Project Title: Smarthome Consumer Level Performance Analysis Tool

Proposed by: Dan Cregg (dcregg@insteon.com)

Create a quality of service network analysis tool for simulcast mesh networks to provide the end user with awareness and solutions to common problems.

Learning Objectives:

1. Study:
    a. Electronic and communication systems
    b. Electromagnetic propagation principles
    c. Simulcast mesh network methodologies
    d. Interconnected device requirements, protocol structures and conversions
2. Analysis:
    a. The ability to determine network stress points and failures.

3. Implementation:
    a. Create an application to test, measure, monitor device and communications performance in a dual-band simulcast mesh network and provide meaninful feedback to the endconsumer.

Design tool used (include but are not limited to):

- Python
- Ethereal and Wireshark
- C
- Simulcast mesh networking tools provided by project sponsor
- Other tools TBD

Project Diagram:

TBD