Meeting:	Task Force Federated Clouds
Date and Time:	Tuesday 18 Oct 2011 - 11:00-12:05 CET
Venue:	Conference Call via HiDef
Agenda:	https://www.egi.eu/indico/event/588

- ## Participants

Name and Surname	Abbr.	Representing
Miroslav Rud	MR	CESNET
Micheál Higgins	MH	CloudSigma
Tomasz Szepieniec	TS	CYFRONET
Marco Verlato	MV	INFN
Daniele Cesini	DC	INFN
Zeeshan Ali Shah	ZAS	KTH
Stuart Kenny	SK	TCB
Matteo Turilli	MT	OeRC

1. Apologies
None

- ## AGENDA BASHING

There were no changes to the proposed agenda.

- ## MINUTES OF THE PREVIOUS MEETING

The minutes of the previous meeting (11 October 2011) are publically available in MS Word and Adobe PDF format, and are accessible at: https://www.egi.eu/indico/conferenceDisplay.py?confId=587.

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.basecamphq.com/.

ID	Resp.	Description	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 _13 Sep 2011_: _In progress, the received answers need to be collated._ _27 Sep 2011_: _No progress_ _04 Oct 2011_: _No progress._ _11 Oct 2011_: _No progress_ _18 Oct 2011_: _No Progress_	OPEN
08/02	FS/MB	Fill in the inventory matrix (SARA) provided through Action 03/02 _27 Sep 2011_: _No progress_ _04 Oct 2011_: _No progress, but was promised offline for this week._ _11 Oct 2011_: _No progress; Matteo to follow-up (**Action 01/05**)_ _18 Oct 2011_: _No progress;_	OPEN
02/03	GS	Provide an introduction on the WIKI about the stakeholders, actors and terminology used in this Task Force _04 Oct 2011_: _No progress_ _11 Oct 2011_: _No progress_ _18 Oct 2011_: _No progress_	OPEN

03/03	MD	Provide an overview of the six scenarios in the Wiki including Scenario leaders and scenario complexity.	OPEN
		04 Oct 2011: No progress	
		11 Oct 2011: No progress	
		18 Oct 2011: No progress	
04/03	MH	Fill in the inventory matrix (CloudSigma) provided through Action 03/02	CLOSED
		04 Oct 2011: No progress	
		11 Oct 2011: No progress so far; anticipated to be completed by tomorrow Wednesday.	
		18 Oct 2011: Closed	
05/03	RY	Fill in the inventory matrix (GWDG) provided through Action 03/02	OPEN
		04 Oct 2011: No progress	
		11 Oct 2011: No progress	
		18 Oct 2011: No progress	
01/04	MT	Contact umbrella activities mentioned in Action 11/01 and negotiate participation in the Task Force	OPEN
		11 Oct 2011: On-going, no results yet	
		18 Oct 2011: On-going, no results yet	
02/04	DC	Provide contact details to MT and MD to add technical experts for monitoring into the Task Force	OPEN
		11 Oct 2011: Has identified staff, needs discussion on a JRA1 conference call next week	
		18 Oct 2011: No progress	
03/04	MD	Contact Task Force representatives for accurate affiliation information and deputies (where required).	OPEN
		11 Oct 2011: No progress	
		18 Oct 2011: No progress	
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?	OPEN
		18 Oct 2011: No progress	

01/05	MT	Follow-up with SARA to fill in the inventory matrix	OPEN
		18 Oct 2011: Done, no answer yet	
02/05	MT	Record Eucalyptus stability and coverage issues in the blueprint.	OPEN
		18 Oct 2011: No progress	
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.	OPEN
		18 Oct 2011: No progress	
04/05	ZS	Document the issues around IPv4 and IPv6 in the Wiki	OPEN
		18 Oct 2011: No progress	
05/05	CL	Evaluate and document StratusLab status for IPv6 support	OPEN
		18 Oct 2011:	
06/05	DC	Evaluate and document EGI-InSPIRE JRA1 status for IPv6 support	OPEN
		18 Oct 2011: No progress	
07/05	FS/MV	Document the WeNMR Cloud usage framework across multiple Cloud Providers in the Task Force Wiki.	OPEN
		18 Oct 2011: No progress	
08/05	MH	Start collecting inventories and capabilities of resource providers around Hypervisor capabilities, VLAN issues and IP address obstacles, etc.	OPEN
		18 Oct 2011: No progress	
09/05	MV	Document data movement and access requirements of WeNMR for their use of Clouds.	OPEN
		18 Oct 2011: No progress	

ITEMS OF BUSINESS

1. Administrativa

2. Policy issues in Federated Clouds

Federated AAI
Cloudsigma (MH):

1. CloudSigma supports user name and password.
2. There is little commercial drive to X509 so there are no short term plans to implement certificate-based AA but it can be discussed if required.
3. If necessary, CloudSigma would need to discuss the technical requirements to implement a SSO-based AAI. How it would look like the SSO token and how it would be passed to CloudSigma?
4. A consensus around a single AAI technology should be reached. It would be difficult to support many different types of AAI.

KTH (ZAS)

1. KTH supports user name and password.
2. Planning to support X509.
3. Points out that we should discuss about two different AA tokens: the one needed to access the VMs (e.g. ssh keys) and the one needed to instantiate a VM and access the cloud controller API. ZAS poses the issue of whether ssh keys should be shared across the federation.

CYFRONET (TS)

1. CYFRONET supports user name and password.
2. x509 well established and they plan to use it in the future.
3. Points out that we should discuss Virtual Organisation (VO) support.

CESNET (MR)

1. CESNET Supports x509.

VNMAR (MV)

MV reports that a user (Adrien, Utrecht) was surprised by having to go through a verification process involving signed paper in order to gain access to KTH. The user was expecting to be able to use his certificate. ZAS reports that it should be a temporary situation that will be addressed by a policy change once that the TF agrees on an AA method.

Discussion about KTH-point 3:

- MH reports about their policies. Their users are fully responsible for their VMs. CloudSigma is responsible for the underlying infrastructure. This means that the users are in charge of the security of their own VMs, including, in case, their ssh keys.
- MR agrees with the policy described by MH.
- MT suggests that it would be impractical to share SSH keys across the federation. He points out

that while it is possible to foresee a federated repository of validated VM images, the users should still be able to run their own VMs on the federated cloud choosing (and bearing the responsibility for) the preferred VM access method.

Discussion of CYFRONET, point 3:
General consensus about supporting VOs but nothing specific discussed.

x509/SSO
- MT stresses the importance to reach an agreement about which technology we will be implementing.
- ZAS suggests choosing what the majority of users have already used in order to minimize their learning curve.

VM Management interface
KTH (ZAS)
- OpenNubula API.
- Partial EC2 implementation.
- OCCI layer will be enabled is the TF decides to adopt it.

CloudSigma (MH)
- Pursuing Jcloud, have several customers wanting to use it (should be made available by the end of November).
- Restful API, web console
- OCCI, sounds good but there are many standards. The problem could be to have to support dozens of APIs.

CESNET (MR)
- OpenNebula API.
- Partial EC2 implementation.
- OCCI.

CYFRONET (TS)
- OpenNebula API.
- Partial EC2 implementation.
- OCCI.
- Suggests that we should further review the state of the art of the current standardisation providers.

Management interface APIs and standards
MT suggests that we should discuss the limitations of the current APIs and standards and provide feedback both into the blueprint document and to the technology providers.
ZAS reports that he wants to look into Jcloud and to compare it to OCCI. ZAS asks whether the TF should enforce a single management interface. MT suggests that while all the provides should probably offer at

least one common interface – possibly OCCI as it is an OGF standard that the TF might want to promote – every provider should also be free to offer as many interfaces as its users need. ZAS confirms that OCCI is a green light for KTH.

MH reports that at CloudSigma they worry about the problem of the "common least denominator". He stresses the importance of innovation and the need to keep offering new features. The fear is that the standards will be informed by providers that will not be offering cutting edge innovation. As a consequence, the standards will be too conservative to be adopted by CloudSigma in order to expose innovative features. MH reports that at Jcloud they understand the importance of innovation for the service offering strategy and that their standard evolves so that the service catalogue will not be constrained by the least common denominator. MH makes the example of Amazon and the use of templates for instantiating VMs. MH considers this limiting as, at CloudSigma, they want to let the users to choose the amount of RAM, CPU, DISK on the fly. ZAS stresses that OCCI (and then OpenNebula) does not impose templates as those mandated by Amazon EC2.

MH suggests adding two columns to the spread sheet he has circulated, one for the supported APIs, one for the planned supported APIs. ZAS suggest adding also two similar columns for the AA technologies. MT agrees but recommends using the Wiki site as this is the official repository for the TF activities.

Security Audit

MT proposes to reach an agreement on this matter and to consider the security audit of the VMs something that each resource provider has to implement locally in accordance with their specific security policies. As a consequence, the Task Force should not mandate any security audit to the resource providers. The Task Force - and EGI in general - has no jurisdiction over the security policies of an academic or private institution.

Every resource provider participating to the conference call agrees.

Resource availability access policies

Discussion postponed to the next conference call.

2. Work group scenario 1 progress report

Round table reports

FZJ:

CESNET:

- Created separated authentication for the test user group.
- Asked the users to provide their DN in order to test certificates.
- Still no user activity while waiting for their DN to be sent to CESNET.

CloudSigma:

- Users will use the normal CloudSigma sign up process.

- Free resources will be allocated to the registered users after a mail exchange with MH.
- The procedure should be in place later today (Oct 18th).

Cyfronet:

- They have a problem to activate the users because of local policies. Administrators promised to establish separate authentication mechanism for the TF users. The system should be in place next week (Oct 24th).

GWDG:

Oxford:

SARA:

TCD:

KTH:

- Got two user applications and accounts have been created.
- No user activity yet as the accounts have been created this morning (Oct 18th).

WeNMR:

3. Work group scenario 2 report & planning

- Addressing the account provision is a necessary requirement to start scenario 2.
- The two questions posed in the mailing list: What exactly constitute the definition of a VM? How both the OS image and the data image should be uploaded to the providers? There is still no robust discussion about these two questions. CloudSigma needs to understand how users intend to upload images (OS and data) into their infrastructure. MV reports that he has posted some links about a user scenario in the basecamp (https://oerc.basecamphq.com/projects/7732005-egi-federated-cloudstask-force/todo_items/110668256/comments#139967174) that should be relevant to the questions posed by MH.
- MV stresses the importance of automating the process of VM image creation for each of the federated providers. This is important in order to avoid having the user to create a VM image for each provider she wants to use. MT recalls two scenario that have been discussed in the previous meetings:
    1. EGI provides a centralised repository with a set of verified images. Each image can run on ach federated provider. We still lack the technology to do this.
    2. The users upload their own images into a specific provider infrastructure. The provider may offer tailored scripts to the user in order to automatically convert an OS image into a format suitable for the provider's hypervisor/infrastructure.

MT suggests to focus on scenario 2 and to start to discuss the requirements for scenario 1. The

resource providers agree.

AOB

- The participants think that the TF is not ready to provide requirements for an integrated information system. Furthermore, the TF is seen as an ideal recipient for these requirements but not necessarily the right source for them.
- F2F meeting is a good idea. A poll will be circulated to define date and place for the meeting.

● ACTIONS

ID	Resp.	Description	Status
01/06	MT	Open a thread on the mailing list in order to kick-start the discussion around merits and limitations of OCCI.	NEW
02/06	ZAS	Add four columns to a table in the wiki site for the providers to specify what management interface APIs and AA technologies they support and what APIs and AA technologies they plan to support in the future.	NEW
03/06	MH	Merge the circulated spread sheet into the wiki website.	NEW
04/06	MT	Security audit: record the reached agreement in the blue print document.	NEW
05/06	MT	Open a thread on the mailing list to kick-start the discussion about VM upload scenarios.	NEW
06/06	MT	Answer to Tiziana request about providing a list of requirements for a service registry.	NEW
07/06	MD	To circulate the poll for the F2F meeting.	NEW

Minutes prepared by   Michel Drescher, 6 September 2011

Minutes Approved   Task Force Chair Matteo Turilli

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