

# GEMINI

## A GENI Instrumentation and Measurement Infrastructure

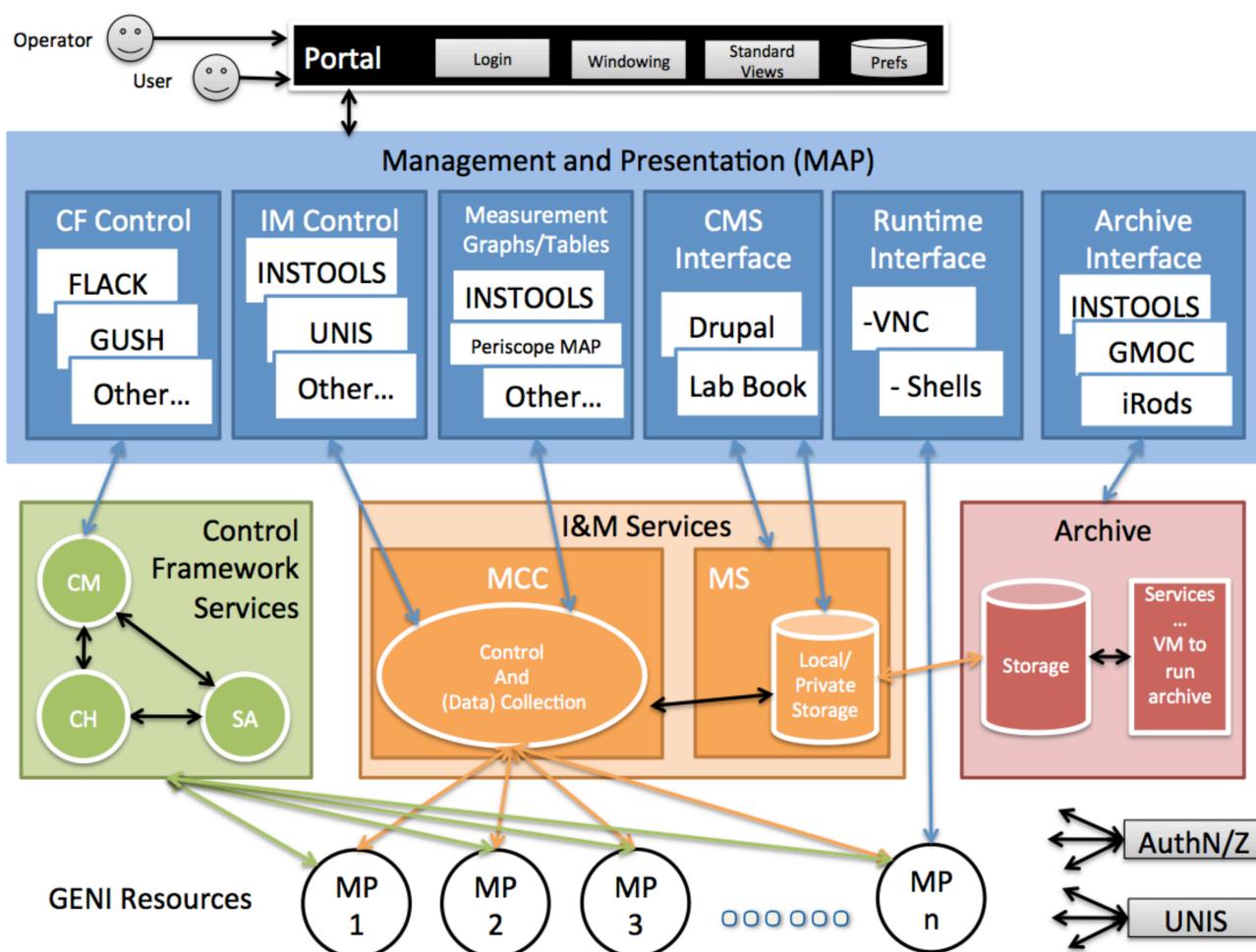
### Strategy

The GEMINI project will merge LAMP code and features (including perfSONAR and Periscope) with INSTOOLS code and features to form one set of GEMINI I&M services that can be flexibly deployed in a defined range of GENI environments.

### Goals

- Provide easy-to-use Instrumentation and Measurement services for GENI experimenters.
- Provide comprehensive infrastructure measurement services for GENI infrastructure operators.

## GEMINI Architecture



### Measurement Point (MP):

- Pushes measurement data to the Measurement Store
- Pulls configuration from UNIS

### Measurement Store (MS):

- Accepts subscriptions to data sets
- Supports high-rate pushes
- Subscribes to other measurement stores

### Management and Presentation (MAP):

- Visualizes data
- Analyzes/summarizes data
- Gets topology from UNIS
- Gets location of measurement stores from UNIS
- Queries measurement stores for data
- Supports access to terminal (vnc)
- Sends manifest to UNIS after sliver creation

### Measurement Collection and Control (MCC):

- Pulls configuration from UNIS
- Performs periodic summarization and purging on data
- Registers to UNIS as a service

### Unified Network Information Service (UNIS):

- Registers measurement metadata for data to be collected
- Registers topology
- Keeps queryable history of changes to topology
- Registers services