

Federation as a Service: An Architecture for the InterCloud

Rick McGeer
HP Labs
Palo Alto, US
mcgeer@hp.com

I. ABSTRACT

The emergence of a wide variety of shared network testbeds, distributed application platforms, and public and proprietary utility computing platforms such as Amazon EC2 and Eucalyptus offers individuals, small companies, and researchers the ability to develop, test and deploy Internet-scale services easily and at low cost. However, many of these services require the use of multiple facilities, or users wish to transparently move their services across multiple facilities. This gives rise to the desire to federate facilities. In this talk, we view facility federation not as a set of agreements between federated facilities, but rather as a set of *services* to developers

and facilities. We argue that this approach scales easily across heterogeneous facilities. We outline the minimal set of services and protocols that federates must support. We further argue that this is a promising architecture for the coming network of Clouds, which has been called the InterCloud.

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