

T3 Science Data/Network Requirements Workshop Report

Richard Carlson
Internet2

rcarlson@internet2.edu

OSG

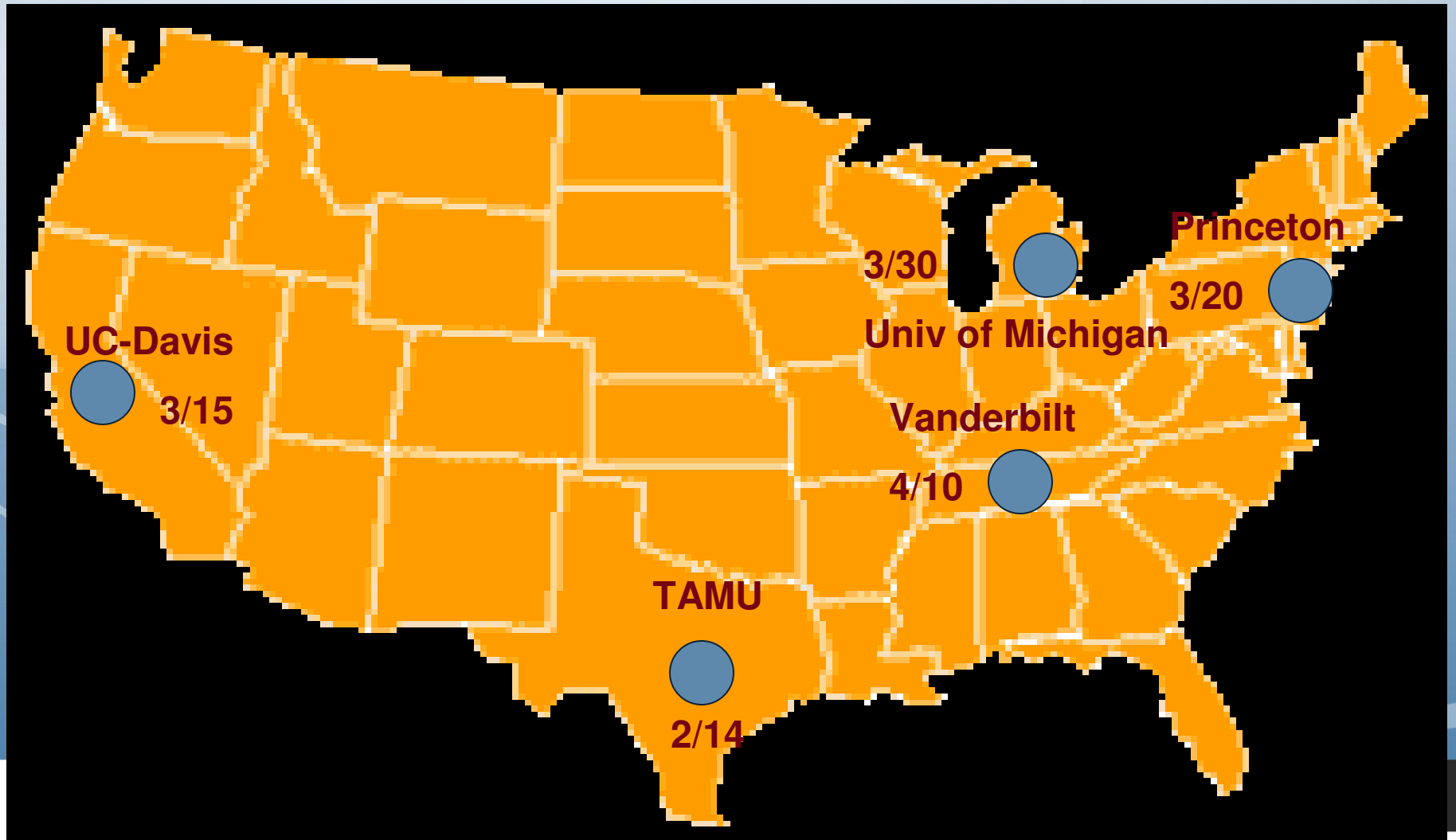
March 8, 2007

Workshop Objectives

- A series of 1 day workshops
- Bring physicists and network operators together
- Determine the potential problems and issues that might inhibit LHC science



Workshop Locations



Workshop Web links

<https://indico.fnal.gov/categoryDisplay.py?categId=22>

Or

Follow the “Conferences, Workshops, and Events” link from the <https://indico.fnal.gov/index.py> page

Workshop Topics

- Network issues
 - Crossing the campus
 - Regional/State networks
 - Navigating the national backbones
- Physics issues
 - Data set size
 - Update frequency

Workshop Topics

- LHC computing models
 - ATLAS model
 - CMS model
- Grid services
- New technologies and services
- Roadmap forward



Workshop Process

- Visit the FNAL Indico web site and select the workshop of interest
- Register yourself and notify your colleagues/peers
- Notify your campus network folks so they attend too

TAMU Workshop

- Demand seems to be there
 - 23 attendees (100% of those registered)
 - Overflow room needed
 - VRVS / H.323 for remote participants



Preliminary Findings 1

- Different Computing models
 - Tiers of ATLAS
 - Flat CMS
- These different models will impact the amount of data flowing into/out of a T1 center
- Need for international peering relationships



Preliminary Findings 2

- Low user expectations
 - Can't define minimum acceptable file transfer rate (10 MB/s is suggested)
 - Don't know that common OS tuning problems have been solved
 - Don't know how about advanced tuning and debugging tools

Preliminary Findings 3

- Poor communications between scientists and network operators
 - Network operators have published policies and procedures for reporting problems
 - Physicists don't know how these sites exist

Preliminary Findings 4

- Tier 3 computing and usage models are ill-defined
 - Some combination of local and remote resources will be used to solve problems
 - Chaotic usage patterns will dominate taking into account think time, data hot spots, and article preparation

Summary

- Initial workshop brought regional groups together fostering further, in-depth, discussions
- Four more workshops will be held in the next 6 weeks
 - Register soon for the workshop near you!