PGI – Update Session

Production Grid Infrastructure (PGI)
Working Group

Morris Riedel et al.

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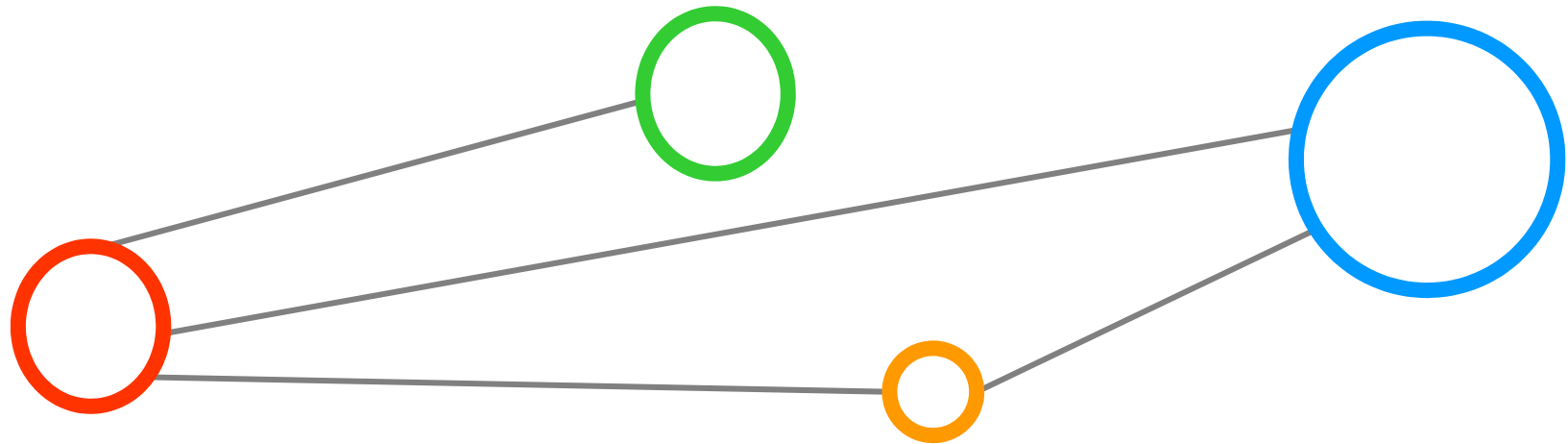
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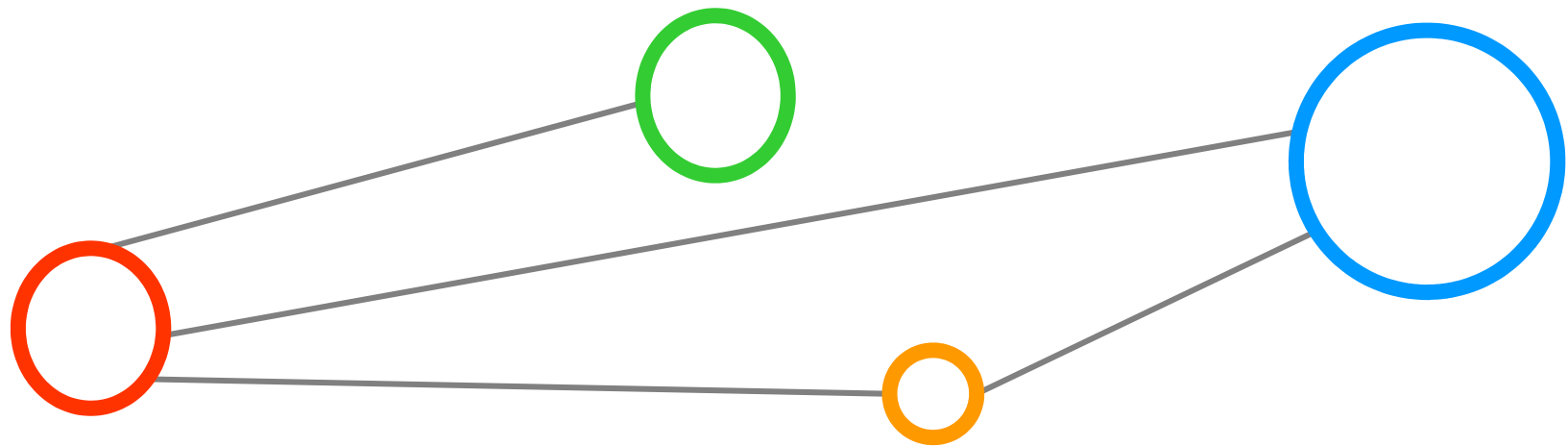
Outline

Outline

- Welcome & Progress

- EMI-ES Input
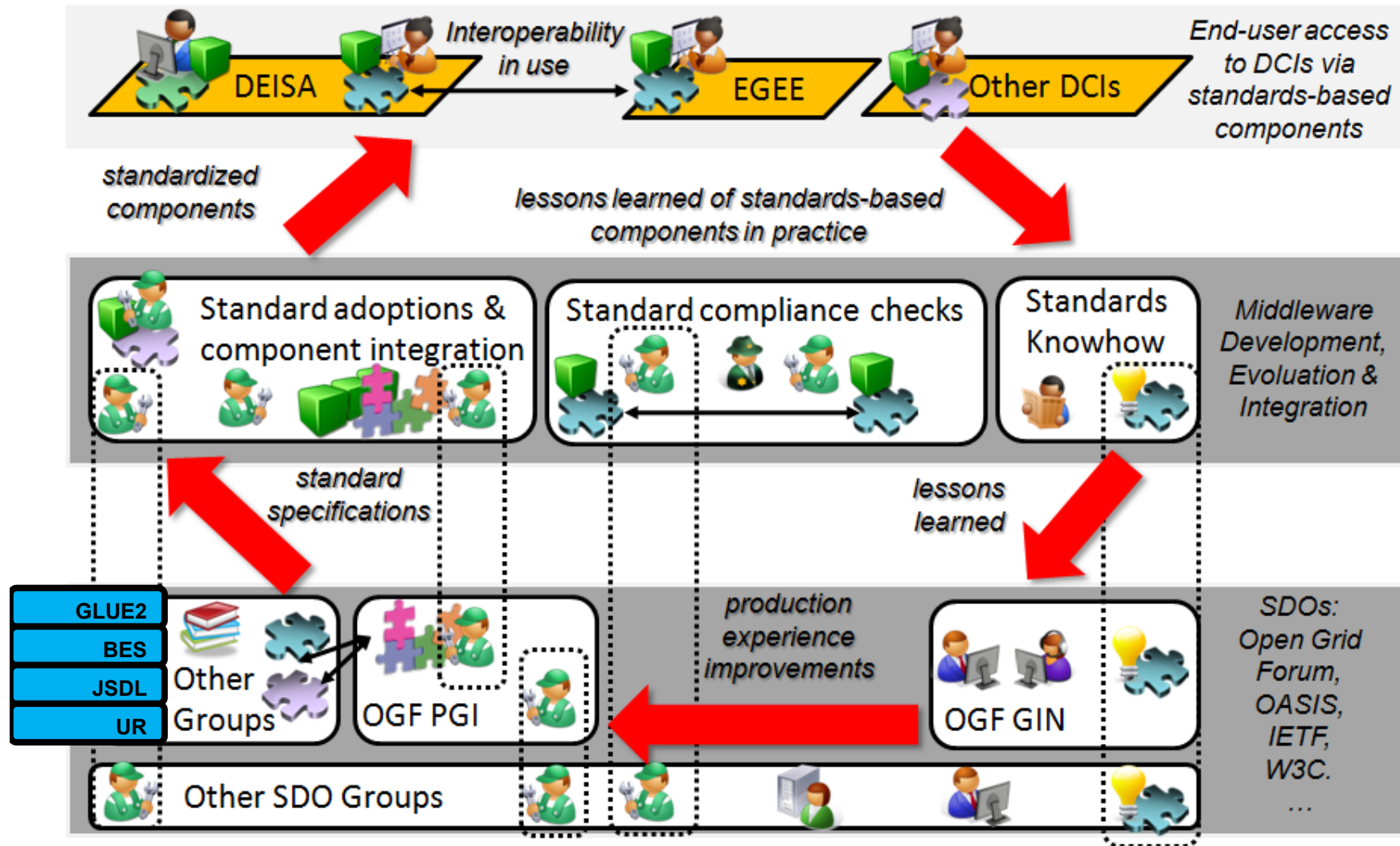
- EMI-ES Input Debriefing
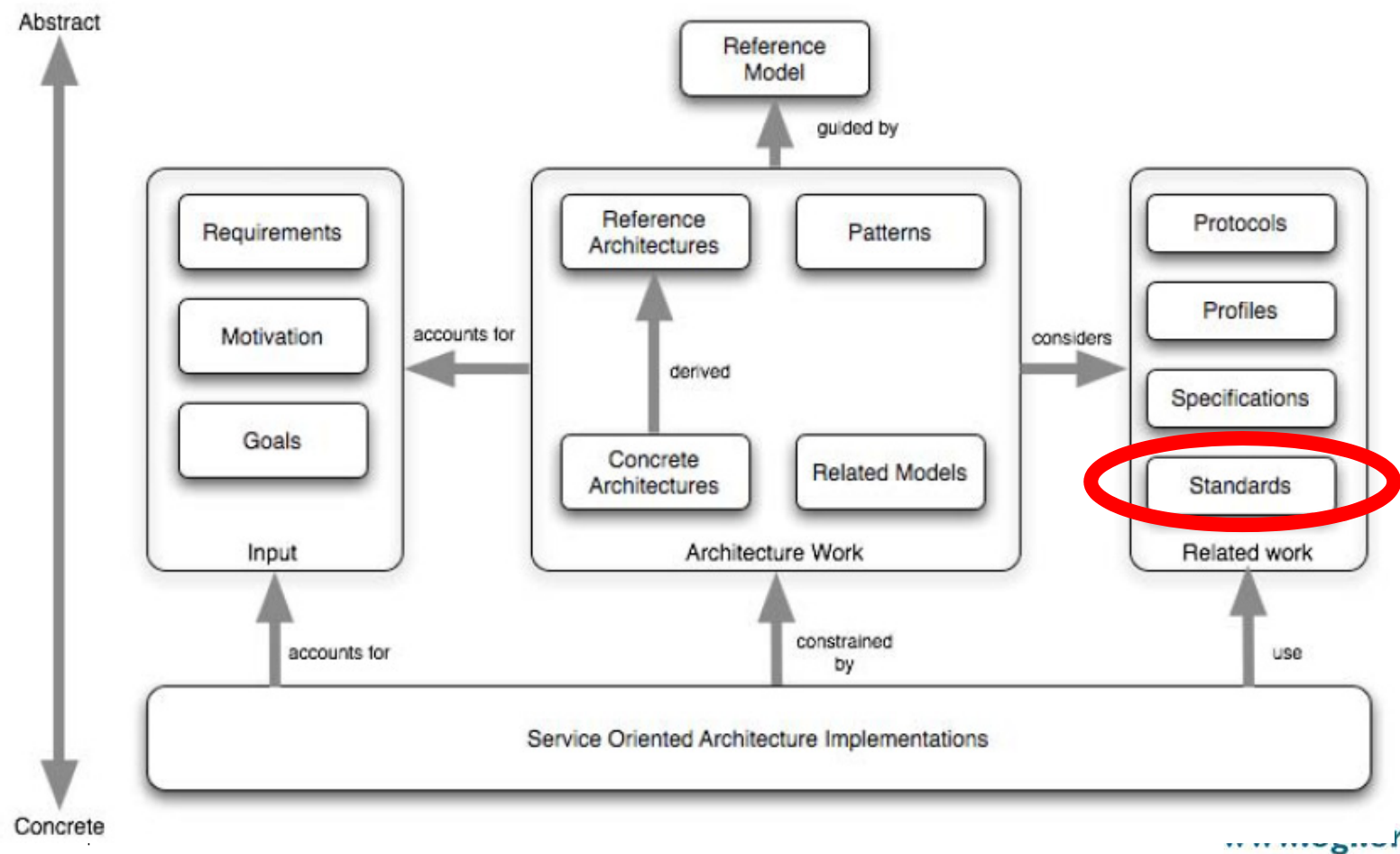
- Next Steps

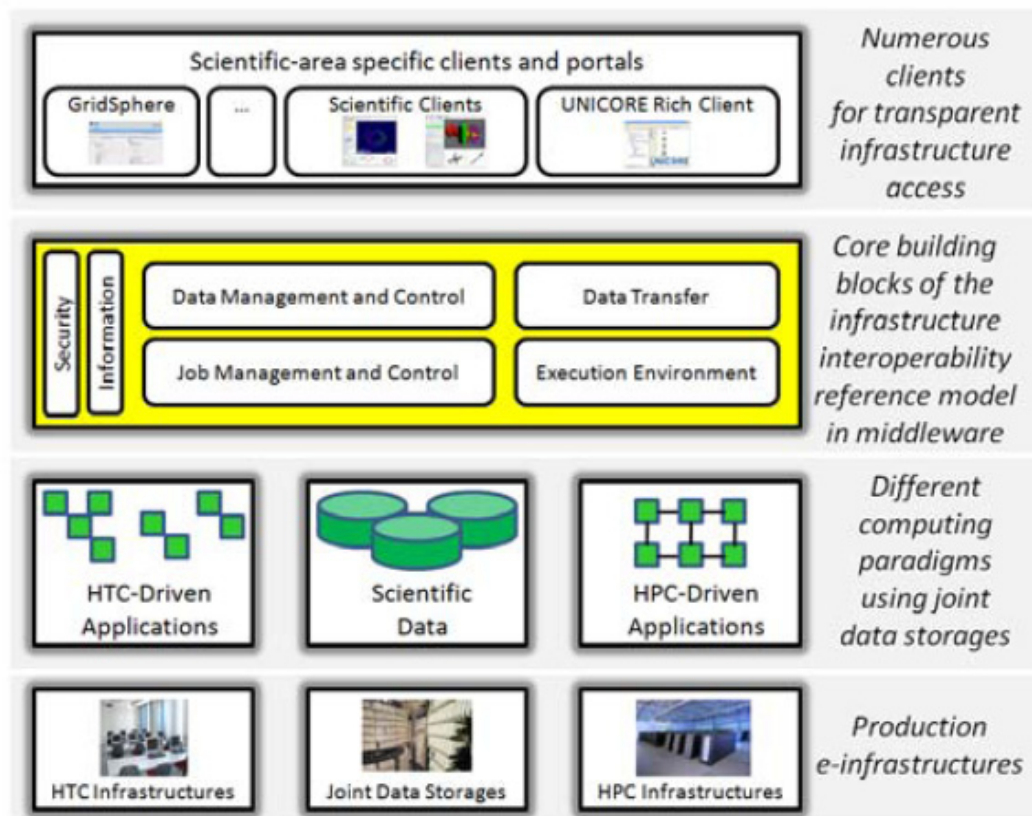# Welcome & Progress

PGI & GIN Ecosystem

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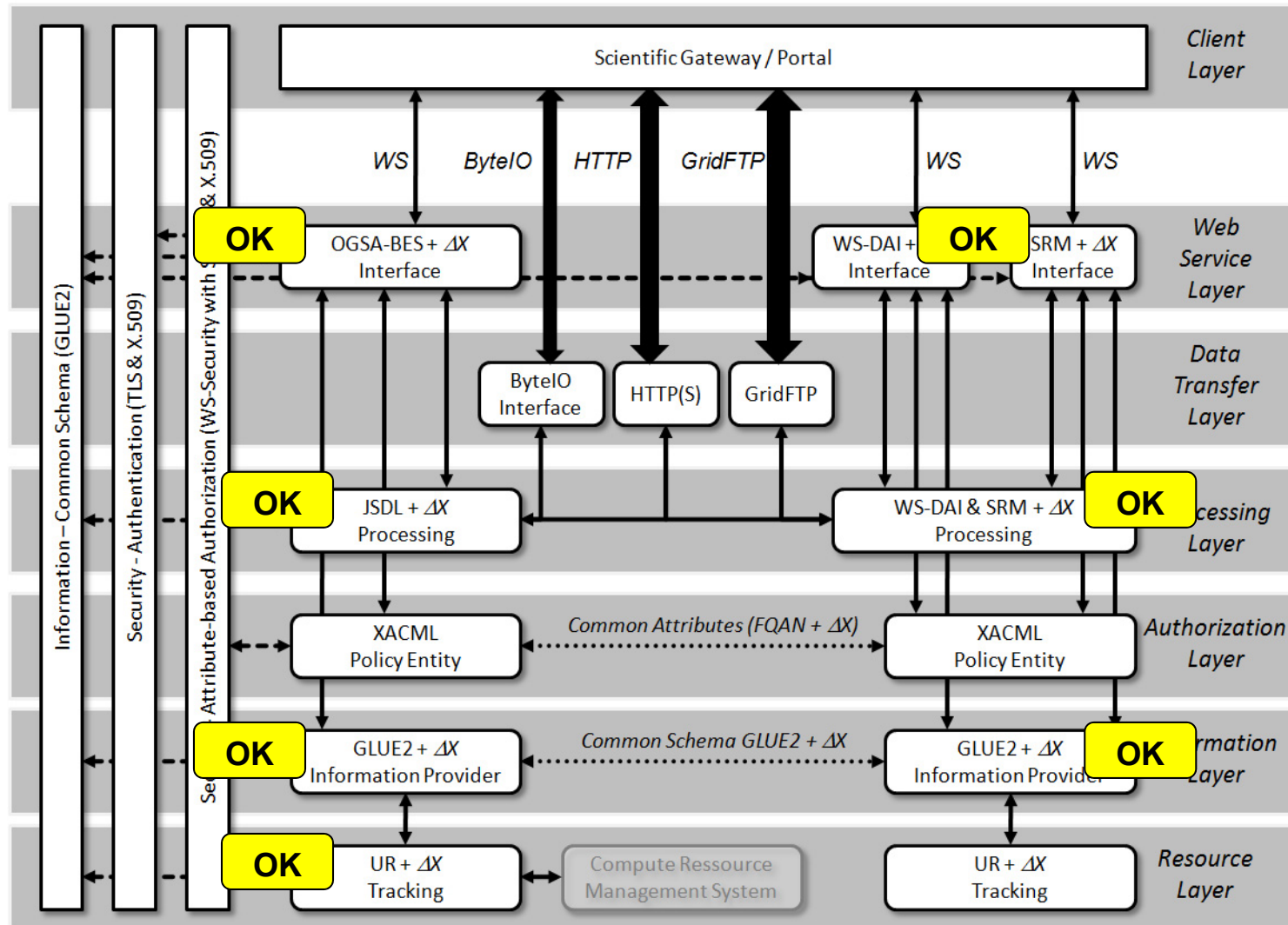# What is a Reference Model?

- Out of OASIS – SOA Reference Model

PGI Reference Model

PGI Reference Architecture

Reminder of PGI Goals

- Catch production experience from GIN within PGI
  - Identify streams for different technical areas in using existing standards: security, compute, data, infrastructure
  - Feedback to relevant standardization working groups with concrete input

- Work on bringing contents from different technical areas into the various OGF specifications
  - Compute activity description feedback into JSDL group
  - Compute service management feedback into OGSA-BES group
  - Security into security groups or PGI profiles (most notably attribute-based authorization profiling)

First Documents Out!

PGI Glossary

▶ **GFD.181** | OGF-Production Grid Infrastructure: Glossary of Acronyms and Terms, Version 1.0 | INFO | E. Urbah

GFD-I.181 | Editor:
OGF – Production Grid Infrastructure | E. Urbah, LAL, Univ Paris-Sud, IN2P3/CNRS

http://forge.gridforum.org/sf/projects/pgi-wg | 20 March, 2011

- GFD181 PGI
  Glossary
  of Acronyms
  and Terms 1.0

- Look at document… online

OGF – Production Grid Infrastructure
Glossary of Acronyms and Terms
Version 1.0

Status of This Document

This document, based on the 'OGSA® Glossary of terms' GFD.120 [13], provides information to the Grid community regarding the acronyms, concepts and terms for the documents to be elaborated by the Production Grid Infrastructure Working Group (PGI-WG). It does not define any standards or technical recommendations. Distribution is unlimited.

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Abstract

The Production Grid Infrastructure Working Group (PGI-WG) is elaborating documents permitting to improve interoperability of Production Grids.

The purpose of this 'Glossary of Acronyms and Terms' is to provide an expansion of acronyms and an unambiguous definition of terms used in the context of a Production Grid.

It is based on the 'OGSA® Glossary of terms' GFD.120, the 'GLUE Specification v. 2.0' GFD.147 and the PGI 'Vocabulary' Wiki page.

The root terms are 'Data processing', 'Administrative domain', 'Trust' and 'Federation'.

It provides a minimum background information about Grids, but does NOT attempt to justify the definitions or the context in which they may be used. The reader is referred to external documents for further explanation where necessary.

Status of This Document

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PGI Use Cases

- GFD180 PGI
  Use Case Collection
  Version 1.0

- Look at document… online

GFD-I.180
OGF – Production Grid Infrastructure

http://forge.gridforum.org/sf/projects/pgi-wg

Editors:
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Johannes Watzl, LMU
20 March, 2011

OGF – Production Grid Infrastructure
Use Case Collection
Version 1.0

Category: INFORMATIONAL

Abstract

The Production Grid Infrastructure (PGI) working group works on a well-defined set of standard profiles, and additional standard specifications if needed, for job and data management that are aligned with a Grid security and information model that addresses the needs of production Grid infrastructures. These needs have been identified in various international endeavors and are in many cases based on lessons learned obtained from the numerous activities in the Grid Interoperation Now (GIN) community group. Therefore, PGI can be considered as a spin-off activity of the GIN group in order to feed back any experience of using early versions of open standards (e.g. BES, JSDL, SRM, GLUE2, UR, etc.) in Grid production setups to improve the standards wherever possible. This particular document is a survey of common use cases provided by different stakeholders of PGI profiles or standard specifications. Such stakeholders include production Grid and e-science infrastructures as well as technology providers. The goal of this document is to have a foundation for a set of important requirements to be addressed by the PGI set of profiles and/or specifications.

Status

- Initial Documents have been released
  - PGI Glossary of Terms available
  - PGI Use Case Collection available

- Period with Bi-weekly PGI telcons
  - Discussions about the input from EMI Execution Service Specification
  - Comments available by members

- Period Bi-weekly telcons together with JSDL
  - Participants have been largely the PGI members
  - JSDL unfortunately became inactive again

- Short period without much actions
  - Project reviews from majority of members of PGI
  - Plans to reorganize ourselves at OGF32 and afterwards
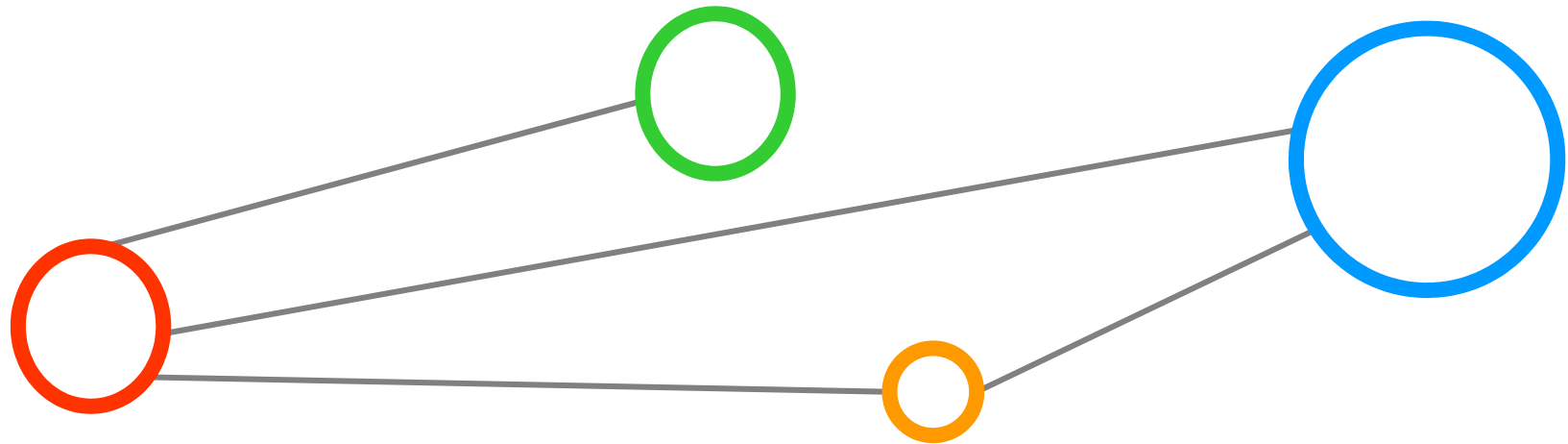
EMI-ES Input Overview
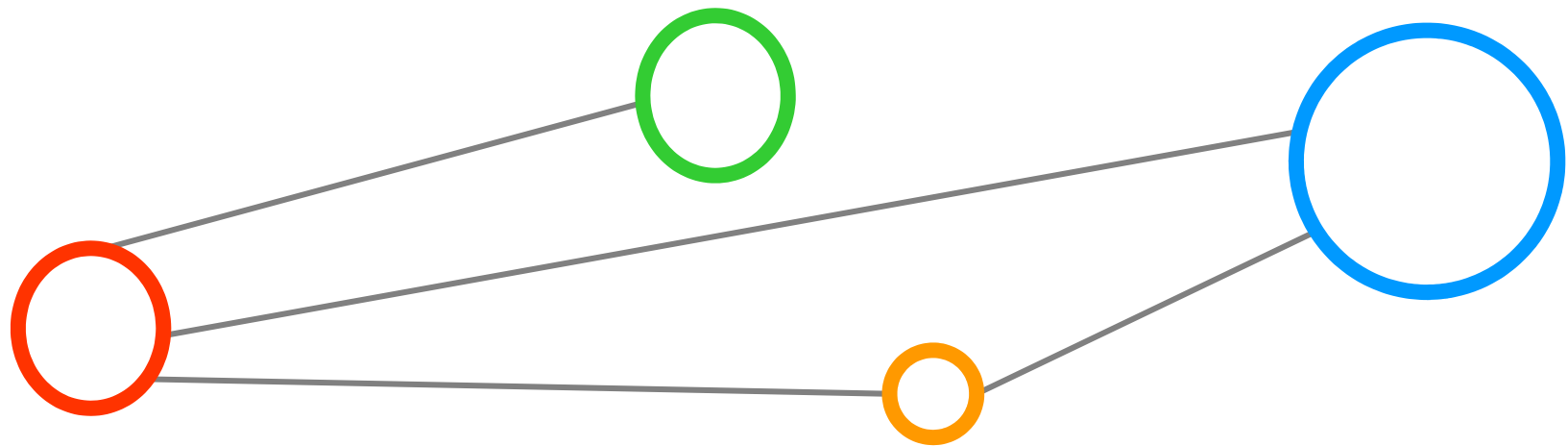
EMI-ES Input: Spec & Schema

- See Online, EMI Wiki

EMI-ES Input Debriefing

EMI-ES Input Debriefing (1)

- Section 1.2: Delegation approach in the specification
  - Solved: Discussions in EMI reveal that new emerging delegation work can be used instead (activities around OGF from Paul)
  - Solution: Keep delegation out of specs

- Why do both the ActivityManager and ActivityInfo port-types have GetActivityStatus/GetActivityInfo operations? What is the difference between them?
  - Work in progress

EMI-ES Input Debriefing (2)

- Performance concerns and issues around vectors
  - „Activity description document" similiar like JSDL (input to JSDL 1.1/2.0)
  - A vector of them gets big quick
  - Implementation experience from Genesis: trouble with this in and thus good reasons to implement the ParameterSweep extensions

- Page 8/45 response vector also perhaps problematic
  - Not EPRs as of now

- Bottom line: Performance might be problematic
  - Iterator pattern might be much more feasible
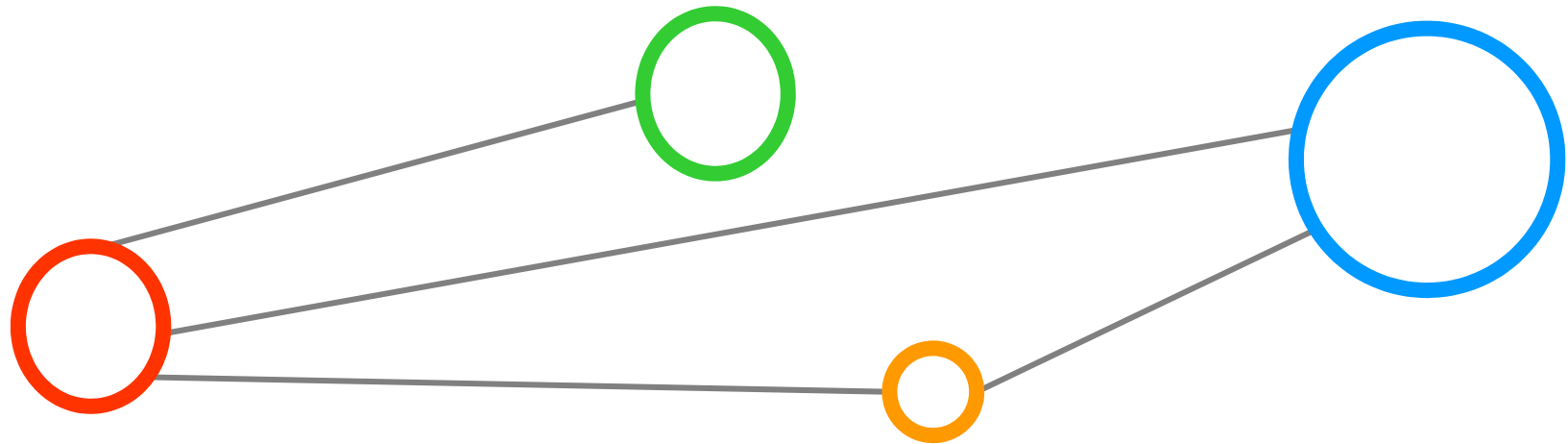 - Suggestion to use WS-Iterator 1.0 specification

EMI-ES Input Debriefing (3)

- Page 6/45: Definitions of what happens regarding data staging for various types and times of failures
  - Valuable Input for PGI and BES 1.1/2.0

- Activity Description Document
  - Elements from GLUE2 and JSDL
  - Not JSDL 1.0 (but input for JSDL 1.1/2.0)
  - Unfortunately structure-wise incompatible yet
  - Case by case discussions of additions to JSDL necessary

Next Steps

Next Steps

- Establish Calls again
- Agree to common strategy between international infrastructures, users and technology providers

- Concrete links with new JSDL strategy
- Concrete links with new OGSA-BES strategy
- Concrete links with new UR strategy
- Synchronize with GLUE2 XML Rendering

- Think about necessary profiles that cover aspects not taken by JSDL and BES (if necessary)

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