

**Project Title:**

**Simulation comparison of multiple physical layer networks verses single layer.**

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Create a simulation of a device network that utilizes multiple physical layers and a simulcast mesh network means verses a single physical layer star topology network.

**Learning Objectives:**

1. Study:
  - a. Electronic and communication systems
  - b. Electromagnetic propagation simulation principles
  - c. Interconnected device simulation
2. Analysis:
  - a. The ability to model various propagation methods and impediments in a simulated environment.
3. Implementation:
  - a. Identify and utilize software simulation tools to model a common residence in the U.S. for electromagnetic propagation given routed, star, and simulcast network methods in multiple frequency bands and physical transports.

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

- MATLAB
- Python
- C
- Other tools TBD

**Project Diagram:**

TBD