

## GIMI: Large-scale GENI Instrumentation and Measurement Infrastructure



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Abstract: This project will develop and deploy the GIMI instrumentation and measurement framework, capable of supporting the needs of both GENI experimenters and GENI infrastructure operators. It uses the ORBIT Measurement Library (OML) and integrated Rule Oriented Data System (iRODS) as its basis. It will provide libraries to instrument resources, to filter and process measurement flows, and to consume measurement flows. It will use the iRODS data grid for archiving and further processing. It will include access control based on accepted GENI policy and authorization mechanisms.

## Tools

GIMI offers tool to setup, control and execute, analyze, and archive measurements





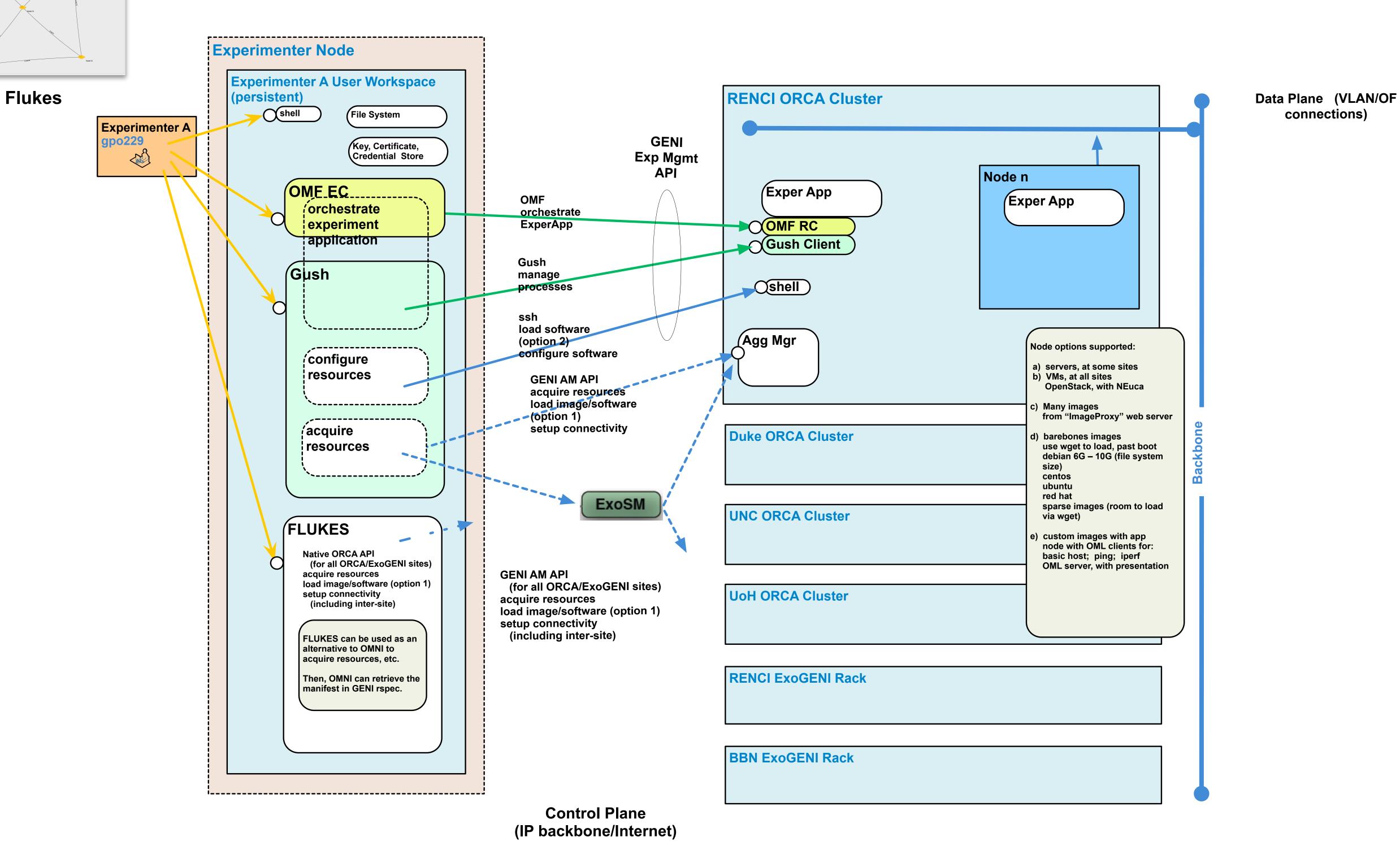






## Goals

- Its first goal is to provide easy-to-use I&M services for experimenters, who are deploying slices in GENI on selected types of servers, VMs and racks, interconnected by various types of network paths.
- Its second goal is to provide comprehensive infrastructure measurement services for infrastructure operators, who are deploying measurement slices on selected types of servers, VMs and racks, interconnected by a various types of network paths. In addition, slices established by other infrastructure operators, or by experimenters, can be authorized to gather data from the measurement slices.
- This project will build and operate two persistent services: the GENI Measurement Data Archive service (i.e., iRODs) and the GENI Experimenter Portal Service. These can be utilized by all types of GENI I&M services, including those developed in the GEMINI project. The GENI Experimenter Portal Service will be developed in cooperation with the GEMINI project, to support both GIMI and GEMINI tools.



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