Marcela:

Hello, this is Marcela with Next Stop: Transit Tech and today's episode, we have Delilah Garcia who's the operations director for the North Central Regional Transit District in New Mexico. And we're going to be talking with her about the process that North Central Regional Transit District went through to change up their scheduling process and implemented a computer aided dispatch system. So to kick it off, Delilah, if you want to introduce yourself, tell us about your role and a little bit about your agency.

Delilah:

Thank you, Marcela. ~~So~~ my name is Delilah Garcia, I'm the transit operations director for the North Central Regional Transit District also known as the NCRTD, or if you are in North Central New Mexico, the Blue Bus. We have iconic blue buses and that's pretty much how our passengers know us. We provide service over 10,000 square miles of area in North Central New Mexico, primarily in four counties. In Santa Fe County, Los Alamos County, Real Reba County and Taos County. We have 29 services that are either fixed route commuter service, demand, dial a ride or paratransit services. So we're a pretty large organization. We have about 56 vehicles in our fleet and 83 budgeted employees within the district. It's a regional transit district, so we're our own government entity, and we are focused 100% on transit operations in Northern New Mexico.

Delilah:

So it's a pretty big operation. I like to say, it's a little bit of an animal. We don't know where we're growing or where we're going. I've been with the district for about, little over four years and every year we continue to add new service or modify existing service. During the pandemic we have implemented and are getting ready to implement our third new service. And so, I wonder what we would be doing if it wasn't a pandemic, would we be just as busy or would we be busier? Because, I haven't seen us skip a beat since last March, we've been it running full force.

Marcela:

That's awesome. I know that across the country, a lot of places have had to scale back for ~~like~~ a variety of reasons. So it's really exciting to be able to increase service and know that your ridership is still there and they're asking for new things. And that you're able to provide those to keep up the service that you're running. And also, I like the Blue Bus visual. I was looking at them the other day and I thought that the logo and the starkness of the blue. ~~I'm not sure if this is on purpose~~, but it reminded me of just the landscape of New Mexico and the ground and how blue the sky is. And I was like, "Oh, that's really, really pretty."

Delilah:

Even our building, our headquarters in Espanola is blue. And so it's very intentional, it's a way to make the service or the RTD, the NCRTD stand out. And so, like I say, we've done some passenger surveys in the past. And one of the things that comes up is when you're asking a passenger, "What do you know about the North Central Regional Transit District?" And when you tell them that, they're not sure what you're talking about. But when you say, the Blue Bus, or if you tell somebody I work for the NCRTD, and they'll look at you with a blank stare, like, "Okay." But when you say I work for the Blue Bus, they have this excitement, this look in their eyes that just says, "I know. I see your buses everywhere I go."

Delilah:

And so, they're very out and in front, in your face, there's no way you could miss them. And a lot of people will inquire about the service just because they see a Blue Bus. Well, "Where does your bus go? How could I use your bus? What's the fare to ride?" And so, the other thing that really surprises the majority of people that are calling in, would be the fact that we don't charge a fare. We're primarily a fare free system. And so, you could get pretty much anywhere in that 10,000 square mile radius, from your pickup to your drop-off, you could ride for free.

Marcela:

That must be a really great experience to be someone who's just curious.

Delilah:

Right. We try. I think we've worked very hard. We have a very supportive board and quite frankly, the constituents that we're providing service to, they're supportive of the service. We receive a sales tax to fund majority of our operation. And so, a lot of the people that are paying into the sales tax, buying those goods and services, don't necessarily use the service, but they know somebody that does. Or they know that if they have an elderly parent or an aunt or a niece or a nephew that needs to use the service, it's there and they don't have to worry about the pay.

Delilah:

I like to say, we're RTD unique.

Marcela:

RTD unique. I think that's definitely true.

Marcela:

Well, before we get started, we started this tradition after Andrew and I were doing the first episode, where we're asking all of our guests to share their story, about your journey into the transit world. Everyone just has some moment that they entered and once you're in, you just stay in it forever, I think.

Delilah:

I agree with you 110% with that statement.

Delilah:

So my story, I was not somebody that said I want to work in transit. I started working with a small agency just North of our offices here in Espanola. With the town of Taos Chile Line. And that was in 2004. The reason I decided to work in it, I will tell you that it was not an easy sell. I had the transit superintendent at the time, was looking for an administrative assistant/a dispatcher. And she would call me on a regular basis like, "Hey, I've heard really good things about you, I would like for you to come work with us. I need an admin assistant. Maybe there may be some driving that you would have to do, but it wouldn't be too much."

Delilah:

And when she would call me, I would see the phone number and I'd be like, "Nope, I'm not interested. Every time I'm trying to get to work, I'm always stuck behind that bus. I don't want to do this." And so, I decided, one day she called me and she said, "Look, can you just come over and let me explain the job to

you and just see what you think." And so, at the time I had my daughter, she was maybe three years old and I decided that it was time for me to look for a job that would provide me better benefits and opportunities for myself and for my child and for my family.

Delilah:

And so, I said, "Okay. Look, this is what I have going on," I was still working on my degree at the time. They were willing to give me a raise from what I was making at the job that I was at prior or currently, I guess. And they told me I could have flexibility to continue to take my classes at the local university. And if I needed to take care of my child, they would let me do that too. So I wasn't like a hundred percent onboard with it when I first stepped in, because I just saw it as a stepping stone. It was a way for me to get into a job that would have the benefits. It was a government agency and so I would be able to retire at some point.

Delilah:

And I can tell you that, almost 17 years later, I have never considered another job outside of transit. Transit is where I'm at, and I know when I do reach retirement age, I will be here for a long haul. I will do something outside of transit within a local government. I could work in some type of transit field outside of this, and I love it. It's my passion. I feel, you get a greater understanding for what the need is and the passengers, the community, the sense of family that you have, within the transit industry that I never really saw in prior jobs. And so, yes, I didn't choose it, it chose me and I'm so glad that I was able to find it because I have met wonderful people working in this environment and in this field. A lot of passion and heart. Oh yeah, that's my story.

Marcela:

I think when you said, you didn't choose it, it chose you, that's so true. And transit is really personal from the people that you work with, whether it's the operators or dispatching team, to the people you see riding the bus, and you get to know people in your community. And I think that that's the beautiful thing about transit is that, when you're riding a bus or sharing a vehicle, meeting your neighbors and the people who go to the same grocery store at the same time you do. And it just builds such strong communities. So I fully understand that feeling.

Delilah:

I really do. When we're onboarding new employees, we have a drivers Academy. And so what we do is, we'll bring people in that have absolutely zero transit experience and really it's an opportunity for them to be able to test out the job. And it's an opportunity for us to determine whether or not they're a good fit for the organization. But one of the things that I tell them is, it takes a special person to be a transit operator. A lot of times we're going through interviews and people will tell us ... You'll ask them, "Why do you think you're a good fit for this job?" And the first answer that always comes out is, "I love to drive." Well, I love to drive too, but that doesn't necessarily mean that I would be a good bus driver.

Delilah:

And so, I really try to stress to them and to explain to them that, it's a high level customer service job. Nobody ever tells you that when you're driving a bus, all of a sudden you're going to be a traveling information center. Nobody tells you that you're going to become one of your passengers best friend. Nobody tells you that now you're a therapist and you're going to listen to everybody's problems and you are going to build relationships and friendships with the passengers that you're transporting. For a lot of

the passengers that we move, we may be their only conversation that they have when they're calling dispatch for that day. We may be the only person that they have talked to, when they get on that bus. And so, all of a sudden you have this strong pull for a passenger. You want to be able to help them any way you can. You feel for them when they're not feeling good or when they're sick or when they're not getting out. You're concerned when you haven't seen them after a couple of days or weeks.

Delilah:

And so, it takes a toll on you as a transit operator to be able to provide the service and still try to maintain that boundary of, "Yes, I'm your transit operator, but I also, am concerned for you." And so, there's quite a bit that we don't really recognize when we're stepping into these jobs, where we're not just driving a bus in circles all day long. We're the ones that are dealing with the incidents on board the bus, the upset passengers, the people that are so appreciative to be able to get that final ride home, when their car has broken down or there's nobody that could get them from Taos to Santa Fe to make an appointment.

Delilah:

And so, it's just those little things that you really come to appreciate, and you really understand and try to support the need of these passengers and these individuals. You want to be there to do everything and anything you can, to get them to where they need to go. It's for us, a lot of the service that we provide, is quality of life. We may be their only opportunity to get out. What we see is a lot of individuals that live within the communities that we serve, don't necessarily have family close by. Just like we were talking earlier, they pick up and they move from a larger city and their family is not here. And so all of a sudden, they have a small transit family and you don't ...

Delilah:

The number of times that I pick up the phone and try to schedule a pickup for a passenger, and all of a sudden, they realize that they're talking to me and they have these great stories to tell me about the staff and what so-and-so did for them and how much they appreciate the service. You know that you've done everything you can to help those that need it the most.

Marcela:

Those are the stories and the anecdotes that really ... I don't know, they mean so much. And it's only the tip of the iceberg of what sorts of things transit does for people. What is the work that goes on behind the scenes to make those stories of getting someone to their medical appointments from Santa Fe to Taos? How does that all happen? Tell us a little bit about the process that NCRTD previously used for scheduling and dispatch to paint a picture of what was the before.

Delilah:

Before was, we used Excel, a basic Excel template that we built to schedule passenger trips. The trips were broken out into half hour increments. And so, if an individual called and they said they wanted to pick up at six in the morning, then the next pickup available would it be 6:30. And we scheduled those trips until the entire day was filled for that driver. So it was pretty easy. It wasn't too complex. Our dispatch really appreciated it and I would say in some circumstances, they preferred it, because they could see it all on one page.

Marcela:

Having all of the information in one central place is so helpful.

Marcela:

Very cool. So what were some of the pain points that you wanted to solve, when you decided to transition to technology? Or I guess maybe a better way to word that question is, what drove the decision to move to a new system?

Delilah:

The decision was made even before I was an employee of the District. So in 2000, I would say 2013, the District went out for a procurement for an AVL system. And part of that procurement included scheduling software as well. And so, it was a more of a push to bring technology into the organization, to be able to better manage and monitor the equipment and the fleet and the operators and ensure that routes were being operated as scheduled. And so, the undertaking of the AVL system is what drove the move for the scheduling software update also. And so, again, that happened, it was fully implemented in March of 2015, which was a year before I started working with the district.

Marcela:

Interesting. AVL systems in my experience with them at my prior agency, there's a lot of value I think, in having that ability for internal purposes. I mean, being able to track on time performance, seeing where vehicles are. And I know that, in my previous experience, it was immensely valuable for dispatching. Especially on the fly, new dispatchers had to do a lot of work as far as switching out vehicles.

Marcela:

I know that you mentioned that, the decision was made a year before you started working with the District. But in the procurement process, what capabilities was the board and RTD looking to accomplish?

Delilah:

Well, I think part of the capabilities and the functionality was to, again, be able to monitor the routes, ensure that they were operating as they were advertised and promoted. But then there's also like a safety component. So just keep in mind, I mean, at that time, that the service area was maybe 8,000 square miles. I can't really tell you the exact mileage at that time. But the District was growing and they recognized that technology would help with that growth. And so, monitoring the routes, especially when you're having our headways from one area to another, you needed to make sure that you could be able to monitor that vehicle through its entire trip. If there was an emergency, you needed to be able to make sure that you could see where the bus was if you needed to send emergency services out there or a supervisor.

Delilah:

And so, I think that, again, the board is very supportive. We have an executive director that, he's fully onboard with technology and wants to ensure that the District uses it to its benefit, a hundred percent. And so, I think with the scheduling software, that was a similar concept and need. The need to be able to schedule and find the efficiencies because that's one of the things that you really, as you're starting, and maybe this is something I should have explained earlier, the District is fairly new. Service out in the street didn't begin until October of 2008. So we're a fairly new organization, but we're a very progressive organization.

Delilah:

We look at technology to see how it's going to help us to improve the system, to find those efficiencies, and to be able to better utilize those resources that we're receiving. Whether it's from grant funding or sales tax, or some other funding source that comes in. As far as the scheduling software or just going back to that, it's looking for efficiencies, making sure that we're utilizing our resources as best as we can.

Marcela:

But, wow! I didn't realize how new the District is. And that's just an impressive amount of growth from 2008, to now, 2021. And it's really great that the board and leadership at the District see technology as, it's not always going to be a perfect fit solution, but it's something that's a tool, that teams of people can use as an asset to make things more efficient, to streamline them, to make them easier to do. So that's really great. And it seems like technology has been really key in this immense growth that you all have been experiencing.

Delilah:

Yes. I can't imagine what we would do or how we would have do it if we didn't have the tools and resources that we have. Because we do, we're always looking at new opportunities to find those efficiencies, to ... you know right now we're going to be working on a land mobile radio infrastructure upgrade. And it just goes back to that exponential growth that we've seen. When we first started out, we had such a smaller service area and we had four counties that we were providing service within, but now we've stretched out to five. Well, I guess eight counties total, and four of them are outside of our primary service area.

Delilah:

And so, we don't have the radio infrastructure in place to be able to have that one-on-one communication with our operators on the radio. So we rely heavily on our AVL system and our scheduling software as well. Our scheduling software because we're able to communicate with them, while they're out in the field and let them know, "Hey, client one, two or three canceled their trip." Or, "Client four, five, six is waiting at the back of the store." So we're able to have those types of conversations with them without having to communicate via radio. Or letting the rest of the passengers know what's going on.

Marcela:

No, that's very cool and so necessary. Especially once you start getting outside of where you have the capability to use your radios, it seems like it makes it a lot more seamless as far as communication. Thinking through, all of the options of scheduling and dispatching software, what was that process like to learn about all the options that were available? And just drill down on what the right fit was for what the board and what the District was looking for.

Delilah:

So the scheduling software that was selected was selected as part of the AVL procurement, right?

Marcela:

Mm-hmm(affirmative).

Delilah:

And so, we knew ... Well, I guess we didn't know. When we chose the vendor for the AVL service, they had a subcontractor for the scheduling software. And so, after going through the procurement and receiving proposals, it was determined that this AVL provider was going to be the selected provider and the scheduling package that came with their procurement or their bid was what we would be using as well. And so, yeah, I can't say that there were a lot of demonstrations for the scheduling software. It was a sub component of the overall AVL system.

Marcela:

That makes sense. One thing that is an aspect that you look at with technology is interoperability and the ability of systems to be able to work well together. So it's interesting that the AVL provider also had a subcontractor that was able to coincide with that system. I know that there's times where some softwares don't play well with others. So that's definitely an asset to have.

Delilah:

Right? And it's really important to be able to have them communicate, just because, pretty much, there may be two separate software packages, but you're still trying to accomplish the one goal with the two. And that's to monitor the routes and operator performance.

Marcela:

Yes. Very true. That touches on my next question about how you and the other decision makers got buy-in from the end users of the software. What was that process like working with the dispatchers and supervisors?

Delilah:

There were meetings that were had with staff just to let them know what was happening and that we were to be moving towards these new tools and resources. And so, it took a little bit of time to get to that, just because of the, again, the overall procurement. It was a joint procurement with another transit agency in Los Alamos. And so, between the two, they were able to make sure that training was going to happen with the staff and those users of the tools. I can say that, when I came in, in 2016, that it still wasn't fully implemented. And so, it gave me an opportunity to come in and have conversations with staff and let them know that, this was the tool and the resource that we were going to be using, because we were still using paper tallies to track ridership, even though we had the ability to track the ridership within the bus using a mobile data terminal.

Delilah:

And so, I couldn't believe, and this was out of my own selfishness, I had my assistant was out on extended leave, and I had to compile the ridership reports. And when I realized that we were manually counting paper tallies, or the ridership from a paper tally, I just said, "No, we cannot do this. This absolutely has to stop." Because, at that point, we probably had 25 routes and you were looking at multiple tally sheets per day, for 22 days of service. So at one point I think I counted like 700 tally sheets.

Marcela:

Oh.

Delilah:

And that included the demand, the manifests, because we were also reconciling those manifests daily. So I was able to, during one of our staff meetings, I explained to them, "This is the equipment." I think there were some issues initially with the implementation where, some of the staff they were resistant. They didn't want to use this technology, it was something new that they had to learn, and they weren't interested in learning it. A lot of times we would get the comments and the feedback that the equipment wasn't working. And so, we just took their word for it and said, "The equipment isn't working and so, here's the tally sheet just follow the route the way you needed to."

Delilah:

When we started becoming more familiar with the equipment and the software and the program, and really utilizing it, in dispatch, we were able to familiarize ourselves enough with the components. That, once we built confidence in it internally, then we could start communicating that with the operators out in the field. And so, after the exercise of counting many, many tally sheets, I had a staff meeting and I explained to them, "Look, we have this equipment, we don't need to be writing hash marks on schedules to count our passengers. We will only use those during instances where that equipment is down. What do you think about this?"

Delilah:

And so, once we got that buy-in, we set a date, we trained the staff on how to enter the ridership, and we eliminated the tally sheet. And so, it was just having that conversation with them and letting them know, "Look, this is a tool that we have, we're going to start using it. When do you think you will be comfortable to get this process going?" And I can tell you that that happened in, maybe 2018, and we've been using the MDTs on a daily basis to track ridership. So that was one component. The other thing that we did is, what we were recognizing, and this is a practice that we're still working on. The AVL system that we have and the scheduling software that we have, we're still familiarizing ourselves with it. We know that it has the potential to do so much.

Delilah:

But for such a long time, and more specifically with the scheduling software, we manipulated how it would operate. And so, we never let the algorithm fully build and find those efficiencies. And so, during that same timeframe, when we decided that we were going to start going paperless with tally sheets, the direction to dispatch staff was, "Do not schedule manual trips. You need to schedule automatic trips and let the system find the most efficient way to operate a route." And so, that was a challenge because the mapping system that the scheduling software uses, is an open source map. So it doesn't necessarily know that there's a river that you have to pass before you could get to somebody's house. Or that there's not an entrance in that direction that they're calculating the time. Like a five minute trip is actually a 15 minute trip.

Delilah:

And so, those are some of the discussions that we've had to have with our provider, and really trying to, "How do we update these maps?" The resolution has been that we report any changes to a map or any additions, we would report them to the open source map ourselves and hope that they add them or approve them.

Marcela:

I think you touched on so many important points. I guess the first takeaway is about the buy-in and to putting the technology into context, so that people have a full story view about how this technology is going to help operations. Because, I feel you on the counting the tally sheets it's a cumbersome process. And once you know you have the tool to streamline it, and you can get people to be like, "Oh, this will make my life easier and this will make things more accurate."

Marcela:

We are working on a guidebook at N-CATT on software adoption, and I guess, a little sneak peek preview is, the author of that guidebook had mentioned that, once you adopt a software, a lot of times you have all of these functionalities, and it's just a matter of adopting those into the agency practice. And making sure people are comfortable and that they're able to create an equivalence of, "This is what we used to do, and this is what we do now, and this is why we're doing it that way." And then from there, you can really make full use of your software purchase.

Delilah:

Well, and that's so true. And that's one of, I'll say for me, in this year, one of my goals is to learn everything there is to learn about the AVL system and the scheduling system that we're using. Because, we can complain about it and we can say it doesn't work, but how do we know that it's not working because of something we are doing or not doing? And, again, that goes back to the buy-in, if the operators feel that we don't have confidence in the equipment or the software that we're utilizing, it's going to be expressed when, our frustration will be their frustration. When we're telling them, "Well, such and such doesn't work," or, "Such and such is junk," or whatever it is we're telling them.

Delilah:

And so, I'm having those conversations with my supervisor, staff, with the transit manager, the fleet manager and our planning specialist. And so we, as a collective group, are sitting down weekly and we're participating in webinars so that way we can become more familiar. A lot of the components and the functionality, I have had to learn myself because, I really felt I can't expect my staff to use this equipment or the software, if I don't know how to use it. And so, a lot of times I go in and my whole line of training myself has been, "I can't break it, there has to be a backup somewhere."

Marcela:

Yes.

Delilah:

And so, when I learn something, I'm showing my staff, "This is how you use it. This is what you do. This is how we create this route or this trip and this is how we add a passenger." During the pandemic, I've had to use our scheduling software more than we have ever used it. And we use it to reserve seats on even our fixed commuter routes because, again, those headways are so ... They're such a long distance, it can be an hour and a half from one community to another, and we don't want to leave anybody stranded. So we are trying to follow our State's guidance and limit the number of passengers that can be on board, our vehicles. And so, we have four passengers that we can provide a service to because a lot of our vehicles are smaller cutaway buses, they're 14 passenger buses.

Delilah:

And so, we figure with the four passengers, all socially distanced and the operator, we have a total of five onboard of the vehicle at any time. So the scheduling software comes in very handy when you're trying to ensure that we're not going to be over that limit. And so, the passengers know they have to call in and schedule their trip. It's not that we want to know all their information or their business, we just want to ensure that they're going to get to their destination and they have a return trip when they need to go back. So that has been really beneficial. We've had to create more runs in our demand service than we ever had. We probably had, I would say, six, a year ago, and now we're up to about 23.

Marcela:

Wow!

Delilah:

And so dispatch has had to really learn how to schedule them and make sure that they're getting on the right buses and at the right times, right bus stops. And it's been interesting, but the software has really helped to make it easier.

Marcela:

That's a really good co-benefit to have, I guess, an unexpected one. But to be able to utilize the software to help with passenger limits and ensuring that distancing is being followed on the bus and avoiding overcrowding. I think that's really helpful to the rider as well, so they can understand what they're expecting and it allows more flexibility for them to plan their day. And it's so important when headways are an hour or an hour and a half, to be empowered with that information.

Delilah:

Right. There definitely are pros and cons to this.

Marcela:

To the point that you were making, highlights something really important about technology. And it's that, the human aspect of having on the ground knowledge, in tandem with technology and with these tools that you have, that's the most powerful combination. Because there's no way that technology or algorithms can know some of the qualitative things that you get to know as someone who drives around every day or a dispatcher that has lived in the community for ever, that also she knows that, there's a river blocking someone's house and that map just doesn't capture that.

Delilah:

Right. Well, and that also causes frustration between the operators and dispatch because, dispatch all they're doing is scheduling. All they've done is they've taken the passengers information and they're entering it into the system. We have the functionality to be able to geocode addresses when we're scheduling a trip. And it just goes back to that mapping functionality. If it's not a reliable source or it's not updated on a regular basis, you can geocode it, but it's not going to give you the best information or the most current information.

Delilah:

And so, we often hear a lot of concerns and complaints from the operators that, "No this trip to pick up somebody at nine in the morning, and then the next pickup is at 9:15 all the way across town. And it's

going to take me 20 minutes to get there." And so, that's one of the biggest issues and concerns that we have with the scheduling as being able to really make sure that we're trying to build that algorithm, so it really knows what's the most efficient route. But then also trying to explain to the operator that, "No, you're not going to have a region or area that you're going to provide a service." The system has determined that this is the most efficient way for us to operate the route. And that, in their mind is just like, it makes absolutely no sense. Why do you have me running from one corner of town to the other in 10 minutes?

Delilah:

So, yeah. Those are some conversations that we have on a very regular basis. And all I tell them is, "Just give us the opportunity to use it the way it's intended and if something needs to change or we need to update something or upgrade the mapping function, then we can do that. But we're not going to know until we use it to its full potential."

Marcela:

You don't know what you don't know. And I think the best way to solve that is just to be like, "Well, let's try it and we'll see how it goes." And you may be surprised or you might have feedback that makes it better.

Delilah:

Absolutely.

Marcela:

I guess, aside from transit, that functionality is available on Google Maps when you're trying to get directions from somewhere and you're like, "Okay, well I need to go from point a to point B, but while I'm doing that, I also want to stop and get food." So it deviates you. And I think that, it's cool that transit is being able to utilize those algorithms to make those trips more efficient. Because yeah, regions don't always create the most efficient routes.

Delilah:

Well, the other thing with the scheduling and when you really start looking at how the trips are scheduled if you allow the software to operate it the way it's intended is that, you demand and paratransit trips and dial a ride, a lot of times they're single trip services. And so, when you allow the system to do its job, then you can see that there are more shared trips. And on that end, the passengers are so used to what they considered, basically a transit taxi, they're not as comfortable riding with other individuals.

Delilah:

They don't want for people to see where they live or they don't want for the kids to be on the bus with them. And so then that opens a whole other can of worms. And so we try to explain to them also because, those are the complaints. Those are when I start getting the phone calls. "I don't want to be riding in the bus with these students, why can't you send another bus for them?" And so you start explaining, "Well, this is the most efficient way for us to operate services. The driver was in the area at this time and they're going to be picking all four of you up at the same time." So it does come with it's ... There's always pros and cons and it's really just informing the operator and informing the passenger of what's going to be happening.

Marcela:

Informing them about the process, the whys and the hows and, having this service and making it more efficient is what makes the system run. And it's what keeps the wheels on the ground and keeps the service that they are accustomed to, just a little bit different.

Delilah:

Right.

Marcela:

So as far as this software deployment, how is the agency measuring success?

Delilah:

Well, I think, again, we're trying to better inform ourselves and educate ourselves about all of the functionality, before we can determine whether or not it's been successful. I know it sounds a little late to be trying to learn everything we need to learn, but we don't know if it works until we know the way it works. And we do know that there are some issues and concerns that we have with it, but in order to really determine if they're valid or not, we have to educate ourselves. And that's where my staff and I are out right now. We're trying to better understand and inform ourselves, educate ourselves so that way we can really articulate what our problems are.

Delilah:

And so at this point, we're still in a learning process, hopefully within the next year, we'll know more about, both of the software packages that we have. And be able to determine whether or not we can use them to full potential or if we're basically tapped out and we need to move on.

Marcela:

That makes sense. And it's never too late to be in the learning process. As things evolve, especially I guess one example is, with the pandemic changing the way that operations occurred, it's like, how do we adapt what we know about this software, so that it can help us for this external condition, so that we can respond to it better? Or if there's an update to the software or an update from the vendor, how do we learn this new thing? So I feel like the implementation of technology, it's always continuous and there's always new things to learn.

Delilah:

Well, and that's why, for us, we're doing the cross training. And so, we can never say that, none of us knew how to use this. It's basically, we're all learning, there's a number of us that are learning and then we'll go out and teach the rest of the staff, but it includes our electronics vehicle technician, who will learn about the backend of the software and the system. And it will help him to troubleshoot and diagnose what's happening out in the field with the equipment. And so, it's just this full ... We're really dedicating the time to fully understand what we need to because, there's no benefit in me being the only one to learn it, if I'm only going to use it for 20% of the time.

Delilah:

It's more beneficial for me to learn it along with my staff who in turn, are going to be teaching our dispatchers how to use it. Who will then be teaching operators how to use it. And so, the cross training

side of it is really important for all of us to completely and fully understand. I also think I have one of my dispatchers training with the electronics vehicle technician right now, so he can assist with troubleshooting and diagnosing from dispatch. When there is an issue or concern with an MDT or a schedule, a manifest not pulling up. And so, we are in a learning mode right now and for us it's necessary, but it will also be beneficial in the long run.

Marcela:

Yeah, definitely. I think it paints a holistic picture for everyone at the agency. And like you were saying that cross training allows for people in different departments or with different job functions, to be able to help their peers succeed in what they're using that software for. Or to help troubleshoot, I think that's really great and a model of how software adoption should look like. So that everyone is aware of this thing that we use together and how can we all use it better to communicate or to understand what someone's doing here versus over there? So that's really cool.

Marcela:

I know you've touched on this a little bit throughout our conversation, but what are some areas of improvement that you see most valuable to the agency's operations in relation to the software adoption?

Delilah:

Well, again, I think if I need those efficiencies and allowing the software to be able to help us identify the efficiency. To identify our on-time performance for our passengers. Are we meeting the requirements of the ADA? Are we making sure that our service window is as accurate as we say it is? And so, I think being able to pull those key performance indicators, to evaluate the service and how we're operating it is very beneficial. Using an Excel spreadsheet and having an operator manually enter mileage and pick up times and drop off times, isn't necessarily reflective of the service. Because if they travel 10 minutes down the road and they forgot to enter their time, now they're just guesstimating.

Delilah:

And so, I think that the software has helped us with that. And at one point, I mean, I'll tell you we've used a number of different software packages for different things. We have been able to find efficiencies that were never there before. And so, it's nice to be able to have the software to determine and verify and really validate, "Yes, this is why I need five transit operators for demand service." Or you turn around and look at, "Well, maybe we only need three."

Delilah:

And so, software helps with that. It really has helped for us to determine where the need is and how many bodies we need to be able to provide this service. Is this the true demand or is it a inflated demand? And at this point, we know we have a true demand based on the number of reservations we need.

Marcela:

That's awesome. And yeah, having all of the data just based on the trip scheduling, the distances, I think that that does definitely provide a better picture of where the efficiencies can improve and also it just provides so much information that you can use, when you're making those decisions at the end of the day. On, like you were saying, how many operators you need for a service. And I imagine it's really nice

to have all of that information as you're making presentations to the public or to the board. Whenever there are questions like, "Oh, what was the information that went behind that decision?" And you're able to point to all of those things that you're like, "No, this is what our software r This is the evidence that we have."

Delilah:

Right. It's there in black and white and there's really no debating it. It is what it is. And so, I think it's important to be able to have that information. And just like you said, when you're making a presentation to the board, those are your stats, that's what you're doing, that's how you're performing. And if we didn't have that, we would be manually calculating mileage for every tally sheet.

Marcela:

Oh my God. I would imagine that having some of that process automated is also very helpful for NTD reporting.

Delilah:

Yes. Absolutely. It's a lot easier. We're a pretty complex system, just looking at the funding sources that come in, we have federal funding from the Rural 5311 funding source. We have tribal transit funding, we have gross receipts tax. We have capital funding from FTA. There's all of this funding that just comes in, in different areas. And without technology, how would we track it all? And so, again, I can't say it enough but our executive director is really on board with technology and being able to find those efficiencies. And so, having that support makes it that much easier because it's important for us to have accurate data, to be able to report to whether it's FTA or New Mexico DLT or the constituents that are wanting to know where are my tax dollars being spent.

Marcela:

Very true. And you can just show them, "It's right here and these are all the awesome things that we're doing with your tax dollars and with our federal funds."

Delilah:

Yes. It's a lot easier. And I think if we had to go back and count thousands of tally sheets, just to calculate that data, we would be pulling our hair out.

Marcela:

Yes. And it frees up time to be able to work on things like your next service expansion and to really use your time on more fun things than counting tally sheets up. What are some of the greatest lessons learned for other agencies looking to use computer aided scheduling tools?

Delilah:

I would say, operator buy-in and it's really user buy-in. You need to make sure that you have those honest conversations and you give your staff the opportunity to learn and train. And explain to them and let them explain to you what their issues and concerns are. Because, if you don't have that buy-in, it's going to be a hard sell to the rest of the organization. And so, we all want to say, right, we want to be able to speak our mind and speak our piece and have a say in what's going to happen within the

organization. And I think that's where you start, you can explain to them and you can sell it to them and let them speak their piece also.

Marcela:

Definitely. I think that their voices and it helps with the procurement process I've found in the past to be able to parse out, what are some of the potential roadblocks, from the perspective of the end-users, just to get ahead of the curve. And either working with that vendor or just being able to know, "This is going to be an issue eventually, so let's address it before the storm."

Delilah:

Right. Right. Because that's the last thing you want is to be having to justify and defend a decision you made with no buy-in from your staff.

Marcela:

For sure. And then the training process will be a lot easier if your staff is excited and ready for this change. It'll smooth things out. Knowing that the process can never be perfect, it's always helpful to foreshadow some of those things that may occur to make it as smooth as possible. But as we both know, in the transit world, you can never know what is ahead until it happens, and you're like, "Oh, okay, well, for next time."

Delilah:

Right. Right. Keep notes. I have notebooks saying, "Of course, next time."

Marcela:

Me too. And I think this question is more full circle. I know that at the beginning of our conversation, when you were talking about all the exciting things that were happening at your agency despite the pandemic, which is really excellent news, looking forward, what is next for NCRTD?

Delilah:

Wow! Big picture, we have some construction projects that we're going to be working on. One will be in our backyard starting this spring. We have another one in Taos, where we're building an admin and operations building, and that'll probably happen next year. Within dispatch and operations, as I mentioned, we have our land mobile radio upgrades that we're going to be working on, and we're already working on them. We're going to be doing another software implementation with asset management software. And so, we got to make sure we're maintaining and keeping up and tracking all of our buses and support vehicles and bus shelters and whatnot. So that's a huge undertaking that we're going to be working on.

Delilah:

We're exploring the electric vehicle field. And so, we received some federal funding for electric buses and that's next on our plate. We're going to really be doing a full blown analysis on what electric vehicles look like for NCRTD and what type is going to be best for our service area. And then, we're looking at micro transit. Well, in 2019, we started working on a service plan update, and so recommendations from that plan have been to explore micro transit in some of our service area. So we're really excited to see what that looks like and how we're able to use it maybe for, either to

enhance, or to perform as our scheduling software. So that's an exciting piece of work that we're going to be looking at in the very near future.

Delilah:

So we have a lot where, like I said, we don't skip a beat, we continue to do what we do best and we're looking at technology on a variety of different levels and platforms to help us do that.

Marcela:

That is so much. But it's exciting and I mean, I think at the end of the day, a lot of those technologies that you're looking at are really getting at the heart of what a lot of the things that we just talked about as far as, finding efficiencies, whether that's operational efficiencies on the backend, to make operators and dispatchers and other operations staffs lives and jobs, more streamlined and easier. Or more streamlined in the eyes of a rider and being able to utilize micro transit and also electric buses. Which is, congratulations on the federal funding, which is great for environmental quality and health. And they're really cool looking vehicles.

Marcela:

So that's all really exciting stuff. I'm excited to see where NCRTD is in the next, like 10 years, since there's already been so much growth and so much great work coming out of New Mexico. And I'm excited to see where things go. It sounds like you have a really great team with you, that is ready to take on the ever-changing world of transit technology.

Delilah:

Yes. I think everybody is pretty supportive. I do have an excellent team of staff that work with me and colleagues. I mean, it's really nice to work for an agency that is a hundred percent focused on transit. And so you're not having to compete with other departments for marketing dollars or for full-time employees or whatnot. I think we have a great group of staff at the District and everybody is just as passionate about the service that we're putting out on the field as the operators and the passengers feel it. And so, it's a great, great place to be.

Delilah:

And I've watched the District from inception to coming to fruition, putting that service out in the field, and it's nice to be apart of that growth and that progressiveness. Just to be able to step in and say, "I'm right there with you watching it grow and making it grow."

Marcela:

It's almost the blue color of the buses, the opportunities are endless. Just like the sky is endless, which is sort of cheesy, but that's what I'm envisioning in my head.

Delilah:

Oh my God, I'm going to use that.

Marcela:

It's the next tagline.

Delilah:

Yes. Well, and that's so true. I tell my director, "We're so busy, we have so many projects, we're spending lots of money. But would we be busier if we weren't in the middle of a pandemic?" And so, yes.

Delilah:

Possibilities are endless. We will do what we need to and we have been very fortunate. We have a lot of support.