR

Technology Providers: US Atlas s&c, US CMS s&c, Condor, Globus, PPDG-Common, SRM, VDT

Contributing Computing Projects: Grifphyn, iVDGL, PPDG

Ex-officio: OSG executive board members

Liaisons (non-voting): LCG, EGEE, TeraGrid

## **Appendix 2: Open Science Grid Executive Board**

This lists those people that are on the Open Science Grid Executive Board at its inception.

Lothar Bauerdick, Ian Foster, Rob Gardner, Howard Gordon, Mark Green, Albert Lazzarini, Miron Livny, Richard Mount, Harvey Newman, Ruth Pordes, Jim Shank, Frank Würthwein (chair)

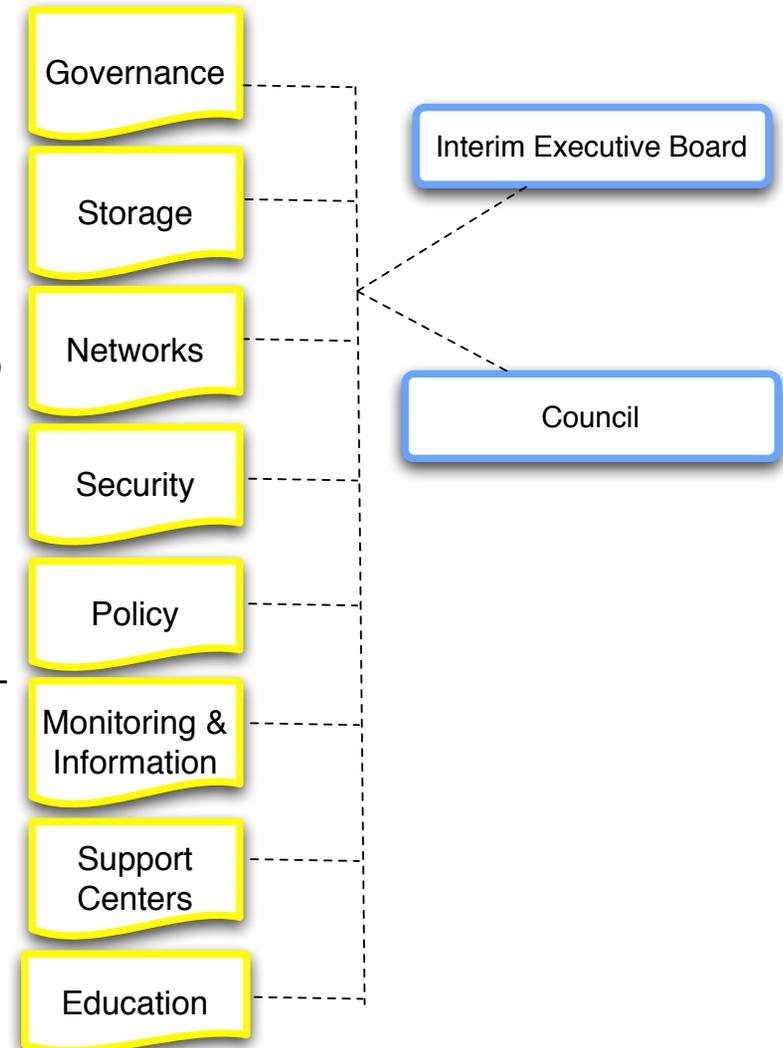


## Storage

- Includes contributions from SRM, SRM/DRM, SRM/dCache, SRM/NEST
- Tests of SRM Client with multiple Server-implementations so far seem to work.
- SRM based SEs in test on OSG but not yet ready for production.
- **Q:** Group is interested in a technical contact with whom to work for multi-SRM implementation tests with EGEE.

## Security - Control of and Reaction to Intentional Unacceptable use of any part of the OSG infrastructure.

- Very productive collaboration with LCG/EGEE Security Groups and through GGF.
- Broad representation from Facility Security Teams, ESNET CA, TeraGrid, Globus, NCSA etc.
- Developed User AUP and in final drafts of Service Agreement which will be used for OSG first Deployment.
- Spawned [Incident Response Activity](#).
- Recent letter to global PMAs requesting official certification process for CAs.
- **Q:** Group ready for LCG/OSG Security Service Challenge



# User Appropriate Use Policy

## Introduction

All users requesting services of the Open Science Grid must abide by a common set of basic rules. This document lists those basic rules.

## Users Agreement

- (1) You may only perform work and store data consistent with the charters of the organizations of which you are a member, and only on resources authorized for use by those organizations.
  
- (2) You will not attempt to circumvent administrative and security controls on the use of resources. If you are informed that some aspect of your grid usage is creating a problem, you will adjust your usage and investigate ways to resolve the complaint. You will immediately report any suspected compromise of your grid credentials ([security@opensciencegrid.org](mailto:security@opensciencegrid.org)) or suspected misuse of grid resources ([abuse@opensciencegrid.org](mailto:abuse@opensciencegrid.org)).
  
- (3) Resource providers have the right to regulate access as they deem necessary for either operational or security-related reasons.



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## Policy

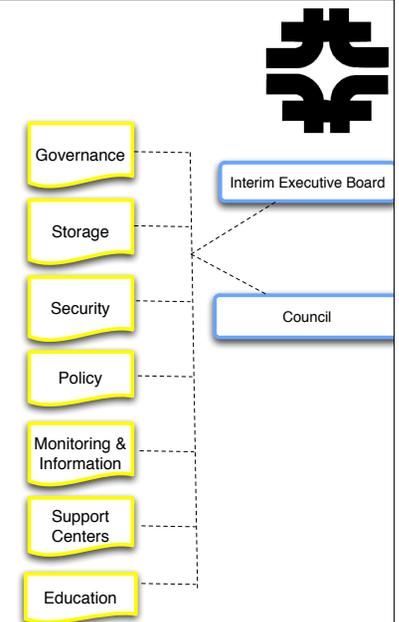
- Concerned with Policies, Authorization, Resource Access & Management.
- Oversight of Authz and VOMS Activities in OSG.
- Will cover Economic aspects of OSG as they emerge.

## Monitoring and Information

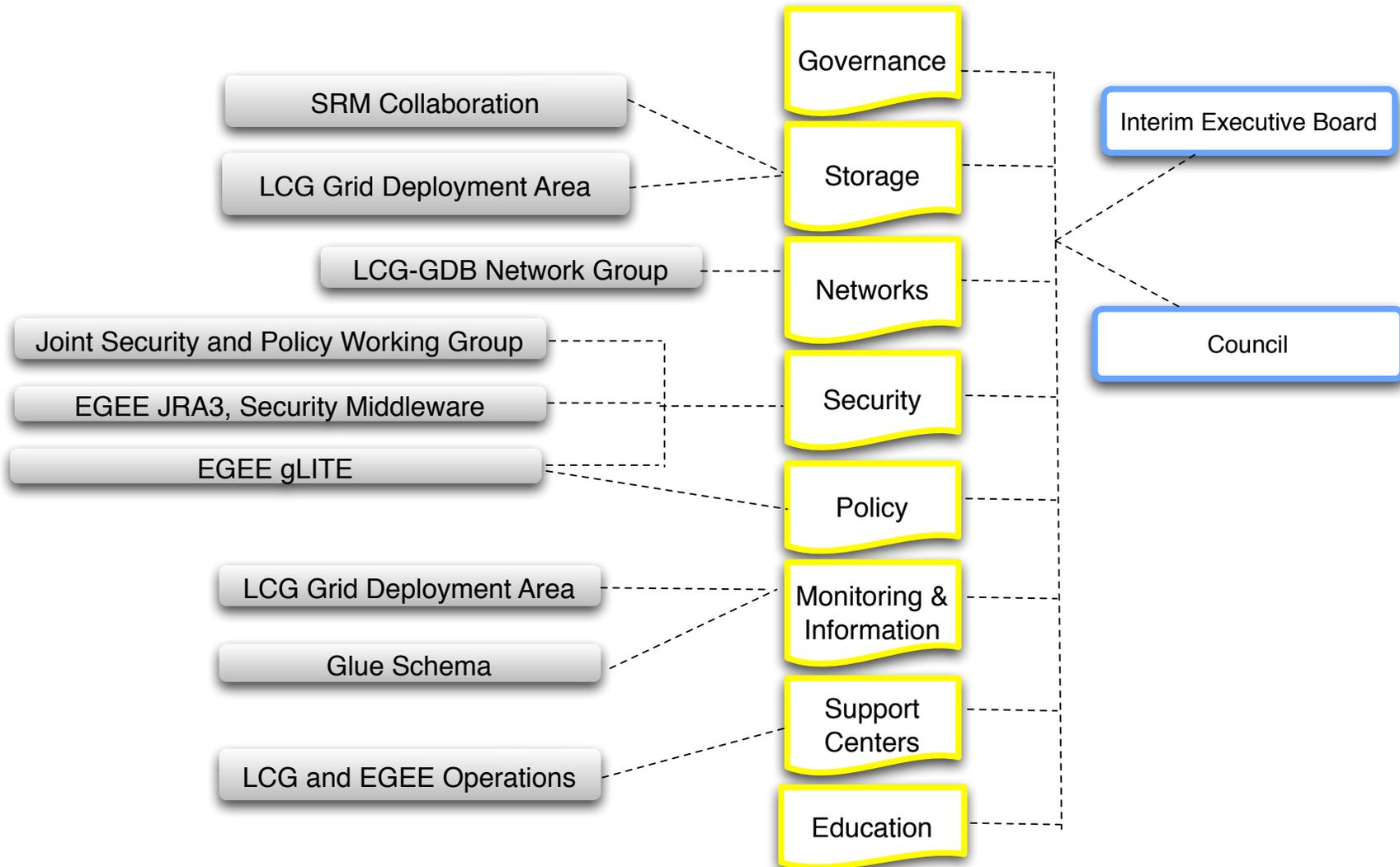
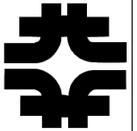
- Includes broad representation from MDS, MonaLisa, Clarens, ACDC, Glue-Schema
- Close collaboration with LCG Information Services through Laurence Field & Sergio Andreatti. Starting to deploy BDII. Agreement with LCG/EDGEE on Glue-Schema V2.
- OSG uses GridCAT , iVDGL developed catalog and information display.
- Group is developing a new framework called MIS-CI which integrates information and monitoring gathering agents at the Head Node to reduce overhead and improve management of heterogeneity. This is a Contribution from the University of Buffalo.
- **Q:** Interoperability with existing systems is key and this is an area we likely need more effort in working with the LCG/EGEE.

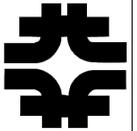
## Support Centers

- Defining Operations Model principles and plan for OSG Deployment.
- End to end, includes User Support, Middleware Support, Grid infrastructure, and interfaces to Facilities and Resource Providers.

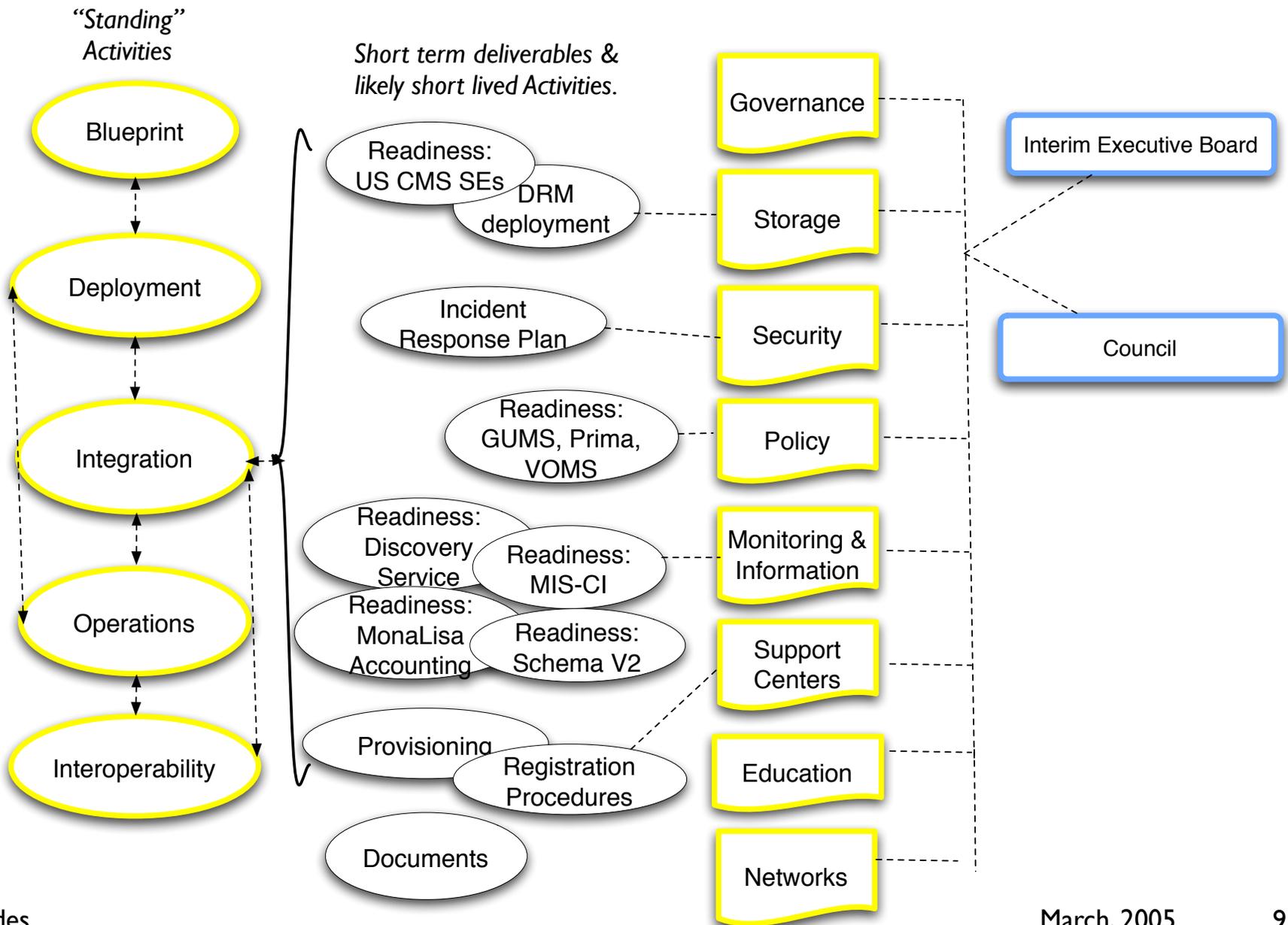


# Connections to LCG/EGEE

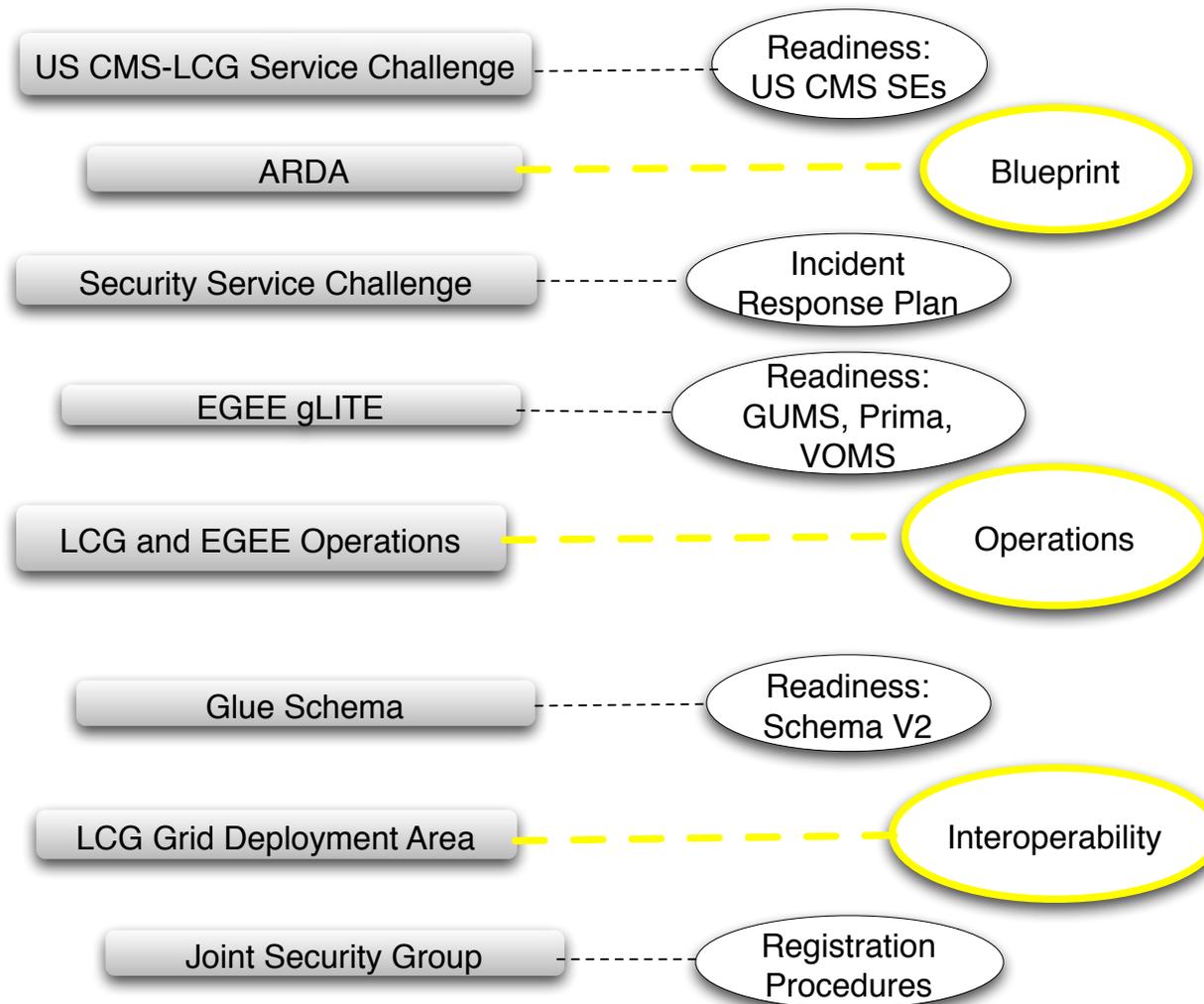




# Activities



# Connections to LCG/EGEE





# Middleware



A distributed set of Pacman Caches is used to collect, version and distribute the common middleware and core technologies.

- OSG provides caches with configuration scripts, validation tools, etc.
- Any middleware service is first deployed on the Integration Testbed and goes through a “readiness” process.

VDT Releases (and patches) provide core technologies that we expect most/all Organizations to use and rely on.

- Provides NMI multi platform testing and integration environment.
- Technology providers can request a package be included in VDT using the Software Submission Policy.

A deployed Service may meet common Interface definitions, rather than be common implementations.

- If deployed local to an Organization they do not need to be distributable.
- Interoperability testing is done by the provider.



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# Schedule



The goal is still to “flip the switch” to Open Science Grid before Summer (in Chicago).

The original goal of March 1st has slipped because the new services have not passed their Readiness.

We will start the Provisioning Activity (assuming a VDT release) on March 21st.

- Making the production software cache and defining the core grid services
- Establishing the Deployed Infrastructure.
- Help Grid3 and other sites to install and join OSG.
- Help Applications to migrate from Grid3 and run on OSG.
- Getting needed Agreements and Sign-offs done and archived.
- Working with the Operations Activity to transition to them at the end of the provisioning activity.

We continue to run applications on Grid3, ITB, Experiment Grids, Campus Grids

- Many potential OSG resources are serving multiple infrastructures already.



We continue to run applications on Grid3, ITB, Experiment Grids, Campus Grids and LCG and there is some movement towards TeraGrid.

- Both US ATLAS and US CMS have Sites that appear on LCG as well as on Grid3.
- Both US ATLAS and US CMS run their jobs on both Grids.
- Both US ATLAS and US CMS have sample simulation jobs running on TeraGrid.

Federation and Communication between the Grid-wide Services like Information/Discovery and Operations is essential.

We look forward to more OSG - EGEE/LCG Service Challenges and to demonstrations such as being planned for SC2005.