

## Scope Overview of PingER Project for Android

1. The basic goal is to develop a procedure allowing Android-based devices to be used for network monitoring given the following assumptions:
  - a. Android devices (e.g., old mobile telephones) can provide sufficient computing power for PingER monitoring;
  - b. The PingER program code can be easily installed on the Android OS;
  - c. Android-based devices used for PingER monitoring will have access to Wi-Fi services and not use cellular networks (due to inherent latency concerns);
  - d. Android-based PingER monitors will require no maintenance; device failure will be addressed by replacement with a new device (remove and replace);
  - e. Android-based PingER monitors have the potential to be placed anywhere where network and power access are available;
  - f. Local configuration/setup of Android-based PingER monitors will be limited to Wi-Fi setting;
  - g. Android-based PingER monitors will occupy the same system status as other PingER monitors;
  - h. Android-based devices will be provided by the PingER team for development, configuration, and testing;
  - i. It is not a goal to develop a generalized Android app interface to PingER data.
2. Skills required for participation in the PingER project for Android:
  - a. Android OS/Java programming skills;
  - b. Familiarity with the PingER project infrastructure and program code;
  - c. Familiarity with Git; the PingER codebase is maintained on GitHub.
3. Project outcomes:
  - a. A PingER codebase for Android;
  - b. Proof-of-concept (installation and testing of an Android-based monitoring device);
  - c. Installation documentation for Android-based PingER monitoring devices;
  - d. A conference or journal submission that documents experience and findings in Steps (b) and (c);
  - e. Development of a strategy for soliciting participants/locations of Android-based PingER devices.