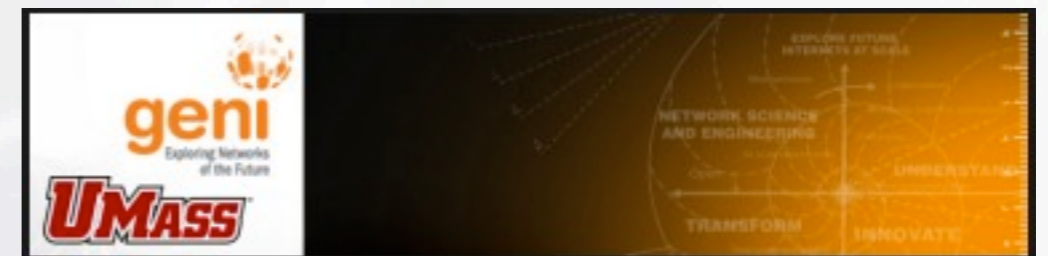




Diverse Outdoor Mobile Environment (DOME)

University of Massachusetts, Amherst

Mark Corner, Brian Levine, *Brian Lynn*



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



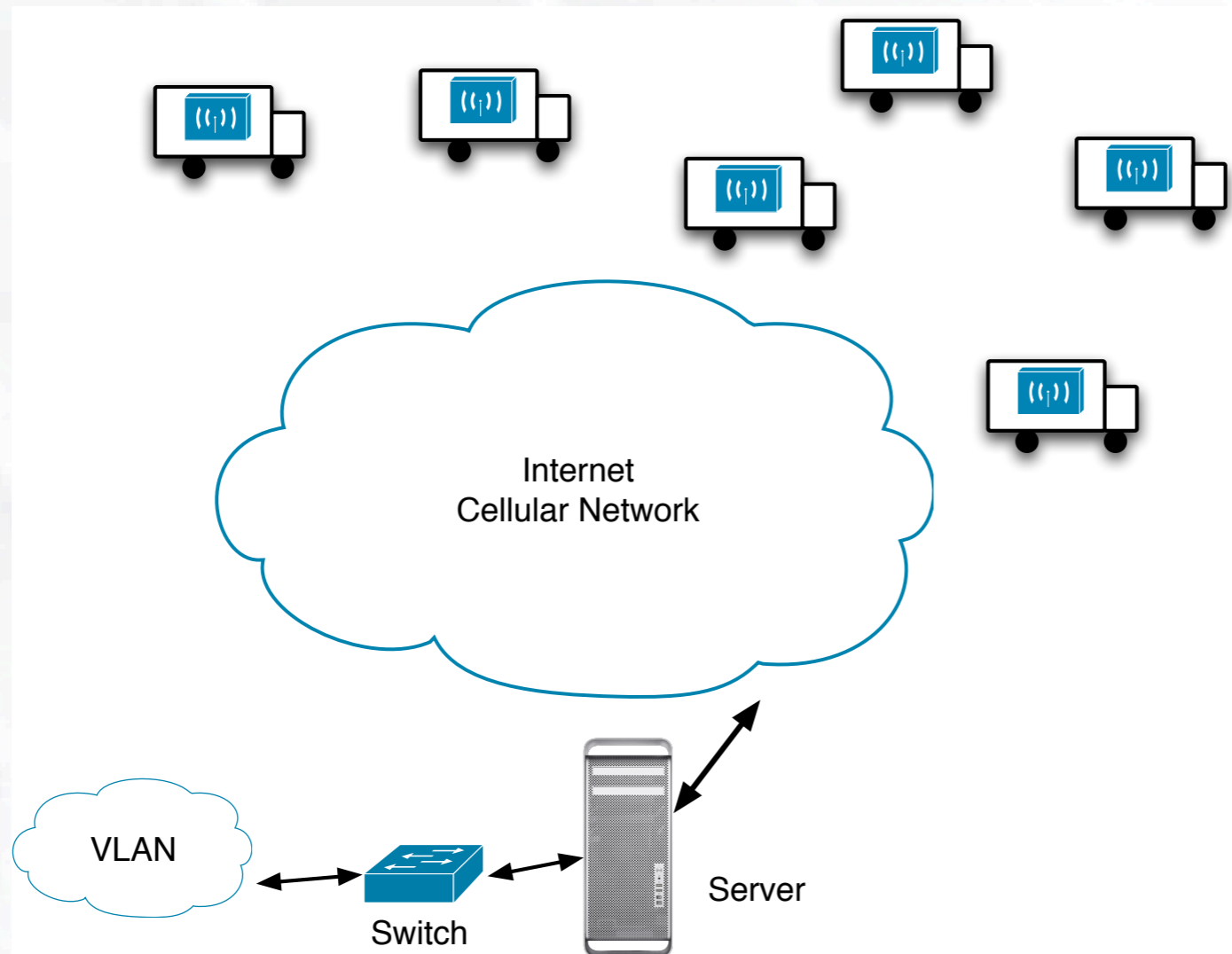
Current Status

- Test bed has been available since October
- Changes for ORCA Bella complete
 - Recent changes:
 - Reserve a subset of DOME (multiple pool units)
 - Cancel
 - One close issue outstanding
- Tested with local broker
- Testing with RENCI clearinghouse
 - DOME bug caused failure, will validate after GEC



Connectivity

- Links
 - WiFi: opportunistic, experiment managed
 - 900MHz radios: bus-bus
 - 3G: DOME managed, “persistent (~90%)”
- VLAN
 - Seriously?



- Tunneling: rejected
- Static routing, port forwarding: as required
- WiMAX: most desirable



Experiment Capabilities

- Being used by researchers now
 - Create, deploy, schedule experiments
 - All devices available to experiments
 - Experiments have validated driver customization, utilized use of Internet by bus riders
- Current focus is on tools, ease of use, supporting research
 - More control over scheduling
 - Logging
 - Test bed health
 - Reporting: when and where did the experiment run
 - Graphs, export data (to support publishing)