



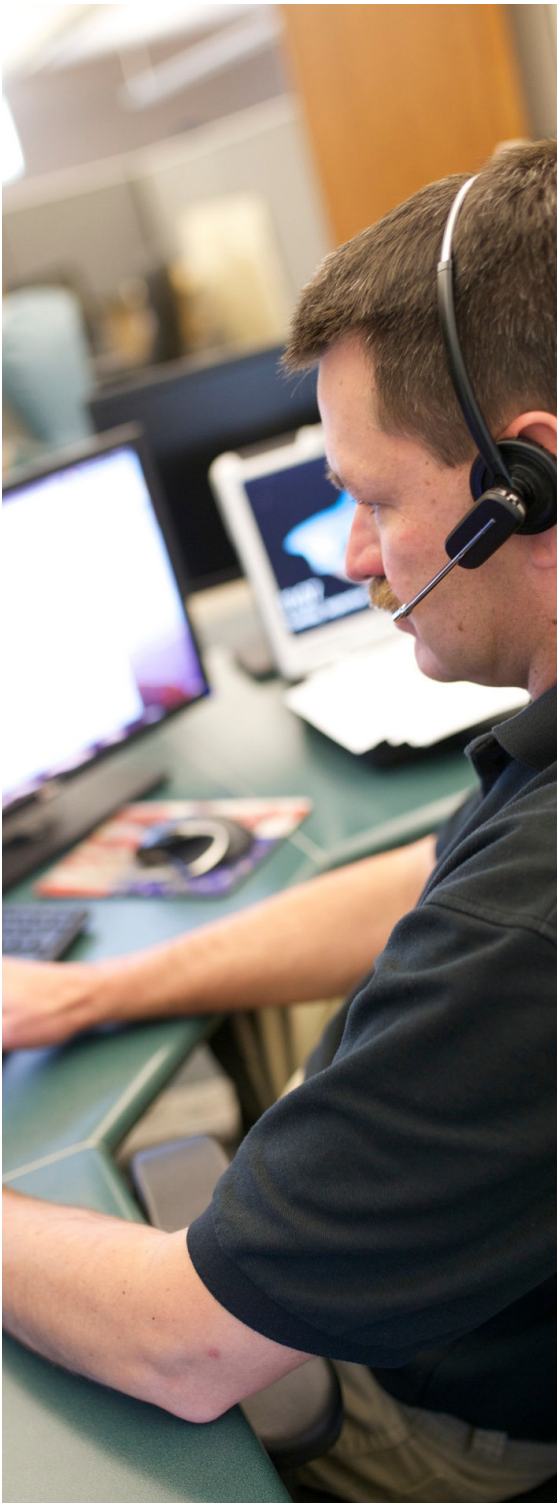
2016 LAW ENFORCEMENT
SURVEY REPORT

IMPROVING COMMUNITY POLICING



THROUGH REAL-TIME DATA INTELLIGENCE





IMPROVING COMMUNITY POLICING THROUGH REAL-TIME DATA INTELLIGENCE

Law enforcement personnel want more intelligence when they respond to an incident. They want to connect with the community in new ways and they want to leverage new multi-media sources of information and smart devices to do their job better. The findings in this paper are the opinions of 475 law enforcement personnel across all ranks, age groups and demographics, with an even distribution of agency sizes.

ACCESS TO DATA IS NOW MISSION CRITICAL

In helping to deter crime and protect the community, law enforcement personnel understand the value of data collected from answering thousands of emergency calls and text messages, to body-worn cameras, surveillance cameras and records systems. During an incident, the requirement to access data continues to rise, year-over-year, with 91% of law enforcement personnel expecting data to be available at least some of the time and 67% expecting data to always be available during an incident. In fact, Chiefs (78%), Captains (83%) and Patrol Officers (70%) exhibited a higher demand for always available data. This is a 50% increase from the Motorola Solutions 2015 Public Safety Survey of both law enforcement and fire personnel¹ and a direct result of the ever growing data sources.

67% LAW ENFORCEMENT EXPECT DATA TO BE ALWAYS AVAILABLE

9-1-1 RESPONSE: AGENCIES WANT MORE INFORMATION TO SUPPORT A CITIZEN'S CALL FOR HELP

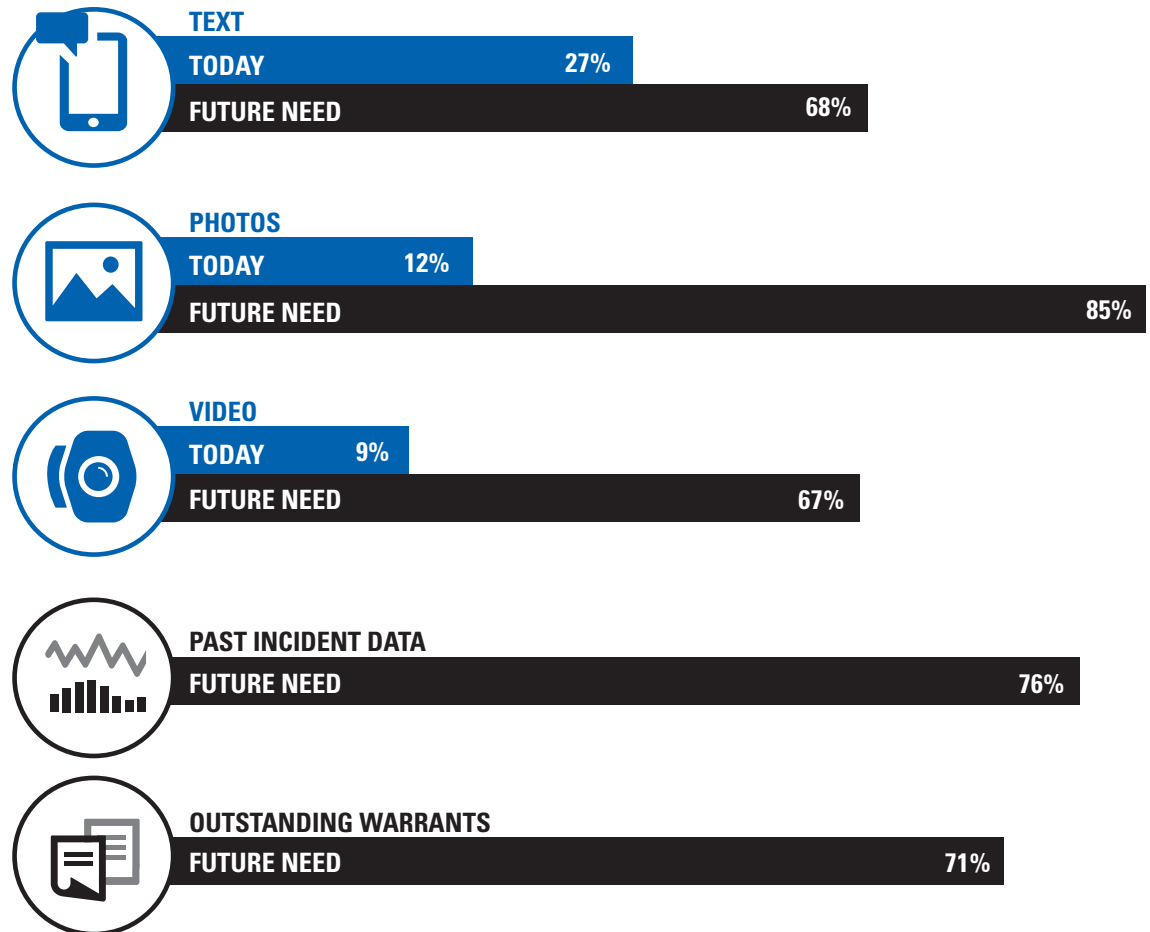
Today law enforcement personnel understand that a critical part of answering 9-1-1 calls is getting additional information from citizens beyond what can be derived from a phone call. With 64% of the population using smartphones in 2016², citizens are adept at sharing text, photos and video as part of a call for help. But are agencies ready to receive?

In 2014, four major commercial carriers agreed to provide the capability to send SMS or text messages to 9-1-1 centers to support citizens' smartphones³. Yet over the past two years agencies have remained consistent in their ability to receive text messages, with 27% of survey respondents saying their 9-1-1 center can receive citizen text messages. And even fewer say they can receive photos or video, which equates to about 1 in 10 command centers able to engage with the community using multimedia applications.

LAW ENFORCEMENT WANTS MORE CITIZEN INFORMATION

Despite the slow advancement in receiving citizen text in 9-1-1 centers, as we look to the future it is clear law enforcement personnel understand and require more information from both citizens and agency databases in order to do their job better. They desire more multimedia capabilities with 85% wanting more photos, 67% more video, plus past incident and outstanding warrant information. To make this a reality, command centers need to focus on adopting the latest NG9-1-1, computer aided dispatch (CAD) and records management systems (RMS) technologies. By equipping officers with accurate information from the start of an incident, agencies will be able to apply better judgement when making decisions, improve citizen engagement and ultimately save lives.

INFORMATION ACCESS REQUIREMENTS CONTINUE TO INCREASE



CITIZENS PREFER PERSONAL TOUCH FOR NON-EMERGENCY COMMUNICATIONS

Law enforcement agencies are always looking for ways to strengthen relationships with the community. In today's world, the willingness to be open and transparent is important. Greater openness and transparency on the part of law enforcement would go a long way in the eyes of the public. It would also provide a greater measure of accountability. Therefore, it is not surprising when respondents were asked how their agency prefers to receive non-emergency (311) citizen communications, a phone call or face-to-face meeting is still important.

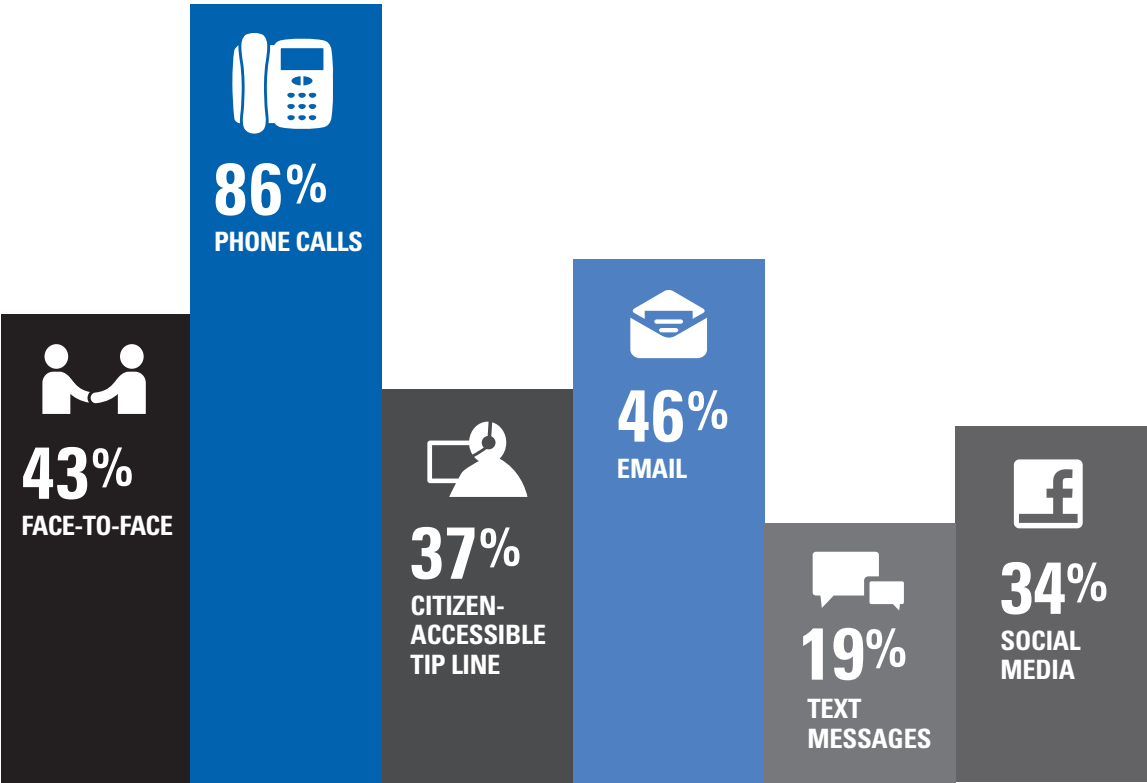
However, there is merit in providing citizens access to additional forms of communications; email, tip lines and social media. Surprisingly, 86% believe citizens want to receive a phone call and only 19% of respondents feel text messages are an effective way to stay in touch with citizens. In addition, about a third feel tip lines and social media are valuable tools to interact with citizens. As agencies look to improve citizen engagement, the more they can encourage face-to-face communication, phone calls, emails, social media and tip lines, the better they can improve citizen confidence and trust in law enforcement's approach to protecting the community.

COMMUNITY ENGAGEMENT CHALLENGE

With so many different ways to communicate with the community, this can lead to a new challenge, how to aggregate citizen inputs so the right information can be shared with the right people at the right time. Agencies need additional tools like 311 call-taking systems, social media feeds, citizen tip lines and community available crime reports to create a two-way dialogue citizens about activities in their community and reduce the need to fulfill individual requests.

Having applications citizens can access provides transparency to the community, alerts the community to potential crime hotspots, increases public confidence in the police department and reminds citizens that together, through mutual respect and shared responsibilities our communities can be better places to live and work.

LAW ENFORCEMENT PREFERENCE FOR NON-EMERGENCY CITIZEN CONTACT



VIDEO CONTINUES TO GROW AS A CRITICAL LAW ENFORCEMENT TOOL

Video solutions are an important and emerging means of staying connected with the community and creating transparency with citizens. According to the 2015 Motorola Solutions Public Safety Survey, about 41% of agencies used video. Today almost 90% of agencies use some form of video in their operations, indicative of the significant role video plays in solving crime and keeping officers and communities safe.

BODY-WORN CAMERA USAGE UP 300%

In 2015, the U.S. Justice Department pilot program awarded \$19.3 million in funding for body-worn cameras to support law enforcement agencies⁴. These survey results confirm body-worn camera usage is dramatically on the rise, increasing 300% from last year. These new video tools bring with them added complexities and many unanswered questions. In fact, the easiest part is purchasing the equipment. However, before agencies roll out video solutions, they need to develop strong policies to govern usage, robust officer training programs and long-term plans for data storage and retrieval.

The Police Executive Research Forum (PERF) published a report about [Implementing A Body-Worn Camera Program](#)⁵ which can provide agencies with valuable information on developing the right policies. Another helpful reference on body-worn camera programs is the [PoliceOne 2016 Guide to Body-Worn Cameras](#)⁶.

As we look to the future, the reliance on video as a law enforcement tool to help solve and deter crime will only increase. When asked, 49% of respondents want access to more video surveillance systems (fixed or private) in the future. Having extra “eyes”, or a virtual cop, on the street allows officers to react more quickly, identify perpetrators, gain valuable evidence, and close cases with more visual context making the community and officers safer.

90%
OF LAW
ENFORCEMENT
AGENCIES
USE VIDEO

HOW DO AGENCIES USE VIDEO?



BODY-WORN CAMERAS

41% use body-worn cameras
300% increase from 2015

PRIVATE VIDEO SURVEILLANCE SYSTEMS

30% access private video surveillance systems local businesses, retail
500% increase from 2015

IN-VEHICLE CAMERA SYSTEMS

60% use in-vehicle camera systems
Up from 25% in 2015, two-fold increase

PUBLIC VIDEO SURVEILLANCE SYSTEMS

41% can access public video surveillance systems, buildings, street lights
Increase from 25% in 2015



VIDEO CREATES NEW CHALLENGES

Increased use of video tools provides real challenges for agencies. Strong policies are needed to support privacy issues, establish chain-of-custody requirements, create community transparency, encourage community trust and ultimately help solve crime. The benefits are apparent as the national news often highlights crimes solved by video.

Today, only about 6% of agencies surveyed use video analytics to aggregate data. As agencies collect voice, video and data intelligence, it will become increasingly important to use crime analytical tools to make sense of the data. Having such tools to provide context to the data can greatly improve the responding officer's situational awareness and real-time decision making capabilities resulting in safer outcomes.

69% AGENCIES REQUIRE MORE ACCESS
TO HIGH SPEED DATA

Another challenge departments are facing is around data storage. There are so many questions to be answered such as how much video needs to be retained and how long? Where do I store it, in house or a third party cloud service? In fact according to Motorola Solutions' 2016 Intelligence-Led Public Safety Survey Results⁷, 86% of law enforcement officials recognize that they need to improve the way they manage data. As agencies move forward collecting more and more data they need to put programs in place to manage both the devices and the digital content, secure the data to ensure integrity and develop procedures to respond to outside requests for records.

PUBLIC PRIVATE VIDEO PARTNERSHIP: DETROIT POLICE DEPARTMENT

50%
DROP IN
VIOLENT
CRIME

Detroit Police Department⁸ identified 25% of their crime was occurring in and around gas stations. In order to make gas stations safer, they integrated public and private video feeds into a system that provides real-time monitoring and analytical support; virtually patrolling crime hotspots. Now they are able to interrupt crime in real-time and drive positive change in the community. According to Commander Nick Gaquinto of the Detroit Police Department, "Instead of having eyes on the scene within 3 minutes, we have eyes on within seconds."

INTERNAL COMMUNICATIONS: POLICE PREFER EMAIL AND TEXT MESSAGES

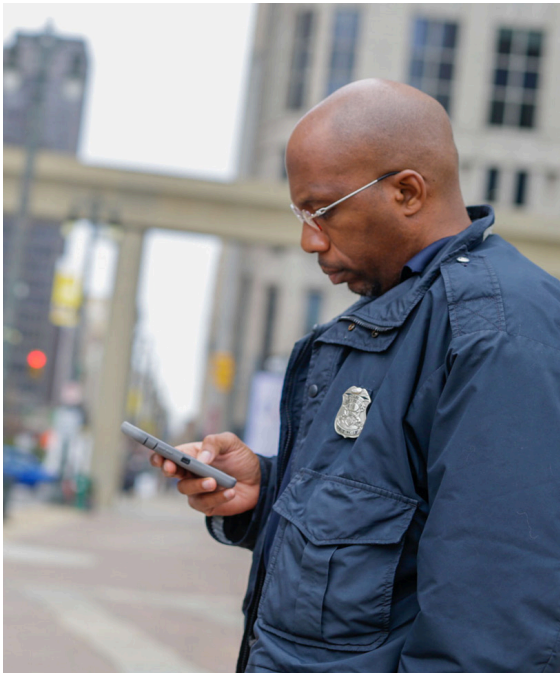
With so many different communication options, it can be overwhelming to know which app to use. But law enforcement personnel have a clear preference when it comes to internal non-emergency communications. The question is: does command staff understand the different ways their staff wants to communicate?

When communicating non-emergency information, 51% like to communicate with command staff the old fashion way – face-to-face. But in today’s digital world, 84% would also prefer email for non-emergency communications, followed by text (64%).

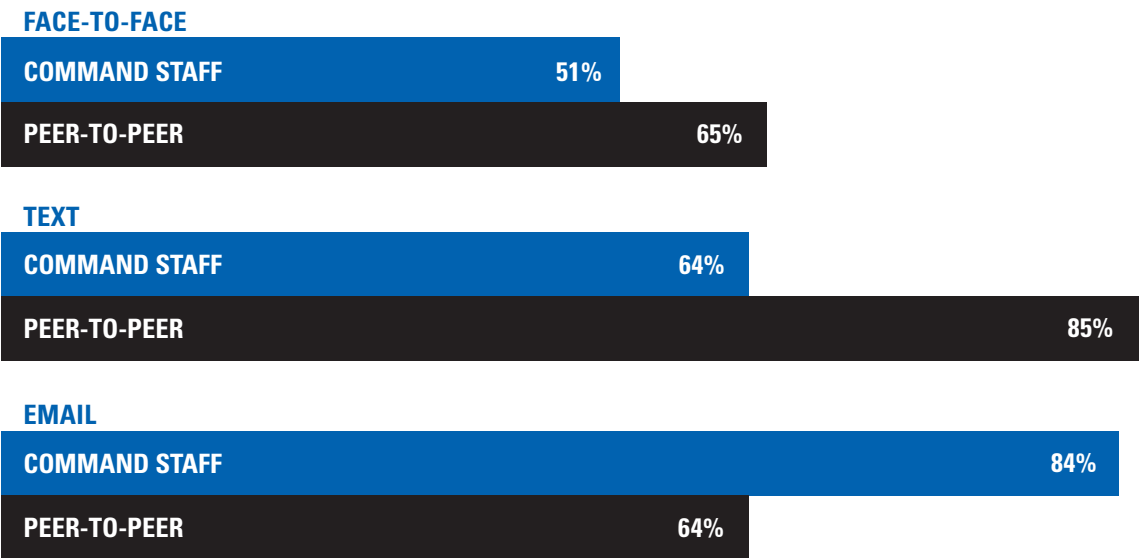
For peer-to-peer communication, 65% like to meet face-to-face. The majority also like to receive a quick text or an email when communicating non-critical information.

Since almost 100% of survey respondents say that they use either a department issued smartphone or their own smartphone, text as a primary or secondary method of communications would be a good option for agencies to consider. In fact according to CTIA Wireless, it takes 90 minutes to respond to an email and only 90 seconds to respond to a text⁹.

As law enforcement exchange more and more information with peers, and command staff, neighboring agencies and citizen, they need to be proactive in communicating information. It is not a one size fits all approach. For peers it may mean a quick text, for citizens a phone call. It all comes down to building relationships and leveraging the right tools to quickly gain intelligence and build situational awareness around an incident. They may receive and act upon the information more quickly and efficiently.



INTERNAL COMMUNICATION PREFERENCES



SMART DEVICES ARE AN INTEGRAL TOOL WHEN DEALING WITH THE COMMUNITY

Most respondents use a smartphone or tablet in their daily work. It allows them to better interact with citizens, access critical information on the go and look up incident related information when trying to solve crimes. The question is: Is it an agency issued device or a personal device? Surprisingly, almost half of respondents use an agency provided device with “baby boomer” personnel leading in usage of agency issued devices. This trend may be related to higher ranking administrative positions where smart devices are provided as part of their added responsibility.

Whereas 67% use work related applications on a smartphone, when asked why they do not use their own personal devices, three themes emerged: Department policy prohibits the use. Individuals want to keep work and personal life separate. Third, and probably the most serious, are the chain of evidence issues, where a personal phone can be seized as part of an investigation, exposing all personal data to legal scrutiny.

When using their own devices to access work applications, at least 74% of respondents, particularly baby boomers, are very concerned about privacy, encrypted security and getting the info they need when they need it. Millennials are more concerned with these issues with 81% agreeing. About 25% of baby boomers and Gen Xers are not as concerned with these issues.

BABY BOOMERS



GEN XERS



MILLENNIALS



ADDITIONAL SMART DEVICES AND APPLICATIONS WANTED

Fifty three percent of the survey respondents want to be able to rely on data applications as often as they do voice communications in the future. Today, the apps are commercial applications such as weather, compass, Spanish translations and job specific applications such as case management and crash reconstruction. Tomorrow, the apps will go beyond report writing applications and provide more mobile intelligence using predictive, geo-fencing and analytics tools.

Also, when law enforcement personnel look to the future, they see the value in smart devices and new applications. They want more body-worn cameras, in-car video, and agency issued smartphones and tablets. In addition, they welcome the role of emerging devices like gun shot sensors in high crime areas, heads-up display glasses overlaying critical information during an incident response and Unmanned Aerial Vehicles (UAVs), or drones as they are more commonly known. The value of drones in providing additional visual clues in difficult situations such as an active shooter incident, crowd control monitoring, or stakeouts and surveillance work continues to rise with 35% of respondents wanting to see more drones used to improve response and safety.

67%
USE THEIR
PERSONAL
DEVICE FOR
WORK RELATED
APPLICATIONS

MOST COMMON APPS USED BY LAW ENFORCEMENT

COMMERCIAL

- Internet browsers
- Weather
- Compass
- Maps, GPS
- Email
- Photos
- Spanish translation

JOB SPECIFIC

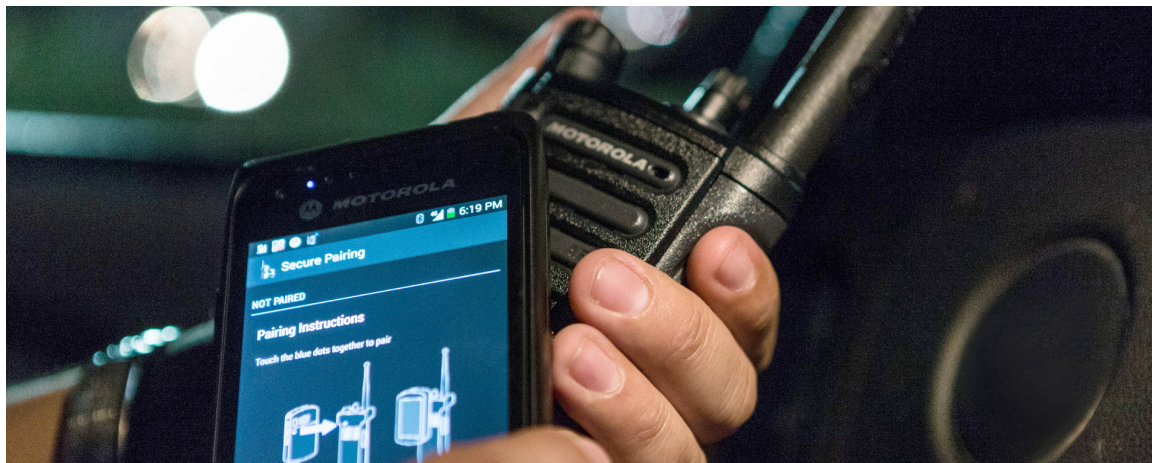
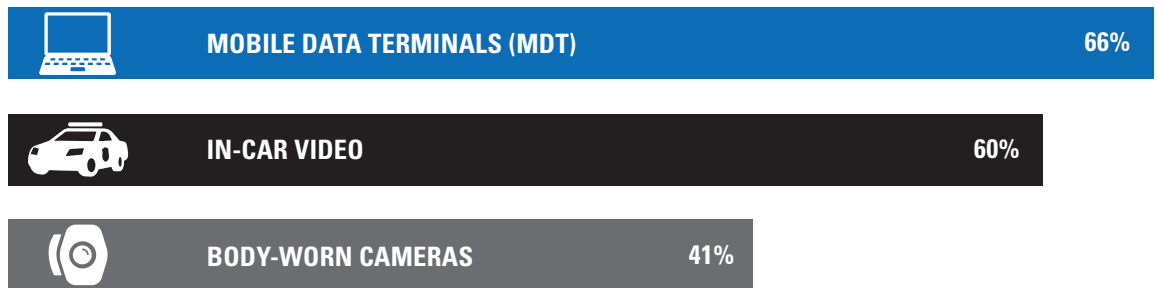
- State and local laws
- Local, state, national databases
- Narcotic identification
- Case management
- Crash reconstruction
- 10-21 police app

CONVERGENCE – VOICE AND DATA DEVICES LAW ENFORCEMENT PERSONNEL NEED BOTH

Overwhelmingly, law enforcement personnel rely on their two-way radio; according to the survey, 88% of all respondents and close to 100% of patrol officers and first line supervisor respondents use a two-way radio. But, today the radio is not the only tool they rely on for effective response and efficient operations. Data-centric, purpose-built devices, which are devices built specifically for the needs of public safety personnel, are in use at over two-thirds of respondents' agencies; with 66% of law enforcement personnel using an in-vehicle Mobile Data Terminal (MDT), 60% in-car video and 41% body-worn cameras.

In addition to purpose-built devices, almost all respondents also use a smartphone and or laptop for work-related tasks. Thirty four percent use agency provided smartphones while 70% use their own personal devices. Almost half of all respondents use a laptop and a smaller percentage, 25%, use a tablet.

ADOPTION OF PURPOSE-BUILT DATA COMMUNICATION DEVICES



LAW ENFORCEMENT SMART DEVICE USAGE FOR WORK RELATED TASKS



PERSONAL SMARTPHONES

70%

LAPTOPS

49%

AGENCY ISSUED SMARTPHONES

34%

TABLETS

25%

LOOKING TO THE FUTURE

Agencies now have access to multiple data devices plus two-way radios to communicate with peers, supervisors, command center personnel and citizens in the community, but access to devices is just part of the story. It is the collective intelligence gained from the devices, software, services and networks both LTE and LMR. In fact 71% of law enforcement personnel said they want to be able to communicate across different networks and devices and 53% want to rely on mobile data applications as often as voice communications.

They want the ability to provide context around a few seconds of streaming video, predictive resource deployment and intelligent personal assistance. They are looking for a secure platform designed to meet the security and regulatory needs of organizations so law enforcement personnel can gain more situational awareness, use data proactively and build better relationships helping to maintain and improve the lives of the citizens in the communities served.

100%
OF RESPONDENTS
SAID THEY USE
AN AGENCY
ISSUED OR
PERSONAL
SMART DEVICE

IN THE FUTURE

53% want to rely on mobile data applications as often as voice communications

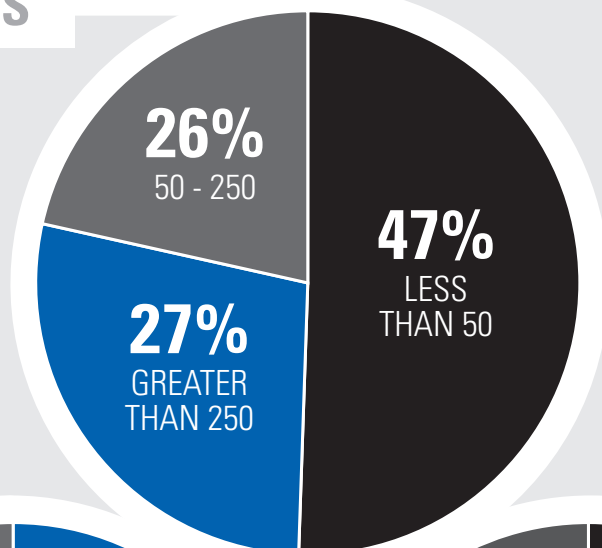
71% want to be able to communicate across different networks and devices



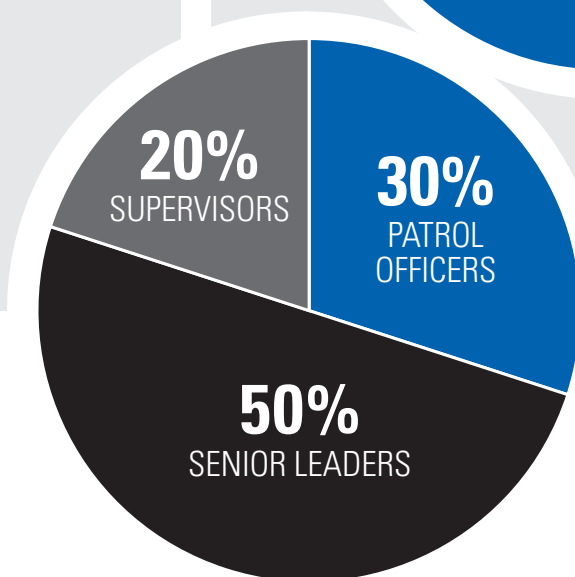
SURVEY RESPONDENTS

This blind study was conducted in partnership with PoliceOne.com in the spring of 2016, focused on the law enforcement community. There were 475 respondents; 47% from agencies with less than 50 sworn officers, 26% from agencies with 50-250 officers and 27% with more than 250 officers. Over 50% of the respondents are seasoned law enforcement personnel with 10 or more years of service, 20% have 5-10 years of service and 30% have less than 5 years of service. The survey had a balanced distribution of senior leadership (Chiefs/Deputy Chiefs, Sheriffs/Deputy Sheriffs (30%), patrol officers/detectives (50%), and law enforcement supervisors (20%).

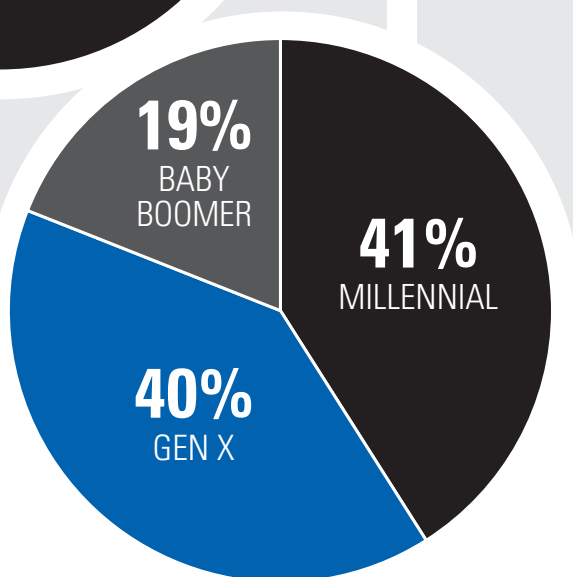
SWORN OFFICERS



ROLE



AGE





STREAMLINE DATA FOR EFFICIENT OPERATIONS

Transforming data into safety for effective response, efficient operations and enhanced community connections is the focus of Motorola Solutions mission-critical communications and software data solutions. We help agencies gather data from citizens and agencies and seamlessly flow it across networks, devices and applications, turning data into mobile intelligence.

As this survey demonstrates, agencies are continuing to advance their use of data and smart devices but these new technologies bring challenges in keeping officers and citizens safe, promoting community trust and efficiently managing operations. By working together with agencies around the world, we can tie these new capabilities together and provide law enforcement with the solutions they need to better serve protect, and connect to their communities. Making a difference in the moments that matter.

For more information visit: www.MotorolaSolutions.com/LawEnforcement

SOURCES

1. 2015 Nationwide Industry Study, Motorola Solutions https://www.motorolasolutions.com/content/dam/msi/docs/2015_public_safety_survey_white_paper.pdf
2. The Statistical Portal <https://www.statista.com/statistics/201183/forecast-of-smartphone-penetration-in-the-us/>
3. NENA: Text to 9-1-1 Information and Planning Guide https://c.yimcdn.com/sites/www.nena.org/resource/resmgr/Docs/SMS_Text_Info_and_Planning.pdf
4. Justice Department Body-Worn Camera Pilot Program <https://www.justice.gov/opa/pr/justice-department-awards-over-23-million-funding-body-worn-camera-pilot-program-support-law>
5. Police Forum: Implementing Body-Worn Camera Program http://www.policeforum.org/assets/docs/Free_Online_Documents/Technology/implementing%20a%20body-worn%20camera%20program.pdf
6. PoliceOne, 2016 Guide to Police Body-Worn Cameras <https://www.policeone.com/police-products/body-cameras/articles/48339006-Download-PoliceOnes-Free-2016-Guide-to-Police-Body-Worn-Cameras/>
7. Motorola Solutions Intelligence Led Public Safety Survey 2016 http://www.motorolasolutions.com/content/dam/msi/docs/2015_ilps_survey_white_paper.pdf
8. Detroit Police Department: Renewing Hope Through a Safer Motor City <https://www.motorolasolutions.com/Detroit>
9. OneReach Blog: 45 Text Statistics that Prove Businesses Need to Take SMS Seriously <https://onereach.com/blog/45-texting-statistics-that-prove-businesses-need-to-start-taking-sms-seriously/>

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. ©2017 Motorola Solutions, Inc. All rights reserved. (01-2017)