

Open Cloud eXchange (OCX) as a part of the High Performance Cloud Services Delivery Infrastructure for Big Data Applications

Friday, 26 September 2014 09:00 (25 minutes)

Big Data applications and access to large scientific datasets require advanced networking infrastructure. This presentation will introduce into the concept of Open Cloud eXchange (OCX) that has been proposed by the GN3plus JRA1 activity to bridge the gap between two major components of the cloud services provisioning infrastructure: Cloud Service Provider (CSP) infrastructure; and cloud services delivery infrastructure which in cases of Big Data applications requires dedicated local infrastructure and quality of services that cannot be delivered by the public Internet infrastructure. In both cases there is a need for interconnecting the CSP infrastructure and local access network infrastructure, in particular, to solve the “last mile” problem in delivering cloud services to customer locations and individual (end-)users. The OCX remains neutral to actual cloud services provisioning and limits its services to Layer 0 through Layer 2 to remain transparent to current cloud services model. The proposed OCX concept will leverage the existing Internet eXchange (IX) and GLIF Open Lightpath Exchange (GOLE) solutions and practices, adding specific functionality that will simplify inter-CSP and customer infrastructure integration when supporting basic cloud services provisioning models. The presentation will discuss ongoing development, recent and planned demos being developed by the OCX development team.

Primary authors: Mr DAMIR, Regvart (CARNET); Dr DEMCHENKO, Yuri (UvA)

Presenter: Dr DEMCHENKO, Yuri (UvA)

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