

Vision Statement

Team SmartRG

Project Title

SmartNetwork

Team Members

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Project Description

A mobile application that will display useful statistics and information about your home's wifi and internet connection. In addition, our app will look to provide other useful innovations like a heat map depicting the strength of your wifi connection in each room of your home.

What problem(s) does the project solve?

- Technicians installing home routers need a tool to maximize Wifi range and solve network connectivity problems.
- At home users can check where their wifi signal is strongest/weakest so they know where to put wifi extenders/repeaters to maximize their home's wifi capabilities.
- Determining why your internet is being slow

Why is this problem important?

- Most people want their home wifi to work seamlessly without any problems or issues
- Most people do not know why their internet is not working or being slow

How is the problem solved today?

- Users have to call in technicians from their internet service providers to physically come to your home and analyze the issue.
- Users try and figure out the problem themselves.

Outcome of the project

Our end goal is to provide a mobile application that allows technicians, and possibly residential users, to test network connectivity across different areas of the home and display network data in order to solve potential connectivity problems.

Initial project milestones

- Develop a mobile app (Android) that collects and displays data from a home router
- Allow it to run speed tests and store data in a database on a cloud server
- Be able to display a heat map of Wifi network strength across different areas of the home
- Display statistics and analysis of over-the-top video streams (vstb)

How do you plan to articulate and design a solution?

Implementation

- Android SDK, and possibly NDK as well
- iOS
- MySQL database
- Iperf3, to get network statistics and information
- SmartRG routers

Overview the process model you will employ to achieve the milestones

- Daily scrum meetings
- Weekly (or more frequently) meetings with mentors
- Google Drive for document storage
- Slack/Google Group for team communication
- Github for version control
- Agile workflow process of 2 week sprints