

GUOCCI – The Entryway to Federated Cloud for Small-scale Users

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The Open Cloud Computing Interface (OCCI) – a standard released by the Open Grid Forum – has found wide adoption. First came, quite naturally, server-side components. Later, with a variety of attractive computing resources made available over the standardized protocol, user-side submission tools or science gateways followed. These are usually tailored with a specific use case in mind, and – as such – they are generally capable of setting up heterogeneous data processing platforms and orchestrating complex workflows specific to their given area of science. They put all this functionality at user’s disposal, often “at a single click”. On the other hand, small-scale users, backed by no software development teams, are usually relegated to the use of the simplest OCCI client in the command line. That is freely available and amply documented, but still, it by no means lowers the threshold of entry for potential federated cloud users, who often come from non-technical areas in the long tail of science. Therefore, the GUOCCI (GUI for OCCI) has been conceived as a rudimentary graphical user interface to OCCI-compliant cloud services. It is by design kept as simple as possible to address the needs of small-scale or one-off users who typically require little dynamism in their virtual resources, and who are perfectly happy to set up their virtual resources by hand, even one-by one, especially if they are offered

a comprehensive graphical interface to do it. GUOCCI integrates not only with OCCI-compliant cloud sites, but also with the EGI Application Database and with authentication technologies used in academic federated clouds, namely with Virtual Organization Membership Services (VOMS). With that, the considerable resources available for instance in the EGI Federated Cloud are open up to all such small-scale or beginning users. This article introduces in greater depth the reasoning behind developing GUOCCI, and details the architecture of the product, making it into an example OCCI client implementation.

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