Partial Resume

- Serial tech entrepreneur
- Vermont Secretary of Transportation (Snelling Administration)
- Microsoft (1991-1994)
- AT&T (1994-1997) Started WorldNet Service ISP
- ITXC (1997-2003) Founder, largest wholesale VoIP company
- Vermont Stimulus Czar (Douglas Administration)

Lessons learned:

affordable networks grow exponentially faster

The value of a network is proportional to the square of its size (Metcalfe's law)

The pandemic hit Vermont like a flood. Low-income Vermonters are still stranded on the wrong side of broadband gulch.

The New Vermont Needs Universal Broadband Now "At CVOEO access to services and care is the most important thing we do. If we do not increase accessible, low-cost broadband, we cannot further our efforts to educate our Head Start students, create new businesses through our micro-business development program, educate and advocate in our housing programs or increase food access in the Champlain Valley.

"Without improving access for all populations, public health disparities and economic gaps will persist, widen and deepen. Access to broadband is a social justice and public health issue."

Paul Dragon CEO of CVOEO

Current status of broadband availability in Vermont

- **50%** of Vermont families live in areas have access to both adequate broadband and low-income plans from ISPs. Most low-income families don't know plans are available to them.
- **35%** have access only at a high price. Lowincome people can't afford to use it.
- **15%** have no current terrestrial service available but could have LEO (and maybe 5G) if they can afford it.

The problem of immediate access is largely a problem of affordability.

Hotspots at libraries and WiFi in the McDonald's parking lot are like life in an emergency shelter. Broadband at home is needed NOW!

Temporary Rescue Resources for 50,000 Eligible Families:

- Initial service grants for equipment and setup (\$6m).
- Continuing service subsidies for the neediest with a copay of \$25 through 2024 (\$15.5m).
- The Broadband Corps (\$5m) to provide outreach and assistance.

*Note: This is not a long term-plan nor a substitute for one. It is a short-term rescue equity plan.

House Energy and Technology



- Use existing organizations: CAP Agencies, United Way, school districts, libraries, CCV, VTTech, senior centers, and Adult Learning Centers
- Intake calls: 211 and Broadband Corps
- Registration: online, paper or phone
- Language accessibility: Registration forms in 8 non-English languages spoken by Vermont families
- Training Broadband Corps on effective customer service skills (with anti-bias components): --to be developed and executed by CCV and Working Bridges
- Determining family's financial eligibility Broadband Corps



and

Determination of Coverage

- Dept. of Public Service (DPS) and Broadband Corps to determine provider availability for an E911 address
 - DPS and Broadband Corp to determine eligibility for FCC broadband subsidy, ARPA, CARES and new infrastructure funding
 - DPS to arrange with ISPs how payments will flow from the federal funds to the ISP in the name of a low-income customer
 - DPS and other State government agencies to process available subsidies using federal dollars before State dollars
 - Agency responsible for reporting -TBD

Ongoing Support

Installation of Service and

- Provide eligible Vermonters with basic financial planning skills to enable a better use of household's communication services budget training developed by United Way for Broadband Corp members
- Walk eligible family through filling out all relevant forms for access to funds and to become a new customer of an ISP
- Bridge between the service provider and eligible Vermonter while service is being installed
- Development of FAQ and connectivity tips to provide ongoing technical assistance in cyber security and privacy issues - developed by VTC



Process Chart for Helping a Family Become a New Internet Citizen





House Energy and Technology

Broadband subsidies are like rental assistance and hotel vouchers: good immediate rescue for the connectionless; NOT a permanent solution

Sunset subsidies by replacing with low-income plans from ISPs who build with CARES and ARPA funds

- ISPs who build with State support should be required to offer a low-income plan at no more than \$25/month and no hookup charge
 - Immediately in newly built areas
 - By the beginning of FY2024 in their current service areas
- ISPs gain by having low or no interest money for buildouts, more subscribers per mile of new buildout, and two years of full subscriber-subsidy on old footprint.
- State grants must and can be generous enough so the low-income plans are a plus for the ISPs as well as the recipients.

Funding ISPs so they can offer lowincome plans is similar to how we build affordable housing. The developer gets access to cheap capital and in turn promises a certain percentage of low-income units.

President Biden on Affordability 3/31/21

"We'll make sure every single, every single, American has access to high quality affordable, high-speed internet. When I say affordable, I mean it. Americans pay too much for Internet service. We're going to drive down the price for families, who have service now and make it easier for families who don't have affordable service to be able to get it now."

Can ISPs afford to provide a lowpriced plan?

- Business plans were made before the amount of Rescue money was known.
- H.360 started with \$20m.
- Amount increased to \$150m once Rescue passed.
- Governor now recommends \$250m.
- There will probably be another \$100m in Biden Infrastructure bill for broadband.
- GMP and Vermont Electric Coop have tariffs approved giving up to \$2000/house passed credits to ISPs.

It's time for ISPs to sharpen their pencils.

ISPs **CAN** afford low-income plans if properly funded with Rescue money: Averageville, VT

- 60 miles of road; 10 houses per mile
- 50% take rate at \$100/month
- 75% take rate with low-income plan of \$25 month (5% cannibalization)
- \$1400 hookup cost per customer
- \$4000/mile to build
- ISP comes out ahead if Rescue funds pay 20% of gross capex and reduce the cost of capital from 5% to 3% EVEN if they offer a \$25 no install charge low-income plan.

Sen Leahy on the dreadful urgency of now

"I come back with the idea: What can we do now - quickly, not oh we got this wonderful plan for 5 years from now or ten years from now. That is not going to do what we need."