

MWT2 Status

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mwt2
.org

Outline

- Project Update
- Cluster Topology
- Architecture and Software
- Next 3 Months



Project Update

- Existing UC and IU prototype Tier2 resources strong contributors to Panda production, OSG development (ITB), ATLAS user-grid and interactive analysis
- Production MWT2 facility (<http://plone.mwt2.org/>):
 - Phase 1: RFP complete, vendor selected (ACT), first installations at both IU and UC Sep 1 (106K SI2K, 52 TB combined & dCache+Edge/Grid servers, 10 Gbps ethernet)
 - Phase 2: quickly follows with same hardware (~doubling CPU & disk)
 - 10 Gbps connectivity established campus-level at UC and IU to Starlight; new MWT2 clusters will have 10 GigE data movers as edge servers
- Staff: 3 sys admins hired, one vacancy (now advertising); shared admin model between UC and IU sites being developed.

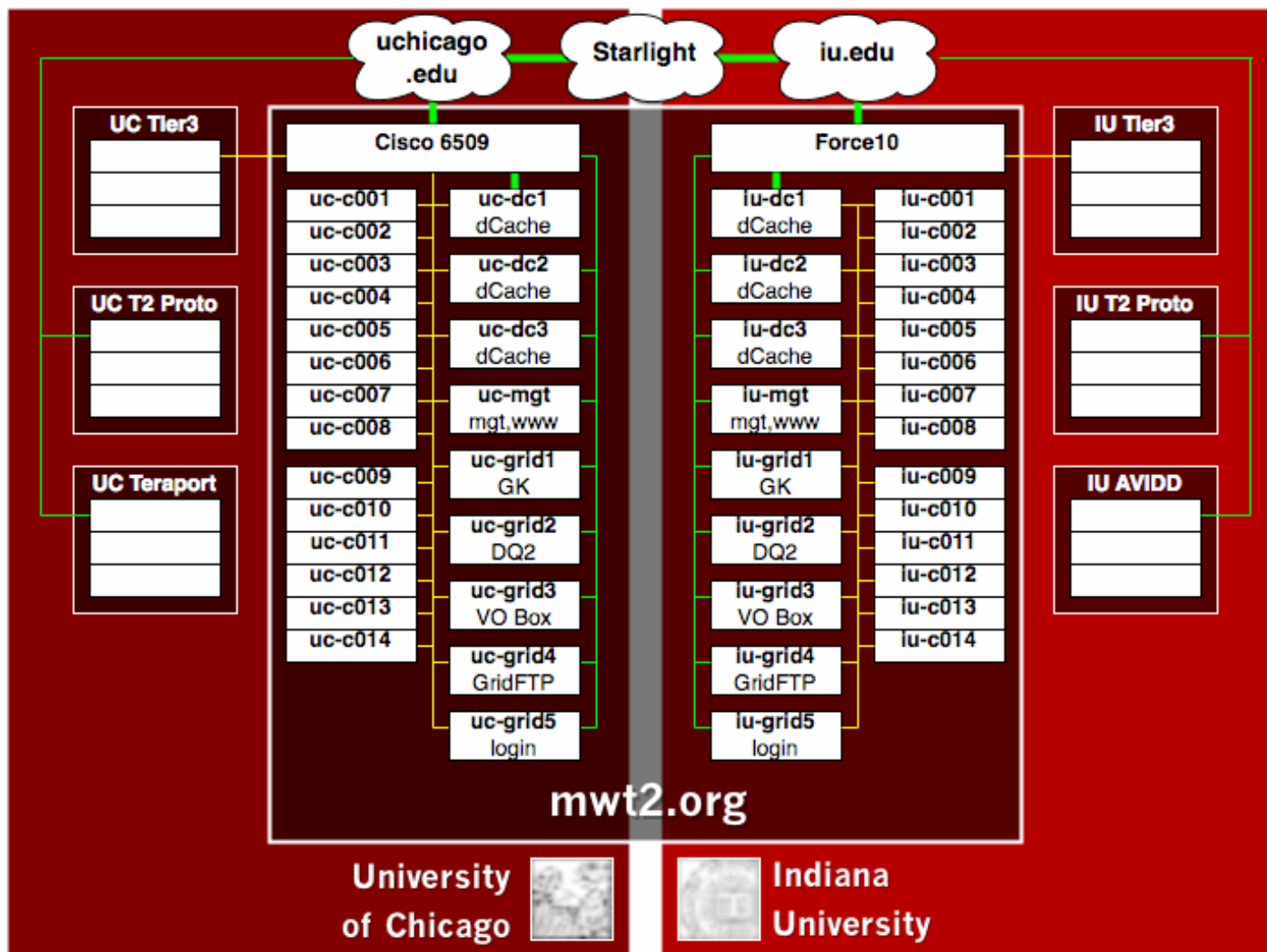


Project Update

- Major contributions to US ATLAS in LCG accounting, DQ2 installation procedures, and Panda troubleshooting and support
- 5 service deployments of DQ2 latest release in the ATLAS DDM infrastructure
- GUMS (shared service between sites), VOMS, and OSG implement ATLAS roles with queue priorities set according to US ATLAS RAC.
- 4 TB-scale production SRM/dCache service deployed, tested at 40 MB/s w/SC4 transfers
- Leveraged resources from NSF/MRI for ATLAS managed production and ATLAS physicist-users (UC Teraport project)
- Development cluster in OSG Integration Testbed



Cluster Topology



Architecture and Software

- UC and IU have “mirrored,” remote-managed cluster design for co-institutional administration
- SLC4 running on AMD64, initially in 32-bit mode
- Managed with ACT tools plus other configuration tools (likely bcfg2)
- Minimizing network filesystem dependencies on compute nodes
- dCache aggregates storage on compute nodes with dedicated (edge) write pools



Next 3 Months

- Deploy functional cluster as unified facility with local customizations
- Validate and exercise services (Grid, DQ2, dCache, job queue)
- Begin integration of Tier2 prototype and Tier3 resources at each site
- Instrument with monitoring (Ganglia, Nagios, OSG and ATLAS monitors)
- Publish usage policies

