Some examples of how mobile broadband technologies are used by:

# Lexington Divisions of Fire and Police

#### Lexington Public Safety

Division of Fire and Emergency Service
Division of Police
Division of E 9-1-1
Division of Emergency Management
Division of Community Corrections

#### Fire & Emergency Services Day to Day Operations









### Fire & Emergency Services



- Dispatch information
- Documentation
  - Fire
  - Medical (PCR)
  - Inspections/Company Surveys
- Pre-plans

- AVL Dispatch
- Mapping
- Transmit 12-Lead EKG to Hospital
- Etc.

![](_page_3_Picture_12.jpeg)

## Fire & Emergency Services

![](_page_4_Picture_1.jpeg)

• Metropolitan Medical Response System (MMRS)

• Mass Casualty Incidents

![](_page_4_Picture_4.jpeg)

#### **Division of Police**

Day to Day Operations

![](_page_5_Picture_2.jpeg)

- Laptops with mobile broadband used for field and office work
  - Replacing traditional desktop computer
- Undercover Cameras
- Etc.

Dispatch Information NCIC Checks E-Crash <u>Mobile Case R</u>eporting

![](_page_5_Picture_8.jpeg)

Other Government Partners with Mobile Broadband Applications (Current and Future)

Building Inspection

Planning

Addressing

Etc.

#### Issues with Commercial Carriers

Coverage varies by carrier
Loss of connectivity during emergencies

#### Improvements with Future Broadband

Dedicated bandwidth
 Connectivity when commercial carriers are loaded
 Consistent coverage

#### Paducah: Ice Storm 2009

![](_page_9_Picture_1.jpeg)

![](_page_9_Picture_2.jpeg)

David White, Captain

![](_page_9_Picture_4.jpeg)

![](_page_9_Picture_5.jpeg)

January 26-28, 2009 (EOC till Feb. 13)

Paducah, KY (Population 25,000) McCracken Co. (Pop. 65,000)

Primary Public Safety Agencies:

> Paducah Fire Dept. Paducah Police McCracken Co. Sheriff 5 Volunteer FDs Joint E-911 (PSAP) McCracken Co. EM

![](_page_10_Picture_4.jpeg)

#### WANTED

90 % without power

![](_page_11_Picture_0.jpeg)

## Unexpected Logistics:

- Securing grocery stores
- Pharmacies/ banks
- Securing gas stations
- Securing our own fueling facility
- Door-to-door search groups

- Shelters
- Helping surrounding agencies
- Chainsaw crews (police & firemen)

![](_page_12_Picture_0.jpeg)

#### What was working

- Verizon was working
- Radio systems & CAD were still working (on back-up power)
- Land-line phones (w/ some limitations)
- No impact to 911 lines and
  - 911 Center was keeping up with the volume of calls/ radio traffic
- JP Energy had a rep entering work orders at E911

![](_page_13_Picture_0.jpeg)

#### What didn't work

- AT&T cellular service was not working at all
- The EOC was established at a local VFD and was generally not connected properly with any of the City operations, though they maintained radio contact with E911

### What about the future?

- Cellular infrastructure needs to ensure stable back-up
- Redundancies for backup power
- Collaboration with power companies & others
- Better communication links between EOC and PSAP

![](_page_15_Picture_1.jpeg)

#### Attendance and Scope

Thunder Over Louisville 850,000

Kentucky Oaks 116,000+

Kentucky Derby 165,000+

Two weeks of events ranging in size from 20,000 to 850,000

Multiple law enforcement agencies from the local area and across the State, including National Guard and FBI/DHS are involved

1,150 officers assigned to Thunder in 2014

Indiana also has a component as a part of Thunder dealing with crowd and traffic control

![](_page_15_Picture_10.jpeg)

1

![](_page_16_Picture_1.jpeg)

#### Challenges

Commercial networks are saturated during these events. DAS units have been installed for some carriers at Churchill Downs, but only serve the grandstand.

Real time sharing of data between different agencies is a challenge via online mechanisms

Interference with unlicensed WiFi devices can cause disruptions for surveillance cameras and other WiFi components

![](_page_16_Picture_6.jpeg)

![](_page_17_Picture_1.jpeg)