

TOP 10 MOBILE TRENDS FOR LAW ENFORCEMENT

Mobile communication is the lifeblood of law enforcement, from the public safety radio system to connected laptops in vehicles and a new generation of Internet-connected mobile devices. From drones to flexible adaptive computing solutions, these are the top 10 trends you need to be prepare for:

EMERGENCY
MANAGEMENT

Motion[®]

An aerial, high-angle photograph of a dense urban skyline, likely New York City, showing a vast array of skyscrapers and buildings. The image is split horizontally by a dark, semi-transparent band. Centered on this band is the text "#1 HYPER-NETWORKED CARS & PEOPLE." in a bold, sans-serif font. The number "#1" is white, while the rest of the text is orange.

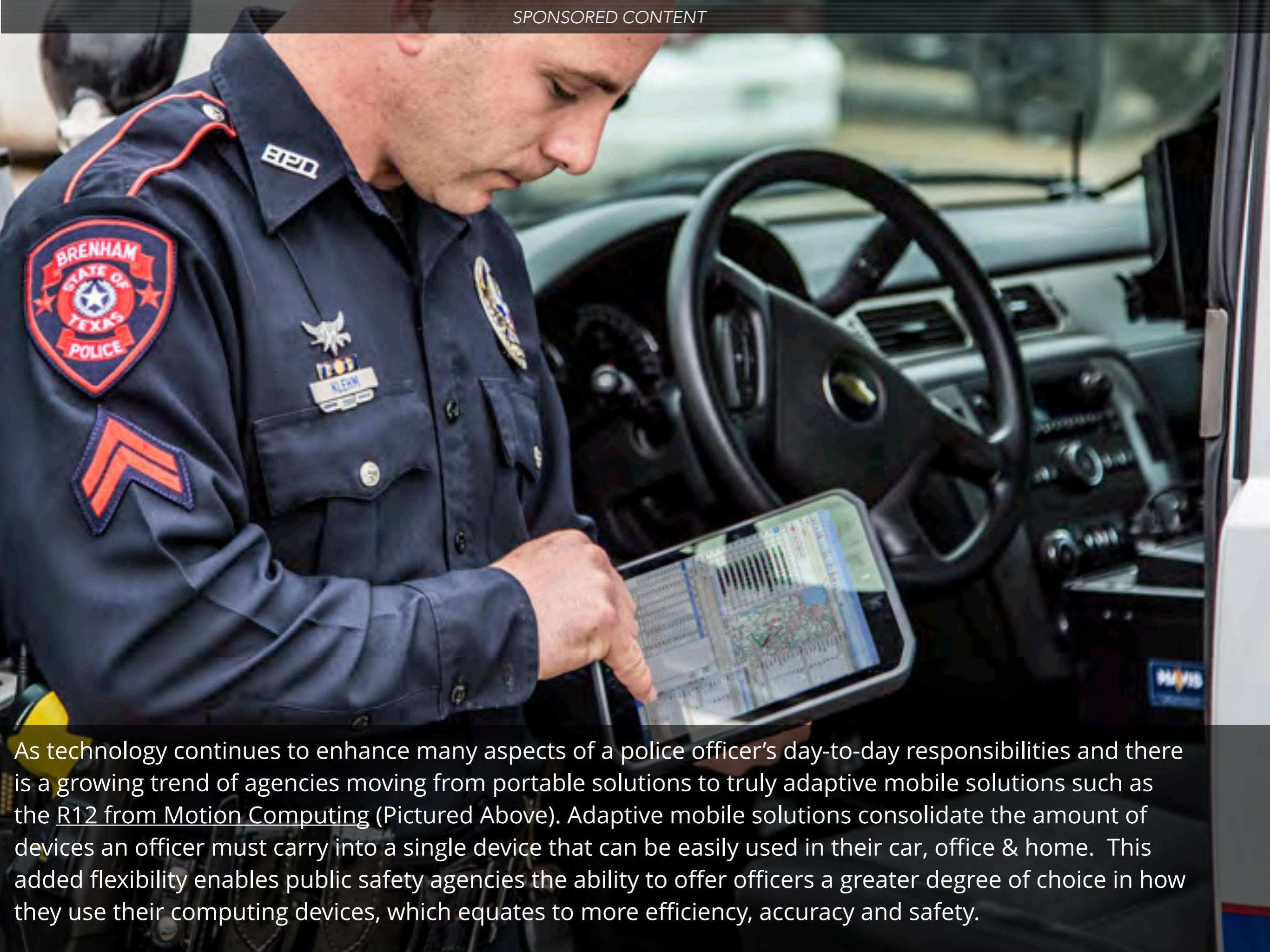
#1 HYPER-NETWORKED CARS & PEOPLE.



The rise of networked public safety devices and applications is leading to new demands in how public safety personnel connect to the Internet. These new devices and applications have begun to force a shift from traditional means of connectivity, such as wireless pass-through, to the centralized networking solutions such as the 'car-as-a-platform' or officer hotspots that enables multiple device connectivity. A single access point simplifies the connectivity issues commonly experienced through multiple paths and provides a safer and more seamless user experience for the in-field officers.

An aerial, high-angle photograph of a dense urban skyline, likely New York City, showing a vast number of skyscrapers and buildings. A semi-transparent dark horizontal band is overlaid across the middle of the image, containing the text "#2 ADAPTIVE MOBILE COMPUTING." in a bold, sans-serif font. The number "#2" is white, while the rest of the text is orange.

#2 ADAPTIVE MOBILE COMPUTING.



As technology continues to enhance many aspects of a police officer's day-to-day responsibilities and there is a growing trend of agencies moving from portable solutions to truly adaptive mobile solutions such as the [R12](#) from Motion Computing (Pictured Above). Adaptive mobile solutions consolidate the amount of devices an officer must carry into a single device that can be easily used in their car, office & home. This added flexibility enables public safety agencies the ability to offer officers a greater degree of choice in how they use their computing devices, which equates to more efficiency, accuracy and safety.

An aerial, high-angle photograph of a dense urban skyline, likely New York City, showing a vast number of skyscrapers and buildings packed closely together. The image is in black and white, with a semi-transparent dark horizontal band across the middle containing text. The text is in a bold, sans-serif font, with the number '#3' in white and the rest in orange.

#3 WEARABLE SITUATIONAL AWARENESS.



Wearable devices have already taken root with early adopting consumers, but Apple's recent entry into the wearables market will drive wearables into much larger market segments. In addition, you will begin to see new demands and enterprise use-cases through the rise of consumer adoption. Wearables in public safety will begin to evolve from recording devices to wearable heads-up display (HUD) that provide an extra layer of situational awareness for officers.

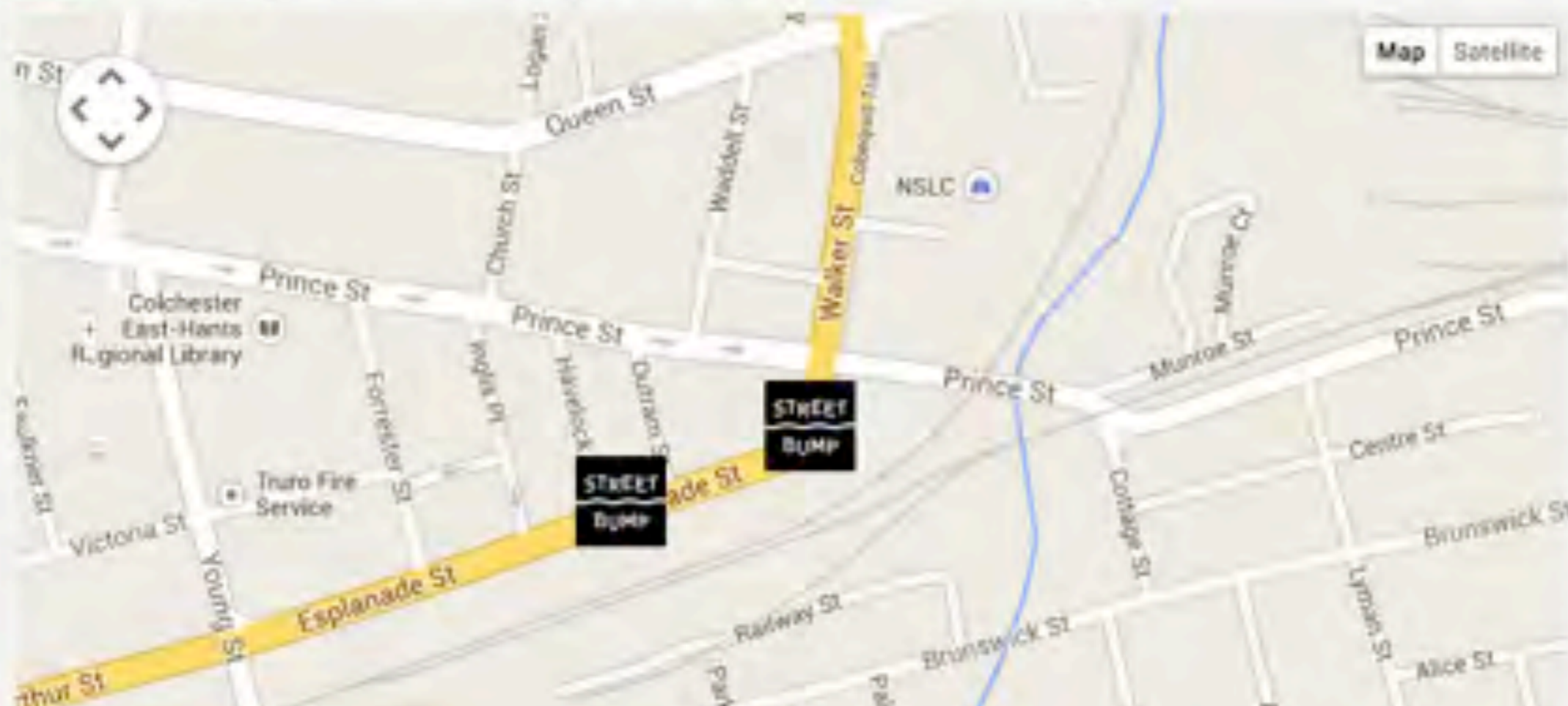
An aerial, high-angle photograph of a dense urban skyline, likely New York City, showing a vast array of skyscrapers and buildings. The image is in black and white, with a semi-transparent dark horizontal band across the middle. The text "#4 EVERYTHING-AS-A-SENSOR." is overlaid on this band in a bold, sans-serif font. The number "#4" is white, while the rest of the text is orange.

#4 EVERYTHING-AS-A-SENSOR.

Where's Street Bump being used?

549 trips, 37,016 bumps, 0 potholes filled, and 0 roadway problems identified

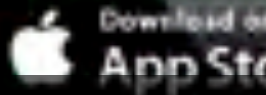
83 bumps reported in 148-198 Esplanade St, Truro, NS 4 months ago



What's S

Street Bump is
residents impro
Volunteers use
collect road con
data provides g
information to f
investments.

Street Bu

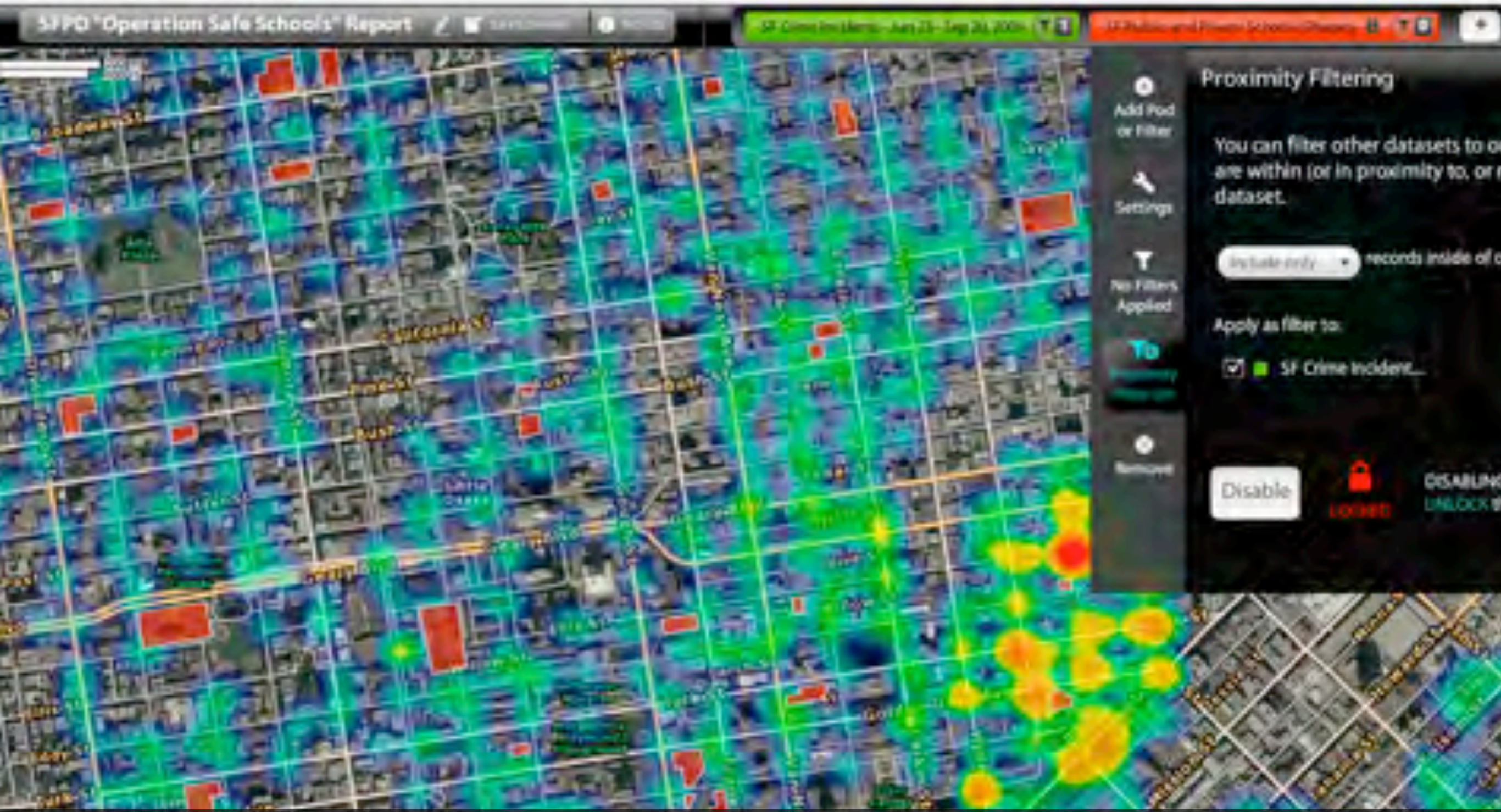


All mobile devices leverage some form of environmental sensors internally, such as an accelerometer, thermometer & ambient light sensors, to improve user experience and overall device performance. There is a new shift to third-party applications and software programs using these environmental sensors for other purposes, such as identifying potholes through your accelerometer as you drive. This trend means that we are all becoming walking sensors to a great more complex network through our tablets, phones & other connected devices.

Want to use Street Bump to improve your community? [Contact Us](#)

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#5 PREDICTIVE & CONTEXTUAL POLICING.



The rise of Big Data has created a new demand to understand and interpret massive amounts of data. There has been a shift from historical data interpretation to more predictive methods that leverage machine learning and artificial intelligence technologies. This has led to a concept of predictive policing, which is the pre-positioning of public safety resources in city hotspots based on their probability of crime reoccurred. Moving forward, the combining of real-time social media events and historical data will provide the optimal foundation for predictive analysis of crimes, criminal networks and much more.

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#6 UNBUNDLED LAW ENFORCEMENT APPS & SOFTWARE.



Unbundling started as a consumer trend, most recognized in applications such as Facebook & Facebook Messenger, to take a suite of applications and unbundle them into separate distinct units. For example, if you separated the different applications of Microsoft Office and allowed users just to purchase Microsoft Outlook, this would be an example of enterprise unbundling. This trend has worked its way into public safety application vendors as an increasing number of law enforcement agencies are looking for ways to reduce cost and increase efficiency. In addition, unbundling provides agencies a significant benefit of only paying for the solutions they need.

An aerial, high-angle photograph of a dense urban skyline, likely New York City, showing a vast array of skyscrapers and buildings. The image is in black and white, with a semi-transparent dark horizontal band across the middle. Overlaid on this band is the text "#7 AUGMENTED USER EXPERIENCES." in a bold, sans-serif font. The number "7" is white, while the rest of the text is orange.

#7 AUGMENTED USER EXPERIENCES.



When virtual reality technologies first hit the market in the late 1980s, they were \$78,000 high-end video gaming systems, but today for \$350 you can purchase a development kit to one of the most advance systems commercially available. Virtual reality technologies provide new ways law enforcement to experience and interact with lifelike situations for routine training, hostage negotiations and any other situation that can be ported to a simulator. The emerging uses for virtual reality technologies are endless, and you will soon begin to see them embedded in bomb diffusing robots, drones & other robotic elements to enable officers to have full visual and situational awareness of what the robot is experiencing.

An aerial, high-angle photograph of a dense urban skyline, likely New York City, showing a vast number of skyscrapers and buildings. A semi-transparent dark horizontal band is overlaid across the center of the image, containing the text "#8 EVOLVING USER-INTERFACES (UI)." in a bold, sans-serif font. The number "#8" is white, while the rest of the text is orange.

#8 EVOLVING USER-INTERFACES (UI).

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Research development

Research development at City is led by the Deputy Vice-Chancellor (Research and International), Professor Dimos Arcoumanis, supported in particular by Jo Bradford and Anna Ramberg in the Centre for Research and International Development, by colleagues in the City Research and Enterprise Unit and by the University Research Committee.

The research development section of the website contains information about central University activity and events in support of research. If you are not able to find what you are looking for, please [contact us](#).

Research students should also look at the [research degrees](#) web pages.

[Research Grants and Contracts Office](#) (City network log-in and password required)

The Research Grants and Contracts Office is a part of the City Research and Enterprise Unit (CREU). Its main functions include the provision of assistance to academic staff on the financial and contractual aspects of submitting applications for research funds and of managing research grants and contracts. It also provides support to the financial and contractual aspects of research projects.

The way we access and interact with information has evolved significantly since the advent of the personal computer. We have gone from keyboard, to mouse, to trackpad, to simple voice inputs, to augmented systems (Leap Motion, Kinect), to the latest upcoming trends: predictive user experiences and eye-tracking technologies. Predictive user experiences leverage artificial intelligence components to predict what information you may be interested in asking before you ask. Eye-tracking technologies track your eye movements as a form of user input. These two technologies have major implications when paired together. Imagine being prompted with a computer-aided dispatch to check welfare based on not where you currently are, but where you decided to eat lunch with another officer (it knows this since it has access to your messages). As you read the dispatch, the computer automatically scrolls through the messages and closes when it determines you have read the message completely through the use of eye-tracking. These emerging interaction technologies will provide smarter and more efficient ways to interact with data in the future.

An aerial, high-angle photograph of a dense urban skyline, likely New York City, showing a vast number of skyscrapers and buildings. The image is in black and white, with a semi-transparent dark horizontal band across the middle. Overlaid on this band is the text "#9 REAL-TIME SOCIAL LISTENING & SENTIMENT AWARENESS." in a bold, sans-serif font. The number "#9" is white, while the rest of the text is orange.

#9 REAL-TIME SOCIAL LISTENING & SENTIMENT AWARENESS.

Create a Profile

Save Profile

Find a location

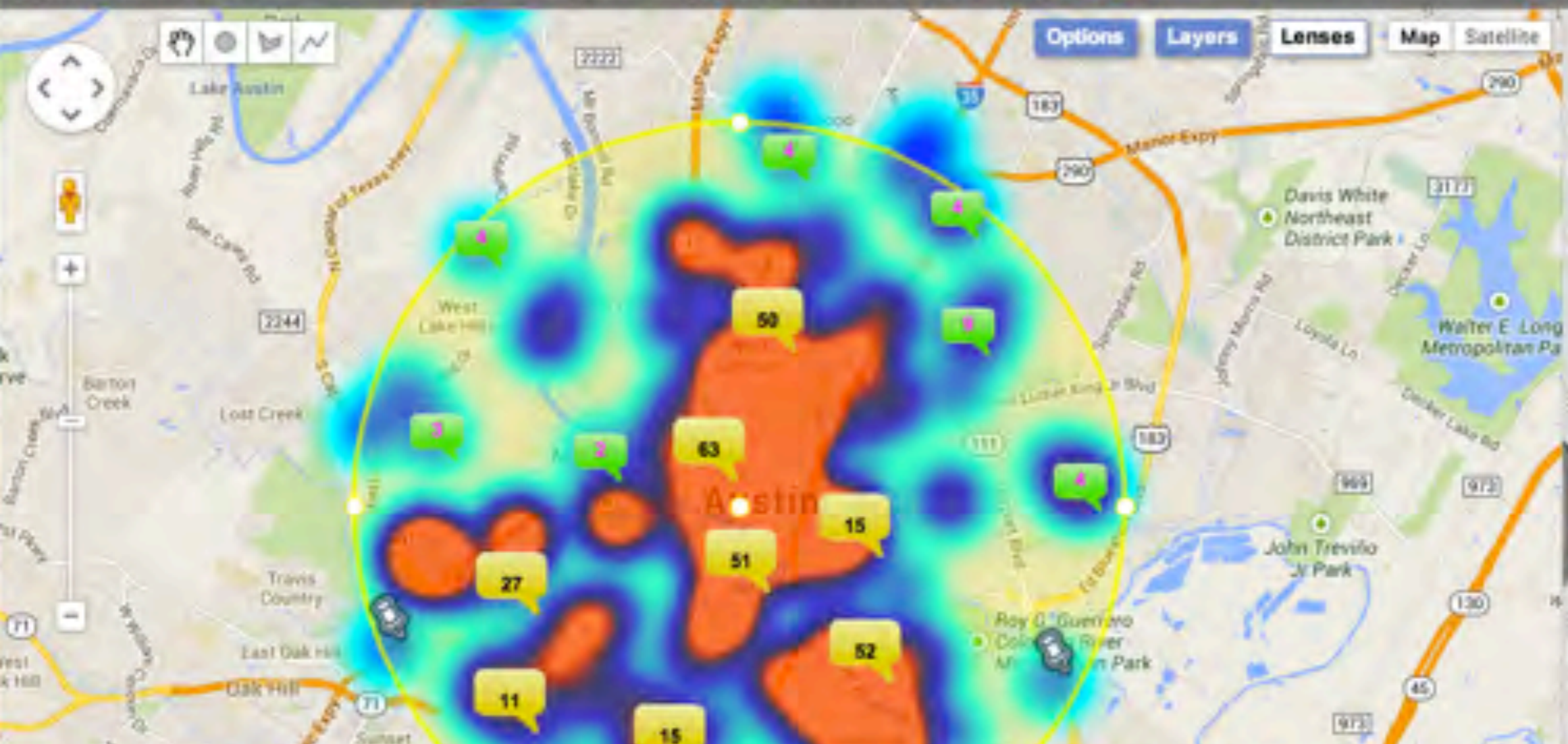
[+] Search Query

Austin

[+] Use a saved location

Search

[+] saved keywords [+] 5 networks selected



Mentions:

- Saints (No) [profile]

← Reply ← Connect ←
- @JoeQuezada

2014-08-08 17:4
Why You Gotta

← Reply ← Connect ←
- @JRDATX (L)

2014-08-08 17:4
Shontelle Johnson
<http://t.co/QKNF>

← Reply ← Connect ←
- @lucyMcBlinny (L)

2014-08-08 17:4
Lunch view in Nap
<http://t.co/Uztele>

Social listening technologies analyze and interpret public social media conversations that are taking place online. Most of these interactions can be tied to a specific geographic location depending on the user's privacy settings. Sentiment analysis is often applied on top of these analytics to determine the emotion behind individual reactions online. These technologies are very common in large companies who wish to better understand their customers (and their complaints), but many law enforcement agencies have begun to analyze social data to have a greater understanding of their communities. Social listening technologies can provide a real-time pulse of what is taking place in a community and become an invaluable resource for citizen engagement and disaster management applications.

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#10 RISE OF IOT DEVICES.



Formerly discrete communications systems and devices are coming together with the rise of Internet-of-Things (IoT) devices and peripherals. IoT has become the market descriptor of the rise of networked devices that are connected to the Internet. Drones, police cars, tablets, cell phones, printers and now even refrigerators are outfitted with Wi-Fi chipsets that enable them to connect to a larger network. The interconnectivity of these devices will enable smarter streets, buildings and cities because these devices will be able to 'talk' to each other by sharing a common backbone.



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EMERGENCY
MANAGEMENT



About Motion Computing

Motion Computing® empowers organizations worldwide with technology solutions designed to optimize the performance of mobile workers. Building on a foundation of award-winning technical expertise and decades of industry experience, the Motion® team makes it their business to understand your business. Through industry-leading rugged tablet PCs, tailored accessories and services – Motion delivers mobile technology solutions customized to business workflows. Purposely built for vertical markets including field service, healthcare, utilities, construction, retail, public safety and first responders - Motion's suite of mobile technology solutions improves worker productivity, data accuracy and security, while enabling real-time decision making at the point-of-service. Customers report lower operational expenses, increased efficiency and enhanced customer service. Motion makes its solutions available through a global network of value added resellers and distributors. For more information, visit www.motioncomputing.com