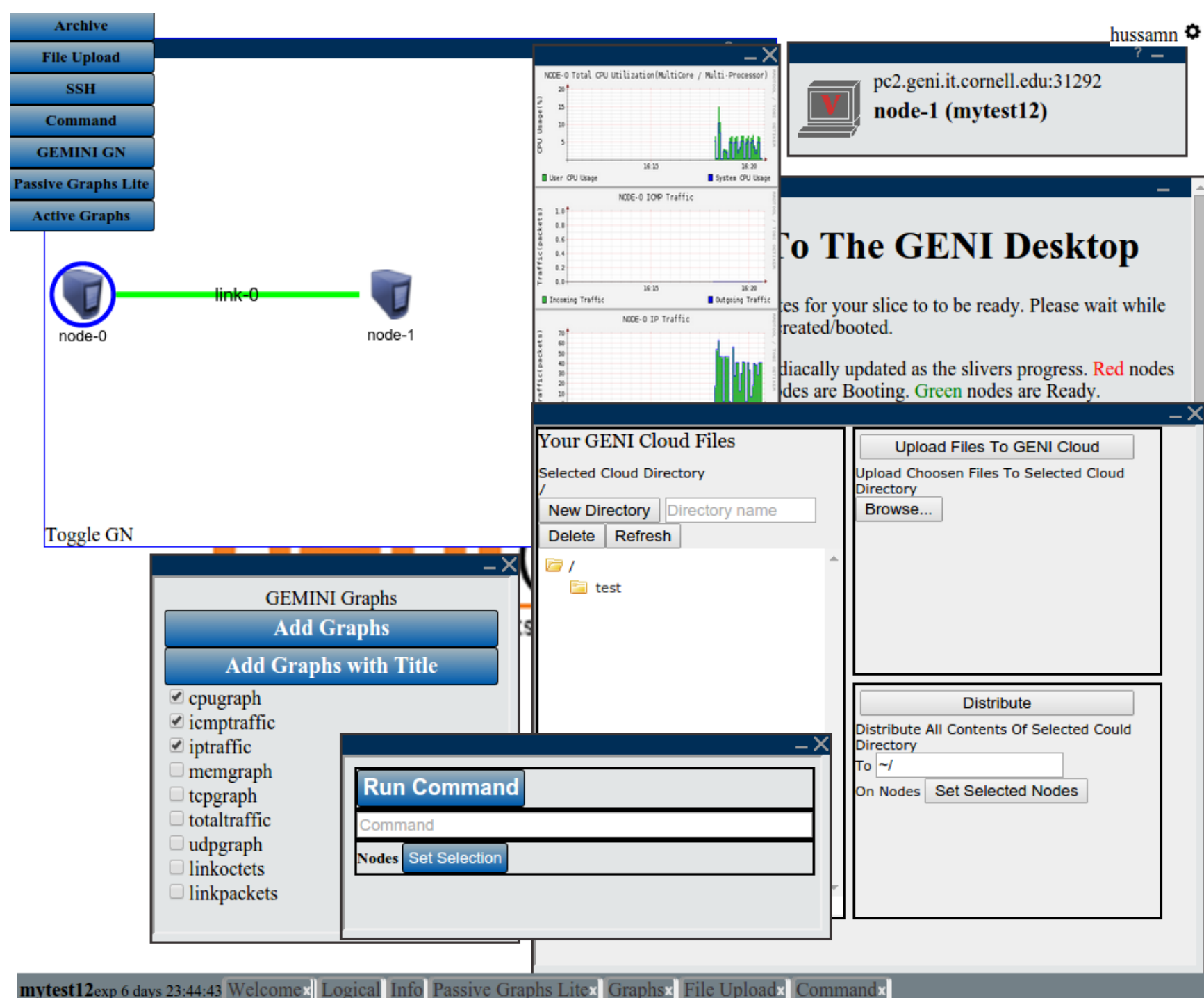# The GENI Desktop

A User Interface for Creating, Running, and Monitoring GENI Experiments

James Griffioen, Zongming Fei, Hussamuddin Nasir, Charles Carpenter, Xiongqi Wu, Jeremy Reed, Lowell Pike
(*Laboratory for Advanced Networking, University of Kentucky*)

Overview

❑ The goal of the GENI Desktop is to make it easier for experimenters to create, control, interact with, and evaluate the performance of the resources that comprise their slice.

❑ The GENI Desktop provides an easy-to-use graphical user interface with windowing-system style features inside a web browser to create the look-and-feel of locally running tools (without having to actually install, manage, and run tools locally).

❑ Users interact with their resources using a single abstraction that involves (1) selecting resources, and (2) apply operations on those resources.

A Streamlined GENI Desktop Lite

❑ The GENI Desktop Lite provides a simplified workflow for creating and managing an experiment.

New Features

❑ The GENI Desktop automates the instrumentation steps and provides support for adding a global node after an experiment has been created.

❑ It integrates Jacks for creating an experiment topology.

❑ We implemented a slice verification and configuration testing service, and an enhanced archiving service.
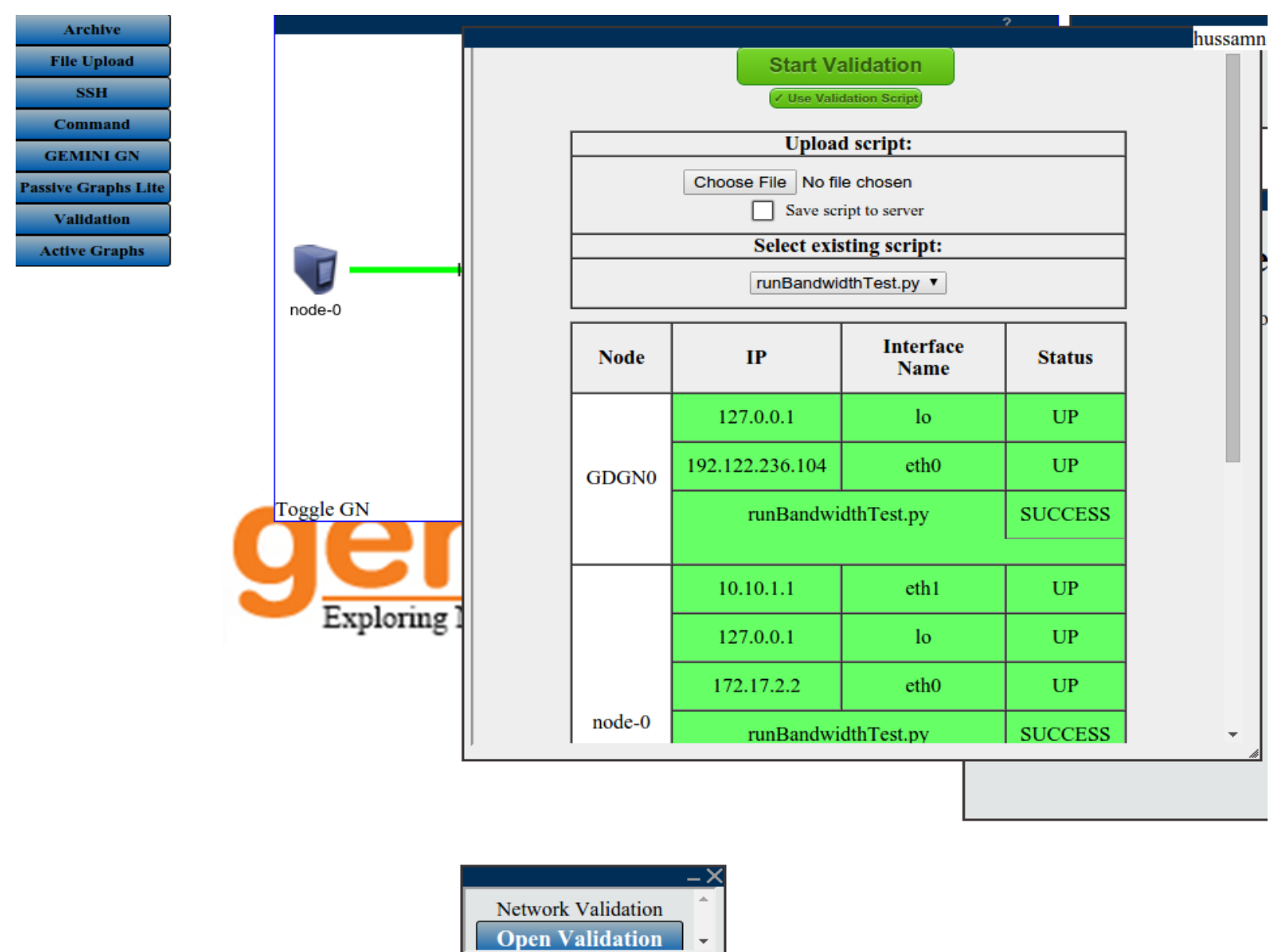
Flow Management and Monitoring

❑ The GENI Desktop allows users to specify end-to-end flows via the GUI, and it maps them to, and installs, OpenFlow rules at the OVS nodes. It also provides functions of listing and deleting flows.

❑ The GENI Desktop provides a module for monitoring the performance of flows at any OVS node specified by the user.