



Critical Communications Infrastructure Program

A proposal to deploy 100 cell towers to reach unserved areas in Vermont for \$50M.



Expanded mobile wireless is critical for telehealth, public safety, education, and the economy.

71% of calls to E-911 in Vermont in 2020 were from mobile wireless phones

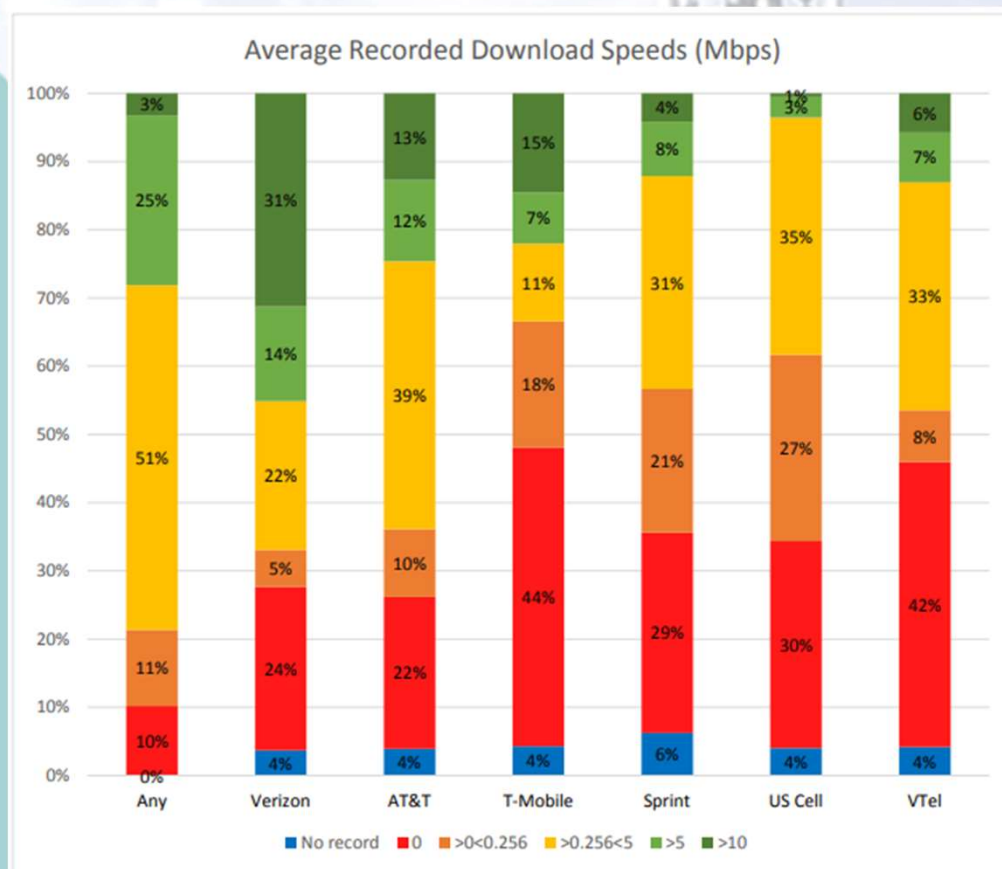
67% of Vermont telephone numbers are registered to mobile handsets

48% of Vermont adults live in a wireless only household

12% of Vermonters live in a landline only household – the highest rate in the nation.

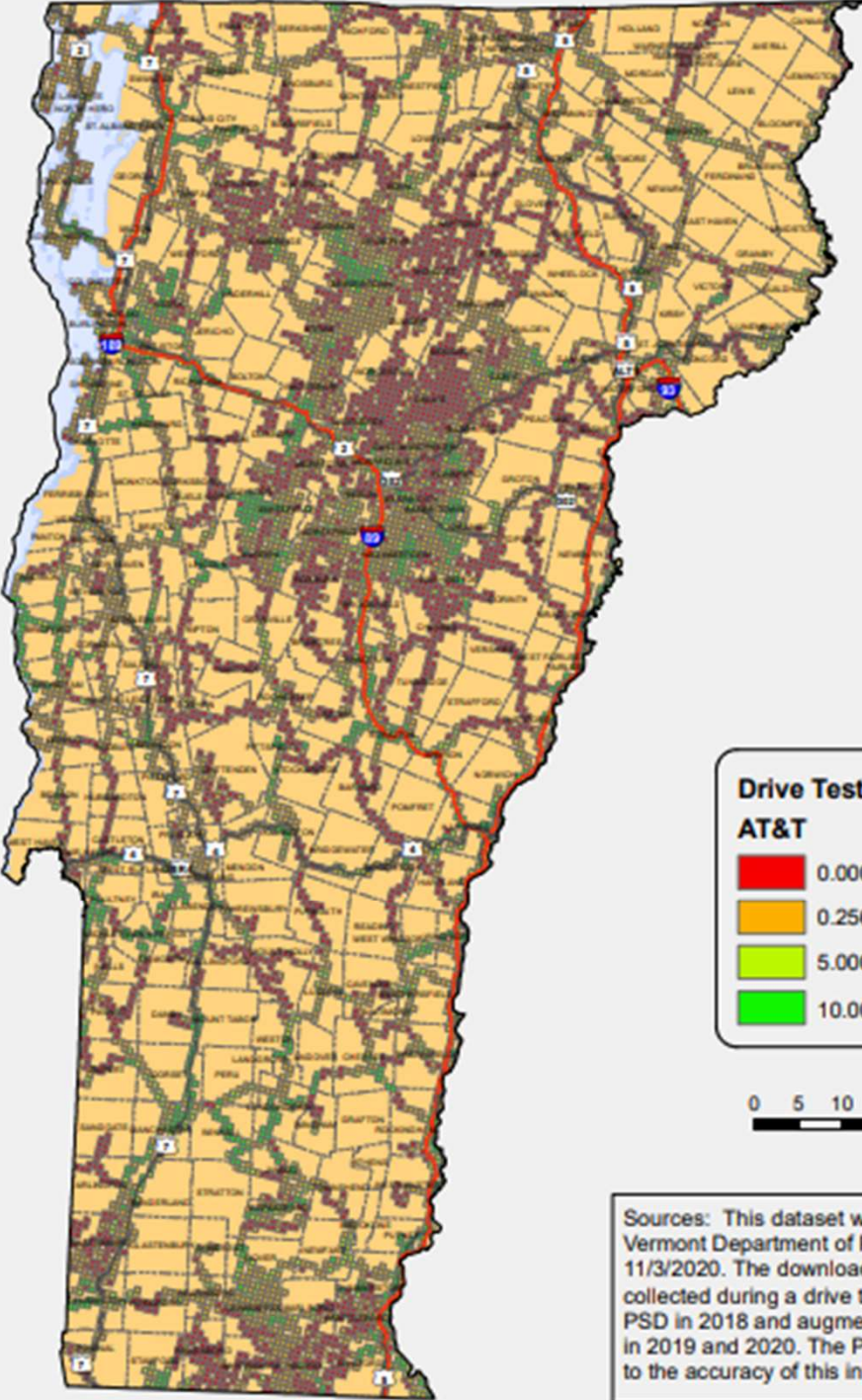
The need

- 2019 Drive test of Vermont highways demonstrates about 70% of road miles have service from either Verizon or AT&T; 65% have service from both.
- 10% of Vermont's roadways lack coverage from any carrier, while 62% have poor reception.




AT&T Coverage

Mobile Wireless in Vermont AT&T 4G-LTE Data Coverage



Drive Test Results AT&T

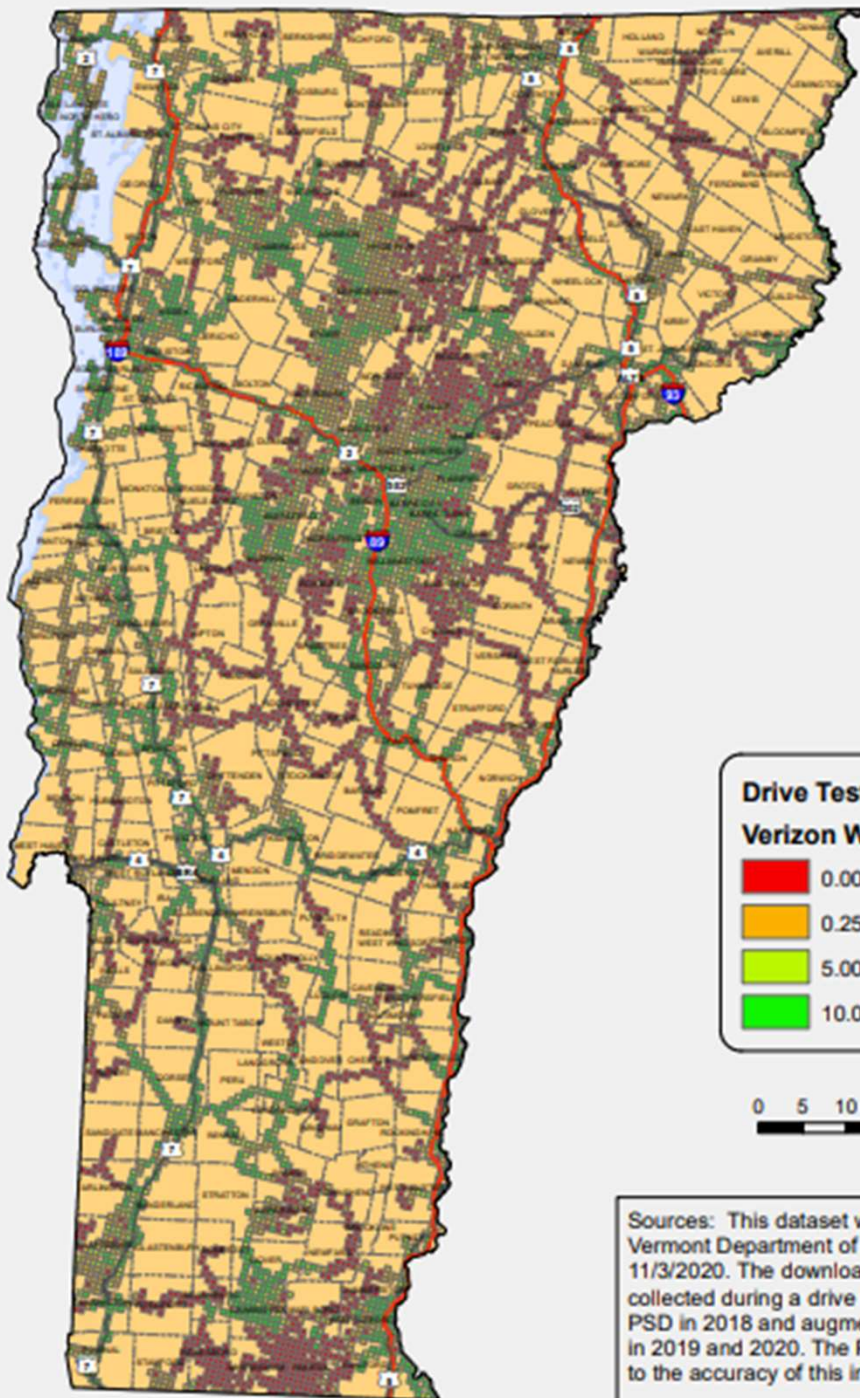
	0.000 - 0.255
	0.256 - 4.999
	5.000 - 9.999
	10.000 - 50.000

0 5 10 20
Miles

Sources: This dataset was prepared by the Vermont Department of Public Service (PSD) on 11/3/2020. The download speed data was collected during a drive test conducted by the PSD in 2018 and augmented by volunteer drivers in 2019 and 2020. The PSD makes no guarantee to the accuracy of this information.

Verizon Coverage

Mobile Wireless in Vermont
Verizon 4G-LTE Data Coverage



Drive Test Results Verizon Wireless

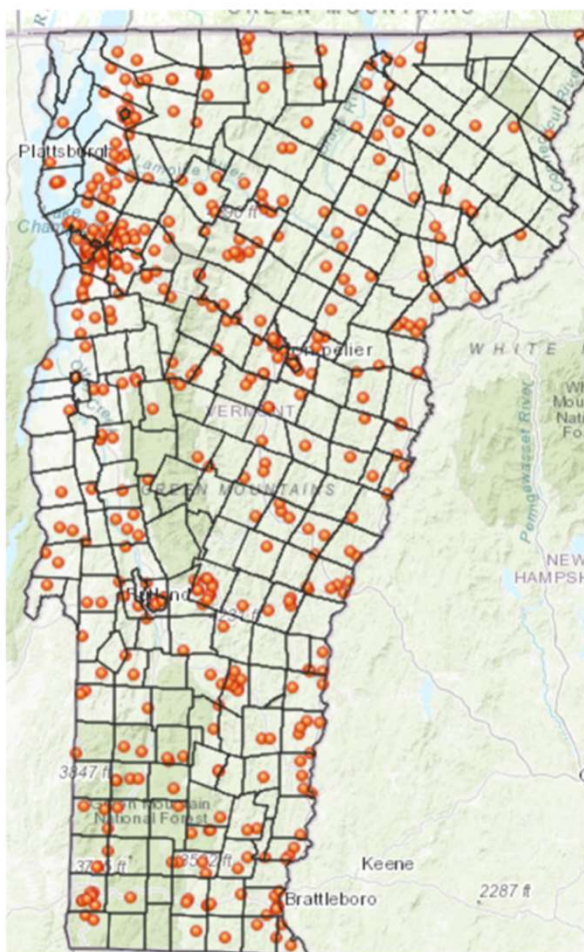


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Existing Towers

Permits issued by Vermont
Public Utility Commission
under 248a, 2011 - 2017



Type	Quantity
Monopole	162
Building	56
Lattice Tower	56
Silo	53
Guyed Tower	41
Utility Pole	25
Church	8
Water tower	8
Other	3
Total	412

New towers
can cost over
\$500K

A public subsidy is
needed to ensure
Deployment in
rural areas.

Rural areas
may not
generate
sufficient
revenue to
justify
deployment
costs



The Proposal

1. Drive Test
 - Expert provides app and support
 - SOV tests all federal aid highways
 - RPCs and Towns may also test additional areas
2. SOV: Identify priority areas
 - Data-driven process based on drive test results
 - Outreach to RPCs, Towns, and Public Safety & others.
3. Identify tower sites
 - An expert will identify locations where towers could be deployed to provide coverage to priority areas.
 - All towers will allow collocation for public safety LMR
4. Secure Carrier Interest at all towers
 - Carriers will bid the maximum they would pay to attach to all 100 tower sites
 - Winning bidders will receive subsidy to support their deployment costs
5. Deploy towers
 - Tower builders will bid the minimum cost to deploy each of 100 towers, lowest bid wins each site

Drive Test



- Actual service, not propagation estimates
- All 5 facilities-based carriers & FirstNet
- All federal-aid highways in Vermont