SmartNetwork

- Cutting edge WiFi Analysis tool
- Easy solution for wifi connectivity issues

Heat Map Algorithm
- Combination of network surveys
- Uplink & Downlink Metrics, RSSI, latency, packet loss
- Analysis and recommending new hotspot locations
- Shades each hotspot based on data collected

Where Will This Go?
- Every includes their own at home use and in-office use
- Helps with technical & non-technical employees
- Helps us 2 block latencies in household WiFi issues

What’s next?
- Our searching optimal solution for
  location problem.
- Recommendation for hotspots
  searching and analysis
- Solution of the problem

Problem
- Where is the hotspot in the
  WiFi triangulation and how can the
  consumer make it faster?

Why?
- With newest track
  learning and tracking
- WiFi signals can cause
  Internet slow

Home User Problem
- View a diagram of a house
  and a user’s location
- How can the WiFi speed be
  fixed in this user’s location

What? How?
- How will we know
  where the hotspot
  should be placed
- Solution with newest track
  learning and tracking WiFi signals

Technician Problem
- The technician is trying to
  analyze the WiFi in a house
  structure

Technician Solution
- Use newest tracking
  learning and tracking WiFi signals
- Solution for hotspots
  searching and analysis

Home User Solution
- Try to search the
  hotspot location
- How can the WiFi speed be
  fixed in this house location

Technician Solution
- Use newest tracking
  learning and tracking WiFi signals
- Solution for hotspots
  searching and analysis

How It Works
- Search for
  optimal location
- How can the
  hotspot location
- Solution with newest
  track learning and tracking
  WiFi signals

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Problem

Where in a house is the WiFi strong or weak and how can someone make it better?
Home User Problem

Vince, the home user, doesn't know exactly where the WiFi is bad and doesn't know how to fix it.
Matthew, the technician, has to manually test WiFi connectivity throughout the house to find a solution.
Why?

- Walls and physical barriers can block WiFi signals
- Other signals can cause interference
Solution

- WiFi speed test
- Heatmap representation of residential WiFi connectivity
Home User Solution

The speed test allows Vince to know his WiFi speed at his current location.
Technician Solution

Matthew can create new heatmaps and remotely view created heatmaps for any household.
Technician Solution

Heatmaps allow Matthew to easily diagnose and find a solution to weak spots in the residence.
How It Works

Iperf3 retrieves data statistics

LOAD

SAVE
Heat Map Algorithm

- Combination of network statistics
- Upstream & downstream Mbits/s, RSSI, retries, retransmits
- Shades each test point based on data collected
What's next?

- Self-identifying optimal router location
- Automatic suggestion for network extenders
- Scale and improve Heatmap algorithm with more network metrics
Where Will This Go?

- Every technician and user at home using Smart/RG routers
- Reduce time technician is in the house.
- As easy as 2 clicks to debug a household's WiFi issues.