Andrew:

~~All right.~~ Welcome everyone to next step transit tech with the National Center for Applied Transit Technology. This is Andrew Carpenter, the director of N-CATT. And then I'm here today with Marcela Moreno, a transit technologist, and two folks from Duluth Transit Agency in Duluth, Minnesota. We have Christopher Belden and Dan Clark, and DTA, in partnership with Masabi in Transit app launched the MyDTA Fare Payment System. And we wanted to talk to them about that today. So the launch gives DTA's passengers the ability for a more seamless experience of mobile ticketing and trip planning, and helps to facilitate that idea of the complete trip for passengers, so they can plan and think through their whole journey of where they need to go and know how they're getting there.

Andrew:

And the launch is anticipated to provide shortened boarding time and also to provide riders and operators a more efficient and safe experience, and to generally make life better. So with that, hello, everyone. And thank you for joining us today. If you could all introduce yourselves, and while you're introducing yourselves, tell us about your journey into the transportation industry. And also give us a little bit of background about DTA?

Chris:

Thanks, Andrew. And good morning. I'm Chris Belden. I'm the director of planning and grants at the Duluth Transit Authority. A little bit about the Duluth Transit Authority. We are a kind of a small city transit operator. We operate in two states. We're in Duluth, Minnesota, and Superior, Wisconsin. And we've had transit within this region for over a 100 years now. So there's kind of a longstanding tradition of transit ridership and it's been a part of the community fabric for so long. We've got about 180 employees. We have about 2.8 million passengers per year, and a fun fact about us, we're doing a FTA pilot project with seven electric buses. So kind of interesting little system up in northern Minnesota with a harsh winter climate and some hills, and we're right on Lake Superior.

Chris:

A little bit about myself. I've been with the Duluth Transit Authority for about three years now. My education is in community planning and development. And prior to coming to the Duluth Transit Authority, I was a transportation planner with Duluth-Superior Metropolitan planning organization. So I worked closely with the DTA on many projects, so it was a smooth transition right over. And how I got introduced to transit specifically was while I was attending college, I utilized their U-Pass Program where rides were free. So that introduced me to riding the bus and I really enjoyed it.

Chris:

So when I started the job at the MPO up in Duluth, I actually parked my car and never started it again. And I rode transit everywhere. So I got a really good feeling of what it's like on a daily basis to be a transit rider. And in some ways that we could potentially improve it, and mobile payment was something I had always hoped for because the process of getting my monthly pass was kind of a little difficult in that we only had one outlet where you could buy passes using a credit card. And that was our downtown transit center and where you have to wait in line and go out of your way. So, that was something I saw. And I'll let David Clark introduce himself.

David Clark ([00:04:24](#)):

Yeah, thanks, Chris. I'm David Clark, director of marketing here at the Duluth Transit Authority. I've got a background in marketing, branding and advertising. I got my degree from the University of Minnesota in marketing and political science. I've been in the field for about 10 years and began working, managing clients and projects for an advertising agency, and then moved into a role as a marketing and business development leader for an engineering consulting firm that did a lot of energy and infrastructure projects. But my journey to transit was kind of driven by the idea that I wanted to make more of a local impact. I've always been interested in community building and instilling social capital and access and resources for people in the community.

David Clark:

So transitioning to transit was a natural fit, moving from a more national focus that kind of pertain to things that didn't make so much of an impact on the community. And then being able to focus that and hone it in, in this role over the last couple of years has been rewarding. It's also been an exciting time, because DTA has performed well and had meaningful service for a long time. But in the short window that I've been here, we've had the opportunity to embark upon so many new exciting technology and infrastructure projects, things that can directly impact rider experience and amenities. And the timing couldn't have been better to really jump in and get involved in a lot of the cool things that are happening.

Marcela:

So congrats on the launch of the MyDTA mobile payment system. We've seen mobile ticketing at the forefront of many transit agencies after the peak of the COVID-19 pandemic that is ongoing as of this recording. So when did DTA first start exploring the possibility of implementing mobile ticketing? And could you speak to some of the other capabilities of the MyDTA app?

Chris:

Yeah, so it's kind of been talked about for a while and through rider surveys and other things of asking questions of what would people like to see, a mobile app and trip planning, mobile ticketing. Those things have been coming up for quite some time, but the first time it was really established as a goal of the DTA was in a transit development plan completed in 2017, where it was listed as a high priority technology and passenger amenity that we needed to really identify and look for options. And a year later we secured a grant through FTA's Buses and Bus Facilities infrastructure investment program, where we had a total grant amount of $2.3 million, which helped us replace our entire fare collection system, which was aging.

Chris:

And we also secured additional funding from the Minnesota DOT for a mobile app and new websites. So we brought together several of these projects, all sort of around the same time. And once we got the funding, it took us, we had a slow start as we went through some transitions with some employees of, we had some retirements and things. So once we got up and running, we started our procurement process and then the pandemic hit, which introduced a lot of complexities towards procurement and then doing the project itself. But it also brought another good reason to do mobile ticketing is to limit contact and things up at the fare box and through the pandemic, especially in the beginning, we were doing rear door boarding only, and we eliminated fare collection for a while until we got some driver barriers and re-introduced fare collection. But then the mobile app came a few months later. So we're

resuming services as normal as we can right now. But yeah, it's been something that the DTA and its customers have wanted for a while.

Marcela:

That's awesome. And it sounds like the timing of being able to suspend fare payments and the implementation of a new system kind of lined up?

Chris:

Yeah, it did. And right as we were procuring this, it was right in the thick of the pandemic and it made it a little scary, because mobile ticketing and contactless payments was becoming even hotter items. So a lot of the vendors, it was changing the landscape rapidly of what are people looking for and how many people are looking for the same thing at the same time. So we had to make sure we move quick enough that we could secure our spot and implement in a good amount of time.

Chris:

And in terms of functionality, we tried to hit on everything that we had heard from passengers of their trip planning, live bus tracking. They'd like to put their monthly passes and buy other tickets on a mobile app. They'd like to pay for it in different ways, instead of just going to our transit center and paying for tickets there. So we tried to build in and did build in all of that functionality and a few other things where we have better connections to our website and bringing people to other resources, like lost and found. And we also partnered with a local TV station in their weather forecasting. So we have a link within our mobile app to their local weather reporting.

David Clark:

And just to add a touch to that as well. We wanted to ensure that the user experience for somebody who was familiar with transit was just as meaningful and easy to access as someone who may be less familiar with transit or our transit system. So as Chris was saying, integrating it with information, frequently asked questions and policies and things. On our website, if the mobile app was a front door to our system for folks who want to ensure that that was a nice welcome and intuitive.

Chris:

And being a city that has a large student population and is a popular tourist destination, we knew we had a lot of new residents or visitors coming in who likely the mobile app or a website would be, as Dave said, are sort of a front door and the first they learn about our systems. So we wanted to make it as intuitive as possible and have as much information that would be most useful.

Marcela:

That's awesome to have just a one-stop shop for someone. And if it's designed so that even new transit riders or people who aren't familiar with the city to be able to use it with these, then familiar riders I'm sure can breeze through it. And it also kind of speaks to something that you were saying, Chris, during your introduction, to have the flexibility of purchasing your passes and being able to have multiple points of contact to get people on transit and to where they need to go.

Chris:

Exactly. And through our past surveys too. One of the top things we've heard for a long time is that the system is complex. They don't know how to navigate or what routes to take and what's running when, the hand schedules are a little complicated to understand, as well as our fare structure. And we have a peak and off-peak fare structure, which is a little unique and can sometimes be a little confusing to people of when exactly that's running. So that's kind of an interesting element to our project that our vendor Masabi, that was actually the first implementation of that fare structure that they've had. So we had a few different elements that were unique to us.

Andrew:

On the development of the features that you wanted. So you had developed kind of what you were looking for, but then with the pandemic, did that scramble a lot of what you were looking for, or reinforce it, or did it, how did that change that around?

Chris:

We had identified some high-level goals that we knew as an organization we wanted. And some of those included providing more options to our passengers and things that they were looking for, and really looking through an equity lens, making sure we're doing what we can to make this tool available to as many people as possible, make it accessible, and then thinking about fare capping and account-based ticketing. But we identified some needs such as speeding up the boarding process. We wanted to reduce passenger confusion. We had some problems with mechanical failures on our fare box from putting paper media inside them. Sometimes we'd have to swap out buses because of failures there. We wanted to reduce the amount of paper waste, reduce the amount of calls coming into our customer service department. And a lot of those that come in are, "Did I miss my bus? Where is the bus? How do I get to a certain location?"

Chris:

So we thought this could mitigate or take away some of those calls. We wanted to reduce transactions at our ticket booth and our transit center and some aging ticket vending machines that we had. We also wanted better reporting and more data to better understand some ridership patterns, but also better reporting capabilities for the different requirements we have with our grant funding, and then open up more opportunities and better options to bring on employer or organization pass programs. So having identified those, we had a strong foundation of what we wanted, but what was a complicated factor here is that technology was changing so rapidly. And between each of the different vendors they were bringing on new technologies. They had different roadmaps of things they were bringing on in the near future. And some vendors were new to the market or the industry, and some had been doing it for a while.

Chris:

So there was a learning curve for us to fully understand all the different offerings that were out there and the pros and cons of each of them and what was best suited for us. So I think there were some complications along the way of understanding all the different technical jargon and acronyms and all the new technology and what that really meant for us. So, we did kind of have to take a step back at a certain point and really evaluate all that was out there. So if I were to give a piece of advice, I'd say an RFI, a request for information is a good starting place, just to hear back from some potential vendors of what technology is out there so that you can spend some time really talking as an organization and understanding them all so you have a really clear idea of what you're looking for.

David Clark:

I would just add, another thing that we were certainly going to learn was, just appreciating the interface with platforms like Uber and Lyft and the value that tightly integrating with the Transit app provided that user experience. And it's just another reason or a value proposition to get current and potential riders to get into our app ecosystem because the popularity of those platforms is undeniable.

Chris:

And like I mentioned too before is the peak and off peak thing in some of our other fare passes, our youth passes and separating revenues out by Wisconsin and Minnesota, making sure we had systems there to be able to do that what was also some high goals in evaluating our potential vendors.

Andrew:

One of the key things that the move to mobility as a service keeps bringing up, or one of the key barriers is this ability to separate out how things are paid for and by whom. And so this is promising that that's moving in that direction that you can see how to allocate all of those fare revenues and costs.

Marcela:

Also, the richness of that information and data, to be able to understand rider patterns and to be able to, I guess, like going back to the Uber and Lyft example, the richness of information on where people are going, queries on high ridership spots, just having all of that information through this platform, I think says a lot.

Chris:

Yeah. And we also integrated with our AVL, so our automatic vehicle location system. So we do get that level of data at the bus stop level. And that's ultimately how we separated it out at the states is seeing the activity at bus stops that were in Wisconsin. We can separate those out and have a structure of determining revenue that way. But yeah, that is, it provides really valuable information of origin and destination or not from house to final location, but we can see some of that detail and try to better align our service to those needs. And we can also track our different fare media types. And it was interesting of our mix of fare media is different than it had been in the past. We're seeing more utilization of our day passes and seven-day passes then we had before where they made up a very small amount of our total pie. But after making some changes, it's starting to increase in the usage of those pass types.

Marcela:

Very cool. That actually leads into what I wanted to ask y'all about, since it's been about three months since you've launched, what has adoption looked like and what are some of the other promising trends or rider experiences that you've heard or noticed through the data similar to the adoption of transit passes?

Chris:

The pandemic makes things really interesting, and we don't know what potential is out beyond once we're out of the pandemic, but I was really pleasantly surprised with adoption so far. And we've had about a 1,000 downloads, which has surpassed my expectations, especially with the pandemic and being it sort of our off season, if you will. And we're seeing about 250 activations a day, which is a variety of all different past types, which is exciting. We're not just seeing the monthly pass users, it's a really good

mix. And something we're seeing too is high ridership on the weekends and on Fridays. So we're seeing that it's becoming an appealing option probably to some of the tourists who are visiting our community. The trend, it looks like it's kind of leveling off, and we expect that to pick up again as we offer new options. So some of our next steps are to implement account-based ticketing or fare capping.

Chris:

And that we think will bring in a lot of new people who will get onto the platform. We're also trying to procure some tap cards, which we don't have for fare capping yet, obviously. So once those come in, I think that'll bring in a whole new mix of people.

Marcela:

That's really exciting. Fare capping I feel like it's such a game changer, especially for riders that are very conscious about their budget and just being able to not have to calculate all the trips you'll make in a day. It's just like another layer of freedom, and know that you're not going to overpay if taking multiple rides running errands, especially as our travel patterns are changing so much because of the pandemic. And slowly but surely we're moving back to a somewhat new normal, although that seems to be changing every day.

Chris:

Yeah. And that was really, going back to our equity lens, and something I like to say is, it's expensive to be poor. And we don't know exactly how much some people are paying, but if you can't afford that $40 monthly pass at the beginning of the month, over a month span you might be spending more than the $40 just because you don't have it upfront. So we're really excited about that, the fare capping system, that should be up and running in a few months.

Chris:

And in addition to that, we, through our partnership with Masabi and income, there's retail outlets where some major retailers like CVS and Walgreens and many gas stations, convenience stores located throughout our service area, you can bring any amount of money, a dollar or $10 or whatever, and bring it in there. And they turn that into the mobile app where you can start to contribute towards the fare capping or buy passes that way. So it's in terms of the unbanked or people who are cash preferred, it opens up a lot of possibilities where you can now purchase your tickets and fares in a much easier way.

David Clark:

And we don't have comprehensive coverage in terms of staff hours during the time that our network operates. And as Chris touched on, our ticket vending machines are kind of from a prior generation, and they're not really providing the consistency or reliability we're looking for. So this network of places to purchase tickets or add value to your account, I think really unlocks a lot of opportunities in terms of convenience, in terms of equity, and also just the potential to create more positive revenue and outcome consistent.

Andrew:

So, related to getting people to start adopting this new system, and since there was a pandemic over the past year and a half, how has that affected your ability to provide outreach and encourage people to use the app and to switch over?

David Clark:

I think looking at this in a broader context, we haven't really touched on the umbrella of projects that the MyDTA and Transit app are a part of, but we have sort of a branded portfolio of projects called the better DTA movement that kind of captures all the ways that we're improving technology and amenities and bus stops, and a number of other aspects of our system. And traditionally in our world, getting out into the community and having touch points at key transfer locations and transit hubs and activity centers like universities and things like that is kind of at the forefront of how we're sharing information. So, obviously in the last year and a half or so, that's been a bit limited, but we've had to pull back on some of those activities and we've really doubled down.

David Clark:

We've kind of really put everything in the pan in terms of social media and print media in our vehicles and in our facilities, and really try to get creative. We've developed a couple of what are called fusion wraps for two of our buses. They have wraps that feature both the MyDTA and Transit app, and those are in my humble opinion fairly splashy. So not something that we've done internally necessarily for any recent campaigns, but the feedback there has been strong. And then we've also incorporated some video contents and some explainer videos and how to's. And we've built out a new section of our website dedicated at duluthtransit.com, dedicated to this portfolio of projects, the Better DTA Movement. So within those sections, there's FAQs and how to's and a whole wealth of information about these projects.

David Clark:

And I guess something else to note in terms of the promotion of both MyDTA app and the Transit app is that we kind of staggered the way that we've introduced the two platforms. We started with transit because that was already off the ground and running, and kind of a point of access for folks to get into, as I said before, kind of our mobile environment. And then we kind of introduced the MyDTA app after that, followed by now our system redesign. So what's been interesting though is the downloads of the MyDTA app. And to an extent as well transit have continued to increase, even though our current campaign isn't necessarily emphasizing those two things. So what that kind of tells us is people might be seeing some social proof that this works, or they might become curious when they see somebody at the validator using the app.

David Clark:

So we think maybe some of that inertia from the initial campaign has kind of given us a springboard for that to kind of take off and for adoption and usage to sort of flourish. And Chris said his expectations were exceeded. I would have been happy with, or anticipating closer to 500 downloads in this calendar year. And we've already vested that, I guess, doubled it at this point, so.

Marcela:

That's great. It seems that word of mouth is just really speeding up adoption. And it's true, Washington D.C. has a mobile app, Apple Pay and I've observed people doing it and it's taken me a while to get there, but I finally set it up and it's really exciting to have that option. And yeah, it's great to be able to use different forms of media, I guess, get creative with the ways that you get the word out. The bus wrap is a great way, since you're capturing your audience with the very vehicle that they will be taking.

Chris:

Yeah, and between our drivers and the folks that ride with us, it seems to be a really tight-knit community where they see somebody up at the validator scanning on that cool new thing, and they talk amongst each other. And I think they've really helped each other show how the app works and talk about it. So yeah, I think word of mouth is, we've reached a point where that's being a really good tool for us of spreading the word and showing people how to use it the first time. We've done a few tabling events and it seems like most people have heard about it. There's a few that are a little timid or they're waiting to use up the rest of their month pass or a different pass that they had before. So we expect that number to climb. And again, when we introduce fare capping, I think it'll only grow.

David Clark:

I think you identify that, and also, getting out and now being able to do for a time here some tablings, you start to see some of the misconceptions or gaps in the information you may have provided about the mobile app. A certain instance comes to mind where a rider thought that they needed a special, perhaps even DTA issued phone to download the app when really it just required a smartphone. So there's just, there's sometimes there's these very easy to overcome barriers that you can identify by getting that feedback.

Chris:

Or even questions about transaction fees, or does the app itself cost money. The app is free and there's no transaction fees. So just answering some of those questions. And I think as hopefully we come further out of the pandemic, we'll be able to meet people where they are, and go through some of those things more and try to alleviate some of the fears or answer some questions.

David Clark:

And just another note too, Chris, you touched on the fact that our drivers and passengers are a tight-knit community. And I think one of the things that maybe has contributed to the nice performance in terms of downloads and uses is having our bus operators and our customer service team kind of be ambassadors on behalf of the mobile apps and kind of creating some comfort and being able to help folks, getting the groundwork laid and having good resources there to help have the team become empowered and understand and have confidence in what you're doing. That certainly is a piece that could be overlooked, but I think we've benefited from in this case.

Marcela:

Definitely. It's great to always have that in-person or at least someone who can speak to the different levels of someone's comfort with technology, since everyone's coming from such a different place, like gen Z and millennials who grew up using the internet, using smartphones, and even just folks that are hesitant too, and just having someone like a trusted person, which could be a driver, it could be a rider that you see every day, be able to be like, "Hey, there's this app, let me show you how to use it." And that kind of engagement and outreach is invaluable, because you can't necessarily reach everyone with various modes of outreach.

Marcela:

Another question, I think that you all brought up as well was, the MyDTA app versus the Transit app. And I thought it was interesting that you offered both applications. And I know you spoke to Transit app was already on the ground, ready to go. What are some of the differences between the two applications and what benefits have you found in promoting both applications?

Chris:

Yeah, that part really made things complex. And there's a lot of weighing pros and cons in the marketing components of it, of trying not to make it confusing of, "Well, which app do I download and which one does what?" But we knew, because we had previously promoted the Transit app. And we know there are a lot of people who are visitors to the area or moving up for college or new residents probably already have the Transit app downloaded. We know it's a really strong mobile app trip planning tool in the Twin Cities, which a lot of our visitors and new residents come from. So we figure, let's put it on there where they're already at. And the app itself is kind of all in one, you've got trip planning and you can buy your tickets right in there, it's really seamless.

Chris:

But then also having a DTA branded app where it had more functionality of more tools to bring you to our website, we've got weather, we could potentially swap out the trip planning application. If something changes down the line, we can link it to a different tool if a new better thing comes out in the long run. So that was sort of a future-proofing measure. But we also knew that locally, if somebody is looking for a mobile app, they're probably going to be searching DTA or Duluth Transit Authority, whereas this one labeled as our official app, the MyDTA app, we know that's funneling people to the right direction. And if they're looking for trip planning functions, they'll click on the link in the MyDTA app, and now you'll have access to both of them.

Chris:

So we figured we'd offer those channels and just make sure that people are being funneled to the two of them because our data collection and things are stronger too. And right now the last count we had, there's roughly about 10 or 12 trip planning tools available to our community. And we really wanted to funnel them to the Transit app specifically so that when we get calls from customer service, we're not trying to decipher which of the 10 apps they're using. It's more likely they're just using the one. So, it makes things less confusing and easier for our customer service staff to address any issues.

David Clark:

Yeah, we really also wanted to make sure that we're finding an app that was a fit for the entire marketplace. Some of our partners right now, like the university systems, the value isn't necessarily the same in a mobile payment scenario, because their method of boarding the bus and paying for the ride is already built into their student ID, where trip planning, that aspect of it is a value. And there really wasn't one sort of comprehensive tool in the marketplace in terms of mobile apps that was a one size fits all. So we wanted to make sure that we're really finding something that was meaningful and interfaced with all of our different customer situations and scenarios.

Chris:

And something that's appealing and becoming more appealing of the Transit app in particular, is that when you go to a different market such as Las Vegas or a few other areas, I think Denver is in there, it will already pre-populate and you can do mobile ticketing and trip planning on the same exact app that you're using back home, so, and vice versa. So that's really exciting that you don't have to download a unique app in each place you're traveling to, hopefully it's already in there in the system.

Marcela:

That makes a lot of sense, especially for having an application that could be familiar for folks that are coming in from out of town, or even moved to the area recently, just to have something that they've used before. And then eventually, as they acclimate or stay around Duluth, then they can get incorporated into your mobile app ecosystem. And yeah, it creates just more points of touch with passengers and potential passengers. So I think that's really cool.

Chris:

Right, it's a familiar app to a lot of people. So when you come to a new place, you don't have to find the new app and then learn the new trip planning functionality and everything. It's sort of similar to Uber and Lyft where you can bring that to any market and it's the same familiar app and everything. So, that was really appealing.

Marcela:

Yeah, simplifying transit, and that serves the community very well, even the existing ridership community, and also promoting it to external and new folks.

Andrew:

Have you all been able to see and track in the data if someone originally used the Transit app and then moved over to MyDTA, or really any other interesting things from just looking at the information from what people have done so far?

Chris:

Ooh, that's an interesting question. No, I don't think so. I don't know if there, I haven't seen the data anyways, to see how people are going in between the two, because it's actually technically two separate accounts. So they're not combined between the two, you'd have to create a separate account for mobile ticketing on both of them and they're completely separate. So I kind of suspected that people might start with the MyDTA app and then after they find all the functionality within the Transit app, they just migrate over to that one entirely. And the account-based ticketing fare capping system will also be included in the Transit app when that functionality starts.

David Clark:

If someone didn't use the same email on both platforms, you could use that as a system of record and look at the data, that current data, and determine if somebody had an account with Transit first or MyDTA, just bring it all into Excel or something. But yeah, our reporting isn't integrated to that extent today.

David Clark:

Perhaps, someone's email address would be really the only way to tie the two together if they use the same one. You could look at the date that the account was set up in let's say Transit. And then if they subsequently ended up creating an account with the same email on the MyDTA app, perhaps we could learn sort of the adoption process, whether they started with one and ended up perhaps migrating to the other. It is a very interesting thought. And it would be, I think, valuable to learn kind of that pattern, just in terms of understanding how people are using the apps.

Andrew:

Have you all found any other interesting tidbits or nuggets of information from the data so far?

Chris:

We've been able to see what routes in particular are really popular among the people who are using the app. And that's been kind of interesting to see, especially as we go through the pandemic and the school year and then the summer, the off season and tourist stuff. And it does fluctuate quite a bit of which routes are ranked the highest. Otherwise, in terms of fares and mobile payment, I don't think there has been a real strong trend yet. I think as we move along further and have higher adoption, we'll start to see some, but overall we are seeing and hearing some good feedback from our bus operators and from the community that they're excited that this tool is finally available.

Marcela:

I have a follow-up data question, through either the data from the MyDTA app or the Transit app, are you able to get any demographic information on your riders? That would be an interesting use case, since typically, like we have census data and rider surveys to kind of gauge who your riders are. And I guess a profile of your traditional rider, is any of that information available, like general vague things? Obviously not identifiers of personal information, but age, those sorts of things that would be, I guess, very useful in planning, especially for your system redesign?

Chris:

That's a great question. And we thought about that of setting up accounts and how much information we want people to provide and still reducing barriers. So that was something we thought about. And typically we see on even our rider surveys and things that folks are really hesitant to give their age or income levels or race, it's really hard to get at that. So, and we thought that might be something that scares some people away. So it's pretty basic in that we only ask for their email address and then they put in their secure account information for their card or whatever they're using to pay for the trip, so.

Chris:

But a different option we do have within both apps is having a banner ad at the top that will link to surveys. So periodically we could put out rider surveys and ask for specifics and then see respondents who are getting to the survey through either app. We could extrapolate that way or look and see what that demographic pool looks like if they answer those questions on the survey we link to. But that is another, on top of all the functionality that's really attractive about these apps is that we can do that now and put this rider alert right there of a survey or an upcoming initiative.

Chris:

And speaking of our system redesign that we're undertaking right now, with the Transit app when the time comes around and we have our GTFS feed for the new system before it launches, we can pull that into the Transit app environment where people can test out the new system and plan trips using that tool in a mock scenario of getting them prepared for when the new system launches. So that's something we're really looking forward to.

Marcela:

That sounds like a huge asset, just because being able to understand all the changes that are happening in an environment that you're already comfortable in for a trip planner can explain system changes way better than any words ever could, especially for folks that learn by hands-on means. And also just having

those rider alerts going out for surveys and just generally service alerts, since we were talking about before we started this recording, every day is a new wild day in transit and you never know what's going to happen and you can communicate some of those changes, whether it's an unexpected detour or an outage due to whatever it may be. An elevator being out, something like that. Just having all of that information at your fingertips is extremely valuable from a customer perspective. And just having that trust that you're going to know what's going on.

Chris:

Exactly. Yeah, and that's something we want to build upon, and another reason why we want higher adoption rates of the mobile apps is, it's such a good medium to reach out to people and getting surveys and getting information in front of people is sometimes hard. And although we put a lot of, or all of our information on our website, there's not always a good reason to visit our website every single day to get the latest news, or you might not be checking your email for the alerts. So if you're planning a new trip or you're tracking your bus, right there is the latest updates of detours or delays or system changes or whatever it may be. So that's a really exciting feature of this new technology for us.

David Clark:

When you look at the transit quality and how important it is to retain ridership, if there is a detour or a weather event or something that pops up and we're not able to get that information to as many people as possible, you risk losing riders. If somebody is disenfranchised too many times by missing a bus or being late to work or something, they may choose another option. And as Chris said, we do use our website and our social media as a tool to provide these alerts. But leveraging these platforms is another means of communicating with Transit from a public information perspective is immeasurably valuable.

Chris:

Yeah, and we're sort of a funny city where we're really linear, so we only have so many roads that we can operate on. So our detours can get really interesting trying to move around. And also our climate. We have some really intense winter weather where sometimes we have to shut down the service or run very limited service. So being able to get that information out to people as quickly as possible through those tools is huge.

Marcela:

Very true. I know that the studies that have been done, just unlike real-time information it shortens, the psychology behind it is like, you know when the bus is coming and if you have no inkling or indication of when it's going to come, it seems like it's a lot longer than it truly is. And I think that having those service alerts going out, especially in the case of weather, no one wants to be waiting at a bus stop in very cold weather, just to find out that service has been delayed or suspended for the day.

Chris:

Exactly. And I'm very familiar with that feeling is, you're two minutes past the scheduled time. And especially when there's winter weather, you're not sure if that bus went by already or if it's still coming and as more time goes by you're really starting to panic and wonder where it is. And either you're calling in to our customer service department wondering, and then our phones are just going wild during winter weather events. But having that tool to be able to track your bus live and see, "Okay, it's just around the corner, it's coming." Alleviating that fear and anxiety. And like you said, the studies are

fantastic of perception of time waiting for a bus. And especially when it's late two minutes can feel like 10 minutes, and that's a really uncomfortable situation.

Chris:

And in other technology, something else we're looking at is not everybody has a smartphone or a data plan to be able to look into this. But we do know that adoption of just regular cell phones itself is very high and most have texting. So another cool tool we're looking to add is, where's my bus texting application where each bus stop has an ID and you text in that number and it'll tell you how far away the next three buses are. So that'll be another tool for other people to just check really simply by texting in that number and seeing that your bus is still coming, you did not miss it, and it's just around the corner.

Marcela:

Yes, that assurance is critical, especially in weather events and just every day. Makes your commute a lot less stressful.

Chris:

Absolutely. And as we head out of the pandemic, that customer satisfaction is something we need to work even harder for and make Transit a really appealing option, and each little thing like that really helps.

Andrew:

So with all of this in mind, for other transit agencies that are considering adding mobile fare payment options to their system, either completely doing away with cash or going the route you're going, it seems to be there are infinite ways to try this, but what advice or best practices would you recommend based on your experience around this?

Chris:

I would say, make sure you do your research well in advance, probably do a request for information just so you can get a really good feel for the landscape, get a feel for the terminology, do even further research so that you understand it all, and then make sure as an organization you have a really clear path forward of what you want to do. And for us, at times there was a new technology or something as complex as account-based ticketing, fare capping, where we really needed to consider the financial aspects and how this works and is it right for our community. And there were just a lot of discussions needed to really determine the full scope of what we wanted to do.

Chris:

So, make sure you plan enough time to have your staff really look into all the variables, because it's like you said, it's kind of endless, there's so many different tools and functionalities, and then make sure you have enough staff. Because it is kind of time-consuming jumping into the implementation of even the labeling of different buttons or disclaimers or the FAQ's. All of that stuff, you need to put a lot of thought into it to make it as understandable and intuitive as possible, to make it the most user-friendly tool as you can at the end of the day.

David Clark:

And if you can satisfy the needs of your super users and the people that would really dig in. That was I think one of our most satisfying moments when some very informed and transport familiar folks said, "You know what? This is clearly well thought out and it seems pretty airtight." I mean, of course there's things we've learned and gained some insights from as we've moved along. But the other thing, and Chris kind of captured this, but there is so much latitude in the options in terms of configuring the applications, the look in the field, the branding of it, being cohesive with your branding for your system or your services is so critical as well so that it's integrated.

David Clark:

And we took a lot of the design cues from our website and our current branding, but also wanted to make it fresh and contemporary and approachable, while staying on brand. And that's one facet of it. But then also the promotion of it as well, thinking about timelines and whether it's integrated with other projects. I was giving yourself more time and more runway to get the things off the ground that are important at each phase, I think is extremely helpful as well.

Chris:

And communication within your organization of next steps and where you're at in the process. And there can at times be a lot of anxiety from the finance department or maintenance of, "What is this, when is it going to happen?" And there's a lot of moving parts to implementation. And once you get closer to launch date, it can be kind of a scary time of how's this going to work. And with new technology it seems to rarely be smooth, but ours went very smooth, it was, I'm really happy with it. But something that we did and I would highly recommend is a soft launch. So we did a two week soft launch where that let our drivers ease into it more as some people boarded and needed a little bit of help. It let the drivers get more familiar with the system and how it works and communicating with people.

Chris:

It gave us the opportunity to build up the presence within the app stores. And right as soon as we launched on the app stores, they weren't visible right away or were low on the list. So after some downloads and some pushing through other channels to specific people, trying to get them to download the app, within a few days right away, we were at the top of the search. So the two weeks really gave us a really comfortable transition into it before we did our loud launch two weeks later.

Chris:

Another thing I would recommend is making sure you have enough feedback channels, because you'll start to hear things you never even thought about where a passenger will come in and say, "Well, have you thought about this?" And within the first month or so, we did get a lot of interesting feedback of maybe wording something differently, or topics to add to our FAQ. So we made sure to be as responsive as we could that first month to either address any issues, which luckily we didn't really have any, but there were some things we could clarify and did so fairly quickly, so.

Marcela:

That's all really great advice, especially just having time and knowledge on your side, as well as the soft launch, just for the various reasons that you listed and just being able to work out maybe some of the bumpier things, D as we've experienced in our recording. Our recording time today, technology has its bumps. So, if you're able to have the time to work those out. I've never heard the term loud launch, but I really like it, for your loud lunch. You can kind of work out a lot of those, the smaller details or revisit

things to make sure that things smooth out. And it's just less stressful for staff, less headache and heartache for riders. And yeah, it sounds like everything has gone very smoothly and that you were all able to get the product that fit the needs of your riders and your staff.

Chris:

Yeah. And it did go very smooth. And I think that's, that's a big piece of advice is, allow yourself enough time to do enough app testing. There's, we had a lot of beta versions to start with, and it's really time-consuming to go through and check everything, make sure the buttons all work, it's linking to the right place, the language comes across right. And get enough eyes looking at it too. And with each new beta version, doing the same thing all over again. And by doing that, you'll really ensure that you'll have a successful launch.

Chris:

With the Transit app in particular, this was maybe a year or two ago. We did a small pilot project with that as well. And what we found is that we had some awkward things happening at our transit center when buses come in and some of the base map like sidewalks and walking paths were a little weird. So thankfully through that, before it went to the masses, we were able to clean up the maps and make sure everything was right and accurate. And then we tested the trip planning functionality versus several others. And just to make sure that everything was accurate and we thought it would be the best tool available to our passengers.

Marcela:

That's really great. I'm glad to hear it. And congratulations again. So my last question, you kind of alluded to this earlier, that DTA is undergoing the Better DTA initiative. So this app launch and resource for riders is a part of that and the section on better technology. So I wanted to close out on what's next for transit technology at DTA?

Chris:

Yeah, so in technology there's a few, there's many different things we're working on. One is transit signal priority. We're trying to get that implemented on our high priority corridors with our better bus blueprint, our network redesign, we're identifying some what we're calling pre-bus rapid transit corridors. So along those we'd like to make sure there's transit signal priority at each of the intersections along the way to speed up our service.

Chris:

Station amenities too is something we're looking at in addition to the, where's my bus texting tool that I mentioned earlier. There might be real-time signage, we're piloting some solar lights, which it feels like in a climate like this and where the winters it can be dark, we really want to pilot everything before we jump all in. And so the solar lights is working well. We're looking at certain onboard technologies, such as infotainment systems as part of our BRT project, looking at better data and technology.

Chris:

And I think as an organization we've really always prioritized technology and data so we can really understand our system and how it's performing and what our passengers want. So, we've really been improving our data at the bus stop level in route ridership and transit planning and all sorts of functionality. And I think with our GTFS-RealTime feed we got a few years ago that's a really good

amenity for folks though. We're always keeping an eye on the latest trends and where things are going. And technology is kind of funny, it changes every year, every month. There's new things and new stuff, so we've always got to keep on top of it and identify the what's best for us and identify funding for it too.

Chris:

But it's an exciting time. And especially on the customer facing front, there's a lot of new technologies that people are looking for and have been asking for a long time, like mobile payments are real time and having it be accurate in all of that, because they see those technologies already for quite some time now with Uber and Lyft and Bike Share and Scooter Share and all those companies. So transit really needs to have the same thing, we keep up with what passengers are expecting and needing.

Marcela:

Definitely. As the world is changing technology is. It feels like it's on a full sprint all the time. So it's changing and it helps us adapt I guess, to the world. There's so many emerging trends, and I think it is a really exciting time to be in transit, to be a transit rider as the industry moves forward to adopt a lot of these new and newer technologies.

Chris:

Absolutely. And on the fare front we have a partnership with our rural transit provider, Arrowhead Transit, where we do free transfers. So we're looking into options of integrating each other's mobile payment platforms and see how, if there might be a path forward there. And I think that's an exciting thing for a lot of transit agencies, where there might be several transit providers or Bike Share or other micro mobility options that you want to integrate together and have a seamless experience for passengers. And then there's bus cleaning technology is something due to the pandemic that's really been amplified recently, and we're looking into technology for ionization and keeping our buses clean and trying to address the pandemic. And not only that, but seasonal flu and other things. So there's a lot of exciting things out there.

Marcela:

Very true. And yeah, to the point of coordination, I think that's really going to be something that we see more of, just because people don't live their lives within political boundaries. Like we cross over to different towns for whatever reason that may be. And in our first season, when we were chatting with Carta, the grants manager that we spoke with spoke about having an ecosystem of choice. And I think that that's really something that technology provides us is the ecosystem of mobility choices, whether that's micro mobility, micro transit, the flexibility of fare payment, it's a vast world.

Chris:

Absolutely. And there's a lot of folks out there who might ride infrequently and maybe that's due to the pandemic, or they have another option and they don't ride that much. And a monthly pass might not be a smart option, but having the mobile app and all these tools might encourage some of those infrequent or casual riders to, even the spur of the moment trips. And I think we're seeing that now, especially with our tourists, that they're downloading the app and they're getting out into our community outside of the main tourist area and our mobile app might be helping them do that in addition to our service.

Marcela:

Awesome. I'm really glad we got to have this conversation. Thank you for joining us. This was a really great conversation. Was really great to learn more and kind of hear where things are going in Duluth. I want to make it out there. Maybe not when it's really cold though.

Chris:

It's still great when it's cold, we're really a city that's built for all seasons. There's plenty to do. And it's just as beautiful in the winter as it is the summer. You just have to dress warm, so. Yeah, thank you so much for having us. We're really excited about this new technology and this new offerings to our passengers, and hopefully our comments and things maybe it helps some others implement the same thing.

David Clark:

Yes, thanks. That was very enjoyable.

Marcela:

Awesome, thank you. And I think your advice is going to be immensely helpful as other agencies across the country are navigating this new world we live in.

Chris:

Right, yeah. And transit agencies have always been friendly of communicating to each other and asking questions and providing input. So, when we went through the process, we called up a lot of agencies to see what they're doing, and learned a lot. And I expect it will be taking a lot of phone calls too in the future to help people navigate something as complex as this. So thank you very much again for inviting us, this is a good time.