Interoperability Challenges With First Responder Communications

Discover the power of Software Defined Interoperability with GuardStack

Robert Osborne
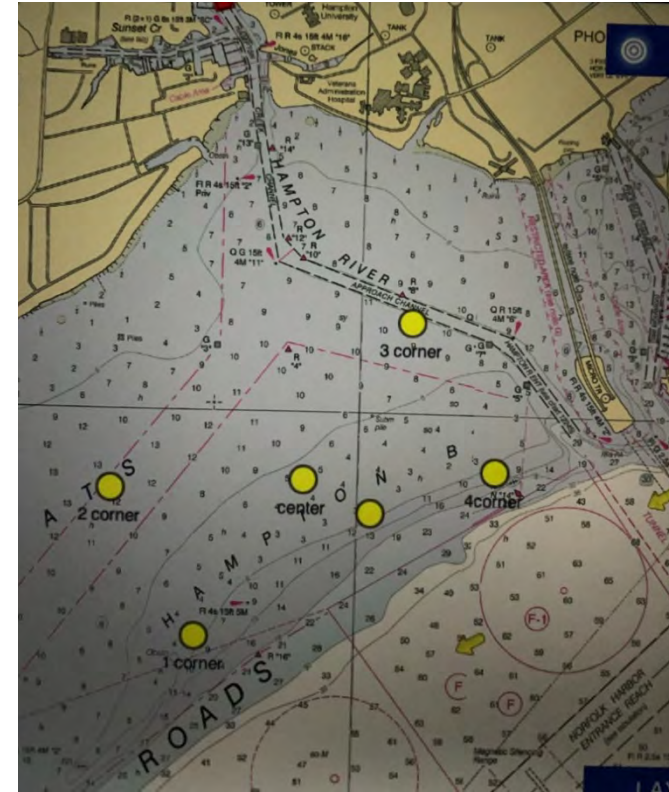CTO
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Transforming Their *Technology into* Your *Solutions*

Agenda

1. Introduction

2. Interoperability challenges

3. What if I Said You Can Have

4. Takeaways from First Responders

5. Q&A slide with IMPRES Contact Info

SAR Exercise Virginia Feb 2020

- 1 RIDUX system on drone
- 1 RIDUX system on helicopter
- RIDUX systems on the move
- Full LTE functionality within the cell
- Voice transmitting via legacy radio bridging
- Linking PTT with radio systems

MC-PTT VoIP PTV

VHF/UHF

Robert A Osborne

US ARMY

    Former SGT / CPT

IMPRES Technology Solutions

    Chief Technology Officer

DELL Computer Corporation

    Director, Enterprise Technologist

Microsoft Corporation

    Lead Program Manager and Consultant

IBM Corporation

    Senior Systems Engineer

United Airlines

    Senior Network Engineer

Challenges At The Public Safety Edge

- Lack of Interoperability

- Limited Bandwidth

- Complexity Networks / Operation

- Dynamic Environments

- Cyber Attacks

- Deployment Times

- Secure Data Exchange

Not to Mention….

- Public Safety 911
- TDM – IP
- TSAPs to be Converted
- Legacy Interfaces
- FirstNet
- Running on DoD

IMPRES
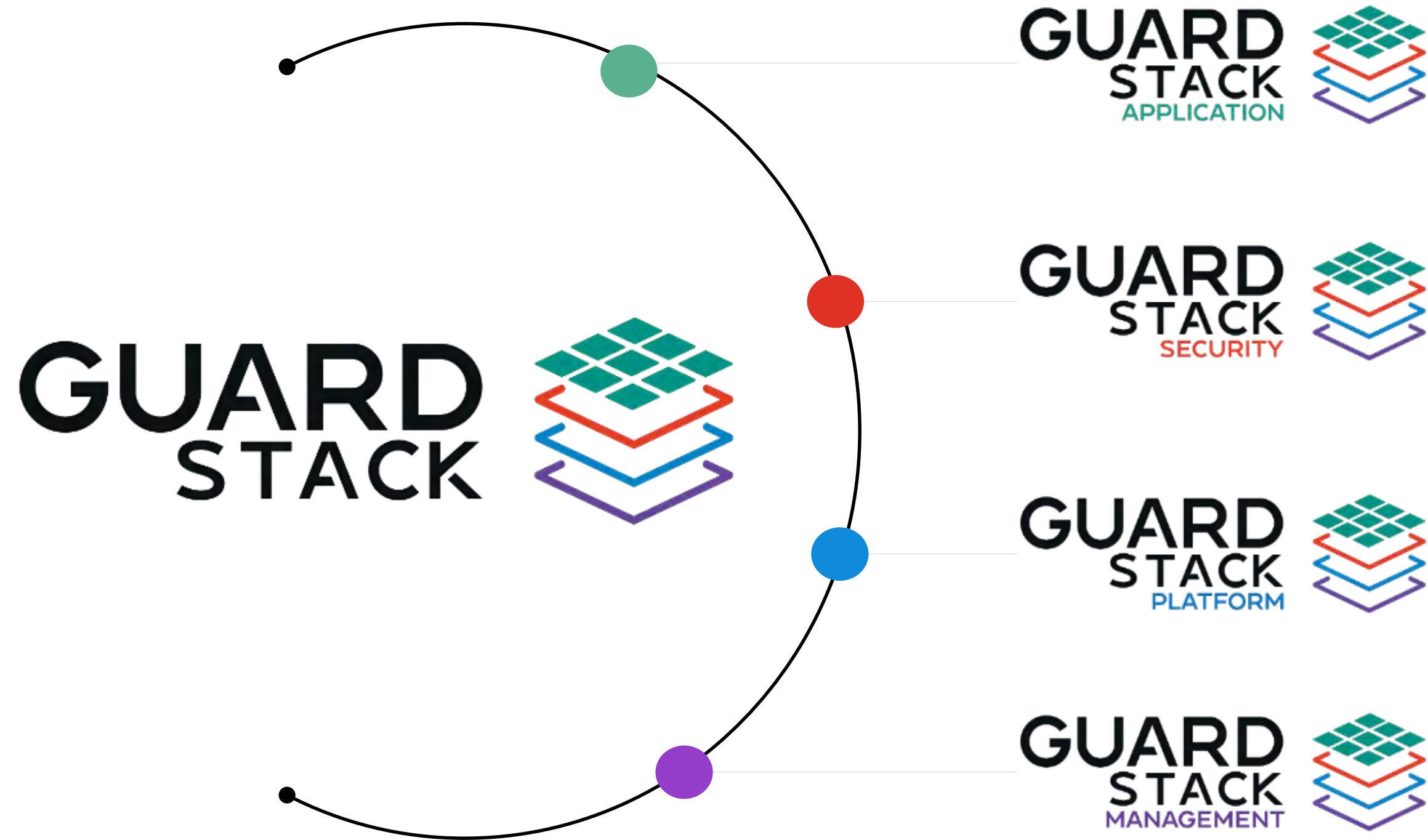Technology Solutions, Inc.

GUARD
STACK

The Answer is

What If You Could Have?

- Interoperability Backbone & Access

- Decentralized Service Architecture

- Multiple Security Domains

- LTE/5G Ready Network

- VoIP PBX Telephony

- Government Trusted Code Base

- SDN / MANET

- MeshFlow

- Open Application Architecture

- Embedded Applications

- Reduced Size, Weight, Power, Cost

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GUARD STACK

4G (LTE) / 5G Custom Mobile Broadband Solutions

- Grab-n-Go Network Access

- Tele-Medicine

- Humanitarian Assistance

- Search and Rescue Operations

- Tactical Operations Centers

- FirstNet Integration

- Comms-on-the-Move (COTM)

- In-Flight Helicopter Network Access

- Classified Networks Backhaul (NIPR, SIPR and Coalition)

- LMR Integration

The Stacks

GUARD STACK APPLICATION

GUARD STACK SECURITY

GUARD STACK PLATFORM

GUARD STACK MANAGEMENT

What Are First Responders Saying?

Fire Department Portsmouth, VA – "If we had this on our vehicles we could know where every firefighter is at all times in a Fire and direct them appropriately"!

Police Department Chantilly – "Could we really add this to our current police gear and reduce the amount of gear we have to wear?"

Ambulance Crew – Baltimore, MD – "This would allow us to show video of what we are seeing and allow us to share information with Police, Fire, Doctors all while we are on site without putting ourselves or our patients at risk."