



Contribution ID: 69

Type: **Workshop/Training**

## Workshop for users: outcomes from the Federated Cloud Task Force

*Wednesday, 28 March 2012 16:00 (1h 30m)*

Opening and introduction - Steve Brewer

Use case 1 - WeNMR Alexandre Bonvin (Structural Biology)

Use case 2 - Peachnote - Vladimir Viro (Music analysis)

Use case 3 - WS-PGRADE - Zoltan Farkas (Web portal for grid access)

TaskForce Test bed - Matteo Turilli

Discussion

### Description of the Work

EGI is a federation of national and domain specific resource infrastructure providers comprised of individual resource centres. Many of these resource centres have been experimenting with the deployment of virtualised management environments to improve the local delivery of services. Many of EGI's current and new user communities would like to access the flexibility provided by virtualisation across the infrastructure on demand in a 'cloud like' environment. Federating these individual virtualised resources is a major priority for EGI that has started with the EGI User Virtualisation Workshop, and the drafting of the EGI Cloud Integration Profile. This Task Force has been meeting each week, typically by telephone, to report on progress of the six scenarios which have been developed in a staggered sequence by sub-groups from within the Task Force. In parallel with these scenarios the resource providers have been making ready the resources needed to implement the prototypes. Community involvement has been a major goal of the Task Force from the start. Inevitably this was challenging in the early stages when there was little on offer for end users, however success is clearly predicated on delivering viable and valuable end-user services.

The objectives of the Task Force are to:

1. develop a blueprint document for EGI resource centres;
2. define and prototype solutions for monitoring, accounting and advertising virtualised resources within EGI's existing production infrastructure;
3. investigate and catalogue requirements for future new community-facing services;
4. provide feedback to relevant technology providers;
5. identify and work with user communities willing to be early adopters;
6. identify issues that need to be addressed by other areas of EGI.

It is critical for the success of the move to more flexible and adaptable services for user communities that communities are involved in this process.

### Conclusions

Bringing the achievements of the Task Force to a wider audience is a key goal of this workshop. EGI is a federation of national and domain specific resource infrastructure providers comprised of individual resource

centres. Many of these resource centres have been experimenting with the deployment of virtualised management environments to improve the local delivery of services. Many of EGI's current and new user communities would like to access the flexibility provided by virtualisation across the infrastructure on demand in a 'cloud like' environment. Federating these individual virtualised resources is a major priority for EGI that has started with the EGI User Virtualisation Workshop, and the drafting of the EGI Cloud Integration Profile. Embedding a spectrum of user communities in the development and testing of the scenario prototypes will ensure that the resulting blueprint document will be a comprehensive planning document for the next phase of the infrastructure.

## Impact

The workshop will present all of the objectives but the focus will be on objectives 3 and 5. User communities keen to participate in the Task Force and hence become an early adopter will be particularly welcome at the workshop. Having previous experience of implementing virtualised solutions is not a prerequisite for participation although communities bringing their own solutions are equally welcome. Capturing requirements for new community-facing services is another focus of the workshop. We will explain which services are most likely to benefit from a cloud delivery model so a thorough grasp of the underlying technology is not a prerequisite for submitting suggestions for future services. Representatives from the NGI sites and the technology delivery partners will be present and also interested to hear details of emerging requirements.

The objectives are being addressed through the following six high-level scenarios:

1. Running a single VM under my existing identity on a remote cloud
2. Running my data and VM in the Infrastructure
3. Integrating multiple resource providers
4. Accounting across Resource Providers
5. Reliability/Availability of Resource Providers
6. VM/Resource state change notification

The scenarios that are being developed were identified during the preliminary investigation as being both representative of perceived needs and also a viable sequence of building blocks. However, the aim is to instantiate them with real user communities in order to validate the blueprint document. The workshop will present the current status of the implementation of six scenarios and also invite participants to explore how these scenarios relate to their own working practices. The goal will be to match instances that can be taken forward collaboratively to test and validate the prototypes. The Task Force will be working hard to instantiate these scenarios with real use-cases to confirm their road-worthiness.

## URL

<https://wiki.egi.eu/wiki/Fedcloud-tf:FederatedCloudsTaskForce>

## Overview (For the conference guide)

This workshop will present a detailed overview of the Federated Cloud Task Force. It will explain the rationale behind its establishment, describe the mandate for its actions, introduce the participants and their motivation for involvement and present the six workbench scenarios.

The Federated Cloud Task Force has been running since October 2011 with the aim of producing a blueprint for the delivery of federated 'cloud-like' resources for user communities wishing to exploit resources from multiple EGI sites with flexibility, economy and ease of use. The Task Force comprises resource and technology providers as well as representation from the wider user community. Prototypes are being developed against a series of scenarios which range from simply running a virtual machine image to more complex integrated managed solutions. Resources have been made available from sites across Europe in order to test the scenarios and user communities have been invited to participate in the test cases.

**Primary author:** Mr BREWER, Stephen (EGLEU)

**Co-authors:** Dr TURILLI, Matteo (OERC); Dr DRESCHER, Michel (EGLeu)

**Presenters:** Dr TURILLI, Matteo (OERC); Dr DRESCHER, Michel (EGLeu); Mr BREWER, Stephen (EGLEU)

**Session Classification:** Clouds: a User-centric Discussion