

Virginia:

AT A SPECIAL CALLED MEETING of the Nelson County Broadband Authority at 7:00 p.m. in the Board of Supervisors Room located on the second floor of the Nelson County Courthouse.

Present: Constance Brennan, Central District – Vice Chair
Thomas H. Bruguere, Jr. West District - Chair
Larry D. Saunders, South District Supervisor
Allen M. Hale, East District
Thomas D. Harvey, North District
Candice W. McGarry, Secretary
Debra K. McCann, Treasurer
Stephen A. Carter, County Administrator
Phillip D. Payne, IV, County Attorney
Susan Rorrer, Director of Information Systems
Andrew Crane, Information Systems Specialist
Blue Ridge Internetworks – Network Operator
Broadband Advisory Committee Members

Absent: None

I. Call to Order

Mr. Bruguere called the meeting to order at 7:00 pm, with all Members present to establish a quorum.

II. Joint Meeting with the Nelson County Board of Supervisors Regarding the Nelson County Virginia Broadband Project

Mr. Harvey noted that the meeting would be conducted more like a joint work session.

Mr. Carter then began the meeting by noting for the public that the Authority had signed a contract with Blue Ridge Internetworks (BRI) to be the Network Operator and its first Service Provider. He then introduced the owners of BRI, Baylor Fooks and Jeff Cornejo.

Mr. Carter then gave a snapshot of the status of project construction; noting that everything was complete except for the Massies Mill tower; which was scheduled for review by the Planning Commission and then the next day by the Board. He noted that it should then soon be operable and that the electronics vendor Calix was here this week to finish the installation of electronics that makes the fiber work. He noted that the federally funded project was about to come to conclusion before the project deadline of 2/28/2013.

Mr. Carter then reported that NTIA staff and County staff had biweekly conference calls and the County has been told it could get an extension but he did not think this would be necessary. He then moved on to the provision of services and how that would come about. He noted that BRI issued a joint press release soliciting public input in order to gather information from those

interested in receiving services. They would then analyze the data and would come back to confer about their findings and recommendations as to how to best deploy services to businesses and residences.

Mr. Bruguire then asked if BRI would explain how service deployment would work.

Mr. Baylor Fooks then addressed the Board and noted that they were thrilled to be here, it was a big deal for them and they were committed to it. He noted that their current network in Charlottesville uses the same technology as the County's network and that they had decided to provide services when Lumos backed out. He added that they would be filling two roles; they would handle new connections to the network and would be assessing the cost to add new connections. He noted that secondly, they would offer services on the network. He reported that they had built a good reputation in Charlottesville over twelve (12) years, have added 125 buildings to their network in a competitive environment, and would deliver services that people would buy. He noted that they did direct fiber access to the premise and the wholesale rates approved by the Board were in place and they would address business customers who want a fiber to the premise connection. He added that this type of connection was state of the art and anyone would be pleased to have that option.

He then noted that he would like to discuss other ways to deliver services in the county in a way that would allow for lower cost deployment. He noted that they were not a wireless ISP but that they have dabbled in it. He stated that wireless was hard to control and that he thought that if it was the only thing available, consumers should be happy and get it; however if they were delivering it, they would seek a different technology. He noted that they would introduce a passive optic networking solution for a cheaper option and a hybrid fiber to copper topology that would allow copper to get closer to customers in order to offer DSL. He added that they would be deploying micro d-slams that would allow a connection near fiber to serve 12-48 customers. He noted that they did not need the same density that bigger players needed to invest in an area to serve. He noted that they hoped to do an excellent job in operating the network and execute the plan as ratified. He noted that fiber to businesses was competitive with major markets and he wanted to help develop the residential market.

When asked about the response from interest inquiries, Mr. Fooks noted that they were pleasantly surprised at how concentrated the interest was around the network. He noted that they had over 300 inquiries as of that morning. He noted that the interest seemed to mimic the census map but the concern was that the construction cost to get fiber directly to those a mile away from the backbone was significant. He supposed the installation cost per mile in air was around \$15,000 and on the ground it was around \$40,000 per mile.

Mr. Fooks, then noted that copper lines were already there and they would have to get an interconnect agreement with Verizon in order to use them. He added that the CLEC/ILEC relationship has been contentious but by law they had to offer services. Mr. Fooks then noted that it might cost a couple of dollars a month compared to the higher cost for fiber. He noted that they would locate a micro d-slam next to a Verizon cross connect that served houses within range of DSL; leasing copper pairs from Verizon to serve them with DSL. He added that BRI had higher standards, people would be pleased, and residents wanted service under \$100 or \$50 per month.

Mr. Fooks then noted that DSL could carry data over a short distance of over 3 miles and they could run 50 MB DSL up to a mile. He noted that wired technology did not have the latency that wireless technology has and they could ride the data over the same copper pair as the voice because they used different frequencies. He added that in doing this, a hum could be heard on the line sometimes; however a filter would be used to cut the hum. He then explained that if Verizon said no on them being a co-resident on the voice pair, they would have to be on a second pair; which most homes had two (2) pairs run to them and this would depend on the interconnect arrangement with Verizon.

When asked how far they could get that technology from the main fiber, Mr. Fooks reiterated that they could go three (3) miles from a junction box and they would need to feed the device with fiber to some point; but that copper technology could only go a couple of miles. Mr. Fooks then noted that the County's network was 144 strands going North and 144 strands going south and that every time a customer was connected it used one (1) fiber. He added that to mitigate this, they could set more equipment in the field that could serve multiple customers using passive optics. He explained that passive optical technology used prisms and mirrors and they could use a splitter that allowed one (1) connection to become eight (8) connections. He added that one (1) fiber could be split sixty-four (64) times using Calix technology.

Mr. Carter then noted that what the County put in place was an active Ethernet system but that it had the capability to do passive. Mr. Fooks added that the staff and Board should be commended for using flexible technology. He stated that the County could buy passive cards and have a dual system mixing both passive and active solutions. He noted that the system was engineered for business class customers using active-e technology but could also offer passive. He reiterated that the passive option meant lower costs per connection and conserved the fiber.

Mr. Fooks then noted that these technologies could deliver more bandwidth than people wanted or needed. He noted that passive technologies could deliver 2.5 GB down and 1 GB up per home which was miles above what people were getting in New York City. He noted that speeds get down to okay if converted to hybrid fiber to DSL technology to 5,10,25 MB which was good but not revolutionary and was on par with metropolitan areas.

Mr. Bruguire then asked Mr. Fooks to explain how a wireless solution might work due to the County's topography.

Mr. Fooks noted that wireless services was a different line of business, but that he believed the fiber optic network would help Mr. Stewart build a better network than he had now. He noted that now he had to install antennas on water towers, houses etc. and had clients with line of site. He added that this worked a little differently than 3G cellular wireless and was faster than that. He noted that he believed he could deliver multi-meg service but it was not what they did; however it would complement their services.

Ms. Brennan then asked how this would help SCS use the network and it was noted that they would have to be on the network towers and if they could get fiber to the towers, they could get more bandwidth to customers.

Mr. Jeff Cornejo of BRI noted that their job as Network Operator would be to get him connected, which would include planning the build, executing the build, configuring the necessary equipment, and monitoring afterward.

Ms. Susan Rorrer noted that SCS, as a provider would purchase bandwidth from someone and then would pay the Broadband Authority the transport fees for the amount of data that he was pushing across the network. She added that if SCS wanted a 1 GB circuit, he would call BRI and they would connect them.

Mr. Fooks then reiterated that the data still had to leave Nelson County and get to the internet and the County had attracted two companies that could do it. The first being Mid-Atlantic Broadband (MBC), a company that started a nonprofit network prevalent in Southwest Virginia that extended to DC who offers favorable rates for long haul connections. He added that they would be a tenant in the shelter which allowed SCS or BRI to buy connectivity to the internet that did not previously exist just weeks ago. He noted that Lumos was there also but that MBC would likely offer lower cost connections. Mr. Cornejo noted that a major component of pricing was what this would cost BRI. Mr. Carter added that staff had not gotten pricing with MBC but would have this within a couple of weeks which will be factored into pricing. It was noted that there was a mix of businesses and residences to be served.

Mr. Fooks then noted that the County went from none to almost two (2) options for internet connectivity, with one being the best one could ask for. Ms. Rorrer then confirmed that staff was in the process of signing agreements with MBC. It was noted that they could connect anywhere but that Lovingston was in the middle of the network and was the best place for carriers to meet the network. Mr. Carter noted that they could also connect in at three (3) of the towers due to the electronics located there. Mr. Fooks noted that having a fortified shelter in Lovingston meant that they could put equipment in Lovingston which allowed them to have greater bandwidth and then customers could start ordering services from them.

Mr. Cornejo noted that the current rate plan has non-recurring charges to build to the home and this was not defined as a trunk or line. He added that all of the fiber on Route 29 was for long haul connections and that carriers could do what Lumos did and build a node in the Lovingston shelter for signal regeneration.

Mr. Carter suggested that if the network had subscription enough to be self sufficient, then they could talk about how to build the network out. He added that the discussion has been to let this thing start and see how it pans out and then start to look at the rate structure.

Mr. Stewart of SCS reported that they were working on contracts that would give him a beam west and then there was the High Top site that would get him to the county border. He noted that he had the capability of 10-15 MB down and up and that his use of the network would depend on how the Authority went forward. He added that he had two (2) fiber pops in the county and greatly supported the use of fiber; however DSL was another subject.

Mr. Cornejo noted that once the network was operational, it would be good to sit down and look at how to get to him and they would have to determine how the costs of this would be covered.

Ms. Brennan asked if the fiber could be strung aurally and Mr. Cornejo noted it could as they had a pole attachment agreement with CVEC. He added that it was cost effective and may be the way to do it.

Ms. Rorrer suggested that additional workshops would need to be held to discuss options and the criteria the Board would consider in extending the fiber route. Mr. Carter noted that they could do capital expenditure improvements planning and could evaluate potential investments.

Mr. Bruguere noted that he thought the network should get up and running and then they could see how the financials were working before discussing building out further.

Mr. Cornejo noted that they would have fiber expenditures for laterals that would be recovered in a couple of months and that there would be fairly miniscule expenditures associated with it. He noted that they would be paying USF fees every month and could consider funding the Broadband build out through RUS programs. He added that awardees were usually phone companies; but whoever was building the infrastructure could get this money. He noted the process was complicated and political but would be possible. Mr. Carter noted that staff was in the process of talking to RUS about funding opportunities.

Ms. Rorrer noted that they should keep in mind that as people requested services, they would need to decide if they were willing to pay for fiber to the home and they would need to consider their position on sharing in the cost of this. She added that they would have to make these decisions otherwise others may own the infrastructure that was built. It was noted that one person could pay for the build out; it could pass others and not be available to them. Mr. Fooks confirmed that the first customer essentially paid a penalty and others benefited from that investment and as a public Board, they would have to wrestle with how to handle this.

Mr. Joe Dan Johnson, in attendance noted the legal issues related to this in subdivisions in Northern Virginia.

Mr. Fooks then noted that they should never run one fiber at a time, however they should run 48-144 strands as there was only a couple of dollars a foot difference. Mr. Cornejo added that the challenge was to quickly utilize the fiber without exhausting the plant and that splitting decisions were based on a lot of factors.

Mr. Fooks related that they have a company that owned fiber and one that was an operating business. He noted that the operating company rented fiber nodes from the one that owned fiber and they decided to charge the operating company and sometimes it loses money. He added that the network would get to a point where the income could sustain these routine builds.

Mr. Alan Patrick, in attendance noted that the Authority wanted the network to be sustainable and then they wanted to build up some money for future capital builds or get RUS money for this. He then asked what the Authority should focus on at this point and that he thought that rates would play an important role in this. He reiterated that he thought that some portion should be set aside for build out.

Mr. Carter noted that he thought it was to be determined and that the rates were established so that the network would be self supporting. He acknowledged that the rates were high for residential and that Danville was an interesting model that was charging based on the same premise as the gross receipts tax. It was noted that the current model was like charging for a toll booth.

Mr. Harvey noted that the priority was to get service to as many people as possible versus making money on it. He added that he wanted key players to play on the network, it was important and it needed to be attractive to do this.

Mr. Cornejo advised that the Authority needed to be sure not to deplete the fiber plant as it was currently set up to use one fiber per drop. Ms. Rorrer agreed and noted that someone needed to oversee how the fiber was distributed and make these decisions. Mr. Carter concurred and noted that they were there now and needed to do this next.

Mr. Tommy Stafford, in attendance, noted that as a potential customer he would pay a higher one-time fee as long as the monthly fee wasn't so high.

Mr. Johnson, in attendance, noted that a distinction had to be made between residential and business connections; with the understanding that there would be some up-front money returned in a reasonable amount of time. It was suggested that the County has given tax abatements to businesses bringing jobs in and that the same consideration should be afforded to local internet providers if they could also show this. The Board was then implored to get service to people ASAP.

Mr. Fooks then related that the smartest thing he has heard about rural networks was that the players had to work together and could only afford to do it once. He added that the revenue out there could not support multiple companies doing same thing.

Mr. Cornejo then advised that the nonrecurring charges would have to be shouldered as the rate discounts for multiyear contracts were not big enough. Mr. Fooks noted that the Authority would need a policy on these decisions because of its responsibility to taxpayers; whereas they, being a private company could take risks.

Mr. Johnson then reiterated the need to get an affordable policy in place that encouraged people to sign on to the network.

Mr. Cornejo noted that their survey form asked for name, address, phone number, and email address and most of the responses were from Afton.

Mr. Harvey then supposed that the sharing of resources would eliminate cherry picking and that providers should get a lower rate if they planned to build out.

Mr. Carter reiterated that the tower pricing was based on the space on the tower and was developed with input from various sized entities.

Mr. Fooks noted that he thought that any concessions should go to those who would offer services at accessible rates.

Ms. Brennan and Mr. Harvey both thought that BRI should meet with SCS and Nelson Cable to see how to go forward.

Mr. Stewart of SCS noted that the Authority needed to take adoption rates into account when looking at this. He noted that the complex thing was that they needed x number of media types to make it all work as quickly as possible. He noted that he had seven (7) employees now, needed more bandwidth, and would need to look at more next year to keep up with the growth and whether or not he used the network would be based upon the cost for him.

Ms. Rorrer noted that the ongoing priority would be working on the rate schedule and whether or not it would change. She added it would be helpful to have recommendations for top priorities and Mr. Stewart noted he needed hard numbers before he could decide how to use network.

Mr. Fooks recommended that the Authority ought to green light the current rate card with an asterisk that if a new rate card was approved, it meant that current providers using the network could be adjusted. He added that he thought that there were some customers that would pay the current rates now; such as Veritas. He noted that they should see who could swing it and that historically utility companies charged more for business use than residential; which could lead to having two (2) separate price lists.

Mr. Harvey iterated how important it was to have everybody on the same page and noted that they all needed to play as a team. He added that the willingness seemed to be there and he felt comfortable with BRI working on it. Mr. Harvey then added how important the internet was to his business noting that State Inspections were now computerized and State Troopers could pull the information up immediately and that it also helped eliminate mileage tampering.

Mr. Bruguiere then noted his appreciation for BRI coming and he noted that he looked forward to working with them; acknowledging it was a work in progress. He added that they had standard rates to start with and that going forward they could be re-examined.

Mr. Harvey noted that he preferred to start off with the right rates and Mr. Bruguiere noted that they weren't sure what the right rates were yet; however they had been advised that these were okay to start with.

Mr. Fooks noted that they were very happy to be working with the County and Authority and that they had a lot to learn as well. He assured the Boards that this was a very big project for them and they were thrilled to be here.

Ms. Brennan then suggested that staff arrange another workshop on the rates etc. and Mr. Harvey noted that they were willing to look at all types of suggestions. Mr. Fooks noted that the Authority did not want to model after Staunton, who overcharged for use of the network; which was still unlit underground and no one was using it.

Mr. Stafford noted that the urgency on getting rates set was that people were signing two (2) year contracts with other providers and Mr. Stewart advised that they needed to move quickly before Verizon and Century Link etc. came in.

Janet Lychock reiterated that her neighborhood was turning to satellite service as it has been marketed as their only option; however she could not use this for work purposes due to latency issues.

Mr. Harvey, as the Board of Supervisors Chair then opened the floor for public comments and there were no persons wishing to be recognized.

Mr. Harvey noted that they appreciated everyone's attendance and that the goal was to get the service out there at a reasonable price; working together to make it happen.

In conclusion, Mr. Carter acknowledged the good work of staff, reiterated their commitment to the project, and noted that the County had been favorably served by ICON engineering and they deserved to be recognized as well.

III. OTHER BUSINESS

There was no other business considered by the Authority.

IV. Adjournment

At 8:35 pm, Mr. Hale moved to adjourn and Ms. Brennan seconded the motion. There being no further discussion, Members voted unanimously by voice vote to approve the motion and the meeting adjourned.