

May2019 Newsletter

May 2019

Emergency Services in Developing Countries - What is Happening and What Can We Learn?

Winbourne Consulting has assisted public safety and emergency communications agencies worldwide since 2003, to include police, fire, and emergency medical services agencies. This article is an attempt to present some of our general findings, as well as actions taken by governments, Non-Government Organizations (NGO), and private entities to provide emergency medical services in the developing world.

While not comprehensive, this article will provide a review of steps underway to improve the quality of life for people, regardless of where they live. In some countries, the services are becoming well established and in others, just starting out. There are many challenges to include funding, war, terrorism, and of course, the bane of all countries, —traffic.

The article focuses on a few countries and some of the general challenges facing the delivery of emergency medical services (EMS) in developing nations. In addition, we discuss some ideas of what is driving change in the delivery of emergency medical services in the developing world and some of the solutions that are used.



EMS in the developing world - The need for emergency medical services—ambulances, EMTs, paramedics, hospital emergency rooms, training, etc.—are the subject for multiple television shows in the United States, which are viewed in many countries. The processes of delivering these services are emerging in many different forms internationally, especially in the developing world. Although, many of these countries have had minimal or no emergency medical services in the past, this is starting to change now.

The following sections discuss some of the key challenges (outside of the variable funding issues) facing the development of emergency medical services in the developing world.

Using a Single Emergency Telephone Number—When you have an emergency, seeking immediate help is our first reaction. In the US, since 1968, that has meant dialing 9-1-1. However in many developing countries, there is not a single number to call; most countries in the developing world have three emergency numbers—police, fire and emergency medical. Dialing the right number in a crisis, can be confusing for anyone in an emergency. Generally, people seeking help in developing countries will generally call the police emergency number. But, the police do not always transfer the call to the EMS call center or local hospital as a matter of immediate procedure, potentially leading to a delay in treatment.

Consolidating on one emergency number could resolve this delay but it is not always a simple matter of selecting one number. From our experience, in a

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.

Our Areas of

Expertise encompass all segments of Public Safety, including:

- PSAP Consolidation
- NG911 Strategic Planning and Implementation
- Public Safety Communications and Telephony
- Public Safety Applications and Systems Requirements and Implementation Support
- Mission Critical Facilities Design and Fit-Out
- 311 Call Centers and Implementation
- PSAP Staffing and Operations Analysis

range of countries to include Jamaica, Vietnam, and Indonesia, consolidating to one number requires national legislative or regulatory action. Why? The existing emergency numbers for these functions are often included in the authorizing legislation for these ministries, and therefore requires corresponding legislative change. Changing the emergency numbers is not always a technical or public education issue.

Over the next 10 years, this situation should change with the use of a single emergency number in most countries. The International Telecommunications Union has set 112 and 911 as the standard numbers. Yet, many countries will standardize on the use of the current number that is most well-known by the populace.

Private vs. Public Emergency Medical Services—In many developing countries the ambulance services are private, generally tied to a private hospital. These services charge people for services in a range that most people cannot afford. For example, Jamaica has only private ambulance service providers. People must pay for the service at a rate that forces most people opting to use either their own car or a taxi to transport someone to a hospital. Currently, the Jamaican fire department is in the process of purchasing ambulances and planning to train staff as Emergency Medical Technicians (EMTs) and paramedics. In India, emergency medical services are well funded and the telephone number '108' is well known and used. Non-Government Organizations (NGO) contract with the state governments to provide the '108' call centers and ambulance services. The '108' services are especially impactful in the rural areas of India, which are heavily populated but with limited access to hospitals.

War and Terrorism— In some parts of the developing world, war and terrorist-related conflicts limit any ability to provide emergency medical services, although war-torn places like Syria, Somalia and Kurdistan (Iraq) have served as examples of emergency medical professionals providing services under extreme conditions. In Syria, the "White Helmets" organization (<https://whitehelmets.org/en>) is recognized for saving hundreds of lives even though the White Helmet personnel and vehicles are targets of Syrian and Russian airstrikes, in the non-government controlled areas. The White Helmets is a volunteer organization and provides medical evacuation, urban search and rescue in response to bombing, evacuation of civilians from danger areas, and delivery of emergency medical services. An all-volunteer emergency medical service called Aamin Ambulance was established in civil war torn Somalia, in 2006. Aamin Ambulance (<https://aaminambulance.com/>) is also a non-government organization that survives on donations and receives no funding from the government. Before Aamin Ambulance was established in Mogadishu only had private ambulance service, and very few, and people paid for it. Today, Aamin Ambulance has 24 ambulances in Mogadishu.

In Kurdistan, Iraq, Winbourne Consulting assisted the regional government and the World Bank in building an emergency communications solution to include

three call centers and systems, ambulance communications, and a radio network. Prior to this project, emergency medical services in Kurdistan were managed by a single individual and his mobile phone for a region of millions of people.

Traffic, the bane of public safety— Possibly, the biggest challenge facing



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.

public safety as a whole, is the ever increasing vehicular traffic on our roads. Why is traffic such an issue for public safety? Basically, the fire trucks, police cars, and ambulances can't get through the traffic to the incident in a timely manner. Traffic delays are the source of widespread community concern and angst as to the delivery of these urgent services, especially when lives are at stake.

Jakarta, Indonesia is a city of 10-12 million residents with some of the worst traffic congestion in the world, by some indexes. In 2012, there were only six (6) government owned ambulances in the entire city. Since that time, to help combat the traffic concerns, the city has started the use of medics on motor bikes to get around the traffic to reach the patient faster. Mass first aid training is also been organized to assist patients until a medic can arrive. Modern efficient call centers, for general emergency calls (112) and emergency medical calls (118), were established and call taker/dispatcher and medic training is an ongoing process.



Ho Chi Minh City, Vietnam has a similar population of about 10 million residents and is in the process of upgrading their emergency communications systems to include use of a single telephone number for all emergencies. The City has two Basic Life Support (BLS) ambulances posted at each district public hospital. In addition, they assign doctors and nurses to the ambulance. The City is discussing with the national Health Ministry potential changes to legislation that would allow the city to transition to a paramedic/EMT

model. Traffic problems in the city make response times high, so the City government is looking into using EMTs on motor bikes as a means to get around traffic quickly and triage the patient while the ambulance works its way through the City's dense vehicle traffic.

What's Driving Change—Our observations from working in over 20 countries on emergency communications projects is that emergency medical services are the focus of change in emergency response, using many innovative and courageous efforts. What is driving this transformation? The change drivers in emergency medical service provisioning include many factors such as: growth of wealth across the globe that has raised quality of life expectations; television shows on emergency medicine such as Chicago Med and ER that have raised awareness of the emergency response system; multi-lateral agencies such as the World Bank, United Nations and others that have emphasized improving medical care to recipient nations; and the impact of the US immigrant diaspora on their home countries, as described below.

Impact of the US Immigrant Population on Home Country Services—

When someone calls 9-1-1 in the United States, there is a general expectation that the ambulance will arrive within 4-8 minutes, depending on jurisdiction. As everyone knows, the US is home to people from many nations, many with families and friends in their country of origin comprising the "diaspora" or worldwide population of that nationality. For instance, Indians or Vietnamese living the US are part of the Indian or Vietnamese diaspora. To some degree, by bringing the US or EU

Impact of the US Immigrant Population on Home Country Services—

When someone calls 911 in the United States, there is a general expectation that the ambulance will arrive within 4-8 minutes, depending on jurisdiction. As everyone knows, the US is home to people from many nations. Many with families and friends in their country of origin comprising the "diaspora" or worldwide population of that nationality. For instance, Indians or Vietnamese

living the US are part of the Indian or Vietnamese diaspora. To some degree, by bringing the US or EU experience with emergency response to their families and friends still living in the country of origin, expectations begin to change.



Solutions for EMS Delivery—Some of the low cost solutions that are being implemented in developing nations are described below. Many of these solutions are also being used or considered by US cities and counties to overcome local challenges to providing service. Many of these solutions are very affordable, and many are aimed at reducing traffic.

- **Motor Bike Medics/EMTs** — While not new, this option is becoming common throughout southeast Asia as an alternative to enable moving quickly through traffic to an incident.
- **Mass First Aid Training** — Training volunteers and linking their mobile phones to emergency communications systems to alert them if there is an incident near them is a way to utilize the local population.
- **Taxi Driver First Aid Training** — Taxis are many times the first option for getting a patient to a hospital, and a taxi driver with first aid skills may provide valuable initial treatment until a higher level of care is available.
- **Social Media** — Mass communication with the public on traffic problems can be efficiently accomplished with social media. Jakarta's traffic police have over one million followers on Facebook, Instagram, and Twitter communicating on traffic problems.
- **Electronic Traffic Law Enforcement (E-TLE)** — Expanded traffic monitoring camera systems coupled with electronic messaging systems is being implemented in Jakarta.
- **E-tolling or charging a toll** for entering downtown areas of major cities has been implemented in Singapore to reduce city traffic.

As traffic continues to snarl US cities and impacts the ability of first responders, especially emergency medical units, to get to the incident quickly, learning from how developing nations are addressing the problem could prove valuable.

If you are interested in discussing innovative approaches to delivering emergency services in your community or implementing a "smart cities" solution within your agency, please contact **Winbourne Consulting** at info@w-llc.com or call us at 703.584.5350

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

www.winbourneconsulting.com

Winbourne Happenings



Julie Heimke, Senior Consultant at Winbourne Consulting has contributed 2 articles for the May/June Public Safety Communications magazine.

The 2 articles focus on the operational aspects of running a public safety agency.

Developing an Effective Governance Model, page 18 of the May/June issue. The article can be found by following the below hyperlink:

https://www.pscmagazine-digital.com/pscs/0319_may_june_2019/MobilePagedArticle.action?articleId=1481726#a

[rticleId1481726](#)

and

What A Standard Operating Procedure Manual Should Do For Your Agency, page 24 of the May/June issue. The article can be found by following the below hyperlink: https://www.pscmagazine-digital.com/pscs/0319_may_june_2019/MobilePagedArticle.action?articleId=1481728#articleId1481728



Lisa Madden, VP Business Development and Emerging Technologies attended the iCERT semi-annual meeting held in Longmont, Colorado in April. During the conference, Lisa gave a presentation on Winbourne Consulting's recent efforts in public safety services, smart cities initiatives and our work internationally.

Industry Events

Orlando, Florida



At #NENA2019, you will not only hear about the public safety issues of today and tomorrow, but also gain practical, real-world know-how that you can take home with you and put into action immediately. Featuring inspiring keynote speakers, more than ninety hours of breakout sessions that inform and empower, career-building courses and workshops with real-world applications, nightly networking events that help you make the right connections, and an Expo Hall showcasing cutting-edge products and services, #NENA2019 is the must-attend event of the year. Don't miss your chance to be a part of it!

For more info: <https://www.nena.org/page/nena2019>



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Fire-Rescue International (FRI), the annual conference and expo of the IAFC provides senior-level leadership training to fire chiefs. As an organization, the IAFC represents the world's leading experts in the first responder community. The IAFC's commitment to excellence is seen throughout FRI—from the classroom to the expo, the IAFC delivers when it comes to quality and value.

For more info: <https://www.iafc.org/events/fri>



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For more info: <https://www.apco2019.org/>

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<https://www.linkedin.com/company/winbourne-consulting-llc?trk=biz-companies-cym>

Articles of Interest



Let Freedom and Innovation Ring

Driven by the consumerization of IT, agencies at every level of government are struggling to respond to the demands of a new generation of users for more open and flexible service delivery. Consumers want their agencies to deliver the same ease-of-use and on-demand responsiveness they have with their own devices and social media platforms.

As a result, those of us in government IT find ourselves tasked with meeting competing demands for greater efficiency, scalability and self-service, while simultaneously balancing modernization with optimization. Pressured by always tight budgets, agencies are nevertheless expected to drive the most value out of their present IT investments while planning for the new, more flexible, cloud-based infrastructure needed for the future -- and, increasingly, today.

To read the full article visit:

<https://gcn.com/articles/2019/05/28/open-source-cloud-innovation.aspx>

It's Time For Consensus On Facial Recognition In Law Enforcement

The FBI began using Automated Fingerprint Identification Systems (AFIS) in 1975. Over the past 44 years, the technology has become a reliable investigative tool, deployed within a procedural framework that empowers law enforcement while protecting public interest.

Now there's a new tool, facial recognition, and like fingerprints it has the potential to significantly improve the effectiveness and efficiency of police investigations.

That's particularly true in cases of violent crime, burglary, kidnapping and missing persons, where establishing a timeline and identifying suspects as quickly as possible is key.

Today, some of our nation's most heinous cases remain unsolved far too often - according to the most recent [FBI universal crime reporting data](#), less than 50% close with an arrest. It's time to empower law enforcement agencies with facial recognition so they can do what they do best: keep our communities safe.

Read the complete article visit:

https://gcn.com/articles/2019/05/15/facial-recognition-law-enforcement.aspx?admgarea=TC_STATELOCAL



Public-Safety Leaders Endorse New National Emergency Communications Plan

Leadership from SAFECOM and the National Council of Statewide Interoperability Coordinators (NCSWIC) signed and endorsed the draft 2019 National Emergency Communications Plan (NECP) at a joint meeting last month.

"There have been numerous advances in the world of communications and interoperability that have been created or advanced by SAFECOM," said SAFECOM Chair Gerald Reardon. "The NECP has been, in my opinion, one of the most significant events, as it was responsible for several major changes across the country that are a direct result of its implementation. The NECP, coupled with the Public Safety Interoperable Communications (PSIC) grant program

assisted in promoting permanent changes to the governance and the interoperability structure for the states and territories. The NECP was responsible for the SWIC (statewide interoperability coordinators) program, mandating official state governance, creation of the SEICs (statewide interoperable executive committees) tactical communications plans, as well as the validation and verification of the plans through required exercises.”

Visit <https://www.rrmediagroup.com/Features/FeaturesDetails/FID/924> to read the complete article



Crippling Ransomware Attack Puts Baltimore City Servers Out of Commission

Baltimore is reeling from an extensive cyber-attack on its servers that started last week.

The city’s computer network was infected with an aggressive form of ransomware called “RobbinHood,” which holds files for a ransom until money is paid to the hackers behind the malware, according to the Baltimore Business Journal.

Thousands of Baltimore employees were told to unplug their computers on May 7 to try and stop the ransomware virus from spreading across the network, according to Fox.

To read the full article visit:

<https://www.americancityandcounty.com/2019/05/13/crippling-ransomware-attack-puts-baltimore-city-servers-out-of-commission/>



Infrastructure Bill With NG911 Funding Debated, But Trump-Dems Spat Tempers Hope of Passage

Members of the House Commerce Committee on Wednesday discussed aspects of an \$85 billion infrastructure bill that includes \$12 billion for next-generation 911 (NG911) deployment, but hopes for the proposal were dampened when President Donald Trump halted talks with Democrats in a separate meeting that was happening at the same time.

Introduced last week, H.R. 2741—the “Leading Infrastructure For Tomorrow’s America Act,” or LIFT America Act—is co-sponsored by 31 Democrats on the House Commerce Committee. The proposal includes \$33 billion for clean-energy initiatives, \$40 billion to fund broadband connections to 98% of the U.S. population and \$12 billion for NG911 deployments.

To read the full article visit: <https://urgentcomm.com/2019/05/24/infrastructure-bill-with-ng911-funding-debated-but-trump-dems-spat-tempers-hope-of-passage/>

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