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[00:00:10] technology committee. I want to welcome everybody. We've got a pretty full agenda between tax modernization project overview. We're going to dive in a little bit with the help of ITPAC, our data architectural and analytics update, talk about the affidavit board matter, a little update on the AI training at the request of the board from our previous committee meeting. And with that, I think I'm going to jump right into it and turn it over to

[00:00:43] Greg for the tax modernization project overview. Good morning, Chairman McKay, Board of Supervisors. This morning, we're going to talk about our tax modernization, the customer service experience update, and where we are within that process.

[00:01:04] Continue thanking you guys for your support of supporting IT and the funding to continue that project. Every year we try to improve that project. Every year we get great responses back on things that we could do to improve their overall experience. So with that, I'm going to let the panel introduce themselves and then we'll begin our presentation. I'm Jay Doshi, sir. Robert Barr,

[00:01:29] Program Director, DIT. Again, morning Mr. Chairman, Jay Doshi, Director of DTA. For the rest of the U.S., the Super Bowl takes place in January, but ours, with a million vehicles that are due all on the same day in early October, that's our Super Bowl for DTA. So regardless of what our day jobs are,

[00:02:00] it is, well, this year, February. Yes, sir. Okay. Stand corrected. But regardless of what our day jobs are, we get to work to serve our residents as efficiently as possible. And that's why this Campaign has been named smiles for a long time. We want them to leave with a smile Our journey tax monetization began with a timely board matter sponsored by Chairman McKay and Supervisor Pulchic in 2022 You see the goals listed on the slides. I won't read them out

[00:02:36] But the goals were improve customer experience provide more flexible payment types real-time information the modern digital platform stable reliable system process improvements to benefit both our residents and our staff. And ultimately, the more efficiencies we have for our staff, the better and faster we're able to serve the public. So there's a direct connection there. A huge thanks to DTA, to DTA's tech team and DIT for responding to the challenges. Rob Barr is going to share with you some of the updates in terms of what we have been up to thus far. Morning again, Rob Barr,

[00:03:16] Division Director, Revenue Systems. So considering the points that we were given, we sat down as a DIT and DTA, and outlined the multiple areas that needed improvement. We had some rough years there for that Super Bowl, and we wanted to overcome those rough years. When we sat down and ranked them, we prioritized them against the counties, DITs, and DTA strategic initiatives, and determined what we needed to do and the several key areas that we needed to hit. One major area we wanted to focus on was that SMILES campaign, but there are multiple areas under DIT that we'll highlight

[00:03:52] through the presentation. And through those items, we improved each area as stated on the bullet points there. So the largest initiative we undertook before the board matter was issued was the TABS World, which was getting off the mainframe. Mainframe solution was in place from 1984, and we actually were successful in getting off the mainframe in 2021, which was a major accomplishment. This allowed us to open the doors for many modern solutions. We were able to create solutions that were faster, more efficient, and improve on the overall user experience,

[00:04:32] yet we had some growing pains initially. We had some older technology that was integrated that needed to be replaced. So we took those initiatives underway. Additionally, we had the tax relief system. There were some changes. There was a new tier structure put in place, and there were some legislative changes that needed to happen. So we sat down with our partners in DTA and rebuilt that solution into a better tracking and distributed model. Now, for the Smiles campaign, we did engage with an external vendor, and we identified some end-to-end issues that needed to be taken care of.

[00:05:08] They delivered several suggestions for improvement, which led to a redevelopment and restructuring and streamlining of the processes from the web interaction all the way to the backend interaction, and also included some of the actual interaction at the counter operations as well. This significantly speeded up the time for both the on-site and off-site interaction with the customer.

[00:05:33] And then recently, one of our larger initiatives was moving our real estate solution to a cloud solution. And this was a large undertaking, quite a large project, moving our whole real estate system, including our front-end application and our back-end applications and our customer-facing applications to a hosted environment, which is really an innovative way of doing business today in this world, and it really promoted our move to support our users in the future.

[00:06:02] Other initiatives we completed was on the tax portal side of things. We have two independent ways of coming in, MyFairfax, which is the credentialized methodology people can log on, and then we

have the single-use methodology called our portal. We were able to integrate our MyFairfax solution with a couple credentialization services, such as Google, making it easier for people to authenticate.

[00:06:27] In the E-Pace side of things, we streamlined all of our processes. We sat down and looked at it from a UI perspective and broke down the steps that took somebody to do something, cleaned up the text, cleaned up the way of doing it, and got rid of any extraneous stuff we really didn't need and made the process much faster.

[00:06:47] Additionally, we added a real-time posting of our bills, meaning that people can go out and actually download a copy of their bill now. This has significantly reduced the number of phone calls we get, which is great, because people are not calling to ask for a reprint of their bills.

[00:07:04] Additionally, we also have a minor Super Bowl season, I'd call it, which is in the April time frame when people are trying to get their tax bills related to filing their income taxes. So this takes that burden off of us giving them their bill. It's automatically there. People can just log in and download it and capture it.

[00:07:23] And then at the counter, oh, I've skipped one, sorry, and then the real estate appeals site as well had some issues related to timeouts and long timeframes for use. So we sat down and we broke that down also into more digestible pieces, making it easier for the owners to file an appeal in a timely manner and capture all the information needed.

[00:07:42] It's quite a lengthy process, so it was good to break it down into chunks that didn't timeout and people could enter data in a more efficient way. And then our counter operations world, we enabled the cashless payment applications, which is good that people can come in, use their phone to pay.

[00:07:59] Additionally, we enabled tap to pay and debit with PIN, which, you know, basically just gives more flexibility for payment at the counter. So on slide six, you see our response times with normal usage, medium usage and peak usage.

[00:08:18] You can see that we've achieved a decrease in transaction time of at least 70%, and that then allows those who wish to stay at home or their office and conduct business with us to do just that.

[00:08:34] There isn't an issue with someone having to come in because the systems did not perform the way we would expect them to. So that was pretty critical for Marvin. You also see that the transaction capacity was increased from 500 concurrent transactions to 1,750 per second, and that's needed given that we as human beings, no matter how hard we try and how we message, there's still a lot of traffic leading up to this miles deadline, generally October the 5th.

[00:09:08] All of these changes, of course, also meant that the efficiencies in turn helped us get folks in and out much quicker, even if they did choose to come to the government center. The next slide over, you see some tangible results of the investments by the board. The first set of graphs shares the number of scheduled payments. This is our ideal. Our ideal is that whether you get paid on a Friday before the deadline, whether you choose to pay only effective

[00:09:44] of the deadline, you can go in at any time once you have your bill and you can schedule the payment. So we would still like to see a lot more growth, and we anticipate that we will, but a lot of it goes to trust that the system is going to be there and functioning the way you would like for it to when you go in

to conduct business with us. You see the number of my Fairfax registered users, Again, about 114% increase in four years.

[00:10:13] We now have the ability to serve you with PDFs of all of your tax bills. So if you misplaced one, you are somewhere else. You're deployed serving our nation in another country. You don't have an issue accessing the bills to do business with us.

[00:10:30] And finally, the standalone ePay functionality. You can see that there's been an almost 39% increase since we implemented the functionality. This one is a payment light system. In essence, we usually are very careful about ensuring that we know who you are and we authenticate you before you can conduct business with us.

[00:10:54] But if you're making a payment, when's the last time you made a payment on behalf of someone else? That doesn't happen. We need to remove those barriers to making the payment as simple as possible, and that's what we've been able to accomplish. So looking forward at our upcoming initiatives, We have many in the hopper right now.

[00:11:18] Both our staffs are diligently working on many projects, but we wanted to highlight some of the major ones here. Currently, we're implementing four kiosks throughout the county as a pilot program. This is to give taxpayers another option to pay. Some of these will be 24 hours a day accessible, where other ones will have limitations due to building opening and close times.

[00:11:39] But it will give the ability for people to pay for their personal property tax initially via cash, check, or credit card. And if this is successful, we look to expand it to other payment types as well in the future. There's some discussion around real estate because of the size and volume of that payment.

[00:11:58] They would fill the machine so quickly that we may not be able to do that, but we're still looking at the options at least. DTA is currently working on upgrading their call management solution. It's a new software platform, cloud-based. And additionally, they're implementing a CRM correspondence solution, which will allow for better tracking and processing of taxpayers' inquiries as they come through various channels, including email, phone calls, and people stopping in.

[00:12:28] In 2023, there was a Virginia Data Protection Act issued for communications, for all communications coming out of correspondence coming out of tax administrations. And we fall under that. So we started working on an opt-in, opt-out communications process, which we are working with our friends over in Dems to integrate with Everbridge Communications as well so we can expand our communications to our folks and have people opt-in and opt-out of the communications they wish to receive from the Department of Tax Administration.

[00:13:00] And we're also working with our payment vendors for both the counter and online operations and expanding the methodologies we can pay from there. We do highlight that twice in the other area. So moving on to the next page.

[00:13:17] DTA has a lot of paper. We keep records according to the retention policy up to 40 years for some of it, additionally other ones forever. So we have a lot of paper, approximately a million pages that we have to actually digitize in the near future here. We've already started that initiative in some areas, but we are increasing that and piloting in other areas as well and digitizing as much as we can, ensuring that we're meeting the retention policies and codes around those items. We are looking to implement the business personal property online system this is to get rid of a paper

[00:13:52] process where it's highly manual at this point in time and we want to be able to give access and control to those business owners out there who can come in and manage their business personal property in a portal methodology as well additionally we're working at the cat looking at cashless applications other vendors that are out there there always seems to be one coming and going so we're looking at the ones that are more stable and implementing cashless applications for tapped to pay either on the counter operations or integration with our external payment vendor directly so people can pay with other options as well. And we're focusing on cloud optimization as

[00:14:30] part of our whole goal. We're currently moving our tabs environment to a cloud environment as well, which will allow us to have a more elastic and more scalable environment when needed during these peak times, such as Smiles. And it's a large initiative, but it's going to give us a more robust and scalable platform as we move forward.

[00:14:52] So that is the high-level presentation. Any questions? All right. Questions, I'll start with the chairman. Thank you, and appreciate this update. I had the board matter in front of me from 2022, which, you know, it seems like a long time ago, but a lot of progress has been made, and so I do thank you all for that.

[00:15:15] I guess I have two questions that I don't know I have the clear answers from in this presentation, and one is the availability of credit card payments. I see it mentioned in the context of the kiosk, but I know that there were significant fees that we were concerned with, and of course we were passing those on to consumers, which is really frustrating to me because I think, you know, most vendors will give you a reduction if you pay in cash, but the credit card fees are somehow worked into the payment system so that you're not paying extra if you have to do that.

[00:15:53] And I bring this up not only from a customer convenience standpoint, but also from the standpoint of, you know, you get the funding then immediately, the amount of mail, paper mail you have coming in and checks would probably go down substantially.

[00:16:10] And so I would like to get an update on where we are specifically with ability to pay credit card and what we can do to buy down the fees associated with that, recognizing that we have a lot of county agencies that are collecting a lot of payments, not just DIT. And I sure would think we'd have significant buying power in getting a very aggressive fee associated with credit card transactions. Are you able to give us an update on that piece?

[00:16:37] Sure thing, Mr. Chairman. On the credit card front, there was a small decline in the fees charged. We are currently at 2.35%. Nationwide, however, fees are kind of going in the other direction, which is a major challenge. And certainly you've encountered it, as you've heard from other business constituents with respect to tax diversification. These are set through a contract that the Department of Finance has as part of an overall banking contract. So we are

[00:17:14] governed by those. There are a lot of requirements we have when it comes to safety and security of the credit card information, and the hope would be that they would keep coming down, but this is the best we have been able to do thus far. What we see in many instances is fees approaching 3%.

[00:17:36] We're better than average, but we'd love for the fees to go down some more. Absolutely. And right now for the kiosk pilot, we're adding that to the tax bill clearly for people to see, so they're paying that.

[00:17:52] That is correct. And so what I would like to see at some point is if you waive the fees for personal property, not for real estate, because 3% on a real estate bill is a lot of money, but for some people who can't pay their car tax bill at the last minute but have a credit card and don't want to pay all of our penalties, to me, it just seems like the type of thing we should look at. And so I would just like to get order of magnitude if we were to implement something like that on the personal property tax level, not on the real estate. You know, what would that look like? And, you know, I do think

[00:18:28] there's a administrative cost we save through that process as well that some has to be factored in. I mean, the amount of checks that you get that are coming in through the mail. I mean, there are people that have to process all of those. And so I would like us to look at that a little bit more.

[00:18:44] And then lastly, and it may be worked into one of the future pieces that a non-IT professional couldn't read through, but when you look up your tax assessment on the county webpage, it first is the search element of that is very specific. If you write W instead of West on a street name, it doesn't come up. It's very frustrating to users. So that's one question.

[00:19:12] And then secondly, and I've seen this in other jurisdictions, the interface with GIS mapping, so that when you're looking at your real estate tax assessment, you can see aerials, you can see property boundaries relative to other properties. I think it's not just a tool for collection of taxes, but also an informational tool for a lot of people to go to. And I'm just wondering if we're looking at that platform, my assessment platform, and making the search function easier and making it so that people can overlay and see what would appear to be a GIS image of their assessed property.

[00:19:50] Glad to get you an update on that. We do have the capabilities, but can they be made better? Absolutely, yes. Yeah, I would appreciate that. Yes, sir. Thank you. Sure. If I could go back to the payment methods, is there a legislative requirement for us to collect those fees versus? At one point in time, there were interbank agreements that required us to pass on these fees. I do not believe they are an impediment anymore. We do have at least one

[00:20:24] local government that I know of that does absorb the fees. They did it in part because they had high delinquency rates, something we are fortunate not to have as an issue, but it can be done today in today's environment is my understanding we'll go back and revisit that that would be a good question to get back to the board because i know at one point we couldn't do that that's correct and i'm going to turn to supervisor lusk because i know he has some questions on payment stuff as well okay uh thank you very much mr chairman i'll go quickly um just want to acknowledge

[00:20:59] the great work that has been done by dit and then dta this is phenomenal to see all the changes appreciate that there's a focus in making sure that those that are under banked as well as Those that are not bankrupt have the ability to come into the system. I just have a couple of questions, and I'm really excited about, you know, by the numbers, you've got kind of all this data.

[00:21:22] Did we analyze or look at where people are located through each of these different areas to give us a sense of kind of where people live, who are coming through the system? Because I think that could be helpful to tell us where we might want to, which is going to be my next question, place the kiosk.

[00:21:41] Sure. So the plan for the kiosk, and the kiosk is specifically targeted to serve the underbanked and unbanked. In some ways, it also recognizes the obvious, that not everyone works an 8 to 5 shift, 8 to 4.30, and therefore can come to the government center. Sometimes it's two buses before you get here, half

a day of wasted time. These four locations, the plan is for them to be at the North County, the South County, the Mason District, and the government center. Okay. These

[00:22:17] are the four initial kiosk locations for the pilot. Okay. Once we work out all of the kinks, should the board approve, the plan is that there will be present in each magisterial district to serve every single resident so that they do not have to go any farther than the boundaries of that magisterial district. Okay. That's perfect. Yes, sir. No, I appreciate that. And then I wanted to ask, and I appreciate that you're trying to find additional ways to do processing of other payment types. So for me, I'm just thinking about platforms like Zelle and Venmo, and I know we've

[00:22:55] talked about these in the past, and then I know the one that's the third rail still to me is one that if we can get enabling legislation is on cryptocurrencies, because people could have the option to have a payment processor do the conversion and then send the payment. So I guess the question is, what are we doing on each of these different electronic payment types to have them added to the platform? So we're currently working on, each one has their own little caveats and ways of doing business terms and conditions, things like that we have to work through. We're

[00:23:32] currently working with completed Apple Pay, now working on Google Pay, which is the next big one. that has many caveats as well that we have to work with. There's weird restrictions depending on what type of account's linked in the back end, how it's linked.

[00:23:47] With Google Pay, you can do crypto. There is a methodology you can do crypto with them. But it's restricted to non-government payments. So we're trying. Wow. There's many little caveats that we have to work through with these things as we go through. But we're looking expanding to Samsung Pay in the near future.

[00:24:06] PayPal right now is not a vendor that we can integrate with at the counter operations, but we're looking at the integration at the front end as far as the online payment methodologies. Additionally, Zelle is another one we've looked at because it's a secure banking application.

[00:24:25] Venmo, not as much. Venmo has some terms and conditions about release payment, and if you type the wrong addressing in, it goes to whoever it goes to, and then there's claims back and all those types of things that we have to work with. So we're working with each one individually, and we do look to expand our portfolio tremendously over the next three years.

[00:24:44] But each one takes quite a bit of time to actually get set up. Apple Pay was actually in the hopper before the board matter was issued. So it took almost two years to get all the terms and conditions linked down, all of the caveats as related to our max amount payable and all those things associated in working.

[00:25:04] So we do have the other ones as well, though, but some we can't use, other ones we definitely are researching and getting in place. No, no, this sounds great. Appreciate the effort and the work that's being done there. And then last, just thinking about kind of privacy and security because we've got some pretty sensitive data.

[00:25:24] Just what are we doing? Obviously, I guess this is more of a DIT question in terms of ensuring and securing the data that we're using on each of these different platforms. Yeah, we take that very seriously in Fairfax County here. Anything with PII data and those identical types of data, we're protecting

that and encrypting that type of data and making sure that the people that need access only have the access.

[00:25:50] Okay, perfect. I appreciate that. Thank you, Mr. Chairman. I'm going to do a quick follow-up on your first question. When you said we're working on accepting all these different payment forms, That would be across all of our platforms or just for DIT? DTA, I'm sorry.

[00:26:08] So they can be made available across all the platforms. Specifically, we're working with the tax administration side of things to get things fleshed out with the Department of Finance and our vendor. And then once we get those, we can expand them into other areas. I know there's conversation with other groups as well.

[00:26:24] And I'll be coming back to that point later, but Supervisor Palchuk. Thank you. Well, that was one of my questions. I appreciate it, including the dog fees and transportation and the others. My other one, and I'm happy to see that our new chief equity officer is here nodding to most of this.

[00:26:41] So I would assume that looking at language, the equity policy, both as to what we're rolling out now and then looking at, I'm more interested in kiosk locations that continue to be targeted in the community and that we continue to ensure we see one aspect of it.

[00:26:59] but as you know, many community members have a very different experience from what we have going into it. So all of that I'm seeing head nods. I assume yes. And then finally, I said it to you in person, but I think what's also really important here is that it does allow our in-person interactions to be so meaningful. As I mentioned, Jay, your staff, incredible. I had my parents walk in, needing language and other support, and they were just so, so thrilled.

[00:27:31] Came out very happy. No one knew who they were, but very happy customers. So appreciate that here the technology will help increase access, but also help our staff be able to give appropriate time and attention to those customers who do that.

[00:27:46] Thank you. What I loved about your story was they didn't know that your parents were related to you, And that's our objective, that regardless of who you are, whether or not you know anyone, that you're getting the level of service that you deserve.

[00:28:02] They're great secret shoppers for now because they're outed. All right. I think I got Supervisor Alcorn and then Supervisor Smith passed. Okay. Supervisor Smith? Yeah, mine's supposed to pass. Can I ask one more then?

[00:28:19] Sure. And I'll go ahead and make mine too. I have a really simple one, which is on your slide, page seven, where you have the scheduled payments number. know you were making an emphasis point on that, which I think is really great. My question is, are you able to schedule as many of those as you want for time periods? So like, for example, people that don't have a mortgage and an escrow account, those who have mortgages get to pay a little bit of that every month. Do people get to set up a monthly billing system for real estate taxes? Do they have that same benefit with personal property taxes?

[00:28:56] Yes. So we're currently also working on an EFT portion as well for this. Hopefully get that going here soon. But yes, you can schedule payments, break it down as little as if you wanted to take a dollar a day for the next 365 days. The current schedule block out is 385 days. So you can't schedule beyond 385

days for personal property. Real estate, you can schedule, I believe it's five years. I think it's a five-year cap right now. So yes, you can set up multiple payments over

[00:29:26] I mean, to me, that's a really important thing, and we should be communicating that with our constituents better for you, because I know I did not know that amount of flexibility. But, you know, we emphasize get your car tax payment in. It could be a big check for some people.

[00:29:42] They don't think about it until October, and then they've got a huge financial problem on their hands that month. And so reminding people. Plus, it's also, you know, to our benefit to get portions of those payments earlier. And in our hands, it's in their benefit to be able to financially plan better.

[00:29:57] So I do think that tidbit is something that at least I would like to have that we can emphasize in our newsletters to give this flexibility to people so that they understand it. Because we do want folks going in that direction. We've seen huge numbers already heading that way. I think you're going to only see that continue to grow.

[00:30:15] Thank you. Well, and I saved my comments till the end because I think my question is going to be a little bit of a segue into our next section, and I want to start by saying when I think of customer service to our residents, nobody does it like DTA, and I appreciate that being a mantra and staying a mantra.

[00:30:36] The question that I really want to ask is, and I think it was Supervisor Alcorn who first brought up the vision of a customer porthole that we can go to, that you can not only do tax you can do library you can do parks you can do you can do whatever um but as we design this and that was the reason for my finance question is it just for tax or is it for all our agencies has this been designed with the thought of how it's going to fit into our overall customer service

[00:31:09] portal uh gregory scott director of it yes we're working on that overall vision what we call is a 360 degree view of our customer and so when they come in they'll see everything that they're assigned to and stuff so we're actually working that right now okay so that's and that's part of getting there is the next presentation which is why i was going to be a little bit of a segue in our data architecture but you know we really need to get you know our customer doesn't want to go from tax to libraries to whatever if i go to amazon whether i'm looking at videos my recordings my this my

[00:31:46] that it's all in one place i can get it they they keep track of all my history they keep track of all that stuff. And in presenting that challenge that I guess Supervisor Alcorn first bought to DIT, data architecture is kind of our next challenge in that area. So with that, let's segue to the next presentation. Mr. Chairman. Sure. I was going to ask about that in this next one, but thank you for bringing it up. See, then I was smart. I jumped the gun here.

[00:33:03] All right, Craig, you going to go with introductions first? Yeah, I'm going to set this up first, and then we'll introduce our panel. Today we're here to talk about our embark journey on data, the promise to transfer the way we harness and leverage data. Just for instance, the county, if we look at the amount of data that we store here in Fairfax County within our data center, we're over 12 petabytes of data. If you take that, one petabyte equals 12 million four-drawer file cabinets. So we're up to 240 million tall file cabinets. If you break that down,

[00:33:38] And since we're in the fall, we talked about the Super Bowl, but if you take that equivalent to football fields, which is 360 yards, 360 feet, we're equivalent to housing 1,104 football fields worth of data.

[00:33:55] So we have a tremendous amount of data in Fairfax that we need to harness, and using that, that is not just a byproduct of our activities, but a critical asset that drives innovation, decision-making, and growth of how we handle our business in Fairfax County.

[00:34:17] So I would like to, today, let the panel introduce ourselves. We have a great panel here. We have county resources. We have our resources from our IT advisory committee.

[00:34:33] And then we have Marcus Thornton, who is with the CDO of the Commonwealth. Maura Power, Division Director, DIT. Michelle Gregory, DMV, Division Director. John Morrison, Data Analytics Strategy Manager for the Fire and Rescue Department.

[00:34:52] Sean rasseter Springfield district representative IT pack Brian McMahon hundred mill district representative by t-pack Marcus Thornton deputy chief data officer for the Commonwealth All right, so we'll begin with the presentation So to get started last time we talked about data was about two years ago So tax modernization two years ago. We talked about data about two years ago as well at that time We were really focused around the data governance the establishment of some data governance Processes that got put in place with the establishment of the countywide data analytics coordinator and we talked a lot about our data strategy

[00:35:33] You know why we're doing what it is that we're doing because we want to have better informed decision-making because we want to be able to actually Respond to growing needs and you need those insights to be able to do that, right? You need to harness the data harness the power from that data to be able to meet our customers meet our clients where where they are We've talked about, you know, supporting the effective and efficient government with our strategic plan and using the data, all those 12 petabytes of data, to really help inform how we respond to the community as well as how we improve our efficiencies as county employees as well.

[00:36:09] So since that time, we've implemented several different technical strategies, which I'm going to review today. And then we still have those challenges and some opportunities for improvement, which the business will talk about as well. And then we will go into kind of the perspectives from how to overcome some of those challenges that both the IT Policy Advisory Committee will bring, as well as kind of the insights from the state and how our partners interact with us.

[00:36:39] Because it's not just our data that we need to use to make better decisions. It's also, you know, vendor-provided data. It's data from the state to really get that good community picture. Next slide. So analytics infrastructure. So that's really the groundwork, the pipe work. This is the stuff that most people don't like seeing. You don't like seeing the brickwork. You don't like seeing the pipes and where they're being laid. But this is what gets us to that next phase so that we can use that data in a robust way.

[00:37:10] So we've had, over the last two years, a lot of initiatives towards moving a lot of our analytics into the cloud, because in the cloud, you can really harness that power, you can use a lot of more advanced tools, and we can still keep that data secure while working within our own either private cloud or within one of the cloud providers that we partner with.

[00:37:33] So in that, we've been able to increase the amount of tools that are available for our agencies and for staff to use. With that, we've done a lot on a machine learning standpoint. We've been working with the health department, with the fire department as well, to implement some machine learning projects so that we can work more for automation, so that we can implement many ways to improve our efficiencies.

[00:37:59] As mentioned at one of the last meetings as well, We also have been really leveraging generative AI and the advances there to help improve some efficiencies. We've also worked through establishing multiple data lake houses. So whereas before we were really taking that kind of very structured approach, we're now able to dump a lot of data into one location and do that extraction and that transformation on the back end.

[00:38:25] So it allows you to kind of work with the data a lot faster, and we've continued to work down that process. And one of the last things that we continue to do and I think is the utmost important is really that digital transformation because the data starts with how you collect it, right, and the systems that are in place so that you can collect that information or even like sensors and that kind of thing.

[00:38:48] So we've really worked towards ensuring that we're digitally transforming our systems, that we have applications that really help the business do what they need, help the clients do what they need, and then we can harness that power to provide some of those analytics and those insights. And I guess the one thing that I want to underscore is that throughout all of this, we're continuing to maintain rigorous security policies, especially even from the analytics side, because there's rules around keeping data separate.

[00:39:16] There's rules around making sure that things, only the right people have access to the right data. Next slide. So to highlight some of the technical initiatives, things that we've talked about in the past, but I want to reiterate some of these because some of them are also new, is we've continued to work through our enterprise data classification.

[00:39:37] So those 12 petabytes of data, we have to classify it. We have to know what it is. We have to be able to make sure from a compliance side that we're meeting those compliance rules, But that we're also keeping that metadata so we know how we can use it, right? We want to be able to speak to the strategic plan, understand, you know, items from environmental energy, and all of that information, as long as we have good metadata on it, we'll be able to make sure that we're doing that type of analysis.

[00:40:05] As we go through that data classification, we're evaluating our new tools because we have a very complex infrastructure, right? We have some things in our private cloud. We have some things that are in one of the commercial clouds, and then we also have vendor-supported solutions. So we have to make sure that we're looking at tools that help support us do that work.

[00:40:25] And from cloud-based analytics, as I mentioned before, I want to highlight some of the work that has happened over the last two years. The health department, we've been working with them to get a lot of their analytics into the cloud.

[00:40:41] They actually received an award for the work that they were doing using the infrastructure and the security principles and best practices that we've implemented with them. Additionally, Community Services Board has also kind of gone into that realm, which, again, you have to consider the need for the security and privacy around that data.

[00:41:00] And, again, they're able to, working with us, working with the infrastructure, working with the pieces that we have, we've been able to really look and get some of that client data into this cloud so that they can do better work with their constituents. And additionally, we're also, and this is also an initiating project, based off of the strategic plan, we've been looking at, you know, all of the data and the systems

that are providing data for the strategic plan to let us know how we're doing is coming from all of the agencies.

[00:41:30] So how do we automate that? How do we make it move faster so that we're not impacting the agencies negatively and say, hey, give us this data, hey, give us this data? So we've been working with the strategic plan with Michelle Gregory and her team, with Amy Brobst and her team on trying to really enhance that power from the type of metrics that they're doing and make sure that we're, you know, seamlessly realizing some efficiencies there.

[00:41:57] On the private side, in our own data center, we've been working towards diversion, which you guys have heard about for many years, and that continues to grow. But again, we've kept that in some of our own private cloud areas. We're working now with the sheriffs on a dashboard specifically around opioids and medication-assisted issues, M-O-U-D.

[00:42:23] I forget what that completely stands for. Fire and Rescue, which you'll hear from as well. Also, they have a very robust analytics architecture that helps them do some very, very cool things, which they'll talk about. And then the PLUS system, which you guys are also familiar with.

[00:42:39] Again, there's a lot of data there and a lot of insights that we can gain from that. And then within the next, you know, kind of our future is we're working through with parks because we know there's a lot of analytics and insights of where people are going, what community places they're using, and how we can better deliver services there.

[00:42:57] Working again with the strategic plan and the Office for Environmental Energy and Coordination. So, again, working through a lot of those analytical insights. Next slide. So, with that, I'm going to turn it over. I'm going to turn it over to John to kind of explain how the partnership between DIT and an agency has really allowed them to do some cool things.

[00:43:21] Cool. Thank you for the opportunity to show you some of the amazing work the Fire and Rescue Department is doing. We've become the model agency for analytics-powered data-informed decision-making. We've met with numerous county agencies and some of the largest fire departments in the country have come to us to showcase how we've leveraged technology and sound analytical practices to get where we are today. In fact, because we have embraced analytical technology so successfully, the U.S. Fire Administration chose our department as one of six in the nation to prototype the new national reporting system that goes live in the next few months. Our success comes from primarily three factors. One is the executive support, or excuse me, the support of the executive leadership

[00:44:00] of the fire department and the deputy county executive for safety and security. Two is the amazing staff that I work with every day for my division within the Fire and Rescue Department. And three, perhaps the most overlooked one, is the enterprise IT foundation that DIT provides us to work on, including the servers, the networking, and the cybersecurity. And since Charlie is here, it is cybersecurity month still, so make sure you do your training. We've worked with DIT to embrace these and utilize these technologies. And when the technology outpaces the policy, we worked hand at hand with DIT to make sure that the policy that they establish produces the desired outcomes and then we can document the best practices that other county agencies can follow.

[00:44:40] If you click next, you can see this is an example of our data flows and it's certainly no simple task of all of the things that interact within the, this is just the fire and rescue department. We work to

eliminate data silos, adding requirements that any new vendor that we choose or system must communicate with our systems on demand programmatically through database connections and APIs so we don't have those data silos where somebody needs to manually go in and run a report. We fully capitalized on the technologies that DIT manages and governs for us. And then if you hit next, that includes a bunch of automation tools. So automating repetitive

[00:45:15] tasks, exporting data out of one system and moving it to another, which allows us to improve our work processes and realize operational efficiencies. And the next one, low-code, no-code app development has allowed us to accelerate deployment of custom data collection tools that in this particular case we use this on scene so our safety officers go around and collect data about our performance to focus on continuous improvement, so real-time performance on a fire scene and then that data comes out and every firefighter, even when they're off duty, can come in the next day, see photos from the scene, learn about the tactics that were used, take some of the lessons learned, listen to the radio traffic.

[00:45:55] And finally, we're partnering with DIT on a new machine learning and artificial intelligence project utilizing large language models. And the goal here is to quality assure the nearly 130,000 incident narratives that come out every single year from our folks. You know, we quality assure a significant part of those, but we want to do all of them.

[00:46:14] And that's a lot of staff time, so we can use AI and machine learning to capitalize on that. I'd like to just close out by thanking DIT. It's not often that we think about the server architecture or the enterprise cybersecurity that enables us to perform our jobs.

[00:46:29] But without their partnership, we wouldn't be able to be the national model that we are. So thank you to DIT, and thanks for the opportunity to showcase what we do. Good morning. I'm Michelle Gregory again with DMB. And as you just heard from John, there are some really exciting things that are happening in Fairfax County.

[00:46:49] And we know from what Maura shared as well that they're not alone. There are lots of other agencies that are doing great things to make advancements and partner with DIT. And at the same time, we know we still have work to do. So this slide is really about talking about some of those foundational processes and practices that we need in place to continue to make advancements in this area around analytics.

[00:47:15] I am primarily from the business side, and as you see here, we really are making sure that we're partnering and working together on a regular basis to make sure that we're connecting those skill sets that are so needed to make sure we're working forward.

[00:47:32] So the first thing here on the slide really speaks to data stewards, which doesn't sound too techy at all, but really it's a real foundation to a variety of the other items that are on the slide here. Essentially, we need people within each agency that are taking responsibility for understanding the data and doing the appropriate documentation so that we understand what we have and that we know what data is where and how it's best managed.

[00:48:03] John went through a variety of different slides that kind of showed that, you know, you need these components to work together. And so while the technology is great, we don't want to make our IT

partners solely responsible for what gets to that second bullet there in terms of understanding what's authoritative data and products and resources within our system.

[00:48:28] We need to be able to make sure we have some standards in place to accurately and consistently identify that authoritative data. It's going to help us to be able to not only for that individual agency, but also for some of those enterprise initiatives.

[00:48:46] We already heard about the strategic plan. A lot of my work relates to making sure that there's data available for that plan. And we can definitely enhance and streamline those processes if we have that information organized in a way that it doesn't only answer the initial question that the agency collected that data for, but is organized and managed in a way that we can use it to inform other questions as well.

[00:49:11] The same goes for the One Fairfax initiative. Not only will we more regularly and readily have data available to assess equity, but this work overall really does speak to the democratization of data, so that regardless of whether you're a data scientist or a senior data analyst, you can access and understand that information when it's available and what it's sharing.

[00:49:37] And then bridging the gap, I really spoke about that earlier. I think the panel here kind of highlights that as well, that we really need to be working together. It's a collaborative effort where we're bringing together skill sets from both the technology and also the business side. We have to be able to clearly identify the right requirements, make sure that that data is defined in a way that we understand what it does share, and also the limitations so that we can't just expect the technology to create magic.

[00:50:08] It has to be able to also be supported by good quality information. And then organization and alignment of data resources. This is not about trying to remove or relocate data, but it's really about saying that while we have so much information, and Greg spoke about that at the very beginning of this presentation, we need to be able to quickly showcase how it relates to one another.

[00:50:38] We don't want to have to set up a new work group or an initiative to be able to figure out what data could be related to something that's publicly available. So we need to have the right classification and categorization in place so that we can more easily and flexibly align and realign data to give us information about the questions that we're asking today.

[00:51:02] And then that second to last bullet there is about, you know, making sure we have the rules and processes in place. We don't want this to be a one-off every time we answer one question. We really need practices and processes in place to routinely recreate and make sure that we have consistent repeatable processes for accessing the data that we need and or, you know, for the questions that we may not even have asked ourselves yet. And competitive advantage, not only can we enhance and leverage

[00:51:39] what agencies within Fairfax County have done, which we've heard about, also with the tax modernization, as well as what you've heard from John, we know that in Fairfax County, we have a lot of stakeholders and partners that we can work with and do work with, but how do we leverage that even more. Obviously, we have lots of universities in the area. George Mason is in our backyard, but we also have business, private sector businesses in our sphere that we work with on a regular basis, and we want to make sure we're maintaining that competitive advantage so that we

[00:52:15] can leverage their capabilities, learn from them, embrace that knowledge, and incorporate it into our work and practices as well. And so with that, I will turn it over to the next slide. So now we're

going to kind of talk a little bit more with our partners here with Sean, Brian, and Marcus a little bit on kind of how we've leveraged their partnerships as we move forward with our data work.

[00:52:48] Awesome. Thank you. Thank you all for being here today. This is an incredibly important topic. Kind of lends itself nicely to the conversations we were having earlier and the conversations we had a couple months ago. It's Halloween right around the corner. I probably still won't scare you with a math test or anything like that. I am a fairly technical guy, though, so I'm sorry if I throw a lot of numbers at you.

[00:53:07] what they say, like 73.6% of statistics are made up. I'm going to put some statistics that aren't made up that are actually pretty staggering. The first one is that 90% of the world's data was created in the past two years. And that was found by Forbes, 90%. When you look at that, that's 120 zettabytes. So that's 21 zeros. And by next year, that's going to be 181 zettabytes.

[00:53:29] So I say this, suffice to say, the world is getting more complex, and it's getting more complex through data. And the way that your constituents are interacting with that data is affecting the way that they're expecting things from the county level. So when we talk about my customer portal or customer 360, that's the kind of things that they're getting from their banks, you know, from at the federal government level, from the way that they're interacting with the tax departments. And so those expectations are coming into the way that they're interacting with your county government. What I'm hoping to present to you today is just some simple terms and things that we're seeing in industry. What are the most challenging things that we're seeing

[00:54:05] industry and how that can affect the Department of Information Technology here and how we can use those to have a forward-leaning stance instead of having a backward-leaning stance. So the big picture is if we looked at our data strategy in five core areas, so strategy, movement, governance, access, and integration, you can think of that as kind of like a spider chart. I think the county is doing a really, really good job in a lot of these areas, like storage, movement, in terms of data pipelines, like the things that the county government is doing is actually just phenomenal.

[00:54:35] And then governance, the county is doing really, really good with that, right? I think an area that we can really work to improve is integration, right? So that's that last area I mentioned, right? From the various presentations, and I'll admit that I'm not an expert. I've listened to a couple of presentations, but what I'm seeing is that there are departments across the county that are doing really, really, really good at, you know, fire and rescue, for example, or, you know, the tax administration, right?

[00:55:02] If we can get them to talk to each other and integrate with each other, that is the kind of stuff that will be 10x for your constituents. And that's the kind of stuff I want to really hammer them today. So look, the bottom line is that a good data strategy leads to better decision making, increased efficiency, and, you know, a better competitive advantage, right?

[00:55:20] And I know that, you know, this isn't, we're in a business, right? Obviously, we're helping our constituents. But I'm trying to point out that, like, constituents are expecting these things because they're seeing in the private industry, right? So when we look at the biggest challenges that we see in the private industry, and I work with many, many customers, almost all of them have some of these challenges.

[00:55:38] The first one is data silos and lack of integration. That's probably the biggest challenge that every customer has. And if I could give an analogy, it'd be kind of like running a marathon where you have

your right shoe on your left leg and your left shoe on your right leg. You could do it, but you're not going to get very far, and you're probably going to have a lot of pain doing it.

[00:55:55] And that's kind of, I think, a similar situation to where the county is at, where you guys have the tools, you have the shoes to begin with, But getting them to work together and run correctly in the right direction, I think, is a difficult area. The second area is data quality and reliability. That's going to be a challenge anywhere, right?

[00:56:12] Everyone's got challenges with improving their data. Security and privacy concerns, skilled talent, finding and retaining skilled talent is always going to be an issue, right? And then keeping up with technological advances, right? Like the conversations we're having today will be sustainably different two years from now.

[00:56:29] I remember two years ago, like, generative AI was not really even on our radar. We weren't talking about OLMs. Makes you wonder where we're going to be in two years from now, right? So if we get to more of that concept of the customer portal, I think there's a lot of things that are, like, really beneficial that people could use, right?

[00:56:44] The ability to monitor progress of applications, permits, and licenses in the same place that they could then go and pay for those permits, right? We discussed that a little bit earlier, but that's the kind of thing where, like, that would be very, very, very, very beneficial to our constituents. Even being able to know who your elected officials are just based on your address, right?

[00:57:02] I think, like, at the state level, like, VPAP has gotten really good with these kind of things, but that's not a government entity, right? It should be something that's provided by Fairfax County, right? Being able to collect information on schools, fees, lunch balance, graduation fees, yearbooks. Like, as a parent, I would like to be able to go to the same place that I can see a library card registration where I could also see information about the schools, right?

[00:57:25] And I think, again, these are things that, like, we all agree on. How do we get there? It comes from a data strategy, and it comes from that integration, getting the departments to speak to each other, right? um and i'll let my other two colleagues talk about it i think one really really great case study is data.gov at the federal government level this was launched in 2009 they only had 47 data sets back then right 47 data sets now they have over 3 000 data sets it's been 15 years right and what they did is they merged federal government state government city governments county governments universities and they put them all together and got them start talking to each other right so we can leverage these similar kind of case studies at the federal government level

[00:58:01] and even at the state level to see how to how it's done the last thing i'll end on this is i've been on this this county board for about four years now and one of the things i mean we we fairly commonly agree we don't disagree it's a very agreeable board but one of the things that we've almost unanimously agreed every single time this topic is brought up is the idea of a chief data officer in fairfax county and i wanted to relay that because i think it's something that is incredibly important we've recommended it i think it's something that we should at least open up that topic because what you're seeing is there needs to be someone that looks at a global picture of Fairfax County and how we get those things communicating to each other. So I'll end with

[00:58:36] that. Okay. I know we're running tight on time. I'll try to be very brief, but I thought I'd just really quickly start and give you a little bit of my background to kind of explain why I'm here today. So in a prior life, I was the CEO of MapQuest. I've heard all the jokes already.

[00:58:52] I will apologize in advance if we got you late to an appointment that you were trying to get to, but I'll go there. So one of the things that we did when I was at MapQuest was we started a data as a service business. So this is kind of like, you know, early 2012, this is when data started really becoming kind of a popular thing in the industry, and people started realizing the value not only of the data itself, but the connectivity of the data. And so we spent a lot of time thinking about kind of how to properly structure a data business. And when I saw the presentation, you know, at the IPAC meeting about, you know, the fire department, it really kind of reminded me of kind of what we were doing at MapQuest. We were building a very specific data business around, you know, the value of our specific location data.

[00:59:31] And, you know, as we realized kind of the value of that, we started to think about what would happen if we started to enrich that data or augment that data. MapQuest was owned by Verizon at the time. And so, you know, there's very much a parallel between kind of what the fire department is doing and what MapQuest was doing at the time. We decided, hey, look, this is a much bigger thing than just what we're doing.

[00:59:48] So we went and talked to Verizon. And what we wanted building was what was called a location data center of excellence. And the idea there was you're using all this, you know, you're investing in all these different location tools and location entities across the entire Verizon business, things like telematics, et cetera. And you're missing out on all the value because you have all these disparate components and different data sets kind of across the org that aren't secured, that aren't being paid attention to. And so we did very much kind of like what the fire department was doing and said, hey, look, look at us. We can do this. We want to building this broader group. But the four things that I really think about, and I will say I've been super impressed with what the county is doing,

[01:00:24] you know, kind of talking to them over the last couple weeks. But the four things that I really think about, and Sean touched on a couple of them, so I'll be brief. One is the structuring of the data, right? So, you know, I think one of the things that happens when you have these siloed approaches is you have different structures of data. It gets really hard to get access to.

[01:00:40] Obviously, centralizing that, you know, becomes very, you know, critical to kind of a broader strategy. The second is enrichment of the data, and I think this is one of the things that people miss when they think about this topic. You know, there are very simple things. I think this was addressed earlier in the presentation, but they're very simple things you can do, things like location data, things like, you know, you know, populist data, et cetera. There's all these different data sets you can layer on top that, you know, it's not much more work to, you know, augment everybody's data than it is to just do, you know, kind of one particular, you know, data set. The third is access to the data. I think Sean addressed this, you know, pretty, you know, specifically, so I won't touch on this too much, but making sure that everybody has easy access and

[01:01:17] secured access to the data is really critical. And then the last thing I would touch on is, you know, the security, right? So I now run a security business based out of Tyson's. It's obviously a focus of mine, but given, you know, the types of data we're talking about, you know, as that data, you know, as you

put more data into this data room, data store, it becomes more valuable to you, but it also means it becomes more valuable to somebody that's trying to get access to that data.

[01:01:43] So making sure that you have a centralized team that's focusing on the security of that data is absolutely critical. So I'll leave it at that, but thank you for having me. I appreciate it. Thank you. It's great to be with you guys. And I agree with everything that's been said. I echo the sentiments of my colleagues. And, you know, I'll just say from a state perspective, you know, you guys are really on the right track. I mean, we've spoken, we've worked with a number of agencies, a number of localities through several initiatives. And it's really encouraging to see

[01:02:19] where you guys are with your data strategy and really where you want to go. I know for us, a lot of what we talk about, and it's a common theme, is data quality. And, you know, one of the phrases we use is garbage in and garbage out.

[01:02:35] And that's something that, you know, you can really relate to in terms of, you know, whether it's a system, whether it's, you know, a problem you're trying to solve. It all starts foundationally with, you know, the integrity of your data.

[01:02:51] And regardless of how well your governance strategy is or your technology, you have to start there. And so it's really good to see that, you know, you guys are thinking about, you know, how to put that together. You know, you're not just thinking about servers or, you know, how fast you can ingest.

[01:03:09] You're actually talking about data stewards and data custodians and, you know, how to align them, how to integrate those processes and workflows to these systems. Because ultimately, you do want to get to the point to where you can build these insights, where you can have these things like predictive analytics and build dashboards.

[01:03:32] One of the things that the governor always tells us is, yeah, it's great to have these insights, these numbers. you know, specifically talking about something like opioid addiction and how we address it. So we give him all these stats, but he says also, yeah, that's great.

[01:03:48] I know all these people who are dying from opioid overdoses, but what are we doing to address it? You know, what are the tangible things we're doing to address it? And so it's great to have the insights, it's great to have the stats, but it's also important to think about, you know, the metrics that you're trying to build.

[01:04:07] know what are you trying to solve and that's why you know that's why it's all important so it's great to to listen in on this it's it really feels like you guys are on the right track so thank you all right with that let me start by thanking Sean Brian and Marcus and one of the things I want to do is bring it back in in the experts in more often as we have these committee meetings you added a lot thank you to our staff your presentations I'm going to save my comments till towards the end because since I beat you to the punch last time I'll let you go but

[01:04:44] start with the chairman we'll go from there thank you very much first excellent presentation I can't help but sit here and think about how far we've come in a really short period of time because the county was famous for being you know one of the first adopters of technology but in a lot of cases that set us into a proprietary legacy system that was hard to overcome.

[01:05:11] And so, you know, it was right to go in that direction. It's been hard to kind of decouple all that now and get into where we are today. And I have to say, in the last couple of years in particular, the strides that have been made are huge.

[01:05:28] And that's what we're hearing. And certainly I think the point about different agencies and what they're doing is really important to us. And I know FRD in particular has been on the front end of a lot of use of this data and technology and I think showing a pathway forward how we can use it countywide.

[01:05:45] I also appreciate the part about supporting our missions, both of the strategic plan and of our One Fairfax policy, because addressing equity requires data, and a lot of times it's guesswork, and it requires equal access and availability of that data.

[01:06:06] And I was kind of focusing on what Marcus said at the end about, you know, the importance of how you just don't have the data, but what are you trying to solve? Sometimes it's the data itself that tells us what it is we need to solve.

[01:06:21] And so without that data, sometimes it's hard to grapple with, well, within the opioid numbers, where specifically in the county, what is a demographic? What are some other relationship issues to opioid abuse that help us set a more measurable goal to address that issue?

[01:06:40] And without that data, we don't have that other than maybe a hypothesis of what that looks like. And I also appreciate the organization and alignment of the data resources bullet point that's in here because we do have a ton of data. But historically, that data sometimes gets in the way of what it is we're trying to find because it's all recklessly, it's reckless abandon out there to not use an IT term, but finding exactly what you want.

[01:07:08] And I remember when we went through this, when we revamped the web pages, the county web pages, even with the links and all the stuff, our problem was we had too much data. It was too redundant in some ways. In some cases, it didn't work towards telling a story at all.

[01:07:24] In fact, it further confused you. because it was collected in different agencies and different departments and was collected in a different mechanism. And so it actually made it less clear for us in trying to figure out what we were doing. And so being able to organize and align that and getting our county agencies to be talking to each other about that is, in my mind, probably the most critical thing on here because the misuse of data can happen real easily if it's not, you know, sorted in a way that gives us what the full picture is that we're looking at.

[01:07:59] And so I really appreciate that. And so it is great to hear third-party validation of where we are, but I also, you know, want to make sure I give credit to our county departments because, as I said, I remember having conversations with the county executive years ago about some of the challenges we had with our legacy systems, And it's very clear that a lot of work is being done to overcome those and position us in a much, much better place moving forward.

[01:08:29] So we can be the first to do things in a lot of ways, but sometimes, as we've learned in the past, that can also be a challenge. And so we're overcoming that, and I appreciate all the work that's been done on that. And then lastly, not only is the data helpful for us in solving challenges, but one of the biggest challenges we have moving forward is a budget one.

[01:08:50] And, frankly, this data, I can't underemphasize the value of this not only, you know, helping us become better stewards of customer service and use data to solve community problems, but also very hopeful that a lot of this data, and I know we've seen this in FRD with public safety because we've had presentations on this, is that when you have issues like staff shortages or other things, being able to put the right people in the right place based on that data helps us downstream be more efficient in the way we do.

[01:09:20] we use limited resources and so this in my mind also is very much a budgetary conversation so thank you all right supervisor Alcorn and then I see Lusk and Daly thank you very much mr. chairman so just first of all thank you all for the presentation the feedback the summary of what's going on I have two questions one is is is very specific John for you yes sir so for the system that's in place, how close to real time is the information on incidents? Because I know,

[01:09:58] and let me ask this question, because I know up through the chain, you know, maybe sometimes district supervisors, questions come in about incidents. How much of a burden is it on the people that are actually putting the data into the system? How's that working? We've spent a lot of time educating and making, if we ask simpler questions, we can get more accurate answers, right? So trying to get, we don't want to make bad decisions faster is another way of saying that.

[01:10:32] So by making sure that we're collecting the right data at the right time, and as soon as we can after the incident has been mitigated, it allows us to get that more accurate reporting. So we've spent a lot of time in data literacy for our firefighters and, you know, saying we can't look at when we send a quarter million units a year to incidents, we can't look at every single one of those records individually to make sure they're correct. So it really relies on the training of the unit officer. And as I said, like making the data entry simpler and more effective and more efficient, that really allows you to, when you have a bigger pile of bad data, you get worse

[01:11:11] decisions. So by making sure that the data is entered correctly at the first part, the QCQA process to going through makes it a lot simpler and i think that echoes across everything fantastic thank you uh for that because i know any types of systems like this particularly new ones um you know let's be careful uh you know how are the impact on staff because sometimes it might look good to us but you know on the ground so it sounds like you've got that in mind from the get-go so thank you very much um my other question is more general i don't know greg if it's for you or others, but on the data integration, on the customer focus, how are

[01:11:47] we doing, you know, it's not just all the different payments and the fees that we have in the system, dog licenses and library fees and everything like that. It's also on the other side, people that would qualify for discounts or no fees or, you know, maybe a receipt of public funds in one way or another.

[01:12:11] So how are we doing on sort of, and I realize it's going to take a while, a longer-term integration of those systems? Yeah, good question, Supervisor Alcorn. We've actually started that process.

[01:12:28] It's really looking at classifying that data, really curating that data to make sure we've got the right data, and then making sure that the questions we need to ask, we're asking to get those results back. My staff, they always hear me talking about it because I did a lot with Health and Human Services talking about how do we look at a customer coming in the door, right?

[01:12:52] Right now, when a customer comes into the door, he has so many doorways to go through, right? What we want to get to, you come in at one door, right? And I can get all the information I need to gather from you. And then I can, through good classification of the data, curating the data, I can make those decisions back to you that you qualify for SNAP, you qualify for assistance for child care, boom, boom, boom.

[01:13:20] If we could get to that point where that individual comes in, maybe he's looking for temporary housing, but we got enough information to tell him about other services that are available to him, we're actually doing a better job for that constituent, providing him that information instead of having him come to those multiple doorways.

[01:13:38] So that's, when I talk about the 360 degree of a customer, that's what we really want to get to. Fantastic. Yeah, I look forward to any of you to a future presentation, you know, specifically on that. And then when you get to that, you know, we've got to, you know, understand the data requirements, what we can share and what we can't share.

[01:14:00] Right. We should not go in and looking at we can't share anything. We need to go in and looking at what can we share. Right, from the customer perspective. Yeah, to make that decision. Yeah. There's technology advances out there now whereby I can have that whole data set and what is not shareable can be hashed out so that that individual or whoever is making that decision, hopefully that's more in the machine learning, it sees those fields that it knows that he has to make those decisions.

[01:14:29] Yeah, and I'm just going to jump on. That was what I was hoping we were going to get to today is the pathway there. They're working there, but it's the data piece that needs to get done first. So I'm on top of them on that. And I think it's important to note, it's both ways. It's the customer coming in and seeing what they need to see, but it's also when they come to us, the county employee that's taken that request.

[01:14:53] You know what our board offices do every day is we direct people to the right place, and we're the right places, but you ought to be able to come into the county, somebody from the county ought to be able to look out and answer a whole host of questions for people that come to us.

[01:15:08] It's that customer service. It's going to take a lot of silo smashing because that's, and I see a lot of heads nod because that's the biggest issue is getting through the silos. There was a company, Silo Smashers. Is this still around? Yeah, it was. I don't know if they still do that, but you remember them?

[01:15:24] I do. Rodney remembers them. Of course. Supervisor Laskier-up. So thank you very much, Supervisor Alcorn, for the question that you just asked. Mine's a little similar. So the thing that I recognize is that when you have so much data, you've got to figure out, you know, how do you analyze it?

[01:15:41] How do you interpret it? And then most importantly, how do you make it so people can understand it and how do you visualize it? So could you talk through those different steps in terms of how we're approaching the data analysis here in Fairfax County and how we're making it so that our regular citizens can understand what we have and how it can be used?

[01:16:08] So using the fire department as an example, it really starts with, you know, having those input of the data sets, right? Like what are those customer-facing applications, taking that data, and then we go through the process of transforming it. And this is where the business is so super important because they have the knowledge of the systems.

[01:16:28] They know what the clients are coming in or how they're using the systems. And so it's a partnership between both sides, both the business who asks the questions and says what it is that, you know, they're trying to ascertain from the data and working with the technical SMEs to do that data flow, work with them through the data cleansing process, work with through the technology tools.

[01:16:50] And then I guess it also goes into kind of that standardization of that metadata and what is it that you're actually capturing, because I think it is very easy to say, I think I'm looking at this data and I think it's saying X, Y, and Z, but it really isn't, right?

[01:17:07] So that's where it becomes very important from a documentation standpoint, from a standardization standpoint for every agency and every data store to make sure they're putting that information in there. When you look at this data set, this is what it's telling you, and this is what it's not telling you. So you add in kind of the methodology and the approach in which that data was kind of curated, and then you also add in the documentation as to what its limitations are as well.

[01:17:35] Just as a quick follow-up, are we working with companies that help us in doing some of that kind of analysis and visualization? What's the protocol for that?

[01:17:46] So we do have, you know, enterprise access to Power BI, right? So everyone can use it for creating data visualizations. We do work with, from a data profiling standpoint of being able to say, like, similarity search. We have worked with vendors on kind of refining some of the statistical algorithms that might help us identify that, you know, this person who has access to these types of resources should maybe also get, like, housing support or should also get that.

[01:18:16] because that's kind of a statistical algorithm. From setting up the infrastructure and working with kind of the agencies, we've taken a kind of a case-by-case approach, right? So what does the business need? What is it that they're asking for? And then we kind of work through with them, either through a staff-og approach or with direct staff as well.

[01:18:35] But obviously, we welcome partnerships, as many as we can get, with both, you know, GMU or any other, you know, universities or places like that. And we are researching. Supervisor Luss, also, when you look at the data that we're playing with, like, for instance, if it's DHR, I'm not going to get an outside vendor because we have a focus support and it's internal.

[01:18:59] So it really depends on what we're looking at and how we're going to move forward. So we're very careful. And I'm sorry for cutting Greg off because I know what you're going to say next, so say it. No, we're constantly looking at the industry trends and new technology that's coming out whereby a lot of this used to be a manual test, and now there's a lot of new technology out there with the power of machine learning that can do that, but it still takes that individual to sit down and look at how we're classifying that to make sure that it's the real, the accurate classification that we're using for that and developing the right metadata.

[01:19:39] All right, Sue Rosa Palchuk. Thank you, Mr. Chairman. First, I want to thank all of you here from our county team that really, really does incredible work, and our industry experts. Good to have you here. I was just looking you up, Brian, a threader, I guess, not to be confused with theater if you don't read it correctly.

[01:20:00] But yeah, I guess, you know, clearly we need to have this conversation, and it's so important, and definitely going slowly to go fast, right, and go strong and plan for the future, because it's just going to

keep changing. So number one, and I think this has been discussed, is making sure we continue to have the highest level of security possible right there. We have over a million residents. I don't know how many businesses Jay will know. And just ensuring that even if it means doing it one agency at a time, that we continue to keep that as secure. And I think

[01:20:40] was brought up the human factors piece of it as well, right? In so many levels from all of us just at this dais that are at different places of our understanding and ability and comfort with using data, with using the technology we already have. And it's not just our HHS databases, but the state and DSS has its own database and some of them have been very, very difficult recently. And so we clearly have to, and the federal ones, make sure that we are tied into those. So I assume, Greg, you have more information as to how we're looking at where the state is and how we move forward,

[01:21:19] but we have to stay in line with that. So I don't know if you have more information about how we're able to move forward knowing that we have to rely on these external processes and institutions for what we do at the public side.

[01:21:36] Yeah, that's our challenge. Marcus and I have had that discussion of how do we get more data from the state and then how do we make that transition a little more smoother. So things that we're working with, I think a good example is what we've done with the health data from the state with our local health department and getting that data.

[01:21:55] But there's still a lot of vast value in the data that's collected at the state and data that's collected at the federal level that we're definitely planning on tapping into and bringing it into to make better decisions around. Yeah, and I'll just say, you know, we help localities all the time either work with, you know, our, you know, agency partners to help receive some data or provide data to any state agency as well.

[01:22:26] So I would refer you all to data.virginia.gov, which is our open data portal, which is Virginia's open data portal for, you know, a variety of data sets, spanning from health care to, you know, police, policing information, to even just basic locality data.

[01:22:45] So, you know, there's open data out there, and then obviously, you know, you mentioned DSS. You know, if there's ever a need to work with an agency for any sort of specific data sets, please don't hesitate to reach out to us to help to facilitate that data transfer in the meeting and really anything related to, you know, analytics.

[01:23:06] Yeah, no, and I appreciate that. I have less concerns about, right, the large data sets. I have much more on the individual, right, And what we are collecting from people, how we are collecting it, how people feel safe or not safe, sharing that data, which, you know, from our staff using it, and I think FHIR is a great place, and CSP, right?

[01:23:29] So I guess I just want to make sure that we continue to look at it that way as we try to expand our abilities to use that information and to better coordinate it for our clients. Yeah, and that's why it goes like when we start these analytic workloads and as we've moved a lot into the cloud, the conversations, it's not just the data analytics team.

[01:23:51] Like there's probably more people that need to be at the table because security is involved, right? From a networking perspective, we want to make sure that data and transfer is secure. So we have

all of those conversations in the beginning. We run through a rigorous, you know, architecture review process.

[01:24:06] We make sure that compliance wise we're meeting those rules and regulations. And it's a discussion. We often have conversations with OCA as well as to, you know, how can we best protect some of this data. So we do consider security throughout. And this is some good conversations that we're willing to come out to each one of your offices to talk about, you know, our data drive and how we're securing that data in a more close conversation.

[01:24:35] Finally, I just want to say, to me, the way we're doing it makes so much sense. I just keep thinking of the O-ring. I don't want to have an O-ring situation here. And so the fact that you have the experts at each agency, in each group, in your group, cross-county, I mean, a lot of this does fall under cross-county coordination, which is where we're looking at those silos to ensure that someone's not just coming in from the top and saying, hey, we want to do this cool thing over here, but that it's really starting from let's understand how we do things, why we do them, and what our potential impacts, right and what are the unknowns as we move forward on some of these exciting projects but

[01:25:14] looks like exactly what you said making sure the right people are at the table i think it's going to be more important than who's at the top of that and how that's being done thank you okay well thank you that was a fabulous uh discussion and i think we've got some pretty clear direction which is uh which is even better um the agenda says you've got five minutes on the affidavit board matter and another five minutes on AI training, but you're going to do it all in three minutes, right? I can do it all in three minutes. I thought you could. On the affidavit process,

[01:25:51] we're making great process with that. We started out, we had a very complex process that we were putting together. We refined that working with two board offices to simplify that. We're actually working with our partners in planning to go through that. They're reaching out to the customers on the new form that's being designed. So it will be an electronic form that it will be fillable. And then the second part of that we're going to look at is the automation of digital notarization from the customer on that. So that it would be all self-intained. And that

[01:26:29] way we can go back and look up things, but it will generate the list for the boards to compare for contributions. On AI training, we had several courses out there on AI training. We actually re-looked at that training, refounded that training to make sure it was meeting our policies and our guidelines. We've actually came out with a new prerequisite class, which is a video. I suggest that all board members please take a look at that video because that was done with one of our interns.

[01:27:04] It was actually well-received. In fact, actually seen it. They were very impressed in what we had put there together. So that's the prerequisite course. And then the training should be starting in the next two to three weeks, the refined training that we've redone.

[01:27:24] Okay, any questions from board members on either of those topics before we go? How fast can we hire that intern? I know. She's just in their freshman year at UCLA. And on the board affidavit, I think we're on the right path with that.

[01:27:46] It's just basically a simpler way that we're going to get the names electronically. And I think that'll help a lot of the offices. Supervisor, man. I'll just say this super quickly. I'm really excited that the affidavit is moving forward in that process of electronically bringing it to 2024.

[01:28:04] forward. I think it's going to be much easier for not only our board members, but our staff as well as the county. So thank you, Supervisor Herdy, for being the one to bring that up. And I'm really happy to help support this initiative. Yeah, I think it's also going to be easier for our customers, which is even better, the folks that are filling it out. So all the way around, I think, a win. So thank you.

[01:28:26] With that, we're adjourned.

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