Enhancing Grid Infrastructures with
Virtualization and Cloud Technologies

Adoption of StratusLab Software by External Grid Sites

Milestone MS4 (V1.0)
19 March 2012

Abstract

Information was collected from a few sites running the StratusLab distribution, most of which are closely related to the project's partners. Based on this information, a few conclusions can be drawn. Most importantly, the project should continue to focus on the cloud rather than grid aspects and the distribution should be optimized for easy deployment of small, private clouds.

StratusLab is co-funded by the
European Community's Seventh
Framework Programme (Capacities)
Grant Agreement INFSO-RI-261552.

Contributors

Name	Partner	Sections
Charles Loomis	CNRS/LAL	All

Document History

Version	Date	Comment
0.1	15 Mar. 2012	Skeleton with initial information.
1.0	19 Mar. 2012	Final version.

1 Collected Information

To collect information about sites using the StratusLab software, messages were sent on the various announcement and contact lists. Only six sites, mostly very closely tied to the project, responded. Nonetheless, the feedback they provided allows us to better identify problems with the distribution and to see where the StratusLab cloud distribution is most useful.

Table 1.1 summarizes the information and the following section provides the positive and negative comments.

1.1 Comments

Positive comments from sites using the StratusLab distribution:

- Open-source (TechData, Terma)
- Easy to use (TechData, Terma)
- Supports SlipStream (Terma)
- Supports Quattor installation (IBCP)
- Marketplace for sharing images (IBCP)
- Support for Port Address Translation (IBCP)

Negative comments:

- Missing comprehensive out-of-the-box installation (IBCP)
- Storage is missing administrator view (IBCP)
- Storage (pdisk) is not robust(IBCP)
- Missing standard APIs (IBCP)
- More manual documentation (TCD) (see below).
- System admin client requires MySQL and OpenNebula (TCD)
- Missing united web interface (TechData, Terma)

Table 1.1: *StratusLab Deployment Information*

Institute	Location	Status	Type	Target	Resources
CYFRONET	Krakow, Poland	production	public	?	?
IDB-IBCP	Lyon, France	production	public	French Bioinformatics community, approx. 1000 people	144 cores, 448 GB RAM, 10 TB storage
IOIT	Hanoi, Vietnam	pre-production	public	?	?
LAL-CNRS	Orsay, France	production	private	96 cores, 4 TB storage	LAL IT department
RAL	Didcot, UK	test	private	?	?
TCD	Dublin, Ireland	test	private	TCD computer science community	40 cores, 1.5 TB storage
TechData[a]	Gland, Switzerland	pre-production	private	Commercial demonstration	8 cores, 65 GB storage
Terma[b]	Darmstadt, Germany	pre-production	private	Demonstrator for ESA/ESOC.	8 cores, 100 GB storage

[a] DS-Cloud ReadyPack
[b] Engineering PaaS with SlipStream

TCD provided more detailed information about what information is needed for system administrators.

> Some more ‘manual’ installation documentation would be helpful, i.e., for each service a list of configuration files and locations, daemons that are started or that it depends on, along with ports etc. If this already exists then it should be easier to find. Basically I would like to have the ability to install a service without using stratus-install, should I choose to do so.

1.2 Conclusions

The following conclusions can be drawn from the collected information:

- Better means of contacting the site managers need to be put in place
- Sites are not primarily interested in running grid services, but rather providing pure cloud services. The project should concentrate on the cloud aspects while maintaining the grid interoperability.
- Sites have a close connection to the partners; more dissemination efforts need to be made for wider adoption of the distribution.
- Sites are relatively small cloud installations with a mix of public and private deployments.
- Commercial interest in the platform seems to be for small, private cloud deployments. The project should make this use case as trivial to setup as possible.