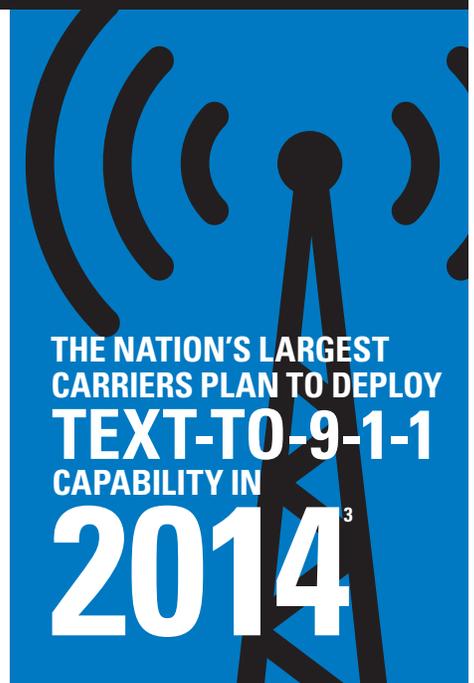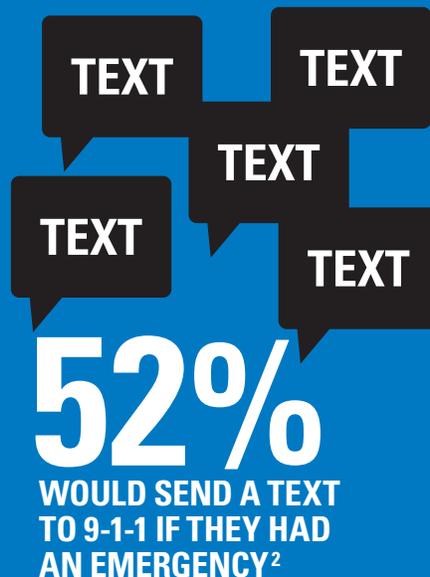# RESPONDING TO THE NEW COMMUNICATIONS REALITY
BEGIN TO MAKE YOUR PSAP NG9-1-1 READY TODAY

Text to 9-1-1. Photos to 9-1-1. Video to 9-1-1. This will be your new reality and PSAP communications will be forever changed. The legacy system your PSAP has relied on for decades to help protect your communities can no longer keep up with the demands of increasingly mobile and socially-connected citizens. The expectation that public safety agencies will be able to harness the technology that citizens use every day to communicate has never been higher.

But the new call for help is just the tip of the iceberg when you consider how much more information is flowing throughout your community. To transform how you protect and respond, you need an effective way to bring together and operationalize the data that surrounds you. Next Generation 9-1-1 (NG9-1-1) solutions provide the flexibility and scalability to tackle what tomorrow brings. No matter the size of your operation or where you are in the transition process, you have options today to create your path forward and partners you can trust to get you there. Waiting is simply no longer an option.

THE IMMINENT PSAP CHALLENGE: ANSWERING THE NEW CALL FOR HELP

70%
OF CALLS TO 9-1-1 ARE PLACED BY **WIRELESS CALLERS**[1]

TEXT TEXT TEXT TEXT TEXT

52%
WOULD SEND A TEXT TO 9-1-1 IF THEY HAD AN EMERGENCY[2]

THE NATION'S LARGEST CARRIERS PLAN TO DEPLOY **TEXT-TO-9-1-1** CAPABILITY IN **2014**[3]

OPERATIONALIZE THE INTELLIGENCE THAT SURROUNDS YOU

Information is power. But how do you effectively capture, correlate and share the most important sources of intelligence with those who need it most? NG9-1-1 solutions allow you to tap into and integrate your best available source of information — the city itself. Beyond citizen inputs, a wealth of information exists throughout the community that can help improve emergency response or even detect crimes or emergencies before a call to 9-1-1 is placed. Fixed cameras and sensors like transportation, crash notification, gunshot detection and environmental alerts, along with other inputs, can become your remote eyes and ears — vastly improving situational awareness, speed of response and decision making.

Your ultimate solution must deliver a simple way to integrate and correlate all data streams into a single, actionable view as well as help define the new processes, procedures and skills required to manage it.

> " **THE SHIFT TO NG9-1-1 CAN'T BE ABOUT IF, BUT ABOUT WHEN AND HOW,**[3] "
>
> **JULIUS GENACHOWSKI, FCC CHAIRMAN**

NG9-1-1 HELPS HARNESS AND ENABLE A WEALTH OF INTELLIGENCE

30 MILLION
SURVEILLANCE CAMERAS ARE DEPLOYED IN THE US[4]

72%
GOVERNMENT IT LEADERS WANT TO USE VIDEO AND TEXT MESSAGES PROVIDED BY CITIZENS[5]

WHEN… NOT IF

Citizens, including the deaf and hard of hearing, already expect you to keep up with new communications technology. The FCC's agreements with carriers to make text-to-9-1-1 a reality by 2014 will drive this critical shift faster. But evolving current communications capabilities of PSAP systems will not occur overnight. The NG9-1-1 transition will take time. And no two paths will look exactly alike.

The good news? You can start your journey in a number of meaningful ways and realize immediate communications benefits. Many PSAP operations have already started testing or deploying text-to-9-1-1 solutions. For instance, Black Hawk County, Iowa, Durham, N.C. and the State of Vermont have already implemented real-time text capabilities and others are following a similar path.

START TODAY TO MAKE YOUR PSAP NG9-1-1 READY

- **IDENTIFY TRUSTED, EXPERIENCED PARTNERS**

- **CREATE GOALS AND A DETAILED MIGRATION PLAN**

- **WORK WITH SELECTED PARTNERS TO IMPLEMENT TEXT-TO-9-1-1 CAPABILITIES**

- **CONNECT PSAPS WITH A SECURE IP NETWORK (ESINET) USING GATEWAY DEVICES TO CONVERT ANALOG CALLS TO DIGITAL**

- **UPGRADE CUSTOMER PREMISE EQUIPMENT (CPE) TO IP-BASED TECHNOLOGY**

- **IMPLEMENT ENHANCED COMMAND AND CONTROL DATA APPLICATIONS**

- **ENHANCE YOUR GEOGRAPHIC INFORMATION SYSTEM (GIS)**

THE NG9-1-1 TRANSITION IS HAPPENING NOW

NG9-1-1: NO LONGER A BUZZWORD

No longer a distant reality, NG9-1-1 and its multitude of moving parts have officially arrived. Network elements, software applications, databases, cloud-based solutions, GIS, CPE components and operations and management procedures all must be integrated to allow for a seamless and efficient operation. Yes, the transition brings complexity to what is already a challenging operation. But the benefits of NG9-1-1— improved connectivity, flexibility, redundancy, caller location accuracy and more – are hard to ignore.

75% PUBLIC SAFETY ENTITIES ENGAGED IN NG9-1-1 ACTIVITY[6]

FROM TODAY TO TOMORROW: A LOOK AT THE BENEFITS

CIRCUIT SWITCHED ▶ **PACKET-BASED (IP)**
Call routing is no longer limited by telephone number, service provider or PSAP boundary

LEGACY LOCATION DATA ▶ **GIS-BASED ROUTING**
The number of misrouted calls is reduced and real-time caller location data provides better accuracy

VOICE ONLY CALLS ▶ **MULTIMEDIA MESSAGING**
NG9-1-1 multimedia call management solutions allow your system to receive, manage and interact with voice, text, multimedia and sensor inputs

NON-REDUNDANT ▶ **INTELLIGENT REDUNDANCY AND SYSTEM BACK-UP**
Built-in policy and call-routing functions, along with Web-based management capabilities provide maximum system flexibility

LOCAL ONLY ▶ **ENHANCED INTEROPERABILITY AND COLLABORATION**
Shared network models allow for greater collaboration and improve interoperability and intelligence sharing at the county, region, state and national levels

PREPARING FOR A DAUNTING NEW REALITY

Emergency call taking is already a tough job, and adding more data and technology to the mix will only make it more complicated. The evolution of your communications systems demands not only a new way of thinking, but also pervasive changes to PSAP networks, infrastructure, technology and personnel skill sets. Without the right plan and integrated platform in place, it will be challenging to contend with:

- Different technologies
- Added equipment
- Monitoring, managing and sharing more information
- Inefficient workflows
- Managing new multi-media and GIS inputs
- Multiple applications, monitors and keyboards

But that's really just the beginning. Adding new capabilities means existing policies and procedures will need to change. And PSAP roles and responsibilities will need to be clearly defined, along with funding requirements, to ensure alignment with migration goals.

The bottom line? Big changes are coming fast. To help call takers and dispatchers effectively manage new sources of data, technologies and workflows, you need an integrated platform that ties it all together.

ANSWERING THE NEW CALL FOR HELP WITH INTEGRATED DISPATCH

You work in a world defined by split second decisions. You know the ability to receive, intelligently correlate and share information – and better predict outcomes – is more critical now than ever. Yet today when an incident occurs, call takers and dispatchers are challenged to get up-to-the-minute information to the right resources at the right time. Swiveling between multiple consoles, screens and keyboards to collect and coordinate information from disparate sources costs precious time. Even more time is lost when critical information is hard to find, systems are not integrated and interoperability between other agencies and jurisdictions is limited.
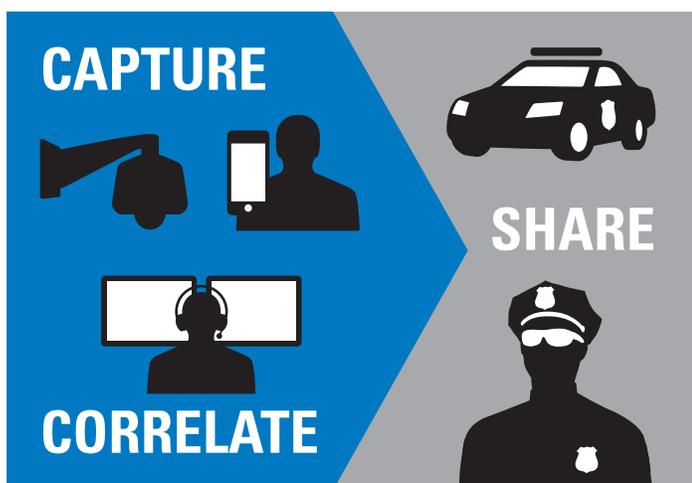
An integrated communications platform changes all of that. Distractions are minimized; repetitive steps eliminated. Intelligence sharing happens in real time. It delivers critical focus to speed response and decision making. Imagine if CAD became the central convergence point for communications from multiple sources and systems, and you could:

- Simplify incident and resource management by accessing key 9-1-1 and radio console functionality directly within CAD
- Receive and respond to citizen 9-1-1 text messages
- Select real-time video camera feeds from your CAD map so you can better assess a situation in progress
- Send photos, video and text messages to field personnel in seconds so they are more informed and prepared
- Monitor officer safety with in-vehicle or wearable video cameras in real time
- Silently send incident updates and track first responders with GPS-enabled radios when they're away from their vehicle

Data applications that provide supplemental call information – smart video analytics, hazardous materials information, citizen health information and building blueprints to name a few – are available to PSAPs today. Combining that input into a unified view requires a fundamental transformation in all aspects of your operation. And while these changes will be substantial, the right integrated solution will help you handle calls faster, allocate resources better and keep your community safer.

BRINGING ALL RELEVANT DETAILS INTO FOCUS

Without context, data is just data. And in today's world, that's simply not enough. In fact, it may even add time and complexity that puts lives at risk. Intuitive technologies and workflows increase productivity and efficiencies by streamlining processes and eliminating interruptions. No more competing layers of information or pop-up screens. Alerts are visible, but don't compete for attention. Multiple screens, applications and databases all feed into one unified view. Intuitive, pre-populated data reduces errors and saves valuable time.

IMAGINE IF YOU COULD…

- Answer a call, create an incident, dispatch and release the call in four simple keystrokes
- Access 9-1-1, CAD and radio console controls all from one application, controlled by a single keyboard and mouse
- Alert users to critical information without interruption
- Log in with a single sign-on
- Have a single data entry and access point that reduces errors and speeds response
- Auto-populate call data and then make it available to others simultaneously

A purpose-built, integrated solution makes it easy for call takers and dispatchers to focus on the incident at hand and not the technology that surrounds them, helping them to work smarter. And that's only possible with thoughtful, dedicated human factors design based on years of industry experience.

PREDICTIVE ANALYTICS   **INSTANT DATA ACCESS**   **ENDURING SAFETY**

TURNING INFORMATION INTO INTELLIGENCE

To deliver the greatest value, NG9-1-1 systems need to go beyond collecting and aggregating data to more predictive intelligence environments. Advanced analytics help staff effectively assess data to better predict incidents and potential impacts for a more proactive response. Instant access to video, historical data and real-time collaboration with city, county, state and federal agencies via Real-Time Crime Centers will help agencies monitor community activities and respond immediately to crimes in progress.

The right system will provide a continuum of content, coming from multiple systems, that can be intelligently and easily consumed, correlated and shared within the Command Center, among PSAPs and out to first responders in the field. IP-based networks – the backbone of NG9-1-1 – enable shared network models, allowing all participating communities to do more with less. By combining infrastructures, local call positions and system monitoring can happen anywhere – no more brick and mortar limitations. Plus, a shared network model with common applications, like CAD, makes it easier and more cost effective to plan for and link common communications needs.

RETHINKING THE BIG-PICTURE WITH A HOLISTIC VIEW

Transformational change of any kind involves risk. Minimizing the risk of deploying NG9-1-1 technologies takes thoughtful planning and the domain expertise of partners you can trust. Without either, upgrading current PSAP and Command Center operations will quickly overwhelm resources – and budgets.

With a transition the size of NG9-1-1, you need a comprehensive vision and a solid plan that accounts for the various interoperability needs of public safety networks – current 9-1-1 technologies, P25 Land Mobile Radio, broadband – as well as a detailed technology roadmap that seamlessly integrates networks, applications and devices to deliver the right information where and when it's needed most. The right guidance will help you take a measured, practical approach to your transition, one that spreads out operational impacts and costs over time.

THE TIME IS NOW

Today is your tipping point. Your communications capabilities need to mirror citizen expectations – and soon. Agencies across the nation have started deploying IP-based infrastructure and NG9-1-1-ready applications alongside existing systems, and have already reaped significant productivity and efficiency gains, while transitioning supporting processes and procedures at a manageable pace.

How you respond – and the investments you make now – will determine how well you are prepared for whatever comes next. Because within the information rapidly flowing between citizens, responders and agencies lives the intelligence that builds safer cities and thriving communities. Motorola can help you collect more of it, make it actionable and securely distribute it across mission critical devices and easy-to-manage networks.

THE RIGHT PARTNERS BRING POWERFUL BENEFITS

The days of stand-alone public safety applications are over; so too are the burdens and inefficiencies that go along with them. Evolving your operations to NG9-1-1 will take trusted partners and proven technologies to get it right. At Motorola, we deliver just that.

We leverage a strong ecosystem of partnerships, such as 9-1-1 industry leader Intrado, to deliver the most compelling public safety solutions available. To date, Intrado has helped more than 300 PSAPs deploy NG9-1-1 solutions, successfully handled more than 10 million NG9-1-1 calls serving more than 20 million citizens and implemented statewide NG9-1-1 deployments in Vermont and Washington, with others underway.

Our combined mission critical domain expertise allows us to uniquely offer truly integrated solutions that will help you capture, consolidate and triage all available data on an incident – and then deliver the best information, and only the best information, to those who need it most. It's the technology and expertise that turns noise into information, information into intelligence, and intelligence into safety that sets our solutions apart. We'll help you transform the way you respond, simplify your operation and allow you to more effectively focus on your mission – keeping your community safe.

SOURCES

1. http://www.fcc.gov/guides/wireless-911-services

2. 9-1-1 Intrado Consumer Research, June 2010

3. http://www.fcc.gov/document/genachowski-announces-plan-improve-next-generation-9-1-1

4. http://www.popularmechanics.com/technology/military/4236865#ixzz20ZBjxij9

5. Motorola Public Safety Data Communications Technology Survey, January-February 2012

6. http://www.nena.org/?page=NG911_StateActivity&hhSearchTerms=ng9-1-1+and+activity

For more information on how we can serve the needs of your community with our Next Generation Integrated Command and Control solutions, please contact your Motorola Solutions representative or visit **motorolasolutions.com/safercities**.