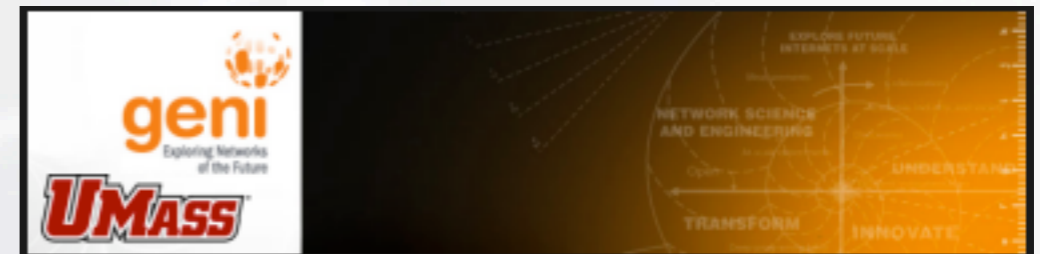




Diverse Outdoor Mobile Environment (DOME)

University of Massachusetts, Amherst

Mark Corner, Brian Levine, *Brian Lynn*



<http://geni.cs.umass.edu/dome/>



Base Stations Status

- Equipment
 - All equipment received from Rutgers
 - Purchased omni-directional antenna (8 dBi, 22-degree vertical beamwidth)
- Location
 - 17-floor building on campus
 - Contractors doing estimate
 - Cost ...
 - December installation?





Range and Capacity

- Goal is to cover downtown Amherst and much of the local bus routes
- Want campus coverage
 - Biggest concern is over-shooting the campus
- Range? Less of a concern than dead spots, but no data
 - Goal: ViSE tower 7-miles away
 - Chose lower gain antenna
 - How much is client versus base station?



Clients

- Buses
 - Linux-based systems; need mini-PCIe WiMAX cards (as opposed to USB)
 - Purchased some new systems
- Good news
 - DOME software running on new bricks
- Bad news
 - Bricks don't power on when WiMAX cards are in slot
 - Have a shipped card to vendor
 - No Plan B ...



Experiments & Demo

- Assuming system problem is solved, we will open WiMAX access to experiments on buses
 - Integrate with DOME experiment management
- Demo?

