



DOME Project Completion

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- What is DOME?
 - Mobile test bed consisting of 35 UMass Transit buses
 - Each equipped with computer, 3G modem, WiFi card, wireless access point, GPS, 900 MHz radio
 - Hands-off, often disconnected test bed
- What did GENI enable?
 - Benefit from our experience (and others), “if we could do it over ...”
 - Virtualized environment
 - ✓ Isolation of experiments
 - Experiment errors can no longer bring down the entire test bed
 - Management interface
 - ✓ Give more control to researchers
 - Researchers update software more rapidly, on their own schedule
 - ✓ Common methods for logging, reporting, etc.
 - More time spent on experiments, less dealing with mobile environment
 - Integration with control framework
 - ✓ Finer-grain allocation of resources, less serialization
 - More efficient use of the test bed allows for more users, greater usage
 - Remove proximity to others requirement

- Positive impact of GENI and DOME
 - Research and publications
 - Numerous related undergraduate projects
 - Benefit to the community (bus tracking, Internet access)
 - Access to resources by researchers beyond UMass
- Not finished yet ...
 - Transitioning to WiMAX
 - MobilityFirst
 - 95,367,974 bus “check-ins” in our DB (as of July 22 @ 1:56PM) and still going
- We want to thank NSF and GENI!