

BOARD OF SUPERVISORS MEETING

March 19, 2019

A meeting of the Campbell County Board of Supervisors convened at 6:00 p.m. on the 19th day of March 2019 in the Multi-Use Room of the Walter J. Haberer Building, Rustburg, Virginia. The members present were:

Eddie Gunter, Jr., Chairman, Presiding	Concord Election District
James A. Borland	Spring Hill Election District
Bob Good	Sunburst Election District
Jon R. Hardie	Rustburg Election District
Susan R. Hogg	Timberlake Election District
Charlie A. Watts II	Brookneal Election District

Absent was:

A. Dale Moore	Altavista Election District
---------------	-----------------------------

Also present were:

Frank J. Rogers, County Administrator
Clifton M. Tweedy, Deputy County Administrator
Catherine H. Moore, Clerk to the Board

Chairman Gunter called the meeting to order at 6:00 p.m. The Campbell County Broadband Authority at its meeting on March 5, 2019 requested staff form a panel of subject matter experts to share their knowledge. Administrator Rogers introduced Bill Guzek, Bob Bailey and Paul Meadows who would be sharing information at this meeting. The members were provided copies of census tract maps showing underserved and unserved areas of the County keeping in mind that coverage areas reported by the Federal Communications Commission (FCC) may be overstated. A little more than 5,000 addresses were included in the underserved/unserved areas.

Bill Guzek is the Program Manager for Thundercat Technology and a member of the Bedford County Broadband Advisory Committee. He first came to Central Virginia to work for General Electric and had a technical background. He was part of the first broadband study for Region 2000. Mr. Guzek recommended Campbell County use the current FCC standards for broadband which was 25 megabits per second download and 3 megabits per second upload.

Like Campbell County, Bedford County had three or four pockets of underserved or unserved areas that were considered not commercially viable by broadband service providers. Bedford's Broadband Authority was established to address those areas and to be able to apply for grants. The Board of Supervisors serves as the Broadband Authority, and a Broadband Authority Advisory Committee was created to provide technical and advisory support. The Advisory Committee was made up of volunteers along with School IT staff who sorted through technical issues, met with broadband providers and researched questions. One of the Advisory

Committee's first task was to meet with the broadband providers to determine where services were located and future plans for expansion. Mr. Guzek commented data provided by providers was overstated. Bedford County was looking at giving more authority to the Advisory Committee similar to a Planning Commission.

Paul Meadows is the founder of ITG (Integrated Technology Group) who helps small and medium sized businesses integrate technology into their businesses to increase their competitive advantage. One of the challenges he has had in providing broadband solutions to his customers was the lack of conduit and cabling in developed areas such as Wyndhurst. There was very little competition among cable companies and internet providers who were focused on return on investment. For the Wyndhurst area, he literally knocked on doors to determine interest in broadband services to entice the local cable company to invest in providing internet services. Mr. Meadows recommended the Broadband Authority begin this process with the end result in mind, not just faster download speeds. What would broadband mean to Campbell County? How would broadband impact the residents of the County? How would broadband impact the businesses? What would the solution look like? What are your minimum specifications? How would the County pay for it?

Mr. Meadows indicated there were a number of ways to provide solutions and the rural areas may require a fiber optic line to a tower to provide wireless services to homes and businesses. Another solution is using LTE networks (cell phone providers). Campbell County was fortunate to be able to learn from adjacent counties who were already proceeding with broadband solutions and had the opportunity to network with those counties and learn what may or may not work. He added he had witnessed the transformation of businesses with the availability of broadband, but added that once you had broadband, the need for more and faster would continue to increase. Teleworkers and on-line learning were especially important to younger generations.

Bob Bailey, Executive Director of SoVA Innovation Center, provided a detailed explanation of a specific technology called TV White Space. This technology used the space between television frequencies to broadcast as a fixed wireless solution. He commented fiber was the gold standard, but not always economically feasible. TV White Space was an option in rural areas as there would be more availability of unused space, was operated on public airways, operated on a lower frequency and did not need to be in the line of sight. The equipment required installation on a vertical structure, but not a structure as tall as cellular towers. In some cases TV White Space could transmit as far as six miles to reach homes or businesses. Regardless of what solution was considered, you had to consider cost, coverage and capacity. TV White Space was the only solution that did not require line of sight, the costs were fairly competitive with LTE technology and the coverage with a single channel was 12 megabits download and 6 megabits upload. To increase that coverage, they were currently testing the use of two channels. There were currently four companies in the United States that designed and manufactured the equipment to sell to Internet Service Providers (ISP). The ISPs did not need a license to use unused television frequencies.

Administrator Rogers added there were a number of different technologies to provide broadband solutions, and one strategy being used by neighboring localities was to essentially buy

down the cost of building the infrastructure to create a better Return on Investment (ROI) for internet service providers. Mr. Bailey added you may have to use several different technologies depending on your goals. He recommended the Broadband Authority determine its goal whether it was to expand coverage, expand coverage County-wide or just provide broadband to the underserved or unserved areas in order to focus its resources.

Supervisor Hogg asked Mr. Guzek for his recommendation on Campbell County's next steps. Mr. Guzek recommended the Authority not focus on specific technologies but focus on infrastructure that would be available and more cost effective to service providers and focus on the areas where no one was going to locate. Bedford County hired a consultant that developed a plan. Once the plan was finalized, a Request for Proposals (RFP) was issued, and a contract was ultimately awarded to Blue Ridge Towers who would build the towers and act as the internet service provider. The project would cost approximately \$3 million dollars and would include construction of nine (9) towers and the use of at least two water towers, all being built on County-owned property. Space would be available on the towers for other providers which may generate revenue and increase competition to drive down the costs of internet service. Bedford County paid the expense upfront and was seeking grants from the Tobacco Commission and others to help pay for the project.

There was additional discussion on the different technologies available such as fiber, white space, microwave and wireless and the probability that multiple solutions may be needed to extend broadband service. Fiber was still expensive and was usually installed underground. Bedford County had one area where it was being installed above ground. It was also mentioned local broadband projects by electric cooperatives and the ability to use electric utility poles for above ground fiber.

In response to Supervisor Hogg's question on fostering partnerships with Bedford County, Mr. Guzek indicated there may indeed be opportunities for partnership with the County especially in the area of Huddleston. Such a partnership may be a benefit for Bedford County as well.

Administrator Rogers followed with a question on Bedford County's project once the tower construction was complete. Mr. Guzek indicated the towers should be constructed by the end of 2019, and it would take some time to start getting people connected. He recommended if the County subsidized an internet service provider, there should be an agreement in place to provide data on how many people have connected to the service or requested service. You may learn of problems where people could not get connected because of tree coverage or other issues. Blue Ridge Towers was building the towers and would operate as the internet service provider. In an answer to a question regarding the average hook-up cost, Mr. Guzek could not remember, but would forward that information. Several tiers of service would be offered, and it was requested the lowest tier offer the minimum of 25 download/3 upload and be affordable.

The Board members expressed their appreciation to the panel and for the information they provided. The next Broadband Authority would meet on April 2, 2019 at 5 p.m. The meeting was adjourned at 7:48 p.m.

EDDIE GUNTER, CHAIRMAN

Approved: _____