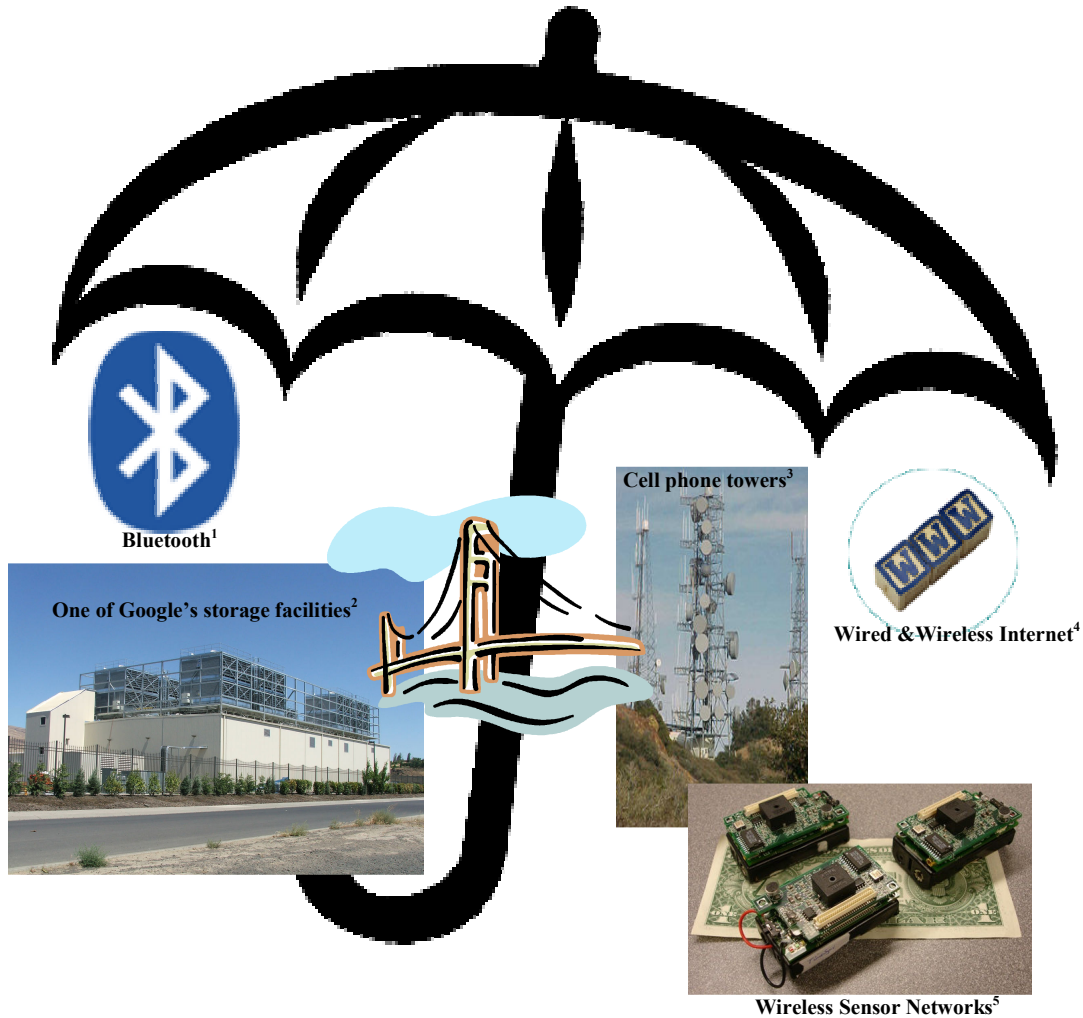


MicroOppnet – Small-Scale Testbed for Class 2 Opportunistic Networks

Zille Huma Kamal, Ajay Gupta and Leszek Lilien
Department of Computer Science, Western Michigan University



Opportunistic networks can be divided into: *class 1 opportunistic networks* that use opportunistically only communication resources, and *class 2 opportunistic networks*, called *oppnets* in short, that can use opportunistically all kinds of resources, such as computational, sensory, actuation, storage and include (but are not limited to) opportunistic use of communication resources only. The goal is to dynamically bridge disjoint communication media and leverage resources of the devices in the communication network to achieve oppnet objectives. We implemented a small-scale oppnet proto-type, called *MicroOppnet*, as a proof of concept. It is now being extended to serve as a testbed for experimentation and pilot implementations of oppnet components and architectures.

References:

1. SimpleBits LLC., http://www.simplebits.com/notebook/2004/04/04/harold_bluetooth_gromson.html, last accessed on April 19, 2007.
2. Digg Inc., http://www.digg.com/tech_news/Gmail_Storage_Pic, last accessed on April 19, 2007.
3. RF Spectrum Inc., <http://www.rf-spectrum.com/rfmain.htm>, last accessed on April 19, 2007.
4. RAREBIT Digital Solutions Inc., http://www.rarebit.com/33_internet&web.html, last accessed on April 19, 2007.
5. Thomas Watteyne, http://citi.insa-lyon.fr/~twatteyne/research_en.html, last accessed on April 19, 2007.