

2018-2019 ConnectHome Connectivity, Affordability, and Training of Digital Inclusion, 3/26/19

Janelle Beverly: Good afternoon. Thank you for joining today's ConnectHome USA webinar series. Today's topic is Connectivity, Affordability, and Training of Digital Inclusion. Together with Dina Lehmann-Kim HUD's ConnectHome USA program manager and myself, Janelle Beverly, we're your hosts for today. Before Dina introduces our exciting speakers, I have a few housekeeping items.

Our speakers will share their knowledge for approximately 20 minutes each. At the end of the session we will reserve 15 to 20 minutes for questions and answers. You may ask questions in two ways. In the right-hand navigation panel, you will see a hand-shaped icon. If you would like to verbally share your question, select the hand icon and I will unmute your line in order of questions received. Or if you would like to send us your question, feel free to type your question in the chat box in the lower right-hand navigation panel. I will read your question aloud in the order received. If we are unable to address all questions, we will send an email reply after the webinar. All webinar participants are muted upon entry.

If you would like to notify our team of any technical difficulties, please send us a message in the chat box. Today's webinar is being recorded and will be available on HUD Exchange shortly following the webinar. Immediately following the webinar, you will receive an invitation to complete a survey on today's webinar. We welcome you to complete the short survey and share any ideas you may have for future webinars.

Dina Lehmann-Kim will now introduce today's speakers.

Dina Lehmann-Kim: Thank you, Janelle, and welcome everyone. I'm so happy to have you on today and I'm very happy to have two very distinguished ConnectHome USA veterans. First, we have Bobby Coulter who is with Fresno Housing Authority. He joined Fresno Housing Authority in 2015 after nearly two decades of private sector IT experience.

And as a life-long Fresno native who was raised in the same neighborhood as the Fresno housing residents he serves, Bobby combines his expertise in Information Technology with passion and loyalty to the city that raised him. All of this contributes to his dedication to the vision of ConnectHome USA of creating more inclusive communities through Internet connectivity. Bobby will talk about the mesh network that he and the Fresno Housing Authority have built.

Following Bobby, we'll hear from Juleian Curtis who's with the Cuyahogo Metropolitan Housing Authority. Juleian started at CMHA as a geographic information systems intern in 2013. Currently, Juleian serves as the digital inclusion and planning manager for the CMHA, a title that is directly tied to the Housing Authority's commitment to the ConnectHome efforts it began in 2015. In addition to helping lead his agency's digital inclusion work, Juleian's education in architecture and urban planning allow him to assist CHMA's affordable housing redevelopment and new construction projects.

Before I turn it over to Bobby, I would like to say that they both have joined ConnectHome USA as legacy communities. If we have pilots on the line, I strongly encourage you to consider joining as a legacy community to continue reaping the benefits of new opportunities that our non-profit partner EveryoneOn is working on for the purpose of ConnectHome USA. With that, let me turn it over to Bobby. And thank you everyone.

Bobby Coulter: All right. Thank you, Dina. And welcome everyone. Yes, ConnectHome's been quite a journey. You know this is now going into a fourth year, kind of starting our fourth year and so a lot of these projects that I'm going to talk about today started as soon as we signed up for ConnectHome and some are just finishing, so this is a long process. So none of this, even though some of the timelines that I'll show show 11, 12 months, some of these have literally taken close to three years, mainly just trying to find the right partners, setting up agreements to make sure that it's sustainable. Yeah, so thank you.

I'm going to go over a couple things. One, there's a lot of options out there. So talking about why we chose the mesh network connectivity model. And then also go over what is a mesh network. So since 2015 we've had roughly about a dozen sign-up events for low-cost Internet offers, they're different providers. And we only had about 13 percent of our residents sign up in total. As most of you know, it takes a lot of staff resources for these events with the outreach, coordination, inviting different partners to try to make it worthwhile, not just for people signing up but for the partners as well.

We kind of determined early on that we needed to figure out a way to use those resources more for outreach because our main focus is digital literacy, programming and education, but obviously the connectivity is required in order to be successful. So we wanted to focus those same resources on the programming and outreach for the programming rather than tracking which residents had Wi-Fi month to month because our programming changes and then also which community rooms have Wi-Fi as well, tracking that was a pretty large task for our resident services staff.

So our solution was to build a property-wide mesh network at a few pilot sites and so mesh network is available to 100 percent of the residents at day one and also available in some of the shared spaces. So for our mesh network specifically, we brought in a single fiber Internet circuit to the property then created a mesh network to distribute that Internet circuit throughout the property.

Instead of having to run Ethernet cable to each access point, a mesh network access point with those capabilities has the ability to connect to each other wirelessly. So less construction costs, a lot quicker to set up and easier to maintain for our staff because we aren't in the business of running low voltage cabling, but because we do have internal IT staff, we do manage wireless networks as part of our business.

The goal of our mesh network was to have a signal strong enough to reach inside a resident's home, as well as community spaces within the property, combined with the inherent mesh

network self-healing and low balancing ability, residents should be able to take their laptop from a digital literacy training inside the community room to their home without losing a connection.

So pretty lofty goals for something that we had never done before. Probably around this time last year we had about three properties that were online using our mesh network and we're getting ready to set up another three. Low voltage was already run. When I say low voltage, I mean cap five cabling, ISP had already been acquired, installed. All that was really left to do was program the access points and then plug them in.

Instead, as soon as we started the third phase of the project was the actual installation of the hardware, we got a bill from our subcontractor that was about two to three times the original grant request because this was grant funded through a program by the California Public Utilities Commission and that grant required us to have it up and running about 90 days from the second phase, so after all the low voltage was up and running.

So we had about 90 days to get this network up and running and property itself did not have enough money to now pay that contractor. So we were kind of at a crossroads. Do we forget about the \$30,000 that had already been paid for all the construction costs or do we try to figure out something else?

Kind of as I mentioned earlier, our own internal IT staff had done some of this but not completely set up a resident Wi-Fi network. So that was new to us but luckily our IT staff is really good at doing some of the hard stuff at a moment's notice. That, with the great ConnectHome community that's out there and a lot of people that are doing the same work are really willing to talk through any ideas at a moment's notice.

So both of those things, like working together told, us that maybe we should try this ourselves. But because of some of our internal practices, we make sure that we always document everything as much as we can. So luckily, we kind of documented our journey through this with the hopes to share this message within the agency but outside the agency.

So what started as kind of an SOP or a system operation procedure word document, eventually turned into a website. Now, the website, you know we are not web developers, it's a simple Google site and we also, as I said before, aren't a dedicated network admin network engineer. So this is kind of an ever involving hopefully getting a lot of your input on how this can work better. It's meant to be something that, for someone that's never done this, but also for someone that does this all the time but wants to make sure that it's consistent. So rather than just talking about what it should look like, I'll show you our website if I can -- let's see if -- I'll share my desktop.

All right. So the website is structured in the same way that we went about installing it. So there's four major sections and a few support pages. The first section is the planning phase. This includes information about what's at your ISP to ensure that they have a product that really fits your needs, that it's okay with their use agreements, what to document. There's also there, right there, one of the most important things is the budget. And so, we created a budget sheet so that anyone can go through and add not just the costs for the equipment itself, but also the time spent.

In addition, we created an Amazon idea list that has all the equipment on it, so you can just add that to your cart and not have to think through each individual product.

So here's what I mentioned earlier about the timeline. Going through each part of the implementation with a link to the budget -- and you'll see that this took roughly 11 months for this one, but we had somewhere in between here where it kind of broke down of what the equipment was going to cost from that subcontractor. There's also a rules and responsibilities, there's a lot of people, a lot of partners working and a lot of Housing Authority staff that are working on this project, so knowing who exactly is responsible for what was very important to establish early on.

And, so we also tried to make this as user friendly as possible how to, with photos. Of course, I picked one that doesn't have a photo on it, but here we go. So photos of exactly how we installed it and how it could be installed. You'll see I'm using these next buttons that are the next phase. You can either use it through our navigation here or -- next there's a lesson learned and recommendations that we learn throughout this process. We tried to highlight different colors.

Something that as an IT person might tell that was totally overlooked by me but luckily we have a great resident services staff, was our outreach. Our resident services team wrote this section based on all of the things that they did or wished that they did or hope that we would next time. One of the, I think, ingenious things they did was they created these stickers that have a QR code.

And so when we first turned on one of our networks they would have to go to the property manager to ask for the password, the network name and sometimes there's only one person on staff or divided time between different properties and so they put these stickers on common spaces or even on the office window so someone could walk up to this sticker, scan the QR code with their phone and they would automatically connect them.

Training our staff was incredibly important, A, because we weren't expecting them to be network support themselves, but they needed to be able to answer a lot of question be network support themselves, but they needed to be able to answer a lot of questions and understand kind of what the expectations of the network were. The fee for our network in particular was set purposely at 10 MB for download and then two for upload because of our limited band width that we could provide to the site.

And so we really wanted to convey that this was a safety net for kids to do homework, for submitting job applications, all those things and if it worked on that [inaudible] but don't expect it to stream five devices all at the same time. But having the network set up in a way that it allowed someone to use their Mac 10 and then the person next them to not be hindered by what their neighbor's doing and there's also security put in place so they can't see what device is on the same network.

Our kickoff launch events are always a lot of fun, but we also get a lot of questions. And so having good signage out, being ready with the resident training helped us a lot, and tracking success. We get a lot of questions especially from our board of commissioners about putting

programs in place and kind of the sustainability of the program and is it doing everything that we want. So as part of this implementation, we created a pre- and a post-survey. Now these ones the answers go to us, the Fresno Housing Authority, but you all can go ahead and log into this. This site specifically isn't the one we use every day, so you could submit as many as you want. But if you're going to set up your own, I would highly suggest you set up your own network, you create your own survey.

So yeah, as issues have and will come up, we've been trying to be diligent about adding those to our troubleshooting. We're using a lot of [inaudible] equipment and some of the unified equipment and there's just little kind of tricks to get it optimized. And so we tried to catalog those in here for all of us to use, right? And I think one of the most important parts of this site is the feedback link at the very bottom here. So this is something that corrections or suggestions, anything that you all might have, or anyone might have to use this and then we'll try to incorporate that in the playbook as soon as possible.

The website's live now but the address is fresnohousingauthority.org/meshnetwork. And so I invite all of you to get on there and try it out and hopefully set up one of your own or at least know how and kind of get started and provide any feedback you can.

So yeah, at this time, I think I'll hand it back over.

Dina Lehmann-Kim: Thanks, Bobby, that is absolutely amazing. What a real treasure of resources. It's so detailed and thorough. Thank you so much for your generosity in making it available to communities outside of Fresno. Thanks for that. We'll get to questions at the end of the session but I want to now turn it over to Juleian.

Janelle Beverly: Hi, Juleian, we're not hearing you. We need you to unmute your line, please.

Juleian Curtis: Oh, hello, can you hear me now?

Dina Lehmann-Kim: Yes.

Janelle Beverly: Yes, we can.

Dina Lehmann-Kim: Thank you.

Juleian Curtis: All right. Sorry, guys. Hello, again. My name is Juleian Curtis. I'm with the Cuyahoga Metropolitan Housing Authority in Cleveland, Ohio, and my role in this webinar is to talk about other devices and training, the thing that goes along with Bobby. It was just really awesome, he laid out [inaudible] hand-in-hand with Internet access, right, so I'm going to dive right in. I hope that some of the insight that I share here and some of the things I touch on are valuable to most of you guys on this webinar.

Real briefly, like I said we're based in Cleveland. We are part of the community along with Bobby and maybe some of the others that are on the call. And really all this really started with, at the top for us, with our CEO and his leadership and commitment to this work. Digital inclusion,

for everybody, none of this -- there's no line item for this, it's not necessarily what the Housing Authority's main charge is but it's ever so important to the folks that we serve that we bring these opportunities to them in the different ways that we can.

This can't be done without tremendous partnerships, it can't be done without continuously learning, technology continuing to change. Methods of delivery and opportunities are constantly evolving so it's important to stay engaged and keep the residents at your forefront, but also thinking sustainable in the way that you try to grow what you do or even start what you do, try to do things if you can intentionally, plan intentionally that it can live on beyond just one event or one giveaway of equipment.

Starting with devices, we really, since we've been at this for several years now, I've kind of tried to zoom back out on some things and really try to think about how we can provide options for folks based on what their age is, what their income is potentially, or what their ability to connect or how we can connect with them and provide options. So not one option, maybe is suitable for all the folks that you serve or that we serve.

We're a fairly large Housing Authority with about 10,000 in public housing or red [ph] units plus another 15,000 in vouchers. So there's multiple approaches that we can take, that has to be taken to try to bring resources to folks. So it starts really with the offers that ConnectHome USA makes available and being aware of what's available in your geography and what you can and cannot leverage in trying to take advantage of discounts or those things and getting that information into the hands of those you serve.

A method that we've used kind of in addition to that is we've examined our inventory of desktop PCs; every Housing Authority department is laid out slightly different. We're fairly kind of old school and traditional that a lot of us have desktop computers. Historically a lot of us have offices and over time those things age out and need to be replaced.

So during that during process or how we manage that process, normally we kind of collect them or [inaudible] we have collected them and then we would auction them off or dispose of them in a collective manner. So rather than disposing of them or recycling them, we put them back into use; dusted them off, wipe the information, refurbish them ourselves so to speak and then put them back into circulation. Or offer them to our residents through training and earn a device type program, and I'll talk a little bit more about that as we go.

So that's one of many options but many times there's the question of what's the best device. And I think it depends, I think, because it all comes back to the kind of options. So options based on age, options based on device. We can think kind of multiply or try to provide multiple ways for folks to connect to devices or gain access to devices, I think that's important. I don't think there is a right answer for what's the right device. It depends on the user and what their situation is.

So with all kind of that basically, I want to culminate this particular slide with PCs for People and the importance of partner-shiping with refurbishers like PCs for People or groups similar to PCs for People that provide affordable equipment, provide care for the equipment or tech support for the equipment, but also have visual inclusion and digital equity at the core of what they do.

And share in kind of this mission with Housing Authorities and many others are also hard working to try to rectify or to provide for our community. So I think that's important to develop relationships with [inaudible] in the community like a PCs for People and some of the others across the country.

Where we start is with the tablets and hotspots. And again, ConnectHome USA offer GitHub has grants that are available. Sprint has low-cost hotspots that are available. Partner with a local library to develop a training, a model for the use, and it really was kind of an earn your device type of program, and that's what we've used kind of as our foundation for a lot of what we've done, is take some training, earn the device or kind of take a course, earn the device So rather than having to pay for the device, you'd be able to earn just through taking the coursework, completing the course and attending a number of classes.

So it worked out fairly well for us with the tablets and hotspots side of that. We would have to purchase [inaudible] some kind of marched dollars, if you will, to support this effort or grow this effort, but that is an option. I mean, there are options to provide hotspots. There are options to buy low-cost tablets and it could be for youth or it could be for adults, but that's very much an option, it's something that's available through ConnectHome USA and also just in the community through kind of national vendors that are selling low-cost hotspots.

What we did for a number of years is, and where it was sustained through the amount of older machines that kind of cycled out of use here at the Housing Authority was Internet device program for adults. So tabs and hotspots be focused on kids in our community centers and for earn your device for adults we use our old desktop PCs to put back into circulation after individuals completed a training class -- a basic literacy training class. Some folks never clicked a mouse before in their life or turn on a machine before.

Some folks had a machine and it's just outdated, had turned them into a paperweight or a doorstop and they did an upgrade. So this is a great opportunity to get folks back in front of machines, transporting them either to training centers or bring training to them, and I'll talk more about that in a minute. Get a basic skill set, earn a device that you can continue to hone those skills and also try to connect them to some Internet access if they needed a low-cost option in their home. And, again, done with a number of partners, training partners, refurbishers, etcetera.

And then lastly to kind of complete the menu, obviously, don't necessarily need training or already maybe have a device and need it repaired or want a laptop rather than a desktop or what have you -- or [inaudible] purchase Internet access, have the ability to spend a little bit of money [inaudible] offer PCs for People in our community luckily that they're fortunate to have a physical presence here in Cleveland, but there's also ways to connect with them remotely or online and have them bring their services to where you are or are able to promote this locally here.

Our residents are "preapproved." By being a CMHA resident you have to be income eligible to receive a device from PCs for People. Our residents all by virtue of receiving subsidy from the Housing Authority are income eligible, so they're kind of marketed intentionally to our folks and get our folks to their doorsteps.

We've had hundreds of our residents already since October of last year purchase equipment, purchase Internet access through PCs for People and the number continues to grow. So we were able to reach an audience we have not been able to reach yet before with our work, through just letting folks know that this option is available to them in their community.

And then touching on the training again, it goes back to the menu of choices for folks based on the age, based on your skill set, and your interest. So whether that's transporting residents to a computer center whenever they can, where training is being offered and there's a kind of a level of comradery and classroom kind of -- and unity being built to bring it to your home and you're just coming downstairs in your house and learning how to operate a computer and potentially earning a device as well.

And we're not necessarily kind of pigeon holing who are trainers are. Trainers, I think, in the digital inclusion space, especially at the basic level, come in many forms. There's no necessarily degree or certificate requirement to do it. It really just takes an interest in technology and a willingness to engage and a desire to help and assist folks in your community and uplift those around you.

So we've had students and interns as trainers. We've had folks that are professionally trained and work at computer centers provide training and so on and so forth. But also taking a step further from the basic to the advanced, providing opportunities for residents to engage, apply for and get support with taking advanced training classes, by learning how to code or web development, etc.

I think there's folks that have an interest in that. So if we can provide those, those opportunities, that's something we want to do as well and recommend trying to provide, again, these options of different layers for different individuals to access training that's out there and available for free.

So our future next step or what our intentions are to get to now are the outcomes and pay specific attention about the training, that it leads to some outcome that potentially uplifts that resident upward and onward if that's their desire or gets them to a place that they are not currently at and the training hopefully will assist them getting -- again, from the basic level you just [inaudible] some images of training centers that we've either constructed in community rooms or brought in residents to.

And, again, it's, a lot of these folks form a formal bond or receive a certificate and -- many cases their device after they've completed a four-week course and there's no -- I think that there's no standard. I think you can create your own personal standard of course work and things like that. What we would typically follow is a four-week, twice a week, two-hour each session or each day they meet course for a total of like 16 hours. But training doesn't have to stop there.

In many cases the residents are eager to learn more once you give them a taste of a -- longer I think you can have the more you can sustain it, I think the more the residents will appreciate it and engage and truly adopt long term. I think that's something that we've learned through doing this is is that residents, their appetite for training continues once they get a taste and if you can

keep it around for as long as possible and open it to as many folks as possible, I think the more successful outcomes you'll end up having.

But just looking at the basic level, we got students -- each course -- students from colleges that need college credit hours or -- excuse me -- or service hours for their programs, we would leverage that at a number of universities here locally to come to our sites and teach courses, as well as working with local community computer centers that also teach these classes regularly. They're open publicly to the community, have more specific courses that are structured at specific time for CHMA residents or Housing Authority residents to come in and receive training.

This [inaudible] featured here is our senior extension high rise, the first estate or development in our portfolio that has free Internet access to every resident in the building as well as in the common area or the first floor. And probably the first time we brought in onsite training to a location where Wi-Fi was made free and available to folks and individuals were able to come downstairs, receiving training, earn a device, get geared up for what they had just received in terms of Internet access not being available in their building, get trained up and get ready to use it.

This is a senior building, so some residents had never interacted with the Internet in this way before or didn't have a device to even use the Internet with, so it was important to provide this type of training and guidance at the outset. And even ongoing, to ensure that folks are able to adopt it, use it in a way that's beneficial to them and truly be able to engage online with technology.

And at lastly, touching quickly on the advanced training that's available. Again, it was a ConnectHome USA offer, it may have been kind of geographic based but another reason to kind of keep your eyes peeled for things that may or may not be in your footprint or available to residents you serve. But these nanodegrees offer to your desk [inaudible] quick degrees of really a kind of challenging set of coursework but the degree they receive are highly recognized across the country in different job sectors for an individual to complete this and have this on their resume can be really beneficial to their upward mobility.

So we were able to land a few of these scholarships for our residents or the residents are relying on themselves just with our kind of making them aware of what was available. And AT&T not only sponsored the scholars but also gave hotspots to the individuals that were enrolled in the program so they could the work because the work is 100 percent online.

And lastly our IT web mesh, they're our web developer for our CHMA website and a number of other apps, things we use internally, I was able to support them kind of once a week for a couple hours a day, guiding them through some of the course work and allowing folks to learn a really kind of specialized skill set.

So taking it from residents that have never clicked a mouse, don't know what left versus right click means to residents that are learning how to program and develop their own web pages and a lot of back end technology that requires a much higher skill set. But still Internet access at the

core. It's got to start there. And also they need a device. So these things all tend to come together.

So in closing some of the things that we've kind of learned along the way, just to be brief, is the ongoing technical support especially for devices that you may issue can be a challenge. So I think having a plan upfront of how you plan to address those things or what you plan to communicate to the residents of what level of care or support you can provide so that it's clear and understood from the get go is important because it can be a challenge if you have hundreds of machines to be distributed and over time things fail and then where does the obligation fall.

Again, thinking sustainably, is it more important or more worthwhile to purchase a handful of tablets and hotspots, or would it be more beneficial to maybe spend those dollars with a refurbisher that has a similar mindset, a similar mission and develop a long-term relationship there rather than maybe purchase some affordable tablets from a national vendor. I think there's just things to weigh as you make decisions early on in the get go and kind of setting up partnerships and setting up dominoes for the future.

If possible, providing options for all residents from free to expensive devices, from basic to advance training, cashing your net as wide as possible. And it may take time for all these things to be set up. You have to start somewhere, understand that we certainly did, but over time developing options along all areas of the spectrum because all our residents don't necessarily all fall in the same place. And trying to do it alone is pretty much impossible. Our partners are essential in this and they're the real reason why we've been able to have some of the successes we've had is through great partnerships and leaning on others expertise and learn it from other communities better engaged in this same work and passionate about making an impact in our community. That's all I have.

Dina Lehmann-Kim: Thank you so much, Juleian, and I want to thank, again, Bobby and Juleian for diving into the three-legged stool of digital inclusion, you now connectivity, devices and training, and with such expertise and deep knowledge. So thank you so much for taking the time out of your busy schedules to be with us today. Now I'd like to turn it over to questions and answers and I'll pass the baton over to Janelle.

Janelle Beverly: Great. Thank you, Dina. Just as a brief reminder you can use the hand icon to raise your hand to ask any questions or you can simply type your questions in the chat box. We did receive a few questions during the webinar. The first question is to Bobby, he's asking, "Which ISP did Fresno use"

Bobby Coulter: Yeah. So we started with -- originally we were going to use Comcast but we had an issue because they had the biggest reach but we needed something that was a little more robust. And so we actually went with CBIN which is a local IFP, a local fiber provider. But since they didn't have the same reach like a Comcast or AT&T has, there has been a lot in construction costs that you probably wouldn't have to pay if you went with someone that was more widely available, but it was helpful for us since they kind of understood the mission and they said whatever you want to use it for is fine as long as you pay your bill.

Janelle Beverly: Great, thanks. We have a second question again for your Bobby. "Was there any pushback about competing with ISP providers, such things as offering for free what people would otherwise pay for?"

Bobby Coulter: Pushback, well, so, the program that paid for it, the grant program that paid for it, there were challenges from some ISPs to that program as a whole. There was kind of noise of pushback but not general pushback about that reason, but one thing that we actually did is we did a very informal survey of -- because ours is, as I said before, a safety net so we did an informal survey of how many people went to market rate and Internet after we put free Wi-Fi on that property thinking that this is going to help them understand the value in paying for Internet, that Internet's not always free and if you move to one of the properties that doesn't have this amenity you might not have the same thing.

And so about 10 percent of our residents from our pilot site actually signed up for their own market rate Internet. So we didn't see -- we saw kind of the pendulum swinging the other way where more people were signing up than were leaving, but it was very informal just because of that pushback we might get.

Janelle Beverly: Okay, great. And I think this next question is for you as well, Bobby. For public Wi-Fi is there any filtering or user agreements? Also, is there any liability?

Bobby Coulter: Yeah, of course, there's always liability especially working with the PD. And if something is tracked back to your IP, but this is really a decision that our executive staff made early on is that if we're going to do this it has to behave exactly like my Internet would behave at home. So there's not filtering put in place but there are not -- sorry, I should say not filtering down to the user, but there are metrics that are captured. Yeah, so that was kind of something that we had to decide early on is how far are we going to track and our standing with it had to behave exactly like my Internet would be at home.

Janelle Beverly: Okay, great, thank you. We don't have any other questions in the queue at this moment. Again, as a reminder, feel free to send us a question in the chat box or to select the hand icon and we'll unmute your line.

Dina Lehmann-Kim: Well, while we're waiting -- this is Dina -- Bobby, can you talk a little bit more about the liability question, you know what kind of liability you might have considered or you thought might come up.

Bobby Coulter: Yeah. I know that Juleian, I believe they have a use agreement that kind of hindsight and maybe what we might do is something along the same lines, liability for using it to -- the same thing that happens with your ISP at home where they track certain use. So pirated software, any violation of use we have those same restrictions because we're using that same Internet line, we're just distributing it so we're kind of the middleman. So any restrictions that your ISP puts on your line as a subscriber.

When I say you, I mean you as a subscriber. We're now, as the Housing Authority, the way we understand it we're now responsible for making sure that it's being used in accordance with the

ISP's restriction. So any filtering that has to be put in place you're now answering for that as a subscriber.

Dina Lehmann-Kim: Got it. Thank you.

Bobby Coulter: I don't know if that makes sense.

Dina Lehmann-Kim: Yes, it does to me.

Janelle Beverly: We've received a couple of questions. One of the questions, I believe is to Bobby as well. "Are mesh networks possible in townhouses or small rise" -- I think I mean small rise buildings -- "two to three stories or is it best suited for large high-rise buildings?"

Bobby Coulter: Yeah. So I thought I was sharing with Juleian, but like I said, because I know that they've done a lot in high rise. So most of Fresno properties are two to three stories and we have done it in a few townhouses. And from our experience it's performed better as the smaller just because there isn't as much interference from being on top of each other, but I know people have figured it out.

It's just -- that's not really our portfolio doesn't have a lot of high rise. I think our tallest building is four stories. Yeah, it's four stories and so a lot of ours is one single to two level and spread out a lot. And so some of these access points and some of the point-to-point devices that we use are good up to four to five miles between. So as long as there's line of sight and there's not trees in the way and a bunch of things in the way, it should be just fine.

Janelle Beverly: Great, thank you. And Bobby feel free to -- I'm sorry, Juleian, feel free to jump in if you have any additional content to add. The next question we received is, "How are you managing your global deployed network? What alerts you have outages?"

Bobby Coulter: Juleian, you want to take this one?

Juleian Curtis: [inaudible] So Bobby, you say something to me?

Bobby Coulter: Yeah, Janelle, had a question about [inaudible]. You want to answer it?

Juleian Curtis: Yeah, for our systems and [inaudible] meshes, probably better suited for slightly smaller structures or kind of townhouse [inaudible]. I think the mesh would be perfect for developments laid out like that that aren't like a more traditional five and eight plus story high rises. In terms of our outages, we actually have an organization that's kind of managing it, a monitoring system put in place so they remotely manage it and they have a dash board that triggers them with different alerts and outages, and they can troubleshoot and correct it remotely they will. If not, then they kind of trigger an email to our IT staff and we'll deploy somebody to go on site and address the problem or try to see what the issue may be.

Janelle Beverly: Okay. Great. Our next question is, "Was there any existing programing for digital training after Housing Authority previous to ConnectHome USA activities?"

Juleian Curtis: Yeah. In the past we received -- I wasn't at the Housing Authority for it but we received neighborhood network grants that helped fund constructing several computer labs on many of our sites that brought training along with it. Those dollars that expired, I think, several years before ConnectHome was brought into play or we recycled it as a pilot community. And then, since that time, we've kind of reignited things, but it had. So I guess the short answer is no, not consistently, but ConnectHome was able to kind of reignite our desire and look more intentionally for partners to help provide training if we couldn't do it ourselves.

Dina Lehmann-Kim: Bobby, how about for you?

Bobby Coulter: So the CPCU grant that paid for this, at least the broadband installation, it was right around the same time as the ConnectHome kickoff. But we as a Housing Authority, we have kind of made it our mission to put computer labs and -- for the community spaces to have Wi-Fi so that's built in to a lot of our redevelopment thoughts and budgeting.

But it was all around the same time, but I think ConnectHome definitely, A, gave us more of an immediate reason to do it as there's guidelines and things that we can follow versus just saying that we want to do it. And then, yeah, but the funding itself at ConnectHome doesn't have any money attached to it. We still had to figure that out. So there were existing grant programs but not necessarily kind of a model to follow like ConnectHome is.

Janelle Beverly: Great, thank you. And we have a Ms. Vivian Crawford has a hand raise. I'm going to unmute your line. Feel free to voice your question.

Vivian Crawford: Okay. Good afternoon everyone. What I wonder is, if your Housing Authority purchased any PCs from PCs for People perhaps through your resident participation funds or if you had grant money left over where you were able to purchase -- actually, I have two questions. That's the first one -- were you able to purchase some of the PCs to give away as incentives to residents?

Juleian Curtis: Yes, yes. You could take bulk purchases online or depending where you're located, in person, through PCs for People as the Housing Authority and then in turn if you wanted to distribute those for free or in whatever manner to your residents you have the ability to do that. They can partner or have the ability and certainly have partnered with the Housing Authority to do things like that.

Vivian Crawford: Okay. So you're saying yes that you were able to use resident participation funds to purchase some computers for them or was it just left up totally to the resident to purchase the computers from PCs for People?

Juleian Curtis: Yeah, I'm not sure what the eligibility or what the restrictions are in resident participation funds. I do know that PCs is very flexible with how they work with Housing Authorities and want to work with Housing Authorities all over the country without putting too many words in their mouth so I'm not entirely sure about the resident participation funds though.

Vivian Crawford: Okay. Now, my second question is that the PCs that you had on hand at your Housing Authority, did your IT department refurbish them and put Windows 10 on them or they just gave them -- you had them there available for the residents as they were once the resident completed the four-week course?

Juleian Curtis: So our IT staff, we wiped all the information off of the machine, off of the hard drive and put a new operating system on it. So we'd put a new Windows 7, new Windows 10 on the machine; we had gotten some grant dollars to purchase in bulk a handful of licenses to put on those machines prior to giving them out to residents.

Vivian Crawford: Okay. Thank you. I appreciate that.

Juleian Curtis: No problem.

Janelle Beverly: Okay. Great. We don't have any other questions in the que. One last call, any questions, use the hand icon or send us a message in the chat box.

Dina Lehmann-Kim: While we're waiting, I'll ask Juleian a question about PCs for People." I know you were saying, I had heard this before, that they do tech support. Can you talk a little bit about that? So let's say a resident gets a PC from PCs for People and they have problems with some of the software, for example, could they call PCs for People for assistance?"

Juleian Curtis: Yes, they can. So there's a hotline number that you'll be provided. And I believe it's even affixed to the device. If you get a desktop PC there'll be a sticker somewhere on the computer itself, maybe even on the monitor as well that'll have an 800 number on it. So it's a telephone bank so that you'll be calling where they're based out of, which I believe is Minneapolis or St. Paul, Minnesota, and be put into a queue. And so you'll have a kind of over the phone troubleshooting that can be done.

But they also provide device repairs. This may be more challenging if you're kind of more remote from where their physical offices are but I believe it's normally like it's either, I think it's -- I don't want to get this wrong, but I'm almost certain it's free the first time you bring it in, like if you got a virus or something like that on your machine, they will wipe it. And any additional times would be like \$20 to \$25 and that's the flat charge unless there needs to be a new part, they would charge you for the cost of the part that may need to be replaced on the machine.

But they work with you along many lines. They try to also help you educate the resident, if like there's a virus or an issue that can be prevented based on how you're using the machine they try to implore or coach you up a little bit too so you don't make the same mistakes twice.

Dina Lehmann-Kim: Excellent. That's really good and I know that that's an area that can be a bit challenging for some Housing Authorities, this whole idea of tech support. So thank you for that.

Juleian Curtis: Not a problem.

Janelle Beverly: Great, thank you. And we don't have any other questions in the queue, so we're going to end the webinar at this point. I just wanted to thank everyone for participating. Thank you to our excellent speakers. I think this is a great webinar. We got some feedback, excellent feedback, and if you could take a few moments after the webinar to complete the survey and share with us any ideas you may have for future webinars, we're excited to hear your ideas.

Dina, anything else?

Dina Lehmann-Kim: No. Just thank you again for everyone who participated and to our wonderful speakers and look forward to our next webinar. Thank you.

Janelle Beverly: Great. Thank you. Have a great afternoon everyone.

Bobby Coulter: Thank you.

Dina Lehmann-Kim: Thank you.

(END)