
From: George Livergood <glivergood@ftionline.com>
Sent: Thursday, May 28, 2015 3:33 PM
To: BOCrfc2015
Subject: Broadband Opportunity Council
Attachments: Broadband Opportunity Council Comments.docx

Comments as requested.

Respectfully submitted by,

George Livergood, President

FOUNDATION TELECOMMUNICATIONS, INC.

Toll Free: 800-833-3353

Office: 479-636-8909

Cell: 913-708-2326

Fax: 479-636-8997

www.ftionline.com

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365-5365-01]

PART I: POINT OF CONTACT

FOUNDATION TELECOMMUNICATIONS, INC.

George Livergood, President

14545 South Cody Street

Olathe, KS 66062

Email: glivergood@ftionline.com

Toll Free Phone: (800) 833-3353

Office: (479) 636-8909

Fax: (913) 608-5390

Cell: (913)708-2326

WEB: www.ftionline.com

“Exclusively Serving Rural America Advanced High-Speed Internet”

PART II: BACKGROUND SUMMARY

Although there have been repeated attempts to stimulate the expansion of the availability of high-speed Internet to “Rural America”, these attempts have fallen short due to a number of factors related to the economic unviability of the extremely rural areas together with the inability of conventional satellite and cellular networks to provide true high-speed Internet. True “Rural America”, by definition, is sparsely populated and economically prohibitive for any distance sensitive technology; two technologies that are not distance sensitive are satellite and cellular telephone.

Foundation Telecommunications, Inc. (“FTI”) is perhaps the longest continuously operating two-way satellite Internet service provider in the United States having been formed in February 1979. Initially, FTI served state governments in the design of high technology interactive distance education networks and evolved to provide design, installation and maintenance services to Department of Defense contractors for their leading edge local and wide area networks. Applied technologies included microwave, laser links, fiber optics, dual cable broadband as well as conventional Ethernet based architectures. For the past 17 years, FTI has been providing high-reliability two-way satellite Internet and VPN networks to geographically isolated secured government installations, rural K-12 schools, small rural cable television systems and rural communities bypassed by conventional Internet providers. Through a recent patent awarded by the US Patent office (Patent No: US 9,026,106 B2), FTI is now able to provide low cost high-reliability (99.95%) high-speed (25 mbps) Internet service without geographic restriction throughout the United States.

Accordingly, Foundation Telecommunications, Inc. respectfully submits comments to the questions listed in the “Broadband Opportunity Council Request For Comment” as a long standing Woman Owned Small Business operating continuously for the past thirty-six (36) years in the fields of wired and wireless telecommunications.

PART III: QUESTIONS & COMMENTS

A. Overarching Questions

1. How can the federal government promote best practices in broadband deployment and adoption? What resources are most useful to communities? What actions would be most helpful to communities seeking to improve broadband availability and use?

FTI Comment:

Federal resources that would be most helpful to small rural communities would include promoting small business expansion of wireless technologies as an immediate solution to broadband availability until such time that the more ideal fiber infrastructure is expanded to include them. Nearly two decades ago, FTI proposed a “temporary” two-way satellite solution for broadband service to rural Wyoming schools until such time that the telephone company could construct the needed infrastructure to the schools as a permanent wired broadband solution. Today, FTI is still serving some of those rural K-12 schools with its “temporary” satellite solution.

2. How can the federal government best promote the coordination and use of federally-funded broadband assets?

FTI Comment:

The federal government is in a unique position to assist in lowering the overall cost of operations of small businesses specializing in the provision of broadband services to Rural America. That assistance is first and foremost in the provision of grants for the construction of the hub related assets shared by all broadband users in Rural America effectively removing the carried cost of the shared infrastructure by all; thus, allowing a low-cost universally available high-speed Internet solution. Secondly, an agency of the federal government (GSA) may have assets that can be used by the small business broadband providers that will lower overall initial costs of operation. Finally, the rights-of-way and easements owned by the federal government could be made available to broadband service providers without cost or fees.

Ultimately, eliminating the cost of the shared hub while decreasing the cost of operations of the small business Internet Service Provider will result in the network being able to be extended to more rural areas at a lower continuing subscription cost.

3. What federal regulations and/or statutes could be modernized or adapted to promote broadband deployment and adoption?

FTI Comment:

The Universal Service Fund that is being and has been collected from all telephone bills for decades should be made available to all technologies capable of providing high availability 25 mbps service to Rural America irrespective of the technology applied. The fund was originally developed for the provision of telephone service in Rural America. Decades later, we are attempting to find methods to fund the expansion of a Universally Service that can be used for telephone service; the only difference being the technology used to provide the service today while the funding mechanism should remain

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365-5365-01]

unchanged. Moreover, most VoIP broadband telephone service providers have unlimited free calls throughout the US.....a much better service than what the Universal Service Fund was originally intended to address. While we would certainly appreciate the fund be limited to small business and wireless technologies, the exact formula for this distribution should be equitable and based upon the level of isolation of the end user with respect to Internet access.

The allowance of Investment Tax Credits for private investments in small businesses that are dedicated to the provision of broadband services to Rural America would also certainly help to develop the needed capital for network expansion.

4. As the federal government transitions to delivering more services online, what should government do to provide information and training to those who have not adopted broadband? What should the federal government do to make reasonable accommodations to those without access to broadband?

FTI Comment:

First, there is no possible reason that broadband cannot be made available to every household in the US. There will, however, always be those that do not want access and have no intention to adopt broadband whether it is due to age, economics, physical infirmities, or some other factor. Presumably, this question relates to access to government programs that may have converted to broadband access such as healthcare, social security, registrations, federal park information or other similar programs. Access to these programs would have to be made through an accommodation via telephone or an on-site visit to the appropriate government office where a person could either walk them through the steps of access via a computer or perform the access for them.

The availability of a low cost tablet or laptop with a pre-programmed desktop with icons for the most used federal programs for direct URL access would make the use of a computer less intimidating to many, if not most, users. It is our understanding that USAID assisted in the development of such a laptop with a crank for generating power as early as 2007. We understand that it was much less than \$100 at the time and virtually “disposable”.

5. How can the federal government best collaborate with stakeholders (state, local, and tribal governments, philanthropic entities, industry, trade associations, consumer organizations, etc.) to promote broadband adoption and deployment?

FTI Comment:

The federal government is in a position to enable Investment Tax Credits for investments of public and private sources of capital for business deployment into rural areas for the adoption of broadband.

B. Addressing Regulatory Barriers to Broadband Deployment, Competition, and Adoption

6. What regulatory barriers exist within the agencies of the Executive Branch to the deployment of broadband infrastructure?

FTI Comment:

Unknown.

7. What federal programs should allow the use of funding for the deployment of broadband infrastructure or promotion of broadband adoption but do not do so now?

FTI Comment:

The re-distribution and allocation of the Universal Service Fund to small businesses dedicated to the provision of rural broadband services would be helpful. Secondly, setting a priority for GSA to allocate assets to small businesses dedicated to rural broadband services would lower their cost of operations and provide for extended services to rural America.

8. What inconsistencies exist in federal interpretation and application of procedures, requirements, and policies by Executive Branch agencies related to broadband deployment and/or adoption, and how could these be reconciled? One example is the variance in broadband speed definitions.

FTI Comment:

One school of thought is that market competition will cause the lowest priced fastest service to evolve. Decades of providing broadband services to rural America have also resulted in the revelation that not all customers want fast service if they can save money just as some customers only want the service a few hours per week if they can save money. Having the government set the speed and tiers of all services seems to be contrary to the demonstrated marketplace and the constitutional responsibilities of the federal government.

Notwithstanding the above, it is reasonable for the federal government to establish minimum standards for service in order to access government funding. That service level should be universal since availability of service via satellite and cellular phones are now universally available. The stated 25 mbps service level for government funding seems reasonable and achievable in today's technological market. Moreover, it will cause those vendors unable to achieve that level to develop innovative solutions in order to qualify for government funding.

Finally, the government should ADD the requirement for "Availability" to that of data rates. Fiber and DSL networks have a stated "Availability" figure while residential satellite providers avoid that issue particularly in times of localized inclement weather. Availability is just as important of a service parameter as data rate. No user paying for service whether cable TV or Internet should have to tolerate service interruptions due to weather particularly given the predictability with the technology being used.

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365–5365–01]

This is precisely the motivation for the FTI development of its now patented technologies.

9. Are there specific regulations within the agencies of the Executive Branch that impede or restrict competition for broadband service, where residents have either no option or just one option? If so, what modifications could agencies make to promote competition in the broadband marketplace?

FTI Comment:

Assuming that at least one agency of the Executive Branch controls the regulations regarding Investment Tax Credits; an allowance for ITCs for deployment of high availability high speed broadband into rural America would encourage new sources of capital for small businesses for their broadband network expansion.

10. Are there federal policies or regulations within the Executive Branch that create barriers for communities or entities to share federally-funded broadband assets or networks with other non-federally funded networks?

FTI Comment:

FTI is not aware of any such policy or regulation.

11. Should the federal government promote the implementation of federally-funded broadband projects to coincide with other federally-funded infrastructure projects? For example, coordinating a broadband construction project funded by USDA with a road excavation funded by DOT?

FTI Comment:

Excellent example.

Consider the placement of a slotted array coaxial antenna (US Patent No: US 6,091,372 A) together with a fiber transport bundle in the median of all Interstate highways and all road construction projects. The end result would be a high capacity fiber transport together with a Wi-Fi like several hundred mbps link to the Internet backbone. There may have to be a special block of frequencies allocated to this project by the FCC from the VHF and Low VHF channel block vacated by the television station broadcasts; perhaps not.

A second example might be to develop a wireless or satellite infrastructure for the wide area network monitoring of Interstate highway cameras located in construction zones or key areas of the highway network. This could include weather monitoring as well as in areas that are extremely rural and geographically isolated with the inclusion of solar power generation.

A third example relates to government subsidies of “green energy” projects. When considered together with the power requirements of a rural Wi-Fi Hot Spot for broadband distribution, the additional subsidy would make the difference between installation of a Hot Spot in a technically ideal location or one where utility power was

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365–5365–01]

available. Solar powered Hot Spots using both broadband and green energy subsidies make economic sense.

Finally, “green energy” subsidies could be extended to the hub gateway to the Internet that in a manner that results in more power being generated than being used for the broadband; thus, resulting in additional power being “sold back” to the grid and generating another operating revenue source.

C. Promoting Public and Private Investment in Broadband

12. How can communities/regions incentivize service providers to offer broadband services, either wired or wireless, in rural and remote areas? What can the federal government do to help encourage providers to serve rural areas?

FTI Comment:

The most obvious incentives would be financial in the form of grants or guaranteed loans. Another incentive would be to eliminate all “franchise fees” and taxes for the use of public easements for the transport of broadband as well as all taxes on revenues generated from broadband services.

Alternative technologies to conventional wired or fiber infrastructures require height above ground level for wireless connectivity. Very often, the needed height in small rural communities or in rural (water cooperatives) areas are water towers or grain elevators which also require height above ground level to function properly; light poles and city buildings would be helpful to a wireless operator, as well. The ability to utilize those structures without cost would be a great incentive for the cost effective installation of wireless last mile technologies.

13. What changes in Executive Branch agency regulations or program requirements could incentivize last mile investments in rural areas and sparsely populated, remote parts of the country?

FTI Comment:

A federal regulation precluding a fee or tax for the broadband operator’s use of rural cooperative or community owners of water towers, grain elevators, or other community operated infrastructures funded all or in part by federal funds would help. This should extend to community owned public easements and light poles, as well.

14. What changes in Executive Branch agency regulations or program requirements would improve coordination of federal programs that help communities leverage the economic benefits offered by broadband?

FTI Comment:

A federal regulation precluding a fee or tax for the broadband operator’s use of rural cooperative or community owners of water towers, grain elevators, or other community operated infrastructures funded all or in part by federal funds would help. This should extend to community owned public easements and light poles, as well.

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365–5365–01]

15. How can Executive Branch agencies incentivize new entrants into the market by lowering regulatory or policy barriers?

FTI Comment:

A federal regulation precluding a fee or tax for the broadband operator's use of rural cooperative or community owners of water towers, grain elevators, or other community operated infrastructures funded all or in part by federal funds would help. This should extend to community owned public easements and light poles, as well.

D. Promoting Broadband Adoption

16. What federal programs within the Executive Branch should allow the use of funding for broadband adoption, but do not do so now?

FTI Comment:

Universal Service Fund could be used for funding deployment of broadband into rural America. Allowance of ITCs would increase the flow of investment capital into small businesses that are providing satellite or wireless connectivity provided that they meet the 25 mbps data rate and 99.95% service "Availability" rate.

17. Typical barriers to broadband adoption include cost, relevance, and training. How can these be addressed by regulatory changes by Executive Branch agencies?

FTI Comment:

Low cost high-speed high-availability Internet could be universally available were it not for the shared cost of the satellite hub and gateway into the Internet. Any program that would increase the availability of investment capital into small businesses will eliminate end user "cost" as a barrier.

"Relevance" and "training" with respect to the actual utility of the broadband connection can be addressed with a low cost laptop similar to that created by the USAID with the addition of a pre-programmed easy to use desktop set of icons. If history is any indicator, the use of this type of computer will be temporary and the end user will purchase a laptop with even more capabilities once "trained" and familiar with the utility of the broadband connection.

Assuming that the Department of Education is an "Executive Branch agency", the increased use of computers in all K-12 schools for research will, in and of itself, promulgate the use of the broadband technology at home. FTI has been providing high-speed high-availability broadband to rural K-12 schools that cannot receive broadband any other way for the past 15 years with that precise result. The OLPC computer distributed to 1.84 million children in other countries could be used as the entry level K-12 computer.

E. Issues Related to State, Local, and Tribal Governments

18. What barriers exist at the state, local, and/or tribal level to broadband deployment and adoption? How can the federal government work with and incentivize state, local, and tribal governments to remove these barriers?

FTI Comment:

FTI has no comment with regard to barriers that may exist at the state, local or tribal levels and has had no involvement in this process.

19. What federal barriers do state, local, and tribal governments confront as they seek to promote broadband deployment and adoption in their communities?

FTI Comment:

FTI has no comment with regard to barriers that may exist at the state, local or tribal levels and has had no involvement in this process.

20. What can the federal government do to make it easier for state, local, and tribal governments or organizations to access funding for broadband?

FTI Comment:

FTI has no comment with regard to barriers that may exist at the state, local or tribal levels and has had no involvement in this process.

If the term, “organizations”, is intended to include small businesses, FTI has participated in at two grant processes as a “Woman Owned Small Business” with some comments relative to the process. The process was very expensive with the requirements for documentation, independent third party engineering certifications, CPA plan review and detailed data collection. In both cases, FTI exhausted all of its cash reserves and committed to a bank Line-of-Credit to fund each of the efforts. For a small business, this was an extreme financial burden that we have yet to pay off with the bank.

Many government grants have a two-step process, instead. Information is submitted by the company in an abbreviated form for evaluation. The government responds in a few months with a letter indicating the project is of interest or not effectively saving the proposing company the cost of the preparation. This simplified process would have saved our company financially unless, of course, we were selected for a complete proposal.

21. How can the federal government support state, local, and tribal efforts to promote and/or invest in broadband networks and promote broadband adoption? For example, what type of capacity-building or technical assistance is needed?

FTI Comment:

FTI has no comment with regard to barriers that may exist at the state, local or tribal levels and has had no involvement in this process.

F. Issues Related to Vulnerable Communities and Communities With Limited or No Broadband

22. How can specific regulatory policies within the Executive Branch agencies be altered to remove or reduce barriers that prevent vulnerable populations from accessing and using broadband technologies? Vulnerable populations might include, but are not limited to, veterans, seniors, minorities, people with disabilities, at-risk youth, low-income individuals and families, and the unemployed.

FTI Comment:

The greatest single barrier to the prevention of vulnerable populations from accessing and using broadband technologies is the availability of a low cost or “free” government subsidized entry level computer (cell phones don’t count) together with universal availability of Wi-Fi network access. With these two elements, there can be no restriction whether regulatory or not that will prevent vulnerable populations from accessing and using broadband technologies.

23. How can the federal government make broadband technologies more available and relevant for vulnerable populations?

FTI Comment:

Several years ago, a cell phone manufacturer recognized that cell phone use to the “vulnerable populations” listed was a serious market challenge. Their market research concluded that a new special purpose cell phone was required with large easy to read lighted buttons, more sensitive microphone, improved speaker with respect to both volume and quality together with simplified “one button” targeted pre-programmed functions.

The “Jitterbug” was born.

Today, we have an aging population that is reluctant to learn new “things”. Eyesight, hearing and dexterity are all additional issues preventing them from the benefits of broadband technology. In many ways, their needs are similar to our returning veterans, minorities, people with disabilities, at-risk youth, low-income individuals and families, and the unemployed.

Again, USAID distributed a new low cost Wi-Fi enabled laptop computer in 2007 through 2013 that included a small crank to generate power in order for it to be used in third world countries.....odd that they assumed that there would be no power but there would be Wi-Fi. As of 2011, 1.84 MILLION of the OLPC computers were distributed in other countries but not the US. The most recent version of the OLPC (XO-4) was introduced at the International CES in Las Vegas in 2013. Notwithstanding the above, a similar approach could be used to develop the same laptop (or improved tablet) computer with larger buttons, pre-programmed functions, etc. The development work has already been completed and the units tested in the field since 2007 so all of the “bugs” should be worked out of the design.

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365–5365–01]

FTI has been researching hundreds of small rural communities over the past four years that either do not have Internet or only have slow high priced Internet available to them through their DSL phone service or residential satellite Internet services. All of these communities could be served with true high-speed low cost Internet were it not for the capital cost of the shared community hub equipment. A government subsidy or grant for that shared equipment would immediately make low cost high speed Internet available to all residents. Ultimately, it is the lack of capital investment in rural high-speed Internet that is limiting the expansion of low-cost (continuing subscription costs) high-speed Internet.

As an example of a rural unserved community, FTI elected to fund the shared network equipment in a small rural typical Indiana community in order to determine if there were any other challenges such as the inability to operate the laptops or computers, incompatibility between devices, maintenance, billing and collections. Several years of operations have verified that these latter concerns were unfounded. Moreover, it has been determined that the best customers were the senior (75+) and the millennials.

Perhaps there are not as many “vulnerable populations” as one might believe.

G. Issues Specific to Rural Areas

24. What federal regulatory barriers can Executive Branch agencies alter to improve broadband access and adoption in rural areas?

FTI Comment:

If precluding the allowance of ITCs for private investments in deployment of broadband in rural areas is a “regulatory barrier”; then it may be one of several.

If precluding the allowance of the Universal Service Fund for subsidies in deployment of broadband in rural areas is a “regulatory barrier”; then it may be one of several.

25. Would spurring competition to offer broadband service in rural areas expand availability and, if so, what specific actions could Executive Branch agencies take in furtherance of this goal?

FTI Comment:

It should be first recognized that today’s state-of-art technology of choice for the transport and delivery of broadband services must be considered fiber optics; probably more specifically, fiber optics placed underground. Unfortunately, the cost of installation of a fiber infrastructure is very high when considering small communities of a less than a 100 total homes, ranches and farms. We believe that it is also recognized that ultimately at some point in the future, fiber optic cables will likely be to nearly every home and business throughout the US as aging infrastructures are replaced. Until that time which may be decades into the future, there is only one universal technology capable of reaching every home, ranch, farm and business without geographic restriction and that technology is wireless and either “satellite based” or “cellular telephone based”.

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365–5365–01]

It should also be noted that competition already exists for broadband in rural areas throughout the United States. There are at least three two-way satellite Internet services competing for the rural residential market throughout the US with small satellite antenna solutions. In addition, recent information suggests that 4G cellular telephone service capable of broadband is available in 98% of the US. All of the satellite service companies and most of the cellular companies provide service options exceeding the 4 mbps threshold previously set for rural locations unable to receive broadband by any other means. Unfortunately, technology limitations prevent these “residential” oriented satellite Internet companies from providing true high-speed Internet of 25mbps at near fiber levels of “availability” of 99.95%. The one “truism” in the advancement of technologies, however, is that advancements develop as a result of capital investments and “out-of-the-box” thinking.

In order to encourage and stimulate private capital investments in technology development of true high-speed Internet, perhaps the concept of grants and Investment Tax Credits for disadvantaged businesses (small, woman owned, native American, disabled veterans, etc.) be considered.

26. Because the predominant areas with limited or no broadband service tend to be rural, what specific provisions should Executive Branch agencies consider to facilitate broadband deployment and adoption in such rural areas?

FTI Comment:

Historically, providers of telecommunications services including those of telephone, cable television, Wi-Fi and Internet have ignored the needs of geographically isolated consumers based upon ROI (Return-On-Investment) formulas consistent with current and projected economic factors. This practice is consistent with the goal of protecting the interests of the stake holders of the respective companies but has done little to expand broadband services to rural consumers. Government institutions at all levels have collaborated in the proliferation of the practice of limiting mandated expansion of services to the under-served and unserved populations through franchise limiting line extension formulas and restriction of grant subsidies to those applicants that do not achieve minimal capital costs per home served. As a result of all of these practices, traditional “Rural America” including small communities, ranches and farms have entered the computerized 21st Century developmentally handicapped by the lack of high-speed Internet access for education, business, health, and other critical life services. Until a funding model for true Rural America consumers is identified, this condition is unlikely to improve.

Both private and publically held companies cannot reasonably justify economically injudicious capital expansion of their respective infrastructures given the fiduciary responsibility to their stockholders. By the same token Federal grant subsidies through the NTIA, USDA or the Department of Commerce have a similar responsibility to taxpayers in that grants have historically been evaluated based upon serving the maximum number of potential consumers with each tax dollar invested. The situation is not entirely hopeless given the evolution of the small dish satellite Internet industry, however.

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365–5365–01]

Multiple competing satellite Internet providers offer “modest” data rates to virtually every location in Rural America at subscription rates commensurate with data speeds, location and the amount of data being downloaded in any given month. While this technology is being marketed as a universal Internet solution, it fails to meet today’s government accepted threshold definition of “high-speed Internet” of 25 mbps as well as a proposed level of “availability” of 99.95%. Given current available technologies, these government defined thresholds can be met and exceeded at a lower monthly subscription rate for the consumer without the individual investment in satellite technology located on the consumer residence.

An implementation of an operationally self-funding universal application of satellite and wireless technologies that will provide true high-speed Internet available throughout Rural America without geographic restriction at a higher data rate, higher availability and lower subscription price than is currently available is possible utilizing current satellite and Wi-Fi technologies; a 21st Century solution to a 20th Century problem engineered exclusively for Rural America.

Accordingly, in order for true high-speed Internet to become available in true rural America, the grant and subsidy evaluation metric of “dollars per home passed/served” needs to either be removed or increased for rural communities less than approximately 100 to 200 homes.

H. Measuring Broadband Availability, Adoption, and Speeds

27. What information about existing broadband services should the Executive Branch collect to (make) inform(ed) decisions about broadband investment, deployment, and adoption? How often should this information be updated?

FTI Comment:

The implementation of the multiple technologies required for broadband services is changing more rapidly than the time required to collect information. By the time that coverage and technology information for existing and planned broadband can be gathered for a given region, it has already evolved making the data collection process and the accumulated data of little use for planning purposes. Perhaps the budget for the gathering of virtually useless information should be re-allocated to grants and subsidies for expansion into truly rural and truly unserved communities of users where the vendor proposal demonstrates whether the community is unserved or underserved in real-time.

28. Are there gaps in the level or reliability of broadband-related information gathered by other entities that need to be filled by Executive Branch data collection efforts?

FTI Comment

No, the data collection efforts of “other entities” generally results in unreliable dated broadband information suggesting that any budget dedicated to this effort is better allocated to the expansion of existing networks and the development of innovative technologies for the more efficient use of spectrum resulting in higher data rates and more reliable broadband services to end users.

Broadband Opportunity Council Request For Comment

[Docket No. 1540414365-5365-01]

29. What additional research should the government conduct to promote broadband deployment, adoption, and competition?

FTI Comment:

We don't believe that the Federal government be in the business of "research" including gathering of data regarding types of broadband technologies applied and areas served. Instead the government may best position itself to encourage industry innovation within the broadband network and equipment vendors. This "encouragement" could be in the form of Investment Tax Credits, grants and guaranteed loans primarily to the segment of the US businesses that create the most jobs; small business.

Notwithstanding the above, the government has access to technical research and product development information particularly in the areas of wireless and IP satellite technologies through DARPA, the military use and other agencies that would likely be of benefit to any wireless or IP satellite business intending to deploy broadband throughout rural America. This information should be shared if possible.

30. How might the federal government encourage innovation in broadband deployment, adoption, and competition?

FTI Comment:

Besides Investment Tax Credits, grants and guaranteed loans to small businesses for the purpose of developing innovative solutions to broadband deployment, adoption and competition; there is at least one other element of business operations that would be key to the success of the effort.

It is generally agreed that the majority of jobs in the US are from small businesses. It is also a fact that the two greatest operating expenses to a small business are rent and payroll. For many small businesses, the federal government is in a unique position to reduce the cost of operations through the elimination of "rent" from the small business budget.

The GSA is tasked with the liquidation of government assets in order to reduce continuing inventory costs to the government as well as to generate a small amount of revenue; revenue that could not possibly offset the GSA cost of liquidation or the cost of continued maintenance of the asset. This includes abandoned buildings and other real estate that could be used by a small business to reduce the cost of operations. In some cases, these assets are located in Enterprise Zones that entitle the owner to significant property tax concessions, as well. If it were possible to make some of these properties available to small businesses at no cost for the purpose of developing innovative approaches to broadband deployment it would reduce the cost of operations while providing space in which to expand broadband service to Rural America.

Notwithstanding the above, the Universal Service Fund was established to fund expansion of telephone service to Rural America and that is precisely what broadband brings to Rural America. Accordingly, there is no reason NOT to authorize the distribution of those funds to small businesses expanding their wireless and satellite networks to Rural America.