WV Broadband Enhancement Council
Meeting Agenda / Minutes

Meeting Title: WV Broadband Enhancement Council Meeting
Chairperson: Robert Hinton
Date: 04/13/2017
Time: 9:00 am
Location: WV Capitol Complex
           Building 6, 6th Floor, Conf. Rm. A
Audio Connection: 304.957.6999
                   Conf. ID: 9359172#

Council Member | Representing | Council Member | Representing
----------------|--------------|----------------|--------------
P Robert Hinton, Chairman | Rural Business User Congressional Dist. 2 | Woody Thrasher | Dept. of Commerce, Cabinet Secretary
TC Robert Morris, Vice Chairman | Urban Residential User | John Dunlap | Office of Technology, Chief Technology Officer
TC Ric Cavender | Urban Business User | Michael J. Martirano | Dept. of Education, State Superintendent
P Robert Cole | Rural Residential User Congressional Dist. 1 | Matt Turner | Higher Education Policy Comm., Exec. Vice Chancellor
– Michael Shaffer | Rural Residential User Congressional Dist. 2 | Vacant | WV Senate (Dem. Party) (ex-officio/non-voting member)
P John Reasback | Rural Business User Congressional Dist. 1 | Vacant | WV House (Dem. Party) (ex-officio/non-voting member)
P Michael J. Holstine | Rural Business User Congressional Dist. 3 | Vacant | WV House (Rep. Party) (ex-officio/non-voting member)
– Brittany Carns | Business User of Large Amounts of Broadband | Jeff Proctor | Representing Woody Thrasher
– Dr. Jack Smith | Representing Matt Turner | Brenda Morris | Representing Michael Martirano
– | | Josh Jarrell | Dept. of Commerce, Deputy Secretary/Legal Counsel

P = Present; TC = Teleconference; VC = Videoconference; _ = Absent

Agenda (Topics and Minutes)

<table>
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<tr>
<th>Topic</th>
<th>Details/Minutes</th>
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<tr>
<td>Call to Order</td>
<td>Chair Hinton called the meeting to order.</td>
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<tr>
<td>Opening Remarks and Roll Call</td>
<td>Chair Hinton welcomed the Council and guests.</td>
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<td>Approval of Minutes from the 03-09-2017 Meeting</td>
<td>Minutes from the March 9, 2017 Council meeting were presented for approval. There was a motion for approval, and Member Cole seconded. All voted in favor and the minutes were approved.</td>
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Provider Presentations:

1. Jeremy Satterfield, Mid-Atlantic Broadband Communities Corp

2. Kevin Manovich, NexGen Broadband

Jeremy Satterfield, Mid-Atlantic Broadband Communities Corp

Mr. Satterfield presented the MBC, Mid-Atlantic Broadband. Funded by US EDA and other sources.

- Serving Southern VA Tech Park.
- 501C4 organization providing open access, middle-mile.
- 100 percent fiber in ground.
- Project started because of homework gap.

Pilot project for TV White Space (TVWS). Largest in nation, serving Charlotte and Halifax counties. 16 towers (vertical assets). MBC pays for equipment (wireless antenna outside of premise connects to router inside. Many users had no other options. Some had DSL.

System is single point to multipoint. Microsoft and Adaptrim are driving development, due to 4 billion worldwide with no access. Chair Hinton asked about potential regulatory issues. Mr. Satterfield stated TVWS is unlicensed spectrum. MBC hoped to show FCC success in pilot project.

All connection and usage is stored in database. Used for educational purposes to ensure that rural areas do not have an educational gap. Typical cost of CPE is $600. Cost is expected to decrease.

Member Cole asked about serviceability, and Mr. Satterfield stated that 2 of 10 fiber (networks) have been operating for one year. Member Holstein asked if build-out continues. Mr. Satterfield stated that build-outs are in Virginia, using tobacco commission funds.

Next steps: Chair Hinton and Mr. Satterfield will discuss with Paul Garnette to explore options for use in WV.

Kevin Manovich, NexGen Broadband

Company is based in Cumberland, MD; working in Keyser. Business model is to work in dense areas and spread out. Message: Internet is expensive. WV needs a backbone. Surrounding states have a publicly owned backbone; WV does not.

Initiatives: Fibernet-Fiber to the Home. Working to link Carpendale to Ashburne, VA; then to Keyser and Moorefield. Main fiber network travels from Ashburne to Pittsburgh to Columbus.

WV needs gigabit broadband. Has backbone path designed to cross WV. Can push a signal 20 miles without regeneration. Most of state is DSL and many companies offer older technology or purchase Internet from third parties. Not feasible to build fiber everywhere, but can build wireless towers for mountainous areas. Then serve TVWS. Point to point, then TVWS. NexGen builds 100Gig backbones. Works with EMP to protect network.

Mr. Manovich stated that Ashburne is largest Internet center in U.S. Carriers need another route. NexGen has conducted overview engineering
with preliminary cost estimates. Using Fulcrom for GIS mapping. Quanta is fiber provider. Estimates include:

- $2.4 million for development
- $500,000 for permitting
- 750-mile route
- 34 tons
- 29,000 homes
- Total project cost: $50,000
- Can be completed in phases.
- Need public and private investors.
- Contingent upon investors and permitting.

Chair Hinton asked what the State would need to do. Mr. Manovich stated that Bill Timmerman of San Diego has developed a model by which the WVEDA could provide a loan guarantee, placing a lien on fiber, whereby the State owns fiber and network. Chair Hinton stated that the BEC was not in a position to authorize any work. Mr. Satterfield stated that he would like to continue discussions.

Mr. Satterfield stated that reliability within the new fiber network in Carpendale will be enhanced. Under their overall proposal, if there were 220 strands of fiber, the State would own 48.

**Next Steps:** Chair Hinton asked Mr. Satterfield to stay for the DNR presentation and stated that this could be a topic for a future the Infrastructure Committee.
**WV DNR Request for Assistance:**

Stephen S. McDaniel, Director, WV DNR  
Samuel A. England, Parks Chief, WV DNR

Chair Hinton referenced the materials furnished by the WV DNR in the meeting packet and welcomed Stephen S. McDaniel, Director, WV DNR; and Samuel A. England, Parks Chief, WV DNR. Mr. McDaniel stated that WV state parks lack broadband service. He is seeking Request for Information on methods to assist park properties in the development of service.

State parks represent 40 properties, and $40 million annually; with 7 million visitors annually. Lack of connectivity is affecting Tourism, even at campgrounds. Mr. England noted the following: 8 facilities have satellite only; 8 to 10 have service for office needs; parks have need for public internet including, lodges and cabins. An inventory of available service was provided in the meeting packet.

Chair Hinton stated that the DNR request is twofold:
- 1. Internet service to the parks  
- 2. Internet service throughout the parks

**Next Steps:** Chair Hinton recommended that the request be revised to be mailed by April 28, 2017, with a 30-day return and follow up at a future Infrastructure Committee meeting. WVDO will assist with the mailing.

**Mapping Update - Tony Simental**

Tony Simental provided an overview of available mapping, showing DSL. Each category has a different distance from the company hub. Other maps show copper and cable modem. Can map by provider and see speeds. Satellite can typically cover needs, but in WV the challenges are related to mountain shadows. Would need elevation and position. Currently working with June 2016 dataset and Ookla dataset.

Issues: FCC data is reported at census block level. Even if 1 person is served, the entire block is shown as served. Recent speed tests in Clay County showed that 163 of 172 tests did not meet speed test. Mr. Simental is currently working with WV National Guard on projects, and in Preston County.

There was discussion of speed tests and current mapping. The entire State is mapped, but additional speed data is needed. It was noted that the definition of broadband is 25 mbps down/3 up as defined by FCC. Rates varied, but 6 was most common.

Member Proctor noted that Ookla data is by IPP address in zip code and is a self-test. FCC data is based upon census block. Mr. Simental stated that the highest speed of the IP address was used instead of the average. Speed can vary by time of day, server used, and other factors. He stated that Ookla helps infer type of service in a particular area.

Member Holstein asked if rankings by county would be completed, and Mr. Simental stated that rankings would be completed.
**Legislative Update - HB 3093**

Chair Hinton provided copies of HB3093, noting that the final bill added a loan component. The BEC did not speak at public hearings. The Chairman stated that through this legislation, WV is sending a message that the State is serious about broadband development.

The Chairman presented a draft letter to send to Governor Justice in support of this initiative, on behalf of the BEC. Member Morris confirmed that the overall composition of the BEC remained the same. Member Cole noted that the bill does not provide funding. Member Holstein noted minor revisions. Member Proctor made a motion to adopt the letter with minor revisions. Member Hobbs provided a second, and the motion passed.

**Website Update - John Reasbeck and John Dunlap**

Member Reasbeck provided a demo of the BEC website, which will provide a platform for members, speed tests, contact information and other data. The website will be housed in WV Commerce and maintained by Commerce Communications.

**Next steps:** The BEC needs to choose a URL. The website should be launched before the May 11, 2017 meeting.

**Committee Reports:**

1. **Adoption Committee - Bob Cole**

2. **Education Committee - Jack Smith for Matt Turner**

3. **Infrastructure Committee - Rob Hinton**

Committee Reports are as follows:

1. **Adoption Committee - Member Cole.** Mr. Cole stated that the committee met at the Green Bank Observatory on 3/28/2017. Mr. Cole provided a written committee report, which detailed communication with CommunityCare of WV; TechConnect; AARP, Potomac State College, and others. A work plan includes communication with various organizations. It was noted in discussion that the NTIA mapping initiative would require 1.5 FTE.

2. **Infrastructure Committee-Chair Hinton.** Mr. Hinton stated that the committee has reached out to providers to form a subcommittee. These include Frontier, CityNet, Shentell, Digital Connections, Armstrong, MicroLogic, Alpha Technologies, Gigabeams, NewEra and others. Mark Polen, will represent Suddenlink, and Commcast.

3. **Education Committee-Members Smith and Turner.** Did not report at this time.

**Executive Session**


There was an Executive Session. No decisions were reported.

**Strategic Discussion**

Brandon Andrews stated that he is interested in starting a business, which will be dependent upon a fiber network. He would like to join a committee and assist where possible.

Kathy Cosco noted that when discussing Ookla data, the BEC should be aware that the customers may have purchased different data plans, and that these tiers would affect speeds.
Next Meeting Date and Proposed Agenda | May 11, 2017
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Adjournment | Meeting was adjourned at 11:45.

Notes:

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