Project Status Report
Period: 1/1/2010-3/31/2010

I. Major accomplishments

The project will study and report on the capabilities recommended for a programmable radio substrate in GENI to best support wireless networking innovations. It is expected that a key capability should be to provide programmability and measurement at all layers. This project will also recommend the capabilities that should be included in the cognitive radio systems that are being developed in the "Cognitive Radios for GENI Spiral II" project.

During this period, key achievements include:

a) Held meeting with "Cognitive Radios for GENI Spiral II" project PI Ivan Seskar at GEC7 (3/16-18, 2010); made plans for trial remote use of the project's cognitive radio platform(s) for lower layer experiments.
b) Continued development of whitepaper.

A. Milestones achieved

No milestones are due at this time. Future milestones include:

a) White paper on recommended capabilities for a programmable radio substrate in GENI, and review of white paper with staff of "Cognitive Radios for GENI Spiral II" project. (Due 7/20/10, GEC8)

B. Deliverables made

No deliverables made in this period.

II. Description of work performed during last quarter

A. Activities and findings

a) Held meeting with "Cognitive Radios for GENI Spiral II" project PI Ivan Seskar at GEC7

   The meeting was held on 3/16/10 during the GEC7 demo session. With Ivan Seskar, PI for the "Cognitive Radios for GENI Spiral II" project, the meeting covered:
   1) Remote programming capabilities and requirements of the cognitive radio project's phase 1 platform.
   2) Plans for trial remote use of the platform to implement programmable radio features for lower layer experiment.

b) Continued development of whitepaper

   Efforts have been made in this quarter to start analyze literature collected in the previous quarter to identify the following issues relevant to the future support of any-layer experiments:
   1) Hardware features and specification evolution
   2) Experiment specific requirements and limitations
   3) List of testbed experiments according to involved layers
   4) List of programming interfaces and, if applicable, software utilities
   5) List of publicly accessible testbeds and protocol libraries

   This task is still in progress by the end of this reporting period.

B. Project participants

PI Kuang-Ching Wang is the only participant in this project.

C. Publications (individual and organizational)

Not available at this time.

D. Outreach activities

None in this reporting period.

E. Collaborations

This project is performed in collaboration with the “Cognitive Radios for GENI Spiral II” project staff, specifically Ivan Seskar (Rutgers WINLAB) and Dirk Grunwald (University of Colorado).

F. Other Contributions

None in this reporting period.