## COVID-1 Task Force Meeting Transcript January 10, 2022

## Disclaimer Notice: The following is the meeting transcript recorded through ZOOM. This document is not edited and contains numerous errors.

07:48:41 In, on tribal land that \$75, a month, that doesn't change the households qualifying for the affordable connectivity program must have beyond below the poverty line 200% below poverty federal poverty guidelines.

07:49:06 They should be either on WIC or should receive, others subsidies government subsidies, there is a whole list of them on the BBB website, it's still the BBB website, and those that have currently qualified the program as it stands will continue till March,

07:49:24 end of March March 22, but already, the ones who are registering a new for this will be under the new program rules.

07:49:36 There has been a while we have.

07:49:40 You broke it down for us very nicely, Steve. We have about 220 202,000 households that have been signed up for a BB from the start of the program. We still are within the top 15 We are number 12.

07:50:02 In the numbers that have applied for the program.

07:50:05 And there has been some comment to FCC from Ed central from Shelby, saying that they should include homeless shelters as possible.

07:50:28 They also talked about schools and school districts auto enrolling every household where the child is eligible for a free lunch program. And they have put in comments about the minimum standards for the devices that a phone cannot be considered the device

07:50:48 we need at least a better QWERTY keyboard and adequate screen size to do research, etc.

07:50:56 Any questions.

07:51:01 Thank you, Mama. Welcome, Steve.

07:51:04 Steve it's Michael Tucson has and I have a question I'd like to make a quick comment I think, okay, okay. Just for those who aren't familiar, I live in Tucson house and it's public housing let's say 20 plus people here.

07:51:15 I've been helping people with everything including tech and the BB and such. And I'm expecting a lot of people in this building to lose broadband due to the fact that the because I made some calls the VP went from 50 to 30, and the internet service providers

07:51:39 So a lot of people in this building are going to lose access looking into that and for what it's worth, the case anybody's interested I noticed some things about a date on their website.

07:51:49 The community wireless program in Tucson is still active. Even though the information on the website is outdated.

07:51:57 And that's about it.

07:51:58 Okay. Thank you, Michael. Michael.

07:52:02 I'm sorry. No, go to make me make a point about that \$30 drop.

07:52:07 Yes. So, the. So my industry is also looking at that problem because a lot of our, my colleagues that are on the TV program are actually trying to decide what to do with that.

07:52:20 Differential in the fast.

07:52:21 The general consensus is try to maintain your customers, at that point, at that price point. But you are right there is going to be a problem with that.

07:52:37 It's actually being considered as to what what choices we have triad has a program that's actually less expensive than that. Anyway, but as an industry.

07:52:46 It is, it is now being, it's a huge problem that has to be solved in some way shape or form or a lot of people are going to be cut off here fairly short, very quickly.

07:52:56 Yeah, but what's worth dimension. check with Cox and they still have a 2999 program but if, like for new signups and for people who have children in school.

07:53:00 The \$30 will cover that. But that's it you have to be a new sign up.

07:53:09 So, excuse me one second. So when you speak. Yes, since we're trying to do this transcript, if you would introduce yourself so we know who's speaking of would be really helpful.

07:53:19 Okay.

07:53:23 Marla, and the comment from Michael. Michael if you could send me a note about what you just said, you know, we have meetings through Shelby with FCC, and we certainly would love to take comments from the ground to FCC to see what our program changes

07:53:43 or, you know, at least role modifications they can make. Not that I'm sure they will they won't change the rules.

07:53:51 But if they can give us some guidelines that would enable us to address the issues that you have been talking about I'd really appreciate that Michael and this is Marla.

07:54:03 My email address is Marla at easy library.com. Alright, thank you much I will reach out to you.

07:54:10 Thank you.

07:54:13 Any more comments about that.

07:54:16 Okay, moving on. So again, we're watching our sponsorship campaign, want to be able to keep the task force going so we really do need folks to step up and be sponsors.

07:54:29 So again, you'll be getting email from me.

07:54:32 Okay, cool. I'm sorry. Somebody had something to say.

07:54:41 Okay. So, Moving on, let's go to our updates, Jeff is not here today he is sick. So he sent me a note last night that he is not is not available.

07:54:51 So, Molly Do you have anything more that you want to, to add besides what you've already reported on.

07:54:59 This is just a little about erase, erase, today's the last day for the administrator window.

07:55:06 This window is open, and for people who schools and libraries that want to correct the data that they have there, either with the address location or with any, you know, changes in there, and the selfie data, etc today.

07:55:22 12 o'clock midnight eastern standard time is when it closes it doesn't mean that they cannot make any changes later.

07:55:31 Only thing is they cannot do it themselves they have to go through the customer service to change any of their profile information.

07:55:39 So, we are encouraging people to do it as quickly as they can. Today, if there are changes especially. Some have added space, some have reduced space.

07:55:55 So the square footage is important for category to internal connections information.

07:55:58 The window has then USEC announced the window opening it formally opens on January, 12, that's coming up close, and then it would end on March 22.

07:56:12 This is for applications for July 120 22 to June 30 of 2023 for Ed reimbursements for that period.

07:56:26 So, any any questions on that.

07:56:30 Anything that you need anyone needs to know. Happy to answer the was back to you, Steve.

07:56:38 Okay. Probably I don't know if you're online but Nicole I see that you're here. Do you have anything that you'd like to

07:56:47 share so we're all very excited about the FCC affordable connectivity program. I put in a link our update we've changed our Eb page to our ACP page, which is a clearinghouse of information for individuals, as well as for all of the organizations that

07:57:04 we're working with who are all trying to get people informed about this program and to support some of those signups so we have resources for individual consumers looking to subscribe as well as organizations, trying to figure out how to become navigators

07:57:18 themselves. We also have our digital navigators who for the past several months have been signing supporting signups for a BB and we're doing our best to stay updated and keep informed about all the programs that are available from service providers in

07:57:32 Arizona. And you can see some of those listings on our website.

07:57:37 Cindy and I have also been supporting the Arizona Digital Inclusion network which is a gathering of different practitioners in the state to focus on different broadband adoption and digital literacy topics.

07:57:53 This month, our next meeting is going to be on Thursday the 20th and will be specifically talking about a CP signups for all of our organizations that we've been learning from.

07:58:05 So look for some invites that will be coming out from Cindy and I later this week. And the other. The final piece of our kind of updates with Connect Arizona is we have our director directory of practitioners that's going to be replacing our virtual learning

07:58:22 directory that's currently on the website. So that is live in our testing side of our website and we're excited to share that with you as well.

07:58:32 Okay, Thank you, Nicole any questions for Nicole

07:58:37 brief question.

07:58:38 I was wondering in applications for Arizona. Do we know the difference between applications for tribal communities versus the rest.

07:58:49 As far as how that how much of that money is being utilized for tribal versus all of the other household.

07:58:57 It can be researched, because the data that they have up there is by support.

07:59:05 So, you will need to go support by zip code to find out information.

07:59:13 You will get a total tribal application. But that is for the entire country. If you want to go state by state you'd have to go through the zip code.

07:59:26 Okay, thank you. Welcome.

07:59:31 Again, please when you, when you speak to please announce who you are, so that we can keep that up to date.

07:59:38 Okay. Anything else from the library.

07:59:42 Data major Are you online.

07:59:48 Apparently not. So just an announcement that.

07:59:51 For those of you who knew the founder of The Arizona telemedicine program. And he recently died, that they are having a celebration of his life on Sunday here in Tucson and will also be available online.

08:00:09 And I will provide that information to all of you if you're interested.

08:00:17 Okay, moving on.

08:00:19 Sofia Kareena Kelly. Anything from the Department of Education place.

08:00:27 And my own books.

08:00:33 Hi, Maureen This is Kelly from Digital teaching and learning. And with the Department of Education Good morning everybody. Happy Monday.

08:00:43 And I'm not quite sure if others are available to speak right now but as far as digital teaching and learning we keep continuing to dive into our assessment and the results we sent out that newsletter, with some minor updates.

08:00:56 Last week, we're posting that to our blog as well. And we're trying to set deadlines and meet those deadlines as far as the information that we're sharing.

08:01:05 So we continue to work on that and dive into it so that we can get that information out by the end of next month.

08:01:13 Any comments or questions for Kelly.

08:01:16 Just a reminder I did send their newsletter out to everybody. And I would encourage you if you want to keep up to date on what they're doing to make sure you sign up for their newsletter.

08:01:28 Thank you Steve for doing that I appreciate it. You bet.

08:01:37 Moving on, Leo, you online. Haven't seen you in a while, know you're busy.

08:01:39 So we is not here. Derek, you online.

08:01:45 Yeah, I am Steve if I can find the mute button.

08:01:53 Um, yeah i don't i don't, I don't know that I have a lot to to add this morning but construction continues on I 17 it's on time and on budget.

08:02:02 I 19 will be awarded later this month by the Transportation Board.

08:02:11 Some quarter network we finished a major, major data center move over the holiday kind of the gap between Christmas and New Year's positioning us to have our 400 gig core live probably by mid February, so some, some pretty major kind of internal workings

08:02:30 at SCM that we're pretty proud of and will be, you know, making some press about that once it's live continuing to build our community network or digital equity network in the Isaac School District.

08:02:45 Adding a couple of new schools there.

08:02:50 And working with personnel county schools to roll out edgy room.

08:02:55 And that's pretty exciting I think they'll be the first to, to have edge room deployed in in their schools. So I think that's what I got today in terms of an update.

08:03:06 Thank you. So I've been watching the transcript and lots of errors. So it's going to be interesting to try to get that cleaned up here, but it's going to be quite interesting to see the live the transcript here.

08:03:21 Wes Are you on line.

08:03:26 So yeah there.

08:03:28 So anybody have any updates on what's happening with the final mile project so I didn't say violin either.

08:03:36 Yeah, I could handle this is Rory tried wireless. So you'll hear the band is done.

08:03:42 We've all our guys are actually putting the Tower of the Pima right now. This morning, should have it live by tomorrow night is a rough guest.

08:03:51 Katrina is working on taking orders out in that area I don't have the information that how many have you taken so far but they're keeping track of it will probably start Holbrook right after that somewhere around the 20th or so, and then similar to that

08:04:05 will be rim rock, we're checking on now to see what day we can start on that but probably before the end of the month, the only one that's going to be slightly delayed is

08:04:17 course lakes. Yeah, because, because I'm Chevron you do this tower shipping issues is one problem and then equipment shipping issues. The other problem.

08:04:28 So supply chains kind of kicking our butt on that specialized operation so other than that we should have most of them completed here pretty soon.

08:04:36 Okay, thank you. Roy. Any questions for Steve This is Karen I just wanted to add I spoke to Milan this week and he is working on. I think three additional RFP for other communities and so he said he expect to have those out within like the next 10 days.

08:04:56 Okay.

08:04:56 Can I add to that.

08:05:02 Yeah.

08:05:02 Yes.

08:05:03 And we've had, we've been discussing with Pima County for out of ARCA and apples, communities, getting their fiber connectivity, and this will be a consortium between the schools and public libraries and that area.

08:05:25 We're working on some of the technical aspects of getting them out of one consortium and included in another Consortium, and waiting for some clarification from you said, we will do it within the suite, so that we have time for the RFP and time for the

08:05:43 applications to happen.

08:05:49 Any other questions or comments for for anybody about final mile.

08:05:57 So with that, let's move on to our presentation this morning.

08:06:04 Welcome, Brian daily, who's an at amp t vice the Assistant Vice President for standards and industry alliances, and he's network Chief Technology Officer, and chair of the GSM associations, North American fraud forum and security group.

08:06:23 And, You know, he doesn't have a lot of time today, but he is very involved with cyber security, which is one of the areas that we will be looking at with this task force.

08:06:34 So with that Brian I'm going to turn this over to you I'm going to stop sharing and a very turn it over to you.

08:06:41 Thank you Steve on.

08:06:46 And again, my sharing.

08:06:52 And

08:07:01 I have the right right screen shared here.

08:07:00 So while he's watching the transcriptions here. And that's going to be very interesting because there was lots of lots of errors. So I'm not sure how we're going to deal with that.

08:07:13 Anyway, Go ahead, Brian.

08:07:16 Okay. Thanks Steve just testing the audio you can hear me okay right. Yeah.

08:07:20 Okay, very good and you see my PowerPoint slide correct.

08:07:25 Okay, very good. So, so thank you for the brief introduction Yeah, again, I'm responsible for standards and industry alliances within the Chief Technology organization at at amp T.

08:07:37 In addition to that, I do hold a number of industry roles as Steve mentioned I'm the chair of the CSM associations North American fraud form and security group, where we look at fraud and security related topics for the North American region.

08:07:53 I'm also a member of the FCC communication security reliability and interoperability council where I'm currently co chairing the 5g security working group.

08:08:05 And I'm also on the FCC technological Advisory Council where I also co chair the five g working group so I do hold a number of in just three roles. So what I'd like to things, and where they're headed.

08:08:25 You know within at amp t as I mentioned being within at&t Labs, which is our research and development arm. I do work alongside some of the brightest innovators and engineers with the mission of turning something into every day.

08:08:47 This is true for 5g what was true law, In fact, if you look at the timelines. You know, I began working on 5g back around 2012, and

08:08:59 in 2015 indications union right to you. And the standards were developed and completed in 2020.

08:09:08 So, 5g is, is no longer in the distant future, it's here And now for our customers. And why is this important. We all know we're in a period of rapid digital transformation and automation that has the potential to revolutionize industries and improve

08:09:26 every person's quality of life. And we all know that this is one of the biggest impacts of coca 19 within at amp T, our global network is experienced well over 40% year over year increase in data traffic on average during the pandemic.

08:09:45 and mobile data continues to grow at a rice and what might be a surprise is actually the uplink is growing faster than the downlink, and we're seeing more and more sensors and devices on the network grow in the pool of data is only going to get larger

08:10:03 and more difficult to manage, manage, and in this background of record volumes of data that networks now manage, and the need for lower latency and real time applications.

08:10:15 We've been hard at work, bringing the next generation of wireless to consumers and businesses within the fast, reliable and secure 5g networks and and the same is true not only three t amp t this spans across all the operators, Verizon t mobile and others

08:10:31 as well.

08:10:33 nationwide. 5g network is, is one of the keys that you know we have more than 215 million people across the country currently covered over nationwide 5g.

08:10:47 And like every wireless generation before 5g provides higher speeds and capacities, but it's also opening opportunities for so much more. We're seeing autonomous vehicles, emerging private networks and businesses, medical devices and connected ambulances,

08:11:07 artificial reality and virtual reality and immersive experiences in gaming and communication. We're seeing experiences that are much more vivid dynamic and interactive, all with lower latency and more capacity and a few of the use cases supported by 5g

08:11:24 include healthcare. You know reeling from a global pandemic the healthcare industry can take advantage of 5g and related technologies like artificial reality virtual reality edge computing and artificial intelligence.

08:11:40 They were already beginning to make a material difference through applications such as telemedicine remote monitoring and even enhanced medical training in hospitals 5g distributed small cells, and multi access edge computing would allow hospital administrators

08:11:54 to keep patient data secure and local while allowing guests to stream their favorite shows from the internet.

08:12:00 We're also seeing the world of manufacturing supply chain and logistics, logistics, which is striving for innovation due to ever growing global demand for goods and more recently as the pandemic saw a surge

08:12:20 e commerce. Five Gtech drive more functionality close

08:12:27 to the edge of the network, smart factories will revolution action as they use the entire supply. These are

08:12:38 just some of the ways 5g is changing the world we transformation in education, agriculture national defense transportation retail, and more.

08:12:51 It's been just over a decade big journey and over that decade. We continue to lead the charge for five dg deployment applications for and providing continued innovation.

08:13:04 Over the past five years we've invested 110 billion dollars in our wireless and wireline networks, including capital investments that acquisition of spectrum and operations, our long term goals are to bring fast, reliable and secure five Geeta more consumers

08:13:20 businesses and first responders across key areas, sports and venues entertainment travel and transportation business transformation and security and public safety, including first net.

08:13:33 The 2020s will certainly be the decade for both 5g deployments, and advancements as well as the decade for creating the next next g six G.

08:13:50 After the initial delivery in late 20 cylinders non standalone new radio specify agents for 5g much effort 18 on 2015, which was the first full set of 5g standards and work to pass the first milestones for the 3g pp submission towards the US is empty

08:14:13 2020.

08:14:14 While the initial specifications enabled what's known as non standalone 5g radio systems which are integrated 5g radios with the previous generation LTE network, the scope of 5g release hands to cover and alone.

08:14:33 The with a new radio system complemented by next generation core network. It also embraces enhancements to LTE and implicitly the evolved packet core, this crucial way plane enables vendors to progress rapidly with chip design and initial never worked

08:14:51 limitation which occurred during 1929 is a release for, not least because the brains, I empty 2020 submission to completion. But, but also provides for a full 3g Pp 5g system.

08:15:09 In addition to the formal process work progressed on around 25 release 16 studies on a variety of topics, including vehicle to everything application layer services, 5g satellite access local area network support and 5g Wireless and wireline convergence

08:15:26 for 5g terminal positioning and location communications and vertical domains and network automation and novel radio techniques, technical reports have also been developed them broadening the applicability of 3g picked technology to non terrestrial radio

08:15:44 systems, initially satellites but airborne base stations are also be considered and maritime aspects interest ship ship to shore and ship to ship 5g work is also progressed on new functionality and LTE including rail rate, we're always oriented services.

08:16:04 Originally developed using GSM radio technology, and that's now nearing the end of life.

08:16:09 And it's also was part of really 16 mission critical services were extended to a wider business sector than the initial public safety and civil defense sectors, which they originally had been developed.

08:16:23 Similar standards can be used for commercial applications such as taxi dispatching and railway traffic management and other vertical sectors scenarios currently being investigated to bring those mission critical services to wider deployments.

08:16:43 dp released 17 will bring more use cases web and mobile communications can be utilized primary aim of release 17 was to improve the 5g system performance support new use cases and verticals, and provide ubiquitous connectivity in different deployment

08:17:01 and scenarios. Several of the features and release 17 are intended to enhance network performance for existing services and use cases while addressing new use cases and deployment options, including machine type communication side like enhancements which

08:17:19 is used for vehicle to x as well as public safety and defense use cases, as well as integrated access and backhaul now integrated access and backhaul is is a feature that that's really important when you look at dense vacation and and deployment of cell

08:17:41 in dense environments. Because one of the things you have to do is bring the traffic from the sales side, back to the core network. And if you have to have fiber runs out to each and every cell site that are deployed, that becomes problematic especially

08:17:53 in a dense environment, such as an urban environment, integrated access and backhaul allows you to use the radio spectrum to provide backhaul from the cell sites back to the network of the data so that you don't have to run do fiber runs out to each and

08:18:13 every cell site so that's that's an important feature that allows for the deployment of 5g cell sites in dense environments.

08:18:41 I should mention least 17 is going to be complete, through the year, and typically it's 18 to 24 months before we see a release deployed out in the field. We are also starting on 3g bp release 18, which represents a major evolution of the 5g system, and

08:18:48 it's it's because of that major evolution they branded release 18 is five.

08:18:58 Advanced. And it's that really care about artificial intelligence, and then did reality that will enable highly intelligent network solutions that can support a broad use cases.

08:19:15 Some of them in the 5g manufacturing space. 5g advanced will be built at least 17 providing intelligent network solution shins. It'll cover numerous use cases.

08:19:24 In addition to the previously defined use case and deployment options, again we're going to see an artificial intelligence based on machine learning techniques, which will trigger a paradigm shift in the future wireless networks.

08:19:40 We also are driving openness and open architecture is the path forward to the demands of networks and emergence of new technologies, openness this aggregation and interoperability are crucial to realizing the full potential of a 5g

## 08:19:57 world.

08:20:13 It'll enable new innovation and improve the ability to have a community or making significant progress. No whining the global industry with 29 service providers and over 270 contributing companies.

08:20:13 We continue to emphasize as open ran as we enhance our network and look beyond desegregation and interoperability are key to realizing the full potential, both in 5g.

08:20:27 And the next G open their eyes are ready open commodity hardware based ran solutions.

08:20:37 And some number of actual open random deployments in the field, running on commodity hardware. Our strategy is to adopt and implement open ran into the network as technology becomes available.

08:20:55 Looking forward to the next generation.

08:20:59 As has launched the next g alliance in October 2020, building on the path to six g call to action, it's developed as a private sector initiative brain together a collective 60 View from North America, and as grown quickly to nearly 50 fully contributing

08:21:15 members from the industry. It's intended to drive industry and leadership for the next G, working with government and 60 work. Work research communities.

08:21:33 As we look to next G.

08:21:35 But the improvements from 2g to 4g. They were very impressive, but they were largely linear with each generation focused on providing more speed and more capacity.

08:21:46 Next, 5g, experience, also provides higher speeds and capacities, but will ultimately do so much more.

08:21:55 We're seeing this transformation unfold in sports retail mobile gaming smart factories healthcare and more and with each generation of wireless technology the ramp of gets more complex and challenging.

08:22:05 And if history is any indicator technology will likely to can you continue to progress to another I empty in the 2030 timeframe which will be dubbed six G.

08:22:15 And as we look ahead 60 represents an even greater opportunity to send wireless solutions into almost every facet of human and machine interaction, while it's still almost a decade away.

08:22:28 We do need to start defining the next G to allow time for research and standards to complete.

08:22:34 While 60 is expected to revolutionize radio network technologies and architecture potentially based on new it is empty requirements, it is likely this work will not appear into a new 3g pp release until after release 819 or 20 with commercial deployment

08:22:51 ready. Notice around one,

08:22:57 three, understand what 16 miles in delivering the requirements needed to deliver evolutionary use cases. And what technology advances around the horizon for 60.

08:23:11 Some of the use cases can be realized by means of continuous ongoing evolution of 5g technology, other technology, other use cases will require a more radical step that is a new generation of technology.

08:23:25 It's likely that six G will push the spectrum, envelope to the terahertz region, enable throughput of 100 times out of five G.

08:23:34 The lower frequency bands have ever will continue to provide the wireless connectivity for wider area coverage. So like 5g extension into millimeter wave extensions to very high terror hertz frequency bands as a compliment to lower frequency bands by

08:23:50 providing extreme traffic capacity and extreme data rates. We're also going to continue to see a trend towards software ization and this aggregation of network elements.

08:24:01 We're going to see extreme edge or its edge centric and data flow across the, the networks and current 5g systems have already caught the interest of many specialized vertical industry sectors and next generation systems will support even more challenging

08:24:17 verticals in areas across agriculture automotive healthcare smart factories, smart cities, a vacation media and entertainment address those societal and environmental goals.

08:24:39 Creating connection is our mission at at amp T and we take an integrated approach to fixed and wireless broadband connectivity to support and serve our diverse customer segments we invested over 110 billion on our wireless wireline network or millimeter

08:25:00 wave spectrum is now available in the US, and our sub six low band spectrum now cover has

08:25:10 more than 250 500 markets across the board is fully virtualized and running on commercial comment off the shelf hardware, and we're developing and testing are standalone five G chord to enable cloud native functions and network slicing.

08:25:27 We see the average household today having 13 connected by devices and we for

08:25:35 it. This will more than double with today also doubling in the near future. We're seeing a significant shift from HD to 4k video content, which is no surprise as many new devices cameras and gaming console 4k support.

08:25:55 We expect to see data consumption increased five times in the next five years. And for these reasons, we also have a bold fiber expansion expansion plan.

08:26:08 We currently offer broadband internet to nearly 15 million customers locations and 90 Metro

08:26:19 metro areas in the US, and we plan on wireline footprints to meet our customers needs.

08:26:28 We believe every American should be connected to the Internet, and we're doing our part to make it so the pandemic has put an enormous exclamation point on this need.

08:26:39 We're aggressively expanding and upgrading our networks to provide the fast and reliable internet access that people need. We're working closely with state and local governments as they identify opportunities to build out broadband networks to help close

08:26:52 the digital divide. We've invested \$2 billion from 2021 to 2024, to help address this digital divide the renewed commitment combines at and T's low cost for broadband service offerings with charitable contributions, it builds on our contribution of nearly

08:27:12 1 billion over the last three years, towards helping the nation's most underserved communities, and we want broadband solutions that are affordable, accessible and sustainable.

08:27:28 So with that, let me just point out some areas for Further reading 5g, America's has a number of white papers that talk about the different releases of 3g bp where technology is going mobile communications toward 2030 security for 5g vertical use cases

08:27:51 as well as fixed wireless.

08:27:54 These are available on 5g America's website, which you give on the screen, and they're available for download. I was actually involved in the writing of the number of these papers so if you do have any questions or want any more information about any

08:28:08 of these topics, you know, feel free to contact me.

08:28:13 With that, I'd like to thank you Steve for the invite to talk today I know we rushed through this pretty quickly. And, you know, certainly I'd be willing to come back in the future if there's any more details on any of the topics that we, we can answer.

08:28:28 Thank you.

08:28:37 Thank you, Brian. Any questions or comments for Brian.

08:28:40 Going once, going twice.

08:28:44 Okay, thank you, Brian appreciate it.

08:28:46 Brian, can you, can you please send me your presentation.

08:28:52 as soon as possible place.

08:28:54 Yeah, I'll send it to you right now. Okay.

08:28:59 So a couple of things.

08:29:03 As many of you probably were watching the transcript and saw there are many, many errors transcript doesn't is a problem. So, we'll be looking at some options in the meantime we will send you the attendance list as we've done in the past we will send

08:29:22 you the link to the recording and.

08:29:28 Excuse me, and Brian's presentation. So at least you will have that kind of information, and I can send the transcript or you can actually download the transcript.

08:29:38 If you choose to do so, recognizing that there are a number of errors in that transcript.

08:29:46 Any other questions or announcements. If any of you have any suggestions about how we can address the issue with the transcript, please let me know.

08:29:57 And with that.

08:29:59 Any other announcements.

08:30:03 Going once, going twice, again, yeah my mark Goldstein sorry there's a pinion my background that's going to take a reboot if.

08:30:13 So apologize for that a tip board meeting, first of the year is this Wednesday I'll beginning last meeting minutes and announcement out later today that's noon on Wednesday.

08:30:24 Good.

08:30:27 Yeah, Steve, this is Derek.

08:30:31 I don't know, so, Governor do see is giving his State of the State address at two o'clock this afternoon, and that'll be streamed live on youtube for, for any who are interested, I, I don't know what he's gonna say in terms of policy around broadband

08:30:47 or or digital equity or anything of that nature I just know that it's happening today and, and I'll be watching and. And I would encourage others to as well.

08:30:58 You know I look for the link on his web page and couldn't find it.

08:31:03 You know what I found.

08:31:05 I just found it on YouTube, I'll drop it in the chat. Okay, yeah.

08:31:11 Steve, Steve.

08:31:13 Steve it's a legislative event so if you go to az ledge.gov, okay, you don't see their linkages so it's probably about two o'clock today.

08:31:23 So it will be on YouTube as well. It'll be on Cox access on local TV. Definitely.

08:31:31 So it's on a number of different channels but it's a legislative event not a governor's event now the governor's.

08:31:36 Okay.

08:31:38 Nice job.