

WiMAX UMass Spiral 2 Year-end Project Review

Mark Corn								
	United States of America FEDERAL COMMUNICATIONS COMMISSION EXPERIMENTAL RADIO STATION CONSTRUCTION PERMIT AND LICENSE							
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Project Summary

- Current year: Deploy WiMAX base station on the UMass campus
- Next year: Install WiMAX clients on some DOME buses
- Interoperate with other WiMAX-enabled campuses



Milestone & QSR Status

ID	Milestone	Status	On Time?	On Wiki?	GPO signoff?
а	WiMAX base station installed and operational	In progress	N/A	N/A	N/A

- Installation is being combined with other work UMass is contracting to have done on the building's roof
- Goal is an October 2010 completion of outdoor installation



Accomplishments 1: Advancing GENI Spiral 2 Goals

- License granted
- Site identified: 17-story Lederle Graduate Research Tower
- Omni-directional antenna purchased
- Outdoor equipment received from Rutgers
- Contractors given design phase "go ahead"

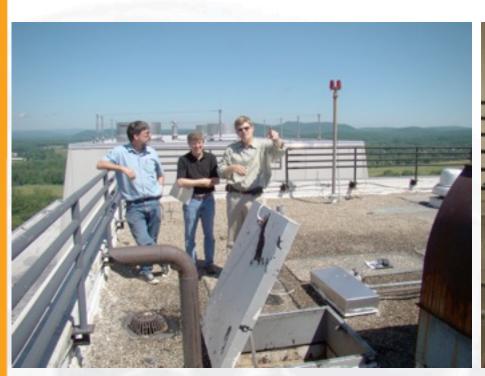






Accomplishments 2: Other Project Accomplishments

 Have begun to look what it takes to get a Linux kernel that could support WiMAX clients







Issues

- Cost of installation
 - Estimates range from \$10K to \$30K
- Access to WiMAX clients in a virtual environment
 - Xen USB limitations
 - USB-based clients (even if we swap computers to support Mini PCIe cards, client is implemented as a USB device on the PCIe card)



Plans

- Continue to work with the UMass Physical Plant and OIT on installation
 - Outdoor equipment installation that meets environmental requirements
 - Wiring to indoor unit
 - Backend networking connectivity
- Develop software to run WiMAX clients in a VM environment on DOME hardware and software (some evaluation this year, develop next year)
- Put WiMAX clients on some buses, make available to experiments
 - Install hardware and software on buses
 - Extent of integration with DOME portal TBD