Mobile Wireless Drive Test

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Mobile wireless coverage

Access to mobile wireless service is increasingly important. The FCC publishes maps provided by operators. Many consumers contend that these maps do not reflect the coverage they experience. A drive test provides an objective assessment through thousands of voice calls and download speed tests.

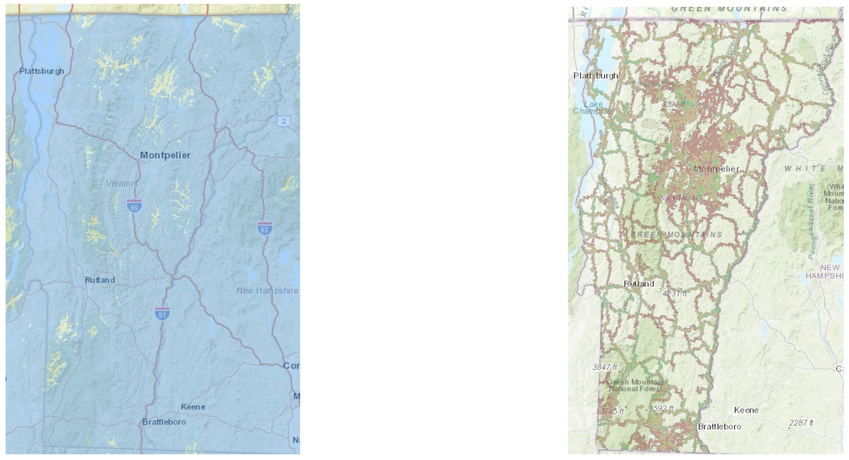
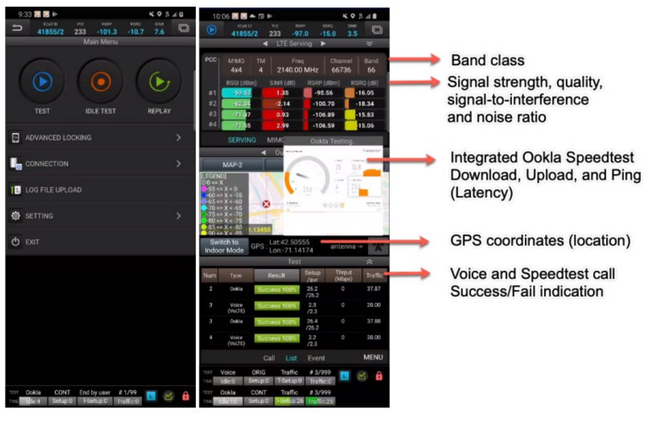


Figure 1. AT&T voice coverage vs 2018 drive test

Drive Test Methodology

The project employs Ookla Wind®, a handset-based, wireless testing and monitoring solution installed on handsets for each of the six facilities-based providers in Vermont. VTrans personnel will drive all state-maintained roads, as well as all Town Class 2 roads and many other roads requested by residents.



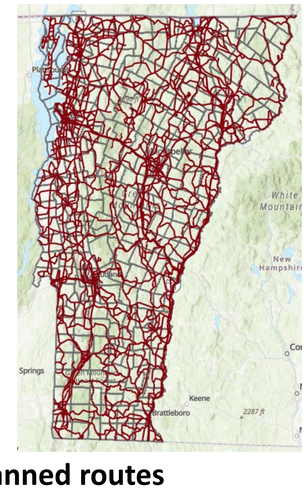


Figure 2. Ookla smartphone app and drive test planned routes

Results

Ookla will provide point-based results for each voice and Speedtest.

Polygons provide a geographic representation of coverage that is easier to grasp than the individual points.

Ookla will also provide H3 polygons to depict the average voice and data service identified in each tested hexagon.

The data will be published on the state geodata portal for the public to use for further analysis.

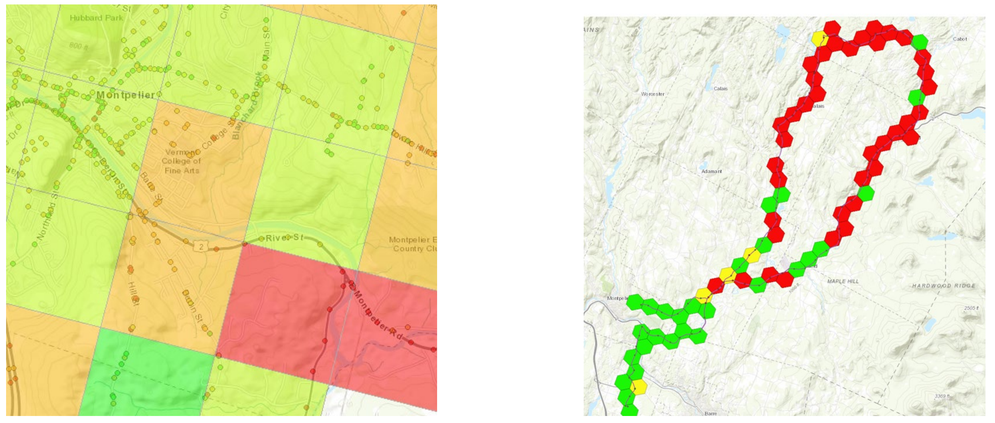


Figure 3. 2018 results, and sample 2022 results

Conclusions

The drive test is expected to provide an objective assessment that will be useful for numerous applications.

Acknowledgments

Vermont PSD contracted with Ookla to provide software and consulting support.

Vermont AoT provided the driving.

The project employs the H3 open-source hexagon polygon system developed by Uber