# GENI ShadowNet: Stitching and GENI One-Stop Portal

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## Project Goals

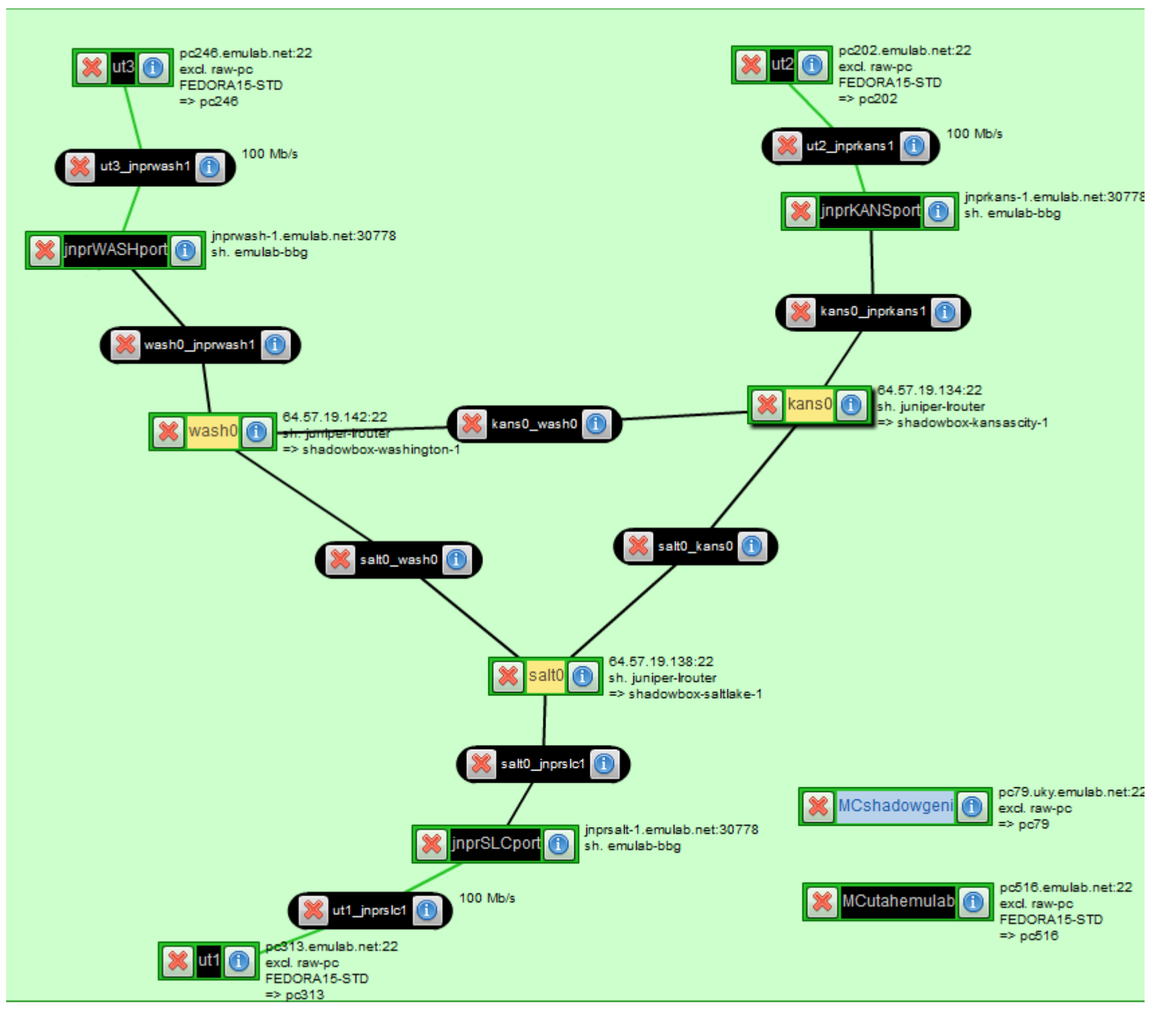
- Deploy virtualizable commercial routers into the ProtoGENI backbone for use by GENI users, and as the basis for a new ProtoGENI measurement infrastructure.
- Add software support to these virtual routers that will enable per-slice monitoring and measurement.
- Develop tools and interfaces that will allow slice users to control the new measurement infrastructure and access the measurement data collected in simple and easy to use ways.

## AM API Support

- Accepting credentials from other control frameworks.
- Supporting AM API calls.

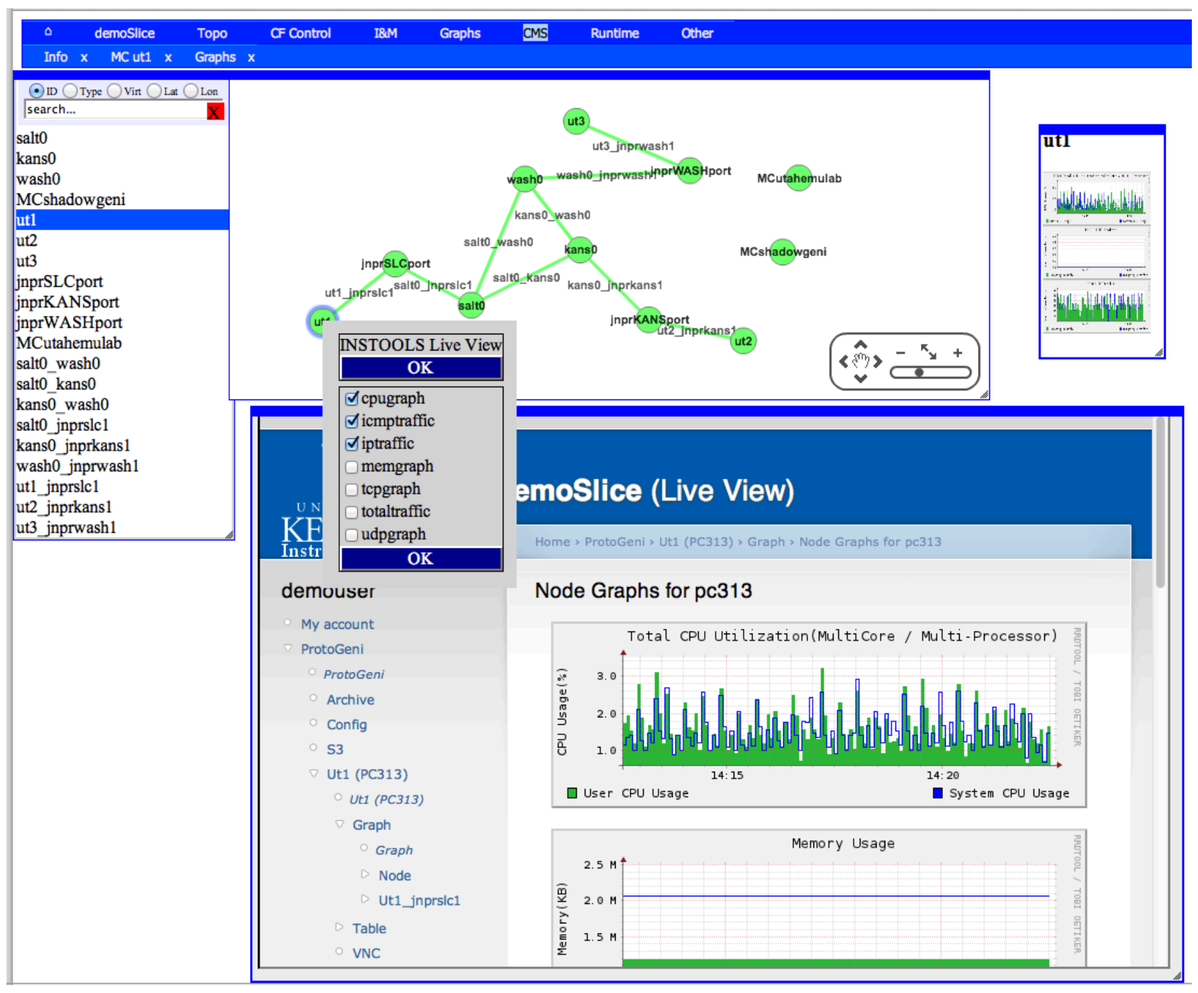
## Stitching Support

- Stitching is now partially supported for nodes from the Utah aggregate that have VLAN connectivity to the ProtoGENI backbone switches co-located with logical Juniper routers from the ShadowNet aggregate.
- The demo include three logical Juniper routers located at Washington DC, Kansas City and Salt Lake City and three PCs from the Utah aggregate.
  - Create an experiment with three nodes from the Utah aggregate and let each node connect to a device for VLAN.
  - Create a topology of three logical routers (connected with each other) and let each router connect to a VLAN with a VLAN number obtained from the previous step.
  - VLAN will be automatically created (stitching) and the following topology will be set up for the experiment.

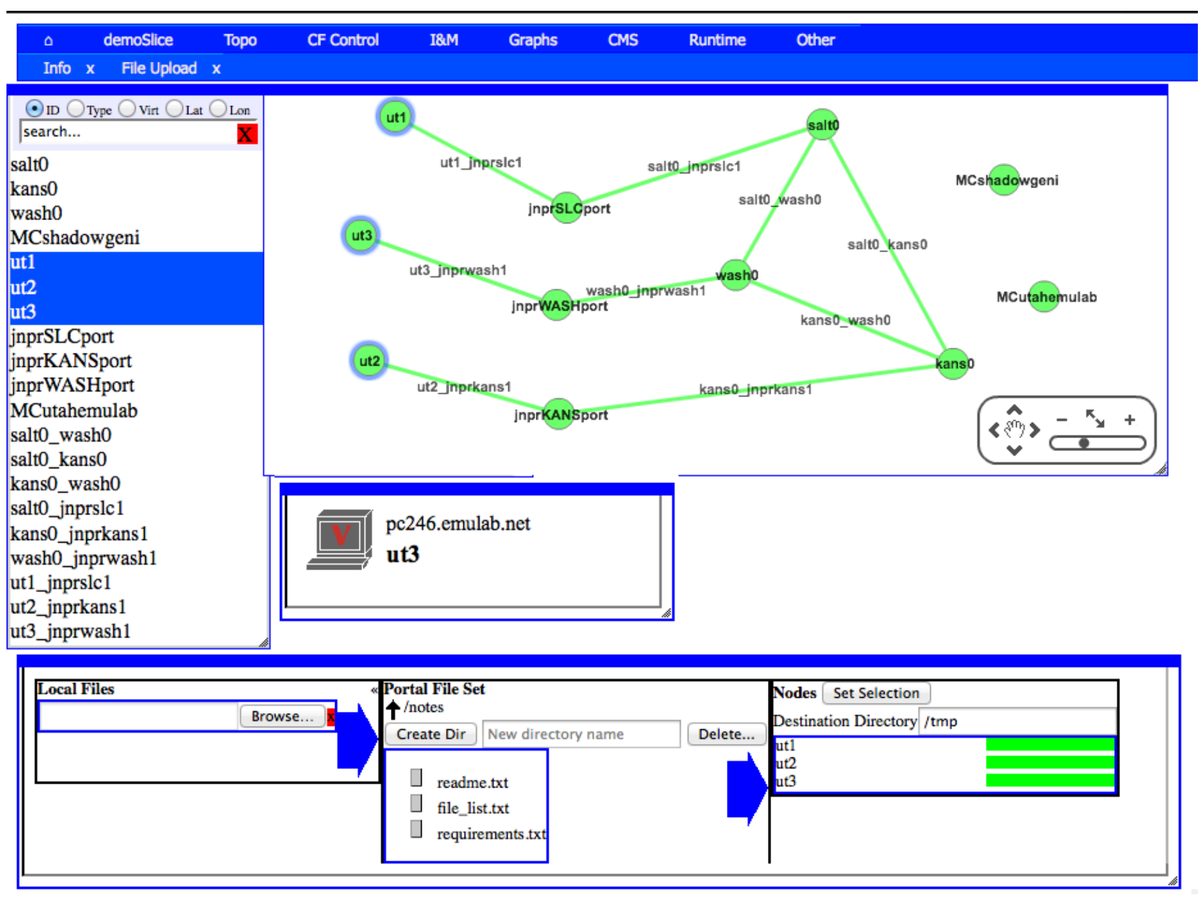



## GENI One-Stop (OS) Portal

- Provide a single seamless interface unifying multiple GENI tools with a shared abstraction.
- Provide access to all aspects of GENI including slice creation, access to slice resources (e.g., ssh), file management, experiment execution, instrumentation and measurement, lab-book access, archiving of experiment data, via tool-specific plugins.




- The image above shows the list view and the logical topological view of the experiment, the measurement data window and the measurement control window.
- The image below shows file management of experimental nodes. Files can be copied between the local desktop machine and the experimental nodes through the GUI.

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