



# SmartNet

**SMART/RG<sup>®</sup>**

forward thinking

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# Problem



- Sending an ISP technician to a house costs a lot of money
- Would be great if technician gets it right the first time





# Solution: SmartNetwork

- Mobile diagnostic tools
  - Video Stream Analyzer (VSA)
  - Wifi speed test
  - Wifi Heatmap
- Easier mobile setup for technicians
  - Automatically connect to the SmartRG router
  - GUI Portal



# What we inherited

- WiFi speed tests
- WiFi heatmap (basic functionalities)
- Connect to router via Wi-Fi Protected Setup (WPS)



# Our Goals

- Port VSA to Android
- Push birth certificate to router
- GUI portal
- Improve heatmap features



GUI Portal

“Live” Demo



Speed Test



Heat Map



VSA Graphs



GUI Portal



21% 6:56 PM



## Settings

Connect to a Network Via WPS

View Available Networks

Configure Network Attributes





Capstone189



00:23:6a:c2:26:c4

Available



19% 8:07 PM



Capstone189



00:23:6a:c2:26:c4  
Available

### Enter wifi password

Please enter a password...

show password

Connect

Cancel



Capstone189



00:23:6a:c2:26:c4  
Available

Enter wifi password

•

show password

Connect

Cancel



Capstone189



00:23:6a:c2:26:c4  
Available

Enter wifi password

---

..

show password

Connect Cancel



Capstone189



00:23:6a:c2:26:c4  
Available

Enter wifi password

---

....

show password

Connect Cancel





20% 7:01 PM



Capstone189



00:23:6a:c2:26:c4  
Connected

Successfully Connected. Loading QuickStart.



85% 3:50 PM



# SMART/OS™

by SMART/RG®

Sign in





Speed Test



Heat Map



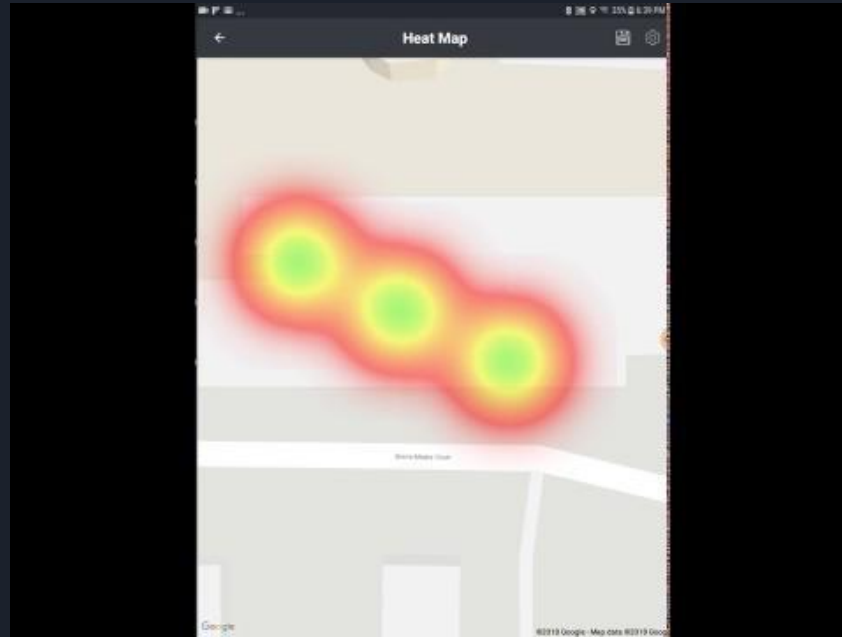
VSA Graphs



GUI Portal

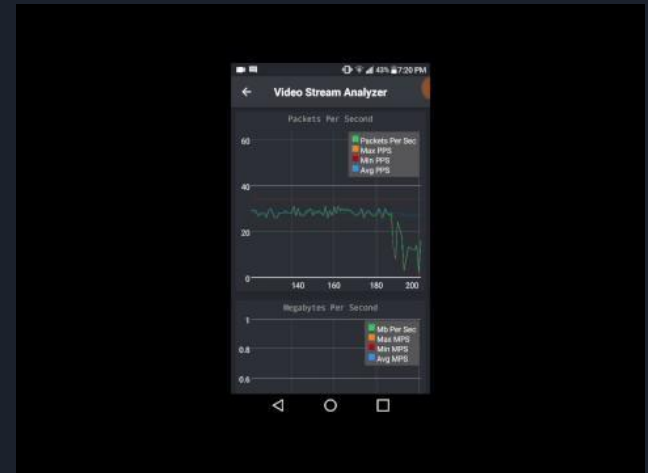
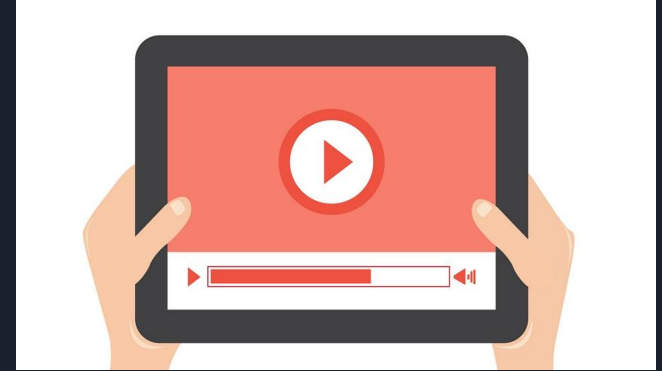


# HeatMap + Birth Certificate



# Video Stream Analyzer

- Metric tool
  - High bandwidth consumption
  - Requires a strong connection
- Real-time Data
  - Shows Wi-Fi network quality
- Measurements
  - Media delivery index
  - Packets per second
  - Megabytes per second
  - Errors per second





# What's Next?

- Cross compare pindrops to figure out where best to place mesh extender



Questions?