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SUMMARY

The Blooston Rural Carriers ask the Commission to keep in mind that there is a substantial and growing business broadband marketplace in rural incumbent local exchange carrier ("RLEC") service areas. The existing rural business broadband marketplace includes thousands and thousands of farms and ranches that are making greater and greater use of broadband services and applications to obtain the pricing, demand, weather, disease and other information necessary to raise and distribute the crops and animals necessary to feed the United States and the world. It also encompasses a variety of existing and emerging businesses (including, but not limited to, agricultural supply companies, banks, insurance firms, mines, oil exploration and production firms, ethanol plants, windmill farms, industrial parks, hotels and motels, and wireless carriers) that are enhancing rural economic development.

If, as predicted, the United States population grows to 400 million by mid-century, the rural business broadband marketplace will need to expand significantly to help relieve population congestion and resource pressures in urban areas. The key to such expansion will be the presence and availability of high-speed broadband facilities and services reasonably comparable to those in urban areas. If the requisite broadband facilities are not deployed beforehand, a rural area will not be considered as the site for a new, expanding, or re-locating business.

Rural businesses must have access to reasonably comparable broadband facilities, services and applications in order to compete and collaborate with businesses in urban areas. The proposed 4/1 Mbps broadband service target for rural areas will, among other things, have the unfortunate consequence of segregating rural businesses and impairing their ability to

compete or collaborate with urban businesses that enjoy 100/50 Mbps service.

Finally, whereas RLECs have done an excellent job to date in deploying broadband-capable facilities and services to their rural business and residential customers, the task is far from complete. Sufficient universal service support, including sufficient Middle Mile support, will continue to be necessary to preserve RLEC progress to date as well as to support the higher speed broadband facilities, services and applications that will be needed by their rural business and residential customers in the foreseeable future.

long before 2020 if they are to be able to participate in local, regional, national and international markets. In addition to adequate “last mile” infrastructure, RLECs and their rural business customers must have access to quality and affordable Middle Mile transport facilities in order to connect with the Internet at the broadband speeds required for their desired applications.

A.

Existing Rural Business Broadband Marketplace

The existing 1,100 or so RLECs serve approximately 37 percent of the land area of the United States. Their rural service areas are comprised predominately of sparsely populated farming and ranching regions, but also include mountain, desert, mining, woodland and lake areas and Native American reservations.

RLEC service areas lack the large and heterogeneous business communities found in urban and suburban areas. Nonetheless, rural exchanges contain numerous farms and ranches that are becoming increasingly reliant upon broadband services to produce and distribute their food products to the nation and the world, as well as significant numbers of other businesses that use or rely upon broadband to extend the scope of their markets while enhancing local economic development. Commissioner Mignon Clyburn recognized the importance of broadband-enabled businesses in RLEC service areas in her prepared remarks entitled “Broadband Adoption: Travelling the Consumer’s Last Mile” before the Joint Center for Political and Economic Studies in Washington, D.C., on September 21, 2009, stating:

Just last week, my office met with a telecom carrier from out west, in cattle country. Remarkably, in a very rural area, his company makes DSL available to nearly every single one of its subscribers. Within this company’s rural service territory is a business that teaches English over the Internet, to people in South Korea and other countries. This business, which obviously could not exist without broadband, provides part-time employment for 400 people. Another example from the same company: thanks to broadband, ranchers can sell their cattle over the Internet with the help of video, saving

the burdensome transportation and related costs of displaying their animals in person, and adding to their bottom line.

In Rural America, farms and ranches are active businesses as well as places of residence. Some farms and ranches are family businesses, others are substantial corporate enterprises, and yet others fall somewhere in the middle, supporting and sheltering various numbers of permanent and seasonal employees and their families. Regardless of size, most farms and ranches are using broadband services to monitor commodity prices, weather conditions, markets and agricultural news and information services. More and more farmers and ranchers are using broadband to sell their animals and crops directly to wholesalers, food processing companies, and consumers. The video cattle auction referenced by Commissioner Clyburn is an example of an emerging practice that has proven so effective and efficient for both sellers and buyers that it is likely to become an industry standard within the foreseeable future. Farmers and ranchers are also using broadband to expand their purchasing options as well as their marketing areas, and are locating and ordering a greater and greater variety of their supplies (often at significant savings) over the Internet. Finally, broadband is enabling farm and ranch families to supplement their income by engaging in a wide variety of home-based businesses.

Agriculture supply companies and grain elevators are finding that they must establish and maintain a solid Web presence in order to retain the business of their local farm and ranch customers. At the same time, broadband services enable these companies to manage their inventory more effectively and efficiently, and to expand their markets into other states and regions.

Rural banks, insurance agents, manufacturers and stores also have become increasingly dependent upon broadband services to keep abreast of the information and regulatory requirements applicable to their businesses, as well as to expand the scope of their customer and

vendor bases. Banks, in particular, have intensive data requirements that already require broadband capacities in the 5-to-15 Mbps range. In rural Walnut, Iowa (2007 population: 792), local antique dealers have been so active and successful in selling their merchandise to national and international customer bases they developed over eBay that they have won awards from that company as well as attracting many new visitors to the town.

Mineral and power production constitutes an important business activity in many RLEC service areas. In addition to traditional mining and oil extraction activities, ethanol production plants, windmill farms, and solar power collection facilities are becoming more commonplace in Rural America. Broadband services are essential for monitoring prices, controlling inventory, scheduling staff and maintenance, distributing product, complying with applicable federal and state requirements, and a host of other production, safety and marketing activities.

With quality and reliable broadband connections, trucking, warehousing and retail product distribution companies have been able to gain substantial economic and competitive advantages by expanding their operations in rural areas where sufficient additional space can be acquired at reasonable prices. The key is that the requisite broadband infrastructure and applications are available so that the trucks and inventory can be controlled, loaded, dispatched and delivered to the appropriate factories and retail outlets at the times they are needed.

Even in predominately farming and ranching areas, RLECs have been working with their local and county governments to establish business and industrial parks to diversify local economies and create new local jobs. The RLECs deploy fiber and other high-speed broadband facilities and services to these business and industrial parks. Experience has demonstrated time and time again that the availability of high-speed broadband facilities and services is essential to attract businesses to rural business and industrial parks. One Blooston Rural Carrier involved in

an industrial park project has recently been successful in attracting a new business and 35 new jobs to its rural community. Whereas 35 jobs might not sound like much to the Commission, it is a big deal in many rural communities.

Hotels, motels and bed and breakfast businesses are required to serve travelers visiting and passing through rural areas. This is particularly true in rural areas near national parks, resort and recreational areas, and hunting and fishing regions. Such overnight accommodation businesses need quality broadband service and websites to advertise their availability, locations and features, as well as to respond to inquiries from potential customers and to take and manage reservations and cancellations. In addition, most such businesses must furnish high-speed Internet access connections in their rooms in order to meet the demands of travelling business people and their children.

Rural cellular and Wi-Fi services rely significantly upon RLEC wirelines for transmitting site connections and backhaul. The myth of wireless-versus-wireline local service competition needs to be retired to the scrap heap. Wireless and wireline services are complementary, with each possessing features desired by users and with the majority of businesses and households subscribing to both types of service. In many rural areas, there would be little or no wireless service without the wireline facilities that provide the essential connections and backhaul.

Finally, the “English over the Internet” business referred to by Commissioner Clyburn is Eleutian Technology, LLC of Ten Sleep, Wyoming (2007 population: 287). The company was founded in 2006, and currently employs over 300 part-time and full-time teachers in Ten Sleep and “nearby” Wyoming communities to teach English as a second language over live video connections and fiber-optic facilities to students in South Korea, Japan, China and other

countries.¹ The founding and initial success of the company in Ten Sleep was due, in major part, to the availability of quality broadband facilities and services from the local RLEC, Tri County Telephone Association, Inc.

The U.S. Department of Agriculture's August 2009 study *Broadband Internet's Value for Rural America* found that "[r]ural businesses are adopting more e-commerce and Internet practices, enhancing economic vitality and expanding market reach."² The Blooston Rural Carriers are aware that there are presently few detailed studies of the use of broadband by rural businesses, or of the impact of broadband availability upon rural economic growth and jobs. However, they are ready, willing and able to meet with the Commission and its staff to share their experiences with the use of broadband by their rural business customers, and with the increasing and critical role that broadband service is playing in enabling their existing rural business customers to compete in local, regional, national and international markets and in enabling their rural communities to attract new businesses and jobs.

B. **Future Rural Business Broadband Marketplace**

Rural businesses, and the rural business broadband marketplace, are likely to become even more important for both local and national economic development within the foreseeable future.

The U.S. population is likely to increase from 300 million to 400 million during the first half of the 21st Century.³ These additional 100 million people will not be able to be accommodated comfortably and feasibly in the presently congested urban areas of the East

¹ Howard Berkes, *Stimulus Stirs Debate Over Rural Broadband Access*, www.npr.org/templates/story/story.php?storyID=100739283, February 16, 2009 (viewed October 5, 2010); www.eleutian.com (viewed October 6, 2010).

² Peter Stenberg, Mitchell Morehart, Stephen Vogel, John Cromartie, Vince Breneman, and Dennis Brown, *Broadband Internet's Value for Rural America*, United States Department of Agriculture Economic Research Report Number 78 (August 2009), at p. 38.

³ Joel Kotkin, *The Next Hundred Million: America in 2050* (Penguin Press: 2010), pp. 1, 105.

Coast, West Coast, Sunbelt and Upper Midwest. However, they have the potential to fuel an economic and demographic resurgence in the Great Plains, the Intermountain West, the Rural South, Appalachia, the Ozarks and other portions of Rural America.⁴ If they will continue to have access to appropriate high-speed broadband infrastructure and services, households and businesses will be able to leave crowded and expensive urban areas for the wide open spaces and rich natural environment of Rural America. In addition to its traditional farming, ranching and mining industries, Rural America can become home to an increasing number and variety of high-technology services, energy production, manufacturing and warehousing businesses that will create substantial new wealth and help to revive and expand the U.S. economy.

The key to this potential renaissance of Rural America is the pre-existence of state-of-the-art broadband infrastructure. If a particular rural area does not have quality high-speed broadband facilities and services in place beforehand, it will not be considered (much less, selected) as the location for the new, expanding or re-locating businesses that will be looking for less congested places from which they can participate and compete in the mid-21st Century economy.

C.

The Proposed “4 Mbps Down, 1 Mbps Up” Rural Support Target Is Not Sufficient

Rural businesses need to communicate and/or compete with businesses in urban and suburban areas. In a broadband world, this means that rural businesses must have access to and to use business and other software applications that are reasonably comparable with those of their competitors, customers and vendors. In fact, in many cases, they will need to collaborate in the use of the same applications as their customers, vendors and/or business partners. In other

⁴ *Id.* at Chapter Four: “The Resurgent Heartland,” pp. 105-138.

words, the 21st Century economy will require rural businesses to have access to the same broadband bandwidths, speeds and services as their competitors, customers, vendors and/or business partners.

The Blooston Rural Carriers understand that the Commission's proposed "4 megabits per second ("Mbps") down, 1 Mbps up" rural target is intended for use in determining universal service support for residences in high-cost areas. However, it is likely to have a crippling impact upon rural businesses as well as a significant adverse impact upon rural households.

If the National Broadband Plan goal of "affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps" for at least 100 million homes by 2020⁵ is met, urban and suburban businesses will have access to such broadband speeds, and the services and applications that will be developed for them. In contrast, if only "4 Mbps down, 1 Mbps up" facilities are supported in rural areas, many of the businesses therein will not have access to the "100 Mbps down, 50 Mbps up" services and applications used by their urban and suburban competitors, customers, vendors and business partners. Whereas some businesses close to an RLEC central office may be able to obtain a higher-speed fiber to the premises ("FTTP") connection, many farms, ranches, mines and other rural businesses are located far outside the population centers and cannot readily be provided with a higher-speed connection when the network between them and the central office has been constructed on a 4/1 Mbps basis.

For example, video conferencing for virtual cattle auctions presently requires upstream speeds of at least 5 Mbps, and is likely to require upstream speeds of at least 10-to-15 Mbps within the foreseeable future as higher-definition video applications are adopted and required by buyers. Likewise, many rural banks presently need broadband service at speeds of 5-to-15

⁵ Federal Communications Commission, *Connecting America: The National Broadband Plan* (March 16, 2010), p. 9 ("NBP").

Mbps upstream and downstream in order to network and share data with other urban, suburban and rural financial institutions, and are likely to need even higher speeds before 2020.

Technology has changed so rapidly during the past decade that the Blooston Rural Carriers do not know what the appropriate rural broadband speed target should be for 2015 or 2020. They are certain that the proposed 4/1 Mbps target is going to be outdated long before 2020, and that the inability to access facilities, services and applications reasonably comparable to their urban counterparts is going to significantly impair rural businesses. They strongly recommend that the Commission adopt a flexible approach which would allow the review and modification of the rural broadband speed target on an annual basis as long as broadband speeds and applications continue to grow at an accelerated pace.

D.
Universal Service Support Should Encompass Middle Mile Costs

As the Joint Board has recognized, RLECs subject to Rate of Return regulation have done an excellent job of utilizing their previous universal service support to upgrade their networks and deploy broadband-capable facilities to most of their rural customers.⁶ However, the task of deploying broadband facilities and services reasonably comparable to those in urban areas is far from completed in RLEC service areas and other rural areas. Sufficient universal service support will continue to be necessary if RLECs are to preserve the benefits of their previous infrastructure investment efforts as well as to make the future upgrades necessary to meet the increasing broadband needs and demands of their rural business and residential customers.

⁶ *In the Matter of High-Cost Universal Service Support*, Recommended Decision, WC Docket No. 05-337 and CC Docket No. 96-45, FCC 07J-4, released November 30, 2007, at paras. 30 and 39.

In addition to broadband-capable “last mile” and inter-office facilities, the Blooston Rural Carriers recognize the need for adequate Middle Mile connectivity between their networks and the Internet, particularly if they to be able to provide the broadband speeds, services and applications required by their business customers. They are concerned: (a) that they will not be able to obtain adequate Middle Mile connectivity from unrelated carriers to transport increasing amounts of broadband traffic to and from the Internet at higher and higher data speeds; and (b) that, even if it is available, such higher-capacity Middle Mile connectivity will be so expensive that they will not be able to provide the broadband speeds, services and applications required by their customers at rates that are affordable and reasonably comparable to those in urban areas.

Some RLECs participate in ventures such as statewide equal access networks and regional fiber transport networks that furnish some or all of the Middle Mile connectivity for their broadband services. However, many RLECs currently rely upon Regional Bell Operating Company (“RBOC”) or other unrelated third party networks to transport their broadband traffic over lengthy routes (often 40-to-100 miles) to and from the closest Internet gateway. At the present time, many of these Middle Mile facilities are comprised of aging T1 and DS3 facilities, which are increasing becoming bottlenecks and preventing RLECs from providing their customers with broadband services and speeds that would otherwise be attainable over RLEC “last mile” networks.

Whereas Section 201(a) imposes a duty upon carriers to furnish communication service upon reasonable request therefor, it is not clear at this time what obligations and incentives the larger carriers will have to make the substantial investments necessary to deploy more fiber and to upgrade their existing T1 and DS3 Middle Mile facilities to OC3, OC12 and higher capacities as broadband traffic volumes grow. As Middle Mile connectivity needs increase (and some

Blooston Rural Carriers estimate that their Middle Mile capacity needs are increasing rapidly by 33-to-50 percent or more per year), the availability of, and access by RLECs to, sufficient Middle Mile capacity is going to become an increasingly serious problem that will restrict the broadband speeds, services and applications available to their rural business and residential customers.

In addition, the cost of Middle Mile connectivity is becoming increasingly onerous for RLECs. Middle Mile connectivity costs appear to range from \$45 per Megabit per month to \$600 per Megabit per month depending upon factors such as geography, terrain, demographics and distance to the Internet gateway (with many RLECs paying \$100-to-\$200 per Megabit per month), and appear to constitute about 20-to-40 percent of the broadband service costs of the typical Blooston Rural Carrier. It is expected that the total Middle Mile transport costs of RLECs will increase significantly as broadband service demands evolve and expand and broadband traffic volume grows.⁷

As the broadband network develops, sufficient federal High Cost support is going to be needed to help RLECs and other small rural carriers recover the substantial and increasing costs of Middle Mile connectivity. Without such additional support, they will be unable to provide their rural business and residential customers with broadband services at rates that are affordable and reasonably comparable to those charged in urban areas.

⁷ The Blooston Rural Carriers note that increasing amounts of broadband traffic are being generated automatically by web browser, anti-virus and other software programs that are installed in customer computers and other appliances that provide periodic or continuous feedback to vendors or monitoring centers. As this type of traffic increases, it will impose significant additional Middle Mile transport costs upon RLECs and other rural carriers.

E.
Conclusion

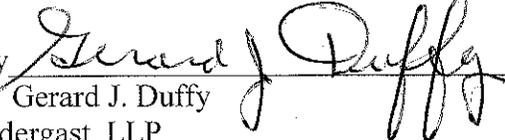
The Blooston Rural Carriers have participated in this proceeding to emphasize the existence of a substantial and growing business broadband marketplace in RLEC service areas. This marketplace ranges from thousands of farms and ranches that are making greater and greater use of broadband to feed the United States and the world, to a variety of existing and emerging businesses that are enhancing rural economic development as well as relieving population and resource pressures in urban areas.

Rural businesses must have access to reasonably comparable broadband facilities, services and applications in order to compete and collaborate with businesses in urban areas. Hence, a 4/1 Mbps target for rural areas will segregate rural businesses and impair their ability to compete in a nation where most urban and suburban businesses enjoy 100/50 Mbps service.

Finally, whereas RLECs have done an excellent job to date in deploying broadband-capable facilities and services to most of their rural business and residential customers, the task is far from complete. Sufficient universal service support, including sufficient and additional Middle Mile support, will continue to be necessary to preserve RLEC progress to date as well as to support the higher speed broadband facilities, services and applications that will be needed by their rural business and residential customers in the foreseeable future.

Respectfully submitted,

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ATTACHMENT A

Blooston Rural Carriers

BEK Communications Cooperative
Cameron Telephone Company, LLC
Canby Telephone Association
Communications 1 Network, Inc.
Five Area Telephone Cooperative, Inc.
Hanson Communications, Inc.
Harrisonville Telephone Company
Hill Country Telephone Cooperative, Inc.
Marne & Elk Horn Telephone Company
Midvale Telephone Exchange, Inc.
South Slope Cooperative Telephone Co., Inc.
Strata Networks
Walnut Telephone Company, Inc
Wiggins Telephone Association