OCCI-compliant Interface to Amazon Web Services

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Compacted Abstract

The rOCCI-server is used in production across the EGI Federated Cloud. It is a compatibility layer not only for open source but also for proprietary cloud management frameworks. The EC2 backend allows management of cloud resources in AWS with the same interface and abstractions, introducing a new level of integration.

Free Trial

An OCCI [1] gateway to Amazon Web Services’ EC2 interface [2] is open at https://awsocci.cesnet.cz:11443/ for the duration of the conference. It is open to members of the indigo and fedcloud.egi.eu VOs. Use your favourite OCCI client to access it.

Implementation

The rOCCI-server [3] has been designed to use interchangeable backends, although only the OpenNebula backend has been regularly used in production.

Instant FedCloud Site

With a standardized interface to virtual resource management, it may seem simple to set up your own brand new Federated Cloud site:

Find this and other examples at https://wiki.egi.eu/wiki/rOCCI:rocciawiexamples

Just Add Credit Card?

In reality, while an important feature, there are other services that must be made available at a site for it to be fully integrated with EGI’s Federated Cloud platform.

- Finer grain authentication – this pilot implementation maps whole VOs to single AWS accounts.
- Accounting – accounting data collection is not implemented for AWS.
- Service discovery – the “owner” (typically the institute who funds the resources) needs to advertise service parameters over BDII.
- Appliance distribution – there is currently no automated distribution of appliances from EGI’s Cloud Marketplace.

Only with that addressed a resource set rented from a public cloud provider may become a full-fledged site integrated into the Federated Cloud. Even at this point, however, it is possible for user groups to control rented resources when, for instance, scaling out their existing usage scenarios into public cloud.

References


References