



CERN considers cloud-based number crunching

Partners with Rackspace

02 Jul 2013 12:58 | by Nick Farrell in Rome | Filed in [Science](#) [Hewlett Packard](#) [Europe](#) 0 Comments

[+1](#) [Tweet](#) [reddit this!](#) [Like Like 1](#)



The European Organisation for Nuclear Research (CERN) is partnering with Rackspace to do some epic number crunching on the cloud.

CERN and Rackspace are building a hybrid cloud built atop OpenStack, an open-source Infrastructure-as-a-Service (IaaS) platform.

The platform was originally developed by Rackspace as part of a joint effort with NASA. OpenStack is fast becoming the tool that the likes of [HP](#) and [IBM](#) use to expand their cloud portfolios.

Under the deal Rackspace will fund one full-time CERN member which will also help to push its street cred considerably.

Tim Bell, leader of CERN's OIS Group IT department [said](#) that CERN and Rackspace will initially focus on simulations.

This involves putting into place the theory and then working out what a particle collision will have to look like.

Bell said that there will be investigations into using the cloud for data analysis in the future but there is no timeframe for it at the moment.

So far, the experiences running between the two data centres in Geneva and Budapest gave CERN early indications of the challenges of the more data intensive work, he said.

CERN's physicists write their own research and analytics software, using a combination of C++ and Python running atop Linux.

Complex physics frameworks and the fundamental nature of the research makes it difficult to use off-the-shelf [software] packages, he said.

The outcomes of the collaboration will help everyone involved better understand the workloads that can be placed on the public cloud.

CERN's private cloud will use 15,000 hypervisors and 150,000 virtual machines by 2015. It is fairly likely that any public cloud will likely need to handle similarly massive loads with a minimum of latency.

By running small tests with a variety of public-cloud providers, CERN can determine how to best distribute workloads, puzzle out those latency questions, and eventually take on some of its more serious number crunching.

Popular science stories



Researchers create wooden battery



Tinfoil hat wearers get matching glasses



New memory stores light



Researchers use smartphone to create indoor map



Real inventor of the mouse dies



Company watch

Hewlett Packard (HPQ 25.47 at close on 09 Jul 2013)

- Intel CTO Justin Rattner to step down
- Top HP cloud exec: snooping happening worldwide

IBM (IBM 191.30 at close on 09 Jul 2013)

- Microsoft plans mother of all restructurings
- IBM union reacts to Rometty's 3,000 job cull

You might like:

US gov has fibre optic spying deals with foreign telcos

AVG branches out into bathroom tiling

Venezuela offers asylum to Edward Snowden

Ed Iacobucci: 1953-2013

Other science stories

- Brilliant sarcasm detector invented
- Train windows infiltrate your head to broadcast ads
- Real inventor of the mouse dies
- Researchers kill computer circuit size limits
- Researchers create wooden battery

Related topics

Europe, NASA, Hewlett Packard, IBM, Linux

Post a comment

Name *

Email *

WebSite

Text

Email me when other comments are posted

Recommended by 

White Papers

IT Monitoring Buyers' Guide 2013 

Sangoma NetBorder Carrier SBC Appliance - Data Sheet 

Vega Enterprise SBC VM/Software 

Vega Enterprise SBC Appliance Data Sheet 

See more whitepapers »

Technology news

News in brief

Company watch

Hot topics

Personalities

Friends of TechEye

Bogroll

TechEye

About us

Contact us

Terms and conditions

Advertising enquiries

EyeSpy

EyeSuggest

Powered by



Hosted by



Part of the TechEye Network | EyeThink | TechClicks | Mobile Site | All content © 2013 JAM IT Media Ltd