Location: Thomson Reuters, D4-Special Events Room, Eagan, MN

Facilitator: Anne Losby

Task force members in attendance: Myron Lowe (for Steve Cawley), Brent Christensen, Tom Garrison, Jack Geller, Danna Mackenzie (for Barb Gervais), John Gibbs, JoAnne Johnson, Jack Ries (for Gopal Khanna), Rick King, Tim Lovaasen, Bob Isaacson (for Dan McElroy), Mike O'Connor, Kim Ross, Vijay Sethi, Dick Sjoberg, Karen Smith, John Stanoch, Chris Swanson, Craig Taylor, Joe Schindler (for Mary Ellen Wells), Peg Werner, and Cindy Kevern (for Robyn West).

Replacements:
Joe Schindler for Mary Ellen Wells – jschindler@mnhospitals.org
Danna Mackenzie for Barb Gervais - Danna.Mackenzie@co.cook.mn.us
Jack Ries for Gopal Khanna
Bob Isaacson for Dan McElroy
Cindy Kevern for Robyn West
Myron Lowe for Steve Cawley

Public attendees: Ann Treacy, Jack McDonnell, Tucker Carlson, Emmett Coleman, Andrew Schriner, Mike Reardon, Mike Martin, Randy Young, Tom Berkelman

Staff in attendance: Carlos Seoane and Shirley Walz from Thomson Reuters; Diane Wells from the MN Department of Commerce.

Opening comments; review meeting agenda – Rick King

The meeting was called to order at 9:37 a.m.

Rick King went through the list of substitutes.

Rick King indicated that the agenda is structured to allow discussion of the three issues that were mentioned the most by task force members as contentious issues. He thinks there will be a pretty robust discussion. Rick went over how we want to deal with contentious issues. The methodology we'll follow is to define what is meant by the terms and break them down to identify commonalties and differences. The focus should be on the issues and not on the people. We want to understand all the points of view. Task force members have to take positions based on their own beliefs or their jobs. That is their role. If half of us can agree, we should say that; if three fourths of us can agree, we should note that. Or if there is total openness, we indicate that. Can we break down an issue to get to part of an agreement? We do not have to decide what goes into the report today. We have to work through the issues.

Rick King also indicated that the task force is going to test another principle. He has to leave about 10:45 and go talk to a group in St. Louis Park. Brent Christensen will take over as chair and lead the discussion. Please give him even more respect than you give Rick. Rick appreciates that you all have accorded the role of chair a great deal of respect. The conversations will go very well.

Rick King asked the task force to take a look at the agenda and review the June/July/August Greater Minnesota meeting information. There is quite a bit of detail about the lodging and the meeting schedule information has been updated.

Rick King asked if there were any questions, issues, or comments and for a motion to approve the agenda. There were no comments. A motion was made and seconded. Agenda approved.

Rick King asked the task force to look at the minutes from the last meeting. Any corrections to the minutes as written? No comments. A motion was made and seconded. The minutes from April 24, 2009 meeting were approved.

Rick King asked Diane Wells or Bob Isaacson if they had any update to the stimulus package information.

Diane Wells indicated that Commissioner McElroy had indicated at the last meeting that he was going to be in Washington and whether any new information had been obtained. Otherwise, we are in a quiet period with regard to broadband stimulus funding as the RUS and NTIA are working on the guidelines for applying and the process for reviewing applications.

Bob Isaacson indicated that the commissioners of DEED and Commerce and others met with Connected Nation.

Diane Wells added that while we had been hearing that the guidelines would be out in mid June, Connected Nation indicated they were hearing it would be late June.

Rick King indicated that he was in Washington and met with Minnesota's congressional delegation. Sen. Klobuchar has a staff member who is on our distribution list and they validated that they are hearing that the FCC appointments process is going up now and they feel that they are going to get the broadband policy out for comment. We can discuss if there is anything we want to say as a task force. Businesses or communities can also choose to make comments. The Senator and her aid are very interested in what we are doing. Any stimulus update from anyone else?

Brent Christensen indicated that he had been in Washington last week and had a briefing from RUS and it sounds like procedurally, RUS and NTIA are going to work on the application together so one source for applying for stimulus money from both.

Jack Geller indicated that he had not heard that before and that is really good news. RUS has been in the lending business a long time so has the resources and knowledge. NTIA does not have a grant program so this would really help NTIA.

Brent Christensen added that the RUS philosophy discussed 75% to loans and 25% for grants.

Rick King asked if there were other comments. There were none.

Rick King indicated it was the time for public comments and asked for comments. No public comments.

Tom Garrison indicated that he had a question from a member of the public. The question was, when there is a discussion among task force members, can a member of the public make a comment?

Rick King indicated that if a citizen or business wanted to register a comment, they have 3 avenues. They could send their representative the detail. They could send it to the chair. Or they could come to the meetings, paper in hand and speak. Having it in writing would help for the record. Mike O'Connor has been encouraging people to give issues on his blog. We'll do what we can to allow public comments to be put forward.

Rick King indicated that the task force had received some correspondence that was summed up and sent out via email yesterday and he doesn't intend to go through them now. Those comments are cut and pasted without editing or endorsement. Rick also mentioned that he understands that everyone got the correspondence from Monticello that we had already distributed last time. Rick also mentioned that he is discouraging people from sending a blanket email to all task force members but to instead send it in so that it can be combined and sent back out to each of you in a package.

Rick King indicated we would move to the discussion of contentious issues.

Anne Losby noted that the two handouts have been updated since we emailed you. You may have printed out another version. The new pages are right up front in the hard copy which is not the same as the one emailed out.

Karen Smith asked how many of the pages are new.

Anne Losby indicated that John Stanoch submitted 20 pages.

Rick King added that if it says John Stanoch then it is new.

Anne Losby replied that John's is new as is Tim Lovaasen's which is also at the front behind John's.

John Stanoch had one caveat from a lawyer's point of view and that is he does not necessarily agree with everything in the paragraphs he indicated that he generally agreed with.

Discussion of Issue #1: Role of Government

Rick King indicated that we will move into the issue of the role of government. He thinks think people did a nice job of framing the issues and it will be good to define the issue and hear from everyone and figure out if there are people that are in disagreement or that are ok. The more we can peel the issue back to where we can agree, then we narrow down what we do not agree with and discuss. So we'll try that process and adapt for the second issue and we'll be perfect by the time we get to the third issue. Anne will help with facilitation.

Anne Losby indicated that we want to walk through the sequence and define what the issue is and agree with what we mean by it and making sure we hear from everyone on the issue. She will jot down on the flip charts where we agree. The first step it to define the issue.

Tom Garrison indicated that on page 13 of the contentious issues, he tried to think about them as broad issues. He tried to pose several questions that might help get at the topic and then summarized where people were coming from.

Rick King indicated that he appreciated Tom looking at it this way.

Anne Losby indicated that the task force should look at page 13 and determine if it outlines what we are looking at here.

Rick King indicated he wanted to start at a high level. He isn't sure that he is going to differentiate between the different levels of government. He thinks there are some people that believe the government should provide the infrastructure, like the road. That is a significant level of involvement, going beyond just providing content but to be the highway builder. Others believe that should be left to private sector providers. If the government provided something that everyone can use, are you going to have multiple networks. How do you figure out the demand? Is there a market where the government actually builds the road? He wonders if anyone believes that the government should be involved in the content that goes down the road.

Mike O'Connor indicated that the government gets less involved as you move up the stack but government always has consumer protection issues.

Rick King asked then if Mike was talking about a regulatory role for government.

Mike O'Connor agreed that government should have a regulatory role.

Rick King asked if anyone thinks government should have a role with regard to content.

Jack Geller asked to have "content" defined.

Rick King responded that the government would be involved in consumer sales of materials through the road. An analogy would be the government makes a type of car to go on the highway. He is just trying to determine if there is an area we could forget. He isn't talking about something like a community access channel but that government would run like an email system or retail type television programs.

Tom Garrison said that when Rick first spoke he was inclined from the vantage point of where Eagan is at but as he looks at the full spectrum of cities like the folks that MMUA represents, or the folks where there hasn't been a local cable provider, or the folks like at Monticello (he isn't promoting or denigrating) where their citizens have given them a role, the answer is yes because their voters have given them a role.

Peg Werner asked then if we were talking services not content. Like criminal justice or fishing licenses, those are government services.

Rick King responded that Tom's point is relevant to that too.

Tom Garrison indicated that cities sometimes get involved in content delivery in cities where they provide Internet, but as a delivery method.

Rick King stated that if there is no provider out there or no one is interested in providing content, should the government be involved?

Vijay Sethi said that under certain circumstances there is a role for government to be involved. No one wants to be out there competing with the private sector but there are certain instances where costs are going up or citizens want it.

Rick King asked if it was possible for us to think about what that criteria might be. It seems like you are saying, if this doesn't happen and this doesn't happen, then it is ok. Would we want to know that the provider looked at that area and said no.

Vijay Sethi indicated that the issue of the government's role in terms of not making a public private partnership. At the local level, the government has a role to put in conduit. As an example, there are road projects going on all over the place. We just have a plan in place that anytime there is a road project and there is an area not served that we put in the conduit. In those cases the government will have a role as coordinator, if not provider.

Brent Christensen suggested that maybe we start from the top down. Government is charged with looking out for the best interests of the public. The next step is, is broadband in the public interest? We are all here because we believe it is. So then what is the government's role? The Government should have a role in protecting it. The discussion is how will the government provide that protection. They have a responsibility to make sure the public need is met. But how does that get accomplished? In my mind that is where we are going to split.

Jack Geller indicated that when he looks at the role of government, all across the country and in Minnesota, he can easily identify three roles to some extent they've all been talked about. For some infrastructures the government provides the money (utility model). The government also plays a role as a regulator. Part of it is consumer protection so that consumers don't get hosed. At the same time, if we move down the utility model, then the government will have a much stronger regulatory function, including maybe setting prices. The government potentially has a broad regulatory role. Right now the service we are talking about, broadband, is unregulated. If government is a finance partner, is it reasonable for government to take a larger regulatory role. Sometimes even the Government might jump in as a competitor to the private segment. That is the third part, government as a competitor. How government can step in is set by state statute, by the supermajority vote. They don't have to have a justification where we don't ever provide it or where we are underserved. The law says that if a supermajority says the government should play a role, then they should. Those are the three roles that government plays or could play. They are playing all three of those roles, if not here then somewhere in the country.

JoAnne Johnson indicated that she sees two divisions: government as provider or government as participant. This group agrees on the government as participant (finance and regulatory partner). Government as provider is where there is disagreement. There is the finance partner and the public private partner. Is the Department of Public Safety going into regulating online gaming crossing the line?

Mike O'Connor indicated that sometimes the government is also a promoter, a leader to ensure quality, reach and penetration. This complements what Jack Geller said. In the past, the government took this role with electricity, trying to promote penetration to reach a goal.

Peg Werner asked are we agreed on the role of the government as a participant. Then if we look at the role of government as a provider, if you limit that to where private providers won't go, is there anyone in the room that disagrees with that.

Craig Taylor indicated that we've seen an example of that in Scott County.

Jack Geller responded that they aren't playing retail provider in Scott County.

Rick King indicated that was more of a highway example.

Jack Geller said they are providing for their services.

JoAnne Johnson stated yes, but from her side of the business world, they take a huge tenant off of the network. She is not totally opposed to all government provision. The state's K-12 and library networks have been in place for years and work well, but we need to be careful. Those examples are also at least partially using private facilities to run.

Rick King asked if that were to be launched today, would that be argued over.

JoAnne Johnson agreed it might be. But there can be agreement that this a group that badly needs access and that this is good for the state to have access and that it has access at a subsidized price and they can be served by reaching out and leasing from the private sector.

John Gibbs indicated that JoAnne is on to something key for him. We need to differentiate between provider and consumer. Certainly for a library, are they consumers or providers? What are the consumer needs of citizens generally and businesses generally. Libraries are the most accessible. He thinks that public schools are more consumers than providers. If we think of those government institutions as consumers, then there is consensus on the government role. Then a funding question presents itself. It doesn't follow that a consumer should be in a provider role.

Tom Garrison said he was going back to Jack Geller's comments of outlining government stuff. The fourth area is public policy. He also had a question for the provide community. If our goal was to fully connect our state, he doesn't understand who takes care of the "middle mile." Is there a role for government to work on that and the back haul? We started down a good path with JoAnne. We might want to list those areas where government makes some sense at some level to get at where we are still struggling.

Brent Christensen stated there are different levels of providers just like there are different levels of government. He is at the city end, lowest end. There is midlevel haul and then there is backbone providers and big companies that act as the federal government. Different tiers.

Tom Garrison asked do we think there are gaps in the middle mile.

Mike O'Connor stated yes, there are gaps.

Peg Werner indicated that the learning network that JoAnne and John referred to, yes, we are consumers. The K-12 network is a private network, even if started with public funds. We are forced to re-bid our network every three years. We find that we have a very regional network and we find that works best. She thinks the private network they use provides the best network because they have the resources and knowledge. Having anchor tenants that are publicly funded is good. Whereas, if you are strictly government, you wouldn't get the economic development because others can't use it.

Kim Ross indicated that the K-12 model is an old model. To deliver education today it needs to be in the home. Right now, he is limited in his community because 20% of kids don't have access to broadband for whatever reason. They are out of the loop. They will be more and more out of the loop as applications develop. This limits the uniformity of public education.

Jack Geller indicated that he hadn't thought of this before, but we view education as a public responsibility such as we give the students their textbooks, we don't make them buy them. As the textbook becomes more virtual, do we need to make sure that they have these resources, like we give them textbooks?

Kim Ross indicated in the old model we had responsibility to provide a system of transportation to bring kids to school. Similarly, we should have responsibility to give them access to broadband. Getting students a computer is the easy part. There is a pipe that goes by them, but they may not be able to afford access.

John Gibbs indicated that students succeed in schools where things are better integrated between schools and families and there is broadband. There are some families that cannot afford computers. We have something like that with band instruments so we subsidize. There are some that aren't capital issues. There are still some areas where there might not be access to broadband because the infrastructure isn't in place. This is the low hanging fruit that he would like to see Minnesota be a leader there.

Bob Isaacson asked has the task force come to an agreement about an overall goal for broadband and how the government should help to achieve that goal. He is hearing lots of exceptions and carve outs for what the government goal should be. Shouldn't the task force come to agreement on what the overall goal should be and then decide what the government role should be to achieve that goal?

Robyn West went back to a question affecting Anoka County. It seems to make sense that any provider should be able to come in and buy the pipes. What is a better idea is to create or ensure that service is there. People need some access. There are areas just north of Anoka where there is no access other than dial-up.

John Gibbs stated maybe the role of the government is to aggregate demand to ensure that it's worth it for the providers to invest in that area. If the demand is there, a company will join in.

Robyn West stated if there is no density, the companies will not invest.

John Gibbs stated there the company could be Frontier, Comcast, Qwest or someone we don't even know about. As long as the demand is there someone will build. Density is not the issue.

Robyn West asked then why are you not in my area if demand doesn't need to have density. That is why it seems practical if government did what Scott County is doing. Than anyone that wants to engage in selling the service can because the big guys haven't put the infrastructure in but the county did.

John Gibbs said he doesn't know that his company needs density, but what he needs government also needs. Frontier said last time that there isn't anything that Frontier won't build. Comcast is the same.

Robyn West then wanted to know why Comcast wasn't in her area.

John Gibbs replied that he wasn't sure they had a license in that area but if it penciled out they would look at it.

Vijay Sethi indicated that he thought it was in Browerville where the economic development group wanted high speed broadband and they only had DSL and wanted something faster. They thought the connection wasn't there but it was. So there are two issues. One is the perception that it isn't there. Second, perhaps the government is not large enough to provide technical support or collaboration even if it pledged to do that for economic development. In that case, maybe the state should provide the information needed.

Dick Sjoberg had a comment and a suggestion. His suggestion would be that maybe cities, if they feel they are underserved, they should put together an RFP and see what the industry response is. He is often surprised by how quickly an area can develop. He has lived in his area all of his life and sometimes when he flies in or out he is surprised as to when a housing subdivision was built because it looks viable to serve. Maybe this is a role for government, to put out an RFP and see who is interested in serving. It may not be economical for Qwest or Comcast to build out with just their own money so maybe the government has to issue revenue bonds or open the rights of way. The Scott County solution is a short term answer that defeats the long term. It is cherry picking, where a county builds their own network, and then they don't use the providers so they are out of the general mix of customers. So they take themselves out of the pot then there is less money for the provider. For the highway analogy, highways only make sense if you build the whole network, piecemeal or building just the middle two miles and nothing else, doesn't work. The equipment is expensive and has a short shelf life. One of the things we really have to look at is keeping everything in play. Everything needs to be in place, we need to avoid building a whole series of private-service networks (county hooks the buildings together, or the city, or the school district or the hospitals), then you end up with a whole set of networks, all working under capacity. And the private provider is the one that has to go four miles out of town to hook up a house but doesn't have the customer base to do that.

John Stanoch had a response to Robyn West's questions that falls into two categories. He indicated most densely populated areas are well-connected. The model is different for smaller cities. When companies build out a new technology with limited capital, you build out first to the densest areas and get customers to subscribe and then you have the capital to expand. Having anchor-tenants helps a lot to bring connection there and there is a role for government to work with private providers. In the other sense, there can be market failure and the model is the government might help by building it themselves or by adding money and thus changing the economic analysis for a company. He would advocate that just as a solution should be technology neutral then it should be provider neutral by putting it out for bid. Government should be incenting investment in areas where otherwise investment wouldn't happen, rather than building it themselves at 100% of the cost. Absolutely there is a role for government in economic development. The task force needs to make a statement: what's the mechanism to provide internet to areas that don't have it—facilitate communication so that a developer communicates to the providers of what they are planning. It happens weekly where a Qwest technician will come in from the field with knowledge of what developers are planning to do that the company didn't know about.

Jack Geller indicated that he thinks we can find some consensus. Another area is what level of government are we talking about: state, county, municipality? We have to carve out what level of government we are talking about when we say the role of government. As a rural guy, these issues get a little easier. We can find agreement on areas not served. Next we can talk about

speed and it is easier because now you can define unserved or underserved. Where it becomes complex is where you have multiple providers. How does the government decide who they finance? When they do, they skew the competition.

John Gibbs indicated that Jack asks some profound questions. If the government acts as investor where there are multiple providers does the government sway the market by partnering with someone? There should be consensus that government could play a role as an information source, as an aggregator, as a referee.

Rick King indicated that he has heard different roles for the government through this discussion and tried to write them down: investor, provider, partner, consumer, promoter, and regulator.

Tim Lovaasen indicated Rick missed government as competitor and that is where the problem is.

Rick King said he thinks it is in there somewhere. He agrees with the role of government as anchor tenant or consumer. As a provider, there are different schools of thought. With government as an investor: he agrees with John Gibbs, if you already have two providers or more, it's not the best place for the government to invest because you would have to do it in a manner that wouldn't advantage one of them. If the consumer demand is aggregated but still no provider, then they would be agreement that the government would play a role. So if you take those five categories, provider needs more conversation. Investor needs to be framed up.

John Stanoch asked how far up the chain do we go with regard to regulation. Most people agree with some basic role (protecting the public), but as you go up, there will be strong disagreements (price control). We need to discuss where along the regulatory spectrum there is agreement.

Jack Geller indicated many people will think that the providers will have enough capital to invest. Probably the most interesting discussion will be around government as investor. He could be wrong because he doesn't look at everyone's statements, but is there enough capital now or enough that the private sector will put at risk, is there enough capital today? So this is a discussion about how to put public dollars into building the network—under what terms, to which providers, what if neither meets standards. Does the government put out an RFP and pick the lowest bidder.

JoAnne Johnson added: or subsidize the user.

Brent Christensen (now service as Chair in Rick King's absence) stated let's go deeper into each of the six sections:
1. Consumer
2. Provider
3. Investor
4. Regulator
5. Promoter
6. Policymaker

Tom Garrison stated that he wanted to go back to Bob Isaacson's point that we need to come to some conclusion on the overall goal. If we haven't agreed on what we are overall trying to achieve it's difficult to discuss.

JoAnne Johnson stated that underlying everything is that the overall goal is going to involve as much broadband to as many people as possible.

John Gibbs replied that the statement feels very loaded. He wonders if it isn't time for a reset. We had a statute that had 8 goals. We don't talk about them collectively but maybe we think of them on our own. Maybe we need to go back to the basics. Maybe we need to talk about what the report looks like that meets the 8 points. Let's go back to what the statute wants us to do.

Brent Christensen said that he understands John Gibb's point but that this exercise and discussion of contentious issues is intended to get some of these things off the table.

Tom Garrison indicated the speed goal is very critical to everything else. The higher the goal, the more significant role the government's role. If the goal is 100Mbps to every home, that's a very different discussion than if it is 50Mbps or 1Gbps. What is it going to take to get to that agreed upon goal, at 50Mbps there may be very little that government has to do but at 100Mbps there could be much more for government to do.

Brent Christensen said that he agreed but that isn't the task at hand.

Peg Werner said that at the bottom of page 4 of her contentious issues handout is "what are the goals of the task force". She thinks we need to decide first what the goal of the task force is. What are we supposed to recommend? Goal? Technology? Then we can decide on everything else.

JoAnne Johnson asked if we need to have the discussion on the goal before we can discuss speed.

Vijay Sethi said that as we are talking about speed, we are the Ultra High Speed Broadband Task Force.

Kim Ross said that he favors following the agenda in front of us. We have made progress. If the same happens on issues 2 and 3, we have made good progress. There is productivity.

Brent Christensen announced that the task force would take a 15 minute break and at 11:15 take up issue #2. We will stick to the agenda. We didn't finish issue #1.

The task force took a 15 minute break.

Brent Christensen noted that he got his first spit ball.

Discussion of Issue #2: Speed

Brent Christensen stated regarding issue 2, he agrees with what Bob Isaacson and Tom Garrison said about trying to understand what the goals are and trying to plug in the details. Brent asked members to limit their comments to new ideas and that way he thinks we can move along quicker.

Jack Geller indicated that he just wanted to make the point that if you look at the text of the statute that created us, and laying out the 8 goals, the very first one identifies speed so it is an issue we cannot avoid. It's in our name. If you start at the bottom, it becomes easier to work

your way up. The bottom is the residential customer, the last farm at the end of the road. If you can find a number for that farm everything else is going to be easier.

Brent Christensen said let's get to the step before that.

Chris Swanson stated agreement but that it has to be in the context of 2015.

Brent Christensen noted that was a good point and we need to keep this in context.

Jack Geller stated it may not be an obtainable goal in the current year.

Tom Garrison indicated on page 12 of the contentious issues handout he had a few questions.

Brent Christensen said that as the first thing, do we think there should be one speed throughout the state or levels of speed.

Mike O'Connor indicated that he thinks the answer is yes. There is a minimum and then there are tiers. You can do both. 50 MB to the last farm, he and Jack decided.

Brent Christensen asked if we just want to talk about the levels as far as the users go, does everyone agree with levels? Anyone disagree with levels?

Peg Werner indicated that tiers should be based on pricing, not the users. The user determines the level that someone needs.

Brent Christensen indicated we all agree there are tiers.

JoAnne Johnson clarified that they were application tiers versus user tiers.

Tom Garrison indicated that several of us have looked to the California report. It might be helpful to pull the tiers out of the CA report.

John Gibbs indicated that California stated 3 MB down and 1 MB up.

Dick Sjoberg asked are we talking about the minimum speed that would be needed.

Brent Christensen indicated we are talking about tiers and applications, like a residential user, a telemedicine user.

Dick Sjoberg asked are we talking about minimum.

Tom Garrison asked is it floor or ceiling?

Dick Sjoberg asked if we are tiering up to 50 Mbps.

Anne Losby indicated that what she hears Dick asking is once you have the tiers, what are you trying to answer as a group, are you talking about the minimum speed tier or the maximum.

John Gibbs indicated when he thinks about residential applications, telemedicine is about getting seniors or a handicapped person able to access the clinic or to access the radiology

charts without making the trip to Willmar or professors to access the charts without being in the classroom. The file sharing is the individual at their home sharing files.

Brent Christensen stated in the telemedicine piece has two sides, the consumer and the provider. Before we get into that conversation, we need to define what those tiers are.

Peg Werner indicated if you have tiers and you name them, then you've kind of identified what they are. If you just named speeds instead then a resident who did a few things could say I'm that speed and if I were a residential customer with medical needs I could pick up a higher speed.

JoAnne Johnson indicated that is why she wanted to bring us back to applications and what we can do with that speed. You pick an application and then you have a speed that corresponds.

Brent Christensen stated maybe we take the application we want to address and then assign speeds to that category.

Chris Swanson went back to what Mike O'Connor was saying and that there is a foundation of a minimum speed.

JoAnne Johnson said we will do both.

Brent Christensen said that we will decide after we do the applications. We put the applications into tiers and then maybe we assign the speeds.

Jack Geller said he is on the same page as Chris. From a policy perspective you have to have a speed and at some point the floor has to be defined because anything under the floor is underserved. Where you decide to put it is fodder for the discussion but at some point it has to be defined. If there are areas of the state and there are no providers providing speeds at the floor then that area is unserved or underserved.

Brent Christensen indicated that he doesn't disagree but that we need to decide what is needed in terms of applications to decide where to set the floor.

John Gibbs said that in California they identified applications, then they identified a floor and identified a plan to get to the floor and they are now spending the money to get networks built out for 3Mbps down and 1Mbps up. They got to this 3Mbps down and 1Mbps up by going exhaustively through the applications.

Brent Christensen said that he thinks we need to figure out what the tiers are before we can set the floor.

Danna Mackenzie indicated that she wanted to know how is the legislature going to use the tiers. How will they set policy from them.

Brent Christensen replied that once this piece is figured out, then the government's role can be determined. One of our tasks is to recommend a speed for 2015.

Danna Mackenzie said the by defining tiers, you are going to have to define who goes into what tier. Who is going to decide that?

Peg Werner said that the consumer will ultimately decide.

Anne Losby asked if the group wanted to look at the California slide and put it up on the screen.

John Gibbs said that the right hand column is what can be done today with the speeds and then they ultimately came up with a policy. He doesn't know if the right-hand and left-hand columns are even the same today.

Anne Losby said that if we agree that we like this format, is that what you are trying to say, what the speed is and determine the applications. Is that what you want to do, start from the California chart and update.

Brent Christensen said that is another way to attack this. If we agree there are tiers, may we look at what tiers do they need for what consumers want to do.

Kim Ross said that he thinks this would be very useful for legislators.

Tom Garrison suggested something offline before the meeting and that is if we could ask the technical folks from the provider community what kinds of speeds your network planners are telling you that you will need. And then to those that look at future needs and maybe we can merge them next meeting. Tom thinks it would be helpful to get some more technical advice on this. You can define whether the tiers are from the California report or what Rick came up with, it doesn't matter. If I'm a power user from my home, what is that? If I just check email, what is that?

Brent Christensen said he is looking at Rick's point and trying to divorce the tiers and speed conversation. He is also looking at page 50 of the agreed with /disagreed section.

Jack Geller said that he was going to agree with Kim Ross that this kind of chart is helpful to legislators but it is only a primer on broadband. It puts into context so that the reader has an idea of what various speeds mean. You are just helping a bunch of legislators that do not have background and expertise in telecom or broadband have some type of rationale. But when you try to apply this in some type of policy context, if I have a farm 30 yards from Mike O'Connor's but I only need e-mail and surf the net casually but Mike next door is a power user then we are both neighbors in the boondocks. How does that help to bring speed into that area or to determine what the minimum speed should be for that area?

Brent Christensen replied that from the perspective of a provider who is building the network, it helps to determine how fast do I need to make it for the last guy. Does that make sense? If you live in a high metro area you can have a 1Gbps but the last guy on the farm is 50Mbps.

Jack Geller and Peg Werner disagreed. What we've said is that it is ubiquitous; the minimum speed has to be able to go everywhere. If you sell your house to a power user, it should be available.

Danna Mackenzie added that our government, education, they need to know what the minimum is everywhere.

Peg Werner said that there can be a difference in what is chosen, but what is available is a minimum.

Brent Christensen replied that we could say 50 MB and there is no top.

Jack Geller said there is no reason to set a top. Providers will determine that based on what consumers want and are willing to pay.

Dick Sjoberg asked, if 50 Mbps is the floor and if Jack says he doesn't want to pay for 50Mbps and only wants to pay for 2Mbps, can we have a tier that allows someone to only have 2. But if someone wants 100Mbps, they get it.

Mike O'Connor said the minimum speed is 50 MB and all systems should be able to deliver that. And preferably there is the ability to go faster.

Tom Garrison responded that there is a philosophical issue with our argument and he thinks we have to decide as a task force. One viewpoint is that I should be able to get whatever I want, where I want it. The other viewpoint is if I live on a lake in the middle of nowhere, should I be able to get what I want wherever I live. If there are practical issues we need to get them out on the table.

Brent Christensen said that one of the things we've talked about is ubiquitous service. The question is are you going to get whatever you want or is he going to get what he wants, because there is a big difference.

Tom Garrison agreed there is a big different between want and need from a residential location and if you say 50Mbps and that is all I can get, that is a limitation on what I can get where I live. He realizes there are practical limitations on resources in the state. He's seen it expressed in here. Can the individual wherever they are in the state face no cap?

Chris Swanson, going back to Dick's statement, said we have to be careful about what we mean. Are we going to set a floor and everyone is going to immediately provide at that speed. As we get to 2015 what are people going to need. I see providers are going to high def television. Maybe he is wrong, but he thinks this is a number that we think we see as important to try and get to and the providers attempt to get there. There seemed to be some worry by the providers if we set this speed that you would have to provide.

Dick Sjoberg asked if we set a speed at 50 Mbps and the provider only offers 49Mbps, then what happens..

Joe Schindler said that this is like healthcare. There are identified areas that are underserved with few doctors so the state sets a goal that says this is the minimum and give incentives to get more doctors there. If you need specialized medical care, you may need to drive into a metro area to get it. We have that and are going to have to live with it.

Jack Geller said he was going to make the same point. It is reasonable for government to say if you call 911, an ambulance should arrive with15 minutes or whatever that goal should be. If you feel that you need to live next to a hospital, then you are going to have to move. If you talk about ubiquity it's the minimum you can find everywhere.

Mike O'Connor said that if the provider has a network that doesn't provide 50Mbps then good things happen to make you able to deliver. The state may be interested in helping by providing incentives. But that does not eliminate the need to set the floor.

John Stanoch said that he agrees with Kim Ross that following this type of approach along with setting a floor that would be helpful to legislators. If I am a legislator, I would want to know what I'm doing to move the needle. He thinks it will evolve like telephony. We still have some people with one basic line. He thinks we can agree that something higher than the 756Kbps definition of the FCC should be used. But as we go up the food chain are we ok to make the investment to get to 50Mbps that maybe only three homes want. Am I willing to subsidize something statewide to get to a minimum floor that only a few want. He thinks this would be very instructive to legislators. We are making recommendations. What do we do in terms of public investment and who are we serving and what are they getting.

Brent Christensen replied that he thinks we are back to the tiers and he doesn't see anything wrong with using the tiers.

Peg Werner said she is listening to what everyone is saying and if we could ask people what they need in the future and show the speeds. Then we draw a line at 50Mbps on one side and everyone will have available the minimum.

John Stanoch said that he disagreed; drawing the line at 50Mbps is arbitrary.

Peg Werner replied that she doesn't see how you can decide that rural areas only get 1.5Mbps and other areas get higher speeds.

John Stanoch said he does not see how you can address until everyone in the state is on the map.

Peg Werner said we have to know what to offer.

Craig Taylor thinks we should draw out the applications within the tiers. Can we outline things in health care, education, etc. and the speed needed. It's going to take this to do that for each of the areas and then extend that, typically we do things by user case. These are the scenarios and profile of users.

Joe Schindler said that once you define some sort of minimum that is where the pools of money come in. Are we going to target funding based on programs. You can put money on a sector basis. He agrees with what John Stanoch said that the minimum approach has to be addressed first. Once you go above what everyone can connect at, if you want something higher, you pay for it.

Brent Christensen said he does not want to state speed until we figure out the applications.

Chris Swanson said he heard John Stanoch say that 256K is probably not a good number, so he hears you saying we need to set a number.

John Stanoch replied in the most simplistic terms, we do need a number statewide for basic broadband. So what do we need statewide so that everyone is there at that minimum. Say if you have a smart board in a school that you want everyone able to access, what is that speed necessary to get everyone in the state connected.

Dick Sjoberg said that one thing to consider is the economics. There is a cost to 1Mbps, or 10Mbps. The retail prices for 50Mbps today is over $100/month. There are a lot of people that

will say I don't want to spend $100 a month for a service. If we set too high of a speed the price of service will keep people out of the market. The service is very price elastic.

John Gibbs said that what they are seeing is the more price choices, the more people choose the lowest priced tier.

Dick Sjoberg said that if you have to design and build your system at a certain level and the provider has to set prices to cover the cost of 50Mbps, people will be kept out of the market and you are not getting use out of that system. You don't design your system for Lamborghinis. If we are going to try and get ubiquitous service and have a state funding mechanism, we are going to have a service that is so expensive that people can't afford it and the state says we can't do this, then we've shot ourselves in the foot.

Brent Christensen said he thinks that is a separate argument.

Anne Losby said to summarize, we aren't talking about the specific speed but what you want as a minimum delivery speed goal. And that you want tiers. A policy that set the floor with options being available if you'd want to go to a lower speed. You can access a higher speed if you are willing to pay for it. If you are in an area that doesn't meet the minimum speed, the state would provide an incentive. Dick, are you saying that it is not economic to have a minimum speed?

Dick Sjoberg replied that we have to look at the economics of telling the providers to provide a certain minimum speed. The floor might be higher than what people are willing to pay for.

Peg Werner said that the first goal is to say there is a speed that everyone has to have.

John Gibbs said he thought there might be some profound point that there is some speed that defines broadband and it's important that all Minnesotans can assess it from some provider. He thinks he is hearing that ubiquity is that every Minnesotan should be able to get to some minimum.

Myron Lowe would add that it is a good discussion to look at a minimum speed but it is also important to look at what those speeds enable and how do those applications fit into the trends of what it happening. He knows that the VA is looking at how to deliver health care to veterans in rural areas and they are looking at video to do that. If we have a profile of what those speeds enable and some of those applications that people could participate in as Internet service evolved, it will help them understand why those speeds matter.

Anne Losby asked if all are in agreement to update either the CA table and then augment with some way to see who is served at these levels. Is there a way to overlay.

John Stanoch said that that what he is thinking is that we have a $6 billion deficit so if I have limited dollars what do I have to spend to get everyone on the map. Then what do I need to spend to get to a certain speed.

Anne Losby said if this is factual and updated, she thinks John was also asking how do I even know who does have access at what speed, what am I funding.

John Stanoch said take the map and there are areas that are unserved. What expenditures will it take to get private providers or public/private partnerships to get that map filled in and then what speeds are available and what are the applications.

Brent Christensen responded would that be the how we get to 2015.

John Stanoch said that the discussion of speed can't be disconnected from cost or who we are talking about. Who will benefit. Will 80% benefit if we bring it up or less.

Mike O'Connor said he wanted to answer that from a different point of view. One of the things that we can be is aspirational and you can think about the aspirational goal and making people stretch just a little bit. Make providers stretch. Make the state stretch. Move our state forward. We can say all the problems with getting to the speed so let's not do it or we can be aspirational and say we need to get there.

Brent Christensen said he thinks it might be both. It is nice to be aspirational and big picture but we also have to be realistic and then we have the budget to think about and how do we accomplish the goal.

Bob Isaacson said that whatever goal we have or aspire to, we need the information of what do we get for that.

Joe Schindler said that the aspirational side is the higher end user. What can't the Hutchinson hospital do now that they want to do because the big pipe isn't there. The minimum side has to be addressed.

Peg Werner said that there are two things that are important here for legislators and you could highlight areas on the side and what it means. It may not mean much to say you need this speed to share files. But if you give an example of an ordinary person and say this is what you need for an online education, it would be helpful for them. The other thing to make clear is as the applications change, as they get more movement, sound, color, that drives higher bandwidth. If online education takes this speed now, we will need this speed by 2015 which is why you build the 50 Mbps network. It is where we plan to be.

JoAnne Johnson said that this is a little off topic but it would be helpful if we could have the 8 points in the legislation in front of us. (The 8 points were put on the screen.)

Tom Garrison said this has been a helpful discussion but he is interested in getting closure. Going back to John Stanoch's comments, do we all accept at face value that we have to get everyone on the highway and that there should be some minimum connection speed to do the basic things that you want them to do to fully interact, for example for education. Can we get to some closure with what we want as a minimum today. He won't agree that should necessarily be the minimum as we are the ultra high speed broadband task force.

John Gibbs said what is the speed to get people on the highway. He would hate to have us loose sight of how many people are not on the highway.

Brent Christensen said if we can define the speed of getting on the highway, we could determine what the minimum is.

Robyn West said that many have chosen not to be on the highway but my kids know no other thing, they will be on it.

John Gibbs added that the veterans that live in rural Minnesota they actually are not on right now, but if we are trying to deliver their health care using broadband they will need to be.

Robyn West agreed that people who are choosing not to be on today may be on in 5 years.

Chris Swanson said that he doesn't think it is our job to educate. We are supposed to be looking at the infrastructure as a whole but not to promote it. We are seeing a trend that the older you are the technology is not as easy and it's becoming part of young people's lives. He does respect John's position, but does not think that is our job.

John Gibbs replied then we should not talk about it being our job to get vets to access their healthcare.

Chris Swanson said that he thinks Myron's point was that there needs to be an infrastructure that allows for that.

Myron Lowe said that what he is saying is to understand the relevance of the speeds out there and what they do. Being on the Internet is an experience and at lower speeds you just can't have a good experience. We can say they are on and at the lower speeds it lessens the value. If you are telecommuting or doing online education, the user experience can be so bad that the incentive or value of the service is eliminated. So include as part of the mix a consideration, not that we have to solve but to consider, that just looking at it from a minimum is not enough. We get questions about what and how to do things in higher ed and it requires more advanced networking and applications. First they look at does this work and if they have enough capability to work. If the bandwidth isn't there, it won't work.

John Stanoch said that what the market is telling us in Minnesota is that for residential customers, they find 1.5Mbps to be good enough. People are finding that a satisfactory experience. He knows this because Qwest has deployed 1.5, 3, 7 and 20 Mbps service and most choose 1.5 Mbps. We also had some good discussion of an option that gets you on at a low cost.

Jack Geller said that he would disagree with Chris. He thinks it is imperative that government does play a role in education and getting people on board. If it's not government's job then they will get off the Internet. If government is going to put public services online then there is an obligation for government to tell people how to access. Jack thinks we will have options to vote online by 2015.

Chris Swanson responded that he just doesn't think that as a task force our job is to push and promote these things. He worries that this is a scope slide.

Mike O'Connor said that he would like to go to one of Gopal's early comments. He just switched to a Mac. When there is a security update on the Mac, it updates the whole operating system. So from his skinny pipe in the hotel his Mac updated an 880 MB operating system. One of the things that we will have to face is that there are minimums just to keep the network running. You heard talk about cloud computing. The minimum of what they buy today is not a good indication of what they going to be. We can't set our aspirations too low.

Brent Christensen said that we are setting today's floor to see what we need in 2015.

Mike O'Connor said that if we set the floor too low you will get people on the Internet but they won't be able to keep their machines secure.

Karen Smith indicated one of the fastest new selling products is netbooks.

Mike O'Connor said that netbooks run on Windows.

Karen Smith stated that she is hearing that people are willing to pay for 1.5 Mbps.

Brent Christensen said that they are going to pay the least amount of money.

Mike O'Connor said that then we only have gravel roads; at some point we have to get out in front of it.

Brent Christensen said that we need to start getting out in front of it. What do we have to do to get them on the highway. Sometime you have to go on a gravel road to get to the highway.

Chris Swanson said he would totally disagree with 1.5Mbps being the minimum by 2015. Look at the history. 1.5Mbps is not anywhere near what will be needed by 2015.

Brent Christensen stated that we are talking about 2009 so that we can build to 2015.

John Stanoch said that today where we have gaps of coverage, to get people on its 1.5Mbps.

Brent Christensen agreed but we do not want to stop three.

Tom Garrison thinks we are all saying do not stop there. He is still trying to get to closure on John's point. If we are saying we've got to get them on today, what is the minimum to take care of Kim's concerns. That's why we are interested in what we need to be able to deliver today.

Peg Werner said that realistically we are not going to built it in 2009 and we can't set a speed that is okay today and then build it and deliver it in 2015.

Tom Garrison said that was a good point, a friendly amendment.

Brent Christensen stated that we are not submitting this speed to the legislature at all.

Craig Taylor indicated that he just read through the 8 points in the legislation again and while we certainly have to understand where we are today, the 8 points are formulated for the future. What is it going to take to get people to the future and whether we can afford to build it. We have to be realistic but have to be able to meet the 8 criteria.

Brent Christensen said his thinking is that before we can build to 2015 we need to agree where we are at today.

Kim Ross said that the chart is a description to show what you can't do if you don't have a certain speed today. It's not the goal but it is a useful tool, helpful as a foundation. We have all of that information.

John Gibbs said that he recalls the California experience. That was precisely the conversation they had. The concluded in the very short term what they need and it wasn't the aspiration. We

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might not pick the 3Mbps and 1Mbps that they did, we might pick 5 and 5. This was a couple years ago for them and they really spent some time with how do we get everyone to a place where we have ubiquity and how do they drive enough demand to bring investment and the other goals. He thinks that ubiquity and the standard and the uses are related. You have to know if 5/5 or 3/1 will get you enough. You have to know what you are jumpstarting.

JoAnne Johnson read the first point in the law. What if we took what are Minnesota citizens going to need to be able to conduct business with the government. Our citizens will need to be able to conduct interactive education; they will need to be able to interact with telehealth applications. We anticipate that the minimum bandwidth needs to be 50Mbps or higher.

John Gibbs said we were satisfied but there are techies in the room.

JoAnne Johnson said we can take aspirations like Mike wants but we can't require anyone to build this network. It's not regulated. This will come about from demand and by situations. The more high def videos get then people will demand. Then when the demand is there, it will be built. It is within our charter to identify the level of service. Speed is a corollary with what we want to do, it isn't the end all.

John Gibbs said that the word that sticks out for him in point #1 is "all". He takes that pretty literally.

Brent Christensen said that we are going to close this down now.

Anne Losby said we can close it down now and decide whether we want to continue after lunch. She just wanted to go back to what JoAnne said. Is there agreement to say "MN citizens in 2015 are going to need to do _____…" We do not have to say what yet. That ties to the California chart. There is also a suggestion from the task force to make it align with the 8 points and use some application. We can agree that there are some things that are needed v. nice to have. And then we can say we leave a blank for the speed needed since it's a sticking point.

Brent Christensen said that we have a speaker at 1:00. And then we will go back to JoAnne's comments and the 8 points.

The task force took a lunch break.

Dick Sjoberg referenced the PowerPoint slides in his overview of One Economy. Dick also mentioned that If you have a question raise your hand as he can't hear us unless we speak into the microphone.

Rey Ramsey is the CEO and founder of One Economy which started in 2000. Their whole goal is that the quality of a person's life is enhanced by the quality of their information. Broadband with a purpose. One Economy is built on the premise that there is an economy and they want to build an on ramp to that economy for the poor. Trying to have a purposeful effort around broadband. Ensure the basics are in place: available, affordable and adopted by the population. Now they have the unique opportunity to take advantage of the federal stimulus money. Before stimulus funding they were using less than 1% of government money. They are funded through private and philanthropic money.

Basics of what they do is digital literacy. How do we make sure that the intended population can use the digital resources. They have a program called "digital connectors" and they employ the

use of people, especially those who come from disadvantaged homes, and they go through a training curriculum and deliver a community service. They work with the elderly, community centers, Boys and Girls Clubs. They will market a particular community based service, computer training. They have had about 3000 youth go through this training program. The youth earn a computer. They are looking at expanding the digital locator program and would like to see it in all 50 states. It is in 27 now.

Their second largest effort is the content and applications of technology, an actual online content tool. They launched the Beehive website and have had roughly 18 million unique visitors, roughly 20% in Spanish. The site deals with the basics, how to access resources such as health, education, housing, employment, and enhance skills. They developed a finance tool to help people with their personal finances, with child care. They can put in their zip code and find preset educational resources such as after school programs. They've recently expanded their offerings to include a public Internet channel with video based programming. It captures a person's eyeball and makes it easy to take action. We say we need to engage the person, provide quality information and take action. They have a make it easy toolbox. They have the series called the Diary of a Single Mom. One mom is getting her GED, another is trying to find a job, and one is maybe dealing with cancer. It's an 8 part series and there is a toolbox online to navigate the issues in that segment. The goal is to use the Internet to deliver public purpose media. They will launch a series of mobile applications next year to help people use their PDAs and iPhones. Put a big focus on meet the people where they are. Have the resource follow the person rather than the person chasing the resource. Their ultimate goal is to take a person who has been a passive recipient of social services and having them become an informed, engaged consumer.

Third is the supply side. Working with municipalities and housing finance groups to work on the last mile issues, work with public and work on the last mile. They want to see data networks built into developments and substantially drop the cost of the service. They have done this in tens of thousands of housing units. They have seen the price drop from $40 to $45 to under $10/month. They have done the most work in California. The stimulus funding will enable them to go into more communities.

They are very much a demand and supply side. They want to stimulate demand. On the supply side they are trying to reduce the price. He went to Berkley County (fly into Raleigh and then drive) where they are working across the county on broadband issues. They established a school there. There are about 25 boys in what is called a recovery school; these were the boys that no one wanted. The regular schools were delighted to get rid of them. One 19 year old was reading at the second grade level when he arrived. There was just love in that school. They are showing the boys that they are not discarded. The curriculum is delivered by technology and by teachers that are there. It was a powerful moment. Via technology they are linking with others all over the country. They are using technology to bring the best to any area of the country.

Rey said he takes the work very seriously. It is not about technology. It is still about people. Using the technology to help people help themselves. With luck and good partners, they can make the on ramp more lit.

Dick Sjoberg asked as a group who is putting together a recommendation for the State of Minnesota, do you have any suggestions for recommendations to the state legislature.

Rey Ramsey said he would be happy to make his team available. When framing this for the state, look at the basics. Go back to the three A's and are they being addressed. Don't stop at

the issue of availability. Ask the next question, what are we going to do to make it affordable. Third and most important, what is the adoption strategy and what are we doing to ensure that it is adopted. There are some best practices in terms of adoption. If you marry those things together it will make a difference. You won't have a bridge to nowhere.

Jack Geller thank Rey for his presentation and said he was curious about those states where you are most active, how does your organization partner with states.

Rey Ramsey replied that it various dramatically. It depends on the municipality. In some ways rural areas are easier because you can go to one person who may wear three hats. You can put a number of things in place. That is what they try to do. The best situation is if they can work with someone to create a blueprint. Do an environmental scan to know what is available, a situational analysis and then determine a blueprint to attack and bring the three A's together to deliver. In Portland where they developed the child care program it was needed. In CA they continue to put upgrades to their site and are working on the updating and adding new features. In San Francisco the mayor used a large part of the youth employment program for digital connectors. It varies by government. They like to get as specific as possible. Work on the blueprint and the strategy. Sometimes the locality runs with the strategy. Sometimes they work to implement part of it. They are always in touch with the technology and telecom companies. In Washington DC they can get a national funder interested in doing something in a local area because they see it can have national implications and be replicable elsewhere or because it's not being done elsewhere. They are always out raising funds. They were originally supported by the Ford Foundation. On the telco side, they work with a variety of fixed line and wireless companies and they do not work with anyone if it is not low cost or reduced cost to low income. He asks the question back: tell me what you are trying to solve.

Joe Schindler said that this group is struggling with coming up with some minimum thresholds of speeds for the year 2015 in Minnesota. Do you have any ideas.

Rey Ramsey said that he often gets asked that. He has probably 3 different people within his organization he could refer us to (Ken Eisner, Bob Windell).They can dive into the pros and cons. He gave testimony at the Commerce hearings, and if you are investing or your partner is, you want to make sure they have the aptitude and the intent to upgrade their speed. Work with flexibility. If you set a firm goal, you may keep certain areas in the black. That's how he looks at it.

Bob Isaacson noticed that he talks a lot about cities and communities. He asked if he could talk about rural areas that he works with.

Rey Ramsey responded that in Green County, NC they were brought in to help deploy wireless and took a comprehensive approach and put in the digital connector program, put a wireless laptop in all the schools, developed a localized version of the web hub that he talked about (Beehive) and then they had a special business assistance program to get computers and training and then helped the businesses get websites with an e-commerce platform. That was probably the most rural concerted effort. He can put us in touch with people from Green County. The results have been really amazing. They can tell you from a Chamber of Commerce perspective what it has meant. They were a county that was known to be the second most tobacco dependant county in the country. They really wanted to move away from tobacco and become a 21st century county. They wrote a blueprint and you deal with human and capital infrastructure issues. One Economy has also worked in tribal areas and with the Warm Springs Indians to get away from casinos. They are at the stimulus money devoted to tribal applications.

They have also worked with specific organizations in other areas: civil rights groups, school districts, etc. Used to chair Habitat for Humanity. He comes from a background where he practiced law and also in economic development. There are a lot of groups, different sizes and shapes. He understands how you enter a community and add value.

Tom Garrison said he represents a city of 68,000. One of the things the task force is studying is how to affect affordability to get adoption. From a statewide approach, what advice would you have for that.

Rey Ramsey said there are a couple of things. If they had to do over, they would put the stimulus funding for some of the things the FCC will be doing. An example is USF for broadband the way it was for telephones. At some point the universal services fund will have to change. When that happens that will give different communities different options. If it doesn't happen, or waiting until it does happen, in terms of affordability look to the low hanging fruit. Take a look at your affordable housing policy and align the policies so that whenever you are providing money you are offering broadband and lowering the cost of it. Make sure they are networked and offered to residents. Look what happened with cable and cable penetration rates. In low income housing, the cable is made easy and people like the product because they see the relevance of the product. When people value it they will put some dollars towards it. You want to remove barriers and make it affordable. Focus on where people live and putting policies there. If you apply for stimulus and you have private partners, require the partners to reduce the broadband expense to the back end consumer when they offer it. FCC policy changes will open things for you. Where you have public spaces that have capacity, look for ways to splice off of that capacity. If you go into voucher type work, then tie it closely to any social service agencies that have already pre-qualified people rather than duplicating it.

Brent Christensen thanked Rey Ramsey for his presentation. We are six minutes ahead of schedule so will take a short break.

Rey Ramsey indicated if there is anything that the task force needs, to let him know.

The task force took a two minute break.

Anne Losby said in order not to repeat everything when Rick King returns, she would summarize what we decided. What the group agreed upon was that we would start talking about what is needed in 2015 and then look at a speed goal. So what do Minnesota citizens need. How granular do you want to get in this discussion.

Brent Christensen said he did not think we wanted to get too granular.

John Stanoch said he was still a little fuzzy. What speed do we want: a speed to get people on, a speed for today, a minimum statewide speed for 2015?

Brent Christensen replied that this applies to the minimum speed that we want to look at for 2015.

JoAnne Johnson said that her intention was trying to get us to a point of do we need to recommend a definite speed or could we make them softer recommendations. The reason being, and Rey referenced this, it's not so much the speed but the services that should be the target. We also discussed that if Sen. Kelley's bill of 1.5Mbps to every building in Minnesota had passed years ago, we'd be laughing at ourselves as it would have been shortsighted. We

really have no idea what speeds we'll be at in 5 years. That's why JoAnne thinks we need minimum targets not minimum requirements. She does think that John Stanoch's position of the 1.5Mbps on ramp plays into what we talk about as government's role, what should be subsidized, what doesn't need to be subsidized. That's how that statement came to be. What sort of minimum expectations should we have.

Peg Werner asked if JoAnne was looking as a speed that could provide the services and then build.

JoAnne Johnson said that is why she put it that "we anticipate that these services will require speeds of ___ by 2015."

Brent Christensen asked if anyone disagreed.

Chris Swanson responded that he was not sure yet. He needed to listen a little more.

Brent Christensen asked if it was ok to go down this road to see where it goes then.

Mike O'Connor reminded of what he ranted about this morning, and that is the ability to update and secure your computer hardware.

Brent Christensen asked if he wanted to put that in infrastructure.

Mike O'Connor said he thinks JoAnne is talking applications.

JoAnne Johnson said so that would be being able to update and secure your own system.

Mike O'Connor said he would go over his list. There are minor details. Another he would add is to be able to back up your computer from a remote location over the Internet.

JoAnne Johnson asked if that wasn't still part of securing the system.

Mike O'Connor said it was update, backup and secure. So a different application.

Brent Christensen said but it is closer to backing up your system than government services.

Mike O'Connor said the last one is access to cloud computing.

Tom Garrison indicated he had a support point. We are seeing right now that from a Qwest commercial they are backing up. So assume that will be rolled out commonly.

Brent Christensen said he is just trying to find something that is generic enough to cover the services.

Anne Losby asked if the lump sum statement would be that end users can back up, secure and update. Is there agreement that Minnesotans need broadband for that?

Brent Christensen asked if that is a need or want.

Mike O'Connor asked if you're going to put your system out there unsecured.

JoAnne Johnson said that in order to do the things that I want to do in 2015 regarding business and life, skill set, health, getting a dog license, all are probably going to require cloud computing. That term your normal legislator will not have a clue what it means until we define it.

John Stanoch asked if that was a statewide minimum for residential.

JoAnne Johnson said she thinks she first said it was to operate a business from your home.

Tom Garrison said someone asked for the definition of cloud computing.

Brent Christensen suggested we make these as generic as we can.

Anne Losby said that we talked about the definition of what business means last time when JoAnne was absent. Supporting small business in the home is what we are getting at.

JoAnne Johnson said that when she originally made the statement it was conduct business from home, whether that is telecommuting or running a small business from home. Early on we had decided we didn't need to worry about the very large businesses because they will get what they need.

Mike O'Connor asked about businesses that are not in the home. He thinks small businesses that are not in their home we expand to include.

Tom Garrison said that on the Eagan Task Force, the notion that large companies are getting what they need isn't always true. One of the things pushing us is that our employers are saying ithat they want to get people to work from home and delivering that speed to the home is difficult. Tom is just saying there is an issue and we are no longer just a consumer culture but we are content generators.

Brent Christensen said he doesn't want to get stuck on home based business, we have small business on main street.

Danna Mackenzie added we also have government where we want people to telecommute, for example as part of pandemic planning, and as we expand government out.

Anne Losby stated that this is what she hears the group is agreeing to: conducting business from home, whether telecommuting or running a home business.

Brent Christensen said we need to focus on small business too. In his mind that would give us our big CA list.

Anne Losby said that could be a separate bullet point.

Brent Christensen suggested we work on categories and break out later.

Anne Losby said the main categories are government, healthcare, education, security, entertainment, business. This is what you are saying Minnesota should provide to its citizens.

Chris Swanson asked about security.

Karen Smith said that if we are talking about essential, she does not think entertainment is essential.

JoAnne Johnson clarified that the list is what citizens are going to demand.

Brent Christensen added that it is not what is government going to provide but what are you going to do over broadband.

Karen Smith indicated that then she would agree.

John Gibbs responded that this has morphed. It was what do you need broadband for in 2015 and now it is what will people use broadband for in 2015.

JoAnne Johnson stated that she thinks video on demand is reasonably needed.

Jack Ries said that the big need for broadband will be for interactive video and the quality will need to improve over what it is today and that will require a bigger pipe. He uses video all the time to keep in touch.

JoAnne Johnson said that maybe if we used Jack's term, that would cover entertainment.

Anne Losby asked what the group thought. Can we cross off entertainment?

Chris Swanson asked about the audio that encompasses entertainment.

Robyn West asked if the speed for the essential applications provide the speed that is needed for this fun stuff.

Jack Geller said he is not sure if we are off track or on track but the wrong track. It seems to him that if we are talking about ubiquity – every user, every home, everywhere, then when you try to find the floor, what does the most minimal user need or deserve in that most minimal situation or what should they have access to and what will be acceptable to us. Whether an individual user has video on demand on their "got to have it" list is immaterial. If we are saying that there has to be a pipe, what is the minimum sized pipe that we are saying Minnesotans should have. What they use the pipe for is so what?

Brent Christensen replied that we need to figure out what they need it for in order to determine the size.

Jack Geller said that if you decide that high quality telehealth is a necessity, then everything else that doesn't need that size pipe will fall in.

Tom Garrison said he is not one that particularly wants entertainment to drive our decision, but if you look at the history, entertainment has been the driver. He would pose a question with what we see coming down the pipe now and can reasonably anticipate by 2015 lots of streaming video. This underscores JoAnne's point of why this is essential.

Peg Werner said she thought we were figuring out how people might use broadband. If we thought about electricity that way and said, well they can read in the evening for pleasure but then would say we don't need that much.

Brent Christensen noted that was a good point so we should keep as broad as we can.

Mike O'Connor suggested amending to "Minnesota citizens in 2015 are going to use broadband for…"

JoAnne Johnson said that the law says what do citizens reasonably need. And they are going to reasonably need this ___ speed because they will be using it to do these things:____ .

Jack Geller said that our number one charge that the legislator is looking for is a speed.

JoAnne Johnson said if we had gone with Sen. Kelley's T1 goal we would be behind today. She reread point #1 from the law. A broader statement is needed to answer that. In the other points we get into the how and evaluation of strategies and financing methods, so there is plenty of room for that discussion.

Brent Christensen said let's stay on our right track here. If we can keep this on the track and chugging along: government, education, business...

Dick Sjoberg replied that there are going to be a tremendous amount of applications that will be machine to machine, like the smart grid. Or a refrigerator has an Internet connection and indicates that you have not vacuumed your condenser. Or home security. We are going to see a ton of stuff. Monitoring your electrical use in the house and to control each electrical device. You have a device that allows you to turn the water heater off for the night. These machine to machine applications are going to be there. Mike's security are machine to machine. These can run in the background all night. We watch about 7 hours of TV a day but in the future it's IPTV. You have a telephone but you don't use it 24/7. Things aren't running all day. To Jack's point, you figure out what is the maximum for the applications, say 10Mbps for high def video and everything else will run underneath it. It is not a cumulative thing. It will be managed.

Mike O'Connor indicated there may be more than one computer in the home.

Brent Christensen asked Dick if he was saying machine to machine applications should be one category.

Anne Losby said she has captured on the list of things we need to provide that the lesser will fall underneath. You are also talking about what to show the legislators in terms of what a speed will give them. So we can list here all the things that Minnesotans will have access to at this speed that will enable these applications.

Jack Geller said that was John's point if the chart is updated it will show you what you will be able to do at a given speed. If you establish a number you can go back and determine exactly what someone can do.

Chris Swanson had two points. First, we need to keep in mind that often broadband is shared in a home environment so there will be more than one application running. The other thing he keeps hearing is with the machine to machine applications and there will be a consistent need on the upload side so we need to talk about the symmetrical aspect.

Peg Werner replied so this is still our 2015 speed we are trying to fill in. This is not John's ramp up speed. So she still thinks Mike's 50Mbps applies.

Anne Losby asked if there is anything missing from the list.

Mike O'Connor said that one of the things that Robert Stephens said and that is absolutely true is technology. There are things missing but we can't predict. Six years from now is an eternity and who knows what's going to come.

Brent Christensen suggested that there needs to be a caveat.

Chris Swanson said there is a scientific way and we could go through the history and see how things have moved and see where they could be.

Brent Christensen said we are talking about applications and these are not things that we can predict. He gave Hulu as an example.

Myron Lowe suggested that maybe it's possible to combine some of the aspects of this. When we look at the level of broadband service, government, telemedicine, ten years ago or five years ago probably those topics might not have come up. So just by putting those in there they serve as a reference point as to how Internet service is growing. You can cite examples where it is growing. The other is about speed and it's kind of misleading to ask to identify a speed by 2015, at least how he knows broadband is purchased is by its utilization. It's more incremental in that you buy what you use and when that becomes saturated you buy more. He doesn't know anyone that buys and then establishes what they will buy in five years. So by the combination of looking at the growth patterns and the uses today we can see are increasing and that more services are being provided online. The trend is that more Minnesotans are doing these things. It will inform them about what is happening for real and the awareness will get them to see how important Internet service is. We can show speed is increasing. It is important to have that as an understanding.

(Rick King rejoined the meeting and took over as chair.)

Peg Werner said she thought that we agreed several minutes back that we had to provide a speed.

Vijay Sethi said that within the context of what you just mentioned, he thinks that the legislators would want to have something tangible, a speed of whatever we give. He thought the idea is kind of nice that the point is we don't know what speed levels will be. It makes sense that you do not know what the speed levels are going to be but in 2009 you can say this is what these applications demand.

John Stanoch said that he would take that one step further in that maybe we want to talk about connection speeds and that this is a living document that needs to be updated over time. We've talked about speed but we haven't talked about the improvement in compression technologies. There are a lot of technical improvement that enable the network and this is a living document of the uses and that will have implications for speeds.

Brent Christensen said we should bring closure to the basic list. You are spot on with the piece that this has to be a living document; this has to be able to live, breath and grow. Do we need to add anything.

Danna Mackenzie said we may need to add the word employment behind business.

JoAnne Johnson said you might want to add being able to do business from home.

Brent Christensen noted that Anne is writing that underneath.

Danna Mackenzie said that in our dialog we acknowledged that business isn't just a home based business.

Brent Christensen said that employment really transcends all of them. Do we want to get that granular?

Tom Garrison said he thinks we were on the right track. The place of employment might be different from the place where I need to work. Wherever I'm doing my work, I need the speed.

Anne Losby said that some of these notes are flushing out the main concept. Do we give Rick a re-cap?

Rick King said he was not sure that would be a good use of time.

Brent Christensen said he does not know if we are going to come up with the minimum speed in the 18 minutes left.

Anne Losby suggested that we might want to recap so that we can see if we agree. The group, in terms of the speed,agreed there needs to be a minimum goal and then ubiquity applies. Pricing is available if someone wants to use something less than the minimum. People are able to access speeds higher than the minimum if willing to pay. If the minimum speed is not available than you need government to help in some way. People like the table in the CA report that lists the range of speed and what you can do. This group wants to link the services in the chart to be more granular so you know what you can do at different speeds. Make it come alive and describe what people are able to do.

Tom Garrison indicated that we thought that things have changed since the CA report so we would update where we are today and in so far we can look out, what are those.

Rick King asked if California had updates because some of the state reports do.

Peg Werner said that California shows tasks but we could break down what those applications are to the legislature.

Anne Losby said that another idea was to enhance the chart to help the legislators see who is served and what category of group are served by those applications. Where they would show up on the table. Then we go into the 8 items of the legislation and that was related to when we got into the speed discussion. This is where we got going on the path of "Minnesota citizens in 2015 are going to use broadband to _____" and we got a high level list of what we think people are going to do and more details underneath. Then we would say something like we would anticipate the speed needed.

Tim Lovaasen said that we have cable guys and telephone guys here and I know a little about compression. A number of these systems can be upgraded and a minimum to get on today. If we get them broadband, what's to say we can't take that system and increase what they need. We beat this thing to death today and if that is what's needed and we got them on the broadband highway today. We could probably be increasing their speeds over time with new

technologies. The goal is to get them broadband speed and if it's 1.5Mbps today it takes the tech to get to that speed today. What we want to do is get the unserved served and then work on getting those people that need more speed what they need and it will probably be with the existing system. Then it's where is the money going to come from. A lot of time it is competition holding this down. If you get the government in there competing it holds it down more.

Jack Geller indicated he is not sure how you want to define broadband with a number. The overwhelming number of people connected in 2009 are not connected with dial-up. There are very few people with dial-up, maybe 12% of users. A lot of providers do not offer this anymore.

Chris Swanson said there is a lot of wisdom in what Rick said. He also thinks Tim is right in that we have beaten this to death. Maybe we all put a number down and average out. We all have a number in mind of what we need. We could have another 3 meetings on this but it says in the law we have to do this so let's get it done.

Robyn West asked if the number can't be what is in our list.

Peg Werner said can't the number be the biggest number.

Danna Mackenzie said you are dealing with homes with multiple things going on. If you say it is video for medical and someone else is online for college courses, and someone else may be telecommuting.

Rick King said it says identify the level and if this group says picking a number is not smart, we can say that. It means we have to address the questions; it doesn't have to say you have to provide a number. This is not for inclusion in the report but how many people think there should be a number in the report. A few say yes.

Vijay Sethi asked what is that number supposed to represent? If it is the absolute number it can be a minimum tier.

John Stanoch said that an alternative statutory construction would say it would be a number of speeds and say here are the tiers of users.

Rick King said there are tiers of speeds and uses. But his broad question is whether a range is a way of showing a number in this report. Do we want to answer that with a number or if we want to dodge it we handle it differently.

Anne Losby said there really are two things we are criss crossing, the on ramp speed and the other one is the minimum goal that enables lots of stuff. Do you recognize these as two separate things.

Rick King asked if we want to us the FCC minimum.

The response was a lot of no votes, we are beyond that.

JoAnne Johnson said that the list was an attempt to answer what citizens would be using broadband for by 2015 and to identify the speed that would be needed as ___ or higher. That had no relationship to the on ramp speed.

Brent Christensen said he would love to tell you that we don't need a number up there but he doesn't think we can get around a number. But maybe we need a tier.

Rick King said we all said broadband to everyone so what is that number. Why don't we tie the speed to 1.5Mbps and start with a base. We want everyone at a minimum.

John Gibbs said so you are getting a number to get to ubiquity.

Chris Swanson said he fundamentally disagrees with 1.5Mbps as a minimum.

Peg Werner said that there are still a lot of people unserved. 1.5Mbps is to finish the ubiquity.

Chris Swanson said there are very few people that cannot get satellite.

Rick King said there is one other little piece. The minimum everywhere today 1.5Mbps. Anywhere that is not, they have to be pulled up to at least that.

Tom Garrison asked how does that relate to the CA 3/1.

John Gibbs said that is fundamentally what they did, to use funds to extend system out to 3/1.

Jack Geller said you would use public taxpayer dollars to get an area to 1.5Mbps.

Rick King replied this is how he looks at that. A lot of places that you would be putting it in, it will be at more than 1.5Mbps. There are a lot of places that have nothing today and there has to be a low number that everyone gets.

Bob Isaacson said that if you want government money you may have to go lower.

John Gibbs said that is the trick. If you didn't need government money, it would already be there.

Vijay Sethi said that we talked earlier about the need to have access to education, government services, the veterans having access, all from home. Are we looking at 1.5Mbps for the goal of 2015?

Rick King replied that what he said was today. If you follow that, the next thing he would say is what do we think the minimum would be in 2015.

John Gibbs stated he thinks the 1.5 Mbps is close to there or the 3 Mbps down and 1Mbps up is there and look at the educational needs and that as an obtainable speed and an empowerment level.

Rick King indicated he's thinking everyone should have this certain level of speed and you go through the list and think of everything that is important. If you go through the list and identify those things that are important, then maybe it's not 1.5Mbps but will go up.

Vijay Sethi asked if this was to define the minimum.

Rick King described, what we are talking about is what does everyone need to get and then look at the list of applications and if it's at 3 Mbps or 5 Mbps or 10 Mbps, then that has to be addressed and raised over time.

Anne Losby asked are you talking about 2 different numbers. That does not get you access to everything.

Rick King indicated he is breaking the minimum on ramp into today and the future and then the goal would be different.

Anne Losby asked, so the on ramp for 2009 is 1.5 Mbps and the target goal is a separate question.

Jack Geller stated he wanted to twist it around a little bit. Those places that are unserved right now, have nothing, but they are also unserved for a lot of other things as well. Let's be honest they are unserved for a lot of other reasons. There probably aren't a lot of doctors. Given that, being able to do a reasonable telemedicine visit, it takes 3 Mbps or 5 Mbps. By saying 1.5 Mbps you are at the basics for broadband and broadband is not helping you gain access to other things. Because of where you live you have to drive 2 hours versus having a virtual connection. Maybe we ought to take a look based on the applications, at what would be the highest connection speeds for the location and maybe that should be where we are willing to have the government provide incentives to the providers; we are providing access to other services.

Tom Garrison responded that he likes the direction. If we are trying to further broadband adoption we also have to look at what other countries are doing like Great Britain and France. They are setting floors not ceilings. Don't we want to try to get to that point and figure out how?

Peg Werner indicated that one conversation they had at lunch today is that if you are a company and you are coming in to a new area, you are not going to build it to 1.5 Mbps but faster. If you told the government what we really need is at 10, build at 50 and dial it back because people might not buy it at 10 or 50 because of the costs. If the lunch conversation is true, then people getting service today would get faster because of the newer technologies.

Rick King indicated that he has a suggestion. Sounds like we had a robust discussion so could we get 4 – 5 people with different views who would come back to the group on this issue. There are layers that have different speeds, you see people that are using applications, this would be a really robust thing to discuss. Do we have 4 – 5 people who are interested?

Mike O'Connor, Dick Sjoberg, Tom Garrison, Bob Isaacson, Jack Geller, Chris Swanson, Myron Lowe, JoAnne Johnson, and John Stanoch volunteered

Rick King indicated that he wants people to be happy with the selection.

Rick King indicated that he is going to make one ruling, take off those that are not a named member of the task force.

Mike O'Connor, Dick Sjoberg, Tom Garrison, Jack Geller, Chris Swanson, JoAnne Johnson, John Stanoch were left. Rick King said he thinks the group is too large so asked them to self select.

Anne Losby noted that no one was volunteering to step down.

Rick King asked who is leading.

JoAnne Johnson stated that she nominates Mike as long as he promises to be open.

Rick King asked if the group was ok if Mike is the organizer of the group.

All were ok.

Rick King indicated that there will be scheduled time in June, July and August to have further discussion on the controversial issues. He would be interested in hearing whether this was a useful way to do it or make sure there are other topics that are put down. He said he thinks this is useful and will be interesting for people who attend the Greater Minnesota hearings to listen to the discussion.

Tom Garrison replied that two things that he found useful. The quick show of hands to move through at least establishes a baseline where people are coming from. Tom also said he thinks we could take various positions of people based on written submissions and put into a matrix. It at least helps you see the waterfront.

Rick King asked, are you happy to have those discussions. He can't think of a better way. We need full group input. We have a lot of issues we still have to discuss. At some point, we may be able to go to small groups to work on it together.

Peg Werner responded that she thinks it was a good day. It helped coming together and some people wanted to articulate what our goal was before we talked about the role of government.

Chris Swanson indicated that one thing he observed was maybe we can start taking votes and move things along on the issues. Some of the things he's heard 3 or 4 times and that wastes time. It is up to the task force to decide.

Mike O'Connor indicated that he wished we could make the meeting clock go away. It seems like there isn't enough time. Maybe we do some more subcommittee work and do some work offline. He loved today; there is just not a lot of time. Maybe we have to meet more.

Karen Smith liked where we ended up today. She indicated if you looked at some of the other issues and saw what people had submitted for and against, maybe some of those people could be balanced into a subcommittee to bring back to the full group.

Vijay Sethi stated that he thought the discussion was good and when talking about the subgroups he likes the idea of subgroups. We haven't gotten to the discussion of how to pay for it.

Rick King asked do we have enough data out there from the government discussion to assign a subgroup.

John Gibbs responded that he is against going with subgroups yet. If we go with subgroups too early, we will delay the bigger, broader discussions and they will play a different role. We should work with the specific task. He is especially against a subgroup on the role of government

because we've had no agreement. He thinks we can use a subgroup when the issues are framed up and defined.

Jack Geller indicated that he agrees with John Gibbs on that. He thought we had a vigorous discussion on the speed goal. We found contention in some areas and agreement in other areas and are now asking a subgroup to finish it off. We aren't anywhere near in finishing off the role of government discussion. Now for his two minute commercial. The next time we will meet we will be in Grand Rapids. There are 6 rooms left of the 25 room block that was reserved. You have 3 more days to make your room reservation. The Blandin Foundation is going to have a workshop from 3:00 to 5:00 pm and you are invited to go to the workshop. It may be difficult to get there that early. From 7:00 to 9:00 pm there is a reception for the task force members. There will be lots of representatives from the community so it is important that the task force members be there. In the morning there will be coffee. Thank you all for those that reserved the19 rooms.

Rick King indicated that he understands that some might not be able to make it to Grand Rapids due to prior commitments. It is important to have a showing at the three Greater Minnesota meetings. Many task force members have regularly traveled long distances to get to our metro meetings and those that have traveled deserve our support in return.

Tom Garrison had an idea for next time and asked if there would be some utility to identify in the report the things that he believed no one would disagree with. He noted for example, the items that Kim Ross submitted. There may be others that all agreed with. Maybe we could identify things that seem to have 95% agreement and use that to build momentum from.

Rick King responded that we are moving things to a report so that we have a format to work from. We will accomplish what you want. We will have a bunch of items moved into a more ready state so that we can strike and add. You will be surprised at what is in sync. It won't be near perfect but we will then have a document that we can add to or strike from.

Peg Werner added, or identify what is missing.

Rick King indicated that the group could send questions to him for Bernadine Jocelyn from Blandin who will be speaking at our June meeting. If we have questions, it's always good to send them ahead of time so Rick will collect any questions the task force members may have. Rick also thanked Brent Christensen for substituting as chair. The discussion that Rick heard today was good.

Motion to adjourn meeting at 3:15 pm.