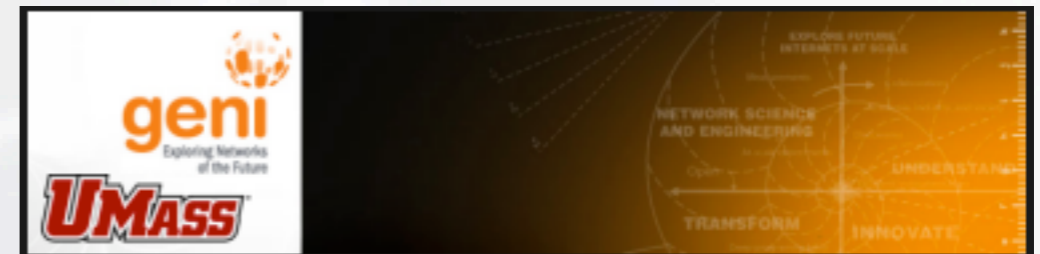




Diverse Outdoor Mobile Environment (DOME)

University of Massachusetts, Amherst

Mark Corner, Brian Levine, Brian Lynn, *Thijs de Vries*

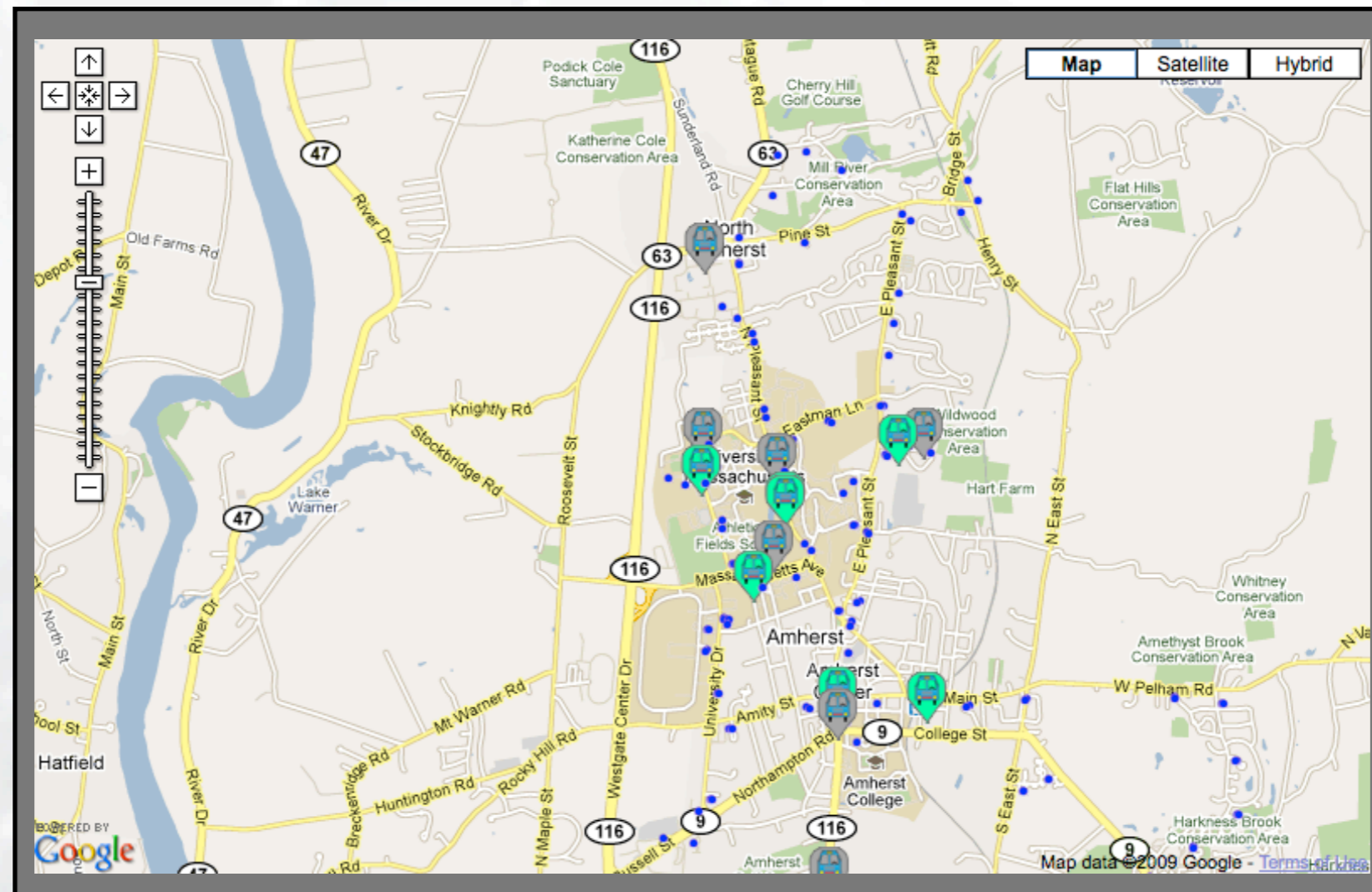


<http://geni.cs.umass.edu/dome/>



What is DOME?

- Open mobile testbed of ~35 transit buses
 - WiFi (card and access point), 3G, 900MHz radios, GPS on all buses
 - Approximately 150 square miles
 - Campus and Town WiFi mesh





Current Status

- Available since September 2009
- Recently added support for Digi XTend 900MHz radios
- Have several users running experiments on DOME
 - UMass graduate students
 - Research project with University of Arkansas
 - NSF GENI Research Experience for Undergraduate (REU) program
- U of Washington's Million Node GENI runs on DOME when no other experiments are scheduled
- Used by UMass Transit to track buses, provide Internet service to bus riders



Future Activities

- Emphasis is on supporting researchers
 - Add more monitoring to better support test bed
 - Add features based on feedback, user experience
 - Ongoing maintenance of testbed
- Update to ORCA Bella release TBD
- Overlap with GENI WiMAX project