Wireless Research with GENI: An Introduction to GENI WiMAX

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Tutorial Aims

By the end of this tutorial, you will know

- what a GENI WiMAX testbed offers to experimenters,

- how to design a non-trivial experiment on a GENI WiMAX testbed,

- where to find more information and support for using GENI WiMAX testbeds,

And you'll be convinced that GENI WiMAX testbeds can support complex, useful experiments.

Who is GENI WiMAX for?

- Everyone who develops or studies Internet applications

- People solving issues of the next-generation Internet: mobility, multi-homing, intelligent use of networks

- Researchers or educators who are interested in specific properties of wireless broadband networks
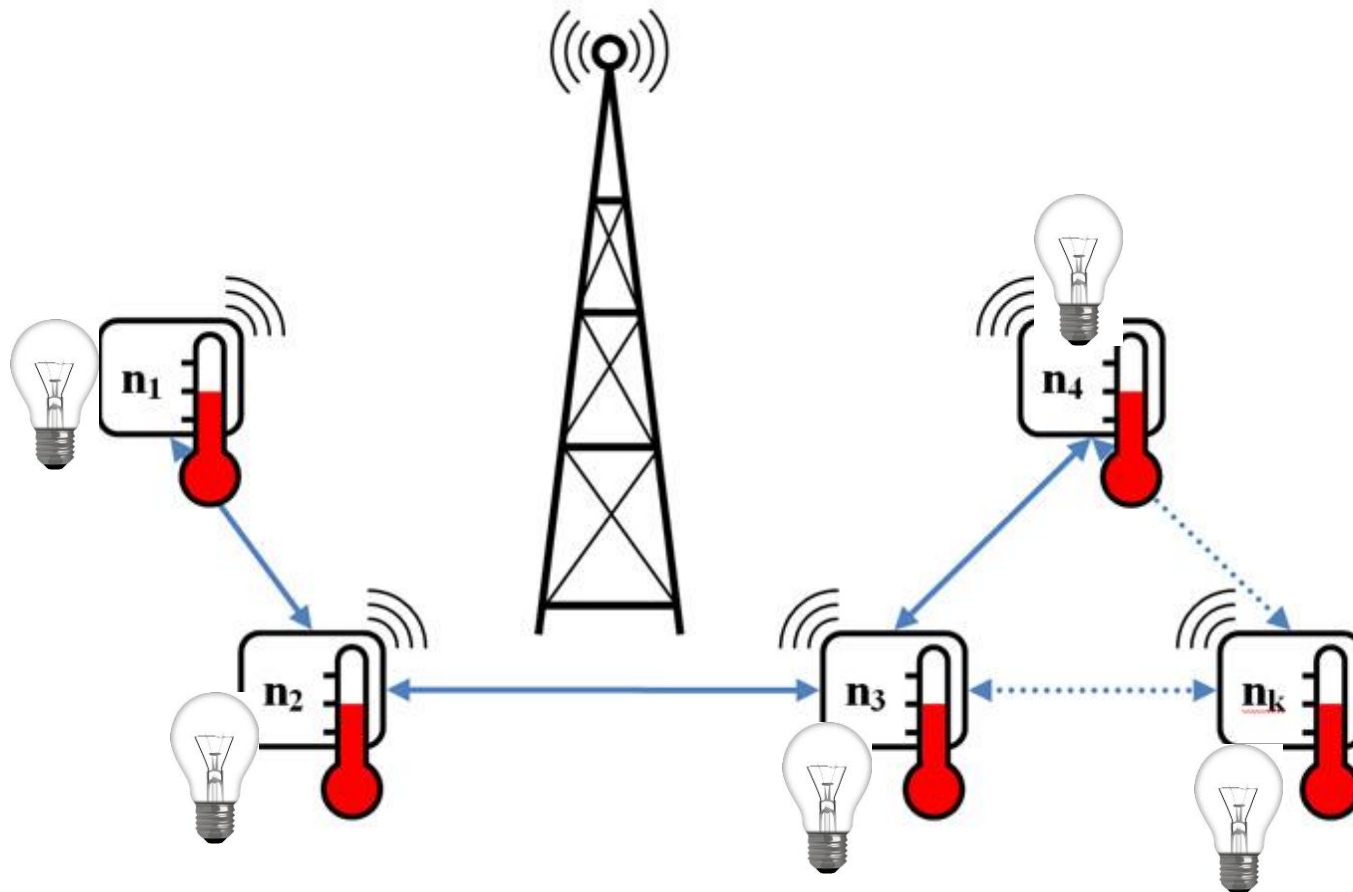
Ingredients of a WiMAX Testbed

Resources and Support

- Documentation, tutorials, software tools
  - http://witestlab.poly.edu (NYU-Poly Testbed)
  - http://orbit-lab.org (WINLAB Testbed)
  - http://wimax.orbit-lab.org (GENI WiMAX)
  - http://mytestbed.net (OMF)

- Support
  - witestlab@poly.edu (NYU-Poly Testbed)
  - orbit-user@orbit-lab.org (WINLAB Testbed)
  - wimax-developer@winlab.rutgers.edu (GENI WiMAX)
  - omf-user@lists.nicta.com.au (OMF)

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Today's Tutorial

- Three tracks

  - Machine learning for wireless sensor networks

  - Cooperation over heterogeneous networks

  - Lab exercises for an introductory wireless class

- We'll reconvene after running experiment in smaller groups

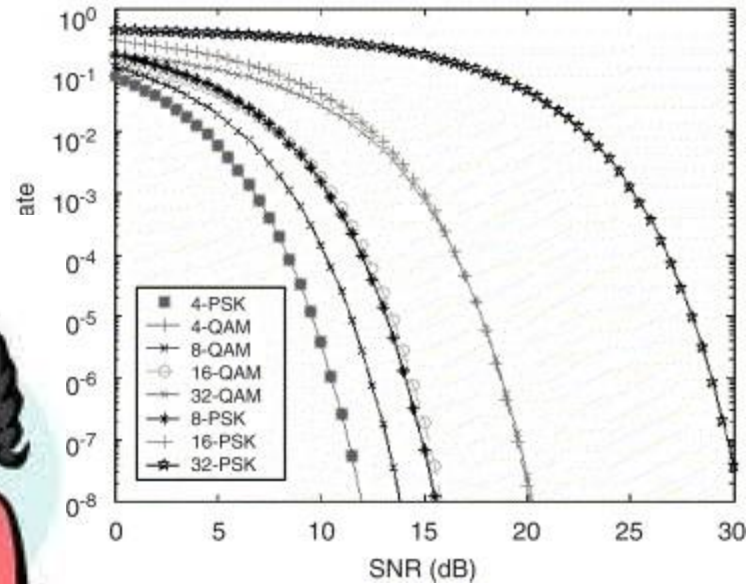 - One participant from each group will share lessons learned

Machine Learning Application for Wireless Sensor Networks

Cooperative Recovery over Heterogeneous Networks

Wireless 101: Lab-based Approach

Thank you