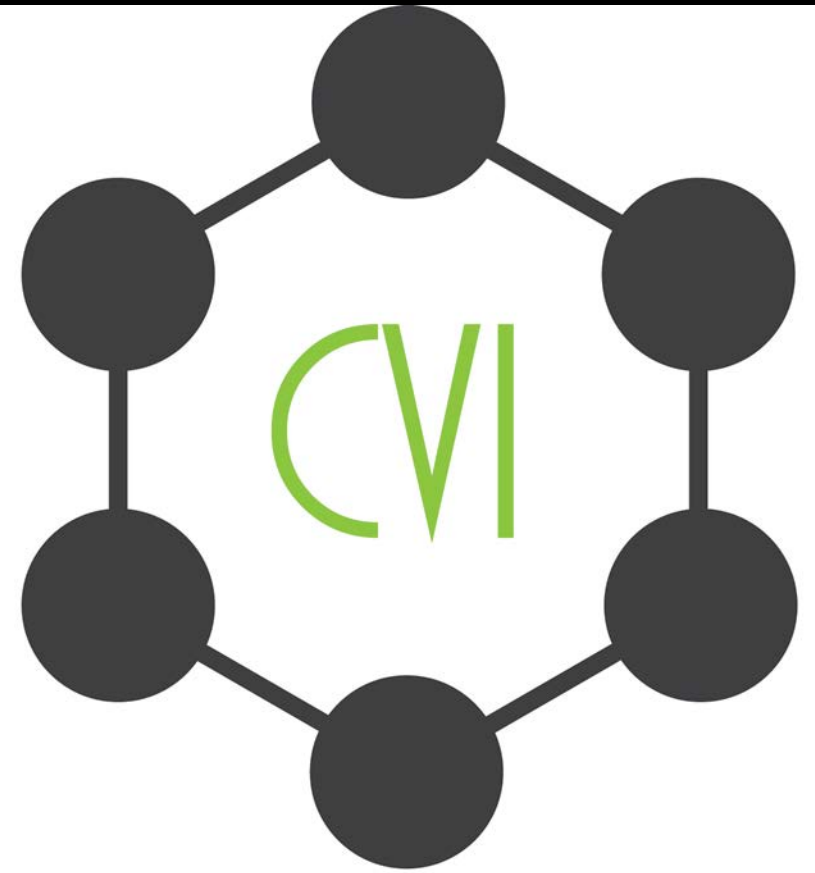


# CENTRAL VERMONT INTERNET

Presented by: Jeremy A. Hansen, Ph.D CISSP  
Jerry Diamantides, Ph.D



Central Vermont  
**INTERNET**

# ABOUT ME...

- PhD in Computer Science
- Currently an Associate Professor at Norwich University
- 10+ years in information technology & security
  - Experience in Fortune 500 down to 2 person organizations
- Selectboard member in Berlin since 2013



# HANDOUTS

- Sample petition
- 30 VSA 202c
- "More than Just Facebook"
- "Why Local Solutions?"
- "Community Broadband Creates Jobs"
- Communications Union District statute
- EC Fiber pricing & speeds



# WHAT I'M PROPOSING

- Starting a community Internet Service Provider
  - Communications Union District: a municipal entity
- Connecting Central Vermont residences with extremely high-speed wired Internet service
  - Current FCC rules call "broadband" 25/3 Mbps, which few people have here
  - I'm talking about 100+/100+ Mbps
  - Vermont's Telecommunications Plan:

**"By year end 2020, a majority of addresses in Vermont should have access to the Internet at speeds of at least 100 Mbps symmetrical, and every address should have access to speeds of at least 10 Mbps download. By 2024, every address should have broadband with minimum technical requirements of 100 Mbps symmetrical."**



# WHY DO THIS?

- Existing ISPs have no motivation to provide truly high-speed Internet
- Local governance = local control = local accountability
- No profit motive → cheaper rates
- Economic development
- Net neutrality
- Subscriber privacy concerns (tracking network activity & reselling)
- Indirectly drive prices of other offerings down and speeds up
- Community and nonprofit cooperative ISPs are springing up to serve underserved markets (map on next page)





# Community Network Map

Toggle on and off markers.

 Citywide Cable


 Citywide Fiber

 Portions of City

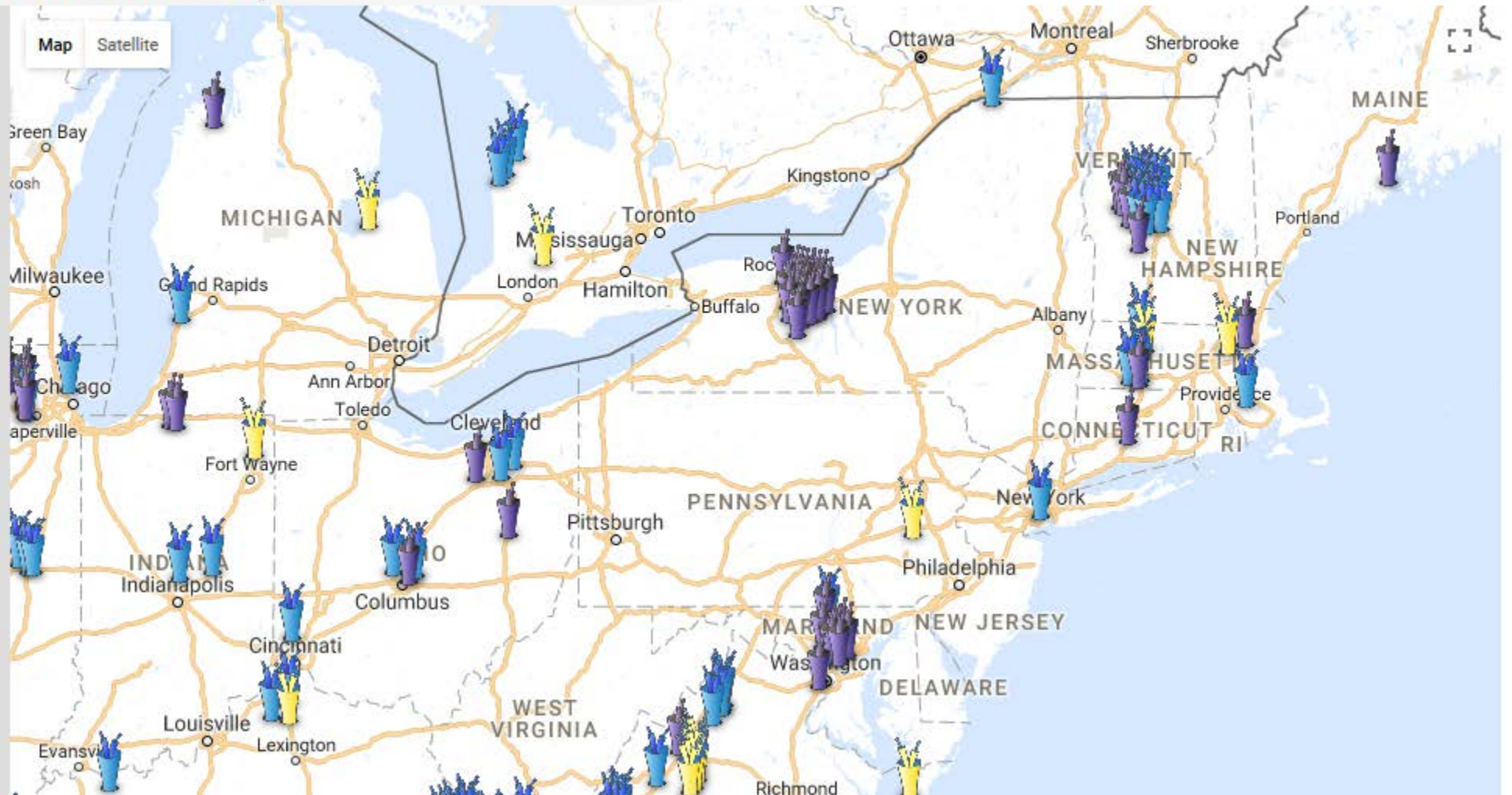
 Dark Fiber

 PPP

 Open Access

 Stimulus Project

 Gigabit Speeds



# THE THREE BIG REASONS

1. Improve access speeds
2. Cheaper access
3. Better “intangibles”: customer service, privacy, transparency



# WHO'S INVITED TO THE PARTY? (SO FAR)

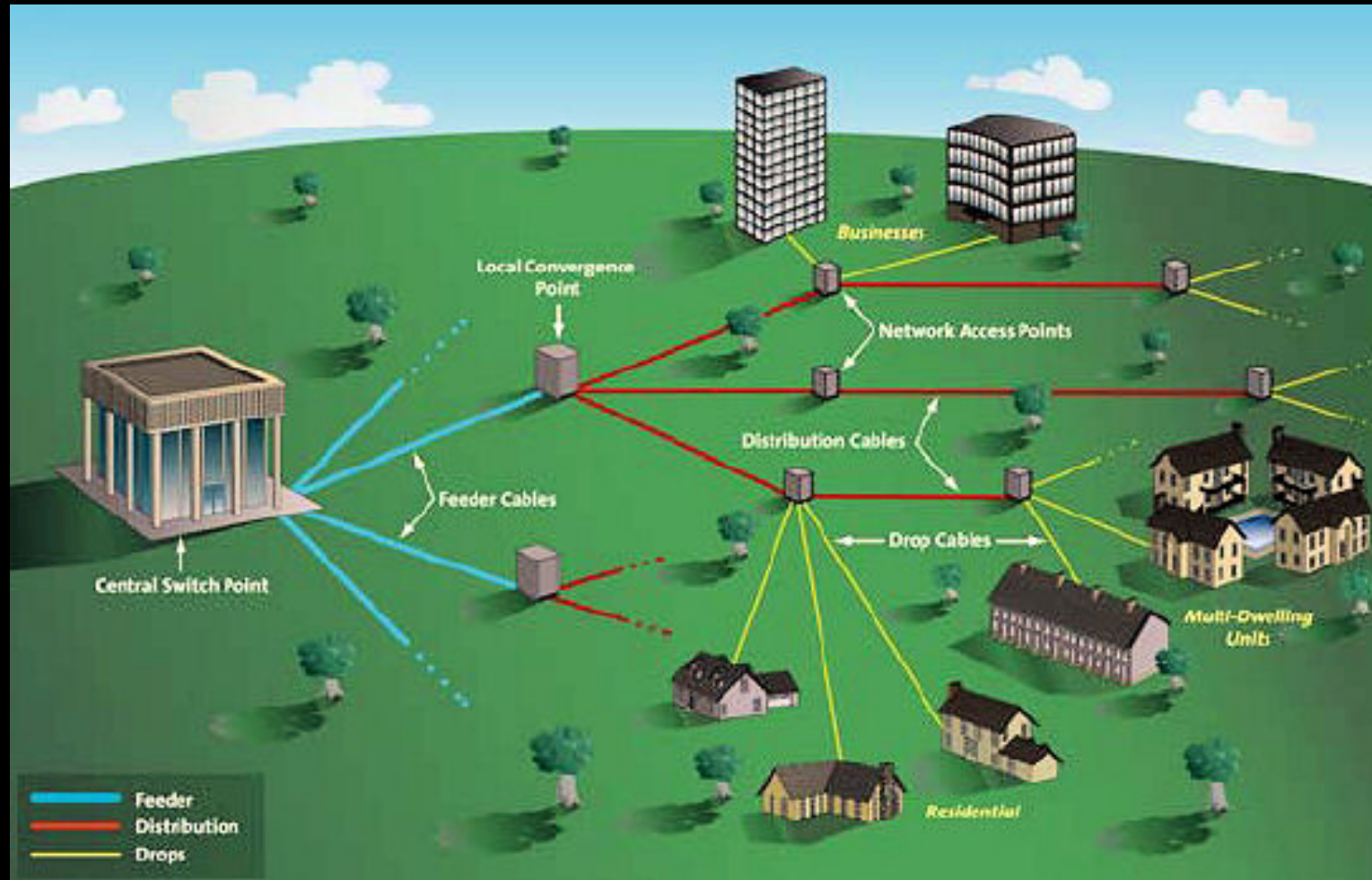
- Barre City
- Barre Town
- Berlin (expected to be on ballot)
- Calais
- East Montpelier
- Elmore
- Middlesex (on Town Meeting ballot)
- Montpelier
- Northfield (Selectboard rejected, starting petition drive)
- Plainfield (expected to be on ballot)
- Roxbury
- Williamstown
- Worcester





# INFRASTRUCTURE OVERVIEW

- Existing poles
- Fiber optic cable
- Networking devices
  - On premises @ subscriber
  - At distribution points
  - In leased locations in towns
- Uplink to the Internet



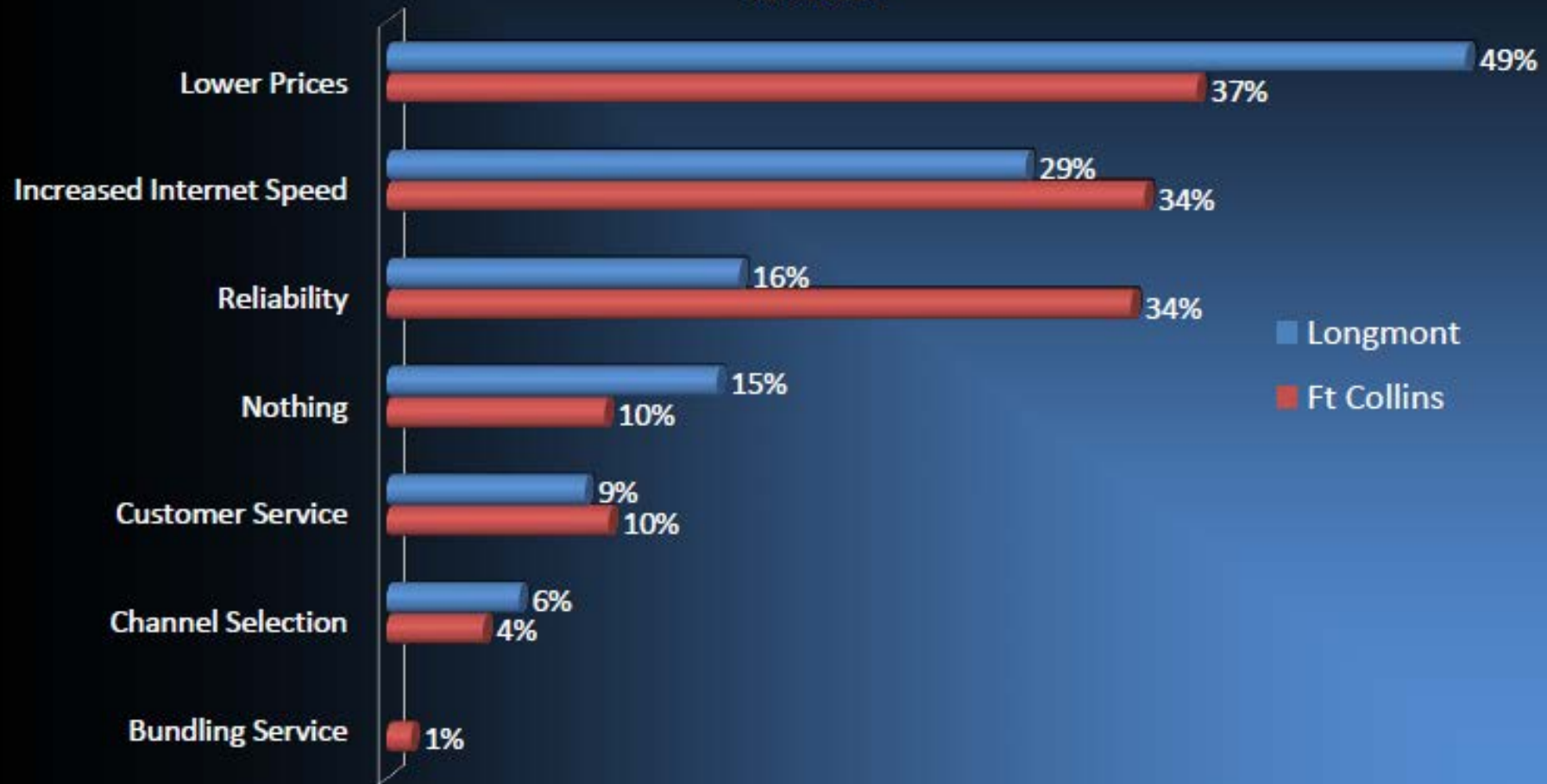
# FEASIBILITY STUDY (NEXT YEAR)

- An information-gathering project to help us make good decisions by telling us:
  1. Differences between commercial and residential market
  2. Consumption patterns
  3. Satisfaction with incumbents
  4. Importance of different facets of Internet service
    - Speed
    - Price
    - Customer Service
  5. Demand estimation



# SAMPLE FEASIBILITY RESULTS

Q32: "What would you like to see most improved from your current broadband services?"



# CRITICISMS

- "I don't want my taxes to go up for something I don't want!"
- "But won't this stuff all be obsolete before the bond comes due?"
  - >20 years for the cable, ~5 years on routers & switches
- "I don't want to be in the same position as Burlington Telecom." and "Haven't a bunch of these providers failed?"
- "If there was truly the demand, wouldn't the market correct to provide the supply?"
- "Aren't these towns covered by satellite/wireless broadband already?"
- "There's no guarantee that you'll actually provide cheaper service or faster speeds."





# NEXT STEPS & ROUGH TIMELINE

1. Get language on the 2018 Town Meeting ballot in the 10+ towns (by Jan 1)
2. Public outreach & awareness building (through Mar 6)\*
3. Win approval at Town Meeting (Mar 6)
4. Selectboards & City Council appoint representatives to the District (by Apr 30)
5. Identify sources of seed money and anchor institutions (ongoing)
6. First annual meeting (May 8)
7. Add additional members?
8. RFP for & execution of feasibility study--\$ from *VCDP Planning Grant*?
9. Draft business plan & budget, decide on initial coverage
10. [...]

\* By May 8 for Barre Town without a special Town Meeting





# LANGUAGE FOR THE BALLOT

“Shall the Town of Calais enter into a communications union district to be known as Central Vermont Internet, under the provisions of 30 V.S.A. Ch 82?”



# QUESTIONS?

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