Zebra Your Edge Podcast

Hosts:

- **Andre Luecht, Vertical Strategy Lead, Transportation and Logistics, Zebra**

Guest:

- **Michael Inglima, Ram Mounts**

Transcript

00:00:00:00 - 00:00:24:12
Andre
Well, great. Thank you very much for making the time today. This episode is called, "Curious what's really happening over the road? Want to better track and manage goods in transit?" My name is Andre Luecht, and I'm Zebra's vertical strategy lead as it relates to transport and logistics. And my guest today is Michael Inglima from Ram Mounts.

00:00:24:12 - 00:00:50:23
Andre
So welcome, Michael. thank you for having me. First of all, thanks for taking some time off to talk to me about what you seeing in the transport and logistics space, especially with over the road operations. I'm sure with the electronic logging mandate that has been in place for the last five years or so, you've been especially busy around installing tablets, mobile devices and more.

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Andre
Could you maybe shed some light onto that?

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Michael
Yeah. The ELD mandate has made a huge impact on our business, especially obviously, because it's a lot to have a tablet mounted in the cab of semi-truck. But we've been working with so many freight carriers since the mandate was announced in 2015, and so it's just it's been a race to transition these companies into the world of device mobility

00:01:20:10 - 00:01:47:07
Michael
to meet the Q4 2019 deadline for most. Going through it, too, has been a huge learning process because the industry's reaction was, "Oh, we just need to get a tablet into these trucks." But as time passes, you really need to consider how new technology developments and device manufacturing challenges impact the decisions that these enterprise businesses had to make when deciding who to partner with.

00:01:47:09 - 00:02:25:29
Andre
I know many companies are making technology purchases these days in reaction to regulations or mandates. not just in T&L. We're seeing the same thing in food safety. We're seeing the same thing in drug supply chains...perishable foods. But because compliance is the driver for these purchases, I'm wondering if the buyers aren't selling themselves short. Many business leaders aren't taking the time to consider the bigger picture and are just simply trying to comply with the mandate as it stands.

00:02:25:29 - 00:02:30:05
Andre
So in T&L, we might see fleet managers opt for the lowest cost tablet

00:02:30:10 - 00:02:51:27
Andre
because they need an ELD, and they see the tablet as the best way to get that telematics display. However, if you want to think

this two steps ahead, if the money is being spent, you might as well use it for, additional capabilities. As in, I need to see what's going on in, the cab or

00:02:51:27 - 00:03:11:27
Andre
what's going on in the trailer. I want my drivers to be able to better report, manage inventory in transit and potentially record deliveries. So, I could use the same tablet I'm using as an ELD to get visibility into these other things and support other workflows. Is that something you would agree to?

00:03:11:29 - 00:03:38:27
Michael
Yeah, absolutely. I do think, you know, obviously it's an unavoidable factor that cost usually takes the biggest priority in purchasing decisions, regardless of a countrywide mandate. But since most companies view ELDs as a simple display, for the device manufacturer, for the software provider and the mounting provider, winning opportunities almost exclusively comes down to the price of the solution.

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Michael
But I think that's where, here at Ram Mounts, we've identified a need to design a cost-efficient and scalable solution on the mounting and docking side so that companies can shift their priorities towards things like improving workflows and safety and utilizing AI. Because it's not just a display. These tablets are being removed from the dock to perform roadside inspections and inventory checks, stuff like that.

00:04:04:11 - 00:04:26:06
Michael
And that can involve scanning and documenting outside the vehicle. And, you know, we've been working with freight carriers for a long time. And at first it was all about creating holders for GPS devices. And then they needed universal solutions for mixed tablet deployments. And then traditional plug-in charging was on its way out. and they wanted a dock to keep the tablet charged.

00:04:26:06 - 00:04:57:15
Michael
So pogo pads were integrated into tablets. And, you know, companies required custom form fit solutions to maintain that proper alignment to the docks. Then, as you know, device manufacturers changed the form factor and were end of life-ing devices at a rapid pace. And so, we reacted by developing our own system called IntelliSkin with GDS tech. And it was like an ecosystem that essentially cut down on the future cost because it's designed to only need a new case when upgrading devices, no matter what the form factor is.

00:04:57:18 - 00:05:12:25
Michael
The dock and the mount don't need to leave the truck at all. And that reduction of upgrade cost has provided some wiggle room for growth in considering these workflow improvements and implementing new technology, all from the one tablet.

00:05:12:28 - 00:05:42:26
Andre
Very good. I like that ecosystem idea and platform. It sounds like something that would solve a lot of problems. We've seen some trends towards smart trucks or smart freight as well. I know that term can mean many different things to many different people. I heard that in Texas, there's a movement towards smart roads that would support a ton of smart autonomous vehicles, etc.

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Andre
But I think, fundamentally, the near-term trend is probably toward smarter trucks. as in, injecting more automation and intelligence on board to assist the drivers, or perhaps to feed information back to the home office or the customers - a time of arrival or whatever it may be - or others in the supply chain that need to know what's going on...

00:06:08:16 - 00:06:36:00
Andre
what's going on with the driver or the goods that are being carried. This goes back to the notion of installing cameras, sensors, other data capture, possibly other technologies that are readily available and familiar today, and then connecting it with a tablet and using AI technology that may already be in each of these devices to analyze actions and data coming from these different sources.

00:06:36:02 - 00:06:47:09
Andre
Is that is that something that resonates with you, or is that something that we could find it's correspondence in the ecosystem you're describing?

00:06:47:11 - 00:07:24:02
Michael
Yeah, yeah. This is where I get really excited about the future of the transportation industry because, you know, obviously, AI is pretty polarizing in all industries right now, but specifically for transportation. I think it opens the door for so many unique solutions to problems. We recently teamed up on a smart truck project with Waste Management or, WM now, and they installed a system of

cameras and sensors into the back of the truck that would essentially scan waste pickups and identify the material that was being loaded into the truck in order to improve the sorting process.

00:07:24:08 - 00:08:00:03
Michael
And, obviously, I'm simplifying that. There's a lot more that went into that. But, you know, all that is connected, that system is connected to the docked tablet inside the cab and records all of this data into the software that was developed to be able to use, to improve things, over time. And I think that, in just traditional commercial transportation, we're seeing that too, because going back to "that is simply a display" - the notion that it's just a display - it's valid.

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Michael
There are so many different things that you can do to connect the tablet to the system in the truck in order to take all of this data that you're getting from in and outside the truck to be able to improve whatever you need to do. You can connect to...if you're carrying a refrigerated unit...then you can get all that data

00:08:23:18 - 00:08:41:04
Michael
that is going on in the back of the truck that you're not seeing as the driver. It's all happening through the tablet. And it kind of blows the whole door open on what you can do with that and how you can improve those processes. You know, you mentioned the roads in Texas being digitized.

00:08:41:06 - 00:09:17:20
Michael
I think that's all really cool because, on one hand, there's all this data that's being captured in the truck, and you can use it to optimize all kinds of different things and develop new systems that you never thought were possible at first. And, you know, that helps lump it into upgrading safety and how to be more efficient and how to avoid certain things on the road and things that really help the driver out. It kind of destroys the belief of, you know, freight transportation is simply that: freight transportation, pick up freight, drop off freight, get there as quick as possible and efficiently as possible.

00:09:17:20 - 00:09:37:03
Michael
And I think there's just so many other things that you can do with AI technologies. And, a lot of it has a big part of like using scanners and, and and cameras and building these elaborate sensor systems to be able to communicate with the system. Overall, I think that's where it gets really exciting, though.

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Andre
Very good. I think, between you and I, I think we're probably aligned in saying that this might just be the beginning of every truck, every vehicle, is going to be a smart one going forward. Yeah. And we're just on the on the cusp of this really being mainstream. We know that at minimum, you need a tablet - or handheld device for that matter - a rugged tablet, to serve as an ELD.

00:10:08:11 - 00:10:35:17
Andre
But you're going to need to depend on the technology for more than that at some point. So which means the placement, the connectivity, and the functionality of this technology is very important. So I want to dig into that for a few minutes. If you had to ballpark how many tablets and other mobile devices, sensors, cameras have you installed over the years that say for ELD over the last five years must be, gosh, a lot.

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Michael
Oh I would I would say definitely in the hundreds of thousands that's for sure.

00:10:42:04 - 00:11:12:18
Andre
So that's interesting. I would assume that because there's a bit of individualization or customization required when you install something like this, custom work, if only to ensure the placement was right for the driver or the passenger. What are some of the things that fleet managers need to be thinking about when choosing devices, smart accessories for the trucks and other vehicles, if they go buy everything themselves.

00:11:12:20 - 00:11:32:15
Andre
What's the one thing that could help ensure that the installation goes smoothly? Or, asking the other way around: What makes an installation complicated or perhaps impossible to the point that you guys are raising your hand sayng, "Well, this is very, very difficult for us." Can you shed some light into some of that?

00:11:32:29 - 00:11:51:19
Michael
Yeah, I think this is a good question for me being a representative from a mounting provider to answer because it really has a lot to do with our side of things because you need to be able to understand the micro and the macro of what system you're going to be developing.

00:11:51:19 - 00:12:18:25
Michael
And I mean, my micro is like, you got to make sure that the system we're implementing is compatible because I couldn't tell you how many times people try to buy a system and they don't buy the right power supply to connect to the battery, the vehicle, and then all the way down to the macro of understanding that you are buying a solution that you are definitely going to need to upgrade in a few years.

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Michael
And whatever money you're spending on this solution now, you're going to probably spend the same, if not more, a few years from now. So again, going back to our development of the Intelliscan and GDS platform, we have this new dock called the Unicon Dock. And essentially it's just, you know, we want to do our part in making it as easy and cost efficient as possible for fleets to upgrade when the time comes because we know what happens where depending on whatever the tablet is, whether they introduce some sort of new fancy port or some charging technology or whatever,

00:12:56:19 - 00:13:25:03
Michael
you can ensure that as long as you just centralize the connection point to the skin or the case of the tablet instead of the tablet itself, then it doesn't really matter what device manufacturers come out with next. We'll make sure that we develop a skin that can wrap around it, protect the connector, and convert that charging point to flat, easy to clean pogo pads that you can then dock in the same dock that you bought three years ago.

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Michael
So for us, it's about creating that scalability on, "Hey, if you buy into this specific system, now your cost isn't centered around: 'Oh, I need a new mount, I need a new charger on the new dock.'" Now you just need a new skin for that new tablet that you're going to be upgrading your fleet with.

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Michael
And once you pop that skin on, you can just leave the dock in the mount already installed on the vehicle. You just pop the device in and, you know, that's what I mean by one of the biggest things to consider is that upgradability because it's going to happen and who knows? Depending on what device manufacturer it is,

00:14:05:14 - 00:14:31:12
Michael
and, you know, one thing I like about Zebra is that the overall total cost of ownership of the tablets is much longer than any of your competitors. So it's great to be able to consider things like that, all centered around the upgradability because, in my opinion, that's kind of the biggest thing for companies to consider is that total cost of ownership over time.

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Michael
Am I buying into a system that 4 or 5 years from now I'm going to have to upgrade? How easy is that going to be? How cheap is that going to be? If it's going to be really expensive, then I'm probably making a mistake, honestly. So, yeah, that's that's the biggest thing I would look into as well. You know, another thing - and pretty much all mounting providers do this, but we do this especially at Ram - is that when it comes to the connectivity of the tablet to the rest of the vehicle or the system or the canvas or whatever software you're running,

00:15:03:19 - 00:15:25:04
Michael
we'll always be able to make connectors that work with that system. And it's just a matter of implementing that technology into our docks. That's a no brainer for us. It's very easy to do, and we always work with customers on if they have a custom solution or if they need to be able to switch the capabilities of the tablet to work with their system.

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Michael
Like we'll just build it that way. Like in the case of the Waste Management, one that I was just talking about earlier, you know, we had to develop a type of connector that was able to remove the host mode of the tablet and turn it into a client mode so that the onboard system with Waste Management was the host.

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Michael
And so it's just a simple connector that we built to enable - to turn that off like a light switch. And you know, that was very easy for us to do and something that we don't generalize. But it's something that we do to in order to make that system work. So that's not the biggest issue.

00:16:03:23 - 00:16:12:19
Michael
It's really that over time upgradability that people really need to consider when they're buying into a system like this.

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Andre
Very good. One aspect I wanted to quickly discuss is if you turn the tables and focus on the driver: The driver user experience is arguably the most important factor for the ultimate success of a solution. It really doesn't matter what anyone else thinks if the person who's supposed to use it isn't happy with it,

00:16:38:08 - 00:16:47:13
Andre
if they don't feel comfortable with it, then that would need to change. Would you agree with that? Is that something that you have in mind?

00:16:47:15 - 00:17:05:02
Michael
Oh, yeah, 100%. yeah, definitely. I mean, things you don't really think of, you know, because quite often, I mean, let's be honest, you don't really put yourself in the shoes of the driver. You just expect that, hey, it's going to work and they'll be fine. But every little thing matters with them.

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Michael
And all the way from how to operate the tablet - both the interface of it and taking it in and out of the dock...the weight of it...how you get power to it. Obviously, we make a docking system that you can just pop it in and it starts charging and it connects.

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Michael
But, you know, plugging in and out is dead. I mean, people don't really like to do that anymore. And cords break and then you're screwed. Yeah. And, so yeah, it's just some of these things that are really, really impactful are considering the driver, and that's how we kind of drive our products, our driver-centric design. Because we try to do take all these little tweaks to make it easy for the driver to be able to operate it because one of our engineers likes to say, "When people - if the driver is - experiencing a problem, they just say, "Oh, it isn't working.'"

00:17:59:05 - 00:18:22:13
Michael
It is not working. They don't know what is. But it could be the tablet, could be the dock, could be the, you know, the charger, could be the vehicle itself, could be any myriad of things. But they just know it isn't working. So, I think a call to action for all of us in the industry is to try to alleviate the problems that they experience on the driver side of things.

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Michael
I think that's really, really important because they're the ones that are going to immediately call their supervisor or anyone higher up that's going to go, oh, hey, you know, this system isn't working, it's not charging, it's not connecting, the software is buggy. You know, the tablet - like the button's - pressed into tight or something. You know what I mean?

00:18:38:26 - 00:18:57:07
Michael
It's like all these little things that you don't think of, and all they're going to do is say "it's not working" and then it's going to cause problems, and then you are going to get a call, I'm going to get a call, and we're going to have to try to troubleshoot this all together. So it's all about alleviating those problems just from the driver's point of view I think is super important.

00:18:57:09 - 00:19:14:12
Andre
Do you have to deal with interruptions of the connection due to vibration, some physical items that would impede the transmission of data. Is that something that you see in your in your daily work?

00:19:14:15 - 00:19:37:03
Michael
Oh, yeah. Absolutely. As a mounting provider, vibration is obviously huge. And, you know, we've built over time - our double ball mount system actually connects to the dock. We've been able to build it with certain compounds of materials that are able to absorb some of that shock and vibration.

00:19:37:03 - 00:19:58:21
Michael
And we obviously do testing at different frequencies that are required by these freight carriers to be able to test and make sure that the tablet's going to still perform under that stress. And, you know, it's a big deal for people because, yeah, elastic connection is one of our biggest pain points that we experience with our customers.

00:19:58:23 - 00:20:18:20
Michael
And, you know, it goes all the way down to yeah, vibration is a big issue, but getting connections through pogo pins and pogo pads, all you need is a little shift in one direction and there's a loss of connection, but there's nothing wrong with the tablet. There's nothing wrong with the dock.

00:20:18:23 - 00:20:54:08
Michael
It's just a misalignment issue. And so making sure that we're designing around that is important, especially because not just with the shock and vibration, but connection issues in general, something that people don't really think about sometimes too is that damage, dirt, debris happen at that connection point very often. You think, oh you're just in a semi-truck, like, there's no dust flying or anything. But it does not take long for gunk to accumulate in those small areas.

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Michael
And even just that can cause a connection interruption. And so being clean and, regular maintenance of the system is super important.

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Andre
Yeah. And everything is going to impact the user experience eventually - someone blaming you or us for something not working, whereas in fact it's something that could potentially be avoided. Let me summarize this. First of all, this is fascinating. I could continue this for another hour. So I want to I want to just summarize a couple of key points I took away, and I'll give you the chance to either correct me or come back with some final comments.

00:21:36:01 - 00:22:06:06
Andre
First of all, the idea of an ecosystem technology hub that combines the feeds of multiple data capturing technologies, that's something that I thought was immediately appealing. And the idea of total cost of ownership, for going maybe a short term view on just complying with the mandate and then coming back with a technology solution that will last multiple years, built-in upgradability, etc..

00:22:06:08 - 00:22:23:25
Andre
I think those were some of my key takeaways here that I thought were a particularly attractive and holistic view as to what it is that you want to achieve. And then, looking at the right partners to do so. Any comments from you? Did I get that right?

00:22:23:27 - 00:22:45:22
Michael
Yeah, you certainly did. And I just want to say, you know, tablets are going to be here for a long time because you can't just build in - you know in all of our cars now that got these screens that are built into the dashboard - but that's not what the ELD mandate allows. You need to have mobile devices able to be removed and, you know, transferred for inspection.

00:22:45:22 - 00:23:12:06
Michael
And so you can't take out a display that's built into the dashboard. So these are going to be here to stay. And they're super important not just to comply with the mandate, but they're having real impact. And it's important for you as a device manufacturer and us as a mounting provider to keep providing that value for the customer and pushing the boundaries of technology, because, you know, we're in 2024 now.

00:23:12:06 - 00:23:43:10
Michael
So the mandate...everyone should be compliant now. So now it's just a matter of how do we take this system, take it to the future, adopt new AI technologies into it, and how do we keep optimizing to make things better for ultimately the company, but for the driver as well, and getting there safely and getting there with everything in tact and, you know, making sure that these systems are continuously pushing the boundaries so that we're not getting left in the dust here.

00:23:43:13 - 00:23:55:12
Andre
Very good. Well, this has been a lot of fun. Thank you very much, Michael. To the audience. I hope there were a couple of insights here for you that made it worth listening to the podcast. Thank you very much for being part of it.

00:23:55:15 - 00:24:07:08
Michael
Yeah. Thank you as well. I really appreciate the time. And, you know, anytime you ever want to talk about the transportation industry, I'm your guy. Just let me know. But thank you again for having me on the show. It's really great.

00:24:07:10 - 00:24:08:25
Andre
Thank you.

00:24:08:28 - 00:24:10:26
Michael
Bye.

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