

Greater Arizona Educational Leadership  
**AZBSN** Arizona Broadband  
Stakeholder Network  
Arizona Telecommunications and Information Council  
**COVID-19 DIGITAL ACCESS TASK FORCE**

**Meeting Zoom Transcript**

**May 23, 2022**

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

07:35:18 Okay. Good morning, everybody. Welcome to another episode of our task force.

07:35:26 Glad to see you all here this morning. we have a lot of things to talk about this morning, so i'm gonna go ahead and just get started.

07:35:36 First of all, do we have? I? I know. we have a couple of folks who were new were presenting this morning.

07:35:42 Besides our presenters. Is there anybody else new to the task force this morning?

07:35:50 Going once, going twice. Okay, So nobody knew this morning. So, as always, just wanna remind you that we will not be meeting next week.

07:36:03 Because of memorial day, and i'm gonna talk some more about that in just a minute.

07:36:07 I want to remind you that if you want to know who's participating in the task force.

07:36:12 We do have the list of task force participants who are online.

07:36:18 I want to again, just to remind you that only those people who have taken the time to fill out the Google phone are included in that list.

07:36:26 So if you have not done that, please again, once again, please take the time to do that.

07:36:34 And then again a reminder that we do keep it seen with colleagues.

07:36:40 After this meeting, that's an informal gathering so we stopped the recording, and we just share any questions, comments.

07:36:49 Thoughts that people have might be 5 people. It might be 15.

07:36:52 And might last for 10 min, or it might last for an hour so again.

07:36:58 You're all encouraged and invited to participate in that in our meeting.

07:37:07 And then before I forget that. if you saw my last meeting number for the meeting today, you may have seen at the top of that page that I mentioned that after the meetings, as you know I do make the chats available but

07:37:26 I do go through the chat and put out any things and any announcements, meetings, and things like that that people need to know about.

07:37:34 So if you have something that you want to share then again it'll be in the chat.

07:37:38 But I try to include that in future meeting announcements.

07:37:41 So again, I want to remind you to make sure you have.

07:37:44 If you have anything in particular that you want to include, that you put that in the chat.

07:37:51 And then moving on again. thanks to our sponsors care.

07:37:57 First Health Plan Value of the Sun United Way Satellite Broadcasting and Communications Association.

07:38:06 Try at wireless, and once again please we're looking for sponsors again for this year.

07:38:11 So please sign up. if you have questions. please let me know.

07:38:17 I will be sending out a special announcement from the task Force with information about sponsorships.

07:38:26 Let's see. so jumping in we got a again several announcements.

07:38:30 First of all, at Ic. is gonna be receiving a redefining American health, health, health, healthcare award. And so, mark, you want to just talk to people about that quickly.

07:38:44 Sure. Good morning. Jen. I major just confirmed that we can, and we'll be using the T.

07:38:53 Health Institute. the U. of A's Phoenix outpost in the old Phoenix Union High School for that event.

07:39:00 So this will be a hybrid event on June first. at one o'clock it'll be a presentation of the award by the group Hlc.

07:39:16 And a reception so we're just finalizing the details that we'll put out some notices on that, as will they?

07:39:26 And Congressman a guy eggo roomman.

07:39:30 Guygo is confirmed for I believe remote participation. as part of the award ceremony, and several other Congress people are invited to that. and that's the short version.

07:39:44 Thank you. Let me call Hello, mark at the old Phoenix Union High School Building, where we've done things before.

07:40:01 This is at 600 East wash and Washington Street, sorry, Van Buren in Phoenix, And again we'll be sending out a notice was that Jerry I think that asked that we'll be sending

07:40:17 out a notice when we get everything confirmed. Okay. so moving on.

07:40:24 As I think you all know. and we mentioned this last time that Ntia has announced their Internet for all notices of funding opportunities 3 no foes.

07:40:36 And at the last meeting it was requested that perhaps we should have a special system to talk about the nophos.

07:40:46 And Jeff. I know we haven't connected and and I know you sent me a note but we do wanna have a discussion about about that.

07:40:56 Not necessarily, Jeff. what a Arizona is gonna do at this point.

07:41:01 But for people to really understand those no foes and so i'm going to schedule, since we're not meeting next week for the task force because of Memorial Day.

07:41:12 But I would like to see if we could schedule that sometime next week.

07:41:19 Jeff, who you look like you were gonna say something you do.

07:41:22 Yeah, no, I I guess i'm just trying to understand what what we'd be doing. I mean I can I can give you an overview of my my observations at least you know first first glance observations from the

07:41:33 nofos we're in the process of of going through some contractual stuff to bring some partners on board.

07:41:40 So in terms of what we can share. you know publicly there's there's very little about the strategy. I could certainly share some some observations, or just you know give you an overview of what we're doing

07:41:52 but unfortunately we're we're really early in the process , This is Mark, I think the intent really is to help educate people about, what those 3 no folks are and what's in them at the national level, and only discuss you know

07:42:07 state implications where that makes sense and is practical that's correct.

07:42:15 Okay, Okay. So Jeff, I'm all i'm working on for various clients in for various reasons analysis of the Novo.

07:42:26 So I believe Steve was suggesting. You know, that you and I perhaps anchor that with some other, you know, there may be someone special on digital equity or or otherwise.

07:42:38 But some sort of panel discussion. Yeah, However, you wanna do it. I mean, you know, mark you're you're perfectly able to give a briefing on this. I think that might not be a bad idea just to give a high level

07:42:51 overview of what you all are looking at, or how you see it.

07:42:54 It's it's pretty straightforward of what's going on, and the the challenging part is is developing the partnerships and and going out and getting this done at the state level so as I can imagine if

07:43:06 you can imagine. i'm i'm pretty buried with that right now.

07:43:12 So so again, I think, Mark you know, kind of talked about that, Jeff.

07:43:14 So the tentative panel is Jeff, if you decide to participate.

07:43:21 Mark Drew, gardener with common sense and sand up. if he's had talked to stand up last week. And so again, just the attempt to give people an understanding of what those no folks are, How they?

07:43:35 Apply for it, and so forth. So that's the person purpose of that event. So I'm thinking I want to do it next week, and of course, trying to schedule this is gonna is always a challenge.

07:43:45 It's my the being in my existence to schedule meetings.

07:43:49 But i'm going to try to get that scheduled probably for the sometime towards the end of next week.

07:43:54 Since we're not having a meeting on monday so anyway, moving on

07:44:03 Let's see. So I wanna have a special about cyber security. that'll probably be 2 or 3 weeks out to continue the discussion.

07:44:15 We've had about, How do we engage and address the issue of of cyber security?

07:44:22 There seems to be a lot of interest in the part of this of the per people participating in this task force.

07:44:26 That we need to address that issue. so I I gotta just tell you the one of the things that came to mind for me.

07:44:34 And and I don't want to get any lengthy discussion about this today.

07:44:37 But one of the things that came to mind for me is that

07:44:41 We need to talk with the isps about what they're doing with cyber security and helping people are they providing any kind of cybersecurity resources, services, support, and so forth, which is pretty consistent with the issues that we've

07:44:56 had with other digital equity. concerns is, how do we help people educate them?

07:45:02 And so so that'll be a separate discussion and probably like I said, That may be 2 or 3 weeks out.

07:45:10 I will say that if anybody is interested in being champions

07:45:16 For those of you who are involved with our task force, or are we on?

07:45:19 You know that we had 4 teams, and we had leaders or champions of each of those teams, And I really need to have a couple of people step up to take a leadership role to help facilitate

07:45:35 the planning discussion for cybersecurity. so if you're interested please let me know.

07:45:42 And then the last thing is task force networking and I know. I've been to the kind of the awkward and getting that going again. skipping is debate in my existence.

07:45:51 But I would like to also skip our networking event.

07:45:56 Maybe in about 3 weeks or so, so I just wanted to let you know all of that.

07:46:00 Any questions or comments before we move on okay so Oh, that shouldn't be on.

07:46:09 Yes, let's see what's going on here

07:46:16 So with that, let's just jump into our present updates today, Jeff, you wanna kick it off and sand up.

07:46:25 I believe you're online. If you have anything that you want to add, Yeah, hi, everyone.

07:46:34 As Mark had mentioned here. Steve had mentioned the

07:46:37 No folks were dropped for 3 of the large ntia programs.

07:46:41 The bean program, which is the largest one, the digital equity program and the middle mile program.

07:46:49 The first 2 programs are are more of a I hate to use the word block grant, but the the money is is allocated to the Governor's office.

07:46:56 And then we develop programs where during compliance with what they're doing to distribute. so we're very, very early in the process.

07:47:02 So there's nothing we can tell you about that at this point digital equities.

07:47:08 Same. you know, obviously something that we need to bring in some experts. And we're working.

07:47:11 Yeah, the process of doing that right now but we'll have some announcements on that soon.

07:47:16 In regard to middle mile. that is a competitive program we've reached out to different potential partners tribes counties to to to look at the most important routes.

07:47:26 If you've had a chance to review our middle model plan you'll get a pretty good idea what we're thinking about that again.

07:47:33 The State partnering with those entities to bring in additional minimum capacity within the State.

07:47:40 Quite a bit of other stuff going on I don't want to bore you with the details. but but just know that we're busy sand deep has been open with a lot of the technical side of this is you're aware we have a

07:47:51 100 million dollar grant in the middle, evaluating.

07:47:54 So, as I mentioned earlier. time is time is scarce we've got some excellent submissions, some real game changers for the State, and i'm excited to reveal that come next month.

07:48:04 So if you have any questions, please feel free to reach out I I am running a little behind on email right now. But I will get back to you.

07:48:11 If not, You're always welcome to call or text me my cell phone number is 6, 0, 0, 2, 4, 3 2 0 0 0 4.

07:48:19 Thanks any questions, Comments for. Jeff Sand up. do you want to have anything that you want to have It's It's Sandy. Steve, Pardon it's pronounced Sandy, Oh, sorry Sandy, do You have anything that

07:48:39 you wanna have and look like it. Okay, let's move on Mala, you're on , , , please introduce yourself.

07:48:50 Okay, Can you hear me? Yes, Yeah. okay. This is Mala and the State evade coordinator for public libraries.

07:48:57 I work with the State library in our months several task force and committees.

07:49:05 I won't name name all of them just continuing from what Jeff was saying, and Steve you were talking about the no force.

07:49:15 They're all on that page that is in the chat Internet for all dotv

07:49:22 The the there was a the Mo. that was signed on May ninth, with the different Federal agencies, with Fcc.

07:49:31 Usda nti. the Department of Commerce and Treasury, that they will collaborate and develop a uniform format and standards around the collection of data.

07:49:43 The reporting of data, and all the metrics that are needed for these grants, because it's really important that that there is some uniformity.

07:49:53 Otherwise we could be applying for different events and using different format, and not being able to compare apples to apples, so so they will standardize the information collection.

07:50:04 They have. They are going to have interagency sharing, and there would be public dissemination and posting of these awards, as well as the deployment maps.

07:50:16 And they say subject to reasonable exceptions for safety.

07:50:20 And disclosure restrictions that may apply.

07:50:24 They will distill, and have publicly available all of the information they will block out personally identifiable information or any whistleblower information that could incriminate anyone.

07:50:41 So. This is exciting, because if we are applying for multiple grants, we could use the same data and same data format from one grant to the other, and important for the Grant writers as Well, I will try

07:51:00 and put that link to the mou. in the chat once i'm done parking so that's that's what I had to say about that as far as it is concerned.

07:51:12 Funds for learning survey. Let me once again remind people it may.

07:51:17 27 is the deadline, if you know many schools and libraries.

07:51:21 That you're in touch with any of them that need to take the survey.

07:51:24 We would really really love to have that. because this is an annual survey that just done once through the year, and the the results of the survey is presented to Congress as well as to Fcc regarding the

07:51:41 bidding portal. there is going to be a webinar

07:51:47 That Shelby is conducting on 25 of May.

07:51:51 And moderated by John Windhouseen it is on is actually trying to make it up.

07:52:01 Application harder. and I I encourage you to register.

07:52:06 I will try and get the registration link into the chat as well.

07:52:10 The she'll be also submitted a buy American.

07:52:19 We were request letter the building. Make a buy maker.

07:52:23 Rule applies to any Federal grant that that we are going to obtain.

07:52:30 So it has to be at least 55% of it has to be made in the Us.

07:52:37 And assembly in the product assembled in the Us.

07:52:40 So there is a wave of possibility. But is asking for a blanket waiver, at least for the next year or 2, till the situation improves.

07:52:50 Otherwise the supply chain issues are going to hold up everything.

07:52:56 While we were happy with Jessica rosen morsel, and thank you for allowing wi-fi on school buses to be irritable.

07:53:06 There is still a lot of work to be done, as far as cybersecurity is concerned, which was the top most request.

07:53:14 In the last in the eleventh survey trend report and the survey that was done last year.

07:53:22 So hopefully we can push for cybersecurity to be the next one to be granted.

07:53:30 As far as the acp is concerned. We had about almost 4,000 sign up last week.

07:53:38 We are at 260,688 as against the National 11 million total household set signed up the highest number of sign-ups, as you know, expected, is Maricopa county 100

07:53:58 and 31,000, and Tima County about 45,000 comes next.

07:54:04 But there has been. the momentum is still there still on to get people signed up.

07:54:10 Ecf funding. The third application window closed.

07:54:16 But this window is going to be a different different from others.

07:54:23 Because it may not be funded just as the way the others were funded.

07:54:26 This would be based on the discount band the Nslp data.

07:54:32 So the rural 75 to 100% will be funded first.

07:54:38 And then the urban, and then it goes down as the discount and goes down.

07:54:47 We are still working on it, so nothing new to report as of now.

07:54:53 Unless Janet has anything else to report and i'm And to get back to you, Steve, And there are any questions?

07:55:03 Okay, any questions from all what? Okay, I don't know how old are you online? I am.

07:55:08 But I don't have anything to add steve thank you So in the call we're gonna get to you. if not, let's just jump down to the digital inclusion and I know cindy's not online couldn't be

07:55:18 here today, Nicole, do you have some things you'd like to share this morning.

07:55:24 Sure. So you brought up a little bit earlier about wanting to coordinate a call about the Nta.

07:55:31 B and additional equity funding, and I just wanted to point out that there is going to be a pretty comprehensive call, covering covering that on Thursday the 26 at noon.

07:55:45 This is hosted by the good folks at the national d digital inclusion Alliance.

07:55:49 So they've got some policy experts and they do a really great job of providing input to all sorts of different partners throughout the country.

07:55:58 So maybe of interest to some Some people on this call our connectors on a digital navigators.

07:56:07 We're continuing to support with acp signups and outreach efforts.

07:56:12 Those of us who have been following our journey know that we've had some some fun with at least 3 different providers who have been directing their customers throughout the nation to our digital navigator service.

07:56:25 But fortunately we've been able to kind of get to some of the billing departments that are sending those along

07:56:31 But we're still working with our partners here in Arizona on some of our coordinated outreach efforts to make sure that all those eligible households who have not yet signed up for

07:56:43 the program are getting signed up in our team that one-on-one help from the navigators that they can really benefit from.

07:56:50 So hoping to to get an increase. in those calls from from people in Arizona, and fewer from like like there says if you were from Louisiana. But we're you know we're just really thrilled to

07:57:00 have have some of these strong partnerships emerging that maybe before the pandemic wouldn't have have quite worked out for us or wouldn't have been in our imagination.

07:57:11 I'll say so. kind of a kind of a blessing there. the are also beginning our early our early visioning of what a coordinated effort for national digital inclusion week looks like with some of our our partners as

07:57:31 well where it's a awareness campaign. to get cities, cities, decision makers, organizations as well as the general public thinking and talking about digital equity.

07:57:47 So I mean, we know that in some ways that conversation has has been elevated. but we want to to make sure that we keep them a momentum going, that we are representing all voices, and that that people know that there's resources.

07:57:59 Out there and there's there's there's people to go to, and people to help.

07:58:01 So we're still in the early days of that one I think that's it for for some of our major work right now.

07:58:10 So the Code dropped the the link to register there.

07:58:14 Thank you, Drew. so, Nicole, do you want to just take a minute, and, as I told you, we'll schedule another time to really go into depth.

07:58:23 But we want to just take a minute and talk about some of the work you've been doing on the connect Arizona website.

07:58:30 Sure, you know I I know that we would discuss this so let me give him my best shot, and i'd love to to prepare something for this group.

07:58:41 Maybe in another Monday meeting. but So our connect Arizona initiative is really 2 parts.

07:58:46 We we opened our our digital doors in july of of 41 1 one aim of being the go to information, hub for all things related to digital inclusion and connectivity So that's things like our public Wi-fi, map are ever growing list of Internet offers in Arizona

07:59:02 As well as where individuals and organizations can get computers.

07:59:12 Digital equity data where we've compiled county level data of of access rates like broadband subscriptions as well as C test, and a digital inclusion directory of practitioners and organizations on the ground doing this work. The second aim is to support the digital empowerment of people in Arizona through our digital navigator service.

07:59:28 And these are librarians from throughout the State that the State Library hire has hired, trained, and supports to provide digital literacy support for anyone in Arizona.

07:59:38 We also help with understanding Internet offers that are available under the devices.

07:59:50 Some basic tech troubleshooting and sometimes we're just a a nice ear for people to to voice some concerns that they have about their Internet providers. or other other tech issues.

08:00:09 We've had over let's see our weekly calls I pull up my my data.

08:00:16 We're averaging about 45 calls per week, and our average call length is about 32 min.

08:00:25 So that's a little different than maybe a service providers call center, where they trend.

08:00:30 Pass people along as quickly as possible in 5 min or so, and in some public libraries are actually limited in the amount of in-person or phone support they can have with our navigators.

08:00:41 We have about a third of our callers, our repeat callers, so they continue to to seek more support.

08:00:49 To gain one more skill, or they they really build a rapport with the navigators.

08:00:54 So we see that it's a great benefit for making sure people are feeling comfortable.

08:00:59 Comfortable online and they know they have somebody unbiased. who's now trying to sell them something in their corner.

08:01:08 Okay, thank you. So we'll definitely schedule some more time to call to to go into more detail about some of the things you just shared

08:01:19 So I wanna move on aaron. I see you're online, or we're online we've had agreed that we would add you to our digital inclusion.

08:01:29 Since you guys are doing a lot of work kind of a lot of great work.

08:01:35 So aaron you're on are you still there

08:01:43 There's it there's a note in the chat saying she had a jump. awesome.

08:01:48 Yeah. Sorry I missed that. Okay. Michelle, Were you online

08:02:01 Okay, Well, yeah, So Michelle do you want to just take a minute and cindy's not here and just talk about the listening sessions that are being planned. in bea county.

08:02:16 Sure, while the digital inclusions subcommittee for Pema County is putting together a few sessions to get input from community members about what they need. when it comes to all things Internet tools computers, those kinds of

08:02:34 things. we're very excited about The effort there and being able to talk to the actual community members.

08:02:42 Our group has been doing a phenomenal job in pulling together stakeholders and getting their input about what they see is the need.

08:02:54 And now we'll be able to kind of round this out with the the listening sessions, and have some good comprehensive information on how to move forward from there.

08:03:04 I don't have the dates right in front of me because i'm on my phone and not on my computer.

08:03:09 See if you happen to have the date I don't I don't have right in front of me, but i'll

08:03:16 I'll look them up here. Okay, and one of the other things that we are doing as well Is we are working with the city of Tucson.

08:03:25 To promote Acp by putting flyers in the Tucson water.

08:03:31 Bills. So it will go out in their digital meetingletter, which is on which is in June, and if the flyers will go out for the entire month of June.

08:03:44 Inside everyone's Water Bill and It has information about the city of Tucson's efforts the county's efforts as well as the connect.

08:03:53 Arizona website and information and Acp website.

08:03:59 Okay, Thank you, Michelle, get my details about what you guys are doing at at another meeting I think you're doing some great stuff in team.

08:04:10 Okay. So, moving on, Janet, Good morning. Thank you. A couple of of resources that I wanted to share, and and events coming up first of all the event that Steve and I attended last week.

08:04:23 Was it World View, which was very interesting. the Arizona tech Council is a wonderful group of you are not a member.

08:04:31 I'll put the link in the Url There are a lot of free events, but they host things throughout Arizona, and have really made an effort to produce some interesting events in Southern Arizona, and there are things

08:04:41 like women in technology. There are technology, happy hours, Free if You're. a member of the Arizona Tech Council in our group has really enjoyed being a member of Arizona Tech County So I I will I will share That



08:04:56 Url, the other really big upcoming event in the world of telehealth, of course, is the Arizona Rural Health Conferences.

08:05:02 The 40 eighth Annual rural Health conferences the longest standing Rural Health Conference in any State.

08:05:07 It'll be in flagstaff june the thirteenth through the fifteenth, and i'll put that Url in there as well.

08:05:13 I also wanted to say that we've done quite a bit You know Jeff and I throughout the year as opposed to quite a few grant writing workshops from hands-on to different categories of grants.

08:05:25 And and we spoke long ago of bringing something together. and may or June and I'm thinking once we this group has a really great idea about about those newly announced grants.

08:05:37 It was sure, would be a an opportune time in the month of June to do another grant workshop specifically on those grants, so that we can really encourage community health centers and others to get very excited about about writing writing

08:05:50 those grants. We sure wanna want to get those out, so we can help provide the support for people who do want to participate.

08:06:01 I also last week had a great meeting with the Arizona Diabetes coalition, and they're a great group of people much like the digital inclusion folks who've been meeting on a regular basis, you know to

08:06:11 pull together all of the organizations that are working on diabetes in the State of Arizona, in the form of a coalition, really speaks of the power of a coalition in being able to network, in

08:06:21 and get great things done, and I look forward to once again, having our program participate very actively in in the war against diabetes.

08:06:31 Here in the state of Arizona, because part of the solution absolutely is technology and connectivity and reaching people in their hometowns.

08:06:38 For both education and treatment, and then a quick update telehealth and libraries.

08:06:42 Mall and I have our next meeting this week and what We've been working on what i've been working on along with Ken, the director of the Peanut County Library is he's been focusing on the integration of

08:06:53 the patient, vital science monitors as far as the checkout process and the data management process.

08:07:00 And my job is working with our nurse, Dr. Kim Shay, to put together the clinical protocols as well as the technical protocols for using those pieces.

08:07:12 Those devices and it's going to be very important as we move forward that we train the trainers and spend time teaching librarians how to use the technology.

08:07:22 Teaching, our existing healthcare navigators, the promontories, and the Chrs.

08:07:28 As well as working with our existing digital navigators, so that we can really put together a group of a wide, vast group of people who can work with patrons at the library who do want to be more empowered about their own

08:07:41 health. We want to be able to answer the questions and provide technical support for the technologies that we've been deploying our first 2 pilot sites.

08:07:50 We hope to have up and running this summer and Then We'll do a big kickoff in the town of Arabaka in September.

08:07:56 So we'll have more information the next time we meet thank you hey?

08:08:01 Thank you, Janet. Any questions for Janet. Okay. Moving on to the Department of Ed.

08:08:08 Sophia, you have anything

08:08:14 Sophia, you're still there

08:08:21 We don't have any major updates in the department of Ed, but I will put our link where we're announcing kind of one or 2 a week of the group of grantees for the department and of ad it is a long list of bunch of new partners

08:08:35 that we have so definitely keep checking it, as we keep updating it for all of the new organizations that we're working with and gave some more bitter funding to and i'll put it in the chat okay Thank

08:08:46 you so I don't think my one or kelly or on the line today.

08:08:54 Yup it's just me okay any questions Okay, and I don't think Lee is here today.

08:09:01 Derek had to drop off I don't see west or Rory on line today, either.

08:09:09 Not here this morning. Okay. So before we move on.

08:09:17 Brian. I notice that you're online you wanna just tell people briefly about the presentations that we did with you guys.

08:09:27 With the F. with the Fcc. Brian Daley

08:09:40 Okay, mark you, Wanna just talk briefly about the meeting we have with the Uhcc Advisory Committee.

08:09:47 Sure. some Brian daly who regularly participates is actually on the east coast.

08:09:54 He's at Ts vice President for standards and partnerships, and he's been on a Fcc.

08:10:07 Group called the Technology Technological Advisory Council Tack.

08:10:15 For a number of years. He wanted them to hear the Arizona story, and so he's and and and get thoughts.

08:10:22 Gather thoughts on on wireless evolution and other matters of of more general concern to that group.

08:10:30 So he did so. he did schedule a meeting with Steve and myself, and it end up being sand deep from the State broadband office last Tuesday.

08:10:43 Was it, Steve? I think so. And Steve presented on the task force.

08:10:50 How we came to be what was our, our, our initiatives, and our activities.

08:10:57 I personally on the 30 year history of kind of how in Arizona we got there at lc.

08:11:07 And legislative and executive branch and telehealth and and other initiatives.

08:11:14 Very briefly, but I covered the 30 year span. Then I gave some examples from client work in advanced wireless that I thought would be of interest to them, and some other ruminations of Mine and then sand deep

08:11:35 that, and clean up with any as a deep well of experience in in the wireless industry, including its at and T. that's somewhat intersects with Brian Zone.

08:11:51 Experience. There he batted clean up. talk not only about the further about the State broadband office, what was going on there but his own perceptions and thoughts about advanced wireless.

08:12:08 So. with all the follow ups we had with Brian. it seemed both he and other members of that committee were pleased to have heard that story here, and our other thoughts, and that it all went Well, yeah, thanks.

08:12:24 Mark and brian's online but I don't see him?

08:12:28 But then look like he's got his audio on video on so we'll we'll go ahead and move on so kind of following up to what we were just talking about is the presentation for today.

08:12:43 And we've heard from Ricardo we have 2 people presenting this morning and Ricardo. I'm gonna stop sharing if you have anything that you want to.

08:12:52 Share. but we do have 2 people who are presenting this morning Ricardo play out who's vice President for sales and business development, and Joe smells are who's the chief marketing officer with

08:13:06 Ed. 2 82 is a Arizona based company who was doing some interesting technology development, particularly with fiveg. And And so it fits well with our continued discussions about how do we extend hard

08:13:25 connections into communities. So I'm not gonna say any more about that.

08:13:32 And Ricardo and Joe, you guys are on.

08:13:33 Thanks Steve I appreciate good morning, everybody it's It's nice to be here again.

08:13:38 It's been a while since I had an opportunity to to join one of the meetings.

08:13:43 Joe smells are are per semo is also here and gonna talk a little bit about a couple of products focusing on one in particular that we're in the process of rolling out It is

08:13:59 Telco centric telephone operator, the Verizon, and at Ts.

08:14:05 Of the world, and some of that we're pretty excited about so, with no further do Joe take it away. Thanks, Ricardo.

08:14:13 Hi! everyone it's a sort of a dry topic i'm gonna try to keep everybody awake and and move this along.

08:14:20 There's a lot of content try to keep it fun and if there's any questions feel free to to speak up. i'm not watching the chat window or anything so you'll probably have to just ask me but

08:14:32 charlie little time at the end if there's if there's any questions.

08:14:35 So as as Steve mentioned, we're an emerging Company from Tucson, with a lot of expertise and Rf.

08:14:43 And wireless. A lot of the guys from our team are from

08:14:47 Raytheon and so it's you know big Tucson Centric engineering facility we've been working here for a couple of years.

08:14:56 Really focused in fiveg and wireless technology.

08:15:02 To before I talk about our products. What I wanted to do is give a quick intro.

08:15:06 It'll be it'll be fun and fast on to cellular coverage, because if you understand this, then you'll understand our products a little bit better.

08:15:15 So you know, cellular coverage is all about. was all about the radio waves the tower.

08:15:20 There on the left, and the people on the right you're trying to get those the signals in the communications from the tower to the devices, or to the vehicles, or to whatever has your whatever has your communications

08:15:33 equipment in it, and so in the in the world of radio.

08:15:37 There's there's lots of different spectrum going from the on the far left side.

08:15:41 You have low frequency stuff all the way up to, you know.

08:15:43 Ultra high frequency, and you know we're we're cellular lives in the 3 G and Fourg technology rooms.

08:15:50 It's really on the far left side, of this of this of this chart very, you know typically low frequencies between, say 600 Megahertz and 2,700 megahertz and

08:16:02 that'll be significant here in a minute, but with the new fiveg technology.

08:16:07 We're getting up into higher frequency radio waves you know we're calling, you know, anything from 24 gigahertz and up becomes a millimeter wave or or but a lot of the cellular carriers are

08:16:19 delivering their ultra wideband coverage on and That's where you're seeing some of these really interesting marketing claims really high speed data and ultimately reliability that a lot of that's happening in in the high

08:16:33 frequency stuff. So why does that matter the way we measure spectrum? And it is it's measured in Hertz, and it gets licensed in in chunks by auction that's what the fcc in this

08:16:46 country. the Fcc. manages that they'll license These chunks of spectrum to the carriers who then are able to deploy that and resell it etc.

08:16:57 And you know what what really means is more, Hertz means bigger pipe.

08:16:59 So if you have more spectrum, you have a larger pipe.

08:17:02 You could deliver more data and more service and and That's an important thing to the carriers in Threeg.

08:17:10 You had 5 Megahertz pipes.

08:17:11 You can see that there in the lower left that's just an illustration here.

08:17:17 But when we, when we got into fourg we actually had 4 times more data that we could deliver through these pipes at about 20 Megahertz in fiveg we're up to 100

08:17:26 megahertz, So it's significantly bigger pipe, and the cool thing about Fiveg is that you can actually take these pipes, these 100 megahertz pipes, or these 100

08:17:36 Megahertz blocks and aggregate them and create one large 800 Megahertz block of spectrum.

08:17:43 So you know, comparing that to 3 G and Fourg, you can see why the carriers are so interested in in in getting into this technology and delivering all the benefits to to all users.

08:17:55 You have a lot more spectrum here so that's one that's why it matters now.

08:18:00 The interesting thing about frequency and spectrum is in the threeg and fourg world where we're at the lower ends of that of that frequency.

08:18:09 What you get is you get a lot of penetrating power from from from the radio waves.

08:18:13 So things like trees and buildings and other obstacles aren't as big of an impact to the cellular signals.

08:18:20 And you're able to deliver the the the content and the data and everything else.

08:18:25 You're trying to do through and into buildings and around buildings, and it's it's a much better for for what we call propagation, and fiveg this is a bit of an eye chart here apologize for

08:18:40 that, but I thought it was. You know some of this stuff is a little bit technical.

08:18:43 This kind of does a good job of explaining. but on the lower part here, on the X-axis, the farther you go to the right.

08:18:49 The worst, the penetration gets the worst of propagation gets.

08:18:54 So that means that the signals do not get delivered very well into the buildings, or how the buildings, etc.

08:19:03 And this is this is kind of a big deal if you look at, for example, not to pick on any one carrier, because they all have the same.

08:19:09 They're all dealing with the same physics and the same dynamics.

08:19:11 But if you look at for example, verizon's ultra wide band spectrum, they deliver that at 28 gigahertz, and you can see here where it's you know where where that inflection

08:19:24 point is, and so on that propagation curve. You can see that the propagation is really poor, really really poor, for for that, for that frequency, and all the carriers are dealing with this.

08:19:36 All the carriers are are trying to figure out how to how to deliver quality service and and deal with this deal with the poor propagation at the at the at that high frequency.

08:19:46 So the challenge here is that when you, when you deliver these these high frequencies signals from the the towers, they just bounce right off the buildings.

08:19:56 They literally will bounce just bounce off the building.

08:19:59 You get no penetration on the inside. or very little penetration. there's a fun.

08:20:03 Video that t-mobile made where they have a single going through a a glass door, and they close the glass door, and the signal stops, and they'll be the last door in the signal continues on.

08:20:12 So you can see how easy it's blocked by by by obstacles, when you know this is the the challenge is Is this: doesn't make for happy customers who just went out and bought a \$1,000 you know the new

08:20:26 \$1,000 iphone or whatever, because it has fiveg and then they're not seeing any 5 to service that's.

08:20:32 It's a big problem for the carriers even things like trees will block it.

08:20:38 It's the this, the high frequency signals are what we call line of sites.

08:20:42 So if there's anything between that tower and where your devices that could even be a a telephone, pull it creates a it creates a problem here.

08:20:49 Even rain a heavy rain. can even affect the the signal quality so it's a it's a significant issue, and that's that's where 82 comes in.

08:21:00 What we do is we make a variety of wireless fiveg infrastructure equipment. to our first.

08:21:08 Our first round of products is really dedicated to solving these coverage problems.

08:21:13 And so what we can do is we can extend the fiveg networks.

08:21:17 We can fix the coverage holes and pass rf walkers I'm going to show you how we do that here in a second.

08:21:23 But the really cool thing about about using this technology is there's no trenching required, which means you don't have to dig up your city street to to lay down fiber optic cable.

08:21:34 And there's no there's no fiber backhol required for these products, which means you don't have a data connection that you've got a run to this device.

08:21:42 And then pay for that as a as a monthly opex So it's a really it's a really low touch easy kind of a system to implement.

08:21:50 I know i'm going kind of fast I hope I hope everyone's at least awake or keeping up to some degree.

08:21:58 So how does it work? If you notice on this picture on this picture, there's 2 devices. These these 2 devices on this poll represent our entire solution, and the way it works is the device on the one side picks up the end

08:22:12 incoming signal from the tower. we cleaned it up.

08:22:15 We amplify it, we deliver it to our second box, and then we rebroadcast.

08:22:19 It to wherever you want to, aim that that signal and It's really nice, because you get something like a business here which is a which is a blocker, and everything behind that building it's not gonna benefit from the coverage and you

08:22:32 know, with 15 min of installing this repeater. Now you can light up that entire space.

08:22:36 We we call that A. We call that a coverage hole or a shadow. And so you can.

08:22:42 You can basically light up these shadows in a very, very easy to deploy and quick process.

08:22:50 So network network planners love this kind of stuff. So how would it look?

08:22:54 You know another example of how you could be deployed.

08:22:56 As I mentioned. You have to have fiber that's what this red dotted line is so when anytime you're gonna lay down a cellular network.

08:23:02 You need to have a fiber fiber backbone.

08:23:06 So in this case. and this is what a lot of city planners like to do this!

08:23:09 They like to run they'd like to run a heavy fiber down one of the main streets, and then they can.

08:23:15 Then they can connect off of that so in this case you see the fiber going down one street. and what's that gonna give you is you're gonna get good coverage in sort of a 360 degree from that

08:23:25 tower up into any any Rf. blockers but if you use repeaters in this context, and you can again, it takes about 15 min to to set one of these things up.

08:23:37 You can put these repeaters into the edge of that coverage.

08:23:39 From that tower. and now you're lighting up entirely new spaces, with very little effort.

08:23:45 Here. And so it's a really nice really nice way to deploy coverage into municipalities. and we're seeing a lot of interest in that in that area from municipalities and and city

08:23:56 governments. all you need is power integral to deploy this.

08:24:02 Another product that we've developed here at 82 is what we call it advanced antenna system.

08:24:08 I'm just gonna mention this because this is a fairly technical product.

08:24:12 But what it is is if you, if you look at this, if you go back to our to our repeater design, Sorry that this is we.

08:24:23 We have a single transmitting device and so you kind of Aim the device where you wanna aim your coverage, and it's very convenient for for sort of providing a place coverage around an Rf blocker or

08:24:34 down a city street or into a building but it's it is an aim process.

08:24:39 And so what you get with what you get with the advanced antenna system is this: is a 360 degree company coverage, a provider in the same kind of simple to use context.

08:24:52 So, instead of just having to aim it in one direction, you can deploy this device and get 360 degree coverage very quickly.

08:24:59 So in the same kind of a scenario you have a cell tower that's been put down onto a fiber optic cable, you could put down the the this free fall fiveg antenna and by doing that you're going

08:25:10 to deliver 360 degrees of coverage as an extension from where that from the coverage that that power gave you.

08:25:20 So that was a Blitz. I know that was a Blitz.

08:25:24 Probably put some of you asleep but that's that's what I have for today, and i'm happy to answer any questions about it.

08:25:32 If you if they're already from the from the audience So, Joe just quickly the free fall antenna is that commercially available now or not, it's it is not commercially available.

08:25:47 We are going down the road of commercialization. We have Fcc.

08:25:52 Certification, and we're engaged with operators and network infrastructure providers to to take that to market.

08:26:00 We have a timeframe about what all that might happen.

08:26:03 Well, it's not happening fast enough for us we're we're working as fast we're working as fast as we can.

08:26:11 We one of the things that we're doing at 82 is our approach is a bit disruptive. And I've been in the cellular industry for about getting up onto 30 years. and we when you try to do disruptive things it's

08:26:24 really hard. So the technology we're using under this and our methodology is a little bit new, so we we're we're having some some big hills to climb in terms of describing how it works to people and and

08:26:39 getting it integrated with their systems. But like I said It's Fcc.

08:26:43 Certified, which is a big it's an important milestone in this kind of technology.

08:26:48 So. we're in discussions with several operators today, and network provider so hopefully soon, the tangent to that Steve is that is, by commercially available.

08:27:03 We're talking about large quantities so we can deploy small test quantities under under very specific opportunities, particularly to research institutions or or governmental institutions that want to deploy this for very specific low

08:27:20 volume stuff. We can do that right? But if by commercially available, you mean, when can you order 1,800 of them?

08:27:28 That's. that's a little while the way but we're, but they are available for specific use cases today, with some lead time.

08:27:35 Obviously they're they're not sitting on a shelf anywhere.

08:27:36 They gotta be Yeah. and if and if anyone wants to see one or see a demonstration we're our our headquarters are in Tucson, and you're welcome to come down and see us actually I had talked

08:27:48 to Alex about doing this similar presentation and keep well.

08:27:55 Maybe now is quite the time, but we definitely want to talk some more about the free fall.

08:28:01 Good good. Thank you. Any other questions or comments for for John.

08:28:11 This is Andy setting player. How would this system work in a very rural area, such as Cocaineo County, or northern, or a gap of high county?

08:28:22 Well, , That's a great that's a great question because it's it's actually a perfect solution for a rural deployment like that.

08:28:32 Where, let's say for example you've got a tower you know the the network providers say you know it doesn't matter which one Verizon at t t Mobile.

08:28:43 Whatever. Yeah, they deploy their networks based on density of of population, etc.

08:28:47 So a lot of those rural communities are difficult for them to serve properly. well.

08:28:51 What you can do with with our repeater technology is we can actually deploy the repeater technology on the edge of that network. and we can aim the coverage from. we can aid it aim in a digit an additional say

08:29:07 you know, 3 to 6 kilometers of coverage into a community and light up that community.

08:29:14 You can do that, of course we can't light up 10,000 you know.

08:29:19 Customers with with one repeater. But if you if you if you if you strategically deploy the repeaters at that network edge, then you can extend the coverage into these rural communities, we're pretty excited about about how these things.

08:29:34 Could be used. in that context, and as I mentioned one of the that one of the real strengths of the technology is that you don't have to run fiber.

08:29:43 So that can be extremely costly and you know when you're in a rural context, or going through going through lands where they're the citing and permitting is is challenging or time consuming you don't have

08:29:56 to deal with a lot of that stuff. You can just literally put up a poll and then extend that network and point the coverage into into wherever you want to go, and you can deploy

08:30:07 You can you can There, we don't know exactly how many repeaters.

08:30:12 You could deploy on a single on a single tower, but with the amount of coverage and capacity that that these towers delivered today in fiveg, we all the network planners and providers expect you could

08:30:26 deploy several of these repeaters into a single onto a single tower and really extend that network coverage.

08:30:35 So, Joe. we have a question about what's the pricing model. Yeah.

08:30:39 So the pricing the way the way the coverage will be deployed is through.

08:30:45 There's sort of 2 channels that We have today. We have partnered with our go-to-market partners.

08:30:51 A company called Wilson Electronics. They are the world's meeting repeater manufacturer.

08:30:57 They have. we've licensed the technology exclusively to them.

08:31:00 So you can engage with them directly, and and have a have a, you know.

08:31:05 Have a transaction conversation with them like let's say you're a municipality or state government organization.

08:31:11 And you want to look at this technology. We can sell it to you through Wilson electronics.

08:31:17 And additionally, our ultimate goal is to deliver this technology through the network providers themselves.

08:31:27 So this becomes another tool in their toolbox for providing good service to to

08:31:34 You know 2 municipalities, or or whoever wants it.

08:31:37 Now, if you're a State government or a or a you know, or or organization that runs its own network, and you're in in these higher frequencies, we can certainly engage with you directly, and then and then sort of help guide that

08:31:50 conversation towards towards of who would be who would be here?

08:31:54 The best person to purchase from, or the best direction for you to go in terms of getting into it.

08:31:59 So would that apply also to local school districts it's yes, yes, to local school districts.

08:32:09 There. the thing about this this technology is it's license technology, right?

08:32:15 So you've got to have you've got to have Fcc.

08:32:18 Licenses for the spectrum if you've if you have those things in hand.

08:32:23 It becomes a lot easier if you're an agency that doesn't have spectrum license it's

08:32:31 It becomes more complicated because this equipment does require an Fcc.

08:32:37 License to use and so that's all that's all solvable.

08:32:39 It's all you you know figured out the industry does this every day.

08:32:42 But there's just some different levels of complexity depending on who you are as an organization

08:32:51 Any other questions, for for Joe, thanks to you, everyone for your time, and having us on today. good presentation.

08:33:01 Thank you, sir. Thanks, guys. Okay, Any other questions or comments.

08:33:10 Any other announcements, for today, before we end our meeting questions. comments.



08:33:19 Ricardo. Thank you good to see you again, thank you guys, it's Craig being here and actually, Joe, can you send me your presentation?

08:33:30 Can we do that like to share our presentations with folks no problem.

08:33:34 I'll send that off right now. great thank you so any other questions or comments about anything, any announcements that people need to know about.

08:33:46 You know again if there's something that you want shared. put it in the chat, and then I can grab it out of the chat and include it in our next meeting announcement.