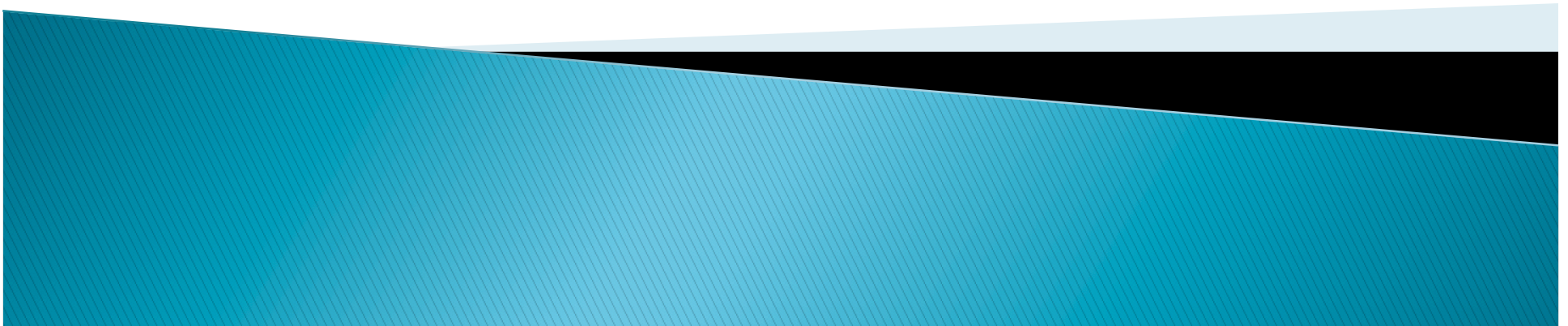


PlanetLab Control Framework Highlights

Andy Bavier
Princeton University
March 15, 2011



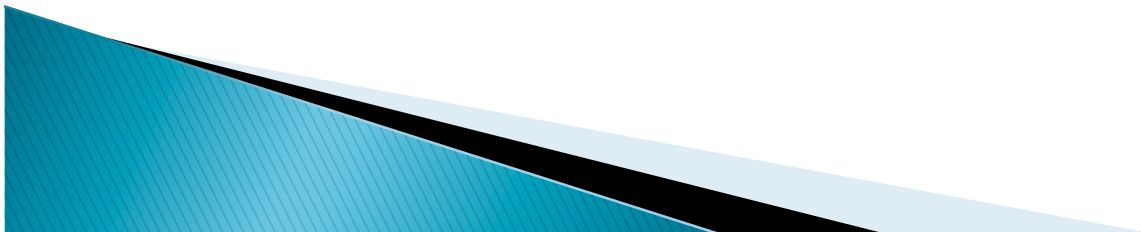
Federation

- ▶ PlanetLab federation partners:
 - PlanetLab Europe, VINI, M-Lab, GpENI, PLJ
 - New: PlanetLab Korea, Emanics Lab (via PLE)
 - Soon: GENICloud, VICCI



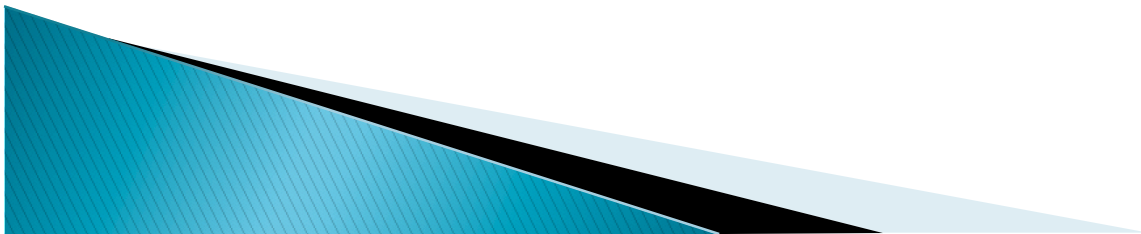
SFA

- ▶ Latest version: SFA v1.0–20
 - Deployed on PLC, PLE
 - Resolve issues w.r.t. ProtoGENI interoperability
- ▶ Challenge: different RSpec formats
 - Tweaks to PLC's RSpec for ProtoGENI tools
 - RSpec translation between formats
 - Currently ProtoGENI is doing this but we're not



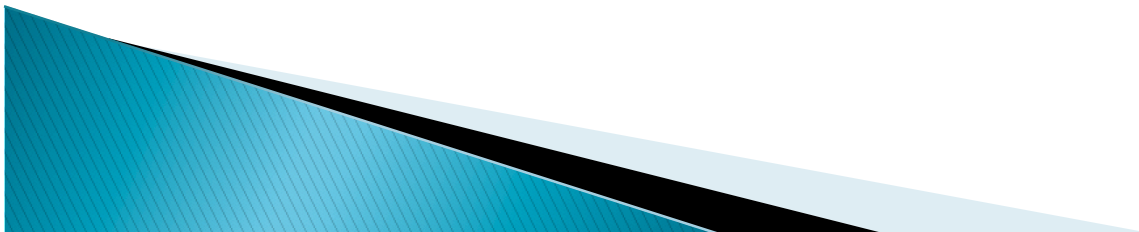
Sface GUI

- ▶ Goal: Provide PlanetLab users with an easy-to-use desktop GUI client for the SFA
- ▶ Sface GUI v0.1–6:
 - Developed by OneLab and PlanetLab teams
 - Written in PyQt (Mac OS X, Linux, Windows)
 - Code is public, will be announced soon
- ▶ Demo



VICCI

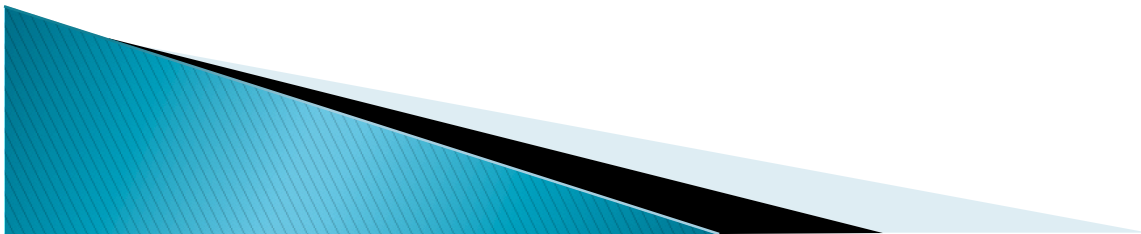
- ▶ Goal: build next-gen Cloud infrastructure
- ▶ VICCI clusters
 - US Sites: Princeton, GA Tech, UW, Stanford
 - International: MPI-SWS, ETH Zurich, UTokyo
 - Each site
 - 70 12-core servers, 48GB RAM, 3TB disk, 2x1Gb NIC
 - 4 OpenFlow switches
 - Managed by PlanetLab control framework
- ▶ Challenge...





VICCI Plan

- ▶ Equipment is at the sites
- ▶ First cluster online in two weeks
 - Federate with PlanetLab
 - Manage VICCI slice resources using the Sface GUI
- ▶ Other US clusters soon after
- ▶ Support initial research projects
- ▶ Extend VICCI driven by researcher needs



Next Steps for PlanetLab CF

- ▶ Announce Sface GUI to PL community
- ▶ Bring up VICCI, federate with PLC
- ▶ Federate GENICloud with PLC
- ▶ Advertise ProtoGENI resources

