



Webinar

Broadband and Real Estate

Date: August 25, 2021

00:00:03 --> 00:00:06: Welcome and thank you for joining today's webinar.

00:00:06 --> 00:00:09: My name is Craig Lewis and I'll be moderating today's

00:00:09 --> 00:00:09: session.

00:00:09 --> 00:00:13: I'm the North American practice leader for planning

00:00:13 --> 00:00:16: landscape and

00:00:16 --> 00:00:18: urban design at Callison RTKL Global architecture planning

00:00:18 --> 00:00:21: and design

00:00:18 --> 00:00:21: practice that addresses the imperatives of resiliency,

00:00:22 --> 00:00:24: well being and technology, and their influence in the built

00:00:22 --> 00:00:24: environment through a human centric design approach.

00:00:24 --> 00:00:28: And most of the chair of the Curtis Infrastructure Initiative,

00:00:28 --> 00:00:31: Global Advisory Board, and have the pleasure to talk to

00:00:31 --> 00:00:33: you to lead this discussion.

00:00:33 --> 00:00:36: This very important topic. Today's webinar will feature three

00:00:33 --> 00:00:36: speakers,

00:00:36 --> 00:00:40: will provide introductory remarks, a short moderated

00:00:36 --> 00:00:40: discussion by myself,

00:00:40 --> 00:00:44: and will answer questions you all submit to the panelists.

00:00:44 --> 00:00:48: The current infrastructure initiative was launched in October

00:00:44 --> 00:00:48: 2020 through

00:00:48 --> 00:00:50: a generous donation from the state of Jim Curtis,

00:00:50 --> 00:00:54: ULI Life trustee, who believes that infrastructure and land use

00:00:54 --> 00:00:56: processes shape how we live,

00:00:54 --> 00:00:56: how we work and how we move goods and services.

00:00:56 --> 00:00:59: This understanding of the link connecting real estate

00:00:59 --> 00:01:02: development,

00:01:02 --> 00:01:04: land use and infrastructure investment.

00:01:04 --> 00:01:07: Drives the focus of the initiative on building capacity in

00:01:08 --> 00:01:11: communities across the United States and the globe to

00:01:08 --> 00:01:11: create

00:01:11 --> 00:01:15: more equitable and resilient infrastructure investments that

enhance long term
00:01:15 --> 00:01:19: community value. This requires building a movement of which you
00:01:19 --> 00:01:22: are all participants that grows the table and creates new
00:01:22 --> 00:01:25: ones through global and strategic partnerships,
00:01:25 --> 00:01:29: provides technical assistance and capacity building at the local level
00:01:29 --> 00:01:32: and then acts as a feedback loop to promote the
00:01:32 --> 00:01:36: most innovative and or effective best practices.
00:01:36 --> 00:01:40: To learn more about the Curtis Infrastructure Initiative,
00:01:40 --> 00:01:47: please go to uli.org/infrastructure. So building on the idea of
00:01:47 --> 00:01:49: the feedback loop,
00:01:49 --> 00:01:52: the Curtis Infrastructure Initiative is excited to release its first
00:01:52 --> 00:01:55: major report that was developed as a part of the
00:01:55 --> 00:01:58: development of the background materials for one of our capacity
00:01:58 --> 00:01:59: building projects in Baton Rouge,
00:01:59 --> 00:02:02: LA. The report's goal, much like this webinars to better
00:02:02 --> 00:02:07: understand the challenges and opportunities presented in addressing the digital
00:02:07 --> 00:02:07: divide.
00:02:07 --> 00:02:11: The tools and techniques available for both real estate and
00:02:11 --> 00:02:14: land use industry and the need for communities to expand
00:02:14 --> 00:02:17: and best take advantage of this connectivity.
00:02:17 --> 00:02:20: You will, I staff will be sending everyone on this
00:02:20 --> 00:02:22: web and R A link to this report.
00:02:25 --> 00:02:28: So as we begin, I think we all have a
00:02:28 --> 00:02:31: common understanding these days,
00:02:31 --> 00:02:34: and perhaps the last 16 to 18 months have proven
00:02:34 --> 00:02:39: that broadband is essential infrastructure just on the same order
00:02:39 --> 00:02:40: of magnitude as water,
00:02:40 --> 00:02:43: power, roads, bridges and other types of transportation.
00:02:43 --> 00:02:47: It is the essential connective tissue for all of our
00:02:47 --> 00:02:48: communities,
00:02:48 --> 00:02:50: and bringing all of us together.
00:02:50 --> 00:02:54: Can you imagine what the pandemic would have looked like
00:02:54 --> 00:02:56: if we couldn't have worked?
00:02:56 --> 00:03:00: From home. We couldn't have shopped from home.
00:03:00 --> 00:03:05: We couldn't have done a number of things from the
00:03:05 --> 00:03:10: sort of security and safety of our smaller communities next.
00:03:10 --> 00:03:13: And we recognize now more than ever,
00:03:13 --> 00:03:16: that broadband being an essential infrastructure,

00:03:16 --> 00:03:19: is critical to how we continue to move our economies
00:03:20 --> 00:03:20: forward.
00:03:20 --> 00:03:24: EU S is very much of a knowledge based economy
00:03:24 --> 00:03:28: and those sharing of ideas happens and more and more.
00:03:28 --> 00:03:32: We're doing that in a virtual format and a virtual
00:03:32 --> 00:03:33: arrangement.
00:03:33 --> 00:03:36: But just being able to tap into the the networks
00:03:37 --> 00:03:40: and ideas or critical they drives retail.
00:03:40 --> 00:03:42: It tries warehousing and distribution.
00:03:42 --> 00:03:45: It drives all kinds of elements of our economy these
00:03:45 --> 00:03:46: days,
00:03:46 --> 00:03:49: and we can't be without it and next slide.
00:03:49 --> 00:03:53: But perhaps most importantly, we have to understand that
being
00:03:53 --> 00:03:57: essential infrastructure there is still a divide and we have
00:03:57 --> 00:04:01: to make sure that those areas that don't have adequate
00:04:01 --> 00:04:04: infrastructure get that infrastructure as quickly as possible,
00:04:04 --> 00:04:07: because those are the areas that are going to be
00:04:07 --> 00:04:08: challenged,
00:04:08 --> 00:04:11: particularly when it comes to.
00:04:11 --> 00:04:14: Uh, education, and then we know that education is the
00:04:14 --> 00:04:18: most critical element in determining a person's success in the
00:04:18 --> 00:04:19: future,
00:04:19 --> 00:04:22: and so the more that we can get out to
00:04:22 --> 00:04:26: those who don't have adequate and fast broadband,
00:04:26 --> 00:04:29: the better. So with that,
00:04:29 --> 00:04:32: I'd like to introduce our panelists as part of today's
00:04:32 --> 00:04:33: webinar.
00:04:33 --> 00:04:35: So first up, will be Eric Bathrick,
00:04:35 --> 00:04:38: who leads a comms technology solutions group with more
than
00:04:38 --> 00:04:40: 25 years in building broadband networks.
00:04:40 --> 00:04:43: Eric will provide an overview of the topic,
00:04:43 --> 00:04:47: can begin to talk about some broad solutions at the
00:04:47 --> 00:04:49: state and local level.
00:04:49 --> 00:04:51: After that will be mere Ruffin.
00:04:51 --> 00:04:54: Who's in economic development planner and leads
broadband expansion with
00:04:54 --> 00:04:57: Baton Rouge is capital Regional Planning Commission.
00:04:57 --> 00:05:00: She believes strongly in leveraging community to help
determine their
00:05:00 --> 00:05:01: own future,
00:05:01 --> 00:05:04: and we'll talk about the balance between focusing on the

00:05:04 --> 00:05:06: rural and urban divides,
00:05:06 --> 00:05:09: and finally, Jeff Freeman, who is the President of the
00:05:09 --> 00:05:13: broadband group that has been integral and building the
connection
00:05:13 --> 00:05:16: between the real estate industry and the need for broadband
00:05:16 --> 00:05:19: since 2005, will talk about opportunities to leverage.
00:05:19 --> 00:05:22: The private sector and to ensure access connectivity again,
00:05:22 --> 00:05:26: please ask your questions and I'll make sure that they
00:05:26 --> 00:05:27: are answered by the panelists.
00:05:27 --> 00:05:29: With that Eric first up.
00:05:32 --> 00:05:34: Great thanks Greg. Appreciate it.
00:05:34 --> 00:05:38: So as Craig mentioned, we're going to start off our
00:05:38 --> 00:05:43: discussion with really understanding the landscape of
broadband infrastructure and
00:05:43 --> 00:05:44: Paul if you can.
00:05:44 --> 00:05:48: If you can go to the next slide so when
00:05:48 --> 00:05:52: we look at the 100,000 foot view I call it
00:05:52 --> 00:05:58: 100,000 foot view where as Craig mentioned interest just in
00:05:58 --> 00:06:02: terms of how essential broadband infrastructure is in terms
of.
00:06:02 --> 00:06:05: It's important and connectivity throughout.
00:06:05 --> 00:06:08: If we look at this at this snapshot,
00:06:08 --> 00:06:13: it it's really, you know it goes continent to continent
00:06:13 --> 00:06:15: from with subsea cabling,
00:06:15 --> 00:06:19: traverses the rural areas of our states in our country,
00:06:19 --> 00:06:22: going from city to City,
00:06:22 --> 00:06:25: town to town, and then town to what we call
00:06:25 --> 00:06:31: last mile connectivity and and looking at that connectivity.
00:06:31 --> 00:06:36: It is very. Diverse in terms of how connected different
00:06:36 --> 00:06:41: parts of our communities are everything from the residents to
00:06:41 --> 00:06:46: public safety site to the hospital to higher Ed and
00:06:46 --> 00:06:50: then and then also the commercial and enterprise.
00:06:50 --> 00:06:55: And as Craig mentioned, the importance of education what
with
00:06:55 --> 00:07:00: what we call community anchor institutions in terms of
schools,
00:07:00 --> 00:07:03: libraries, community centers. Community colleges,
00:07:03 --> 00:07:08: government buildings. So this is the that the landscape of
00:07:08 --> 00:07:14: broadband infrastructure and the potential of connectivity and
how interconnected
00:07:14 --> 00:07:17: you know our societies are in terms of the public
00:07:17 --> 00:07:22: and the private and the home and the hospital.
00:07:22 --> 00:07:27: And you utilizing this to really create that that snapshot

00:07:27 --> 00:07:27: go ahead.

00:07:27 --> 00:07:32: Paul, if you could go to the next one.

00:07:32 --> 00:07:35: So what? What I refer to is the broadband stack,

00:07:35 --> 00:07:40: right? So this is. Understanding getting data and information to

00:07:40 --> 00:07:45: the end user and understanding how we can get there.

00:07:45 --> 00:07:49: So it's you know, at the baseline at the foundation

00:07:49 --> 00:07:53: of this broadband stack is fiber and Internet.

00:07:53 --> 00:07:56: I always say fiber, you know.

00:07:56 --> 00:08:01: Fiber loves wireless wireless loves fiber and at the very

00:08:01 --> 00:08:06: baseline of this is is getting data and information.

00:08:06 --> 00:08:10: Out to the end user and those end users are

00:08:10 --> 00:08:11: individuals,

00:08:11 --> 00:08:16: their devices, their buildings, their homes with the ultimate goal

00:08:16 --> 00:08:19: to improve and advance our communities.

00:08:19 --> 00:08:22: Our campuses are cities or the citizens.

00:08:22 --> 00:08:25: The constituents are in. You know,

00:08:25 --> 00:08:30: are are are different. You know family members and and

00:08:30 --> 00:08:36: it's understanding that this combination of infrastructure and technology.

00:08:36 --> 00:08:39: Come is utilized and how that's utilized in terms of

00:08:40 --> 00:08:43: getting to the end user and what I like about

00:08:43 --> 00:08:44: this this this.

00:08:44 --> 00:08:47: This diagram is really it's it shows where that that

00:08:48 --> 00:08:49: divide resides,

00:08:49 --> 00:08:53: right? It's it's that that that that line between how

00:08:53 --> 00:08:56: we get to the end user with the ultimate goal

00:08:56 --> 00:08:59: of why do we want to get there?

00:08:59 --> 00:09:02: We want to get there so we can.

00:09:02 --> 00:09:05: We can gain knowledge we can improve and advance different

00:09:06 --> 00:09:07: different initiatives.

00:09:07 --> 00:09:11: And it shows also the combination and use of private

00:09:11 --> 00:09:15: networks and public networks and the data centers and the

00:09:15 --> 00:09:20: mobility of wireless and understanding that the combinations and the

00:09:20 --> 00:09:25: coalescing of those infrastructures and convergence of those infrastructures can

00:09:25 --> 00:09:29: help us ultimately with the end goal of connecting the

00:09:29 --> 00:09:32: individual or the groups of individuals,

00:09:32 --> 00:09:35: and are in our communities.

00:09:35 --> 00:09:40: Next one Paul. So one of the one of the

00:09:40 --> 00:09:43: important things is so why?
00:09:43 --> 00:09:46: Why are we trying to do this?
00:09:46 --> 00:09:50: Well, there's there's these forces that are shaping the stack
00:09:50 --> 00:09:55: and the need and understanding that we have these applications
00:09:55 --> 00:09:57: that we need to get to.
00:09:57 --> 00:10:01: We have everything from video management systems to mapping to
00:10:01 --> 00:10:05: the Google Suite products to Amazon Web Services to email
00:10:05 --> 00:10:08: to Twitter to Facebook trying to get access.
00:10:08 --> 00:10:11: To the telemedicine applications, video conferencing.
00:10:11 --> 00:10:15: Those types of applications and getting them to the end.
00:10:15 --> 00:10:20: Users which are takes, shape and form of computers and
00:10:20 --> 00:10:25: smartphones and sensors and tablets and different types of signage
00:10:25 --> 00:10:29: is and smart city types of IO T devices and
00:10:29 --> 00:10:33: and then bring those onto to networks and these forces
00:10:33 --> 00:10:37: are shaping this stack of in terms of priority in
00:10:37 --> 00:10:39: terms of importance.
00:10:39 --> 00:10:41: In terms of need with,
00:10:41 --> 00:10:46: ultimately, we're trying to realize the importance and and
00:10:46 --> 00:10:47: of broadband,
00:10:47 --> 00:10:52: and that's when we are able to get.
00:10:52 --> 00:10:56: Truly meaningful application services and content delivered
00:10:56 --> 00:10:57: to the end users.
00:10:57 --> 00:11:01: So again there in in the progress of gaining knowledge
00:11:01 --> 00:11:04: with the individuals and and providing economic,
00:11:04 --> 00:11:09: economic development opportunities and equity opportunities
00:11:09 --> 00:11:12: for for communities and
00:11:12 --> 00:11:16: for individuals that are out there.
00:11:16 --> 00:11:20: And if we can get that that get that true
00:11:20 --> 00:11:22: meaning and value out to the end users,
00:11:22 --> 00:11:26: then we are truly realizing.
00:11:26 --> 00:11:28: Value and and the need for broadband and that's what's
00:11:28 --> 00:11:32: exciting about what we were seeing now,
00:11:32 --> 00:11:34: you know, through the federal and and state side in
00:11:34 --> 00:11:38: terms of funding and funding programs,
00:11:38 --> 00:11:40: is we're seeing this importance now we're seeing this this
00:11:40 --> 00:11:42: investment that's that is starting to occur.
00:11:42 --> 00:11:45: And and and. And you know,
00:11:45 --> 00:11:45: at a national level, at a state level,

00:11:45 --> 00:11:49: at a local level, because these these applications that we
00:11:49 --> 00:11:49: we,
00:11:49 --> 00:11:52: we we need to as as Craig mentioned.
00:11:52 --> 00:11:57: The pandemic really brought it to fruition in terms of
00:11:57 --> 00:12:01: bringing it to the forefront of the need and the
00:12:01 --> 00:12:05: importance and the value of being able to do remote
00:12:05 --> 00:12:09: learning. Being able to meet with your doctor via Tele
00:12:09 --> 00:12:11: health and telemedicine,
00:12:11 --> 00:12:14: and and having a A connectivity you know,
00:12:14 --> 00:12:18: through video conferencing. And and I think that's where you
00:12:18 --> 00:12:23: know the investment and and the importance of we
everybody.
00:12:23 --> 00:12:26: You know needs to be connected and and This is
00:12:26 --> 00:12:30: why you know they need to be connected and and
00:12:30 --> 00:12:34: these forces have now shaped how we're going to be
00:12:34 --> 00:12:38: moving forward into the future in terms of the value
00:12:38 --> 00:12:42: and of being connected and and bridging that digital divide.
00:12:42 --> 00:12:44: And from here I'd like to.
00:12:44 --> 00:12:46: Prep, Pass it onto Mia,
00:12:46 --> 00:12:47: so thank you.
00:12:56 --> 00:13:01: Good afternoon everyone. My name is Mia Ruffin.
00:13:01 --> 00:13:06: I am the economic development planner at the Capital
Region
00:13:06 --> 00:13:10: Planning Commission in Baton Rouge,
00:13:10 --> 00:13:17: LA. We serve 11 parishes in our region and we
00:13:17 --> 00:13:19: also work step up.
00:13:19 --> 00:13:25: In step with a number of regional and.
00:13:25 --> 00:13:30: State. Programming and today I will offer a little bit
00:13:30 --> 00:13:34: of the perspective that I have for my role.
00:13:34 --> 00:13:41: The opportunities, the obstacles and such in relationship to
broadband.
00:13:41 --> 00:13:45: So here I have a map of our region.
00:13:45 --> 00:13:50: It is one of eight of the development districts in
00:13:50 --> 00:13:51: the state.
00:13:51 --> 00:13:55: As I said, we cover 11 parishes out of the
00:13:55 --> 00:14:01: 64 and many of the programming mandates and goals that
00:14:01 --> 00:14:05: are being set across the state really are.
00:14:05 --> 00:14:11: Dependent on the grassroots efforts and understandings that
are happening
00:14:11 --> 00:14:15: on the ground in each of these places in the
00:14:15 --> 00:14:19: urban and the rural neighborhoods of these communities.
00:14:19 --> 00:14:22: So I'm sure that not everyone on this call has
00:14:23 --> 00:14:27: had direct communication with their relative Planning

Commission.

00:14:27 --> 00:14:33: Whether they are interested in developing real estate or if
00:14:33 --> 00:14:38: they're just curious to know about what is the broadband
00:14:38 --> 00:14:40: temperature in their area?
00:14:40 --> 00:14:45: KTVI itself was founded in 1967 and it does a
00:14:45 --> 00:14:51: number of different things from both the technical side to
00:14:51 --> 00:14:57: a planning side to a mediation side we work to
00:14:57 --> 00:15:00: ensure that water, ground air disaster,
00:15:00 --> 00:15:06: transportation planning, implementation and such are all
aspects of our
00:15:06 --> 00:15:08: eleven peers focus area,
00:15:08 --> 00:15:11: as well as how these.
00:15:11 --> 00:15:16: 11 pier issues coincide with other things that are happening
00:15:16 --> 00:15:20: in the state we worked to make sure that there
00:15:20 --> 00:15:24: are not siloed pieces of information and that we can
00:15:24 --> 00:15:29: leverage the skill set or the opportunities in one area
00:15:29 --> 00:15:34: so that we can pull up work together and force
00:15:34 --> 00:15:38: the needs or make sure that we are all moving
00:15:38 --> 00:15:41: in tandem across our planning area.
00:15:41 --> 00:15:46: Next, please Paul. So I wanna day to day basis
00:15:46 --> 00:15:51: as I said and an economic development planner.
00:15:51 --> 00:15:56: I'm also working as the broadband lead for my office.
00:15:56 --> 00:16:00: Now this doesn't mean that I'm the only person in
00:16:00 --> 00:16:04: my office who is responsible for broadband action.
00:16:04 --> 00:16:09: There are other aspects that are handled like contracts like
00:16:10 --> 00:16:13: grant funding and I'm a part of that team.
00:16:13 --> 00:16:17: But generally my role. Is to do outreach to be
00:16:18 --> 00:16:24: aware of collaborative opportunities to ensure that our team
and
00:16:24 --> 00:16:26: as much as it can be,
00:16:26 --> 00:16:30: is aware of research of development of.
00:16:30 --> 00:16:35: Aspects that may tie into the different communities that we
00:16:35 --> 00:16:36: serve.
00:16:36 --> 00:16:40: So in general, the larger part of my day is
00:16:40 --> 00:16:45: working on and being on top of a statewide broadband
00:16:45 --> 00:16:47: collaborative effort.
00:16:47 --> 00:16:52: Then also I work in step with grant funding from
00:16:52 --> 00:16:53: our office.
00:16:53 --> 00:16:58: I provide technical assistance and I often support local
transportation
00:16:58 --> 00:16:59: needs,
00:16:59 --> 00:17:01: whether that be with COA's.
00:17:01 --> 00:17:04: Or just a smaller nonprofit,

00:17:04 --> 00:17:11: or for profit organizations that provide transportation to people who

00:17:11 --> 00:17:13: are in need for a.

00:17:13 --> 00:17:16: List of reasons. Now with all that being said,

00:17:16 --> 00:17:18: my days are kind of busy,

00:17:18 --> 00:17:22: but what it also provides for me is the opportunity

00:17:22 --> 00:17:24: to see broadband,

00:17:24 --> 00:17:27: the need for it, and many different aspects.

00:17:27 --> 00:17:31: So my perspective, at least what I believe I'm offering

00:17:31 --> 00:17:35: to the conversation today is a look through a keyhole

00:17:35 --> 00:17:38: of one of the many agencies and one of the

00:17:38 --> 00:17:42: many roles you can lean on as you are wanting

00:17:42 --> 00:17:44: to develop your.

00:17:44 --> 00:17:48: Real estate understanding in a certain region next fall.

00:17:51 --> 00:17:54: So you see here there is a grid of all

00:17:54 --> 00:17:58: the different things on the horizon or are currently happening

00:17:58 --> 00:17:59: within the state.

00:17:59 --> 00:18:03: Many of us on this call are likely familiar with

00:18:03 --> 00:18:07: the FCC's preliminary data mapping when it comes to understanding

00:18:07 --> 00:18:10: what's on the ground and what else do we need.

00:18:10 --> 00:18:14: That data has at this point been seen as a

00:18:14 --> 00:18:15: good start point,

00:18:15 --> 00:18:18: but that we need to get a little bit deeper

00:18:18 --> 00:18:20: than census block awareness.

00:18:20 --> 00:18:23: Because it leaves a number of folks who are not

00:18:23 --> 00:18:27: participating or able to participate in the discussion about digital

00:18:27 --> 00:18:29: divides because they just aren't marked.

00:18:29 --> 00:18:33: As it stands, Louisiana falls somewhere between the 30s and

00:18:33 --> 00:18:36: the mid 40s when it comes to broad being rankings,

00:18:36 --> 00:18:39: so we have a lot of room for growth,

00:18:39 --> 00:18:43: but we aren't 50, which is much closer to what

00:18:43 --> 00:18:44: we used to be.

00:18:44 --> 00:18:48: So we are seeing some sort of traction.

00:18:48 --> 00:18:50: There are other images here,

00:18:50 --> 00:18:56: such as our governor who has mandated and really supported

00:18:56 --> 00:18:58: a huge broadband push.

00:18:58 --> 00:19:03: This push has been supported through the creation of the

00:19:03 --> 00:19:05: Office of Broadband,

00:19:05 --> 00:19:08: the Louisiana Development District organization LAPD.

00:19:08 --> 00:19:13: DRA has been definitely helping us push this by supporting

00:19:13 --> 00:19:15: a grassroots challenge.
00:19:15 --> 00:19:18: Not even a challenge, but.
00:19:18 --> 00:19:21: A grassroots effort to collect data across the state.
00:19:21 --> 00:19:24: We're calling it the delta broadband mapping project.
00:19:24 --> 00:19:27: As you can see, we also have a seal for
00:19:27 --> 00:19:30: EDA who is supporting a lot of our funding and
00:19:30 --> 00:19:32: recently connect.
00:19:32 --> 00:19:35: LA has released a broadband toolkit that helps small and
00:19:35 --> 00:19:39: large communities really start to develop the beginnings of a
00:19:39 --> 00:19:43: strategic plan so they can know what to ask for.
00:19:43 --> 00:19:46: As funding comes down the pipe.
00:19:46 --> 00:19:52: Next bottle. So this is a very busy slide up.
00:19:52 --> 00:19:56: The slides will be shared with you all at the
00:19:56 --> 00:19:58: end of this.
00:19:58 --> 00:20:01: But what I find important here is just to see
00:20:02 --> 00:20:06: the scale of all of the issues that precede us
00:20:06 --> 00:20:10: as we continue to do the work to bring broadband
00:20:10 --> 00:20:14: to Louisiana. In the rural communities,
00:20:14 --> 00:20:18: alongside Kovit in all of the low rankings and the
00:20:18 --> 00:20:23: diversity of needs that are happening in the Capital Region,
00:20:23 --> 00:20:26: you can see that. Density is low,
00:20:26 --> 00:20:30: which makes it a very low competitive.
00:20:30 --> 00:20:34: Series of communities. When thinking about urban
00:20:34 --> 00:20:37: communities,
00:20:37 --> 00:20:38: there's a lack of digital literacy and a lot of
00:20:38 --> 00:20:42: these places,
00:20:42 --> 00:20:44: and so they often have an issue when having to
00:20:44 --> 00:20:49: communicate what they really need.
00:20:49 --> 00:20:51: Likewise, urban communities are in need.
00:20:51 --> 00:20:55: If you will go to the next slide for me,
00:20:55 --> 00:21:00: Paul. And talking about an urban community,
00:21:00 --> 00:21:01: we can zoom in for second to do the plank
00:21:01 --> 00:21:06: Rd corridor.
00:21:06 --> 00:21:10: The Plank Rd corridor is a little over 4 miles.
00:21:10 --> 00:21:13: It is a street that is for more or less
00:21:13 --> 00:21:17: of an understanding of it.
00:21:17 --> 00:21:20: It's disinvested. It has been disinvested through a series of
00:21:20 --> 00:21:23: decades and now it's medium.
00:21:23 --> 00:21:25: Its median income is about \$20,000.
00:21:25 --> 00:21:30: Less than the rest of the state,
00:21:30 --> 00:21:35: uhm? About 40% of the residents in the area have
no broadband connection and almost a fourth of them have

00:21:35 --> 00:21:38: never done a digital transaction.
00:21:38 --> 00:21:41: So with all that being said,
00:21:41 --> 00:21:45: the goal is to develop a program called the Imagine
00:21:45 --> 00:21:50: Plank Rd plan what it would do is bring wireless
00:21:50 --> 00:21:53: broadband to the area at no cost,
00:21:53 --> 00:21:57: hopefully allowing there to be more leverage and more.
00:21:57 --> 00:22:01: Of a competitive edge to the area for schools,
00:22:01 --> 00:22:05: libraries, but mostly for profit organizations who are wanting
to
00:22:05 --> 00:22:08: come in and reinvest and bring more profit,
00:22:08 --> 00:22:13: and more of a focus to the area.
00:22:13 --> 00:22:17: Next fall. So I ran through a lot of these
00:22:17 --> 00:22:19: things rather quickly,
00:22:19 --> 00:22:22: I know, but what I would like to bring again
00:22:23 --> 00:22:26: to to bring my point home is that there are
00:22:26 --> 00:22:30: people who are on the ground who are not necessarily
00:22:30 --> 00:22:32: hand in hand with development itself like me.
00:22:32 --> 00:22:36: But there are ways that if you are looking to
00:22:36 --> 00:22:36: develop,
00:22:36 --> 00:22:40: you can also really take advantage of someone like me
00:22:40 --> 00:22:43: so you can tap in and see how I'm communicating
00:22:43 --> 00:22:46: with current stakeholders on the ground.
00:22:46 --> 00:22:48: You can opt into that conversation.
00:22:48 --> 00:22:53: You can see how your goals for the area are.
00:22:53 --> 00:22:56: Oh sorry, how the goals for the area may be
00:22:56 --> 00:22:59: already in alignment with your goals as is,
00:22:59 --> 00:23:03: and you can also offer research and data that you
00:23:03 --> 00:23:06: may have had for the area to help us better
00:23:06 --> 00:23:11: develop strategic planning so that we can supplement what
you
00:23:11 --> 00:23:15: want with development as well as with their broadband
imagination.
00:23:15 --> 00:23:19: Next slide, please. This is how you can contact me
00:23:19 --> 00:23:23: as needed and I look forward to answering your questions
00:23:23 --> 00:23:24: in a few minutes.
00:23:24 --> 00:23:27: I'm going to pass it on to Jeff and thank
00:23:27 --> 00:23:29: you for your time.
00:23:31 --> 00:23:35: Great, thank you very much Mia and hello everybody.
00:23:35 --> 00:23:38: Thank you for the opportunity to participate and contribute to
00:23:38 --> 00:23:40: this incredibly important and timely discussion.
00:23:40 --> 00:23:43: I'm Geoff Ryman, President broadband group.
00:23:43 --> 00:23:47: We're a consulting firm that has been active with ULI
00:23:47 --> 00:23:49: for over 25 years.

00:23:49 --> 00:23:53: Broadband in real estate. Understand the opportunity.
00:23:53 --> 00:23:56: Now I think it's safe to assume that today's participants
00:23:56 --> 00:24:01: are here because the importance of connectivity is fully
recognized.
00:24:01 --> 00:24:04: So I'm looking at opportunities to secure needed investments
in
00:24:04 --> 00:24:07: high performance broadband infrastructure.
00:24:07 --> 00:24:11: What I wanted to emphasize today in these opening
comments
00:24:11 --> 00:24:15: is the monumental role that the land development and real
00:24:15 --> 00:24:20: estate industry has played in advancing the
telecommunications industry.
00:24:20 --> 00:24:23: And I hope that this information serves to both educate
00:24:23 --> 00:24:26: as well as motivate you ally members on how the
00:24:26 --> 00:24:30: development community can continue to help shape the
connectivity trajectory
00:24:30 --> 00:24:34: of the region in which you are located.
00:24:34 --> 00:24:38: Next slide please Paul. So we are focused on future
00:24:39 --> 00:24:40: opportunities,
00:24:40 --> 00:24:43: of course, but often when looking to understand how to
00:24:43 --> 00:24:46: best position your development for future opportunities,
00:24:46 --> 00:24:50: there can be great value in understanding what has worked
00:24:50 --> 00:24:51: in the past.
00:24:51 --> 00:24:55: Today, of course, you can't turn on the television,
00:24:55 --> 00:24:57: be at CNBC or the Sunday political talk shows and
00:24:57 --> 00:25:01: not hear about the need for more investment in broadband
00:25:01 --> 00:25:03: infrastructure and often specifically,
00:25:03 --> 00:25:06: they're talking about fiber infrastructure.
00:25:06 --> 00:25:09: But as we look at how we might secure investments
00:25:09 --> 00:25:10: in fiber networks,
00:25:10 --> 00:25:13: it is relevant to note that fiber is not a
00:25:13 --> 00:25:16: new innovative entrepreneurial investment thesis.
00:25:16 --> 00:25:19: In fact, the first fiber to the Home network was
00:25:19 --> 00:25:20: back in 1987,
00:25:20 --> 00:25:23: and it was at a 2000 acre master planned community
00:25:24 --> 00:25:25: in Central Florida.
00:25:25 --> 00:25:30: It was called Heathrow. And the developer with Gina
Paulucci,
00:25:30 --> 00:25:34: Gino a billionaire businessman, best known for his food
empire,
00:25:34 --> 00:25:38: his brands, such as chunking Chicken and Gino's Pizza rolls,
00:25:38 --> 00:25:42: which then became totinos pizza rolls when he sold the
00:25:42 --> 00:25:44: brand to Pillsbury.
00:25:44 --> 00:25:46: Now when Gina was planning Heathrow,

00:25:46 --> 00:25:48: he had a vision for thousands of new homes and
00:25:49 --> 00:25:50: businesses enterprise campuses,
00:25:50 --> 00:25:53: but only had one problem.
00:25:53 --> 00:25:55: Heathrow was located in the middle of Central Florida,
00:25:55 --> 00:25:57: and very few people lived there and no one had
00:25:58 --> 00:25:59: reason to live there.
00:25:59 --> 00:26:02: And in looking to create this new city and how
00:26:02 --> 00:26:05: to attract new population growth,
00:26:05 --> 00:26:08: Gino knew that there had to be a connection between
00:26:08 --> 00:26:10: economic development and connectivity.
00:26:10 --> 00:26:14: Quite frankly, he was faced with many of the same
00:26:14 --> 00:26:19: planning challenges that so many rural markets are faced
with
00:26:19 --> 00:26:20: today.
00:26:20 --> 00:26:22: So what Geno did was he put together?
00:26:22 --> 00:26:26: A planning team began working with Bell South Southern
Belle,
00:26:26 --> 00:26:29: and ultimately what they put together was the industry's first
00:26:29 --> 00:26:31: fiber to the home network.
00:26:31 --> 00:26:33: And with that network in place,
00:26:33 --> 00:26:36: they went out and talked to corporate corporate enterprises.
00:26:36 --> 00:26:39: In fact, they talked with AAA American Automobile
Association,
00:26:39 --> 00:26:42: who was announced that they were looking to relocate out
00:26:42 --> 00:26:45: of their current location in Falls Church VA,
00:26:45 --> 00:26:49: and we're looking at it either Florida or Texas.
00:26:49 --> 00:26:52: Well, they talked to AAA about the fiber network that
00:26:52 --> 00:26:55: was in place and AAA recognize that at its core
00:26:55 --> 00:26:57: their communications company,
00:26:57 --> 00:27:01: one 800 AAA help and that fiber infrastructure allowed for
00:27:01 --> 00:27:04: more secure or reliable phone connectivity.
00:27:04 --> 00:27:08: And they chose Heathrow to relocate their corporate
headquarters there,
00:27:08 --> 00:27:11: forever changing the trajectory of growth for that region.
00:27:11 --> 00:27:14: Today, when you called one 800 AAA help,
00:27:14 --> 00:27:18: you are likely calling that call center there in Heathrow
00:27:18 --> 00:27:22: and likely utilizing that fiber that was placed back in
00:27:23 --> 00:27:23: 1987.
00:27:23 --> 00:27:25: Other developments brambleton. In Northern Virginia.
00:27:25 --> 00:27:29: Loudon County was Verizon's first fiber to the home network
00:27:29 --> 00:27:32: that was before Verizon branded Fayose,
00:27:32 --> 00:27:34: which was launched in Keller,
00:27:34 --> 00:27:38: TX. Their first large scale fiber network deployment was at

00:27:38 --> 00:27:39: Brambleton Ridgeway,
00:27:39 --> 00:27:42: just South of Denver, in Lone Tree,
00:27:42 --> 00:27:46: Co. Was Qwest, now Centurylink's first fiber to the home
00:27:46 --> 00:27:46: network,
00:27:46 --> 00:27:49: Colorado's first fiber to the Home Network,
00:27:49 --> 00:27:51: Metro Development Group in Tampa,
00:27:51 --> 00:27:54: FL, made the Wall Street Journal.
00:27:54 --> 00:27:58: For working with the first major cable provider,
00:27:58 --> 00:28:02: which was Bright House, which is now Charter Spectrum,
00:28:02 --> 00:28:06: the first major MSO to deploy an all fiber symmetric
00:28:06 --> 00:28:07: Gigabit network?
00:28:07 --> 00:28:10: That was so relevant because it was the first time
00:28:11 --> 00:28:14: that a cable operator had moved outside of its traditional
00:28:14 --> 00:28:15: investment thesis.
00:28:15 --> 00:28:19: Now what's relevant about this is that.
00:28:19 --> 00:28:22: Service providers didn't approach these developers and say,
00:28:22 --> 00:28:26: hey developers, we want to do something really different
00:28:26 --> 00:28:27: here
00:28:26 --> 00:28:27: at your community.
00:28:27 --> 00:28:30: Absolutely not. It was a bottom up planning thesis where
00:28:30 --> 00:28:34: these developers first decided that they wanted to be a
00:28:34 --> 00:28:38: showcase for connectivity that they wanted to make high
00:28:38 --> 00:28:42: performance
00:28:38 --> 00:28:42: wired and wireless connectivity a cornerstone of their
00:28:42 --> 00:28:45: development project.
00:28:42 --> 00:28:45: And then they went to the service providers and work
00:28:45 --> 00:28:49: with them to create a platform for investment that otherwise.
00:28:49 --> 00:28:53: Would not have occurred. Next slide.
00:28:53 --> 00:28:56: And what's most important is that these developers were not
00:28:56 --> 00:28:57: technologists.
00:28:57 --> 00:28:59: They didn't understand all of the bits and bytes.
00:28:59 --> 00:29:02: But as Gino said, I don't know the first thing
00:29:02 --> 00:29:03: about fiber optics,
00:29:03 --> 00:29:05: but I know what people need,
00:29:05 --> 00:29:09: and I know the most important thing we do.
00:29:09 --> 00:29:15: Is communicate. Next slide. So of course the importance of
00:29:15 --> 00:29:18: broadband has never been clear,
00:29:18 --> 00:29:21: as we have heard from our fellow panelists,
00:29:21 --> 00:29:24: it is certainly more than just about economic development
00:29:25 --> 00:29:26: and
00:29:25 --> 00:29:26: increased property value.
00:29:26 --> 00:29:29: In the isolated world that has been and continues in
00:29:29 --> 00:29:31: many ways to be our reality,

00:29:31 --> 00:29:33: if there was one thing.

00:29:33 --> 00:29:37: That has held our entire economy together.

00:29:37 --> 00:29:40: It is access to broadband and of course that is

00:29:40 --> 00:29:44: only for those who are fortunate enough to have it.

00:29:44 --> 00:29:49: Because whether using utilizing broadband for health care for
Tele

00:29:49 --> 00:29:50: health services,

00:29:50 --> 00:29:56: educational distance, educational programs, or for work from
home type

00:29:56 --> 00:29:59: of priorities that quality matters.

00:29:59 --> 00:30:05: The quality of the connection matters because performance
matters.

00:30:05 --> 00:30:09: And access to high performance connectivity at its core is

00:30:09 --> 00:30:10: about social innovation.

00:30:10 --> 00:30:15: It equates opportunity. It equates to fairness and in many

00:30:15 --> 00:30:18: ways it equates to excellence and it touches on so

00:30:18 --> 00:30:22: many critically important social priorities.

00:30:22 --> 00:30:25: The poorest Congressional District in the country is New
York's

00:30:25 --> 00:30:26: 16th district,

00:30:26 --> 00:30:30: which includes the Northern Bronx and the southern half of

00:30:30 --> 00:30:32: Westchester County.

00:30:32 --> 00:30:36: The 16th district is represented by Congressman Richie
Torrez.

00:30:36 --> 00:30:38: He was recently talking on.

00:30:38 --> 00:30:42: I believe it was faced the nation about low vaccination

00:30:42 --> 00:30:45: rates amongst his constituency,

00:30:45 --> 00:30:50: and he equated the greatest barrier to vaccine access was

00:30:50 --> 00:30:51: the digital divide.

00:30:51 --> 00:30:53: Access to information for his constituents.

00:30:53 --> 00:30:56: He stated that those in the Bronx who have no

00:30:56 --> 00:30:58: access to the Internet.

00:30:58 --> 00:31:02: Have much less access to information about vaccination
sites and

00:31:02 --> 00:31:06: have no real ability to participate in online registration
systems.

00:31:06 --> 00:31:10: The importance has never been clear and the data is

00:31:11 --> 00:31:12: crystal clear.

00:31:12 --> 00:31:16: Increasing access, adoption, and use of broadband
infrastructure be in

00:31:16 --> 00:31:19: rural areas or in underserved urban markets.

00:31:19 --> 00:31:22: It leads to higher property values,

00:31:22 --> 00:31:24: increased job and population growth.

00:31:24 --> 00:31:28: Higher rates of new business formation and lower

unemployment rates,
00:31:28 --> 00:31:33: not to mention the value that's created through improved educational
00:31:34 --> 00:31:38: opportunities and access to important health care services.
00:31:38 --> 00:31:43: Next slide, please. In an educational forum like this,
00:31:43 --> 00:31:46: I think it's often important to point out so often
00:31:46 --> 00:31:49: at the broadband group we talked about the importance of
00:31:49 --> 00:31:53: fiber infrastructure and a question is often raised.
00:31:53 --> 00:31:56: You know, we're living in an increasingly wireless world.
00:31:56 --> 00:31:58: Why all this talk about wires?
00:31:58 --> 00:32:01: You guys sound like a bunch of dinosaurs.
00:32:01 --> 00:32:04: Well, it's important to understand that high quality,
00:32:04 --> 00:32:09: high performance wireless connectivity. Does not occur without wires plugging
00:32:09 --> 00:32:12: into those antennas that can then distribute that signal.
00:32:12 --> 00:32:16: The fiber is necessary in order for strong signal to
00:32:16 --> 00:32:20: be deployed from those wireless and tennis.
00:32:20 --> 00:32:23: Without fiber, you're going to lack the ability to have
00:32:23 --> 00:32:25: high performance wireless,
00:32:25 --> 00:32:28: so they are directly related directly complementary.
00:32:28 --> 00:32:32: It's important to understand that when looking at the various
00:32:32 --> 00:32:35: opportunities to improve connectivity.
00:32:35 --> 00:32:39: Fiber, of course, is the gold standard to every premise.
00:32:39 --> 00:32:42: Not always feasible, not always cost effective,
00:32:42 --> 00:32:46: but it's important. Understand the relevance and the need for
00:32:46 --> 00:32:50: fiber in the network to then connect to those wireless
00:32:50 --> 00:32:53: signals that can then be distributed to allow for the
00:32:53 --> 00:32:57: connectivity where it is needed.
00:32:57 --> 00:32:58: That was my opening comments.
00:32:58 --> 00:33:02: Paul, thank you again. Actually have one last slide and
00:33:02 --> 00:33:02: I come.
00:33:02 --> 00:33:05: This is who I always find for my inspirations.
00:33:05 --> 00:33:07: Blair Levin with the Brookings Institute.
00:33:07 --> 00:33:11: He was actually the lead author of the FCC's National
00:33:11 --> 00:33:13: Broadband Plan back in 2009.
00:33:13 --> 00:33:17: Actions taken today will affect what kind of broadband
networks
00:33:17 --> 00:33:20: the city has in 10 years and in 10 years
00:33:20 --> 00:33:21: whether it has faster,
00:33:21 --> 00:33:25: cheaper, better broadband networks will affect everything
that state and
00:33:25 --> 00:33:25: city does.
00:33:27 --> 00:33:30: Thank you again and look forward to the any questions

00:33:30 --> 00:33:31: we might be able to field as a group.
00:33:33 --> 00:33:36: Jeff, Erik and Mia, thank you so much for those
00:33:36 --> 00:33:37: opening comments.
00:33:37 --> 00:33:40: That was very informative and I think we had the
00:33:40 --> 00:33:42: benefit from each of you all at really getting a
00:33:43 --> 00:33:46: nice taste of the very different scales of the issue
00:33:46 --> 00:33:49: that we have when it comes to the provision of
00:33:49 --> 00:33:50: broadband.
00:33:50 --> 00:33:53: And I want to spend just a minute as we
00:33:53 --> 00:33:57: sort of wait for a few questions to queue up.
00:33:57 --> 00:34:00: To just chat a little bit about that sort of
00:34:00 --> 00:34:01: barriers,
00:34:01 --> 00:34:04: how do we get work with the condition constituency?
00:34:04 --> 00:34:09: Like U Li who oftentimes land development community is
looking
00:34:09 --> 00:34:13: at a very site specific parcel and you know they
00:34:13 --> 00:34:16: may or may not be in an area that's got
00:34:16 --> 00:34:17: choice of broadband, much less.
00:34:17 --> 00:34:21: You know, high quality you know single element broadband,
00:34:21 --> 00:34:25: much like Maya was talking about some of the areas
00:34:25 --> 00:34:27: in her community.
00:34:27 --> 00:34:30: What is the thing said you a lion in the
00:34:30 --> 00:34:32: real estate community can do?
00:34:32 --> 00:34:34: You know, aside perhaps or including,
00:34:34 --> 00:34:38: you know just spending the money to run the fiber
00:34:38 --> 00:34:42: from the closest connection point to where they need to
00:34:42 --> 00:34:43: go.
00:34:43 --> 00:34:47: And I wonder, maybe that can be equated as you're
00:34:47 --> 00:34:49: sort of talking about what do we do?
00:34:49 --> 00:34:52: Same thing with water and sewer.
00:34:52 --> 00:34:55: How do we how we manage those issues and how
00:34:55 --> 00:34:57: we make those connections?
00:34:57 --> 00:35:01: And we improve those connections to those particular sites.
00:35:01 --> 00:35:03: Eric Jeff man. Any thoughts about that?
00:35:06 --> 00:35:09: Uhm, I will say that I think what is very
00:35:10 --> 00:35:14: important is to have a general understanding of what the
00:35:15 --> 00:35:15: Community.
00:35:15 --> 00:35:19: Sees broadband, ask, do they see it as something that
00:35:19 --> 00:35:23: is more of a responsibility for the private ISP's?
00:35:23 --> 00:35:27: Do they see it as something that they need to
00:35:27 --> 00:35:28: maintain?
00:35:28 --> 00:35:31: Is it something that they need to update?

00:35:31 --> 00:35:34: Do they have a understanding of their terrain?
00:35:34 --> 00:35:38: So maybe they would prefer satellite as opposed to fiber?
00:35:38 --> 00:35:42: If they have a lot of water or you know
00:35:42 --> 00:35:44: things like that.
00:35:44 --> 00:35:47: On the flip side, is it a community that is
00:35:47 --> 00:35:51: interested in wanting to work with the local co-ops and
00:35:51 --> 00:35:51: such,
00:35:51 --> 00:35:56: and I think. Having that understanding at least allows you
00:35:56 --> 00:35:58: to join the conversation.
00:35:58 --> 00:36:02: Plus, if in the research you've done to bring development
00:36:02 --> 00:36:03: in the area,
00:36:03 --> 00:36:07: if you feel that you have some sort of valuable
00:36:07 --> 00:36:11: set of data to share with that community very much
00:36:11 --> 00:36:15: so to the point that it is maybe more expensive
00:36:15 --> 00:36:18: to do said research and you want to kind of
00:36:18 --> 00:36:21: build a partnership with our community,
00:36:21 --> 00:36:24: I think that that is an opportunity for you.
00:36:24 --> 00:36:26: To kind of get a feel.
00:36:26 --> 00:36:32: Did an understanding whether you are you allowed member
or
00:36:32 --> 00:36:34: whether you are dumb.
00:36:34 --> 00:36:37: Someone leading something like a UI tab.
00:36:37 --> 00:36:42: Uh, which is leveraging that the Kurdish infrastructure
programming to
00:36:42 --> 00:36:47: bring like minded folks in case studies to the community.
00:36:48 --> 00:36:51: I think it also needs to be viewed as integral
00:36:51 --> 00:36:56: to the entire planning process it touches on every component
00:36:56 --> 00:36:58: of what the development is looking to be,
00:36:58 --> 00:37:01: and it should not be viewed as foreign.
00:37:01 --> 00:37:04: Amorphous may be difficult to understand outside planning
priority.
00:37:04 --> 00:37:08: It needs to be integrated into everything that is done
00:37:08 --> 00:37:11: because as Blair Levin wrote in his quote,
00:37:11 --> 00:37:14: it's going to dictate how everything is eventually worked
within
00:37:14 --> 00:37:15: that community.
00:37:15 --> 00:37:17: So working with the service providers,
00:37:17 --> 00:37:19: making it clear. That you,
00:37:19 --> 00:37:22: as a developer, understand the importance of connectivity
and that
00:37:22 --> 00:37:24: you as a developer want to understand.
00:37:24 --> 00:37:26: How can I be a better customer for you?
00:37:26 --> 00:37:29: What are the challenges that you typically have working with

00:37:29 --> 00:37:31: the land development and real estate industry,
00:37:31 --> 00:37:33: and oftentimes it's the fact that both industries are just
00:37:33 --> 00:37:35: talking different languages.
00:37:35 --> 00:37:38: Different expectations when the land developer says we
need connectivity
00:37:38 --> 00:37:39: in the near term,
00:37:39 --> 00:37:41: they mean 12 to 16 months when a service provider
00:37:41 --> 00:37:43: says we need connectivity in near term,
00:37:43 --> 00:37:46: they here three months and so the service writer gets
00:37:46 --> 00:37:47: there in three months.
00:37:47 --> 00:37:49: The land developer is not.
00:37:49 --> 00:37:52: Ready for service to have customers for them for another
00:37:52 --> 00:37:52: year.
00:37:52 --> 00:37:54: The service provider gets frustrated.
00:37:54 --> 00:37:56: Then they're not there when they actually do need the
00:37:56 --> 00:37:57: services activated,
00:37:57 --> 00:38:00: and then there, that's when the antagonistic relationship
continues to
00:38:00 --> 00:38:01: spiral downward.
00:38:01 --> 00:38:04: So working with the service provider telling them we have
00:38:04 --> 00:38:05: a plan,
00:38:05 --> 00:38:07: we want to be good customers for you.
00:38:07 --> 00:38:10: We want to help create more visible revenue than what
00:38:10 --> 00:38:13: would otherwise be the case if you were to do
00:38:13 --> 00:38:16: this independent without our involvement and how can we
create
00:38:16 --> 00:38:21: a platform for investment that might not otherwise occur.
00:38:21 --> 00:38:21: Yeah,
00:38:21 --> 00:38:24: I I think just just to add to that Jeff
00:38:25 --> 00:38:29: as well is is working with and and connecting with
00:38:29 --> 00:38:33: the public sector as well as the private sector.
00:38:33 --> 00:38:35: And understanding you know what?
00:38:35 --> 00:38:38: You know what the the the goal you know designed
00:38:38 --> 00:38:43: with the end in mind and understanding that there's
opportunities
00:38:43 --> 00:38:44: out there.
00:38:44 --> 00:38:47: We're seeing a lot of you know in the industry
00:38:47 --> 00:38:49: where data centers,
00:38:49 --> 00:38:53: data centers. Are are becoming more and more important
and
00:38:53 --> 00:38:54: integral in terms of,
00:38:54 --> 00:38:58: UM, you know you see in different parts of the
00:38:58 --> 00:39:02: country where where land is fairly expensive and and some

00:39:02 --> 00:39:04: of the data center hubs.

00:39:04 --> 00:39:08: So understanding opportunities that you know the rural parts of

00:39:08 --> 00:39:12: the states in the country can can bring in terms

00:39:12 --> 00:39:13: of you know,

00:39:13 --> 00:39:17: building out data centers and understanding the value of a

00:39:17 --> 00:39:20: data center and understanding the value of.

00:39:20 --> 00:39:24: Private connectivity and public connectivity into those data centers and

00:39:24 --> 00:39:27: understanding the appearing strategy in terms of,

00:39:27 --> 00:39:31: uh, there's the old adage of build it and they

00:39:31 --> 00:39:32: will come,

00:39:32 --> 00:39:37: you know? So understanding that with that end in mind

00:39:37 --> 00:39:39: of what you want to achieve,

00:39:39 --> 00:39:42: one being on the data center side,

00:39:42 --> 00:39:47: and then secondarily what we're also seeing are opportunities where

00:39:47 --> 00:39:51: developments are being created that are also bringing in new

00:39:51 --> 00:39:52: technologies.

00:39:52 --> 00:39:57: Like 5G and having that opportunity where developers can provide

00:39:57 --> 00:40:03: an infrastructure that not only serves up you know residents

00:40:03 --> 00:40:05: of the Community can.

00:40:05 --> 00:40:10: Also what I call fiber deserts can reach connectivity into

00:40:10 --> 00:40:13: these fiber deserts within urban communities,

00:40:13 --> 00:40:18: but also develop an infrastructure that has an opportunity of

00:40:18 --> 00:40:22: creating and implementing new technologies.

00:40:22 --> 00:40:26: And bringing in carriers to as a as a infrastructure

00:40:26 --> 00:40:28: as a service for carriers,

00:40:28 --> 00:40:32: wireless carriers to come in and and utilize that infrastructure

00:40:32 --> 00:40:34: to serve their customers.

00:40:34 --> 00:40:38: And that those those manifest themselves in terms of you

00:40:38 --> 00:40:38: know,

00:40:38 --> 00:40:41: apartment buildings, condominiums on you know,

00:40:41 --> 00:40:43: folks on the street in parks,

00:40:43 --> 00:40:48: those types of things. So it's really understanding with with

00:40:48 --> 00:40:49: that end in mind,

00:40:49 --> 00:40:52: designing with the end in mind and.

00:40:52 --> 00:40:56: And there are. There's a lot of opportunities out there

00:40:56 --> 00:40:58: in terms of real estate,

00:40:58 --> 00:41:01: real estate development in terms of the impact of what

00:41:01 --> 00:41:02: can be done locally,

00:41:02 --> 00:41:05: and then also obviously as a business itself.

00:41:07 --> 00:41:11: So my experience working with land development has been such

00:41:11 --> 00:41:15: that we have our opening conversations with the water and

00:41:15 --> 00:41:16: sewer folks,

00:41:16 --> 00:41:18: usually municipality, sometimes at private,

00:41:18 --> 00:41:22: offering. But they always almost always have some type of

00:41:22 --> 00:41:27: cost sharing or some type of program for the extension

00:41:27 --> 00:41:30: of utilities or the upgrading utilities.

00:41:30 --> 00:41:32: For particular site power, same thing.

00:41:32 --> 00:41:37: Most power companies have an economic development program to you

00:41:37 --> 00:41:41: know increase load on their system and they have grant

00:41:41 --> 00:41:44: programs and extension policies to do that.

00:41:44 --> 00:41:47: That hasn't been my case with ISP's now may I

00:41:48 --> 00:41:52: haven't talked to the right ones and maybe that's changing,

00:41:52 --> 00:41:56: but I wonder from your perspective very different views are

00:41:57 --> 00:42:00: the ISP's and the providers out there seeing themselves.

00:42:00 --> 00:42:05: In the same way that utilities are and being proactive

00:42:05 --> 00:42:10: about extensions of those services and working with development to

00:42:10 --> 00:42:13: upgrade service to be able to get faster,

00:42:13 --> 00:42:16: more reliable service in areas.

00:42:16 --> 00:42:17: I

00:42:17 --> 00:42:18: think it depends, I think,

00:42:18 --> 00:42:22: to be clear, understand the mindset of the service provider

00:42:22 --> 00:42:23: that has no competition.

00:42:23 --> 00:42:26: They're not motivated to serve your development with anything special,

00:42:26 --> 00:42:29: and what I mean by that is because they look

00:42:29 --> 00:42:33: like they're going to get the business regardless whether you

00:42:33 --> 00:42:34: hate him or not.

00:42:34 --> 00:42:37: 'cause you know how many other opportunities the one thing

00:42:37 --> 00:42:40: that's going to motivate them is the opportunity to not

00:42:40 --> 00:42:42: serve your business.

00:42:42 --> 00:42:45: Your new development project. So creating a platform of competition,

00:42:45 --> 00:42:49: be it. Recognizing alternative qualified service providers that might come

00:42:49 --> 00:42:52: in to serve your community or opportunities for alternative access

00:42:53 --> 00:42:55: to the Internet is what's going to motivate them to

00:42:55 --> 00:42:57: do anything different other than that.

00:42:57 --> 00:42:59: Again, they have no motivation.

00:42:59 --> 00:43:01: They have no reason to act differently.

00:43:01 --> 00:43:04: These are nationwide companies with millions and millions of subscribers

00:43:04 --> 00:43:06: do anything different outside of their playbook.

00:43:06 --> 00:43:09: You understand, it makes it very challenging for them.

00:43:09 --> 00:43:12: They were to do that in every market around the

00:43:12 --> 00:43:12: country.

00:43:12 --> 00:43:14: It would be a mess.

00:43:14 --> 00:43:17: They can't do it. So how can you help?

00:43:17 --> 00:43:20: Bring them into a market at a pace they wouldn't

00:43:20 --> 00:43:22: otherwise go on their own,

00:43:22 --> 00:43:24: and that's what each of those developments that you saw

00:43:24 --> 00:43:28: were able to accomplish through a structured plan that understands

00:43:28 --> 00:43:29: their business model.

00:43:29 --> 00:43:32: If you ask them to do something that's not reasonable,

00:43:32 --> 00:43:33: it's not going to happen.

00:43:33 --> 00:43:36: Make it reasonable. Make it structured and create a platform

00:43:36 --> 00:43:37: for competition,

00:43:37 --> 00:43:39: either very real or even perceived.

00:43:39 --> 00:43:41: Helping them understand you're thinking of alternatives.

00:43:41 --> 00:43:43: That's how you get their attention.

00:43:44 --> 00:43:49: And Eric, I'm gonna give you the floor because in

00:43:49 --> 00:43:49: a second,

00:43:49 --> 00:43:54: because my background, my perspective essentially doesn't really allow me

00:43:54 --> 00:43:56: the opportunity to interact with ISP's.

00:43:56 --> 00:43:59: Very often, my time is almost always,

00:43:59 --> 00:44:03: you know, given to folks who are the citizens and

00:44:03 --> 00:44:04: whatnot.

00:44:04 --> 00:44:07: But what I would say is Interstate,

00:44:07 --> 00:44:11: or at least in a part of a state where

00:44:11 --> 00:44:15: a lot of the effort is going towards.

00:44:15 --> 00:44:21: Especially when we're talking about legislation to support private ISP's

00:44:21 --> 00:44:22: and whatnot.

00:44:22 --> 00:44:25: A lot of the information at the communities would want

00:44:25 --> 00:44:27: to inform themselves like Jeff is Speaking of,

00:44:27 --> 00:44:31: which I think is a fantastic idea right to edit

00:44:31 --> 00:44:34: and develop your strategic plan so that it is a

00:44:34 --> 00:44:37: fall into place sort of model.

00:44:37 --> 00:44:40: A lot of this information is very prized here,

00:44:40 --> 00:44:43: and it isn't easy access or said.

00:44:43 --> 00:44:48: Communities don't really know what to do with this information

00:44:48 --> 00:44:49: once getting it.

00:44:49 --> 00:44:52: If it you know if ever getting it.

00:44:52 --> 00:44:57: And so I'm curious to hear Jeff and Eric what your thoughts are with the top.

00:44:57 --> 00:45:00: Talking about communities that are maybe on the outskirts of

00:45:00 --> 00:45:04: urban areas and rural communities,

00:45:04 --> 00:45:07: how they could develop or have a better understanding of

00:45:07 --> 00:45:11: fitting themselves into a model for much more dense areas.

00:45:11 --> 00:45:16: Yes, So what? I've what I've seen in in out

00:45:16 --> 00:45:19: there and and different object opportunities in terms of States

00:45:19 --> 00:45:22: and counties is.

00:45:22 --> 00:45:27: Is the partnership between the public and the private,

00:45:27 --> 00:45:29: so when there is a site or a development of

00:45:29 --> 00:45:32: a site?

00:45:32 --> 00:45:37: You know, there's also an opportunity to partner with the

00:45:37 --> 00:45:41: public sector to see if there's an opportunity to also

00:45:41 --> 00:45:44: help the public sector gain connectivity through,

00:45:44 --> 00:45:49: you know, meaning gain connectivity to several schools in the

00:45:49 --> 00:45:53: area to a Community Center to a library,

00:45:53 --> 00:45:56: and leveraging you know that potential future build to get

00:45:56 --> 00:46:01: out to that development parcel or whatever that site may

00:46:01 --> 00:46:05: be on the private side and help share in the

00:46:05 --> 00:46:09: costs. To get connectivity there,

00:46:09 --> 00:46:11: and we've seen that in practice where you have both

00:46:11 --> 00:46:14: the public sector and the private sector coming together in

00:46:14 --> 00:46:19: joint builds sharing the same,

00:46:19 --> 00:46:21: what I call a trench and offsetting costs by as

00:46:21 --> 00:46:25: much as 50%

00:46:25 --> 00:46:26: to help get connectivity out to a certain location where

00:46:26 --> 00:46:30: the the public sector can benefit as well as the

00:46:30 --> 00:46:33: private sector can benefit,

00:46:33 --> 00:46:35: and they're able to share that trench in that infrastructure

00:46:35 --> 00:46:39: and and.

00:46:39 --> 00:46:40: And being able to get connectivity and help offset costs

00:46:40 --> 00:46:44: where where the public and private can come together and

00:46:44 --> 00:46:48: partnerships.

00:46:48 --> 00:46:49: One of the one of the important aspects of this

00:46:49 --> 00:46:53: is is that you know it's innovating and strategy and

00:46:53 --> 00:46:58: tactics for connectivity.

00:46:58 --> 00:47:00: Where there's this convergence between public and private

00:47:00 --> 00:47:04:

and converge

00:47:04 --> 00:47:07: the the infrastructures when it's appropriate.

00:47:07 --> 00:47:11: When there's when the opportunity presents itself.

00:47:11 --> 00:47:13: And when it comes to it could be again a

00:47:13 --> 00:47:17: development and a water treatment facility and a school.

00:47:17 --> 00:47:20: They're all in the same general area.

00:47:20 --> 00:47:22: It's it's working together to understand.

00:47:22 --> 00:47:26: How can we get there together to help one another

00:47:26 --> 00:47:29: be able to serve each of their missions and objectives

00:47:29 --> 00:47:32: to get connectivity out to those locations?

00:47:32 --> 00:47:35: Excellent, wonderful, thank you, and we're starting

00:47:35 --> 00:47:38: to get some comments back from our participants.

00:47:38 --> 00:47:41: So one of the ones I think.

00:47:41 --> 00:47:44: You know, it's something that all look local governments are

00:47:44 --> 00:47:45: dealing with.

00:47:45 --> 00:47:48: So actually with broadband we have in most communities we

00:47:48 --> 00:47:50: at least have two choices.

00:47:50 --> 00:47:53: One is a wired solution and one is a wireless

00:47:53 --> 00:47:53: solution.

00:47:53 --> 00:47:57: Even though Jeff told us you can't have wireless without

00:47:57 --> 00:47:57: wired,

00:47:57 --> 00:48:01: but you know you can have the AT&T Verizon T-Mobile

00:48:01 --> 00:48:04: over your phone as well as something that is a

00:48:04 --> 00:48:07: cable coming right to your house.

00:48:07 --> 00:48:11: But as part of that transition to 5G.

00:48:11 --> 00:48:14: Is one of the questions is that a lot of

00:48:14 --> 00:48:15: people are,

00:48:15 --> 00:48:17: you know, looking to develop 5G.

00:48:17 --> 00:48:20: People want it, but some people don't want the look

00:48:20 --> 00:48:23: of the 5G towers and often protests those zoning changes.

00:48:23 --> 00:48:27: We're seeing that change. I know that there's some

00:48:27 --> 00:48:30: preemption

00:48:27 --> 00:48:30: from local governments and state governments and the

00:48:30 --> 00:48:31: federal government

00:48:30 --> 00:48:31: about that.

00:48:31 --> 00:48:34: But what what's happening out there in the in the

00:48:34 --> 00:48:35: marketplace these days?

00:48:35 --> 00:48:36: Right?

00:48:36 --> 00:48:38: From a land development perspective three years ago?

00:48:38 --> 00:48:42: Mainly because of the promotion by all the carriers.

00:48:42 --> 00:48:45: The land development community would say we want to be

00:48:45 --> 00:48:46: a 5G community.

00:48:46 --> 00:48:49: We want to be able to showcase that as an
00:48:49 --> 00:48:50: amenity as a differentiator.
00:48:50 --> 00:48:53: Well, once it became clear that in order to have
00:48:53 --> 00:48:55: that high performance connectivity,
00:48:55 --> 00:48:57: there's different flavors of 5G,
00:48:57 --> 00:49:00: by the way, to make it even more confusing.
00:49:00 --> 00:49:02: But the high performance 5G that's being promised requires
what's
00:49:02 --> 00:49:04: called network densification,
00:49:04 --> 00:49:08: which means small cells which are not necessarily small in
00:49:08 --> 00:49:10: size but are small in range in terms of how
00:49:11 --> 00:49:12: far the signal can travel.
00:49:12 --> 00:49:16: Have to be populated very closely together within a few
00:49:16 --> 00:49:16: hundred feet,
00:49:16 --> 00:49:19: meaning that if you really want that type of high
00:49:19 --> 00:49:20: performance,
00:49:20 --> 00:49:23: 5G wireless connectivity in your land development project,
00:49:23 --> 00:49:26: it runs the risk of being polluted with all of
00:49:26 --> 00:49:30: these small cells and so developers have shifted from.
00:49:30 --> 00:49:32: We want to absolutely be a 5G community to a
00:49:32 --> 00:49:36: more realistic approach of we want that high performance
wireless
00:49:36 --> 00:49:37: connectivity,
00:49:37 --> 00:49:40: but of course we want it to be invisible.
00:49:40 --> 00:49:43: So how do we pre plan for where those?
00:49:43 --> 00:49:47: Locations can be how can we carve out space,
00:49:47 --> 00:49:50: place the power conduit, the communication conduit,
00:49:50 --> 00:49:53: the fiber that then goes to that signal that gets
00:49:53 --> 00:49:54: it distributed.
00:49:54 --> 00:49:58: So the more that you can pre plan in advance
00:49:58 --> 00:50:02: in the anticipation of the placement of that infrastructure,
00:50:02 --> 00:50:05: the more beneficial your development is going to be and
00:50:05 --> 00:50:07: within buildings themselves,
00:50:07 --> 00:50:09: making sure there's appropriate space.
00:50:09 --> 00:50:13: Telecom closet, horizontal vertical conduit runs so that
equipment can
00:50:13 --> 00:50:14: be.
00:50:14 --> 00:50:18: Placed on the roof to then distribute signal throughout the
00:50:18 --> 00:50:20: area in which you are located.
00:50:20 --> 00:50:23: All of these pre planning ideas which are very simple,
00:50:23 --> 00:50:27: upfront but tremendously challenging to put in place in the
00:50:27 --> 00:50:28: built environment.
00:50:28 --> 00:50:31: So I think maybe me or Eric can talk more

00:50:31 --> 00:50:33: about in the built environment.

00:50:33 --> 00:50:36: You know, the opportunities for advancing wireless infrastructure,

00:50:36 --> 00:50:39: be it through public private partnerships or others.

00:50:41 --> 00:50:44: So I'll quickly say that rose,

00:50:44 --> 00:50:49: in short, most of my conversations are closer to when

00:50:49 --> 00:50:52: will you be bringing these towers in?

00:50:52 --> 00:50:56: We need the Internet now so.

00:50:56 --> 00:51:00: I think that there is and I really don't want

00:51:00 --> 00:51:04: to speak about the the constituency that are served using

00:51:04 --> 00:51:08: any sort of verbiage to make it seem like they

00:51:08 --> 00:51:13: don't know what they want or there isn't ignorance in

00:51:13 --> 00:51:17: our state or an ignorance and our parish people are

00:51:17 --> 00:51:20: very aware that they are lacking a very.

00:51:20 --> 00:51:25: Ascential, I'll take a wire from Craig's presentation earlier.

00:51:25 --> 00:51:30: A very essential element to the modern experience.

00:51:30 --> 00:51:36: And there's just so many things with telecommunications

00:51:36 --> 00:51:40: educations.

00:51:36 --> 00:51:40: Even even even just setting yourself up so that you

00:51:40 --> 00:51:43: can be comfortable during hurricane season.

00:51:43 --> 00:51:48: A lot of these things are found almost exclusively online,

00:51:48 --> 00:51:52: almost exclusively through the 5G network on your cell

00:51:52 --> 00:51:55: phone.

00:51:52 --> 00:51:55: If you have a cell phone,

00:51:55 --> 00:51:59: right? And so many people are not at the point

00:51:59 --> 00:52:03: where they can talk about something like a,

00:52:03 --> 00:52:05: what did you call it?

00:52:05 --> 00:52:09: Jeff? A technological? Closet or something like that,

00:52:09 --> 00:52:11: but it's not the communications closet,

00:52:11 --> 00:52:16: right? And even as someone who was serving them.

00:52:16 --> 00:52:20: That that's Burbage that I need to continue to learn,

00:52:20 --> 00:52:23: because we quite frankly aren't there yet.

00:52:23 --> 00:52:25: People are not. While there is,

00:52:25 --> 00:52:27: of course a healthy level of skepticism,

00:52:27 --> 00:52:30: you know across the board everywhere.

00:52:30 --> 00:52:33: No one. No one is in the no one is

00:52:33 --> 00:52:37: in the interest of not being served and everyone wants

00:52:37 --> 00:52:39: adequate service.

00:52:39 --> 00:52:41: I think the specifics to say,

00:52:41 --> 00:52:43: well, this is how you prepared.

00:52:43 --> 00:52:46: This is what we don't want or to even be

00:52:47 --> 00:52:50: at a point where you can protest the aesthetic of

00:52:50 --> 00:52:55: your built environment in lieu of not having broadband at

00:52:55 --> 00:52:59: all. That conversation isn't quite happening yet,
00:52:59 --> 00:53:01: at least in my purview.
00:53:01 --> 00:53:03: But you know I'm one person.
00:53:07 --> 00:53:11: Is so I'll just add a couple of items,
00:53:11 --> 00:53:15: so one of the things that I would recommend is
00:53:15 --> 00:53:20: in that that we recommend is is establishing standards for
00:53:20 --> 00:53:20: Poles,
00:53:20 --> 00:53:25: right? So the types of poles and and and connectivity
00:53:25 --> 00:53:29: and and what we call hotel ING to ensure that
00:53:29 --> 00:53:32: aesthetically it can it can.
00:53:32 --> 00:53:35: It can be as pleasing as possible.
00:53:35 --> 00:53:39: One of the challenges. Again is as panel has mentioned
00:53:39 --> 00:53:41: is the aesthetics,
00:53:41 --> 00:53:44: but there are ways to mitigate that.
00:53:44 --> 00:53:48: Again, it's working with public sector entities as well,
00:53:48 --> 00:53:52: and understanding that there are we're seeing more and
more
00:53:52 --> 00:53:55: aesthetically pleasing light poles.
00:53:55 --> 00:53:59: I think that's a another opportunity that's out there is.
00:53:59 --> 00:54:03: We are seeing Smart street lighting that is being those
00:54:03 --> 00:54:05: initiatives throughout.
00:54:05 --> 00:54:09: Cities are are are. Are being implemented and designed
where
00:54:09 --> 00:54:14: leveraging the same type of infrastructure for multiple
platforms technology
00:54:14 --> 00:54:15: platforms.
00:54:15 --> 00:54:20: So there's the smart city lighting that is changing over
00:54:20 --> 00:54:21: to LED.
00:54:21 --> 00:54:24: There's the hotel ING of the wireless antennas,
00:54:24 --> 00:54:29: so there's many different ways that technology can be
layered
00:54:29 --> 00:54:33: and infrastructure can be layered where it's aesthetic,
00:54:33 --> 00:54:38: aesthetically pleasing and also handling multiple initiatives
with one.
00:54:38 --> 00:54:42: One piece of infrastructure and we are seeing those and
00:54:43 --> 00:54:44: again I'll I'll.
00:54:44 --> 00:54:48: I'll certainly beat the drum with Jeff Fiber.
00:54:48 --> 00:54:52: Loves wireless wireless, loves fiber of robust fiber
infrastructure.
00:54:52 --> 00:54:58: Will enable a very robust technology capable wireless
infrastructure and
00:54:58 --> 00:55:02: it's having that good backhaul what we call backhaul right
00:55:02 --> 00:55:07: getting from the endpoint through the fiber back to the

00:55:07 --> 00:55:10: head end. Back to the data center.

00:55:10 --> 00:55:13: Back to whatever that core location is getting back to

00:55:13 --> 00:55:17: another tower is incredibly important is to have a good

00:55:17 --> 00:55:21: robust fiber infrastructure and then wireless or what we call

00:55:21 --> 00:55:25: mobility. Being able to supplement as needed when needed.

00:55:25 --> 00:55:27: When applicable, right? Eric? While you're

00:55:27 --> 00:55:30: on that, let me pick up on that real quick

00:55:30 --> 00:55:33: because one of the questions that we just got in

00:55:33 --> 00:55:38: was does emergence of satellite constellation broadband systems.

00:55:38 --> 00:55:41: Truly threatened the assumption that you can't have wireless without

00:55:41 --> 00:55:42: wires.

00:55:42 --> 00:55:45: Are these systems feasible at scale in your view,

00:55:45 --> 00:55:47: and what's the expected impact?

00:55:47 --> 00:55:51: Is this real? Is this billionaire's view of life or

00:55:51 --> 00:55:51: what does

00:55:51 --> 00:55:54: that look like? So, so yeah.

00:55:54 --> 00:55:55: So I've had, you know,

00:55:55 --> 00:55:58: hear that question more and more,

00:55:58 --> 00:56:02: and so when it comes to satellite satellite will have.

00:56:02 --> 00:56:05: In my opinion, will have a niche.

00:56:05 --> 00:56:07: There is a niche for it,

00:56:07 --> 00:56:09: right when they were talking,

00:56:09 --> 00:56:13: you know. Truly rural remote types of locations satellite again,

00:56:13 --> 00:56:16: it's mobility, right? So it's up being able to supplement

00:56:16 --> 00:56:17: when applicable,

00:56:17 --> 00:56:20: but when we look at?

00:56:20 --> 00:56:24: Uhm, smart city types of initiatives and all the IO

00:56:24 --> 00:56:26: T devices and,

00:56:26 --> 00:56:30: and we're talking smart vehicles and we're talking all of

00:56:30 --> 00:56:31: the the,

00:56:31 --> 00:56:36: you know, consolidation of all the technology initiatives that are,

00:56:36 --> 00:56:38: you know, digital signage. There's,

00:56:38 --> 00:56:42: you know the ability for satellite to be able to

00:56:42 --> 00:56:47: then push bandwidth out to all of these different locations.

00:56:47 --> 00:56:51: It it's it's going to be nearly impossible.

00:56:51 --> 00:56:53: To be able to serve,

00:56:53 --> 00:56:56: you know, from a satellite type of service provider,

00:56:56 --> 00:57:00: you know that's again goes to having that robust fiber

00:57:00 --> 00:57:04: infrastructure can then get your digital signage for your kiosk.

00:57:04 --> 00:57:07: You're you're smart, you're your IoT devices.
00:57:07 --> 00:57:09: Your your sensors, your cameras,
00:57:09 --> 00:57:12: all of those. If you think about a roadway and
00:57:12 --> 00:57:16: all of the different items and devices that will be
00:57:17 --> 00:57:18: on that roadway,
00:57:18 --> 00:57:21: fiber will ultimately be able to and then.
00:57:21 --> 00:57:25: Again, that mesh component of a wireless supplements will
be
00:57:25 --> 00:57:26: able to serve.
00:57:26 --> 00:57:29: The satellite will have a purpose and will have a
00:57:30 --> 00:57:30: need,
00:57:30 --> 00:57:33: but that's going to be more of a niche type
00:57:33 --> 00:57:37: environment where it can serve single user type of
connectivity,
00:57:37 --> 00:57:41: right? Survey home that is very remote and and in
00:57:41 --> 00:57:42: rural areas guide Jeff.
00:57:44 --> 00:57:47: Yeah, and I guess I should clarify.
00:57:47 --> 00:57:49: When I say wireless requires fiber,
00:57:49 --> 00:57:53: high performance wireless require spider is what we were
talking
00:57:53 --> 00:57:56: about here and I think in this discussion we're talking
00:57:56 --> 00:57:58: about how to secure reliable,
00:57:58 --> 00:58:02: high quality connectivity. As I said in my opening comments,
00:58:02 --> 00:58:05: quality matters, quality of the connection matters.
00:58:05 --> 00:58:09: Satellite wireless will play an important role in filling in
00:58:09 --> 00:58:12: the gaps where it just is cost prohibitive,
00:58:12 --> 00:58:14: especially from a timing perspective of.
00:58:14 --> 00:58:17: Getting it there sooner than where it might be for
00:58:17 --> 00:58:20: the wired connectivity to get out there,
00:58:20 --> 00:58:23: but when thinking about goal setting when looking at place
00:58:23 --> 00:58:26: making you should be looking at satellite as your fail
00:58:26 --> 00:58:27: safe.
00:58:27 --> 00:58:30: I suspect as opposed to your plan because otherwise your
00:58:30 --> 00:58:33: future or current residents are going to be disappointed even
00:58:33 --> 00:58:35: if it's good enough today.
00:58:35 --> 00:58:38: The trajectory of bandwidth growth and demand is continuing
to
00:58:38 --> 00:58:42: outpace the ability for services like satellite broadband to be
00:58:42 --> 00:58:43: able to keep up.
00:58:44 --> 00:58:47: And if I can round out that conversation,
00:58:47 --> 00:58:52: I'd just like to bring it back to web,
00:58:52 --> 00:58:54: develop whatever you developing residential,
00:58:54 --> 00:58:56: commercial. You know I'm feeling like.

00:58:56 --> 00:59:00: And this is true of the of the field that
00:59:00 --> 00:59:05: there is a level of Community responsibility of understanding
what
00:59:05 --> 00:59:07: your competitive edge is.
00:59:07 --> 00:59:11: What you need, especially as you are wanting to promote
00:59:11 --> 00:59:14: invite more development maintains.
00:59:14 --> 00:59:18: The development in your area I'm thinking about specifically
the
00:59:18 --> 00:59:19: communities at hand.
00:59:19 --> 00:59:24: As a developer, you know attempts to join them.
00:59:24 --> 00:59:27: And I think in a point that Rose put in
00:59:27 --> 00:59:28: the chat earlier,
00:59:28 --> 00:59:32: but also kind of coming back to the satellite point.
00:59:32 --> 00:59:35: I think zoning in and of itself is still developing,
00:59:35 --> 00:59:38: right? We're still having conversations about single use.
00:59:38 --> 00:59:40: We're still having conversations about really.
00:59:40 --> 00:59:43: What is the definition of a rural community?
00:59:43 --> 00:59:47: And so while we are talking about.
00:59:47 --> 00:59:50: Or should we be thinking about satellite?
00:59:50 --> 00:59:52: Should we be thinking about fiber?
00:59:52 --> 00:59:55: I think there are a couple of other things that
00:59:55 --> 00:59:56: can come before that,
00:59:56 --> 00:59:59: such as if fiber is as.
00:59:59 --> 01:00:03: If wireless is as dependent on fiber as I trust
01:00:03 --> 01:00:07: it is because of Jeffs long background with this kind
01:00:07 --> 01:00:11: of work it would be nice for certain communities and
01:00:11 --> 01:00:16: organizations to have a level of transparency of
understanding where
01:00:16 --> 01:00:19: fiber is in their community right in their state so
01:00:19 --> 01:00:22: that they can better verbalize what they need.
01:00:22 --> 01:00:26: Or a developer who was wanting to come into that
01:00:26 --> 01:00:29: area wanting to understand where is the most.
01:00:29 --> 01:00:34: Opportune area to put this business to put this building
01:00:34 --> 01:00:35: that I want.
01:00:35 --> 01:00:39: I think there is a level of sustainability that needs
01:00:39 --> 01:00:42: to continue to happen in conversations.
01:00:42 --> 01:00:47: Transparency, things that are already standing that can be
retrofitted
01:00:47 --> 01:00:51: like the the skeleton of a Main Street corridor,
01:00:51 --> 01:00:55: right? Wanting to revisit that wanting to maybe understand.
01:00:55 --> 01:00:59: Are there federal organizations that long ago put things like
01:00:59 --> 01:01:00: dark fiber?
01:01:00 --> 01:01:03: In these areas and we just don't know I I

01:01:03 --> 01:01:07: don't want to go off until another tangent but super
01:01:07 --> 01:01:08: long story.
01:01:08 --> 01:01:11: What I'm saying is we can think about how do
01:01:11 --> 01:01:12: St lights look.
01:01:12 --> 01:01:16: We can think about. Elon Musk put in satellites in
01:01:16 --> 01:01:17: the sky,
01:01:17 --> 01:01:21: but I think what is most important right now whether
01:01:21 --> 01:01:24: we're talking about a rule or urban community is that
01:01:24 --> 01:01:27: they still have a lot of people who do not
01:01:27 --> 01:01:30: have Internet, let alone let alone 25.
01:01:30 --> 01:01:32: Three levels of broadband connectivity.
01:01:32 --> 01:01:37: And. The pole can look like maybe anything that's not
01:01:37 --> 01:01:41: incredibly ugly as long as they can pay their bill
01:01:41 --> 01:01:45: without having to go an hour into the city center
01:01:45 --> 01:01:49: to pay it, they are willing to talk about and
01:01:49 --> 01:01:55: develop or within their affordability pay for a certain provider
01:01:55 --> 01:01:57: to bring it to their home if.
01:01:57 --> 01:02:01: When a hurricane comes or there's a flood event.
01:02:01 --> 01:02:05: They can still communicate with an emergency organization
or their
01:02:05 --> 01:02:06: family,
01:02:06 --> 01:02:08: and so there's high level.
01:02:08 --> 01:02:12: There's low level, but. You know it,
01:02:12 --> 01:02:16: the conversation is big and I think transparency is so
01:02:16 --> 01:02:19: important to having a real strategic understanding of it,
01:02:19 --> 01:02:22: especially to take everything into edge of what Eric and
01:02:22 --> 01:02:24: Jeff shared with us today.
01:02:24 --> 01:02:25: Thank you. I think
01:02:25 --> 01:02:29: we've got time for maybe 1 1/2 more questions as
01:02:29 --> 01:02:29: part of it,
01:02:29 --> 01:02:31: but when I guess quick question,
01:02:31 --> 01:02:34: how far out do you see fiber taking over all
01:02:34 --> 01:02:36: major metro areas?
01:02:36 --> 01:02:39: Are we covered in our metro areas these days or
01:02:39 --> 01:02:42: we still have room to room to grow?
01:02:43 --> 01:02:46: Uh, did the the urban digital divide,
01:02:46 --> 01:02:47: which isn't often talked about,
01:02:47 --> 01:02:51: is much more stark in terms of a population then
01:02:51 --> 01:02:53: then the rule both critically important,
01:02:53 --> 01:02:57: but the urban does not get the political attention,
01:02:57 --> 01:03:00: mainly because, well, there's a number of reasons for it
01:03:01 --> 01:03:03: that we don't need to get into this,

01:03:03 --> 01:03:06: but the urban digital divide is very real and it
01:03:06 --> 01:03:09: is critically important that it be addressed.
01:03:09 --> 01:03:12: There are fiber networks throughout the cities,
01:03:12 --> 01:03:15: but having them extend. To connect to the buildings to
01:03:15 --> 01:03:19: the population centers is expensive in California and
underground fiber
01:03:19 --> 01:03:22: build 1 to \$2 million in major cities,
01:03:22 --> 01:03:25: Perma one or \$2 million per month is the cost
01:03:25 --> 01:03:27: of deploying that fiber network,
01:03:27 --> 01:03:30: and that's to get your residents of subscribers and then
01:03:30 --> 01:03:33: are paying 40 or 50 bucks a month.
01:03:33 --> 01:03:36: It's very hard economics and that's why you don't see
01:03:36 --> 01:03:36: it.
01:03:36 --> 01:03:39: So how can we effectively change the map?
01:03:39 --> 01:03:42: And it's not easy. It takes time.
01:03:42 --> 01:03:44: As I mentioned in the blares.
01:03:44 --> 01:03:47: He's the reason why he said in 10 years,
01:03:47 --> 01:03:49: because it often takes that long.
01:03:49 --> 01:03:50: It's not a quick fix,
01:03:50 --> 01:03:52: but having a plan in place,
01:03:52 --> 01:03:53: working with your current providers,
01:03:53 --> 01:03:55: identifying qualified potential competitive providers,
01:03:55 --> 01:03:58: and figuring out how you can create a platform for
01:03:58 --> 01:03:59: investment by weather.
01:03:59 --> 01:04:02: As Eric said earlier, working with public entities of maybe
01:04:02 --> 01:04:03: there's other demand points,
01:04:03 --> 01:04:06: and if they build the fiber to connect to that
01:04:06 --> 01:04:07: residential unit,
01:04:07 --> 01:04:10: there might also be a public building there that also
01:04:10 --> 01:04:13: needs better connectivity that they're not thinking about.
01:04:13 --> 01:04:15: And now you've increased the visible revenue.
01:04:15 --> 01:04:22: From that build better changing the economics for it so.
01:04:22 --> 01:04:26: Urban fiber it's there. There's a long way to go
01:04:26 --> 01:04:27: great.
01:04:28 --> 01:04:32: Yeah, I'm sorry Craig can happen that real quick.
01:04:32 --> 01:04:34: Yeah, Jeff is so completely right.
01:04:34 --> 01:04:38: There are so many. Not so many,
01:04:38 --> 01:04:42: but I've seen plenty of studies that say that the
01:04:42 --> 01:04:45: urban digital divide is more stark than a rural digital
01:04:46 --> 01:04:46: divide,
01:04:46 --> 01:04:48: and I think that the conversation,
01:04:48 --> 01:04:51: or at least my presence in this conversation,

01:04:51 --> 01:04:55: is to make sure that there is a continued light
01:04:55 --> 01:04:57: on the rural conversation.
01:04:57 --> 01:05:00: But I hope that I am not taking away from
01:05:00 --> 01:05:04: the truth that there are so many implications that are
01:05:04 --> 01:05:07: not spoken of when we're talking about.
01:05:07 --> 01:05:11: That urban digital issues there are so many demographic
implications
01:05:11 --> 01:05:14: whether we're talking about poverty.
01:05:14 --> 01:05:17: But we're talking about absence of educational advantages.
01:05:17 --> 01:05:22: If we're talking about. Transportation,
01:05:22 --> 01:05:25: even to be able to get to a library right
01:05:25 --> 01:05:26: there,
01:05:26 --> 01:05:29: maybe fibra underneath a series of apartment complexes,
01:05:29 --> 01:05:31: but the affordability of it,
01:05:31 --> 01:05:33: or just the awareness of it,
01:05:33 --> 01:05:37: is so stark compared to the issues that you would
01:05:37 --> 01:05:39: find in a rural community,
01:05:39 --> 01:05:42: right? A lot of these places,
01:05:42 --> 01:05:44: they just lack the present,
01:05:44 --> 01:05:47: the precedence of building out something like that.
01:05:47 --> 01:05:50: They lack the foundational infrastructure to bring in.
01:05:50 --> 01:05:55: And then. Maintain broadband and so it is so important
01:05:55 --> 01:05:56: but.
01:05:56 --> 01:06:00: The density that people are looking for ISP's are often
01:06:00 --> 01:06:03: looking for are in those urban communities.
01:06:03 --> 01:06:07: It's so many, other less than tactile issues that make
01:06:08 --> 01:06:12: that digital divide really so much more of a stark
01:06:12 --> 01:06:15: and interesting for lack of a better word case.
01:06:16 --> 01:06:19: Great, thank you, so I'd like to go ahead and
01:06:19 --> 01:06:23: and start to wrap up this conversation as we come
01:06:23 --> 01:06:26: up on our one hour and 15 minutes spot here
01:06:26 --> 01:06:28: Eric, I'm gonna give you an opportunity to wrap up
01:06:28 --> 01:06:29: comments,
01:06:29 --> 01:06:31: thoughts, things we haven't touched on.
01:06:33 --> 01:06:34: Yeah,
01:06:34 --> 01:06:37: so I think the one of the one of the
01:06:37 --> 01:06:43: important factors to bridging this divide and and and being
01:06:43 --> 01:06:49: able to optimize connectivity is convergence and partnership.
01:06:49 --> 01:06:54: Is understanding that the the public sector entities?
01:06:54 --> 01:06:58: Uh, there is an interest to partner there.
01:06:58 --> 01:07:04: There is an opportunity to partner to to be able
01:07:04 --> 01:07:05: to.

01:07:05 --> 01:07:10: Work with public sector entities to be able to optimize
01:07:10 --> 01:07:15: investment where business models become much more,
01:07:15 --> 01:07:21: uh. In terms of a business model for build become
01:07:21 --> 01:07:23: much more.
01:07:23 --> 01:07:26: Amenable and and and and and and it becomes a
01:07:26 --> 01:07:30: an easier business model to connect to to the end
01:07:30 --> 01:07:31: user.
01:07:31 --> 01:07:33: I I do really quick.
01:07:33 --> 01:07:36: Want to just dovetail on me as comments in terms
01:07:36 --> 01:07:38: of the urban peace,
01:07:38 --> 01:07:42: real quick and and we did a recent study and
01:07:42 --> 01:07:46: one of the big challenges this was in Ohio in
01:07:46 --> 01:07:48: the city and what it was.
01:07:48 --> 01:07:52: Affordability that was one of the main challenges and gaps
01:07:52 --> 01:07:53: for for connectivity.
01:07:53 --> 01:07:57: Was affordability and it was the affordability to be able
01:07:57 --> 01:08:01: to have broadband on your phone and broadband at home,
01:08:01 --> 01:08:04: but not being able to to do both and I
01:08:04 --> 01:08:08: think that's one of the big challenges with on the
01:08:08 --> 01:08:12: urban side from our from our study that we we
01:08:12 --> 01:08:16: found is is that affordability piece so I think there's
01:08:16 --> 01:08:20: the opportunity to be able to partner with public sector
01:08:20 --> 01:08:24: and private sector and then also the federal monies.
01:08:24 --> 01:08:27: Is that are out there where it's where,
01:08:27 --> 01:08:31: it's the emergency broadband benefit program in terms of
affordability
01:08:31 --> 01:08:32: and and aligning.
01:08:32 --> 01:08:36: What the goals are for for your entity and aligning
01:08:36 --> 01:08:40: those with the federal monies that are out there.
01:08:40 --> 01:08:44: We're seeing tremendous potential and opportunity just to
put it
01:08:44 --> 01:08:45: in perspective.
01:08:45 --> 01:08:49: When President Obama passed the the the stimulus package
back
01:08:49 --> 01:08:50: in 2008,
01:08:50 --> 01:08:52: it was 4.2 or 4.5 billion.
01:08:52 --> 01:08:56: That was there for. For the broadband.
01:08:56 --> 01:09:00: There's now upwards of 100 million right to put this
01:09:00 --> 01:09:01: in perspective,
01:09:01 --> 01:09:05: there's upwards of approximately 100 million sixty five
recently that
01:09:05 --> 01:09:06: just passed it,
01:09:06 --> 01:09:09: plus other monies. So there's now a true investment from

01:09:09 --> 01:09:13: the federal government to work with States and work with
01:09:13 --> 01:09:16: counties and work and work with municipalities.
01:09:16 --> 01:09:19: And there's opportunity on the commercial side to partner up
01:09:20 --> 01:09:21: with those entities.
01:09:21 --> 01:09:23: So thank you, that's important.
01:09:23 --> 01:09:25: Two minutes, Jeff. Just
01:09:25 --> 01:09:27: carrying on what Eric said,
01:09:27 --> 01:09:31: there are \$65 billion in the current infrastructure bill.
01:09:31 --> 01:09:35: 42 billion will be allocated to the states in block
01:09:35 --> 01:09:39: grants for them to be able to allocate or localities.
01:09:39 --> 01:09:43: The better plan you have in place demonstrated a need
01:09:43 --> 01:09:46: with A at the story of how it's going to
01:09:46 --> 01:09:50: benefit with a clear plan on how those monies will
01:09:50 --> 01:09:54: be spent and how it will benefit the overall economic,
01:09:54 --> 01:09:57: social, political, educational. Population of your region,
01:09:57 --> 01:10:00: the better position you will be to receive those funds.
01:10:00 --> 01:10:03: Start planning now that money will likely be approved in
01:10:03 --> 01:10:04: some form,
01:10:04 --> 01:10:07: but trying to don't wait to see what form it
01:10:07 --> 01:10:07: is.
01:10:07 --> 01:10:10: Your plan in place, and then you'll be able to
01:10:10 --> 01:10:12: shape it when those monies become available.
01:10:12 --> 01:10:15: Otherwise the timeline is going to be too tight.
01:10:15 --> 01:10:18: So start planning now, but great conversation Greg.
01:10:18 --> 01:10:21: Thanks for leaving it. This was my pleasure to be
01:10:21 --> 01:10:21: part
01:10:21 --> 01:10:23: of it. Thank you, Mia.
01:10:23 --> 01:10:23: Final thoughts.
01:10:26 --> 01:10:27: As a developer, you know,
01:10:27 --> 01:10:31: be aware that you may be coming into the.
01:10:31 --> 01:10:35: Early part of the broadband conversation you may be kicking
01:10:35 --> 01:10:36: it off.
01:10:36 --> 01:10:39: He may be coming in at the very end,
01:10:39 --> 01:10:44: you know, but. The partnership element that.
01:10:44 --> 01:10:49: Jeff and Eric have talked about throughout the conversation.
01:10:49 --> 01:10:53: It is so important and I think.
01:10:53 --> 01:10:57: Recognizing that there are organizations that aren't down the
street
01:10:57 --> 01:11:02: but are still responsible and still have a tangible relationship
01:11:02 --> 01:11:06: with the community that you're wanting to develop and invest
01:11:06 --> 01:11:11: in, they very often have some sort of technical background
01:11:11 --> 01:11:16: or some sort of longstanding understanding of how this piece

01:11:16 --> 01:11:20: fits into the larger scope and how you can align
01:11:20 --> 01:11:23: your goals, but what's happening.
01:11:23 --> 01:11:27: Or maybe a more macro scale than just the acre
01:11:27 --> 01:11:29: or so that you are working on,
01:11:29 --> 01:11:35: or just the UM. Pro former that you're looking at.
01:11:35 --> 01:11:40: There are communities that very much so are lacking
elements
01:11:40 --> 01:11:42: of digital literacy,
01:11:42 --> 01:11:46: but they are not without interest in being a part
01:11:47 --> 01:11:49: of the conversation.
01:11:49 --> 01:11:54: They are not without the the ability to communicate what
01:11:54 --> 01:11:55: they want,
01:11:55 --> 01:12:00: what they need. And they would love to to be
01:12:00 --> 01:12:04: a part of a discussion like this too.
01:12:04 --> 01:12:05: So that's all I have.
01:12:05 --> 01:12:07: Thank you. This is
01:12:07 --> 01:12:10: fantastic. Thank you everyone and my thesis at the beginning
01:12:10 --> 01:12:13: about broadband being part of the utility infrastructure and
being
01:12:13 --> 01:12:14: essential.
01:12:14 --> 01:12:17: I think we proved that in the last year and
01:12:17 --> 01:12:19: a half weren't for broadband.
01:12:19 --> 01:12:23: We'd probably all be trading in toilet paper and bottled
01:12:23 --> 01:12:24: water at this point,
01:12:24 --> 01:12:26: and the economic system would have crumbled.
01:12:26 --> 01:12:28: And so we know that.
01:12:28 --> 01:12:32: All the. The values that we have that we have.
01:12:32 --> 01:12:35: The panelists have talked about education and healthcare
and real
01:12:35 --> 01:12:38: estate demands and needs all kind of lead into that.
01:12:38 --> 01:12:40: That central thesis of this really,
01:12:40 --> 01:12:44: truly is just as important as getting water and sewer
01:12:44 --> 01:12:46: and power to any particular site.
01:12:46 --> 01:12:49: It's all very critical, but we still do have a
01:12:49 --> 01:12:51: long way to go for sure.
01:12:51 --> 01:12:54: So with that, thank you everyone for participating.
01:12:54 --> 01:12:56: Thank you to my panelists,
01:12:56 --> 01:12:59: Jeff, Mia, and Eric. Thank you to you alive.
01:12:59 --> 01:13:01: We're hosting this another great webinar.
01:13:01 --> 01:13:04: Thank you once again. Everyone have a great afternoon,
01:13:04 --> 01:13:06: morning or evening wherever you're coming from.

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