

Meeting with WiValley to present on WiFi Solutions

Date: December 27, 2017, 7PM

Attending: Trevor Mackie, Bob Handsaker, Doug White, Cheryl Handsaker

Absent: Mary Ellen Banks, Ken Hall, Sean Neill

Presenting: Brian Foucher, WiValley; Fred Goldstein, Interisle consulting

Guests: Lark Thwing, Rick Kean, Town of Hawley

Steven Harris, Town of Middlefield/ Interisle

Gita Jozsef, Joe Kearns, Town of Middlefield

Meeting called to order 7:03

Proposal from WiValley/ Interisle exists under the flexible grant program.

Current participants: Four town region in West County: Hawley, Savoy, Florida, Monroe

Other participants: Middlefield, Worthington

Charlemont is contiguous to four of the towns that are currently considering WiValley.

WiValley was started in Harrisville, NH, network is in the Cheshire County, NH. 10-12 years ago. Originally 21 towns, built with fiber to the anchor institutions, and FTTH in Enfield and Ringe, NH. FastRoads, the agency tasked with rolling out the NH middle mile issued an RFP and none of the "big players" showed up. WiValley created the solution for the system 22 town CAls in 40% of the town. 90% remain WiValley Customers.

WiValley is ISP hybrid fiber ISP, NH FastRoads is the operator through FirstLight.

Communities are larger than Charlemont, WiValley knows first hand the challenges of the repairs and maintenance. Business model is the lease the equipment to the home, and the maintenance and repair of the fiber infrastructure is not covered by the ISP. Repair and maintenance can be the issue that causes fiber networks not to be sustainable.

Wireless speeds are "leapfrogging" over DSL. Communities should understand the power of fiber ownership to economic development. WiValley proposes 60 ft poles in the right-of-way. Ownership of the poles will be transitioned to the town and will be leased back to WiValley under contract. Technology deployed now might be 25/5 and possibly 12/2 through trees, but can be improved. Looking to provide a plan that would serve the town with no tax investment.

Summary of the Four Town Network - 96% served with no additional tax burden.

Some of the networks will have fiber where the density of the service units makes sense. The proposal is currently for MBI to own any fiber that is part of the town buildouts to be maintained and repaired as a part of the MBI 1-2-3 - simply adding fibers to the MBI 1-2-3 networks with a IRU for long-term use to WiValley.

Fred Goldstein has tentatively mapped out Charlemont. Everyone on wireless 96%, built out as 7 possible regions. East Charlemont, Center of Town as fiber builds, also might include "south side of the village"- about ½ of existing properties could be served with fiber.

Would MBI be willing to own all the municipal fiber? That issue is still in negotiation with MBI. The proposal is for MBI to own and then lease back the fiber plant and drops to the house. Town would provide all grant money, road easement right of ways for wireless poles. This infrastructure would be given back to the town to maintain and repair with an IRU granted to WiVally.

Technology propose for fiber build would recommend precut fiber from Corning and WiValley recommended wireless technology not specified in the meeting.

Network owned by WiValley. Infrastructure assets "given" to the town and the MBI.

Monthly fee paid into the MBI network operator to continue to maintain the risk to the capital. Sustainability is the risk to capital disbursement not financial operating sustainability. Insurance for the catastrophic events, but not the smaller repairs and maintenance, which can add up quickly.

FASTRoads were able to buy a high deductible insurance plan. It is unclear if the MBI fiber plant is insured.

Hybrid networks roll out in different way. Redundancy of a completely wireless stand-alone network. Savoy has a microwave point of intercomment through AccessPlus on Borden Mountain and MBI provides fiber redundancy backbone for the wireless. Goal is redundancy everywhere.

Technology is easier to be the fiber operator, pricing, flexibility. AccessPlus allows connections without tying into the MBI 1-2-3 network. How much aggregate backhaul is possible through AccessPlus? 300Mbs is current capacity for emergency backhaul. Possible to connect with Crumb Hill power farm in Florida. They can also see a Shelburne tower from Side Hill Farm in Hawley.

If towers/ poles are sited off the grid, a small solar install plus wind might be provided. Most of wireless transmitters will provide 36 hours of backup battery power.

Wireless offers the ability to deploy more quickly. WiValley will build a completely wireless backbone and use some fiber as it can come online where it makes sense.

Wireless only - residential service is "best estimate". Desired capacity will define infrastructure.

Current pricing estimates:

\$60/month 12/2 - capped at that service level.

\$70/month 25/3 - will not sell higher tiers of service if those speeds cannot be reliably reached.

Business class service cost would be by negotiation.

Pole in the right of way:

- Other side of road from existing power poles.
- Agreement with the town to transfer assets to the town for repair and maintenance responsibilities.
- WiValley would manage the pole and equipment.
- Insurance claims could be covered by the town insurance, managed by WiValley.
- Pole hearings- might be needed. Also telecommunications bylaw may also require public hearing.

Hawley has a design. Now that they are a part of a four town network the monthly cost is manageable.

Stand-alone design could be done for Charlemont only, then as a part of the regional wireless network. Identify which assets would be needed or could be shared. Then create IRUs for each of the towns.

Is MBI a viable long-term partner? Other towns are asking. When Axia is out of the picture there may be additional opportunity - flexibility to overlash may become available.

No towers are required in the current design. 55-60' utility pole (possibly 30" at bottom for fiberglass pole). Not sure if they still need a tower.

Wireless internet service - Fred is a member of WISPA (Wireless ISP Association) - contracted to work with FCC and follows the technology closely.

Older equipment used to be weather dependent, currently it is more reliable. Higher bands have "rain fade" but WiValley would use the lower bands. Engineer for the worst case conditions. CTV white space is POSSIBLE at the lowest speeds to provide access through dense vegetation. Range from low-end TV white space to higher end frequencies will be combined to allow for the highest possible speeds to all locations.

WiValley sets the rate. They would like to keep it consistent with those of their other existing customers.

They would plan for using all the money to serve the most homes with the best technology and believe in the hybrid model with engineered redundancy.

Meeting adjourned at 9:35 PM.