

Title: Season 2, Episode 3: From Data Overload to Real-Time Operational Awareness

Summary of Episode:

How do organizations turn information overload into actionable intelligence?

In this episode of the Haivision Podcast, Mark Shelly, founder of LEVELD and former law enforcement executive, shares how agencies can move from fragmented systems to integrated real-time operations.

Drawing on his experience building a Real-Time Intelligence Center and managing large-scale responses during Hurricane Ian, Mark discusses the challenges of data overload, the growing role of AI, and how real-time video is transforming decision-making, situational awareness, and emergency response. The conversation explores what it takes to build effective operational environments that improve coordination, efficiency, and outcomes in both public safety and disaster response.

Intro:

Welcome to the Haivision Podcast, where we take a deep dive into the innovations and challenges shaping video technology. In each episode, we'll bring you insights from experts behind cutting edge video networking, visual collaboration, and video wall solutions. So whether you're professional navigating the complexities of video wall technology, working in live production, or someone who's simply curious about new tech, this podcast is for you.

Join us as we explore the latest trends, share success stories, and discuss the technology shaping the future of mission-critical video environments.

Welcome everyone to our new episode of the Haivision Podcast. Today we have Mark Shelly with us, former Lee County Police Chief and founder of LEVELD. LEVELD, spelled L-E-V-E-L-D, is a company focused on helping organizations build and improve real-time operational and command environments. He brings over 25 years of experience in law enforcement, including undercover narcotics, tactical operations, and executive leadership roles.

Over the course of Mark's career, he has built and operated multiple real-time operational environments and developed the response and policing strategies that support them. A key point in his career was serving an incident command during Hurricane Ian, where he was responsible for managing large-scale, fast moving operations in a highly dynamic environment. That experience reinforced the importance of real-time information flow, coordination, and decision-making under pressure.

Through LEVELD, he now works with organizations to bridge the gap between technology and operations, helping them move from fragmented systems to integrated real-time command capability that improves visibility, coordination, and decision-making. Join Haivision, our host, Dustin Bilthouse and Mark as we discuss challenges in the industry, which include decision overload and the introduction of AI in real-time operations. Enjoy.

Dustin Bilthouse:

My name is Dustin Bilthouse. I'm the Director of Alliances for Haivision. I work with a number of our partners, as well as helping develop real-time operation centers and have been working with public safety, emergency operations and enterprise groups, building op centers now for better part of a decade. And on the podcast today, I'd like to introduce Mark Shelly from LEVELD. Mark, if you want to give us just a quick background of your experience.

Mark Shelly:

Yeah, thanks for having me too. It's great to be on here and getting to know you guys over the years and working with you, so I appreciate the opportunity.

Dustin Bilthouse:

Yeah.

Mark Shelly:

I founded LEVELD recently after a 25-year career in law enforcement where I was pretty lucky to be able to do a diverse amount of things during my career and get the opportunity to do everything from patrol to high-level investigations, undercover narcotics, a lot of tactical SWAT and waterborne things. But in my career as it continued to evolve, I got to do a lot in technology, ultimately becoming the CTO over agency and also work in executive command, making decisions on purchases and products and policing strategies and that kind of thing.

Dustin Bilthouse:

Nice. So you got to evolve to a point where you're taking on some of these technology projects and eventually into the role of CTO?

Mark Shelly:

Yeah.

Dustin Bilthouse:

Awesome. I'm just curious, how did all this experience influence your decision to found LEVELD lead you to helping other agencies that are currently looking at some of these problems and challenges today?

Mark Shelly:

Well, in experiencing it all myself and helping other agencies that would come and see our technology at Lee County, I really saw that someone needed to be there to bridge the gap between technology and operations. And I really wanted to help in a different way, but help move agencies forward from these fragmented systems to integrated real-time command capabilities that really improves visibility, coordination and decision-making.

And I feel with my experience and learning from my mistakes along the way and what worked and what didn't and my great relationship with a lot of awesome vendors out there that I trust, I feel like I could really help agency operationalize some things where they're future-proofing themselves and able to respond to the modern policing strategies that we need to be successful today.

Dustin Bilthouse:

Awesome. So sure you've seen a lot of shifts over the years. And I think when you and I originally started working together on the real-time information center, that was, gosh, maybe eight years ago, seven years ago at this point?

Mark Shelly:

It was 2019 and it was fully up and running in the beginning of 2020.

Dustin Bilthouse:

Nice. Yeah, let's dive into it. So let's talk about maybe a topic of industry challenges, some of the things you've seen. There's definitely no shortage of technology out there right now, but where do you see things breaking down between what's possible and ultimately what's happening out in the field?

Mark Shelly:

Well, as you brought up, that transition into our Arctic, our real-time intelligence center and intelligence-led policing and really leveraging that space to do a full overhaul of our entire policing strategy there really changed how we did everything, how we conduct the business on a day-to-day basis, both in the field investigatively and making decisions by command staff on large scale incidents all the way down to even some smaller things as things are occurring throughout the day.

What I've seen in that and what I've seen while I've been helping other agencies is the challenge right now is there's so much fragmentation and data overload because now you have so many different platforms and technologies available that agencies are purchasing and buying, vendors are throwing their way, they see how it could help them, but really putting a picture together where how do I use all that stuff and really leverage that technology that actually gains success stories and outcomes versus I have all these things and they're doing this, but really I'm not getting a lot of bang for my buck out of what I'm purchasing.

Dustin Bilthouse:

Nice. Yeah. And I mean, there's no shortage of platforms too. Maybe there was one thing for every aspect of law enforcement that you wanted to tackle from DFR to license plate reader to body cameras, to now it's become a much more competitive landscape. I remember going to conferences like IACP, the International Chiefs of Police and seven, eight years ago, okay, there's firearms, there's tactical equipment.

There might be at best some CAD systems and sort of RMS system that people were looking into where now you go to that show and it's almost just as much physical items that people might need from a tactical perspective, but also almost a tech show in a way with all the software companies that have come into the space and things like that. So it seems like the tech side of it has certainly grown. And I would imagine there's some challenges there as well as finding people to fill those roles and have to be able to understand those platforms because I would imagine once you select something, let's say it's DFR or whatever it is, you're kind of committed to that decision for the foreseeable future, right?

Mark Shelly:

Right. In our world, once you give a tool to somebody, you can't really take it back. So you give a tool and the tool works and now the troops in the field are used to it. Executives are used to using it to make decisions in real time, things like that. You can't really reel it back once it's out there and these technologies keep evolving their SaaS models attached to them. Most of the contracts are all SaaS these days and they're high dollar items.

So to me, if you're spending millions of dollars putting together a technology package for your agency and you don't really have a strong strategy behind how you're going to utilize it and leverage it's going to be a lot of money spent where you can say you have things, but operationally, you're not really

gaining much traction. You really have to have top-down buy-in from command all the way down to say, "This is how we're going to police now. We're going to use these tools and moving forward, this is our new policing strategy."

So you have the physical stuff in the field helping you there and then the technology in the background. But with that is a whole lot of data, a whole lot of information, a lot of things to sift through and make operational, which is why AI is coming into play and software companies like Peregrine are coming in bringing in things where it's showing you more on one pane of glass so it's easier to sift through all that noise.

Dustin Bilthouse:

And you mentioned AI and you can't have a conversation today without having AI in your notes. Somebody sent me an article the other day, apparently BirdDog, the shoe company is now an AI company and stock price just went through the roof because of it. So it's just insane. And we certainly have seen the trend in data center business and the constraint on the marketplace to support AI needs, but do you see, from your perspective, AI helping with maybe some of the SaaS adoption and maybe lowering that learning curve that would come to an analyst or is it still like, "Hey, we've really got to be a hundred percent committed on everything that we're going to do from an organizational perspective?"

Mark Shelly:

I think AI can help in a number of ways because I don't see agencies right now really taking advantage of that entire data set that they have with their fingertips. An RMS for a large agency is full of millions, billions of records at times that an analyst has to sift through and find and find the little connections to everything that's needed on top of all your LPR databases growing over time and every other platform that you have out there, it's really hard to sit and connect all those things as a human and make sure you're hitting everything and get it and be able to provide that information back in real time quickly if an incident is ongoing and occurring or even investigatively if you're trying to give a product back to a investigator. AI I think is just going to help analysts. I think AI, you just think of it as a way to make you more efficient and to help you do your job more effectively, not take your job away.

Dustin Bilthouse:

Yeah, so maybe helping out with some of those daily tasks, connecting the dots a little bit, but it's never really going to be the autonomous decision maker. It's never going to totally erase the human element of what we need in real time.

Mark Shelly:

No, I think no matter what, even let's say the 911 space with these companies out there that are ingesting the 911 calls and helping with non-emergency calls and things like that, you still got to have a human, it might be less people in your call-taking center because maybe it evolved into something that works really, really well, but you're still going to have to have that air traffic controller set up in the room making sure things are being done correctly and nothing is missed because you can't just at this point anyways be solely relying on some autonomous AI doing a 911 related life type of job task.

Dustin Bilthouse:

Yeah, it's not going to walk somebody through open heart surgery over the phone or CPR or what have

you.

Mark Shelly:

But what it could do is help that call taker really quickly make sure that he or she is giving that information quickly and it's readily available in front of them. And if someone called in German and they don't speak German, they could talk to them very quickly instead of waiting for language lines and things like that. So those are big things that are helping right now.

Dustin Bilthouse:

Well, switching to real time and talking about some situational awareness, certainly I felt like it seemed like when Lee County built their real-time crime center, it was kind of at the height of everybody looking at all these technology trends and starting to aggregate this information. I think looking back now, we can say that you guys were certainly ahead of the curve that trend as well, but we've seen that more and more of that drive of real-time video. When you think about situational awareness today, how much of that is being driven by real-time video? How much of that has been a shift in law enforcement?

Mark Shelly:

It's a huge shift. It's being used, especially in large-scale incidents or high-risk incidents where you might be calling in a SWAT team and things like that. It totally has changed the way tactical teams approach incidents and houses and situations. Now you have sensors on drones that can fly inside the home, give you a perspective. You have robots that can go in with two-way communication. The drones also have two-way communication.

You have every deputy's body camera, you have radio transmissions coming in and all these things that now you can sit as a command staff member or someone in charge of that incident or scene in a controlled environment like a Arctic or operation center, whatever you want to call yours, and sit there and get a clear picture of everything happening where before, you couldn't make those decisions. You were going off information disseminated usually slowly because it takes time to get it all the way up from the people on scene giving information and you were making your decisions off of things disseminated to you.

Now, you're inside of one of these rooms, you're making decisions off of what you're hearing, what you're seeing. You can ask for different angles, different views. It's really, really beneficial to help you effectively make really good sound decisions quickly in the field and you really have to be on scene to do it.

Dustin Bilthouse:

Yeah, and I think I've heard a lot of stories of DFR lately and certainly getting a lot of attention. What kind of impact is that having on operations and getting that information out in the field? Or I don't know, did you guys have any sort of DFR during, say Hurricane Ian when that was approaching the Gulf Coast?

Mark Shelly:

DFR really wasn't a thing then. We did utilize drones a lot during Hurricane Ian for a variety of things. We always fly to areas prior to storms and then we'll fly them again post-storm so we can get a good damage assessment, also see where there's road obstructions, debris obstructions, where it might be hard to respond to if you need to go help somebody or find a missing person.

Drones have always been a big thing. I think DFR is a huge thing, probably the next big up and coming thing that's going to change the game in law enforcement, especially once they start developing platforms that can stay in the air longer, fly faster, can track individuals so that you get an asset on scene before anyone even arrives to the call.

The benefit of getting visualization on a incident or scene or call prior to the deputy or officer even arriving is huge. It could save lives. How am I going to approach this residence? Where should I park? Should I set up a perimeter before because now I'm seeing all these live events occurring and I can make better decisions.

Dustin Bilthouse:

Yeah. And not just simply officer safety, but also civilian safety as well for bystanders. I just think you can pull up any app these days, whether that's TikTok or Instagram and easily get flooded with videos. There's no shortage of them here where I am in Atlanta where there's just bystanders sitting there with their phone up and then all of a sudden there's a shooting or something there. So I think that's having that level of safety out there is certainly important.

Mark Shelly:

I think it's also evolving into, like you were talking about efficiency and things with AI and stuff. The DFRs also can go to non-emergent calls, something that's a very low priority, it can get visual, someone can make a determination. Although those kids aren't at the park causing problems anymore, they're not even there anymore and cancel a call for service to put deputies back on in service or need be.

Dustin Bilthouse:

Yeah. Well, I imagine you don't want to incidentally just show up and start profiling people based on any sort of aspects that are going on. You've got to take everything in holistically there.

Mark Shelly:

Yeah.

Dustin Bilthouse:

So organizationally, organization wants to get better at real-time operations. What's some of the first questions they should be asking themselves when they're starting to approach this shift in law enforcement?

Mark Shelly:

Well, I think you have to be honest with yourself. Number one, are you actually able to see what's happening in real time right now? If you have this technology, are you able to get it back into a space where it's operational for you to make decisions?

Is your organization really sharing information and intelligence across teams and across the organization? A lot of agencies think that they are. We were one of them, but until you have a hub, a centralized hub where all of your information is coming into, you really don't understand what you're missing in the connecting the dots within an agency.

Dustin Bilthouse:

I was curious if there was a moment there. Obviously some of the planning going into building an Arctic, even a early phase one version of it can take months, if not years of development between the planning, the funding, the execution, building on any fiscal space, what have you. I'm thinking everyone trained it up on the technology.

At some point, I would have to imagine for you guys when you were developing your Arctic, there was sort of that aha moment where everything clicked where an incident response changed to say, "Hey, you know what? This was the normal trend that we saw with responding to this type of incident." And then you immediately saw that shift. I don't know if there was maybe an example of that that happened for you guys once you got your Arctic stood up.

Mark Shelly:

Yeah. I mean, very quickly we saw how being able to see things in real time helped and was a huge advantage. We didn't have body cameras at the time and things like that, but we did have cameras throughout the entire county on every intersection and we had a huge network of DFR. LPR already established throughout the county, so that was a big game changer. Really early on after opening, we solved the homicide that might not have even got solved, or if it did, it would've taken probably months to do in about 17 hours while that with analysts using the tools that we put in place to research LPR and backgrounds of individuals, and they found an anomaly of a vehicle that came into our county one time for only an hour driven by somebody didn't even know, shot and killed somebody and left.

And for the first time, the analyst did with the sheriff in a press conference and they announced the success of this new Arctic and the solving of this crime in 17 hours, which is pretty unheard of these days for that kind of random act of coming from somewhere else to commit a homicide and leaving quickly. So that was huge and I think the whole agency bought in from there and then just seeing the way we could better communicate with each other and how crimes could be solved quicker and how investigators were getting information because now we had a hub and we had a good process for ingesting their request and then producing a very good document and sending it back out.

That changed the way the entire Sheriff's office did everything. Crime rates still driving down based on the policing strategy around utilizing this room. And one thing that I'll say with all the real-time video and stuff that we're talking about and your product in particular, the one thing that a lot of vendors need to understand is you have to be able to, in those moments, be able to use the technology.

It can be so overly complicated and difficult to use that an operator in a stressful situation can't easily intuitively throw something on a screen, change the audio sources that need to be there and do those things effectively. If you have systems that are too complicated, too difficult, they're just not going to be effective because when it's real, things are going on and you have chiefs and colonels and stuff yelling, "I need this information now." And you can't click through something to show him the view on a screen, it's not going to be productive.

Dustin Bilthouse:

Yeah. Well, certainly it needs to be easily adoptable. Sometimes you're going from 10 miles an hour to 100 miles an hour instantaneously. I've been fortunate enough to stand in Arctic and see an incident unfold. Fortunately, it had a good outcome, but to see that in real time to be touring Arctic and then see a call come in, I think it was for a stolen vehicle and to see all the components come together of license plate readers, DOT information, traffic cameras, where cars are on the GIS map and stuff like that, and then be able to call those shots from the Realtime Crime Center and see that unfold and then a successful apprehension all within the span of 15 minutes is an amazing thing to witness and it really puts things in

perspective and everybody plays a supporting role in that from a high vision perspective, not to shamelessly plug ourselves, we're one small cog in a much, much larger machine, but if that cog doesn't move when it needs to, it can certainly derail response efforts marginally, right?

Mark Shelly:

Right. And it has to be reliable. It has to be up. You can't afford to go down during a critical incident.

Dustin Bilthouse:

Absolutely. Thinking about Hurricane Ian, that was a pretty devastating storm for the community. A lot of people had to leave their residences, a lot of residences and valuables unprotected. I think you guys had or probably saw an influx of crime activity. How was the Arctic essential in providing support to combat that influx of criminal activity?

Mark Shelly:

Well, obviously those kind of storms, people, if they are going to come in to try to burglarize homes and things like that obviously is always something that you have to worry about. But ultimately in a hurricane that had that substantial amount of devastation, we were life safety first the entire time. Nobody has ever thought that there would be 19 feet of water really entering our towns. Usually they set it every time and they would show the graphics on TV and everyone would be like, "Yeah, yeah, that's not going to happen. There's no way a three-story house is going to have some water in it." But it happened. And when it did that, that's real. A lot of people didn't leave their residences because of that, didn't secure things properly because of that, thinking that it wasn't going to happen just like every time.

I've lived in Bonita Springs down here my whole entire life and they've said this, I don't know how many hurricanes and it never truly happened, but the power of water is impressive. It is definitely the most devastating source on the earth and it will destroy an entire community. So with that, the destruction of everything was so bad. We had all of our bridges down. We had our islands completely cut off. We had to get resources to all those islands and everything as quickly as possible.

Some of that was using military aircraft, which wasn't easy to get the okay to do that and get vehicles and equipment and things onto these islands. Plus we had a huge effort of search and rescue. We had hundreds and hundreds of vehicles in water that had to be individually searched and dove and tagged by divers to make sure there wasn't bodies inside or anyone that needed assistance or help. You had people that their whole entire houses were three blocks away.

We had restaurants that were two miles away from where they were supposed to be, boats all over the place, just crazy chaos and a massive effort to coordinate all that. And we used technology to help with that tracking of personnel, individuals, tracking of where the flooded areas were worse and how the water was receding and then keeping track of where we could move things where heavy equipment had to come in to make way for us. Tracking of personnel was huge.

We had thousands of people coming from all over the place, different agencies that we had to account for every single day, keeping track of fuel and everything else that goes along with responding to those kind of things. We actually set up some kind of mini operation centers in the field, Arctic S. You could transition a lot of this technology into a command vehicle or a field solution and bring up some of the tech to help you in each little area where you need support.

Super, super challenging, really hard to see the devastation and it gave a lot of pride to everyone that

was working around the clock to bring the residents what they needed in the community, what they needed and keep everyone safe. We did a really good job of combating that crime, that criminal element that you were bringing up by getting ahead of it, making sure that we had enough security patrols in place and putting out messaging that we were not going to stand for any type of looting or burglaries or anything like that in our county.

And we had several other sheriffs stand up with us and say the same thing, "This is not going to happen. We're going to make sure that the place is safe. People can go back to their houses when it's safe to do so and their valuables will still be there if they unfortunately weren't washed away from the storm."

Dustin Bilthouse:

Yeah. It sounds like from the criminal side, it's more posturing, but on the backend, you guys weren't just single threaded in how you responded to that because it sounds like you were working with potentially the National Guard as well as emergency management folks. So you were able to adapt the technology you had at the time in the Arctic to be responsive to the needs of community, but beyond just fighting crime, but actually helping with disaster response and emergency response efforts. So that's awesome.

Mark Shelly:

Yeah, and the EOC did as well. So we're linked up with them. The EOC has similar kind of a setup video wall and a lot of the same technologies and capabilities. So we were able to coordinate efforts that way with the military, National Guard and every other agency and fire service and paramedics and search and rescue teams and everyone else that came into play that you had to oversee and coordinate.

Dustin Bilthouse:

Awesome. Well, yeah, we're kind of at the top of our time here and I definitely appreciate your time. Just in wrapping up, where can people find you online or in the world in general? How can people get in touch with LEVELD and Mark Shelly?

Mark Shelly:

So you can email us at info@leveld.co. Also, we have a launch page up leveld.co as well. You can go there and get information and also I'm on LinkedIn if you want to connect with me there.

Dustin Bilthouse:

Awesome.

Outro:

Thank you for tuning in to the Haivision Podcast. Make sure to subscribe for more exciting discussions with our experts.