MODERATOR: Good morning, everyone.
Welcome to the Commerce Department.
For a lot of you I think I should
say welcome back to the Commerce
Department. Today will be the
fourth of a series of meetings to
get your input into how we will be
doing the work of the broadband --
whoa.
What's that?
How we will be implementing the
broadband technology opportunities
program and the RUS program.
This meeting is being held in
conjunction with RUS.
We have our friends from RUS over
here and also we are working with
the FCC.
I just -- today's going to be a very
important day for awful us
interested in this subject because
today is the definition day.
We will be looking at the definition
of broadband.

We are going to be looking at the definition of unserved areas and underserved areas and talk about reaching vulnerable populations in rural and underserved areas and in the cities.

We will follow the format similar to what we did on Monday.

We will have three panels, and also each panel will have a half-hour for questions from you.

We are also webcasting this and it is available by teleconference and also welcome to all the people who are joining us from remote locations.

The first one we will start today at 10:00.

We will break at 11:30 for lunch.

We will come back and at 1:00 we will start the underserved areas panel.

That will go until 2:30.

We will take a short break.

At 2:45 we will come back and do a

panel on unserved areas.

Now to make sure that we meet this timetable, I am going to introduce to you Bob at kinson.

He is our master of ceremonies and expert facilitator, and I think those of you who were here on Monday Marvelled at his ability to keep the conversation flowing and keeping the trains running on time.

He may look familiar.

Bob Atkinson is the Director of policy research at the Columbia institute for telecommunications and information at the Columbia business school.

Before he joined Columbia university he was the deputy chief of the federal telecommunications common carrier bureau.

That's maybe why he looks familiar to you.

In addition to all this.

He is very active in different telecommunications issues.

He served as chairman of the north
American numbering council.
He has been a member of the New York
City telecommunications policy
advisory group and executive board
member of the New York advisory
council on telecommunications
reliability.
Please join me in welcoming Bob to
the podium.
>> Thank you very much.
It's good to be back here.
We certainly had some lively
discussion earlier in the week.
And I hope today's sessions are
equally as interesting and
informative.
I just silenced my cell phone.
I would appreciate it if everyone
could just check and make sure their
cell phones are silenced or off.
As was noted I am Bob at kinson at
the Columbia institute for
teleinformation.
I am not an employee of NTIA or any

other agency.

So my comments or any comments I make are going to be strictly my own and they don't necessarily even represent the views of CITI or Columbia university, either.

So today's first panel this morning is on the definition of broadband.

We have a number of stakeholders who will participate in the roundtable discussion.

And I will introduce the panelists in a moment.

Procedurally, each of the panelists will make some brief comments, building on the questions and topics raised in the joint RUS/NTIA request for information that was issued last week.

I will then moderate the panel discussion and the last 30 minutes belong to the audience here, in the Commerce Department auditorium and on the web and I would ask questioners and commenters to keep

their comments and questions brief.
There will be a timer which you will
see at least on the front here, that
will give you about a minute to ask
the question or make a comment.
And if you ask a question, please
direct it to a particular person.
I would like to observe from my own
observation that these roundtable
discussions and the NTIA RUS joint
request for information are part of
a very open and transparent process
in which any and all interested
parties are more than welcome, and
in fact are encouraged to provide
their comments over the next several
weeks.
Please provide your inputs, both on
the web, in response to the RFI,
however you can.
And I know your thoughts are very
well combined with the government
needs.
Right now I will briefly introduce
the panelists.

On my immediate left is mark Lloyd, mark is the Vice President of strategic initiatives at the leadership conference on civil rights and the LCCR education fund. And an affiliate professor of public policy at Georgetown university. An Emmy award winning journalist and lawyer he received his graduate degree from University of Michigan and his law degree from Georgetown university law center where I also received my law degree.

Next to mark is Stagg Newman. Stagg rights technology and strategic advice and clients to his own consulting firm and as a role as a kinsy advisor.

He has been a champion for broadband deployment for over two decades for MA bell's descendants including as chief technologist at the FCC, as senior telecom expert for McKinsey, chief technology officer for front line wireless and now principal of

Pisgah Comm consulting.

Next is Fred Campbell, Fred is president and CEO of the wireless communications association international.

He is an adjunct faculty member of the Nebraska college of law where he teaches spectrum law and policy.

And next to Fred, Dave Malfara. Dave is president and CEO of ETC group, and brings more than 30 years of operating experience in the telecom industry.

He is appearing on behalf of comptel representing competitive communication services providers and their supplier partners and next to Dave is Tom dereggi, Tom is the owner operator of Rapt DSL and wireless Inc. Serving Maryland, Virginia, and the District of Columbia since 2000.

That telco utilizes licensed and unlicensed technologies to provide P under served areas, businesses with

broadband speeds from 1 megabits to gigabits he is the chairman for the wireless internet providers association, wispa.

Next to Tom is Daniel Mitchell. Daniel is that the Vice President of legal and industry division, national telecommunications cooperative association, the NTCA, which is the national association representing 587 rural incumbent local exchange carriers, many of which provide wireless, broadband, CATV, dids services in their high cost communities.

Prior to joining NTCA in 1999 he was assistant Attorney General in the Massachusetts attorney general's office where he represented interests for the State of Massachusetts, and the telecommunications and the FCC.

Next to Daniel is Chris vein, he is San Francisco's chief information officer and executive Director,

department of technology.
In these capacities he provides overall strategic thinking and planning, shares technology governments and provides telecommunications and information technology services to city departments.
And last but certainly not least, Leroy Watson, legislative Director of the national grange, the nation's oldest general farm and rural public interest organization.
He represents the national grange on numerous federal advisory committees and a nonprofit organization for its board of directors for the alliance of public technology a nonprofit organization dedicated to expanding access of telecommunications for all Americans.
Let's set the scene here for today's discussions.
What is broadband?
It's obviously a very important

question because the broadband stimulus deals with stimulating broadband.

If we don't know what it is, it's going to be hard to stimulate it. And the RUS and NTIA have monumental job to accomplish in a short period of time implementing the American recovery and reinvestment act in a way that creates the greatest broadband bang for every taxpayer buck.

At this time that means they have to adopt rules, solicit proposals, review the proposals and select those that best satisfy the goals of the law and the award criteria the list of activities NTIA and RUS are undertaking goes on and on and on, and they need as much input and assistance as they K. So the purpose of these roundtables is to provide the thoughts and suggestions of experienced experts from the broad range of stakeholders.

So if the topic here is broad -- the definition of broadband, well, as I said, if it's going to stimulate broadband, we have to know what it is.

Is it speed?

Is it a threshold speed?

A maximum speed?

Is it other criteria that defines broadband?

Does it differ by technology, etc., etc.

It's technical and important questions to be answered and I think this panel is well equipped to provide insights into what broadband means, so let's begin with mark Lloyd.

MR. LLOYD: Wow.

The problem, of course, is what is the role of government?

And one of the important roles of government, I think is setting targets and goals.

So one of the challenges is figuring

out what are the targets and goals.
I apologize for starting with first
principles.
But let me say I began working on
this issue in 1995 when I was on the
board of the alliance of public
technology working with Henry geller
and Barbara O'Connor, and we
actually pushed for such an '07 --
706 of the telecommunications act.
And the goal we argued before
Congress in 1995, and obviously 1996
was to make sure that we were
encouraging the deployment of a
reasonable and timely basis of
advanced telecommunications
capability of all Americans.
And that's pretty broad --
purposefullily broad.
But again the idea was to make sure
we included language about all
Americans and not just those who
might be able to afford it, and
obviously that we actually try to do
something that encouraged deployment

reasonably and timely.

The term advanced telecommunications capability was defined.

And again, the folks at the alliance of public technology strongly pushed for this, without regard to any transmission media or technology as high speed, switched, broadband, telecommunications capability that enables users to originate -- to originate and receive high quality voice data, graphics and video telecommunications using any technology.

That seems like a pretty good definition.

And believe it or not, again, in 1996, this is what Congress adopted.

And this is what many of us thought broadband was.

The FCC frankly ignored this.

They decided to measure what telecommunications providers were offering at the time and to call what folks were offering broadband.

According to the expert federal agency, 2 hundred kilobits per second was enough capacity to provide so-called most popular forms of broadband to change web pages as fast as one could flip through the pages of a book and to transmit full motion video.

This was nonsense at the time and is certainly nonsense now.

But if we have got a speed in terms of defining broadband, it's 2 hundred kbs.

This is one reason why the U.S. is so far behind, frankly from the rest of the industrial world.

We are not defining broadband in a way that actually achieves Congress's broad definitions.

We have tried, again, developing laudatory statutory performance goals.

The FCC's response, again, was to develop a regulatory statute or standard based on what the industry

has achieved and this approach has
not worked.
This approach has not worked.
So even though I really do strongly
believe in the work that we did with
the alliance of public technology in
pushing 706 to come up with a broad
definition of broadband based on
capability, send and receive,
apparently this approach does not
work.
So I would strongly encourage NTIA
and RUS to focus on hard speeds that
truly achieve broadband services for
all Americans without regard to
region in the United States.
Albert Einstein said, "insanity is
doing the same thing over and over
again, and expecting different
results."
So clearly, the approach we had,
again, about a broad laudatory goal
is not sufficient.
My heart's suggestion really is
this, I am a journalist and

attorney, I'm not an engineer but I think we've got very smart engineers, and I would suggest getting a group of computer engineers together in a room, perhaps not at the FCC, maybe at at directate for computer and information science and engineering at the national science foundation but an expert body not undual influenced by industry and they should decide what speeds would be necessary for all Americans regardless of geography to originate and receive high quality voice data, graphics and telecommunications services using any technology.
Now I have heard that in order to do this, in order to originate and receive that you need something closer to 40 kbs, in both direction. But some, I have been told by other engineers that 10 mbs is what is required.
The bar should not be set, again,

based on what industry would want to do or on the words of the FCC on the most popular forms of broadband.

High quality broadband telecommunications technology is necessary for the healthcare provision for emergency responders, for researchers in our educational institutions and it is necessary for all Americans wherever they live.

Defining broadband properly is vital to compete as a nation and vital to our public safety.

As Senator Inouye said eloquently, we cannot manage what we cannot measure.

Thank you.

MODERATOR: Stagg Newman, please.

DR. NEWMAN: Thanks, Bob.

Great.

Thank you.

First problem we have with broadband, it's a fuzzy concept, and in fact technically it's a concept that refers to the analog band width

in a communications channel and that does us no good in terms of what Congress intends here, which is service to customers.

So I think for the NTIA to fulfill its mission which is a proper administration of the stimulus fund we need to get precise in three definitional areas.

We need a clear definition of what is a service that consumers, enterprises, government agencies will see.

We need a definition of what is acceptable network infrastructure that enables these services, and then we need a series of metrics on whether we've got it or not.

So I would put out there that the servicesis a family.

There is no one size fits all.

Unlike voice telepathy when we knew what we were talking about in voice telepathy communications, broadband as is fuzzily talked about supports

a wide range of servicesis.

My needs when I have a blackberry,
versus somebody else's needs in
front of a high definition
television set are very different in
terms of needs.

It is a family of affordable high
speed high performance fixed and
mobile -- and I think the mobile
participant of this is as important
as the fixed part for the
competitiveness of the U.S.

IP based, in other words, I
believe -- and that is a big
exclusion, all of a sudden I am
saying digital delivery of
multichannel video is not
necessarily part of what we are
talking about here.

But I believe for U.S.
competitiveness, we are focused on
internet access.

So it's high speed, high performance
mobile IP access for consumer
businesses and government agencies.

On the network side there are three very important components to this network.

We need a back bone network from all the towns, villages, et cetera, and the cell towers that has high enough performance so that doesn't become a bottleneck.

So we need a gbps and many hundreds mbps to get all this traffic to and from the locations it has to go to.

Fiber optics supplemented by high speed wireless.

Then we needed mobile IP.

There we are in better shape in the sense the world is developing a fairly good consensus about what 4 g's should be.

How great is the reach, how reliable and what is the features and functionality.

We need that to 99 percent of the population.

We need vehicular coverage to all major roads.

We need a mobile infrastructure.
Not necessarily single network but a
mobile infrastructure that supports
the needs of our emergency
providers, something that has been
neglected now for at least five to
eight years, since 9/11.
And ultimately we need satellite as
a back-up.
Satellite will not provide the
essential service because of the
inherent late tensy of the signal
going up to the bird and back but it
can provide 100 percent geographic
coverage and can provide back-up
when the terrestrial system fails.
Finally we need fixed access and we
have a couple of problems to solve
there.
One, we need access to the 5% to 7%
of Americans that are uncovered.
That may be done wirelessly with 4 g
technology but they need access from
their homes and businesses.
And we need to upgrade our

infrastructure so we are competitive with the leading countries in the world.

I put numbers down.

They were not the final answer, they are intended for dialogue.

And I importantly said, we've got to realistically look at where somebody is.

I can't go from my home to downtown at 70 miles an hour, because I happen to choose up a country road and nobody is going to build a high speed highway.

So we realistically have to look at affordability and tradeoffs.

I know that is controversial but I will put it out there.

Importantly we need a set of metrics.

Peak speed is what everybody talks about.

That is marketing hype, that is not really useful.

Coverage is important.

How many people can get this service.
So we really need to focus on that. We need to focus on what the sustainable speed during a session. When I am trying to do something over the internet, what speed can be sustained, what's the total capacity?
It's different depending on the network architect.
Whether it's a shared network access such as in a cable and radio or wireless network or dedicated such as DSL, fiber can be either way.
Then we need a set of metrics equally important along quality, reliability and availability.
Late tensy which is what type of applications I can do, error rate, et cetera, and get back to the thing that always hurts us, which is affordability.
That is what I would put out there as discussion points to come up with

a viable definition.

Thanks.

MODERATOR: Thanks, Stagg.

And our next speaker is Fred
Campbell.

MR. CAMPBELL: Good morning.

I am here representing the views of
a number of associations, all of
whom have participated in this
presentation.

The American recovery and
reinvestment act directs the
assistant secretary of commerce to
establish a national broadband
service development and expansion
program.

It also allocates funding to our
U.S. for areas without sufficient
access to high speed broadband
service to facilitate rural economic
development.

Although the stated objectives of
these programs are to promote in a
variety of ways the deployment of,
access to and use of broadband

services, Congress has left it to these agencies to define what constitutes a broadband service for purposes of implementing these new programs.

Given the acts prohibition against duplicative funding of the two programs administered by the two agencies, the definition for broadband should be identical for both.

Consistent with what Congress directed that the assistant secretary and RUS coordinate the understanding of this term with that of the FCC, we believe that any definition of broadband service necessary to implement the act can and should draw upon the legal and policy framework implemented today by the FCC.

According to the FCC, the term broadband refer tossed an advanced communications systems capable of providing high speed transmission of

services such as data voice and over other networks.

Transmission is provided by a wide range of technologies, including digital subscriber line and fiber optic cable, coaxial cable, wireless technology and satellite.

Broadband platforms make possible the convergence of voice, video and data services on to a single network.

This broadband definition is them matticly consistent with Congress's direction to permit the focus of the act in a technological Newt federal matter.

That direction appropriately occur ins the provision of the bill requiring NTIA to establish a rule for the eligibility of private sector entities.

It is further supported by the expressed intent that as many entities as possible be eligible to apply for a competitive grant,

including wireless providers, hard wire providers, satellite carriers, public private partnerships and tower telcos.

Why these providers and platforms may offer different combinations of speed, functionality and technical attributes, the definition of broadband should be viewed strictly as an initial gating mechanism, not as a means of evaluating the quality of an application or its ability to meet a specific purposes spelled out in the statute.

It is not necessary for NTIA and RUS to define broadband service in terms of any particular speed requirement. We also recognize that NTIA and RUS must consider a variety of additional issues that are implicated by the definition of broadband but may include other considerations as well such as determining the speed in which areas of the country are determined to be

unserved and under served.

Deciding whether grant eligibility will be conditioned on providing a particular level of broadband performance or comparing applications that need prima facia requirements of the statute.

We view these issues as falling beyond the narrow scope presented in today's discussion, but they may be addressed in other roundtable discussions and comments submitted by the individual associations and their member companies.

Thanks.

MODERATOR: Thank you.

Our next speaker will be Dave Malfara.

MR. MALFARA: Good morning.

Thank you to the NTIA for inviting comptel to participate in this roundtable.

Bob, you asked for a simple definition of broadband.

And here is one I think we can all

support.

It is that service which allows users to access the world's information resources and its inhabitants without incumberance.

And that is really what service providers are trying to do, that's what governments in my opinion are trying to do, and the way in which we do that is to define components at a granular level to be able to identify necessary components to that service as we perceive them at a static point in time.

That is why comptel does not support the definition of broadband as equivalent to any minimum speed.

That speed, if history has taught us anything is a moveable target.

And the speed that we believe now would be sufficient to promote broadband ubiquity for deployment may be antiquated by something that is introduced next week.

So speed should be a factor in

consideration of applications but it shouldn't be a limitation on eligibility.

I spoke about the fact that too high a minimum speed requirement would also negatively affect a service provider and their business by ability.

Because one of the things that service providers or anyone who is entertaining the idea of providing broadband service in a certain area will tell you is that the market dictates what the speeds will be.

The market dictates what the quality of experience of end-users at any point on the matrix will enjoy.

And allowing servers the flexibility to identify different markets and different ways in which markets will respond to service offerings deployed will speak then to the affordability of that service in that market, because service providers will be able to provide

smart builds into that service market to provide the broadest penetration of subscribership that that market will support.

We need to also make sure that we are technically neutral in doing this.

There are a lot of emerging technologies that are going to speak to an improvement of the quality of service and quality of the experience to end-users that use speed as a component of that experience, but certainly not as the end game.

Raw band width can get you to a certain point but we need networks to application where if we are going to provide the broadband experience that an end user can see.

We want to encourage exploration in the FCC's white space activities are a typical example of ways in which vendors can take a look at availability of resources and then

build technologies to be able to take advantage of those resources in the best way possible.

This resource -- or those technologies right now are fledgling and fledgling technologies compared to mature technologies will usually yield a lower speed, but ultimately looked at over a five-year horizon may eclipse current technology in terms of their capability to support the broadest and best quality of experience.

And that's the benefit that unserved and underserved markets will get, is that they will get the best and the latest in terms of what technology has to offer.

Now, if we must identify a speed, and comptel believe that is in our best interest collectively we believe that using the speed that the market has told us is important in terms of viability for every day service and ubiquity of

serviceability that would be 1.4 mbs downstream and 768 tbs upstream.
By supporting a minimum speed at this level we would fulfill the hippocratic oath, do no harm first.
There are speeds in new markets that are ten times those speeds.
Those are available right now in where we subscribe.
But they are available.
If the service provider seeds an opportunity for higher speed services within a market, they will be there.
Dr. Stagg finally talked about the need for consideration of back haul capability for this traffic and I do believe that that is a consideration as well.
So as we build these networks with a bias towards access we have to understand that there needs to be the capability to bring that service and traffic back to centralized points of aggregation so they can

participate in world markets.

Thank you.

MODERATOR: Thank you.

Our next speaker is Tom dereggi.

MR. DeREGGI: I am here today
representing wispa, wireless
internet service providers
association.

Before starting, I would like to
express the importance to understand
the difference between the
definition for broadband to define
eligibility as opposed to evaluating
the criteria of the grant.

For eligibility broadband means
average speeds of at least 768 kbps
in one direction, which is
consistent with the FCC's definition
of first generation networks.

For granted proposals we propose
speeds up to 5 mbps to the customers
and at least 2 mbps from the
customer.

No additional technology would is
necessary and would preserve the

technology neutral requirements of the act.

We determine 5 mgs to be do most applications that you absolutely have to do.

The importance of this also is this in no way limits the ability of the service provider to the faster speeds.

The natural market conditions would be encouraged at high speed to deploy the fastest speed they are capable for that specific environment.

More importantly, as far as defining the lower speed for broadband is that we don't want to limit the possible providers who contribute to the process who are worthy of grant and worthy of serving their communities.

I think what's most important is not the speed.

I think what's most important is to get the money in the hands of the

small companies that want and know how to build sustainable networks, have a vested interest in giving more to the communities than they give themselves.

The people that know how to serve more people more efficiently in less time, that's what stimulus is about and that is what wireless IP's are about.

Today I ask NTIA for help, for the 3 hundred to 1 thousand wisps out there who I feel are doing a good job who could do so much more if we were empowered and wouldn't have to do it alone.

I would like to give a couple of analogies of things that we accomplished, we are nothing special above the other 1 thousand wisps.

An example, in L.A. last month where we installed a service for the oscars where they needed service to three locations across the city at 30 mbps, and they needed it fast.

We flew out there and we built the
network in three business days.
They said it was the most reliable
service they ever had.
Just think about if this wasn't the
Oscar but for the guy who lost his
job and now he wants to start his
home-based business or if this is
for a library in a rural community
that had people who need broadband
today.
There are things that enable us to
do this.
It's the technology that doesn't
require permits in order for us to
implement and engineer a plan.
It's about people who work hard and
in a vested interest in helping
their community.
It's about having existing
relationships with property owners
and infrastructure providers so that
you can quickly execute your plans.
The best way to create high speed
broadband to America, I believe, is

to empower these wireless isp's.
There is a sign that says wherever
wireless goes broadband dsl follows.
That's a true concept.
One of the values of wireless is
once you deploy that technology that
value is never lost if you de-deploy
it.
Can you move it to any community you
want at any time.
One of the methods that works is you
deploy wireless, you create the
demand, you create the sustainable
customer bases and then you overlay
fiber that allows you to build a
sustainable network and pay for it
as you go.
And that investment is never lost.
There is not a need today to pay for
fiber optic.
You can pay for wireless, get people
service today and as we grow our
businesses and have our Army of ISP
building networks we can develop the
fastest speed networks for the

dreams of future broadband.

Thank you.

MODERATOR: Next speaker will be Daniel Mitchell.

MR. MITCHELL: Thank you, Bob for inviting us.

We agree with many of the panelists in terms of defining broadband as illusive and ever evolving our would be to provide internet access capabilities that are generally available in a significant sample of service areas and urban areas that establish a standard of comparability and affordability in urban and rural areas.

The capability of broadband and IP applicationsis constantly developing.

The definition must evolve to meet consumer, business, education, public health and safety needs.

By linking this definition to generally available services, affordability and comparability, the

definition is enduring, technology neutral and in the public interest.

For purposes of the 7 million dollars available for stimulus money, we provided two definitions concerning unserved and underserved.

The unserved definition is basically populated areas with no service or dial-up service only, excluding satellite.

Underserved areas are defined based on about 56 KBPS which is dial-up service and the rest 768 KBPS based on peak-hour who load as determined by the FCC.

The reason we defined these definitions this way is very important.

We realize that the 7 billion dollars available is not enough to even serve those households today that have dial-up service.

NTCA in its 2008 broadband survey provide members on average an availability of broadband services

to 91% of the households and customers living in the rural high cost service areas.

That last remaining 9%, however, has been too costly to get public or private financing.

We believe this stimulus package is the exact funding necessary to fill that final gap to provide 100 percent broadband availability in all our member service territories.

We serve these territories in some instances for over 1 hundred years, and for decades we have been providing high quality services to these communities.

We believe that a significant portion of the stimulus money should go to those carriers who have dedicated themselves and families with resources as well as cooperatives and commercial based companies to service those areas.

With that said I have five points to make with regard to getting this

money out and meeting the deadlines that NTIA and RUS are under to finish the job by September of 2010. First, none of this money should go to AT&T.

AT&T and its bell south merger agreed under merger conditions that would provide 100 percent broadband availability to all of its customers by the end of 2007.

In addition to that AT&T is investing billions overseas and ignoring the underserved and unserved areas in its own service territories.

Any money that goes into AT&T service territories out of the stimulus package ought to come from alternative providers that are filing applications with NTIA and RUS.

Secondly, the special access transport providers, that includes AT&T and Verizon, quest, and Comcast.

These providers provide a critical middle mile special access transported services to back bone. The middle mile costs are increasing rapidly and causing affordability to all consumers to become unreachable. Any large provider that receives money under this stimulus program should be conditioned on basing its special access transport to the internet back hoe on cause and offer the same terms, conditions and prices that it offers its own affiliates to affiliate broadband.

MODERATOR: Could I interrupt for a second?

We need to stay on top of the broadband definitions.

There is plenty of opportunities to provide other information.

My job is to be periodically rude and interrupt, but could you stay on the topic just the broadband definition, I would appreciate.

>> Okay.

Back to broadband definition.

Should be evolving, taken as a snapshot in time but shouldn't be defined in stone.

That is consistent with the other panelists on this panel and I will answer.

MODERATOR: I apologize for interrupting.

But there are topics other roundtables coming up where a lot of these kind of topics can be addressed and we have time limits.

Next speaker will be Chris vein.

MR. VEIN: Good morning.

I want to thank the NTIA for offering local government a spot on this panel this morning to be talking about what we are actually experiencing, and kind of a different perspective, if you will.

San Francisco, city and county of San Francisco is committed to serving and connecting all of its residents.

Broadband infrastructure is the foundation of that connection, and our backbone.

Trying new innovative methods is key.

The ability to plan and test new ideas through pilots is absolutely essential to local governments to determine what is possible.

And for the past six years, the city and county of San Francisco has been taking the opportunity to do just that, to test and see what is working in the community since what we are really talking about today is serving the unserved and underserved in the community and cities and counties are on the front line every day of meeting that objective.

I have five bullets in front of you today that are based on our experience with what is working in the community.

The first bullet is that the underserved populations do need

voice video data, and for many of
the applications the speed may need
to be symmetrical.
We have a very interesting pilot
project going on in San Francisco
linking our department of public
health, general hospital, UCSF,
other clinics in the community,
treating people of color, dealing
with HIV and aids, and those people
are receiving care through a
broadband fiber network in this
case.
And one of the absolutely
interesting ideas that is working in
this pilot project is the ability to
actually perform services of
translation, of language, and the
actual care that is provided is
measurably improved because of the
ability of real time translation
services in this community.
The second is that we do need fiber,
and we also need high speed wireless
in order to achieve what we are

looking to do.

Third, in terms of cost, I agree that price is important, and there is a trade-off with speed, but I do believe that we must go for the greatest need possible, as I show you, we are achieving in some cases in up warped of 30 to 110 in our pilot projects.

We know it's achievable and those speeds are increasingly becoming required to perform the applications in our communities.

On the price side, we have experienced and played with a bunch of price points within the city and county of San Francisco.

We don't have a recommendation per se about price point, but I will say it must be what the community of underserved and unserved people can afford.

The fourth point, I would just simply say that as a city and county, a government, as mark said,

we put out the vision and we put out the goals and we see how far we can achieve in achieving those goals.

We can't do it alone.

We haven't done it alone.

And we have partners and partnerships with private sector and public sector organizations with carriers and with all the people you talked with or heard from today.

It is vitally important that that be allowed to continue.

And finally, communities vary across the country.

Communities vary within cities and counties like San Francisco.

We have base-lined our city.

We know where our underserved populations are.

We know their attributes, we know it varies by sex, by race, by education and by age.

As a result we have had to pilot and shade and color and revise all of our objectives in order to reach out

and adequately touch all of those communities.

As a result the definition of broadband has to be flexible enough to understand and take care of all the various communities in San Francisco and across the country. Thank you.

MODERATOR: Thank you.

Our last panelist would be Roy Watson; Leroy Watson:

MR. WATSON: Thank you Bob, I would like to thank our friends at NTIA, RUS and FCC for their ground breaking work and to see these meanings and work on this important program to bring broadband deployment to unserved and underserved areas across the United States.

As a lawyer I don't have a lot of technical background to tell you what specific speed is.

I might have some of the those comments later on.

But I am always fascinated by definitional questions because they are threshold issues which relate to your programs and whether or not you are going to succeed or fail.

So it is vitally important that we get definitional issues right in such a way looking forward as what are the performance standards we were going to have for the particular program or policy that we were looking at.

One of the first things I think that grange members across the country are looking at is that the broadband loan and grant program part of the ARRA is part of a broader piece of legislation meant to facilitiate economic stimulus in the United States rather quickly.

We are facing an economic problem and the opportunity for deployment of infrastructure is seen, we think appropriately, as a way to help our economy get moving again, both in

the short-term N the jobs that can
be generated for the development of
that infrastructure as well as in
the long-term in the determination
of how broadband can aid rural
areas.
So we think it is important that
NTIA and RUS and the FCC take into
account the fact that we have a
mission within ARRA, the shovel
ready products that we were supposed
to be preparing for.
So on the screen you see some of
these performance-related criteria
that I think will facilitiate some
of the discussions, hopefully that
will help get some of the
definitional questions right to meet
the short-term objectives of ARRA
and the long-term objectives that we
are looking for economic development
and rural communities.
First of all we want to facilitiate
the utilization of the most cost
effective and durable available

technology platforms in deploying to rural America.

As a policy concern we often talk about neutrality related to the types of technologies and from a policy point of view from lawyers and engineers, that is fine.

But I can tell you that one of the reasons that rural America is rural is because it's often, people are often living in places the that are challenging both climactically and both in geography and topography.

So we have a lot of technical issues related to bringing these services out there.

We have areas in the United States and rural and tribal areas before it is going to be hot enough to melt asphalt.

Cold enough to see carbon dioxide absorb out of the air or hue mid enough for plants to grow a foot a day.

And I haven't even mentioned the

biblical related things like
tornadoes and floods and snow storms
and hurricanes.
So while technology neutrality is
good as a policy measure, we have to
make sure that we were deploying
technologies that have a degree of
DURability and ability to serve
rumor communities across long
distances.
We were also thin bek that the
definition has to support active and
passive applications that can be
marketed to serve unmet needs in
unserved areas.
It's somewhat redundant to talk
about this, but the purpose of
putting broadband out there is so
people will use it and that includes
people in rural areas.
So we have to make sure that the
standards and definitions that we
are talking about is going to be
definitions that we were going to be
able to have applications over the

web, that people are going to want to use.

Those might be active applications or passive applications involving the interaction with third party pairs.

In any case, facilitiating this commerce aspect of web utilization is going to be critical because a significant portion of the funds that are going to come to us from RUS and NTIA in this program are going to be loans, which means we have to pay them back, which means we have to be looking and generating a degree of commercial activity, take-rates, as you will, for people using this in order to justify the loans and return that money to the taxpayer.

This is Main Street, after all and not Wall Street.

Also not surprisingly enough, our view is that it must be oriented to deployment to unserved homes, farms,

small businesses and rural areas
across the United States.
We talk about comparison of the
United States as far as broadband
deployment with other nations, but
what we often fail to realize is
that the United States has the
largest both as a percentage and in
many cases as an salute number of
people living in sort of rural and
remote areas of any of the major
countries in the world that we see
comparisons related to broadband
issues.
Even Canada, which is a nation that
is geographically larger than the
United States has a smaller
percentage of population living in
farming and rural communities.
So the United States has a
tremendous challenge -- it has had
because we are a continental nation
in serving rural areas, and
broadband is just another step on
the way that we have seen across 2

hundred years of how we are going to serve rural areas.

So it is important that the definitional issues be geared toward the idea that we will serve those rural areas and we will serve those remote areas effectively.

Finally, we believe that broadband definitions have to complement existing technical and legal standards set by regulatory agencies.

Not just the sort of broad standards of what constitutes a broadband that might be put out by say the FCC, or other regulatory agencies, but again, the politics of, things that people will be looking at, land use, state utility regulations, rights of way along utility poles.

Are we deploying technologyings that will facilitiate and move quickly to get these types of approval and be able to deploy relatively quickly.

Our goal related as far as the

national grange is concerned is that
as early as possible we see flat bed
trucks with large schools of either
wires or erector sets or deployment
as soon as possible to be put in
place to bring technologies to rural
America.

The definitions that we adopt hereon
are going to have a lot to say about
whether or not that occurs
expeditiously.

Thank you.

MODERATOR: Thank you panelists.

I appreciate the comments.

We are actually approaching the
11:00 time, which will be the
beginning of the questioning from
the audience.

We are not going to have a lot of
time for roundtable discussion.

As to the questioning, there are
four microphones.

Feel free in the next few minutes to
step up to the microphones and we
will begin the questioning at 11:00.

What I have heard today from the panelists I could sort of put everyone's discussion to one or another box, one box being what I would call hard definitions, the numbers, speeds minimums, maximums, and there is another box called soft definitions.

Statute based on section 706, average speeds being used by a cross-section of the population in different parts of the country.

Tell me if you've got some views on it, why a soft definition or a hard definition is particularly good or bad.

And we have one mic here and sort of use that mic on the other end and put up your hand if you would like to speak.

Stagg?

If you have your hand up.

MR. LLOYD: Again, I would argue that a soft definition is good for a start -- I think 706 gives us a good

start focusing on both send and receive.

I think a hard definition is necessary to enforce and move forward.

Regarding the clear challenge of the fact that technology has become antiquated and speeds will be anti-quated, I think the focus should be on what speeds are needed now to send and receive high speed video.

But I'm not an engineer.

I'm a lawyer.

Maybe the doctor can respond.

MODERATOR: I should add.

There is a thing about these things, this is roughly a two to four-year program.

So it's now for all intents and purposes.

DR. NEWMAN: First of all it needs to be an evolvable definition.

I was responsible in the 2 hundred KBS definition.

Everybody forgot that was an evolvable definition and we picked a speed in 1998.

Had the FCC evolved that at the rate consistent with Moore's law, that definition would be 5 mbps.

So evolvement was part of that definition, it just got dropped.

So I think the definition needs to be evolvable.

It also needs to be dependent on the circumstances.

Multiple versus fixed, is it a strategic enterprise that needs more band width than residences, et cetera.

It's a complex definition that has to look at ultimately the objective of serving the consumer, business or individual.

MODERATOR: Anybody else have a comment?

We are going to have to keep it pretty short, because I don't want to take away time from the audience.

MR. CAMPBELL: Very quickly, and I can't say I am going to be speaking on behalf of all the associations here that were on the slide.

I am going to do this in my other capacities as WCA and as a professor.

I wanted to quickly point out that most of what I have been hearing in terms of hard definitions in this session and in other sessions focus on a single speed.

I want to eilluminate what Stagg said which is one of the difficulties you get into, then you are assuming there is one single product market for broadband and as long as a subscriber has one broadband service, that's the end of the story.

When the DOJ and FCC and others evaluate competition in markets they look at the markets in broadband as being different.

There is press that there is

differences between mobile and
fixed.
Then you get into issues of cost and
affordability that also have an
impact.
There is a number of factors you
have to look at when thinking about
speed issues.
.
MR. MALFARA: What we don't want to
do is see 7.2 billion dollars go
down the drain because of an
artificially high limit on minimum
transmission speed.
There are real benefits to initial
deployment of broadband in areas
where in unserved areas right now.
And part of the fear that we would
have, speaking for comptel is that
definition would be too high and
preclude success in the business
model, and ultimately, you know
unable to deployment of broadband
that is a very minimal improvement
over what would normally exist.

MR. DeREGGI: We don't have a hard
set limit and the reason is because
it's a threshold.
If you don't have some way of
gauging something, be you need it.
What's more important is that, you
don't have a threshold that is too
high, you can't restrict, and you
have to have a very conservative
value that you can grow upon.
The other thing I need to mention is
that sustainability is important.
In our business model, only 1/10 of
our business model covers actually
have to do with infrastructure.
So you have to survive after the
grant.
And the business model
sustainability is important and if
you keep speed low enough as a
minimum threshold you have the
flexibility of those sustainable
models.
MR. VEIN: I would agree.
We have an evolving definition so we

are on the soft side but as we have
seen in the FCC's broad band mapping
order there is a range of speeds to
look at to try to determine what is
being offered throughout the
country.
With regard to this particular
circumstance with the NTIA and RUS
you probably could put something of
a combination of the two together to
meet the goals that you were trying
to accomplish within the next two to
four years and actually possibly set
a precedent for the FCC as well.
MR. WATSON: Just to repeat what I
said earlier -- I don't believing we
could limit the speed because the
applications out there that are
using the speeds and demanding the
speeds that we are offering are
there and they are only going to
grow faster so set some of the
speeds that I have heard today, I
don't think is visionary.
I don't think it's what we need to

be doing.

And I would strongly recommend that we do scaleable model, but also put it out there as far as we can go.

MR. WATSON: Our concern is that for many of the unserved areas in the United States near one of those unserved area is a Frontier area already being served.

If we are adopting a standard that essentially sets the bar higher than is available in the surrounding geographic community areas where we would expect logically an extension of service.

We are going to make it more difficult to bring those types of services out to those unserved areas.

That's why the importance of programs like mapping and the BDIA program that is moving forward on parallel track is critical to this type of effort, because we need real data about speeds and politics

applications that are available
right now.
I served on the advisory board for
connective operation which is a
broadband group working in the area
of mapping.
While this is moving forward quickly
we are just a little bit worried
that we are going to smoke jump in
standards that can't be maintained
or supported by the surrounding
areas.
MODERATOR: All right.
If I would ask one of the
microphones come back this way, so
that this side of the panel would be
able to respond quickly to
questions.
And the arrangement is microphone
one, two, three, and four, and we
will go around in circle, and we
will add three minutes at least to
the end to make sure that the
audience has a full half-hour.
Please state your name, and

affiliation.

If you are making comments, let us
know, so we know what's coming if
it's a question, we can address it
to a particular member of the
audience, that would facilitiate.
So the first question, microphone
number one, please.
>> Sure.
My name is Joseph Miller with the
minority media and
telecommunications council, I have a
comment and a question.
The gentleman from comp tel
suggested that market viability and
business model viability should be
the determining factor and not high
speeds in a broad band definition,
but historically the people who are
part of the process of making that
decision aren't usually a homogenous
group and I wonder how you think the
decisionmakers should represent the
markets you purport to serve, and
the comment is that perhaps the NTIA

should consider the degree to which
8 a businesses should participate.
>> Thank you for the question to
the extent I understand your
meaning, at the beginning of the
deployment and the infrastructure,
market research is conducted to
determine what that market will
support in an ex-stensible business
model.
One that has the capability of being
sustained not only under ideal
conditions of federal grant, but
also as time moves on as we have
spoken on the panel.
So business considerations in the
business model and the
sustainability of the business model
really is the ultimate test in
determining whether or not
advantages that you expect to gain
from broadband deployment are
sustainful.
So that is the reason for the
emphasis and bias towards the

business model consideration.

Now with respect to the definition of broadband and whether or not deployed facilities will add to the broadband functional capability of the U.S., I think the market does a very good job of providing ways in which to take advantage of that broad band deployment or applications should take advantage of that broadband deployment to the extent that the end user knows that they exist.

So I think that the educational process, where inexperienced populations are allowed to be exposed to the ways in which broadband can help in day-to-day lives I think is a significant part as well.

My point about minimum speed is I don't think it accomplishes what the proponents goal S and that is to make sure that the widest population possible has access to meaningful

interconnection to the world's information resources and to the population.

(Mr. Malfara.

)>> MODERATOR: Mark wanted to make a quick add-on.

MR. LLOYD: That is only to say, I appreciate the question.

We are in a capitalist country and it's provided us an extraordinary amount of resources and energy and really sort of helped to develop the internet to the point that it is around the globe.

But the fact of the matter is that largely we've relied on market forces for the past 13 to 15 years for deployment of broadband in the U.S., and we had a market failure here.

So market forces are an important consideration for affordability and extraordinary important consideration, I think government's role is to set some targets and

policy goals and push the market, and I think the fact that we've got federal funds going into create a stimulus to jump-start the market suggests that simply relying on the market is not sufficient, and it clearly has not been sufficient over the past -- I don't know how many years -- regarding issues of diversity and making sure that all populations are served.

MODERATOR: Microphone number the 2.

>> Good morning this is Mark DeFalco of the Appalachian regional commission.

I find it interesting that about half the panel thinks that is speed requirement is not necessary and the other half thinks one is necessary.

One of the comments that was made is that the market dictates the speeds delivered.

I don't think that is true in rural areas if that were true then you would have the providers in there

providing.

Have you situations where you need to have subsidy money to make this work that is what this is all about, the stimulus, trying to get that subsidy money into the rural areas.

So we would recommend strong that will a minimum speed requirement be established so that for applications that come in, there is a floor, not a ceiling.

Let the market dictate the ride up, but at least if you are going to take government subsidy money to put a system in place, at least have a minimum speed requirement, so that whatever is put out there would be defined as broadband.

Thank you.

MODERATOR: Thank you.

And I would X you came in well under the one minute.

But if I would direct the questions to the clock at the front.

Keep an eye on that, I would

appreciate.

Microphone number 3?

\>\>   Good morning.

My name is frank cumberbatch I am president of broadband a rural broadband community serving northern Wisconsin.

I have to agree of Mr. Malfara of comptel.

The issue here is not so much one of speed, but what I urge the NTIA and the RUS, is to make sure that they do an analysis to see that the definition does not make connect fees to tier 1 providers, make it to their advantage and a disadvantage to the business model and cost of good souls to us who are providing these services to rural communities.

For example, I find it interesting and this is not a knock on Mr. Vein, but that the one government official that we have on the panel is representing a tier 1 city, and this misses the opportunity to hear from

somebody who really are in the trenches of rural communities, who are directly unserved and underserved.

My final comment is, I think the NTIA should form the definition to see to it that the small amount of money, 7.2 billion will not solve the entire broadband problem for the rural United States but to see to it that we bring a set of services on top of the infrastructure that has an impact on the lives of the people in those communities.

And I'd would like a comment from either Mr. Malfara or somebody else on the panel.

MR. VEIN: Thank you for your comment.

I think that one thing I would like to add to that is I am from a rural state, originally, I am from North Dakota I understand the rural issues but I also understand and am in the trenches as in what you say, a tier

1 city, San Francisco that truly has
an underserved population and
problems associated with that.
So what I don't want to have happen
here with NTIA or with RUS is there
becomes this competition between
these urban areas and rural areas
because we both have needs.
But I do want to say that it is
unfair to assume that all cities and
even cities like San Francisco,
L.A., Chicago, New York, are not
doing creative things to solve the
underserved and unserved populations
in their cities, and that the
experiences that we have can and
should shape the process as we move
forward.
MODERATOR: Stagg?
DR. NEWMAN: Two comments.
The comment focusing on minimum
speed.
I think we have to first focus on
the service.
I actually live in one of the areas

served in rural Appalachia in some sense.

Ironically I have a good choice between broadband cable and broadband DSL because it's pro verbial six house trailers on the lot so both telco found it worthwhile what I don't have is mobile service so emergency providers can't communicate when they come out to see me.

Have you to focus on on much more than minimum speed.

Have you to focus on total service definition.

We have to also be careful not to set a speed too high.

We did that for rural America.

And that required fiber, for example.

Let me assure you that the money in the stimulus package is less than 10% of what we need to reach that type of goal.

MODERATOR: Microphone number 4.

I note we have 10 speakers so we need to be brief in our comments and brief in our answers, please so we can get through.
>> Mitsco her rare remarks I am a cable administrator in Montgomery County Maryland, which borders Washington, D.C.
In 2008 the FCC reaffirmed it's definition of broad band as 2 hundred kbps.
The act enables NTIA to consult them but to come up with its own definition, and I encourage you to embrace that responsibility, and show leadership on this issue.
One way -- one suggestion to get out of the Pandora's box of not limiting -- how do we get forward and not unduly limit is to consider an advanced broadband definition and a broadband for purposes of eligibility for the grants.
The advanced broadband would be where we want to go, maybe we look

at our other G-20 partners and see what they have and see what would enable telemedicine in rural areas as the advanced and on the broadband to look either within a state or the nearest metropolitan area to find out what is commercially available. What the cable modem providers, the satellite or the wireless are currently selling as their minimum advertised broadband and within the grant application if you meet that floor, you are eligible for the grant, but you could give more points based on your capacity to give more broadband speed, you meet the advanced definition, you can provide those fill-in mobile services.

MODERATOR: Thank you very much. Microphone number 1, please.

>> Hi, my 1/8 is Kathleen youngman I ham president of YD corporation, I am a broadband service provider, have been for 35 years.

I am not from the broadband industry, I am just a user.

We sell services to companies computing in the cloud.

Today one of the biggest problems in competing worldwide or even nationally is compliance.

Most small manufacturers cannot set up and support an IT infrastructure to meet the many compliance regulations and connectivity issues to make their prime contractors.

Many of these suppliers are in rural or underserved areas.

To do this you need computing in the cloud, where people can buy services from hosting centers.

Without Hiban width service this is not usable.

There is something called virtual desktop infrastructure where you even put your desktop in the cloud.

I believe that many companies right now like we are in the intermountain west go under because they cannot

meet compliance.

We need a minimum speed set for these grants.

We can't have business as usual.

I have three sites around the country, and park city, Utah which once held the olympics, I can't tell you how hard it is to get good broadband.

Thank you.

MODERATOR: Thank you very much.

Microphone number 2.

>> My name is Robert Finch, my telco is cerpass.

Maybe follow up to a comment by Dr. Newman.

If you look at underserved broadband or unserved broadband does it make sense to look at mobility as well as fixed.

Do we really need to have both?

DR. NEWMAN: I think we absolutely do need mobility and fixed to be competitive in the world.

And the good news is that we do a

mobile 4 g type deployment that will also provide for fixed broadband at several mbps and also close to 1 mbps at people near the edge of the footprint.

I think both are absolutely essential.

Particularly since I spend most of my time supporting teams outside the U.S. if you look at what is happening in the rest of the world vis-a-vis mobile.

MR. MALFARA: I would like to add to that that in addition to mobility.

You know, mobility represents conditions under which different portions of the network need to be able and perform in different ways and that speaks to an issue that is an emerging technology as well.

And we have all spoken about speeds and we have mentioned the derogatory objective of service providers publishing, maximum speeds to an unknowing user community.

There are emerging standards, and I will name two.
A do 2.1 from EEE and ITU team 1731 that together are going to give end-users of these services the ability to look at the ability into the service provider network to make sure that they are receiving the service level that they purchase.
So in areas where we begin to define a broadband in terms of softer capabilities perspective, that's where the hardness can come from, it's the ability of the network on an application aware basis to provide the quality of the experience that the user seeks.
MODERATOR: Which microphone are we at now.
Number 3?
>> Hello my name is Chuck nanto I am CEO of interaction networks.
For 30 years I have been a senior telecom executive including celex and I run economic development in

very rural areas.

And I have a concern and I have a question.

The concern that I have is that there may be a gaping hole in the definition parameters of broadband as evidenced by the last dozen counties in rural Maryland.

We had this discussion in broadband deployment strategies and that is, how do you make these networks financially viable over the long-term after the grant money goes away in such a way that you can compel or attract urban area businesses and government agencies to locate their -- drive their traffic there and therefore keep them financially viable.

So the question I have got to the panel would be this: Wouldn't you want to include in the definition of broadband that you have diverse routes, diverse carriers, and diverse technologies, so that the

goal would be to bring the world's
best technology to play for the
users in rural areas in all these
ways so that you never have a
monopollistic choke hold where you
have broadband users saying you can
get it here if you pay my price.
I think you can conclude that route
technology be in the essential
definition of broadband.
MODERATOR: Comments or responses?
Stagg?
DR. NEWMAN: A wordier version of my
slide including diversity from the
reliability and robustness
standpoint.
So we were there.
I think it is a very difficult
question that the government needs
to consider on whether or not in
rural areas you have multiple
service providers or whether you do
rate regulation.
You can make an argument for either,
and that needs to be wrestled with.

I am not going to say what is the
right answer here.
MR. DeREGGI: Our cost was not
something related to our business
model.
It was either an upstream provider
or building owners, 50% of our
revenue goes to building owners.
Any time we can get rid of someone
who is controlling our costs, it's a
good thing.
I fully agree with you that making
eligibility, bringing in a diverse
route would definitely be a great
idea.
What I don't think is an idea is
mandating the providers that get
grants deploy their network in a
necessarily having diverse
subscreens in their network.
I can give you examples of rural
fiber carriers, for example, that
could only get the right price
structure by getting rid of some of
the redundancy in the network that

was required.

So I think we have to stay true to what the purpose is.

Redundancy.

MR. WATSON: We believe there is an important role that needs to be played by expanding stakeholders in the success of broadband deployment across the United States, not just in unserved and underserved areas.

And we think that has to involve bringing in more third party players who provide services particularly not in urban and suburban but rural areas and help them serve those areas and show cost savings and a degree of benefit as to why this is going to help.

For example -- not just for example, we have seen market failure in bringing broadband forward but we have also seen tremendous government failure in bringing broadband forward.

Up to 70% of the Medicaid

expenditures go towards nursing homes.

Imagine the money we could save if we kept people in their homes one additional year.

That would save us hundreds of millions of dollars a year and would pay for coverage to that home and pay for coverage to a lot of different homes but we haven't seen the application of telehealth and things like that, driven by other policy measures whether they are commercial or government to help us do that.

And hopefully a program like this can help spur some of that discussion.

When people are putting forward their proposals in bringing the people who could be providing tele-subbing services to individuals out there who need the service provide to them. The threshold level that will help us define that is

what is the definition of broadband
and what are we going to require
people to be able to operate with.
MODERATOR: We are getting pressed
for time, so I am going to interrupt
both questioners and answerers if
they go more than a minute.
Question number 4?
>> Thank you chip gaskins elevation
wireless, a firm in D.C.
Actually, I have a question, more of
a pragmatic question I would love to
hear your thoughts about.
No matter what speed we pick to
define broadband, 756, 1.5, 10 mg,
whatever it is, the real question is
how NTIA and RUS will actually apply
that definition.
Basically every Greenfield network
has a very high capacity, wireless,
wire line, fiber, whatever it may
be.
So as people are writing
applications, you can almost put
anything in you want to the

application as far as what speeds you can deliver.

The real question is, what are your thoughts as should NTIA and RUS act like venture capitalists in this model where they take that application and can dissect it based on their own technical knowledge or help with someone else and have a believability filter on it and said are they going to play with the oversubscription ratios, and what is sustainable in this and is that something that you think NTIA and RUS should do?

MODERATOR: Time's up.

Anyone responding?

Yes.

MR. MITCHELL: With the dilemma that NTIA and Russ face is there are roughly 10 million homes that have dial-up only and they only have 7 billion dollars to at least bring them into a broadband availability situation.

That is 7 hundred dollars per household, in rural areas that doesn't get a whole lot done.

We will probably put a dent in the unserved areas before you get to the underserved areas.

So even though the definition is very important, it may not be what the focal point of the two administrations have at this point in time to get ubiquitous coverage in the United States.

MR. VEIN: And the problem is so large that is to pick innovative models that can be built to scale across the country.

>> My name is Tom Terp Y I represent two groups.

Ridge telephone telco and an economic development group, we work in rural America.

We live in a flat world where we are going to have to compete internationally, so perhaps one of the solutions is to look at what

some of our international competitors are using as a definition.

And more importantly I think the applications are going to drive the demand of the network.

I believe a minimum applications level setting definition is required.

In the end our rural folks have to be able to compete, they have to be able to afford the network and they have to have a speed that allows them to compete internationally in a flat world.

So we believe a starting point of a one mg definition with commitment to grow that speed to certain levels over time might be the way to answer these questions.

And what is the international standard, Fred, that you might know about that we are up against?

MODERATOR: Does anyone know? International standard?

MR. MITCHELL: Well I don't know if there is an interstandard.

I actually was in India last week talking to the Indian government about what they are going to do with their broadband situation, a country of over a billion people with 4 million that have broadband now.

And they are looking at wireless solutions currently as one possible solution.

But the speeds with wireless are going to be different than they are going to be with fixed services and especially on the upstream, there are certain technical limitations and the like.

So conversely some countries have fiber to the home deployed at a wide scale.

So I think it's very difficult to say there is one international standard.

I think countries try to adapt to their current environmental level

and do the best that they can with the resource that is they have.

And resource questions have come up here as well, and I think NTIA and RUS will probably try to do the same.

MODERATOR: Mike 2.

>> I am with the public safety communications.

International.

Much of the discussion that has been held today relates to defining broad band on speed and for public safety there are a couple of other element that is I think need to be take into consideration which is reliability, redundancy and security and the act does talk to having public safety access these networks.

To what degree is the panel willing to consider those items within the definition of what a broad band should and should not have in it?

DR. NEWMAN: Look.

I think the NTIA should definitely

set up criteria which would incent
the wireless networks to serve the
community.
I think there is a lot of good
foundation work that has been done
over the last couple years by the
FCC and others that get at those
other parameters.
MODERATOR: Microphone number 2.
And we might make the time limits.
>> Thank you my name is Alisa
Clemson I work for international
broadband electric communications we
are providing broadband service in
rural America and we fully support
setting a minimum speed.
Right now it's at 200 KBPS and there
are areas in this country that are
not receiving service so I don't buy
that setting it at a minimum level
prevents rural America from getting
a service because they were not
getting it today.
We would like to see it set at 1.54
mgbps both up and down which is

comparable to a T-1 line.

Thank you.

MODERATOR: Thank you.

Last but not least, microphone number 4.

>> I will make this short.

I am mark bailiss from visual link internet, a provider in Northern Virginia, and I am speaking today as Director of the Virginia ISP association.

We would like to give our support.

This is a comment not a question.

I would like to give our support by the statements made by the wireless internet association.

We believe they are were quite pertinent.

Also we want to say that we do believe that there should be a minimum speed of broadband that is set, but that speed must take into account that the primary reason that underserved and unserved areas are unserved by regionalized ISP's is

the cost of transportation to get
internet band width from the peering
points to those regions.
If we do not address in with this
funding such that we are in some
regulatory bills that will allow the
basically the transportation across
those fiber lines that cost us so
much, those aren't controlled to
where those prices aren't so
predatory, no matter what we put in
to build infrastructure in these
regions in the stimulus bill, we
will not be able to sustain these if
the cost of the band width which is
what our primary thing we are
providing to these end-users and
everyone wants us to give them more
if those are not taken into account.
Thank you.
MODERATOR: I think we should
probably just end the session.
Pretty much on time.
So first, I would like to thank our
panelists for a very interesting

discussion.

The next roundtable convenience at 1 p.m.

I will recommend or pass on the recommendation that the best place for lunch around here is probably across the street in the Reagan building.

There are a number of opportunities there.

I would like the audience and thank the people on the web for participating and we will see you at 1:00.

Thank you.

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