

Ep. 9 - Erik Frederick_mixdown

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SPEAKERS

Announcer, Ed Clemente, Erik Frederick



Announcer 00:01

Welcome to The Michigan Opportunity, an economic development podcast featuring candid conversations with business leaders across Michigan. You'll hear firsthand accounts from Michigan business leaders and innovators about how the state is driving job growth and business investment, supporting a thriving entrepreneurial ecosystem, building vibrant communities and helping to attract and retain one of the most diverse and significant workforces in the nation.



Ed Clemente 00:28

Welcome to The Michigan Opportunity, brought to you by the Michigan Economic Development Corporation. Hello, and welcome, I'm your host Ed Clemente. For the show today we're very fortunate to have Eric Frederick, Executive Director Connected Nation Michigan and Vice President; and he will explain why he has two different titles - but welcome to the show, Eric.



Erik Frederick 00:49

Hey, thanks for having me. I appreciate it.

E Ed Clemente 00:51
So do you want to delineate your two titles there?

E Erik Frederick 00:54
Yeah, so Connected Nation Michigan is part of a bigger 501c3 nonprofit called Connected Nation. So Connected Nation as a nonprofit is an organization whose mission is to facilitate the expansion of broadband to improve quality of life. As we know, broadband touches everything, telehealth, education, teleworking, mean everything. So we, we try to improve quality of life through that expansion of broadband. And so at Connected Nation, I run the Connect Michigan or Connected Nation Michigan Program as some of you may know it. We've been around for a while now in the state. So we started off as Connect Michigan. Now we have Connected Nation Michigan, but we're essentially the same organization just showing a little bit of, of deference to our broader national organization now, but with Connected Nation, I do run the commissioning program, like I said, and I also run Connected Nations community engagement strategy. So my background is in urban regional planning. So we take that same kind of comprehensive, long term focus on community development and apply it to broadband and Connected Nation does that across the country. So those are the two hats that I wear.

E Ed Clemente 02:05
Yeah, and at some point we should talk a little bit about the variety of different infrastructure challenges, I think that are involved in this process. But that would be helpful, I think, with your degree. And you live in Michigan, too, right?

E Erik Frederick 02:18
That's right. Yep. I live down in Charlotte, just outside the Lansing area.

E Ed Clemente 02:23
And not that it's a light matter, because it's a very serious matter for a lot of people. But even where you live, you have challenges, right, your bandwidth, correct?

E Erik Frederick 02:32
Yeah, absolutely. So I do live in a rural area outside of town. And my, my bandwidth is fairly limited, especially now that I've got two kids who are learning from home and the

wife is working from home as well. So we have to tell the kids to stop streaming While I record podcasts or do webinars or whatever it is. So yeah, it's a it's a struggle.



Ed Clemente 02:56

Hopefully, they're doing homework and not doing online games.



Erik Frederick 02:59

Exactly. Always homework. Yes.



Ed Clemente 03:01

Yeah, I'm sure what I'd be like when I was a kid. So yeah, that's kind of targets the next thing but you have a really stratified target market. It's not just about for people to, you know, when people hear about connected, they might think only in the way of like cable TV or something, but really, it's so much more advanced than that. So would you kind of like segment out like who your target you either top tier probably target markets are a little bit.



Erik Frederick 03:35

Sure. So I mean, broadband really does touch everything, but when we look at broadband from Connected Nation Michigan's perspective, we're looking at three separate buckets. The first is infrastructure, and that is the availability. So we look at access to the physical infrastructure for broadband, and that's delivered by cable technology, DSL over the phone lines, fiber technology, of course, satellite mobile broadband, fixed wireless, I mean, there's a, there's a whole host of technologies that deliver broadband connectivity. And we have at least 150 broadband providers in the state. There's there's more that deliver business only services, there's those that that just do long haul fiber across the state from one point to another. So when we look at infrastructure, there's there's a whole host of folks that we try to work with to improve that infrastructure in the state. And those internet service providers are absolutely key in that in that area. The next area we look at when it comes to broadband is what we call adoption. You can think of that more like the the subscription to that service. So once the service infrastructure is there, what are the barriers to actually subscribing to it at home? Is it affordability? Is it digital literacy? Is it lack of a device? Is it building awareness for what those connections can do to improve quality of life. And all those barriers contribute to what we call the adoption challenge was that once the infrastructure is there, how do we make sure people can can adapt and subscribe and benefit from having that connection in their home. And, you know, in that

bucket, we have nonprofit organizations, community action agencies, there's device manufacturers, I mean, there's a whole host of folks that helped contribute to knocking down those barriers. And finally, that what I think is the biggest bucket of all is what we call the use category. So if access, adoption and use and use is making sure that we're leveraging that technology, or leveraging that infrastructure, and that adoption, to improve quality of life, whether that's healthcare systems implementing telehealth applications, its employers being able to allow their employees to work from home its schools being able to conduct distance learning, it's the government provision of services. I mean, there's a whole host of things that we can obviously do with broadband, to improve quality of life. So we want to make sure that we're looking at this problem from all three of those perspectives. We can't just stop at the infrastructure, we can't just stop at affordability, it has to be a comprehensive view of this problem. So that we can move Michigan forward.

E

Ed Clemente 06:19

Yeah. And, uh, you know, you kind of mentioned a little bit but you're a nonprofit, does that mean, you have a board as well, then?

E

Erik Frederick 06:25

That's correct. We do have a board of advisors, that directs Connected Nations activities. So, for example, one of our board members is the head of the American Farm Bureau, very plugged into rural rural America, and helps bring that that guidance. So we do have a board that that directs our activities. Yeah.

E

Ed Clemente 06:47

Yeah, no, no, it's, it's interesting, because I'm sure they have a lot of input as to what you're trying to, because there's probably so many priorities, you have to do sort of a triage with them to figure out which ones you've got to tackle all the time, on the so you know, when I went on your website, and I would recommend this to anybody listening to this podcast, you are one of the few websites I've been to that has something I think that should be on every website. And that's a glossary. I'm not kidding you. I almost read every word because I really find that fascinating, because, you know, it's the kind of thing like, if you're reading a new textbook, when you're in school, you know, you always wonder what's that word mean and that's the best way to learn about what's going on, but, you know, I just want to compliment you guys on having that there. Because this is a foreign language to some people. Right?

E

Erik Frederick 07:35

It is. And that's actually part of the, the the barrier that we're trying to overcome is because we're a, we see ourselves as a facilitator of a broadband conversation. Part of that, that work is helping to bring everyone up to speed on what this issue is. And that includes making sure local communities, and those stakeholders there are empowered with the knowledge of what this industry is, whether we're the ins and outs, they don't have to be computer science experts. But they, you know, getting just that basic understanding of this is how cable systems work. This is how fiber operates. And this is what fixed wireless is versus mobile, wireless. You know, those types of things are really important to help everybody really start to come to the table and tackle this issue. And, frankly, that glossary is growing all the time. I mean, there's new new technologies being developed all the time, we're, you know, we're tracking one of the big things we're tracking now is low Earth orbit satellites with Starlink. And that technology, and what a game changer that could be for rural Michigan, and frankly, the rest of the country as well, for trying to connect those places where it's cost prohibitive to build wired infrastructure, and has been for decades now.

E

Ed Clemente 08:47

We know I'm gonna make you go into that a little further right now, because I really didn't know much about Starlink, myself to just recently. And I have gone online and look at the Wikipedia site all about it. And then it started making sense to me about everything Elon Musk was doing. You want to talk a little bit about what Starlink you don't have to do, you know, not to be funny, but you could do it from like the 2.5 mile view.

E

Erik Frederick 09:17

Yeah, I mean, when we think about... we usually think about Satellite Internet as kind of a last resort option, right for, for rural service. And the issue with the traditional Satellite Broadband is late, what's called latency. And that is the time it takes for the signal to get from the internet to the satellite and down to your house and then from your house back up to the satellite and back to Earth, that we can't change the physical distance from us to space. So that is what the problem is with traditional Satellite Broadband, low Earth orbit satellites are, are changing that physical distance. I mean, they're just like they say, low Earth orbit. So those satellites are located much closer to Earth. And so they really cut down on that latency and that latency impacts, direct live two-way communication. So just like we're doing now, or just like if you're trying to present on a webinar and broadcasting information out, that's where traditional Satellite Broadband tends to break down. But with low Earth orbit, we're seeing some tests where that latency is on par with wired networks that we that we see. So it's, the satellites are much closer to Earth, that

takes much more satellites to be able to provide that level of service because they are closer. But they're providing speeds anywhere from 50 to 150 megabits per second, there was just a news article that they might increase that by by end of the year this year to 300 megabits per second. So it's it's a game changing technology. And and I think we're on the cusp of seeing some very broad positive results from that technology rolled out.

E

Ed Clemente 10:52

Yeah, and I know a few people already that have been they do what they call it beta testing, are they calling it the third level testing in Michigan already? Right?

E

Erik Frederick 11:01

Yes, that's correct. So they're currently serving anywhere from 45 degrees latitude north in Michigan?

E

Ed Clemente 11:07

Yeah, I think the friend has the one I know he's in Petoskey, actually. So that takes me to a couple other words on there that I think are important for people. But this one, I think, is a little bit... this was around even back when I was in the legislature, but we were trying to solve this problem, it was more of an urban issue. And that's sort of the digital divide. And I think you'll probably tell us, the two areas that really made this much more sort of obvious is probably you know, the pandemic of COVID-19, as well as kids working like your kids being at home now, how that's really put a spotlight on what the digital divide really means.

E

Erik Frederick 11:46

Yeah, absolutely. I mean, the digital divide is something that I think, is constantly changing. And it's in flux, because our demands on the network change, and they change in a big way, when the covid 19 pandemic happened. And it what it did is that if we were working to close the digital divide before COVID, COVID, just opened it right back up by moving the goalposts because it forced so many more folks to to be at home and to work at home and not not only work at home, but conduct education at home. And we know that a lot of those connections don't exist, not only because of availability, but affordability as well. And so we you talked earlier about trying to pick and choose what facets of this, we address, and really, we have to address it all. But a lot of it comes down to two. And that is the availability and the affordability, those those two challenges are the biggest barriers to making sure we are closing that digital divide, and coming close to

a more digitally equitable state where everyone has equal access. Everyone has a device that can access the internet and of course, can afford those connections that are there.

A

Announcer 12:58

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E

Ed Clemente 13:14

I think I told you, I had a pretty urban district when I was a state rep. And I remember I did my office hours at libraries. And I was always amazed by how many people were waiting in line at a library to use, you know, just like the computer and I'm just use their cell phones don't they have anything at their own home. And I started talking to the librarians and they said a lot of times, you know, to fill out job applications is formatting issues and libraries are like the hotspot for a lot of people to get any access or maybe, you know, like some stores have free Wi Fi. So that's probably not the best way to be doing all this. So I'm sure you've had experiences like that in your around the Astate conversations.

E

Erik Frederick 13:59

Yeah, that's right. We love libraries. I mean, not only from being able to access a public computer, but simply you know, bringing your own device and accessing a Wi Fi network. Libraries are great for hosting digital literacy training and training folks how to use new technology too. And a new way that libraries are getting into this space is by acquiring mobile hotspots. So mobile, Verizon, AT&T, or whoever, acquiring those hotspots and actually lending them out for folks to take home. And so they can take that mobile coverage home with them for you know, a certain period of time, just like you'd lend a book or, or or anything else. And they can have that connectivity at home, and then bring it back to the library and then share it again. And while that's not a that's not a permanent solution it does provide another stop gap measure for helping to improve connectivity for those who can't get it at home. So we love libraries. They're they're fantastic for helping close that digital divide in a lot of ways.

E

Ed Clemente 15:02

And I've got about three more questions. Once again, our guest is Eric Frederick. He's the Executive Director for Connected Nation, Michigan - Thanks again. Though, the one thing I kind of thought that was he touched on it a little bit, but I think again, with the pandemic,

telehealth, I don't think people even knew what that meant a few a few years ago, you know, and now all of a sudden, it's every my, my aunt who is 90 years old has already been exposed to it. Right. So why don't you talk a little bit about that why that is so important to people.

E

Erik Frederick 15:37

Yeah, you're right. COVID push telehealth to the forefront of a lot of folks minds. As you know, hospitals were dealing with dealing with COVID and had to move a lot of other consultations and regular visits to a virtual environment. There were lots of rules, rules changes at a federal level that came down because of COVID to allow more telehealth, which was great if you could access it, but telehealth is absolutely critical, especially for rural places where we have an older population. So not only there do you have an infrastructure problem, but we also have on the outside of broadband, a transportation problem a lot of times trying to get folks to a healthcare clinic, to a hospital to their doctor's office can be a challenge. So telehealth is a great answer for that. But there's a number of barriers that need to be overcome. Even besides affordability and availability of broadband. We put out a study right before the pandemic hit last year that that looked at the barriers to telehealth among patients in five rural Michigan counties. And apart from again, access to the infrastructure and affordability, one of the barriers we found was simply being able to trust that your information that you're transmitting is safe, that you know being able to trust that a doctor can diagnose something via telehealth, but telehealth is absolutely critical for the stability of our rural communities. Where you know, physical access to it to a hospital or a health care clinic can be few and far between or you have to travel a great distance. But we need to make sure that the the availability is there the affordability is there. And the digital literacy and and trust in that system is there. So that that that system can flow and work as it should, but it is absolutely critical for for all of Michiganders to be able to access those services.

E

Ed Clemente 17:35

Yeah, and I would guess in the near future, when like medicine starts getting delivered by drones, the telemedicine will be part of that sort of connectivity to get people who are like having an emergency quicker and you find out their vitals, you know, or whatever. And they'll be able to to get there quicker. So it's more about even integrating with other systems I would guess as well, right?

E

Erik Frederick 17:44

It is so yeah, it's a it's not just about having, you know, video consultations, for example,

with your doctor, there's, there's a lot they can do now with, you know, remote vitals monitoring, in home medication reminders, you know, all sorts of things that can be monitored via telehealth as long as you have that connection. So there's lots of tools at their disposal. And even on the mental health side, now being able to talk to a to a therapist or a mental health professional via the internet, when you know when you can't get to a physical office can be hugely beneficial. So there's, you know, there's definitely ways that that connection, improves quality of life via the health care system.

E

Ed Clemente 18:40

I know there's a lot more we can cover it just got a couple more questions here. And if you could just comment a little bit, and one thing I was interested in was a little bit if you could just give me a brief answer about the digital training you do, because I think that's going to be pretty relevant for people with career opportunities, high school kids or, you know, where there might be opportunities for work even too, right?

E

Erik Frederick 19:05

That's correct. So Connected Nation has a program called Digital Works. And that program helps provide not only digital literacy training, but customer service representative training to folks and then connects them with a remote employer. You know, as we know, with telework, you know, if we can't get the employer to be located in Michigan, locating the employee can be a critical thing to do here, too. So that program we haven't implemented in Michigan recently, but it can be accessed virtually. And we've had, we have implemented that program in places like Kentucky, it focusing on military spouses, as a source there so that program is available on our website. You can there's more information about it there. But it's a great way to get into that kind of that digital workforce. And and being part of, you know, taking part in teleworking opportunity and being able to find a job and do it from home, especially now in a in the COVID pandemic.

E

Ed Clemente 20:07

Right, and we didn't even really touch on digital nomads, but eventually that could be a recruiting tool for Michigan to get good talent into the state too, as well, because of that.

E

Erik Frederick 20:17

Absolutely.



Ed Clemente 20:20

Right. The last two things I asked you, and you can give me another good brief answer on this one, but by having the whole nation connected, that also, I presume, would help us globally competitively, even as an economy to right



Erik Frederick 20:38

Absolutely. I mean, we when we look at our average speeds compared to other countries in the in the percent of our population that is connected to a depending on the speed that you look at, we do pale in comparison to a lot of other countries. Now, the difference though there to note, is that our house, our population density in this country, is extremely low compared to other countries that have better networks than us. I mean, we're talking about the difference between 10,000 people per square mile and 25 people per square mile, you know, in our country. So we're very spread out as a country, which contributes to the difficulty of, of connecting everyone. So it's not necessarily an apples to apples comparison, but yeah, connecting everyone in our country, especially in Michigan, I think would be a, you know, a global competitor in that way.



Ed Clemente 21:27

And I think you'll agree with my definition for digital nomad is that basically it means people that can remote work remotely from anywhere, as the pandemic has clearly proven, is actually not just an option, but it's becoming mandatory with a lot companies, so it will be something I think we have to look at for the HR future of America anyway.



Erik Frederick 21:52

Yeah, we and we have a lot of beautiful places in Michigan to live. So why not come here and do whatever work it is you do? And spend your time in our state. That's, we need to make sure those networks are there for those folks.



Ed Clemente 22:03

And that's a segue to my very last question is what do you like best about living in Michigan personally?



Erik Frederick 22:11

So I've been - born and raised here. I grew up in Coldwater, went to school in Marquette,

and East Lansing. And so ended up in the mid Michigan area. I think I think the diversity of scenery is what I love most about Michigan. I love visiting Lake Michigan. I love going out. I love Lake Superior. Marquette, is one of my favorite cities. So I just like the diversity that we have in the state from one side to the other and top to bottom. I think we're unique in that fact. We're surrounded by great bodies of water with varying shorelines. And that's got to be my favorite thing about it.



Ed Clemente 22:44

Well, hopefully Dave Lorenz, find you for a Pure Michigan commercial. With that, I will let you go once again, our guest was Eric Frederickson, I'm sorry for Eric Frederick and Executive Director for Connected Nation Michigan. Thanks again, Eric, for being on the show today.



Erik Frederick 23:02

Yeah, thanks Ed, I appreciate it.



Announcer 23:04

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