

FCC Panel #2

Public Safety Mobile Broadband

Solutions for the deployment of Radio
Access Network equipment to achieve
Nationwide Operability and Interoperability

P. A. Sadowski

IT Manager

North Carolina State Highway Patrol

Security Liaison

North Carolina Department of Crime Control and Public Safety

Disclosure

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Thank You

I am not going to make any background assumptions

Elephant in the room

- ▣ In the past, Public Safety communications has been a two player game
- ▣ With Public Safety Wireless Broadband there is now a third party in the game... that dwarfs the two historical game players

Purpose

- Mission
- Need
- Design
- Deployment
- Issues
- Wrap-up

Public Safety Mission

- IT is not the Primary Mission of Public Safety and Office connectivity is not the issue (Law, Fire, EMS)
- Our Primary Mission is First Response to the Public
- Public Safety responds to incidents in Rural, Tribal, Wilderness, Maritime, and Park areas
- Even with NO IT capability we will still perform the Mission – but the task will be more difficult

Need

- Affordable with a future path
- Reliable and Secure
- Scalable (incidents and events)
- STANDARDS BASED - no proprietary “secret sauce”
 - Qualified Item List for any public funds (carrot)
 - Enforced disqualification if it breaks interoperability (stick)
- ***COVERAGE – with extra attention to Rural, Tribal, Wilderness, Maritime, and Parks ****

Broadband Design

- Design/Architecture precedes Deployment
- Legislation and funding will impact the Network Design
- Single definition of “Public Safety Grade of Service”?
- How many agencies have network design staff?
- I promise – VERY FEW Rural, Tribal, Wilderness, and Maritime Jurisdictions. Frankly, my experience with many Local, State, and Federal Agencies – they too have issues.
- There is a solution – PARTNERSHIP (Carriers, Utilities) *

Broadband Deployment

- LMR will still be needed; but, agencies are struggling (rebanding, narrowbanding, incomplete P25 standard)
- Many agencies just want a “Public Safety” grade of service – but what does that mean voice vs. data *
- Many agencies have limited network deployment staff.
- How many agencies need to focus on deployment?
- There is a solution – PARTNERSHIP

Broadband Deployment

- ▣ Operational Public Safety personnel are Field Deployed
 - ▣ Mobile Broadband will help keep them in the field!
- ▣ Public Safety needs secure redundant Broadband mobile access – Carrier, White-Space, and data-casting integrated
- ▣ Reiterate, today some first responders have NO mobile access (Local, State, Tribal, and incidentally - some Federal responders)

Broadband Design

- Rural, Tribal, Wilderness, Maritime, and Parks
- “usually” have vehicles (car, truck, boat, ATV)
 - Power is not the issue it is for portables
 - Weight and battery life are not driving issues
 - Multiple vehicle antennas can be accommodated
 - height/size, MIMO, directionality, gain, nulling
- An integrated solution with Public Safety, Commercial, White-Space, data-casting, and WiFi... possibly satellite

Broadband Design

- Test w/Police, Fire, Ambulance, CP vehicles
 - EMI – strobes and full electronics
 - IM at hilltop with multiple repeater sites
 - Desense with existing vehicle radios
- Application neutral - apps work on internet - works *
- Technology must evolve with commercial offerings
- Partnerships – PS serves you and your family where you live, work, and play – PS might offer sites to reduce costs *

Broadband Issues

- ▣ Redundant infrastructure where possible
 - ▣ ex: microwave and fiber
 - ▣ Power (more than two hours of batteries)
- ▣ Precedence and Priority in emergencies
 - ▣ Governance, cooperation, and partnerships are critical
- ▣ Security is a three legged stool
 - ▣ Personnel, Physical, Information

Wrap-up

- ▣ Integrated Public Safety Broadband
 - ▣ In the field with redundant reliable mobile broadband
 - ▣ All types of responders interoperable at all levels and jurisdictions
- ▣ A PARTNERSHIP supporting the Mission – the Public benefits
 - ▣ Faster Response – quicker support to the Public
 - ▣ Better Response – better decisions and actions
 - ▣ Secure and Reliable – higher confidence for both the Public and First Responders
 - ▣ Affordable with a strategy to the future

Wrap-Up

- Thank you again for this opportunity
- During this event, Public Safety will have answered almost 100,000 911 calls – National Emergency Number Association statistics
- Secure mobile broadband would assist Public Safety in responding to many of these calls
- Public Safety will benefit when the attention paid to Data is commensurate with that paid to Voice Communications
- Public Safety will benefit with a broad partnership

Questions ?