



Meeting:	Task Force Federated Clouds
Date and Time:	Tuesday 11 Oct 2011 - 11:00-12:05 CET
Venue:	Conference Call via HiDef
Agenda:	https://www.egi.eu/indico/event/587

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Participants

Name and Surname	Abbr.	Representing	Function
Matteo Turilli	MT	Oxford University	Task Force Chair
Michel Drescher	MD	EGI.eu	Technology Manager
Stuart Kenny	SK	TCD	Resource Provider
Shahbaz Memon	SM	FZ Juelich	Resource Provider
Bjoern Hagemeyer	BH	FZ Juelich	Resource Provider
Peter Solagna	PS	EGI.eu	Operations Officer
Miroslav Ruda	ML	CESNET	Resource Provider
Daniele Cesini	DC	EGI-InSPIRE JRA1	Technology Provider
Alexander Papaspyrou	AP	OGF DCIFed	OGF DCIFed Co-Chair
Marco Verlato	MV	WeNMR	User Community
Carl Loomis	CL	StratusLab	Technology Provider
David O'Callahan	DO	TCD	Resource Provider
Micheal Higgins	MH	CloudSigma	Resource Provider
Steve Brewer	SB	EGI.eu	Chief Community Officer
Zeeshan Ali Shah	ZS	KTH	Resource Provider, Technology Provider
Floris Sluiter	FS	SARA	Resource Provider

Apologies

Name and Surname	Abbr.	Representing	Function
Tomasz Szepieniec	TS	CYFRONET	Resource Provider
Alexandre Bonvin	AB	WeNMR	User Community



AGENDA BASHING

There were no changes to the proposed agenda.

MINUTES OF THE PREVIOUS MEETING

The minutes of the previous meeting (4 October 2011) are publically available in MS Word and Adobe PDF format, and are accessible at: <https://www.egi.eu/indico/conferenceDisplay.py?confId=586>.

Accepted without modifications

ACTIONS REVIEW

Please note that the actions are now managed with the help of the to-dos lists at the following Basecamp website: <https://oerc.basecamp.com/>

ID	Resp.	Description	New Status
02/01	SB	Provide initial documentation on User Community requirements and needs that may be used as use cases for a federated cloud infrastructure <i>13 Sep 2011: In progress, the received answers need to be collated.</i> <i>27 Sep 2011: No progress</i> <i>04 Oct 2011: No progress.</i> <i>11 Oct 2011: No progress</i>	OPEN
04/01	ML	Provide contact details for the mentioned Resource Centre that is willing to contribute to the physical test bed for the Task Force <i>13 Sep 2011: No progress</i> <i>27 Sep 2011: In Progress, it is currently unclear as to how many resources the site is able to contribute</i> <i>04 Oct 2011: No progress.</i> <i>11 Oct 2011: Contacts in Email to mailing list.</i>	OPEN CLOSED
07/02	AE	Fill in the inventory matrix (KTH) provided through Action 03/02 <i>27 Sep 2011: No progress</i> <i>04 Oct 2011: Information partially available, but not added to the Wiki yet.</i> <i>11 Oct 2011: Information was provided in the Wiki.</i>	OPEN CLOSED



08/02	FS/MB	Fill in the inventory matrix (SARA) provided through Action 03/02 <i>27 Sep 2011: No progress</i> <i>04 Oct 2011: No progress, but was promised offline for this week.</i> <i>11 Oct 2011: No progress; Matteo to follow-up (Action 01/05)</i>	OPEN
02/03	GS	Provide an introduction on the WIKI about the stakeholders, actors and terminology used in this Task Force <i>04 Oct 2011: No progress</i> <i>11 Oct 2011: No progress</i>	OPEN
03/03	MD	Provide an overview of the six scenarios in the Wiki including Scenario leaders and scenario complexity. <i>04 Oct 2011: No progress</i> <i>11 Oct 2011: No progress</i>	OPEN
04/03	MH	Fill in the inventory matrix (CloudSigma) provided through Action 03/02 <i>04 Oct 2011: No progress</i> <i>11 Oct 2011: No progress so far; anticipated to be completed by tomorrow Wednesday.</i>	OPEN
05/03	RY	Fill in the inventory matrix (GWDG) provided through Action 03/02 <i>04 Oct 2011: No progress</i> <i>11 Oct 2011: No progress</i>	NEW OPEN
01/04	MT	Contact umbrella activities mentioned in Action 11/01 and negotiate participation in the Task Force <i>11 Oct 2011: On-going, no results yet</i>	NEW OPEN
02/04	DC	Provide contact details to MT and MD to add technical experts for monitoring into the Task Force <i>11 Oct 2011: Has identified staff, needs discussion on a JRA1 conference call next week</i>	NEW OPEN
03/04	MD	Contact Task Force representatives for accurate affiliation information and deputies (where required). <i>11 Oct 2011: No progress</i>	NEW OPEN
04/04	ZS	Iterate on the conference call topic "Security audit": What does it mean, what does it entail, and what is the scope for the Task Force? <i>11 Oct 2011: No progress, will be discussed today</i>	NEW OPEN



ITEMS OF BUSINESS

Work group scenario 1 progress report

The call participants quickly run through Resource Provider status reports:

KTH:

ZS gives a short report on the progress. The infrastructure is fine, can provide plain vanilla VMs based on CentOS and Debian. KTH's other users use these, too. Users need to apply for an account, sign the KTH policy and we will activate the account. and KTH will provision them. A user guide is available, describing how to launch virtual Machines. KTH uses usernames and passwords for authentication. ZS asks for a discussion and/or decision on which authentication infrastructure will be used for the test bed.

ZS anticipates that WeNMR users will be able to use the accounts by today. MV has the requirement to upload WeNMR-created VMs. ZS replies that this is covered in scenario 2; the first scenario is about getting the Resource Provider infrastructure up and running, and explore existing VM management infrastructure.

Juelich:

BH gives a short report on the progress. A new machine has been installed and integrated into the Juelich infrastructure; Cloud Management solutions were not decided up until recently to use OpenStack. Cloud infrastructure issues and processes need to be resolved, such as user registration, IP addresses etc. MT asks for when FZJ anticipates having user accounts set up. BH replies that that should be possible by the end of this week.

CESNET:

ML gives a short summary. OpenNebula is currently being installed; accounts are possibly available this week, but more likely next week. Account creation will not follow formalised processes, but be set up manually for WeNMR users since the formal processes and documents are available in Czech only.

CloudSigma:

MH gives a short summary. CloudSigma has provisioned the committed resources, and is setting up the system for users from this task force to apply for their accounts. The biggest obstacle was (and still is) to disable the billing for those users; however this should be resolved by the end of this week.

Cyfronet: skipped for no participant on the call (with apologies).



DWDG: skipped for no participant on the call.

Oxford:

MT gives a short summary. Due to stability issues with Eucalyptus, Oxford decided to transition to OpenStack. This is anticipated to take about one to two weeks. MT states that the Open Source version of Eucalyptus would cover at best scenarios 1 and 2 but no further. MD asks MT to document this in the blueprint document (**Action 02/05**).

TCD:

DO gives a short summary. TCD runs a StratusLab installation. No process is in place to register users or give them accounts in a formal way. Also TCD does not have public IP addresses available, so access to running VMs is currently not possible. MT asks for a deadline when the public IPs would be available. DO replies that a concrete deadline is difficult to give as University policy may be in the way to resolve this.

ZS and DO discuss the difficulties with IP address policies and root access to VM machines. ZS mentions that KTH faced the same problem before when setting up a cloud for other projects. ZS suggests talking to management to drive this forward rather following a bottom-up approach. ZS further states that this seem to be a psychological issue rather a technical issue, so support of management is essential

[IPv4 vs IPv6:] The participants discuss general IPv4 address availability. Allocation of IPv4 addresses has run out earlier this year. ZS mentions that some institutes install VPN service endpoints to overcome public IP address shortages. The group further discusses issues around IPv6 availability. CL states that StratusLab needs to evaluate whether it is ready for IPv6 before the end of the year. ZS mentions that the software stack is not necessarily the issue – it seem that the intermediate routers (i.e. backbone providers) will not yet route IPv6 traffic between Clouds that would be built using IPv6 addresses. ZS volunteers to document this in the Wiki (**Action 04/05**).

The group finishes with agreeing that Technology Providers will evaluate their IPv6 readiness before the end of the year (**Actions 05/05, 06/05**).

SARA:

FS provides a summary for SARA. SARA launched its new Cloud infrastructure last week with a big open day, including user demonstrations how they use the SARA Cloud. FS confirms to coordinate scenario 3. MT requests that SARA will update the Wiki page with their resource offerings. FS states that Jurgen Dogelaar is already a user of the SARA Cloud.

FS and MV describe how WeNMR is already using three different Clouds (SARA, Amazon and BitBrains). WeNMR is not dispatching VMs between the different providers. Instead, WeNMR uses the SARA Topos



service as a broker service that dispatches compute jobs between the running VM instances. I.e. VMs contact Topos via its RESTful API to query for a workload job. MV and FS confirm that Topos effectively implements the pilot job mechanism across Grids and Clouds.

FS and MV agree to document the WeNMR Cloud usage practice in the Wiki (**ACTION 07/05**).

Work group scenario 2 report

MH describes a series of questions for answering to prepare for scenario 2. MH further states that many of the questions were already touched on the Task Force Mailing list and calls.

The call participants discuss issues around Hypervisor interoperability between KVM, Xen etc. FS mentions that there are converters available that translate between Xen, AMI, KVM images etc. MH also mentions that users in commercial clouds tend to move ISO disk images in and out; also drive emulation is not covered in current standards, which could be a possible hurdle. MH further clarifies that the Task Force need to discuss about what exactly the participants expected their users to move in and out, e.g. simply bundled VMs, root disks and server requirements. MH hopes to see a robust discussion around this. Using jcloud etc. allows moving workload images across Cloud Providers. FS mentions that users tend to create KVM images to upload to SARA; also OVF images were created that had to be converted by hand.

The group discusses hypervisor interoperability, formats and automated converters. MT interjects that the Task Force needs to be technology agnostic as much as possible. ZS adds that the user typically must adhere to the image specification given by the providers. The discussion continues around OVF and hypervisor interoperability. MD adds that either all providers must support all hypervisor formats, or that Cloud Providers differentiate in which hypervisor they do support. In that case, MD continues, Cloud Providers need to provide documentation on how to convert existing VM images to the hypervisor format that is supported by the pertinent Cloud provider.

The group discusses possible ways out of that problem in that the Task Force may provide baseline images on top of which users may install their own applications, or EGI may provide pre-packaged applications on defined hypervisors and operating systems available for users to use. MH requests the different providers to publish their capabilities around Hypervisor usage, VLAN issues, public IP addresses, etc. (**Action 08/05**).

MH starts a short discussion around how to move data payloads in and out of Resource Providers. Interoperability and packaging formats of data payloads will become an issue, he adds. MT suggests starting discussions on issues on the mailing list, instead of discussing the problem on the conference calls. MH asks for requirements from user communities on data payload movement in and out of Clouds (**Action 09/05**).



Policy issues in Federated Clouds

Federated AAI

Postponed to the Mailing list, and next call.

Security Audit

Postponed to the Mailing list, and next call.

Resource availability access policies

Postponed to the Mailing list, and next call.

AOB

There being no further business to discuss, MD and MT close the conference call.



ACTIONS

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04/04	ZS	Iterate on the conference call topic "Security audit": What does it mean, what does it entail, and what is the scope for the Task Force?	NEW OPEN
01/05	MT	Follow-up with SARA to fill in the inventory matrix	NEW
02/05	MT	Record Eucalyptus stability and coverage issues in the blueprint.	NEW
03/05	DO	Report about the issues about policy and non-technical issues that do not allow TCD to make user accounts available to users.	NEW
04/05	ZS	Document the issues around IPv4 and IPv6 in the Wiki	NEW
05/05	CL	Evaluate and document StratusLab status for IPv6 support	NEW
06/05	DC	Evaluate and document EGI-InSPIRE JRA1 status for IPv6 support	NEW
07/05	FS/MV	Document the WeNMR Cloud usage framework across multiple Cloud Providers in the Task Force Wiki.	NEW
08/05	MH	Start collecting inventories and capabilities of resource providers around Hypervisor capabilities, VLAN issues and IP address obstacles, etc.	NEW
09/05	MV	Document data movement and access requirements of WeNMR for their use of Clouds.	NEW



Minutes prepared by Michel Drescher, 6 September 2011

Minutes Approved Task Force Chair Matteo Turilli

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