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MODERATOR: Good afternoon and welcome to the third panel for today. Today's panel is a roundtable on innovative programs to encourage sustainable adoption of broadband service and expanding public computer center capacity. These are two of the programs that were identified separately by Congress, and Congress allotted a minimum amount of money of the NTIA money shah should be focused on those two issues. Our moderator is Robert at Kinston after leaving the FCC in 2000 Bob joined the Columbia institute for teleinformation at the Columbia business school where he serves as Director in policy and research while at the FCC he was the served computer chief of the common carrier bureau. Thank you, Bob.

MODERATOR: Thank you mark, and pleased to be here. As Mark said, I am Bob Atkinson and Director of policy research at the Columbia institute for telecom information. It is a research center on telecom, internet and media of the Columbia business school not a government employee or a part of any federal agency so my comments are strictly my own and don't reflect the views of CITI that rarely has a specific position, because it's an academic institution. The topic of the last roundtable here today is broadband's innovative programs to encourage sustainable adoption of broadband service and expanding public computer center capacity. Representatives from a number of stakeholders, our seven of them will participate in a roundtable discussion on this topic and I

will introduce the panelists in a moment. Procedurally the panelists will make comments on the topics raised in the joint NTIA request for information that was issued last week and I will moderate a roundtable discussion amongst the panelists, and finally the last 30 minutes of the program will be devoted to questions or comments from the audience here at the commerce department auditorium, or from the webcast or teleconference. I expect these presentations will spur a lively discussion and generate new and innovative ideas about deploying and utilizing broadband services. And I would observe in my own capacity that these roundtable discussions and last week's joint RUS/NTIA request for information are part of an open and transparent process in which all interested parties will have an opportunity to provide their comments and ideas to NTIA/RUS over the next several weeks and I certainly urge everyone to provide those views and comments and suggestions as quickly as they K.

Let me quickly introduce the speakers, the panelists on this roundtable. This will be the order in which they will present their opening remarks.

On my immediate left, Jonathan Linkous, the chief executive officer of the American Telemedicine Association. As CEO he has lectured and written extensively on health and technology issues and has served on a variety of international and national paneling on topics a such as providing chronic care services and

responses to Hurricane Katrina. Next to Jonathan is Emily Sheketoff, the associate executive Director of the American library association, managing the Washington office, where she directs lobbying efforts for Congress and the executive branch and works on initiatives important to the library community, family literacy, public access to government information, first amendment protection and intellectual property and copy right issues. Next to Emily is James Hermes, /AES senior legislative associated with the American association of community colleges where he has been since late 1999. AACC is the premier organization representing the interests of community colleges counting over 90% of the nation's community colleges as its members. Next to James is Erin Duncan. Erin is a federal lobbyist of the national education association. Among the issues of in her portfolio are education technology, E read 21st century and she serves as Ed link and is currently the chair of that coalition. Next to Erin is Hank /KEPBLGTSDZ. He is the deputy secretary for research and development in the Department of Energy's office of electricity delivery and energy reliability which is responsible for leading national efforts to modernize an electric grid, enhance reliability of the infrastructure and facilitate recovery from disruptions to energy supply. He has over 20 years experience of strategic management of technology and November /SRAEUGS in public and private sectors. Next to Hank is Jason Goldman, Jason serves as counsel and committee /SKEFBG for

the telecommunications and E /PHERS he handles a variety of technology policy issues for the chamber, including telecommunications, the internet, E-Commerce, broadcasting and mass media, security and previous and E waste. And last, Rey Ramsay. Rey is CEO and cofounder of one economy organization, an organization that leverages technology and information to low-income people by bringing broad band into their homes producing public purpose media and training youth to enhance community's technological capacity. Previously he was chairman of habitat for humanity, chairman and CEO of enterprise foundation and Oregon Director of housing and community services under two governors. Broadly NTIA and RUS have a monumental job to accomplish in a very short period of time. Implementing the American recovery and reinvestment act in a way that produces the greatest broadband bang for every taxpayer buck. Among other things, this means adopting rules, developing contracts, soliciting proposals, reviewing proposals, selecting the best proposals to satisfy the goals of the act and the award criteria the list of activities and responsibilities that NTIA and RUS seems almost endless. So the purpose of this series of roundtables is to provide NTIA and RUS with the considered thoughts and suggestions of experienced experts from a broad range of stakeholders so they can accomplish their missions as quickly and as effectively as possible. As mark and I mentioned previously, the subject of this last roundtable for

today, innovative programs to encourage sustainable adoption of broadband service and expanding public computer center capacity. This is an important topic simply because Congress has established two specific programs dealing with those topics. It has appropriated at least \$250 million to fund innovative programs that will increase sustainable broadband adoption and Congress has also appropriated at least 2 hundred million to fund public computer centers at community colleges, libraries and similar locations so the purpose of this roundtable is to facilitate the options for these programs, so let's begin with Jonathan Linkous, the CEO of the American Telemedicine Association.

MR. LINKOUS: Thanks. I appreciate it. I want to start off by saying I appreciate the invitation and I appreciate the tremendous work the staff here at NTIA have been doing working at the American Telemedicine Association we are working with a dozen federal programs and agencies, and you guys are taking the lead in setting the standard in terms of getting information out and getting this program right away. I want to take a few minutes to talk about telemedicine and I have very specific suggestions for the program. Telemedicine is broadly defined. I think it's important for the staff to understand that over the last few years it has expanded to include not just the traditional video-based conferencing, large rural health center to a rural clinic but includes a broader array of services and I think it's very

important because you will get a lot of applications in from a lot of things that look like they are really off the wall but perhaps they are main stream. Anything from intensive care units being staffed and overseen by specialists located in a different place to remote monitoring that goes not only to the home but to the person on wearable monitors. So there is a large variety of applications, generally of which expand access, reduce costs and improve the quality of care and is taking the healthcare out of the institution. So with that said, traditional healthcare in both the technology opportunities program and the rural utilities program -- the grant program is about 10% to 40% of the grant awards depending upon the year and averaging about 35% to 40% over time. So I suspect you will have a lot of applications in for all of them coming in.

For this program or the two programs that we are talking about here, we would really encourage the goal of the program to be ubiquitous deployment of broadband not just to a particular institution or set of institutions but all over to the person and to the home and to all locations. And it would also be technology neutral, so that we are not talking about wired or wireless, but a broad array. Because one of the things that we see in healthcare is that there is a lot of different types of providers that are coming up using either for-profit or non--profit institutions that are providing healthcare around the world, but also have a lot of

different types of applications. Anything from again, wireless applications to wired applications. There is a large variety of what we are talking about, and I suspect under this program you are going to see applications from an even broader variety than we have ever seen before. So we really think you ought to be taking that kind of a broad view in looking at some of the applications that are going to be here. Health providers we would strongly encourage that when you get an application in for telemedicine they have a strong link in with the health provider. I know that sounds rather funny to say but we have seen a lot of applications for telemedicine under various programs that actually only the healthcare provider is the add-on in the end, so that is really important. In terms of use of the /TPUPDZ, a short-term leasing of equipment and services needs to be an important part what you are talking about. There is a lot of folks who have been under various federal programs using telemedicine that have been locked under contracts either with equipment or with telecommunications providers that have been a problem over time, because we are in such a period of rapidly changing requirements and opportunities, so we would strongly urge that you not require some kind of a long-term contract for avenue this. We have had those problems with other programs. Also allow flexibility in the selection of the telecommunications provider as well as any form of broadband service. I understand there is a push to have a unified definition

of what is a broadband service. But you got to understand, at least in the healthcare field and I suspect in others as well, the definition of broadband and the need is going to vary a lot upon applications. If you are doing vital sign monitoring there may be active video in the home. That's one thing. If you are doing monitoring of intensive care units into a facility, you are talking about a different level of broadband. So you need to be flexible enough to understand that they can shape their application, and what they were going to be spending money on depends upon the need and the appropriateness and the quality that's important.

Coordination is another theme that we would push, and I heard that said by a number of other people here. But we would say when you look at the coordination of your services and the programs and there is certainly a lot of that between NTIA and RUS and I hopefully with FCC, but at least in healthcare with the stimulus package, a couple of other programs one is the national coordinator for health information technology, ONC over at the Department of Health and human service and HRSA, has a lot of money and they will be spending a lot of money on deploying health technology and deployment of health telecommunications, an important player and it's important that we not start duplicating the services, approving /TKPWRAPBTSZ and project that is work against each other. So we have been very strong in hitting the boards saying you need to have a coordinated function so we really think we need

to bring them all together as part of what you are doing.

Encourage integration with normal healthcare delivery and avoid separate grants and programs, that's going to be true with a lot of the applications, you are going to have some of them that are going to be off the wall, not integrated with the healthcare system. If it's going to be affecting healthcare it needs to involve some healthcare providers from the get-go, not as a thing that is going to staff on or somehow be taped on to the end of the application.

A couple of other final thing. You looked at benchmarks in terms of questions about benchmarks, what you should be asserting. Certainly in terms of the services offered, the outcomes and sustainability. It's critical you look at sustainability of this program. In that regard, if there could be coordination also with Medicare in terms of reimbursement for the service delivered, that's true and a couple of other programs in the federal government, so I think it ought to be true for this as well. And finally I know you will be hit up with a lot of applications and a lot of requirements, so we certainly would suggest review teams of some sort and certainly in the world of telemedicine we are used to having review teams that come in and help agencies. I'm sure there will be folks that assist in that. But of course in the end another theme that you have heard throughout today and I would echo as well is that you have similarity in application forms among all the programs as well as

your reporting requirements because some of these programs will be getting money off of multiple federal grants and nothing drives them more crazy than to have different reporting requirements and different dates when you talk about a program that is similar or operates from the same institution.

MODERATOR: Thank you. Our next speaker is Emily Sheketoff from American library association.

MS. SHEKETOFF: Libraries are the premier public commuting centers in nation's communities. 1171 community college libraries nationwide play a vital role for providing resources and opportunities on line. Education, job searching and skills training, government services which are now on available on line, and much more. Nearly 100 percent of public libraries and community college libraries provide public access to the internet at no charge to their patrons. In 73 percent of our communities, they are the only source of no-fee public internet access. In rural America, this is 82 percent. About half of public libraries are located in rural areas. Use of public libraries is heavily increased across the country in these difficult economic times. Currently they are averaging 175 million visits a month. Libraries stimulate broadband demand. Both community college and public libraries are physically located in all of the nation's communities. Rural, urban, suburban, large or small, ethnically diverse or not, reaching out to everyone in the community,

including the young and the old, low-income residents, unemployed and other vulnerable people. Libraries can offer programs on broadband, internet education and training, what can be done with such access, why it is important today and why it will be even more important in the future. Librarians are highly trusted members of the community, using librarians is likely to be very effective. But libraries' connections are too slow. Their connection speeds are often inefficient. Consider the fact that a majority of the nation's libraries have a connection speed of 1.5 Megabits per second or less. At the same time, libraries as multiuser environments serving patrons with many different needs have significantly greater different broadband capacity needs than residences. Not surprisingly research shows that most public libraries do not have sufficient broadband capacity. With almost 60 percent reporting that their broadband connection is often too slow.

More than.

4 out of five public libraries say that patrons often must wait in line for access. This is only a snapshot of our current capacity. This does not reflect the looming broadband crisis as applications become more band width intensive and our citizens' demand higher quality of internet access. We must encourage project that is are strategic and visionary with long-term benefit. Libraries serve as the information hub of their communities. Similarly, they can

serve as anchor tenants as next generation networks are deployed across the country. Service providers should be encouraged to work with libraries. Applications should be streamlined. They should be required in a manner that would allow a regular librarian would -- with no particular grant expertise could apply. We learned a great deal from the E rate applications of the FCC and we know especially if we want to move this program quickly we must make the politics easy for regular Americans to use. At the March 10 public meeting it was mentioned that the two federal agencies are interested in project that is have long-term benefits. The American library association strongly believes that even our smallest public libraries will eventually require band width that likely will only be provided over fiber. Therefore we encourage both the NTIA and RUS to allocate some funding to support a fiber to the library initiative. Finally, improving libraries broad band capabilities involves more than a bigger pipe to library buildings. The technical and physical infrastructure within libraries often needs to be upgraded to accommodate faster internet connections, these improvements include hardware, software and building renovations. Additional expertise may also be needed, such as technical advice, support and capacity for sustainability planning.

MODERATOR: Our next speaker is Jim Hermes of the American association of community colleges.

MR. HERMES: Thanks very much. We are up there. I am

going to follow up in many respects to what Emily has just laid out in terms of public computer centers at libraries and community colleges. Just a couple of initial facts that Emily touched on. There are about 1200 community colleges nationwide and that sort of begins to tell the story the 1200 colleges extend out to 1600 different campuses and then on top of that, there are many other sub campus level service centers administered by community colleges. So certainly we concur that at the outset the NTIA has identified the two crucial institutions on a local basis in terms of expanding public computer center capabilities. Let me just sort of -- and I echo Emily's comments in terms of the various needs that need to be served at these institutions in terms of what they need and what grants should encompass in terms of their expanding their centers or establishing new ones.

Let me jump off from that point as well, and talk a little bit about essentially I realized when I was looking at my points, I pretty much made the same point in three of these areas and I will talk about in general and talk about the specifics real briefly. When looking at this topic in the computer center and on the innovation grants side, the government would do very well to take a very much a value-added approach to wait hopes to accomplish, you know, with this what is essentially seed money in this area. So when I say that, what I'm talking about in terms of the computer centers specifically, when you are locating a center

at a library or community college, you were getting a lot more than you know a local hub for people to just gain access to broadband. You are gaining a local center where people coming will be able to access instruction on how to use computers at a very basic level and then go well beyond that into the community college's case, you know, post secondary education offerings that relate directly to the broadband or use the broadband in some way. And then finally, in terms of locating the centers, there is a lot of evidence to suggest that just getting people on to college campuses and into libraries are going to get them, sort of bring them back into the educational fold, and as you well know, we are into -- we are in an economy now that increasingly requires post secondary education for every worker. So anything that these grants can do to sort of drive, getting people actual back into or into post-secondary education for the first time has a value-added on top of the core mission of expanding broadband access. I think that should be a real factor to consider when you are talking about these grants.

The second point that I made up here is one we hear from our colleges a lot and quite frankly I don't know where it fits exactly in terms of the moneys that are going to be put forth in the broadband area, but I will make it. Community colleges have repeatedly expressed to us their desire to be more linked in if they were not already to high speed interstate networks or things like internet-2 and so forth, and more commonly associated with

larger research institutions. Community colleges do offer many cutting edge occupational programs, for instance, and programs in the -- you know, the first two years of research-based science degrees where they can greatly benefit through great /EUR connectivity to these networks and obviously this benefit will extend not only to community college students but the communities they serve as well. The third point I mention specifically and this goes back to the value-added approach that I urge be taken in terms of encouraging sustainable use of broadband, obviously one of the areas that are going to be looking closely at is how is broadband access going to spur the growth of businesses in the local areas which in turn will create that sustainable demand for broadband and use of the broadband services. So I encourage you in particular to look at entrepreneurship and which of course is very important in the rural areas, community colleges, 800 of the 1200 community colleges do serve rural areas and this is an important area that they have been offering in terms /SER /TEUF cats and degrees. So I encourage support for the innovation grants for those sorts of programs. And finally I will just mention, of course, the obvious importance, the increased broadband access in the home to community colleges and their students for the purposes of distance education. I don't want to belabor that point, it's one that has been very well spelled out, but here again, have you a situation where it has a multi-/PHRAOEURP effect. You increase the

broadband access, more people are able to take part in distance education and get the skills they need for the 21st century economy, and turn around and start new businesses again, or belabor pool for the kinds of businesses that are going to maintain that need for the broadband services in the community. Thanks very much.

MODERATOR: Our next speaker is Ann /KEPBLGTSZDZ -- wait a minute I apologize. Erin Duncan from the national education association. Getting ahead of myself.

MS. DUNCAN: The national education association, NEA is committed to advancing the cause of public education, and it's 3.2 million members work at every level of education from preschool to university graduate programs. On behalf of our president, Dennis van Roekle, and our leaders and members, thank you for allowing me to present the NEA's perspective. Added infrastructure and enhanced high speed internet is necessary for technologies that support student achievement. Including to the E rate program 98% of all schools are connected, but connected means many things in education, it could mean high speed wireless internet access throughout a building. Connected could also mean one computer in the office which collects absenteeism data for the central office. But schools must have enough band width so students can have access to on line materials that support a 21st century education. According to America's digital schools, 67 percent of school

districts prohibit teachers from using tools such as streaming video to conserve band width. The \$7.2 billion from the ARRA can best be used by devising a plan that connects as many communities and schools as possible. The plan should focus on connecting schools and communities that are in under-served areas. We support the state educational technology Director association's recommendations of external internet connection to the internet service provider of at least 10 Megabits per second per 1000 students and staff. Internal wide area network connections to the district in each school and between schools of 100 megabits per second per 1000 students and staff. The goal should be to provide as many schools and communities as possible access to high speed internet before increasing the speed and communities that already have high speed internet access. Thank you for the NEA to participate in this important part of the process to implement the ARRA.

MODERATOR: And now Hank Kenchington from the Department of Energy.

Mr. Kenchington: Thank you for having me today. My talk is a little different. I am talking about another as the Department of Energy we have \$4.5 billion to invest in what we call smart grid technologies, so what is smart grid? Smart grid uses information, communications technologies to improve the viability and availability and efficiency of electricity systems as well as

developing new products and markets and services. These devices will be applied all the way from generation at your power plant through the transmission distribution all the way to the end user. It's the information communications network that distinguishes the smart grid technologies as opposed to what we have today, which is more of a passive network.

If we look at the grid today, how it works you have a generation plant on one end, a steady state but a coal plant or nuclear plant that supplies power over fixed power lines to the homeowner or residents and that power has to be balanced constantly between the amount of generation and the amount of load. So in the morning or even in the early morning when there is not much load, there are people demanding power, the power plant is just kind of sitting there maybe running in the Washington area, 20,000 megawatts. In the morning when everybody gets up, you turn on washers and hair dryers, now the power plant has to [PRAFRP](#) up and match that generation need. Now we are up to 30, 000 megawatts and then it goes back down and in the evening we all come home, turn on the stove, cook our dinner and turn on plasma TVs to watch the football game. To meet this varying demand the power system is met to meet that maximum peak. Usually about a 20% margin above that peak, and it's kind of an inefficient use of assets. Let me give you an example of smart grid applications. The thinking here is if we are going to change and reduce our greenhouse gas emissions and

reduce our dependence on foreign oil, how do we do that? One example is through net zero homes. If you have solar panels in your house during the day when the solar panels generate energy, what happens to the energy because you don't need it we want a way to store it locally so when you come home you can tap into the local storage and bring it back and use that energy versus using the energy from the power plant. To do that you need two-way communications. Those two-way communications is where the broadband services come in. So this is enabled an area where we can leverage these two opportunities, bring them together and provide services for the homeowners, the utilities and the nation. Another example is the time when you use smart appliances where you get price signals during the day, in five minute increments, as the price goes up in the morning you want to reduce your demand and give the incentive to the homeowner to reduce his electricity bill. And the third example is to plug-in hybrid vehicles. As we see plug-in hybrid vehicles becoming more and more widespread across the country what could happen is everyone comes home with these plug-in hybrid vehicles is you all plug in at the same time. And what that would do is all these /HRAO*EUPBS would grind and come to a halt so. We need two-way communications, broadband services, where we can time that with charging smart intelligence into the plug-in hybrid vehicle so it only charges during the evening when the price is low, and the demand is low. So I think through these

two opportunities we have the opportunity to provide better services to consumers, to allow them to lower their electric bill, for utilities to increase their asset utilization. And to plan it by reducing greenhouse gas emissions. Thank you.

MODERATOR: Our next speaker is Jason Goldman from the U.S. Chamber of Commerce.

#01: For years the chamber has been talking about broadband in terms of jobs and economic development. Today is not going to be any different. Broadband have the power to transform every sector of the U.S. economy, whether it be healthcare, education, E government, E-Commerce, agriculture, you name it, broadband is essential and can transform it. For example, a broadband connection allows a business regardless of its size or location to sell to customers across the country and around the world. The chamber strongly supported the broadband stimulus bill and the broadband stimulus provisions in it. And we will be very active to ensure that it only takes one bill and it is done correctly and the bill money is used as wisely as possible. We are very focused on the importance of broadband adoption. This is why the chamber has part nerd with connect a nation and has co-hosted regional dialogues on the importance of broadband across the country. The stimulus allocates over \$800 million across three different grant programs in part to encourage broadband adoption. The statute funds the public computing program with at least

\$200 million, and at least is the key condition. The chamber strongly supports this program and urges NTIA to consider the \$200 million as a floor. Community colleges, libraries and other public computing centers serve a vital role especially those who cannot afford computers or broadband access, because jobs, education, and information and the 21st century are all tied to assets. According to the bill and Linda gates foundation, more than 70 percent of those who use library connections and library computers as their primary source for connecting the internet, the stimulus bill provides again at least \$250 million for broadband adoption and at least again is the key. The chamber strongly supports this program and urges NTIA to consider the \$250 million as the floor for this program. Both of these pots of money are relatively small, therefore NTIA will be faced with the challenge of ensuring the money goes to projects that bring about the greatest economic impact. Fortunately the broadband improvement act of 2008 was funded with \$350 million in the stimulus bill. And as a result states now have a clear vehicle for use for developing state-wide public private partnerships that leverages resources within and across every community for effective technology expansion. While this \$350 million of federal funds is often referred to as \$350 million for mapping, it's important to remember that this \$350 million is not just for mapping. These funds are for statewide programs designed to stimulate sustainable broadband

adoption at the county and local level. The U.S. chamber urges policymakers to recognize the importance of adoption and the public computing centers because of accelerating broadband use and adoption, the United States will bowls /STERP its economic competitive -- bowls /STERP its economic competitiveness and improve the quality of life with all Americans with greater choice of goods and services. Thank you.

MODERATOR: Our last speaker is Rey Ramsay.

MR. RAMSAY: Good afternoon. Well, I'm last, so hopefully that's a good thing for you. We are very pleased to be here from one economy and we have this opportunity to address staff and other interested individuals. You know, as I was listening to the remarks what sticks in my mind is the term that was often used that some people still use which is the digital divide. And when we started one economy nine years ago I said we have something else that we want to talk about and I called it the digital opportunity. And I think we've got to just focus on what opportunity we have in front of us. And the way I view this opportunity and the most important advice that I would give to those administering agencies, is to have intentionality. Whatever it is we are going to do, let's be very intentional about what we are trying to achieve, because otherwise there will be so many thing that could fit under the rubric of sort of using technology. Every part of our life is impacted by technology. The intentionality that is most important

to me from my perspective is what we are going to do to assist the poor, and those who have been left out. We haven't heard that yet in a very explicit way but I think we need to be very intentional about how we are going to help the poor, because there are a lot of other folks who are adopting to technology and use it in different parts of their lives, whether at work or other means, and I believe that these funds give us an opportunity to create a culture of use, where people will use technology to improve their lives, their social, economic and health sides of their life, and if we focus on what I call the three A's, making sure that it is available, making sure that it's affordable -- and making sure that it's adopted. And then to add some more depth to that, I think the other thing that we haven't said, when you look at the studies about the adoption of technology and why people don't adopt. You look at the latest Pew study. It's not only the issue of portability, it's the issue of relevant content and do people look at the internet as being relevant. If you look at studies that Pew and others have done, the most important venue for the use of technology in terms of moving the meter is the home. So if you look at the resources to date that have gone into assisting people, whether we call it the digital divide or the digital opportunity, the least amount has gone into the home, yet we know by every study that's where it has made the greatest difference. I believe we have an opportunity if we look at housing policy in this country, we should never build

affordable housing without it being networked. We have an opportunity to make sure in public housing authorities of which there are thousands in every community, some have centers, some don't, that we should make sure that the connectivity gets to the people who need it most, which is in affordable housing. We have thousands of affordable housing developers across this country. It's a large industry. We can marry this and create a real opportunity to reach people where they are. There is no place like home in terms of making those connections. And so I would urge that we make sure that we have the intentionality along with the other issues that are on the slide that I presented, making sure that we are clear about the uses and that they drive toward intentionality and some of the key principles that we actually do focus on making sure it's sustainable programs, not just run-offs that we do leverage resources because that is supporting capacity and we achieve some of these outcomes, we maximize the impact and again, we demonstrate the intentionality. On behalf of one economy and the many communities we work with, we appreciate this opportunity.

MODERATOR: Thank you very much, everyone on the panel. Some very interesting comments for sure. I was a little perplexed when I read the bill and saw that the adoption program has some words like "innovative" and "sustainable." How should NTIA determine that a proposed broadband adoption program is innovative?

What do you think they are getting at in terms of what's innovative? Just something new? Ray?

MR. RAMSAY: Can you hear me? Okay. Great. You led with the toughest question and I think it's a good question. I think innovation doesn't have to just be new, I think under the rubric from my perspective, innovation means that we really are thinking in an intentional way about creating a sustainable effort to do something that's important. I think technology, the whole opportunity around technology and around the digital age is that we can transcend some of the barriers of the 20th century. If you say to yourself, how do we reverse some of the problems and barriers around the 20th century, and I view it from the standpoint of poverty and those who haven't really been able to participate in the economy, I look at it and say there are issues around space, because very often you will have services in one part of town, people living in another part of town, can you transcend that? You are going to try to come up with innovation. You look at issues with time. Places close, but people have work, and if they are working their jobs may not let them out of work when some of these community facilities are open. So can we use technology to transcend some of the issues and barriers and just in fact to make sure some of the sectors are working together, so it's not just a private sector issue or an NGO-driven thing it's about cutting across. If you combine all that, I think it's kind of the class of

if you know it, when you see it, but I think that's some of the things.

MS. SHEKETOFF: Technology has allowed us to be innovative. It has allowed to us have distance education, has allowed people to be in one place and view what's going on some place else, study what's going on some place else. Access information from other places. But that's where we have seen that applications are tremendous band width suffers up, and we need expanded broad band and especially in schools and libraries we find that as applications become more productive and creative they require wider band width and so we are going to require more and more broadband. And that's why it's so important for schools and libraries to get access to this broadband because even libraries that now are able to give people the resources that they need, the applications are becoming much more complicated, and are going to require more band width, screening, video, distance education, these are all going to demand more, and it's great if you can get it at home, but more and more people are demanding it -- in public institutions.

MODERATOR: Do you see what you are speaking of as more part of the expansion of the computer -- public computer centers or an innovative program for sustainable broadband adoption? How do you even -- can you distinguish to --

MS. SHEKETOFF: Certainly I think the applications are

where the innovation is. As a society we need to make these resources available to everyone. Not everyone is going to be able to afford these resources at home. So we need to make sure that there are places where everyone gets access. We need to make sure that it doesn't matter where you live or how wealthy you are that you can access the same rich information that is available on line, the same applications that are available whether they are government services, or distance education or your own education. You need to be able to know that you are, no matter when you want it and no matter where you want it, you are going to be able to access it. And that's where the innovation comes in.

MODERATOR: Rey has suggested that you would know it when you see it as to whether it's innovative or not.

MR. RAMSAY: I want to add one thing before turning it over, again back as a response to the centers and libraries, and I don't want to come across as against those places but the terms of moving the meter is in the home and every study shows that. If we are going to have sustainable adoption toward this it is irrefutable that that's a goal that we should be striving for. It doesn't mean it's to the mutual exclusion of public places but we need to have as a national public policy that we are striving to do it inside the home and you can do disease management and other sorts of issues that can be done from the home and we don't want to create second tier citizens and that's why I was talking about the

issue of poverty. This population lags behind and part of that is because their jobs or lack of a job or their inability to physically get to different locations, so it's not a mutually exclusive but it's a very important issue and we have an opportunity to make sure everybody has the opportunity to -- probably every one of us has which is to have it in the home.

MODERATOR: So in some respects, you are saying a little bit -- it's not mutually exclusive, some tension between community and public computerizing versus --

MR. RAMSAY: I don't know if tension is the right word but I started to do this work because I saw where that most of the foundation money that was going into this space and governmental money, it wasn't going into the home, but that's where we know, if you look at a child in the school, they need it in the classroom but they also need it at home. And there are too many kids disadvantaged by not having that. What will be our intentionalities where do we set goals to make sure as a national standard. I think it's very, very important. We have a connected learning environment, it includes the school, community, and the home. Our communities -- it includes our medical facilities and clinics, all those sorts of things are part of a digital ecosystem and we have to think that way and not just in separate boxes, I think the issue for adoption is what's going to be best for the person. We need to invest in places but ultimately this is about investing in people.

MODERATOR: Jim, you are obviously from the community college perspective.

HERMES: Well I'm sitting between both of them so I agree both. Ideally both of those things are extremely important, having the public center for access and in the home, and community colleges, like I said, do both things, they service those centers but in terms of our distance education offerings, we need our students to have access to that broadband at home.

MODERATOR: That is a home adoption position.

MR. HERMES: I will say in terms of getting back to the original question, in terms of in know separation, from my perspective what I was trying to get at in the power slides and comments is obviously expanding access in and of itself is going to be an incredibly important thing to do, centers and homes, but I think innovation could also come in terms of what are some of the wrap around services and applications that people propose to do to serve people in their own communities. How can they demonstrate what the real need is there and how are they going to tailor both the expanded broadband access to do those kinds of things. That's why I brought up entrepreneurial programs as an important /TPHAOD for people in the broadband communities that they don't have and a way they could be using it to move economic growth forward once they could get it. So I think if you are talking about innovative focus one could be to have an incubator center where they support

needs and services and one role of a center like that would be to provide broadband access where they would not otherwise be able to get that. And it would go beyond that to include instruction and how to use those services for that particular purpose. But it could be a different thing from community to community, like what are they going to do with this service once they get it.

MODERATOR: We heard about the public computer centers there needs to be more band width and more computers. Is there an economy of scale to a public computer center? So that, do you build up existing centers and put more capacity and more band width and more computers into an existing center or do you meet the same demand by putting it -- by establishing more centers, but somewhat fewer computers, less band width at all of the total number of centers. How is the best way to fix -- address the problem of band width and numbers of computers, distributed or centralized?

MS. SHEKETOFF: We believe that you are better off pressing it, especially in places where there is something more than just a computer center, like in a community college or public libraries because you have the materials there.

MODERATOR: When you say compressing, you mean putting more into the site.

MS. SHEKETOFF: Putting more into the locations we have rather than new locations.

MODERATOR: So you look at expanding existing sites.

MS. SHEKETOFF: Expanding existing sites because we feel it's not just a room with machinery. We have information literacy experts in there, we have the materials in there, and you have got the public space. So it really meets a great number of community needs and as far as children goes, let's not forget the homework help we give after school so when school lets out we hope that children are coming to the community library or college library so they can work on their homework if they don't have a computer at home. And even if they have their computer at home they have all receipt sources and information technology and a librarian to help them.

MODERATOR: What about rural areas where the distance of going to a public computer center might be prohibitive. Would you spread them out more?

MS. SHEKETOFF: Libraries are in all rural communities. We are located all over this country, so that rather than building new centers, we already have the library there, let's give them the resources that they need.

MR. LINKOUS: If I can add a comment on that as well. I think you would be making terrible mistake if you did not look for applications of distributed intelligence that we now have available through computing systems and we can marry with a broadband system so we can take the computing power, the software available that is in the computing center and move it out into the communities and

homes. I very much agree with what ray was saying, I very much sport the computer centers that are there but we need to take that base and move it out to where the people are. Even using mobile technology where people can get access to healthcare information, to intelligence in terms of distance learning, a lot of applications that you can move out beyond the institution to where the people are in their own communities and workplaces, in their homes no matter where the kids are playing, wherever it happens to be we need to take advantage of that.

MODERATOR: From a telemedicine point of view you are suggesting it's better to have telemedicine resources at home rather than a clinic?

MR. LINKOUS: Telemedicine needs to be wherever people are, in the clinic, at home, in the schools, wherever it happens to be. You shouldn't limit it to one place.

MODERATOR: Jason?

Mr. Goldman: In terms of innovation, we have seen so many programs, one economy, the public private partnerships that leverage all the resources of if in a community, public colleges, E community groups, private sector, foundations, non-professor if fits, that's innovative. Any place you can get economy of scale by consolidating and using the different resources in the community that's what RUS and NTIA should start. I don't know if anybody saw a "Washington Post" article a few weeks ago about the mother who

lost her job, so she took her kid to the library and the kid was doing research and she was looking for jobs on line but she was kicked off after a half an hour because of lack of computers in the library. And that's something that, I would make in my association, adding more computers in the library with mentors and educators right there, it's important.

MODERATOR: To go to one of the key words in the statute, sustainable. Talking about broadband adoption programs. I heard from Hank about the electricity power grid tie-in, and perhaps some telemedicine applications. Is it reasonable to think that this -- and I have been thing of sustainability as economically sustainable. That broadband and new broadband to the home could actually be paid for by savings -- individual savings on medical costs on electricity costs and other things. Would those kind of things make broadband more -- clearly more sustainable?

MR. LINKOUS: There is no issue about it. Many studies have been showing, we just completed the, 2000 study, keeping people out of emergency rooms, out of hospitals, there is tremendous savings. The problem with government is you have got to take a broader view of it. There is a silo approach that if it costs my program more money I don't care if it saves Medicare, but if you look at it broadly there is huge and tremendous savings. And the other point you are touching about when you go back to innovation and how do you judge innovation, one of the ways you

judge it is there is a number of goals that president Obama has put into place one is the stimulus plan going and one is to extend broadband and one is healthcare reform. You look at healthcare programs and there is other ins libraries as well, if you get them to meet a number of different types of national priorities, that's really where you have innovation and where you have cost savings and sustainability is another one that is part of it that you can marry it with programs like Medicare reimbursement where you have an ongoing sustainable model that will improve healthcare and medicine that will reduce costs.

MR. RAMSAY: I want to second Jonathan on that. We are not going to be able to achieve the goal of savings because we can't get everybody in nursing homes many will have to age in place, technology will be one of those things that will help us save money. Have you companies like Intel and Cisco and other that are working about device, we have to get smart about how we put it in the home and the last thing about sustainability is there are proven models in terms of how can we weave in how do we finance affordable housing, for example, so we have taken the tax credit program and have shown that you can invent this by networking the buildings, dropping costs and making it ubiquitous to the family who moves into the home. There are smart things that we can do innovatively and then you get the take rate, because this is about adoption, getting people to adopt to the culture of using

technology so they will make it their own. We missed an opportunity in this country about how we used television. It could be an instrument for education and learning and it has never achieved that goal and my opinion is that we didn't have the intentionality to make sure that it did. It's not a question of running lines and bringing fiber it's a matter of what intentionalities we are going to have. We have proven technologies and proved in the ways of the workforce we need to apply it in an innovative way.

MODERATOR: Telemedicine, telework, telemart grids, better learning, you think we could get broadband for everyone? We will have questions from the audience so if you can line up with microphones, then we will switch over to the q and a's in a second. First of all before we do that, did anybody hear something from a fellow panelist that they really disagree with or really agree with and would just like to comment on each other's comments and proposals?

MR. KENCHINGTON: It's not a disagreement it's an overwhelming agreement with the whole telemedicine concept, bringing aging in place concept. I think I feel strongly that's where we need to go as a society, as we see these changes. As far as innovation, I think innovation is doing things differently and bringing value at the same time. If you bring the value, it will be sustainable. And you see it through smart grid applications,

Google has developed an application for your cell phone where you control your energy at home from your cell phone. So you see new businesses being created with entrepreneurial people.

MODERATOR: Let's go to questions. I have a couple from the web. Let's start with microphone number one. Identify yourself and indicate if you are asking a question or making a comment. If you are asking a question, to whom is it directed?

#01: My name is Gerald, and I am president for a not for profit organization called the Quilt. The Quilt has **partnered** with another organization called state nets and today we represent 30 of our country's regional and advanced networks which are critical middle mile of the national research and education networks connected thousands of research, education and public service institutions to other anchor tenants within our communities, states and nation. State and regional research and education networks provided an advanced networking services to urban and rural community institutions that otherwise would not have these services these networks enable anchor institutions to join together within their communities and geographic areas to cost effectively use our networks for essential research and education purposes that require high broadband speeds. My comments today echo some of which were echoed by the panelists. For the down payment of deployment of a **/TPHAURBGS** the NTIA should give priority waiting to multipurpose **/-P** requests that deliver advanced network

services and best service the public interest. That will reach the anchor institutions of our states, their communities such as universities, colleges, schools, medical centers and libraries. These advanced networking services should foster /KHRABGSZ among researchers, educators, doctors and students, all who play vital roles in wide broadband adoption. The scope of the proposal should include plans to deploy advanced network services that require specific end point equipment for applications such as telepresence and telehealth. On the topic for funding for computer center capacity we recommend NTIA give priority requests to those with corresponding and viable funding directed to the broadband infrastructure that must connect these computer centers to other anyone corp. Community institutions. Thank you.

MODERATOR: I should have interrupted but I forgot to warn everyone that there is a minute, and I will -- part of my job is to be rude and interrupt. I didn't do that, so I didn't interrupt, but I will in the future. Up at the top. Microphone number 2.

#01: My name is Louisa Hamden. Our proposition is the cheapest and fastest and best option is mobile broadband. And we also want everybody who is willing to approach NTIA and RUS for grants to come to us and blog and talk about the concerted efforts to achieve this. We have members that can provide location services weather alerts bundled with mobile broadband. These are

the options that we believe rural areas need. People die if you are in isolated areas. They don't know whether the weather will change or not. We have had Boy Scouts dying not long ago because they were hit by lightning. They did not know the weather conditions were going to change that quickly. I believe \$7.2 billion in the stimulus package we've let's offer the best technology we've. As a member we provided these options to the China and provided it to the defense department here in Alaska. It works and can deploy in as little as five days and no need to wire copper or any kind of difficulty that the wire adoptions offer. I think mobile is the option to go, and --

MODERATOR: I will have to interrupt just to keep everything on track. Thank you very much. Top of the micro-number 3.

#01: I am Harry Rush with the Appalachian regional commission. In regards to telemedicine one of the things that the Appalachian regional commission has watched over the past 30 years is hospitals, nursing homes, extended care facilities closing. They are in many instances the number one or number 2 employer in the county. Where we have funded telemedicine programs, we have been able to sustain hospitals, create job opportunities for new physicians to move into the area. We have also done programs that have done continuing educational opportunities to sustain the medical corps within the Appalachian region through distance

learning programs and through the facilitated types of access that are through the libraries. These are all innovative programs that have been extremely successful in keeping the Appalachian communities vibrant places for economic development, job sustainment, and the creation of jobs. So any projects that come into either one of these agencies that are dealing with these innovative type of activities a critical thing that supports economic development in Appalachia and in rural America everywhere. Thank you.

MODERATOR: Thank you. Microphone number 4.

#01: Hi, my name is Andrew Feinberg, I am with broadband census news. I have two questions one is from the woman from ALA. It's how is it that you keep bringing up distance learning and rich video streaming video applications as so important to libraries as an access point when libraries are often some of the most restrictive places where people can use the internet? There is the woman that got kicked off after using it too long searching for a job. Also sites are often blocked, filtered despite ALA's objections and the next thing is, what's the problem with people using it in their homes? They have to go home after the library closes, they can't sleep there.

MS. SHEKETOFF: Well, many libraries don't have the resources they would like, and don't have access to broad band and therefore they don't have another work stations and that's why they

have to have a limited amount of time. Some have 30 minutes, 45 minutes, one hour, and that's just a function of not having enough money and not having enough resources and not having access to the band width that they need. As far as filtering or censorship, libraries have fought very hard against the government requirements on filtering, but the Supreme Court has ruled that any adult can go to a librarian and have that filter turned off, but libraries like every place else do not promote access to things that are illegal and child pornography is illegal, so you will not find access to child pornography in the library.

#01: Excuse me, that wasn't the question I asked.

#01: You asked me about access to information that was filtered and I am saying that libraries that do filtering --

#01: Schools and libraries are not places where people have access to all of the applications that you can get on the internet today. And I don't mean illegal content, I mean web 2.0 sites. U tube is filtered at many schools which are calling for more funding to band width to schools.

MS. SHEKETOFF: I will let the NEA comment about schools. I am just commenting about the library, and I am telling you that if you are an adult, you can ask the librarian to dismantle the filter and he or she will do that, but the law requires us to have -- we accept federal /TPUPBGD, the law requires us to filter.

MODERATOR: Okay. I want to stay on the topic of innovative programs and expanding computer centers. And in that regard, I do have an interesting question from Jeff Tamiatti of eclipse.net medical lake, Washington, but it's not a medical question. It's for Hank, and it says in regards to the \$4.5 billion allotted to your department for smart grid technology does this open up an additional source of broadband service companies to apply for in addition to the NTIA and RUS funds and you may not be able to address this one, and if so, is it possible to apply for all three at the same time?

MR. KENCHINGTON: There are requirements, I should say the RFP's are not completely done but there will be requirements to report on any other interactions with other government funding or applications, or any individual applications, so that being said there are opportunities to use, both sources of funding.

MODERATOR: We had an earlier panel on coordination with RUS and NTIA, are you suggesting there needs to be a link to coordination with the Department of Energy?

MR. KENCHINGTON: Yes.

MODERATOR: We will take one more here from the -- in the auditorium, and then I will have a question from the web?

#01: My name is Angela Flynn and I am with the wireless affiliation network. I have a quick comment and then a question. When I think of sustainability, the biggest issue of the day is

lowering CO2 levels. According to the council CO2 emissions from the industry exceeds that of the entire aviation industry. Fiber operatorics use ten times more data and is clearly more efficient it is our best effort to lower CO2 emissions. I am electro sensitive. I became sensitive to RF radiation in an exposure that was below the federal regulations on RF exposure and have joined the ranks of people who are RF sensitive. The following agencies have issued warnings for RF exposure to children, the European environmental agency, the French parliament, the U.K. Department of Education, the Australian medical association, the Belgium ministry of climate and energy and the Toronto department of public health. The bioinitiative report which was published in 2007 recommends exposure standards that are 1000 lower than our standards. I would like to know why this isn't on the agenda in general and for children in particular? Thank you.

MODERATOR: Does anybody have an ability to answer that question? I don't know that that's something that the expertise of this panel can address. However, on the healthcare side, I do have two questions or related questions from the web. One is from healthWyoming.gov, James bush, and the other is from Christopher Sullivan, Ph.D., the Florida center for health information and policy analysis. Wyoming has enough country that is not classified enough as rural but specified as frontier. Is there that is not financially feasible to lay infrastructure in these areas where

telehealth is indispensable and can you expand on our current FCC grant and the other question is should the NTIA RUS broadband program be integrated with the FCC healthcare rural pilot projects or will these new projects be separate and do you have any views on that?

MR. LINKOUS: I will answer yes to both. There is differences in the definition of rural, there is a lot of difference ins a lot of federal programs on the definition of rural. Rural utility service, NTIA does not have the same definition, doesn't have that much of a barrier in terms of urban and rural but folks in Frontier areas, I would certainly point that out in the application as one more way of taking a look at the applications. So for the people in the far Frontier areas of the country, particularly out west or in Alaska or somewhere, there is probably additional costs on a per person basis for connection and certainly that should be taken into consideration.

MODERATOR: And that might follow under the heading of unserved.

MR. KENCHINGTON: No doubt about it. And very clearly we feel the FCC pilot program, one of the problems is some areas that are not covered in terms of funding, for example, administrative costs and some of the other medical costs associated with it. This is a tremendous opportunity to have the federal government have the agencies actually work together and cover costs and programs so you

build on one another and make something successful. Very strongly in terms of coordination with the FCC program.

MODERATOR: Jonathan, in your /PRARBGs, you mentioned organizations that I never heard of ONC and some others, how many -- just off the top of your head, how many agencies in government are involved in telemedicine projects that should coordinate with you?

MR. KENCHINGTON: There is 15 or 20 federal programs that are somehow funding directly or in/TKEURL. The Veterans Administration has millions of dollars a day directly funded into person's homes providing healthcare service, the national coordinator in department of homeland services has received \$2 billion in stimulus money to provide remote technology including healthcare. We need to move forward in providing coordination we can be helpful in terms of who these folks are.

MODERATOR: Do you think NTIA and RUS are going to need a coordination officers. A lot of people to work with to get more bang for the buck.

MODERATOR: Number 4?

#01: Hello, my name is Robert Finch. I am with surpass. My question is really an education question, so I suppose for Mr. Hermes or Ms. Duncan. I have had the pleasure of sitting on the board and working with educators who were granted FCC licenses years ago to provide educational television. It's been a

success and now in terms of inknow separation those licenses have been converted over to provide broadband wireless. So one of the educational leaders -- one of the leader ins education some of the leaders have been out of Catholic television, /KAPBLG parochial schools would they be eligible to looking at programs that would provide education for kids from the K through 12 level.

MODERATOR: I would change the will to should. None of these questions could answer will, but should. So "should."

MR. HERMES: I do recall over the past few years recall the work they have done through that. As a K-12 area as far as how schools introduce that spectrum. In terms of our general stance is, and I don't know what is totally applicable here but when talking about limited public resources, you generally, we generally support focusing those resources on public and nonprofit and private institutions which I guess those schools would fall under, which is a long way of saying, I don't have a strong opinion on that.

MODERATOR: Erin, do you have one?

MS. DUNCAN: Putting on my hat, I'd can say we work a lot under the group, so there is a precedent for that. And of course, NEA supports public schools.

MR. HERMES: I will add in terms of the value of some of those institutions. We have been talking a lot about rural today, which is certainly an important element of this but of course one

of the other elements is, of course, the lack of access especially in the home in many of our urban areas and I think that those institutions had a very good impact in a lot of those areas as well.

MODERATOR: And microphone number 1?

#01: Rico single-to-deputy chief information officer for New York state. Just a comment. We believe that laying a high speed infrastructure alone doesn't accomplish the needs of the bill or the state in that demand stimulation and digital literacy programs also goes as a key component to a comprehensive strategy on broadband, therefore we would recommend that the NTIA would give consideration if not priority to those projects being submitted that also seek to accomplish some goals around demand stimulation, literacy, accessibility either through public computing centers or education centers and libraries. And we also encourage that consideration be given for innovative applications of both fixed as well as mobile operations but most especially in the public safety spectrum. Thanks.

MODERATOR: Thank you. And microphone number 4?

#01: Yes, my name is Brent Wilkes I am from the league of Latin American citizens, we are the largest and oldest Hispanic organization in the country and we operate the large evidence network of technology centers throughout the United States. We had quite a few technology centers to have conversations about Latino

families adopting broadband centers at the home. Certainly cost is a barrier but also lack of awareness about the opportunity that broadband provides and how they have been using it. I would like to hear from the panel a bit about what they think we would be able to do to help encourage these families to adopt broadband but also secondly with the new fund /-LG initiative coming through we talked with the centers and not one of the 57 locations was aware of the new opportunities that was available in the stimulus bill and we are wondering if you could comment a bit about how we can work to make sure that the Latino and African American community based organizations are aware of these funding opportunities particularly with the broadband adoption moneys if there is a possibility of increasing the floor of \$250 million or if that is a hard number there.

MODERATOR: I think the basic question, Rey, you can take a crack at that question. If you can get the mic over to Rey. In the funding, the law literally said "at least. " So it's at least 250 million. That's what I concluded. In terms of outreach, I am glad you are here today, I presume you will be reaching out to your members and that's one of the reasons that these programs are being webcast and to the extent that anyone here or on the web on teleconference is aware of organizations or individuals that might have an interest in these kinds of programs, please tune in. I know NTIA and RUS are trying to work as best they can to make as many

people aware of the possibilities as possible. That's all I can say from my own observation. Rey?

MR. RAMSAY: I would say there are a number of adoption demand side strategies. One of the things that has worked that we have been able to do in different communities, particularly communities of color, Latino communities is really getting the young people involved because they are the first movers in technology and they will be able to bring that home. So we have a program called digital connectors and we hire young kids between 14 and 21 and they are good given a stipend and they are provided a laptop so they bring it home and provide a community service at the same time. We have /P hundred of those young people doing it. We do it in San Jose and Miami, and I would be happy to share with you information about that. If you look at the Pew analysis about wide particularly communities of color do not go on line, it gives you a great blue print that if you do the flip side of what you are saying is the problem we need to have the intentionality to solve it, awareness of technology is one of them. We need to focus on that.

MS. DUNCAN: The partnership for 21st century skills focuses on creating a higher level of skills in the schools for technology integration and other activities that reality help our students prepare for the jobs in the future and just back to what earlier Rey was talking about students are like sieves. If they

were doing something cool at school and have the ability for the school to fully use broadband technology to allow teachers to be creative and innovative to use the tools available to them. They will go home and tell their parents and hopefully go to their libraries and bring their parents to the library and show them the cool stuff on the internet and then there is economic issues of course bringing into the home. My parents just got high speed last year, they are from a very rural Nebraska, it wasn't available to them. But I want to point out that schools are really key.

Mr. Goldman: And we can't forget about our seniors and having grandchildren teach their grandparents how to use the internet. It is a great tool to help keep the grandparents young and active so, I would add that to the list.

MODERATOR: And grandparents need help from their teenagers. I will keep to my own rules. I will ask the time keeper to keep me. I have a question from Wyoming. This relates to grants for expanding public computer center capacity. What selection criteria should be applied to ensure the success of this aspect of the program? As the only institution of higher learning within a 30-mile radius we offer public use computers at two campus locations. The limitation of service is not the availability of computers but the limited capacity and high cost of band width to the internet. Applications to link campuses that serve the community to advocate their computer needs and provide for band

width at lower cost should be a pre-/ROG give. That's item 1. Item 2, applicants should also describe how they would integrate their project with other regional projects to expand public computer center capacity. Community centers in particular are you will K through 12 school districts and nonprofit. Selection criteria should look beyond the immediate project and include the broader impact with other institutions and initiatives that would expand to public computer capacity. I went over time. Are there comments on the two issues, the capacity is the problem, not the number of computers and the idea of using the community college as an aggregator for demand from a number of institutions.

MR. HERMES: I don't have anything to add to that, but coming from one of my members, I will say I appreciate that comment.

MR. KENCHINGTON: The only.

MR. LINKOUS: The only thing I would add to that is it's not specifically related to community colleges but we talked about the need for coordination on the federal level. But we have seen this in other grants that have been approved way too often, it's a sole source grant that goes in our case a healthcare application that may have nothing to do with the fact that there are four or five healthcare applications being funded for healthcare in our case in the same community so it's important for applicants to talk about and reviewers within the departments look at how what they

are doing their integrates or relate to other programs that are already happening in the community.

MODERATOR: And telemedicine technology or band width also be used for libraries and for education?

MR. LINKOUS: Once you get out in the community you focus on the individual and the individual's need their needs are education, research, and health information and health treatment.

MODERATOR: If we talk about sustainability, healthcare and telework and other politics smart group could in a sense pay for broad band in a home if some of these things could get together, the cost of the band width shared would be -- might and substantially less than individual uses.

MR. LINKOUS: Hopefully we are not talking about multiple networks although there is competing networks but in terms of applications in the home we are talking about getting broadband to where people are. I said early on and I strongly believe the goal of this program should be ubiquitous broadband connectivity and we work on application that is work on that back bone or multiple back bones could be wired or wireless but that's where the emphasis should be as well.

MODERATOR: Who would like a last word if anyone.

MS. SHEKETOFF: I am never shy. I agree with much of what my colleagues have said and I think that especially when you are talking about rural America, bringing broadband into a focus

like schools and libraries and from there making it available to individual residents and telemedicine clinics, other things, that seems to be the way to go. It answers all the questions, going into the library is a guaranteed market, we can sustain it, we can have access to the whole community and in serving the community the broadband could go out from the library to local government, individual homes and to other areas that need it.

MODERATOR: That I think was a good place to end this panel. I would remind people on the web and on the teleconference, I think we covered most of the things that came in, all items that come in over the web or through the teleconference will be entered into the record, please send -- respond to the RFI, provide as much input, ideas, advice, guidance to NTIA and RUS as you possibly can. They will appreciate it. And I very much appreciate the panel here today. They've done enormous work. It's 4:15, that's the end of our time. We will be back here on Thursday for another set of panelists. I think have you the agendas. Hopefully we will see you on Thursday. Thank you.