

September 13, 2016

**Virginia:**

AT A REGULAR MEETING of the Nelson County Broadband Authority Board at 1:00 p.m. in the General District Courtroom located on the third floor of the Nelson County Courthouse, Lovingston Virginia.

Present: Thomas H. Bruguiera, Jr. West District  
Allen M. Hale – Chair  
Thomas D. Harvey, North District – Vice Chair  
Larry D. Saunders, South District – South  
Gary W. Strong – Central District  
Stephen A. Carter, County Administrator  
Candice W. McGarry, Secretary  
Debra K. McCann, Treasurer  
Susan Rorrer, Director of Information Systems

Absent: None

**I. Call to Order**

Mr. Hale called the meeting to order at 1:04 PM with four (4) members present to establish a quorum and Mr. Harvey joining the meeting shortly thereafter.

**II. Public Comments**

1. Clay Stewart SCS, AcelaNet LLC

Mr. Stewart noted that SCS changed its goal in 2015 to become Central Virginia's premier wireless and fiber provider and they have made progress towards this goal; with Nelson as its base for operations. He then noted that the Sugar Loaf tower site was fully activated with several frequencies on line and that the Wood Farm Brewery was the first connection there. He added that the tower would produce new territory and that Faber and Schuyler were waiting for service. He reported that SCS had the Herd's Mountain Tower and it would be activated by the end of the week to provide service along Route 29 and to Afton relays. Mr. Stewart then noted that the Afton tower at Royal Orchard would also be activated and would provide services for Nelson and Albemarle Counties.

Mr. Stewart reported that they had been officially accepted to respond to Central Virginia Electric Cooperative's RFI and they hoped to move forward with that. He also noted that they were acquiring a company that would add 50% more resources, which would help everyone. He added that contiguous counties were helping each other and they were partnering with them and others. He advised that they were implementing a plan in Powhatan that would be a combination of wireless and fiber services and there were other central Virginia projects in process.

Mr. Stewart then requested a segment of time with the Broadband Authority and the Board of Supervisors to present a PowerPoint on what they had available in the County. He noted that a ten (10) minute block of time would be sufficient and Lon Welchel would present.

Authority members then agreed by consensus to follow up with scheduling the presentation.

2. Philip D'Ambola, Afton

Mr. D'Ambola questioned who did the advertising for the County's network considering the subscription numbers were low. He also questioned how many customers were needed in order to break even and the County could step away from this. He then advised that he had never seen any advertising and that there were many people out there that did not know about it.

Mr. Hale advised that this was an opportunity to comment and they would try to address his questions as the meeting progressed.

**III. Consent Agenda**

Mr. Harvey moved to approve the consent agenda and Mr. Saunders seconded the motion. There being no further discussion, Members voted unanimously (5-0) by roll call vote to approve the motion and the following resolution was adopted:

**A. Resolution – R2016-05 Minutes for Approval**

**RESOLUTION R2016-05  
NELSON COUNTY BROADBAND AUTHORITY  
APPROVAL OF MEETING MINUTES  
(July 12, 2016)**

**RESOLVED**, by the Nelson County Broadband Authority that the minutes of said Board meeting conducted on **July 12, 2016** be and hereby are approved and authorized for entry into the official record of the Broadband Authority meetings.

**IV. Presentation – Broadband Planning Project, Design Nine (A. Cohill)**

Dr. Andrew Cohill of Design Nine noted that his firm had done a break-even analysis and the goals was to help the NCBA look at this. He then gave the following PowerPoint presentation:

Slide 1: Growth is the Way Forward

- ▶ Opportunities
  - ▶ NCBA has a state of the art, modern network
  - ▶ NCBA has excellent support from County staff
  - ▶ More customers can be added easily
  - ▶ New fiber extensions near Wintergreen have great potential for businesses in that area
  - ▶ SCS has joined the network, Nelson Cable marketing more
  
- ▶ Challenges
  - ▶ More customers are needed to achieve sustainability
  - ▶ Improved network operations will help with growth targets

- ▶ Need to support wireless outside of fiber areas

Dr. Cohill noted that it was important to work with wireless ISPs like SCS to make the network more available.

#### Slide 2: Prioritized Build Plan

- ▶ Encourage increased use of County towers
  - ▶ Improved pricing for WISPs
- ▶ Use market-based demand to accelerate fiber customer growth
  - ▶ Increased awareness of survey
  - ▶ Promote neighborhood projects
- ▶ Continue to finance drop costs
- ▶ Renegotiate or re-bid network operator work with enhanced Scope of Work

Dr. Cohill noted that Nelson County was way ahead of others and he referenced the collecting of data by Maureen Kelly's department and that expansion of the network would increase awareness. He added that the strategy has been to let ISPs bring customers in and that was a slow growth path. He suggested that the network use a market based demand approach to accelerate this.

#### Slide 3: Rate Structure Adjustments

- ▶ Offer residential Gigabit wholesale rate
- ▶ Residential Gigabit is important to compete against competitive FTTH offerings
- ▶ Gives providers a premium service to offer
- ▶ Give WISPs affordable access to County towers
  - ▶ One price for all towers improves revenue, creates incentives for providers to offer wireless in more areas

#### Slide 4: Network Operations

- ▶ De-couple current dual role of network operator/ISP
  - ▶ Other providers don't want a competitor managing their customers
- ▶ Update Scope of Work for Network Operator
  - ▶ Require improved reporting

Dr. Cohill reiterated his suggestion that the network operations be separated out from service provision; noting that having an ISP also perform network operations was a barrier to getting more ISPs on the network.

#### Slide 5: Last Mile Installations:

- ▶ Increase marketing of "pay for drop over time" option
- ▶ Increase marketing of the network using "Wild and Wired" branding
- ▶ Develop "rural road" and "neighborhood" focused campaigns to aggregate new customers
  - ▶ Initial focus on clusters near existing backbone

- ▶ Identify clusters that could be served with wireless back to fiber network
- ▶ Continue to meet with CVEC

Dr. Cohill noted that the ability for customers to pay for last mile installations over time helped in getting more customers. He suggested the need for increased marketing and the need for "branding". He then noted the benefit of having yard signs made etc. and having the Board talk about it more regularly. He added that with wireless backhaul from the County, towers could take fiber to the home to others without having to build the fiber ten (10) more miles to clusters of customers. He then advised that the County should continue to meet with CVEC on their free pole attachment RFI offer.

#### Slide 6: Funding

- ▶ CAF2 funding rules still under development
- ▶ Will require ETC status (Eligible Telecommunications Carrier)
  - ▶ Filing with the State Corporation Commission
  - ▶ Will require assistance of a telecom attorney
- ▶ To date, CAF funds have been distributed only to incumbent telcos
- ▶ CVEC offer of no attachment fees very attractive

Dr. Cohill noted that CAF2 and other grant funding was tied to having Eligible Telecommunications Carrier (ETC) status; and the Authority may want to think about achieving this going forward. He noted he thought the process would take 90-120 days and would require working with an attorney. He added he was pessimistic about getting CAF funds; however they should keep an eye on it.

#### Slide 7: ISP/WISP Attraction

- ▶ Decouple network operator and ISP roles
- ▶ Offer wholesale Gigabit service
- ▶ Make County tower access affordable

Dr. Cohill noted that in order to attract more ISPs and WISPs, the NCBA should decouple network operations and ISP roles, offer wholesale Gigabit service, and make County tower access affordable.

#### Slide 8: Staffing and Operations

- ▶ County staff does a great job, but over-worked
- ▶ Update of network operator roles and responsibilities should move some County staff work to operator
- ▶ Ten year financial pro forma shows a path to sustainability if customer growth targets are met
  - ▶ Break even begins at about 500-700 customers
  - ▶ Need to add about 100-150 new customers per year
  - ▶ Achievable with market demand cluster approach
- ▶ Bringing 12-50 customers on at a time instead of one at a time.

Dr. Cohill then noted that County staff did a great job, however they were overworked. He added that updating the network operator role should shift some responsibilities from staff to them. He then noted that

September 13, 2016

embracing the market demand approach; bringing on clusters of customers, could achieve adding 100 new customers per year to get to a 500 customer break-even point.

Dr. Cohill then showed a final slide showing 10-year pro-forma financials that showed positive net income at year 4.

Following the presentation Members had the following questions/discussion:

Mr. Strong asked Dr. Cohill for his impression of the susceptibility of aerial vs underground fiber in Nelson County given that power was lost at least once per month in winter. Dr. Cohill, noted that aerially hung fiber would be hung below the electric line. He noted that they managed a New Hampshire network and they had extreme winter weather, the area was heavily wooded, and they had rare outages. He noted that the most common issue was a tree falling on a drop cable that interrupted service at the house; however transformers could catch on fire and burn through both the electric and fiber cables. He added that all things being equal, underground deployment was ideal; but aerial deployment had significantly less cost of construction. Dr. Cohill further noted that CVEC may not have easements where poles were located on private property, which could be an issue unless they would work with property owners as part of the broadband strategy. He noted this would need to be discussed with CVEC.

Mr. Strong then noted that in western Nelson County, Verizon was not required to provide service over land lines anymore and the phone lines were down a lot. He noted that he was worried that if fiber deployments were aerial, they would have the same path to follow as Verizon and Verizon had decided it did not work. Dr. Cohill noted that copper phone lines were heavier and most of those reports related to DSL were water related; where cables were old and the sheath had deteriorated. He then advised that they had deployed aerial cable in Montana and no issues were expected.

Mr. Harvey then spoke to the marketing of the network and that he thought this had to be done in person; not from an office. He noted that in his area, there were many people subscribing already and he attributed this to him meeting and speaking with people in getting easements for the expansion project. He added that it helped when people were familiar with the person knocking on their door. Dr. Cohill noted that the Authority's role was creating awareness and that the ISPs needed to do sales and market their products. He noted that in the cluster approach, local champions were identified and they would go door to door for the Authority. He added that the Authority should use residents and businesses in the community to start the conversations.

Mr. Hale noted being discouraged by the current marketing approach because the network was not reaching to certain areas. Mr. Harvey stated that it could get there by using towers to distribute services. Mr. Hale acknowledged it was a slow process and would not happen overnight. Dr. Cohill then advised that the Authority had to manage expectations. It was suggested that the Authority look beyond fiber and look to improving wireless access. It was noted that for clusters that were well off of the fiber, homes could pay to put up a utility pole to mount wireless radio relays to get to those houses. It was noted that there were strategies that WISPs could use with assistance from the clusters to improve things. Dr. Cohill reiterated that the Authority's role was to say that it could not be done right away; however they had a strategy and plan and they had to be part of the plan. It was noted that it was a tough problem and would take years to solve. Mr. Harvey noted that they could not keep at same snail's pace right now and they needed to

concentrate on wireless deployment and getting information out there. He added that they could make something happen quickly if 15-20 people got together.

Mr. Clay Stewart was recognized by the Chair and he noted that they had 145 customers and were an ISP with 60 customers coming on over two months. He advised that ISPs must market their services, they were doing that, and would be doing more. Mr. Harvey noted that the best marketing that could be done was to have your customers market it for you. He added that what had hurt was people were getting their own quotes and no one had taken the time to explain to them the cluster approach. Mr. Stewart added that Shannon Farm was a good example of that; it was what they would be doing.

Mr. Carter then advised that the report generated by staff indicated that the network went from serving 146 in July to 203 presently with another 60 customers were in the works; not counting those who lived up the Route 6 expansion area. He added that the network could hit over 300 customers by the end of the year. He then advised that they were trying to expedite the clustering strategy.

Mr. Bruguire then asked if Design Nine had mapped the areas of the county that were best suited for wireless and those that were best suited for fiber Dr. Cohill advised that Nelson was a mountainous county and those best suited for fiber in the short term were close to the existing fiber. He added that areas further away were better suited to wireless and the strategy was to take fiber to the home using wireless. He noted that it would take another 7-8 years for everyone to have fiber and he did believe the County should continue to install fiber while using wireless solutions in the meantime. Dr. Cohill then noted that fiber did increase property values per those who worked in real estate.

Mr. Hale then noted that the next step was to meet with ISPs and or conduct a work session to go over this in more detail. He noted that he thought the proposals had merit and the Authority would move forward as soon as possible.

## **V. New/Unfinished Business**

### **A. Network Operator's Report**

Mr. Carter noted that Ms. Rorrer had prepared the following report:

#### **I. Operational**

##### **Installations:**

July	20
August	10
In Process	14

##### **Active Circuits:**

Ting	152
Shentel	3
Nelson Social Services	1
Nelson County Cable	29
SCS Broadband	18

September 13, 2016

TOTAL 203

II. Administrative

New Contracts 29

Currently working with two neighborhoods that would add an estimated 35 customers on the initial neighborhood builds.

III. Financial

Attached

B. Treasurer's Report

Ms. McCann reported the following:

**BROADBAND FUND @ 8/31/16**

**OPERATIONS**

Beginning Balance 7/1/2016	\$ 406,277.36
July-August 2016 Expenditures	\$ (60,401.45)
July-August 2016 Revenues	\$ 42,493.00
Subtotal	\$ 388,812.35
General Fund Transfer	\$ <u>100,000.00</u>
Ending Balance 8/31/2016	\$ 488,812.35

Current Year Revenue Exceeds Expenses by \$ 82,091.55

**EXPANSION PROJECT**

Beginning Balance 7/1/2016	\$ (4,730.14)
July-August 2016 Expenditures	\$ (18,244.75)
July-August 2016 Revenues	\$ 30,436.94
Ending Balance 6/30/2016	\$ 7,462.05

**SUMMARY OF FUND BALANCE**

Project Funds	\$ 7,462.05
Amortized Installation Fund	\$ 40,111.62
Operational Funds	\$ <u>448,700.73</u>
Available Bank Balance @ 8/31/2016	\$ 496,274.40

Ms. McCann noted that there was still \$20,000 in grant funds to draw down to complete project.

Ms. McCann also provided a report that showed the following regarding the Broadband Network Operating Fund:

The Broadband Network Operations report showed year-to-date expenditures (July – August) of \$60,401.45 for Network Operations, with there being an unencumbered balance of \$360,302.55 and a Contingency Reserve remaining of \$69,524.00. The Revenue Summary for Network Operations showed year-to-date revenues of \$42,493.00 and a balance of \$246,702.00. The report also showed the revenues transferred in from the General Fund of \$100,000.00 and the transfer in from the CDBG fund of \$30,496.34 and a balance of \$19,985.06. The Year Ending Balance was shown at \$100,611.00.

### C. County Administrator's Report

1. Broadband Planning Project: The planning project is nearing completion. Specific outcomes/recommendations will be presented to the Authority on 9-13 by Dr. Andrew Cohill of Design Nine, the project's Blacksburg based consultant firm. The agenda includes a five page Executive Summary, which Dr. Cohill will reference in his presentation. The project has been a significant, multi-faceted undertaking. It is recommended that the Authority schedule a work session(s) (through a continuation of the 9-13 meeting) to discuss in detail the project's recommendations and to provide County staff with direction/guidance on next steps associated with the completion of the planning project. The proposed work session is deemed a critical next step in completing the planning project and, more importantly, in the Authority's ensuing operations.
2. Middle Mile Expansion (CDBG) Project: Phase 1 and, most recently, Phase 2 have been completed with requests for service being received and addressed. The VDOT permit for Phase 3 (Intersection of Route 6 and 151 at Avon west on Route (Afton Mountain Road) to Saddleback Farm (entrance to Veritas Winery and Saddleback Subdivision) was approved on 9-7. CCTS the project's installation contractor will begin work to complete Phase on 9-13. A 2 to 4 week completion schedule is anticipated.
3. Subscription Levels: Staff will endeavor to report on current and projected subscriber levels at the session on 9-13.
4. Shentel: The company has not provided any additional information on its previous phone and email inquiries proposing to lease space in the fiber network's conduit infrastructure. The most recent communication was 2+ weeks ago and pertained to input from Shentel staff that they would be conferring with CCTS, NCBA's Outside Plant Contractor, on the capacity of the conduit infrastructure to contain two additional 144 count fiber optic cables. Input from County staff to Shentel was to caution them on concluding that the company's proposal (a formal proposal has not been received) would be accepted and to remind Shentel staff that the amount of the cost per foot proposal to utilize the local network's conduit was much lower than what the County had proposed to Shentel.
5. CVEC RFI: The Central VA Electric Cooperative issues a Request for Information on July 25th to solicit input from providers of internet/broadband services for a possible partnership that would provide universal broadband network services "for the membership of CVEC" (some 38,000 possible subscribers within the Cooperative's multi-jurisdictional service area). County staff submitted on 9-8 the RFI's initial request for

September 13, 2016

“Letters of Intent” from interested providers. The deadline for a full (and very detailed, in-depth) and final response to the RFI is November 11, 2016. The letter drafted by County staff included a request for a meeting with CVEC staff to discuss possible strategies for a partnership between NCBA and CVEC with the input received from the discussion a determining factor in a decision to submit a final response to the Cooperative’s RFI, which is more than a significant undertaking. Next steps, if any, are TBD.

**D. Proposed Modifications to Wholesale Rate Structure (R2016-06)**

Mr. Carter reported that staff had been working with Dr. Cohill on this and two different copies of rate schedules had been distributed. He noted that after further review, Dr. Cohill indicated a key item was the need to tighten up dark fiber leasing. He noted that Dr. Cohill was supportive of the rates provided by staff, which were similar to his. He noted that he wanted to get the Authority to go to public hearing on the rates and would like to have a work session as soon as possible.

Mr. Strong agreed that a work session was becoming critical at this point and in developing the rates. Mr. Hale agreed and noted he would like to continue to a work session date and invite the local service providers. Mr. Carter advised that they could also have a called meeting.

Members then discussed a date for the work session and agreed by consensus to continue the meeting until Thursday, October 6, 2016 at 4pm and no action was taken on proposed resolution **R2016-06**.

**I. Other Business (As May Be Presented)**

There was no other business discussed by the Board.

**II. Adjournment**

At 2:01 pm, Mr. strong moved to continue the meeting until Thursday, October 6, 2016 at 4pm and Mr. Brugiare seconded the motion. There being no further discussion, Members voted unanimously by voice vote to approve the motion and the meeting adjourned.