A Falmouth Community Network

Towards a locally-controlled Internet access network

A public meeting at
Falmouth Library
June 4, 2019

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Falmouth's community network

- Built with today's technology
- Reliable, fast, inexpensive
- Built for service, not for profit
- Attracts new businesses and jobs
- Long-term infrastructure
- Local investment
- Locally-based customer service
What is a community network?

- Over 800 community nets in USA
- Over 150 networks offer 1 Gbit/sec
- 19 states restrict/prohibit community nets
Massachusetts community nets

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Falmouth facts

• Year round population 32,000, about 14,000 households

• Summer population 105000, over 40,000 households

• Rough plan: serve up to 100,000 connected customers (includes business, scientific orgs, hotel room customers)

• Assumption: Comcast, Verizon & Falmouth network co-exist

Very rough cost estimate: $30-60 million
Network Technologies

• Copper phone lines - no way.
• Coax cable - probably not.
• Satellite - long delays, very rural areas only.
• 5G - mostly mobile, not community controlled.
• Fixed wireless - pluses and minuses, fast deployment.
• Fiber to the home - ideal solution, big project.

Need local fiber backbone for good service

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Fiber facts

• Each glass fiber is thinner than a hair
• Comes in cables of 12 - 1000 fibers
• Capacity is almost infinite
• Info travels as pulses of light - billions/sec
• Lasts at least 30 years
• Easily upgradeable by changing equipment at ends
Reliability from fiber rings

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OpenCape

- Already built & serving Cape Cod
- A 501-c3 self-sustaining community asset
- Built w/ $40 million public funds
- Available for collaboration & connection
OpenCape: Falmouth assets

• Over 40 connected locations in Falmouth
Who builds and runs it?

Some alternatives

- The town of Falmouth or town-run entity
- A utility district (aka "municipal light & power district")
- EDIC (Economic Development Industrial Corporation)
- A public-private partnership
- OpenCape
- Some other entity

Solutions depend on what's best for Falmouth
Financing Community Networks
Some alternatives

- Municipal bonds
- Federal grants & programs
- Massachusetts Broadband Institute, other MA funds
- Public-Private Partnership and/or private investors
- Build as you go (customer financed)

Experience:
If community supports it, financing will come.

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Feasibility Study

• Several vendors with community network experience could help Falmouth do this job

• Quantitative answers, road map w/ multiple paths

• Best path(s) to success

• Need organization to write RFP, select vendor

• Estimated cost: $50,000

• Estimated time: 6 months

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Open Questions

• How to build community support?

• Who builds it?

• Who runs it?

• Fiber to the home, wireless, or . . . ?

• Just Internet, or TV and phone too?

• Test neighborhoods or whole town?

• When/how to include neighboring towns?

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A Falmouth Community Network

- Follow-up?
- Questions?
- Support?
- More information?

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