Campus High Throughput Computing Infrastructure

Mar 20, 2012

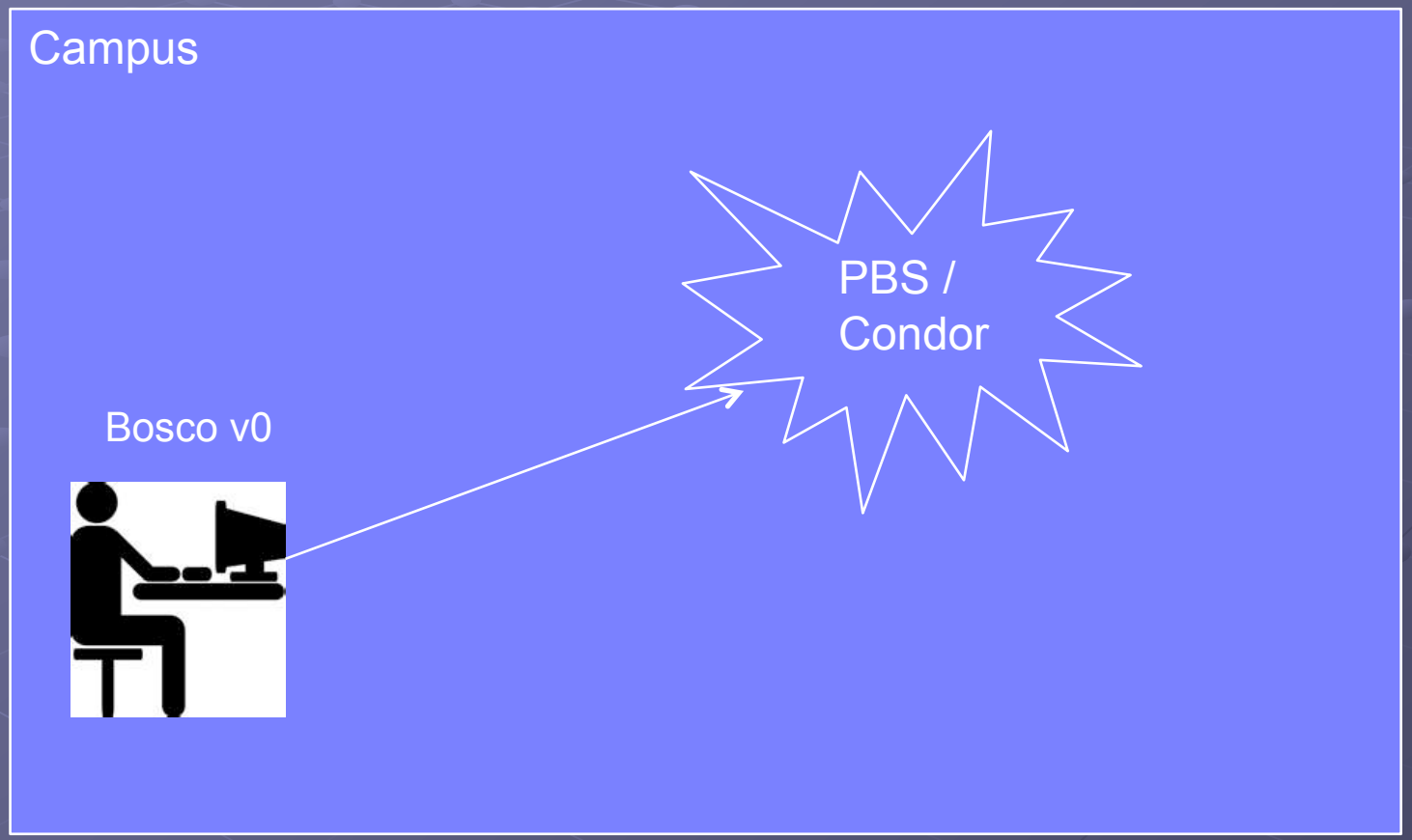
OSG All Hands Meeting

Dan Fraser

The Growing Team

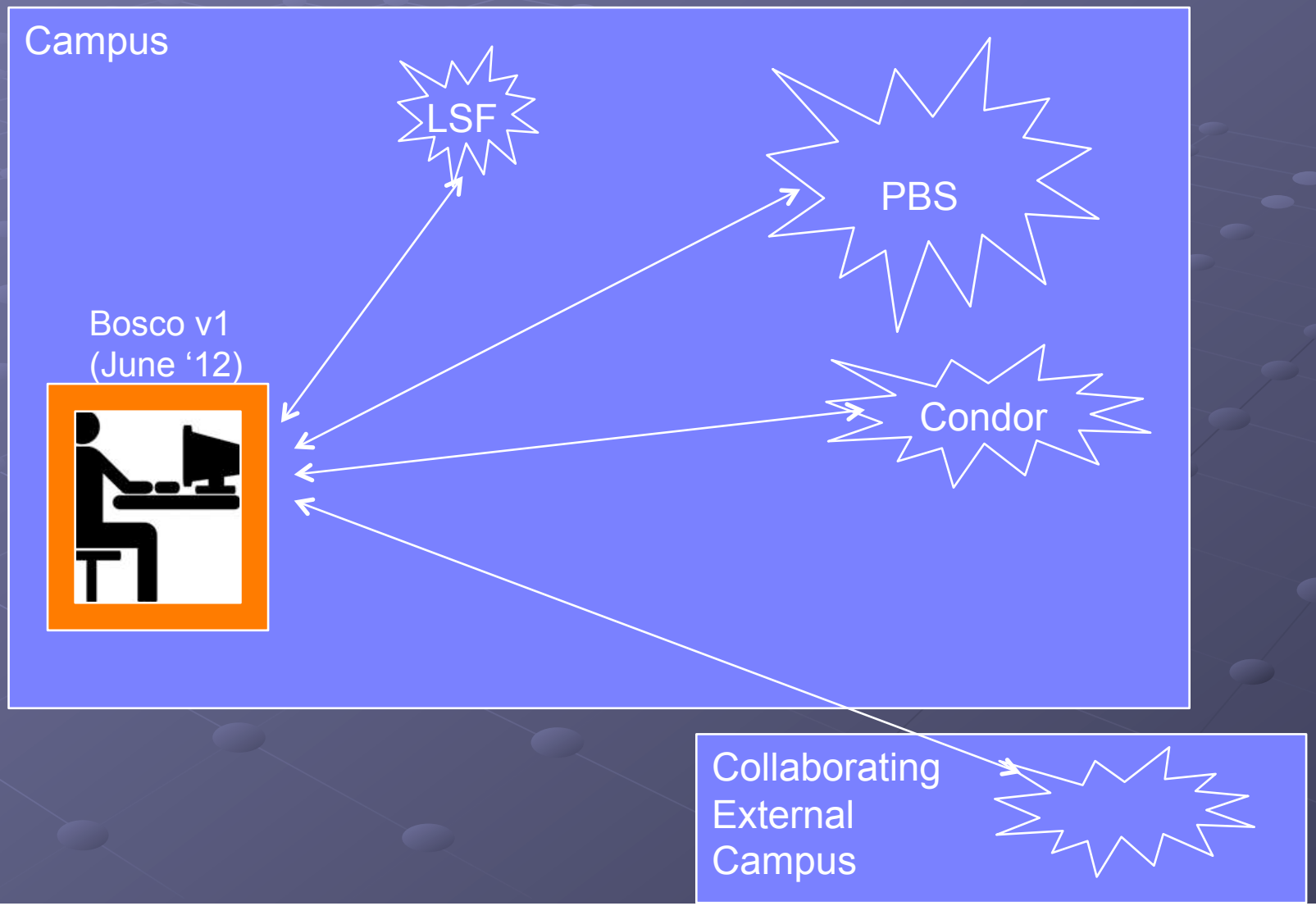
- Newest member
  - Brooklin Gore (UWisc) – Project Manager
- Derek Weitzel (U Nebraska)
- Marco Mambelli (UC)
- Condor Team
  - Jaime Frey
  - Todd Tannenbaum
- A variety of beta & documentation testers
- Team Lead - Dan F.

Bosco v0
Technology for Researchers



http://twiki.grid.iu.edu/bin/view/CampusGrids/BoSCO

Bosco v1 (June '12) Technology for Researchers



Bosco Technology

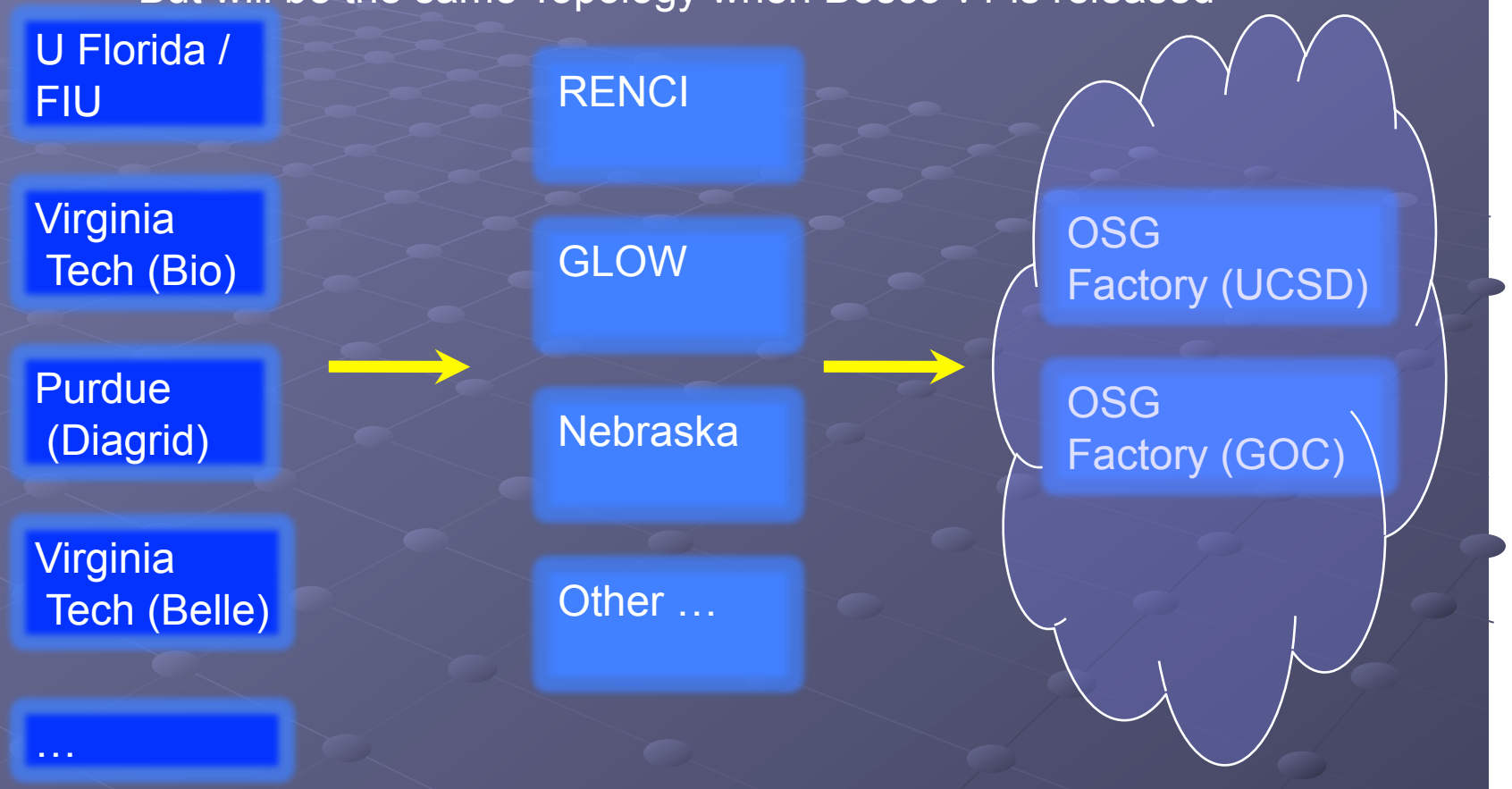
- Simplifying the campus technology model
  - Debugging made easier
    - Traceroute-like feature (v1)
- Installable and usable by a researcher
  - Manage more jobs than the scheduler allows
- A pre-configured package
  - Easy to add clusters
  - Uses an embedded lightweight glide-in (v1)
- *The submit model is the same for OSG !*

Technology is the easy part !

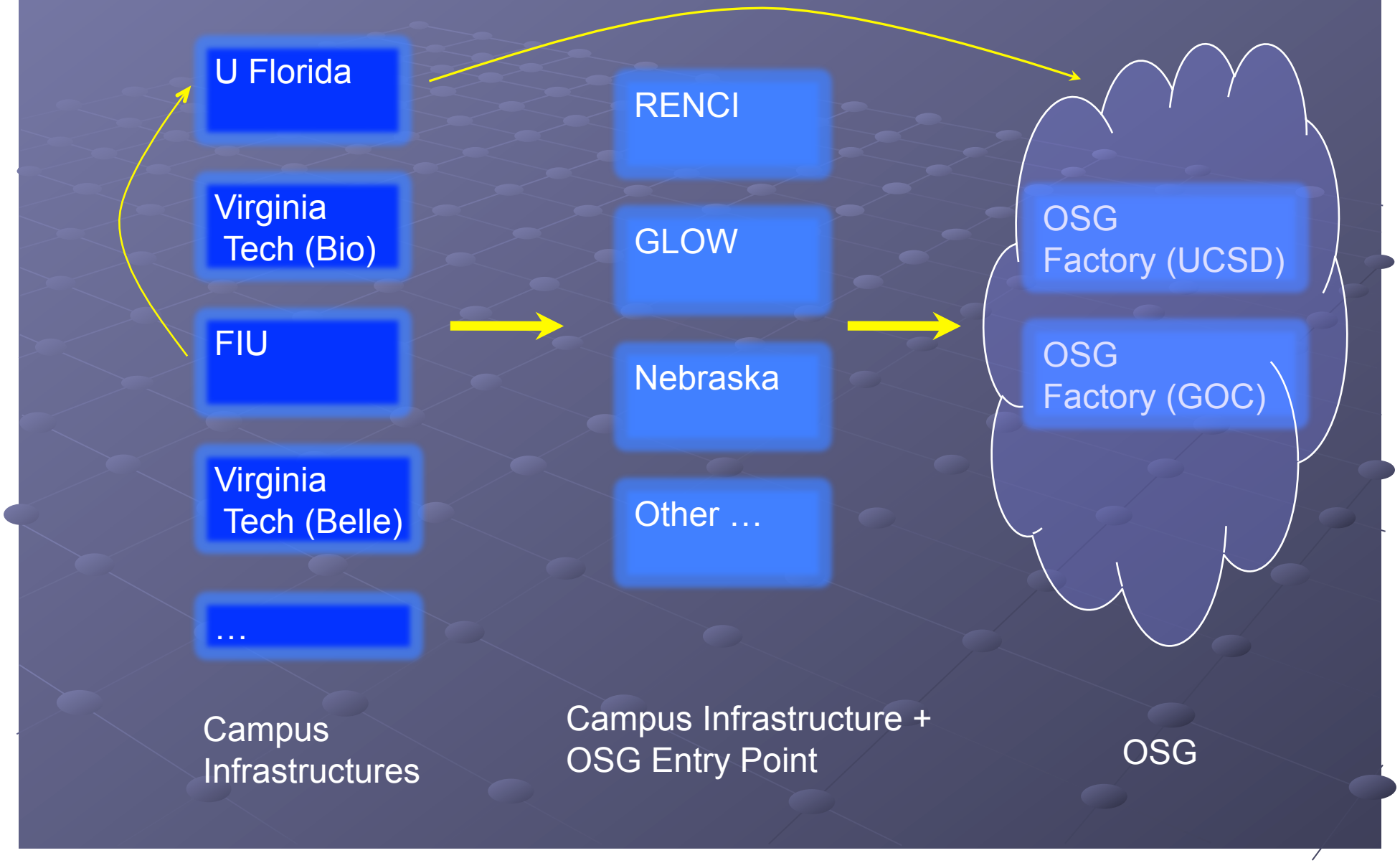
Campus Infrastructure Topology

Currently using pre-Bosco technology

But will be the same Topology when Bosco v1 is released



Campus Infrastructure Topology



HTPC – High Throughput Parallel Computing

Ensembles of small-way parallel jobs

(10's – 1000's)

Use whatever parallel s/w you want ☺

(It ships with the job)

Campuses are a compelling use case

HTPC expands the user base

Engaging Campus Users

- The most successful Campus HTC sites invest in helping their users
  - Nebraska, GLOW, RENCI
- The rest of this session:
  - Engaging campus users
  - Example use cases
  - Some ideas for the future