December 2019

The dawn of the new decade ushers in an era where the public safety industry is fully embracing opportunities that come from game changing technologies in the areas of artificial intelligence, as-a-service technology provisioning, advanced analytics, cyber security, and the Internet of Things. As we approach the end of 2019, the rate of acceleration of adoption of transformative technologies in public safety continues unabated. As we look forward to 2020, it will continue to be imperative that jurisdictions, large and small, address the challenges of adopting transformative technologies that support efforts to work smarter, faster, and safer.

2019—In the Rearview Mirror
During the past year, our industry continued its progression to adopting many digitalization initiatives in the public safety communications and emergency response technologies marketspace.

Some of the notable events of 2019 include the following:
- Provisioning of cloud services is now standard for most providers, and has an increasing adoption rate in public safety agencies
- Cyber security attacks on cities, to include PSAP operations, are increasing
- FirstNet, the largest public safety communications project in history, continues to expand
- 9-1-1 funding remains under pressure in many states
- NG9-1-1 implementations continue in the US, but are hindered without a nationwide funding solution
- Internationally, countries are implementing regional or national smart-cities or NG9-1-1 solutions
- Mergers and acquisitions continue among 9-1-1 industry vendors
- The UCR to NIBRS transition clock continues to tick to 2021

Mergers and Expansions—The private sector portion of our industry continues to see more mergers and acquisitions. Some of the more notable deals include:
- RapidSOS, a leading provider of a data clearinghouse for NG9-1-1 implementations and improved location data for mobile 911 callers, raised significant funding in a Series B funding round in November. The funding will enable the company to expand its technology platform.
- Comtech Telecommunications completed its acquisition of both NG9-1-1 provider Solacom Technologies, and General Dynamics' Next Generation 9-1-1 business unit.

Winbourne Consulting offers a full range of public safety services, including strategic planning, systems integration, specifications development, solution acquisition, and implementation project management and quality assurance.

Intergraph/Hexagon rebranded to Hexagon, and released its OnCall suite of applications

CentralSquare consolidated its CAD/RMS offerings into two product lines – Enterprise Suite (Inform) and Pro Suite (Zuercher).

Motorola purchased WatchGuard, manufacturer of-car video systems, body-worn cameras, and evidence management systems as well as AvTech which provides voice over IP dispatch console systems.

Public Safety Broadband —2019 was a busy year for the nationwide public safety broadband network, FirstNet. Two and a half years into the buildout, this was the first of five deployment years for AT&T to reach the required number of public safety subscribers, and, according to FirstNet, they are ahead of schedule.

- In October, it was reported that more than 3,600 public-safety agencies across the country have joined the First Responder Network Authority. The total number of subscribers now totals more than 250,000, using 150,000 FirstNet connections.
- FirstNet was used for nearly 100 major incidents and events this year, including the Boston Marathon, and Hurricanes Matthew and Florence.
- Alternatively, other carriers, such as Verizon, continue to expand their services to the public safety community. There will continue to be competition over network coverage, services and pricing, which is generally considered a good thing for public safety consumers.

NG9-1-1 Funding and Implementation—Unfortunately, the existing NG9-1-1 bills will expire when Congress ends this month.

There is hope that new legislation will be introduced in 2020, most likely as part of a larger infrastructure bill.

During 2019, implementations on state and regional levels continue. For example, the State of Connecticut and Washington, DC went live with an NG9-1-1 ESInet providing call routing and location solutions.

California has awarded contracts for a NG9-1-1 solution across the state in the largest state NG9-1-1 project in US history

Canada's Canadian Radio-television and Telecommunications Commission (CRTC) directed all telephone companies to update their networks in order to be ready to provide NG9-1-1 voice and text messaging services in the near future.

Looking Forward to 2020

2020 will bring new challenges to our industry. From our perspective, the list below summarizes key anticipated changes in public safety technology and public policy for 2020.

Cloud Based Solutions—Managing the operational, IT Support and security requirements of cloud deployments (cloud native, cloud hosted, web-based, etc.) and Software as a Service (SaaS).

Mobility – Increasing use of mobile devices and applications will require close network and security integration and coordination.

Big Data/Analytics - The move to Smart Cites and Open Data initiatives increases the need for advanced data analytics and reporting capabilities to include the creation of fusion centers and real time crime centers.

Cyber Security – modernizing and deploying security protocols that balance business needs with the inherent risks of increased levels of system connectivity.

AI – The integration of artificial intelligence to support analytical services i.e. Crime Analysis, and Early Intervention Systems.

IoT – Managing the explosion of data that the widespread adoption of IoT devices and sensors generate.

Drones – The increasing use of unmanned aerial devices and other advanced sensing technology to enhance situational awareness and command and control capabilities

5G – The continued roll-out of 5G capabilities nationwide and its integration with available municipal public safety data network options (FirstNet, LMR, Wi-Fi, etc.)

Funding 9-1-1—Funding shortfalls in the 9-1-1 arena continue to be an area of grave concern to many in the Public Safety industry. NENA, APCO, NASNA, iCERT and many other industry associations have kept this issue at the forefront but problems still persist. As telecommunications technologies continue to advance and legislative terminology stays the same, the surcharge has not kept up with budget needs in most states. This situation has created a funding issue for 9-1-1 across the country. New solutions to fund 9-1-1 systems, operations and staffing will need to be identified to support the system in 2020 and beyond. Our 9-1-1 Funding Analytical Unit focuses on the needs of counties, parishes, and states to identify viable funding solutions.

Emergency Call Location Technologies—Improving caller location is a challenge that every PSAP faces on a daily basis. Over the past five years a number of non-carrier location technologies have been developed—Apple and Google Advanced Mobile Location (AML) capabilities are examples. The application of these technologies to emergency communications is underway in the US as well as internationally and will continue.

International Emergency Communications Enhancement Continues—
There have been a number of notable advances across the globe to support people's ability to get access to the life-line provided by 911, 999, 112, and other emergency communications centers. These include:
- Romania's 112 emergency system is undergoing an upgrade to a national ESInet
- Ho Chi Minh City Vietnam is planning a major NG9-1-1 upgrade
- Malaysia is planning a major upgrade to its 999 system nationally
- Thailand is planning a new national NG9-1-1 solution
- The Caribbean region is planning to implement a regional Police Information Management System and Crime Registry
- AML has become a standard location solution in the European Union

Linking Emergency Communications with Smart City Initiatives—
Governments are increasingly realizing the potential of their largely untapped data, and are transitioning to managing data as a strategic asset. Enterprise information management is being transformed as new data sources emerge, the value of existing unstructured data is unlocked, and the importance of data quality is better understood. Leveraging public safety data and network infrastructure capabilities with modern analytical tools will continue to accelerate the use of Smart City infrastructure and analytics capabilities.

Our Thanks
We want to extend our thanks and appreciation to the public safety community, our clients and business partners, whether they are first responders, government executives, technology and communications agencies, private sector firms, or international organizations.

Our industry continually evolves, creating new technical and operational opportunities, as well as challenges. We are looking forward to serving our industry and our clients in 2020 by continuing to provide innovative and cost effective solutions, operations and technology consulting, and systems integration services.

All of us at Winbourne Consulting want to extend a warm Holiday Season Greeting to each of you.

Our Clients include city, county, state, and federal agencies located throughout the United States and the world, as well as countries in Europe, the Middle East, Asia, the Caribbean, and South America.

Winbourne Happenings

Winbourne Consulting was awarded a subcontract to support the Experis team on the Fire Department of New York Fiber Installation Network Operations (FINO).

Winbourne has been engaged by RossDrulisCusenbery Architecture, Inc. to provide radio communications planning for a new public safety building serving the City of Palo Alto, CA. Our tasks include working with the architects on the design of the building's communications tower and associated antennas as well as rooftop antenna configuration and layout of the radio equipment rooms. The building will house the Police, Fire and the 9-1-1 center when construction is completed.

On December 11th the City of Alexandria cut over both their primary and backup 9-1-1 centers to NG911-compliant VESTA. This will be a shared system with Arlington County, who had previously cut over, and represents the only inter-jurisdictional 9-1-1 call handling system in the National Capital region**. Winbourne was the PM on the project and the complete cutover was accomplished a week ahead of schedule**.

Winbourne has been engaged by the Woodrow Wilson Center International Center for Scholars to provide an assessment and recommendations for their IT policy environment as well as their Intranet. The Center is an independent federal agency chartered by Congress in 1968 to be "the nation's key non-partisan policy forum for tackling global issues through independent research and open dialogue to inform actionable ideas for the policy community." As part of this effort we are developing new polices as well as a new policy process, and enhancing the functionality of their Intranet.

Winbourne recently received a contract from the Western Council of Governments in Connecticut to evaluate potential efficiencies in sharing specific public safety services, such as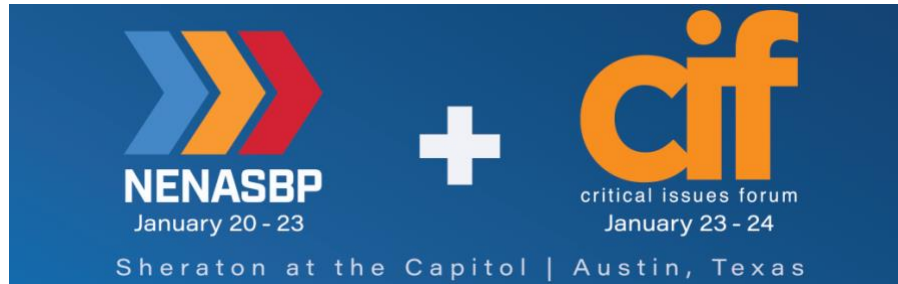 9-1-1 call answering and dispatch. The initial phase of this feasibility study calls for an assessment of the current public safety environments in the five participating towns, followed by an evaluation of the options for shared services. We will then provide recommendations based on the question: Will this enhance the current levels of service to the communities?

For more information about our services and solutions, visit our website at:

www.winbourneconsulting.com

Public Safety News

Jeff Winbourne, President of Winbourne International Markets, has written an article how cities across the Globe are turning to "Smart Cities" to help manage major issues. Jeff's article will appear in January's issue of "PSC Online".

Industry Events

Learn, Collaborate, & Contribute!
#NENASBP is a conference unlike any other. It is an interactive, informative, attendee-driven event where you not only learn about the standards that are spurring the development and implementation of NG9-1-1 technology and operations best practices, but also create the guidelines, resources, and documents that enable NG services, systems, and PSAPs to reach their full potential.

For more info visit: **https://www.nena.org/page/sbp**

February 12-15, 2020
Grand Hyatt, Washington DC

About #NENAGTW
9-1-1 Goes to Washington brings together hundreds of 9-1-1 professionals from around the country with policy leaders in our nation's capital to explore and discuss today's most pressing 9-1-1 and emergency communications issues. 9-1-1 Goes to Washington is the only event where you can learn about the policy challenges facing public safety and take immediate action to address them through dialog with your elected and appointed officials.

For more info visit: **https://www.nena.org/page/gtw**

Articles of Interest

Ransomware Defense For Local Governments

Cyber attackers often focus on networks and systems that are vulnerable and lack the security resources to mount an effective defense. Recently, hackers have homed in on a new favorite target: government networks. The past few months have seen coordinated attacks on local city and county government offices across Texas and Florida and in Atlanta and New Orleans.

Local governments = prime targets

To read the full article visit: **https://gcn.com/articles/2019/12/19/ransomware-defense.aspx**

2 New Reports Offer Data on 9-1-1 Fee Diversion, NG 9-1-1 Deployments

Two federal reports on 9-1-1 were released this week. The FCC published its 11th annual report to Congress on the collection and distribution of 9-1-1 fees by states, with five states diverting fees for other purposes during 2018. The report finds that during 2018, states and territories collected more than $2.6 billion in 9-1-1 fees, and $197.9 million of that funding was diverted for uses other than 9-1-1 by Nevada, New Jersey, New York, Rhode Island and West Virginia. The number is down from last year's report, which found that almost $285 million in 9-1-1 fees was diverted by six states and one territory during 2017.

Visit: https://www.rrmediagroup.com/News/NewsDetails/NewsID/19094 to read the complete article

FCC Announces Enhancements to Wireless Emergency Alerts

The FCC announced availability of a suite of enhancements to wireless emergency alerts (WEAs) that will enable Americans to receive more geographically precise, effective and informative alerts on their mobile phones during emergencies.
Local officials are now better able to send geotargeted wireless alerts to areas affected by an emergency without reaching unaffected communities, which will increase confidence in alerting and promote public safety, especially during evacuations. Officials can also now send more informative and relevant content in alert messages.

The full article can be viewed at:
https://www.rrmediagroup.com/News/NewsDetails/NewsID/19088

Defense Bill Does Not Include Language To Reclassify 911 Telecommunicators

Language that would reclassify public-safety telecommunicators as "Protective Service Occupation" personnel instead of administrative/clerical workers will not be part of a key defense funding bill, but 911 advocates expressed their intent to continue the reclassification effort through other legislative efforts in 2020.

911 telecommunicator reclassification language was one a many amendments included in the House version of the 2020 National Defense Authorization Act (NDAA), but this language was not part of the Senate version of the legislation, according to Brian Fontes, CEO of the National Emergency Number Association (NENA). When the two versions of the bill were reconciled, the

telecommunicator reclassification language was not included. At a time when political tensions make it difficult to get any laws passed by Congress, 911 officials had expressed hope that the NDAA–a bill that is virtually certain to become law–could serve as a legislative vehicle to make reclassification a reality.

To read the complete article visit: **https://urgentcomm.com/2019/12/13/defense-bill-does-not-include-language-to-reclassify-911-telecommunicators/**

Upcoming Band 14 PTT Devices 'Phenomenal,' FirstNet Authority Board Member Says

Not-yet-available push-to-talk LTE devices that are being evaluated in the FirstNet Authority laboratory should please public-safety users and are "getting very, very close" to the type of solutions first responders would want to replace land-mobile-radio (LMR) handsets, a FirstNet Authority board member said today.

Neil Cox, chairman of the FirstNet Authority board's Network and Technology Committee, said FirstNet Authority board members have seen devices in the organization's Colorado laboratory but are not allowed to disclose any information about them. Without sharing any details, Cox indicated that he was impressed with the devices he saw.

T**o read the full article visit**: **https://urgentcomm.com/2019/12/06/upcoming-band-14-ptt-devices-phenomenal-firstnet-authority-board-member-says/**

**We Are Interested in Your Thoughts on the Above Topics.
To share them with us, please:**

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