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## **PARTICIPANTS**

### **Motorola Solutions Executive Participant**

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### **Morgan Stanley Investment Research Participant**

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**Meta Marshall** – Analyst

## **OPENING COMMENTS**

**Meta Marshall – Morgan Stanley:** We're delighted to have Motorola Solutions here with us today. What has been a great story over the past few years. I'm Meta Marshall, I cover the networking space here at Morgan Stanley. We're pleased to have Jack Molloy, COO of Motorola Solutions. I'm going to read a brief disclosure and then we're going to get started.

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## **QUESTION AND ANSWER SECTION**

**<Q – Meta Marshall – Morgan Stanley>:** All right. So maybe just diving in. Over the past decade, Motorola has gone through a number of transitions. First, the narrowing down the business to focus on core areas, but now in building on core competencies and kind of growing video security and command center businesses. Can you just maybe give an overview of that history and give us an idea of what has driven that product strategy and direction?

**<A – Jack Molloy – Motorola Solutions>:** Sure. I think maybe to start with, just to orient everybody, you probably have to go back to 2011, which is when we split up the company. And I think that was very formative in terms of getting our company to refocus and really have a pure play focus on our LMR business, which, we've said is really always been kind of the unknown crown jewel of our company.

And the other thing is you look at that point in time we went through, we took some pretty significant cost reductions and there was a lot of corporate overhang costs, etcetera, things that we pulled out. But also that was a little lens moving forward into when we delivered a lot of cash back to our customers by way of share repurchase...pretty intensive share repurchase. And from that point on, really, we've always taken a look at the market, an external lens of the market, and said, what are the right adjacencies and what are the logical kind of places for us to invest and to grow this company, knowing that we've got trusted advisor status with public safety and really with enterprise security type of customers were places to grow. And the first of which we looked at was video. We acquired Avigilon in 2018 but I don't think a lot of people know that was really a two year journey to get to that point because fundamentally we wanted to look at a company that did an end-to-end platform, and that's what Avigilon delivered for us. Not only the edge devices in terms of AI powered cameras but also the video management software and storage.

And also, one of the little hidden jewels they had was an access control business as well. And we looked at those things converging. Without question, the most appealing thing for us was the analytics. We thought that was the high point. If we could get in the analytics, we looked at that as an opportunity to change that business. We've made subsequent nine other acquisitions in the video security space and in 2022 we went from \$0 billion to \$1.5 billion in revenue and continue to take share as well. And then the command center software space, which was really a logical adjacency because you had commonality of decision makers to the LMR business. And think of that as everything from fielding a 911 call to actual case closure. And we've built a cloud base but also the ability to deliver any of those functionalities on prem in that space. And we now do \$600 million in command center software.

The endpoint is, you look at our company and the journey we've been on, it was in 2015 we probably had a \$13 billion addressable market and as we stand today, it's a \$60 billion addressable market. I think the most interesting point there, is you've seen the complete transformation, 50% of our revenue now comes from video, software, and services. So that's the high level of the journey we've been down, but that last point, when you just take a step back, it's been a journey.

**<Q – Meta Marshall – Morgan Stanley>** Okay. That's super helpful. So maybe let's dive into the crown jewel first with the LMR business. Motorola's strong position in the radio market provides a lot of resources. Just what opportunities do you see driving the growth that you've seen in LMR over the past few years? And is this an upgrade cycle or something more?

**<A – Jack Molloy – Motorola Solutions>**: Yeah. So I think there's really probably three elements that are taking place right now. The first of which is there's been a lot of talk, and we're really excited about APX NEXT, but we have invested and essentially we're in a product refresh cycle around the globe right now and we're very early days in that journey. And I think it's important to point out that it's not like it's an iPhone 13 or something where people want to go out and buy it. I mean, when you just look at the United States alone, you've got 18,000 police departments and 27,000 fire departments. And so highly fragmented on where we are on the journey.

As we said in our February earnings call, less than 10% of the APX market has actually upgraded to the APX NEXT family. So that's the first thing; we are early days in a device refresh cycle. The second thing is just the narrative around public safety and around enterprise security. It's a very unfortunate time we live in but there's not a day that goes by that there's not some sort of workplace event or an event at school where children are put in harm's way.

We had a situation in Michigan State, a campus-related shooting just a couple of weeks ago. And so that's happening. I think the narrative there to prioritize public safety communications has certainly been beneficial. And I think the last thing, Meta, a story that probably goes underplayed, is as these networks have been digitized and become more complex in the LMR space, it's really opened up a greater need for us in our ability and capabilities to deliver services around the globe. And think of those things as really few things. There's a workplace shortage in terms of technicians. And the second thing is there's the opportunity for us to upgrade and sell cyber. The threat surface that they have, people who want to go in and hack into a public safety network...there's people who don't have issues with police and public safety and they're going to make the world difficult for them, so they've got to encrypt those networks. And those things have provided more services for us.

And then I think just the last thing is because of our network operations and everything, we've had some pricing capabilities as well there. And I think we've had a couple of increases last year in 2022. So, it's really those things. But it's early days refresh cycle, it's the whole narrative around public safety and enterprise security. But last, but certainly not least, is just our ability to wrap services around those things.

**<Q – Meta Marshall – Morgan Stanley>** Okay. So, you spoke about only being kind of 10% through this refresh cycle. Just what prompts a customer to move? And are there any inhibitors that we need to think of?

**<A – Jack Molloy – Motorola Solutions>**: Yeah. It's a good question, Meta. So I think I would say APX NEXT, which is clearly, I think, one of the more compelling, one of the most exciting product launches we've had in our

company's history. Why would a customer upgrade? So, we had this APX radio, which was a de facto leader and it was the de facto standard, if you will, for public safety if you wanted one of the best-in-breed radio. Fundamentally, we looked at a few things. First of all, we said, hey, how do we do the basic attributes that someone derives from a public safety radio and make it better? Audio is the beginning and the end of every conversation. If you've ever gone out into a fire with anyone who's at a fire department and they put tests through pass alarms, chainsaws, all the things they do in a highly intensive, very noisy environment, audio counts. We took the best-in-breed audio of the APX Original and improved it significantly.

The second thing we did is battery life. Unfortunately, police officers, firefighters, they don't work eight hour shifts oftentimes. And we've got the best-in-class, 14-hour battery life we've extended, which is significant. I remember the days when batteries, they would barely get a shift out of batteries. And I think about that's 14 hours where you've got a converged LTE and LMR experience, where you've got multiple different facets draining that battery.

And the last thing is just simple things like antennas. People don't want an antenna into them. So we put a lot of focus on ergonomics. The exciting and the more compelling things are things we've done through the LTE capabilities with the APX NEXT. So number one, oftentimes leadership within a department, people go and there's mutual aid calls, they need the capability to talk beyond their network. So we've got the ability through our smart connect feature to actually expand coverage and they can roam on to an LTE network.

The second thing is when we think about officer or firefighter safety, etcetera, it's about location. It's about provisioning, understanding where are those people at or where are the resources at as they start to plan to solve for a fire or to solve for a law enforcement response. And so that's the other thing.

The third thing that's really critically important is we actually went back, did a lot of research within our customer user group. And what we realized is we weren't doing our customers any favors in terms of reprogramming. Upgrading devices in this digital world was very time intensive. And so just the user experience, we took something that used to take hundreds of hours to reprogram a fleet; we can now do it instantaneously.

And the last thing is, and we just talked a little bit about the investments we made in command center, how do we start to think about disseminating workflow, meaning, pictures, video, multimedia sort of the things that they want to ingest at the data level to put them in a safer place when they respond to a call. And that's the last thing that I would say.

So, it really brings out the best-in-breed of better basics in terms of LMR with the modern functionalities of how we workflow, location, extending the network, and user experience. It's all those things. And that's where I think we know customers are really excited.

**<Q – Meta Marshall – Morgan Stanley>:** And so, I mean that's a great reason as to why people would upgrade. Is it just they're going to do these in cycles of, I'm going to do 25% of my police force, any sort of response unit, I'm going to do 25% of that a year. Just like how do we think about what gets you from 10% to kind of a 100% or some higher penetration?

**<A – Jack Molloy – Motorola Solutions>:** Really good question. An important point to make there is, so think of it – and I just talked about it, and you can kind of envision... 18,000 police agencies, 27,000 fire agencies. They've all got their own budget cycles.

**<Q – Meta Marshall – Morgan Stanley>:** Right.

**<A – Jack Molloy – Motorola Solutions>:** Some of them just maybe bought an APX original radio two years ago. So, they're clearly not going to be in line at the front of the line. And we're very thoughtful about that because we'll run the APX original concurrent for multiple years with the APX NEXT because we want to support obviously our customers. They may want to add to their fleets and that's great; we're going to continue to sell.

We've done that historically is co-sold two different platforms at the same time. So, we'll do that. Some – to your point, when I look at some of the bigger cities that moved to APX NEXT, some of them made fleet-wide decisions and then customers like the NYPD whose really were – just have always just been a great customer. We're really proud of our relationship with them. NYPD is going to phase it in and they're doing a multiyear phase-in. They've done a longer term budget cycle, but they're procuring and deploying by precincts and those kind of things. And so, it's a little bit of that, but that's why I say that there's a leveling effect. When you look at these things over a certain period of time, one of the bigger drivers of growth that we haven't really talked about and we talked about in our earnings call, we said, hey, some of the growth that was largely attributed to volume. But with new product is an ASP increase as well. And so, there's pricing that plays into this as well.

**<Q – Meta Marshall – Morgan Stanley>:** And supply chain has been an overhang within this unit in particular over the past couple of years. Just what are you expecting in terms of supply chain both in terms of LMR, but maybe the portfolio in general?

**<A – Jack Molloy – Motorola Solutions>:** Yeah. So really proud of the team and what they did to navigate a very difficult environment. Most of the environment that we had to navigate in 2022 was really around legacy semiconductor, greater than 40 nanometers. And what we did is early last year we deployed really what we kind of called three tools to handle, combat, and make sure we continue to respond for our customers.

Number one, reengineering. We've got a world-class engineering team. The amount of dual and triple sourcing that they did, the work they did under pressure was world class. That's the first thing. The second thing and you've heard Greg and Jason on the call to talk about it, is we took a very conscientious decision to hold higher inventory levels. We felt like that would put us in position to continue to look to gain share, not only in LMR, but also in the video space as well. And I think it looks like that's been the fact. And we're encouraged by that.

And the last thing has been PPV or third-party broker parts. The good news is, as we talked about in February, we'll realize \$50 million less in spending this year than we realized in 2022 with PPV, with better inventory levels and better strategic sourcing agreements. But as we've kind of guided the year, we also talked to all of our big suppliers. All that in the wash, we're dealing in pretty much the same environment that we did in 2022. So we're going to have to lean on leveraging those tools that I just articulated. But in general, we're hoping we see things improve later in the year, but we're planning the year for what it is and continuing to fight that battle.

**<Q – Meta Marshall – Morgan Stanley>:** Got it. But before we turn to kind of other areas of the business, there's obviously been a lot of attention on Airwave and what the UK findings could mean. Just what's your most up-to-date commentary on the ranges of outcomes of that investigation?

**<A – Jack Molloy – Motorola Solutions>:** Yeah. So obviously everything that – and I know everybody's aware, but we probably expect to hear something in the next 30 days in terms of what a final – CMA's kind of final ruling will be. And we won't know. We'll have to play that out. But I would tell you, as is it applies to, you know, provisional ruling, quite frankly, we find it unprecedented. We find it overreaching. And as we look forward, we'll have to see what comes out. But as we look at it, I think we're going to have to look at all legal options to protect our contract provision, which may include navigating an appellate process. But at this point in time, we don't know. We'll know when we get to the final ruling. But again, it's really – in our view, it's very much unprecedented and we believe overreaching. So we'll see.

**<Q – Meta Marshall – Morgan Stanley>:** Okay. Got it. I mean, obviously, they're trying to kind of displace some of LMR with LTE-based emergency system. And we've kind of seen more of a combination in the US where you have FirstNet and LMR. Just why do you think that that's more the wave that the universe did versus kind of picking one or the other?

**<A – Jack Molloy – Motorola Solutions>:** Yeah. In it's most simplistic form, I would say there's probably three levels. First of all, it's the business model itself, it's the network. If you think about a public safety network, and

having worked with teams who've designed and deployed these systems, it's very much a bespoke network developed for cities, counties, states to use exactly where they need. And they think about it in the realm of coverage, capacity, cost and control.

That's the first thing. It's not built to maximize revenue per unit on a public carrier network. Things like that go down to the actual site level, which we've seen on hurricane responses where carrier network and coverage has been down due to Hurricane Ian in Fort Myers for days – for days. And then you look at our network that continued to talk through that whole process for emergency responders.

That's because the hardening at the sites, generators, R56 compliant site, the way we construct sites to take certain wind force. It's just designed for different purposes. The second thing is actually at the device level, we talked a little bit about fire. Fire has a standard operating procedure whereby when they're on a fire scene, they actually switch to radio to radio. It's called fire ground provision.

The secondary piece at the device level is just the power dynamics itself. If you look at a smartphone, most smartphones are 300 milliwatts. Maybe you get some of the ruggedized things that are up to a watt, the APX NEXT devices are 3 watts. The actual power and frequency dispersion that you get from the device plus our custom built network. So it's really those things.

And I think the last piece of it is really, and this is never to be understated, cities when they hire firemen, policemen, they've got the responsibility to provide them the best-in-class system. They want to control the way a network is built. They want to control the maintenance. They want to control the device purchases, how those devices are provisioned. Also in standard operating procedure, they wanted to monitor the traffic that's being talked through because there's custodial events where there may be lawsuits and different things and they need to own and control those networks. I think that's probably never fully appreciated...where they're not going to completely outsource public safety communication. Network, devices, and control are really the three things that I think the reason is why you're seeing, in most of the world, people continue to see these things in, what I would call, a very forward-looking and collaborative opportunity. LTE is great to be used for certain things and we're designing devices to take advantage of both mechanisms.

**<Q – Meta Marshall – Morgan Stanley>**: Got it. So maybe turning to the other 50% or kind of the more growth areas on video security, you've acquired a number of businesses. You've also grown that business organically. How have you brought that video security business under the Motorola umbrella and then improved its competitive positioning? And, how does Rave kind of complement that strategy?

**<A – Jack Molloy – Motorola Solutions>**: Yeah. When we acquired Avigilon and all the subsequent companies, we've made marked investment in go-to-market to the tune of adding 70% sales coverage in North America alone.

The second thing we've done is making sure that we're prioritizing research and development spending in the video security and access space. We've dialed up their R&D pretty significantly, since we've acquired them. And done things like inorganic acquisitions to get into the cloud space as well. So it's that piece of it. The other piece that I think people don't probably have a full appreciation for is that one of the thesis when we bought into the space was that they essentially had a nascent public safety business and we saw more and more public safety agencies that, in deploying resources, video was going to become a game changer for them. Not only mobile video, but actually fixed video and how they respond to things and how they can actually capture events that happen.

Public safety is now one of our top two verticals in terms of sales. So went from nascent to a significant portion of our revenue. And so we're proud of that. But we think in general, Rave is a great example because Rave sits in the crossroads as we think about how do we deal with emergency responses, incident management, panic alarm capabilities. But Rave was so intriguing to us because it felt like a family member in terms of they were very focused. I talked a little about video, but we had looked into the event in emergency management, incident

management software space for a while, looked at various companies. But Rave made the most sense for us because, essentially, they were public safety and they were education.

Between video, the command center software and what Rave brings into the command center and how we tie that in with LMR with our Safety Reimagined campaign, what our go-to market team can do in terms of cross-sell, upsell, we think it positions as far differently than anyone else in the space.

**<Q – Meta Marshall – Morgan Stanley>:** Got it. I mean, where do you think that those opportunities are most underestimated kind of in that security business today? I mean, you obviously talked about the growth in enterprise, school, all these different public safety spaces. Do you have the portfolio today to achieve those opportunities? Or are there additional capabilities that could kind of get you there faster?

**<A – Jack Molloy – Motorola Solutions>:** Yeah, Meta. So I think the breadth of our portfolio is distinct. It's singularly different than everyone else. End to end, everything from cameras to VMS, to storage, best-in-breed analytics, access control. We just recently announced, which is really interesting, the Avigilon brand were actually we've got sub-brands, Avigilon Unity is our on-prem business and Avigilon Alta is our cloud business. That's important because we're starting to see a bifurcation in the market. No other company can bring both of those elements to bear.

On top of that, we've got a mobile video solution as well that includes the largest license plate recognition database in existence. There's an opportunity there. The last thing that I think is really important, so you got the breadth of portfolio, is I think that the way we've deployed AI, particularly in terms of the way we've deployed that in terms of developing analytics and it's not AI for AI's sake. We do AI investments that are embedded in our product workflows to deliver outcomes for our customers.

So what does that mean? It means if you're a principal of the school, you know what matters. You've got to make sure that when you've got 300 kids having lunch at the right time that there's no bullying, there's no fighting. AI, like unusual motion detection, that sends an alert to a radio to go handle a situation. There may only be one teacher or two teachers that are supervising a room. You may need to have six people show up to make sure that nobody gets hurt.

It means if you're a manufacturing place and you've got operational safety, OSHA standards, you want to know are people wearing the appropriate eyewear or wearing appropriate helmet. Again, those are just a couple of examples of how AI, I think, changes a game. So it's a breadth of portfolio. It's a team that continues to invest and refine our AI and our ability to create analytics. And I think when you couple that with the go-to-market force that we have around the globe, I think we're on a really – I'd say we're in an enviable position. We feel very good about the position we're in with the video security space.

**<Q – Meta Marshall – Morgan Stanley>:** Well it could have changed a lot of people in heres grade school experience. I mean, that bullying the technology earlier. All right. So turning to command center, the market seems to be in early days of adopting more advanced technologies like cloud-based offerings. Just how do you expect the transition to take place here? And, where are we on customers kind of being open to this subscription model?

**<A – Jack Molloy – Motorola Solutions>:** To my point earlier and from command center, think of it as everything from ability to take a 911 call, dispatch that call, records, case closure, but also Rave. The suite is fully cloud enabled. That's the first thing I'd point to. It is also an important point that one-third of our customers, I think that's probably not fully appreciated, have one or more of our cloud products. The second point.

But I think the third point that's equally important is we've really taken a premise at Motorola Solutions that in a world where buying personas and what customer's affinity towards cloud or on-prem, is different. I've had customers, major city police say, Jack, you can come and talk to me about the cloud all day long; we're going to be on-prem forever.

Well, everyone said that about their CRM solutions at one point in time as well, but we thought it was critically important to make sure we could deploy for our customers and meet the customers for where they are. So I think with the command center, it'll continue to be a slower market, I think, to completely unify around cloud. But I think the dynamics of that market change as you start to see newer and younger dispatchers enter the arena. I think people want a commonality of user experience, of user interface, and I think that'll evolve the way that the customers think about cloud. And I think that may, at some point in time, it's tough, Meta, to say in three years, four years, when did that accelerate? But customers will want a unified experience. We think the investments we've made put us in a good position, I think, to capitalize and make sure we provide the best-in-breed for our customers.

**<Q – Meta Marshall – Morgan Stanley>:** Got it. I mean, we've spoken a lot about all the growth opportunities that you guys have. Perhaps the other super compelling part of the Motorola story is just how efficiently you've been able to run this business from a profitability perspective. How do you balance that growth algorithm and just how do you find that balance of delivering incremental profitability but appropriately investing in some of these businesses?

**<A – Jack Molloy – Motorola Solutions>:** Yeah. So, first of all, I think something that we're really proud of is that I think being good stewards of cost and prioritization of spend is in our DNA. We had our VP meeting in Chicago last week and Greg always says, I need all of you to think like owners, not like managers. And I think that's a really compelling point. But we also are in the technology space, and we need to create cycles for excitement for our customers.

And so, when we think about number one, R&D. I pointed out a little bit video security, but we've increased R&D in command center. We've increased R&D in the video security and the access control space. But we've also been very thoughtful when we acquire companies to think about, for example, we don't want to manage four different video management systems. So I'm really proud of the team. They've unified our VMS experience. So VMS NEXT, which essentially puts it all under one platform. That's important.

You got to think about making sure that your R&D dollars are efficient. And LMR, really pleased not only with the APX NEXT, but the MXP family, which is a TETRA device that we've secured some large scale victories in Germany and all throughout Europe.

And then we've got our PCR product. We had R7, which is one of the most effective enterprise radio launched that we've had in the history that we announced last year. We've done all those things with essentially running at a level R&D spend in LMR.

And so those kind of point to my point. The last thing is, when you make these investments, how do you actually create opportunities for scale, better cross-sell, better upsell. And that's really in the investments we've made in go to market. We continue to hire and put more people out. In fact, we just announced in January a restructuring of our video security and access control team, with a focus around deeper vertical and domain expertise in the enterprise space.

I talked about education. We've got a team getting up every day in public safety, but actually in the A&E, on the front end of new greenfield buildings that are being constructed, making sure that we're working with the architects on the front end of those things. Manufacturing teams. Mining teams in Australia and Chile and things like that.

I look at areas that we can continue to improve in. And it's the culmination of tweaking and dialing up R&D in the right place and making sure our teams are ready to catch and go exhaust all the resources they have from a selling point. I think we feel good.

## **CLOSING**

**Meta Marshall – Morgan Stanley:** Great. Well, Jack, thanks so much for spending time with us today. It's been really great talking to you.

**Jack Molloy – Motorola Solutions:** Yeah, thanks, Meta.