2.3 Horizon 2020 Workshop - EGI Federated Cloud, public-private partnerships and business models

Date: 5 Nov 2013
Time: 13:30-15:30
Minuted by: Sy Holsinger; Carmela Asero (EGI.eu)

Session Chair: Sergio Andreozzi, EGI.eu
Session link: https://indico.egi.eu/indico/sessionDisplay.py?sessionId=11&confId=1893#20131205
Agenda:

- 13:30 - 14:00: GEANT Cloud roadmap and business models (Andres Steijaert, SURFnet)
- 14:00 - 14:30: The Helix Nebula Marketplace (Mick Symonds, Atos)
- 14:30 - 15:00: EGI Federated Cloud business models and role in HNX (Sergio Andreozzi)
- 15:00 - 15:30: Panel Discussion

Q&A:
David Wallom: I see problems of scale and running to catch up with commercial offerings. The approach cannot be to make poor quality replicates of what is already available, especially because people are already using them and use them reliably. So the long tail will not come and use core quality services because they use high quality services such as dropbox and amazon.

Andreas Steijaert: Not about doing the same, but finding how we are different, the differentiating factor. Also, commercial providers aren't easy to work with, and they see the science requirements as difficult. Public clouds need to provide added values. High IT knowledge, but limited or no money. We have special requirements/needs and some services cannot satisfy demand of our users. It's about providing the right alternative.

Sergio Andreozzi: And it's the added value functionality, like SSO/authentication. Not replicating what such large providers are offering. There are also privacy issues that is a driving factor.

Serge Salamanka: We would like to deploy the GRNET service in Belarus. How could a collaboration with Géant can be established in cloud? EGI targeted on HTC resources.

A. Steijaert: What we are looking at and discussing is how we can open up these resources to a wider community and how they can be better connected to our network, which is what we would like to discuss in more detail.

M. Symonds: First the scalability question, we have as suppliers, cores available, but we have committed to scale as demand requires. We are not jumping to 100s of 1000s of cores at the start, but we will scale as required and have committed to scale to whatever that demand will be. Regarding the costs/price question, we are aware of e-FISCAL and the need for it. As providers, we have been struggling with this ourselves. After internal analysis resulting from discussion with customers, we have made several exercises to understand TCO. Customers provide X, but don't pay for Y, etc, so we found that this is similar as well in the research domain.

D. Wallom: The killer application has been single player dominance, how is this handled in the blue box?

M. Symonds: A new SMEs wants to participate into HN with its own blue box based on OpenNebula. Our concern at the moment is to have one stable environment.

D. Wallom: Would you be open to Microsoft Europe to join, coming along with a few million cores?

M. Symonds: If someone asks us for 1000 cores, and we only have 500, they can get the other 500 from T-systems, which is something that was never possible before. So to answer, can Microsoft join, the short answer is yes. Anyone can join, as long as they can adhere to the European rules and regulations. However, I don't think that they can.

D. Wallom: The marketplace needs to be focused on how to collaborate. Everyone seems to be or want to be the shopping mall/marketplace, instead of just everyone being inside of one, so we need to decide how we are going to work together.

Mirco Mazzucato: 3 years of HN, but there are no customers. I don't see any user communities standing up saying "I want this to do my work". So we keep doing this for something that is not proven to be of use. I can understand that batch systems are evolving to cloud services, but will still be provided by public funds. This isn't being taking into account now.

A. Steijaert: Geant has experiences in having NRENs offering services that users pay for. There was also a survey shown in a Dutch university that the most popular service in traffic is dropbox.

G. Sipos: Who will operate the blue box?

M. Symonds: One of the first agreements was that people running blue box were not IaaS providers. At the moment, there is a major service provider providing the operation of the bluebox. We will announce the name soon, but none of the IaaS providers will be operating the bluebox.

Panel Discussion:

Members of panel:

- Bob Jones (CERN)
- Jesus Marco de Lucas (CSIC, ES)
- Andres Steijaert (SURFnet/GEANT, NL)
- Mick Symonds (Atos, NL)
- David Blundell (100%IT, UK)
- Björn Hagemeier (FZJ, DE)

R.G. Diaz: I have many user communities requesting tenths of thousands of cores of cloud resources/services. And they have budget.

A. Steijaert: What is the question they are asking, what is the problem they are having?

R.G. Diaz: Some are part of EGI, some are not, but they need cloud IaaS.

S. Andreozzi: Do they have budget for buying?

R.G. Diaz: Yes.

A. Steijaert: Is this time critical?

R.G. Diaz: Yes, they need it exactly when they need it, as they need.

David Blundell: Minimum instance of time for AWS is one year.

A. Steijaert: This cloudbursting need is quite common from what we see. Organisations that have some in-house capacity, but need to scale out in specific periods of time. This is why the shopping mall is needed, so you can see what is the best price combined with the right SLA.

D. Blundell: There are multiple use cases.

M. Mazzucato: We can do that by reducing time and level of activity allocated and accommodate for such requests.

Bob Jones: Yes we can do reallocation and reducing level of current activities, but we have to keep account of the need of freedom of choices in options for users. We have to offer this range of services integrating different suppliers including EGI. This is the HN strategy. We know that we can increase capacity and that there is some shadow computing activity. But we have to make sure that users can make use of whatever resources they may be willing to purchase.

A. Steijaert: I have a business model related question, your middleware provides centralised access to use, do you also included centralise accounting and invoicing, or do users have to do this separately.

M. Symonds: We are coordinating the resources. The customer makes a single request then it is dealt with by providers initially working together on the basis of bilateral legal agreements. We need to be clear in where the services are being delivered and from where, and the justification of the transaction so that the tax authorities can clearly see why this is happening and not just because you are looking to pay the lowest rate possible.

B. Jones: That is what ESA, CERN and EMBL are pushing for in terms of a central procurement system. EGI has to carefully consider issues linked to liability, service levels, legal issues and financial management if it wants to play certain roles in this marketplace. From a Geant perspective, it is bilateral. It is the institute that makes the relationships. If you want to use Amazon, it is your own credit card. Now we have to have the financial aspects directly connected to the institute, so they can control the money and the usage. This also creates a one-to-one relationship. this is why we are trying to get many providers together so we can tell the community or limit the interactions by the community to obtain the cloud services they want.

J. Marco de Lucas: What is research infrastructure? We run research infrastructures, many people just buy a super computer install it and run it, exploit it. We are good at this, this may not be practical always, but for the grid community this works and costs are not that far different or are unknown, but we get what we need and what is not available on the market. As long as research infrastructures are working to improve the research, then I will support the move to whatever technology. We need to leave the lower level service to the market, but we focus on the higher level services, such as HPC or large data transfers, etc.

Tiziana Ferrari: What is the roadmap of the GEANT Cloud initiative, and what are the customer segments addressed?

A. Steijaert: We have to work together at EU level to better serve users. This is what we need to talk about, how to bring in HPC, EGI, and your user communities and how it works in the shopping mall. We work on networks and know that, but we need to work together. We need to ask ourselves if Dropbox is enough, is something more needed, what about using their institution login, it's convenient, expand eduGAIN beyond Europe, etc.

A. Bonvin: Don't think Europe, think Global. eduGAIN and Eduroam are not available in many countries.

A. Steijaert: We are working on extending it.

M. Symonds: We need to think beyond just IaaS, it is also the services that are being built or the opportunities to build on top. Neelie Kroes asked why can't Europe be the trusted cloud provider that follows EU data protection rules. So it needs to be global, but doesn't mean it can't be run or led by us.

J. Marco de Lucas: We need to build something that is trusted from the beginning. If we were willing to pay for it, if the amount is lower and or the service is convenient, sure, we will.

Carmela Asero: This is not EGI FedCloud vs. HN, there may be some users overlapping, however, the scope of HN span far beyond scientific communities currently using EGI or other dedicated e-Infrastructures.

M. Symonds: I agree with that. HN has a list of potential customers, outside of academic research such as large airplane industry, another company to do number crunching, so the current flagships helped get us started, but in the end, may not be our best customer (or most profitable).

B. Jones: The EIROforum wants to see this integrated hybrid environment bringing added value services.

M. Symonds: To compliment that, what we have seen in enterprise IT, is looking at IT managers working on data centers being disconnected to now seeing them making sure the IT matches the business value or strategy.

Per Oster: Interesting discussion, but confusing, multi levels of services, starting with the smallest end-user services, to the large scale infrastructure services. They differ greatly in needs. We need to go through this individually. We used to run email, we don't do that anymore. So we need to look at this with a bit better focus.

Prepared Questions:

1. What future role EGI.eu should play for the EGI Federated Cloud towards the users?
2. How can publicly funded and commercial cloud providers co-exist in the EGI Federated Cloud? and in Helix Nebula Marketplace?
3. User communities are shifting from tenders for hardware to tenders for cloud services. How should EGI adapt to this change?