



Waukesha &  
Milwaukee Counties  
Radio Surveys  
"Interim" Results

06-Sep-2012



# DISCLAIMER



- The purpose of this presentation is to provide a 'snapshot' of the responses received from the User and Management Surveys launched in August, 2012 to collect information about radio-system needs
- Nothing from this presentation should be interpreted as a 'design decision' or other type of conclusion - future reports will incorporate survey responses with other information to provide formal analysis and recommendations

## Survey Status (as of 04-Sep-2012)



- User Survey: 109 Responses
- Management Survey: 23 Responses
- Dispatch Survey: 7 Responses

# User Survey: Coverage



- Quantitative
  - Needs Very Well Met (5/5): 14.7%
  - Needs Well Met (4/5): 38.5%
  - Needs Adequately Met (3/5): 34.9%
  - Needs Only Somewhat Met (2/5): 6.4%
  - Needs Not Met (1/5): 5.5%
- Quantitative
  - Notice by many that selected buildings (schools, hospitals, manufacturing plants, churches, parking structures, malls, etc.) have coverage “dead spots”
  - Notice by many that the Waukesha County system does not provide sufficient coverage to support on-network fireground communications
  - Notice by few that the SE and SW corner of Waukesha County has coverage problems
  - Notice by few that the lakeshore (mainly bluffs) has coverage problems
  - Concern by many of a loss in coverage due to the transition to digital

# User Survey: Capacity



- Quantitative
  - Needs Very Well Met (5/5): 22.0%
  - Needs Well Met (4/5): 33.9%
  - Needs Adequately Met (3/5): 34.9%
  - Needs Only Somewhat Met (2/5): 9.2%
  - Needs Not Met (1/5): 0.0%
- Quantitative
  - No mention of system busies on “daily basis”
  - Notice by few of concern (“worry”) over capacity in “major events”
  - Notice by some agencies that their dispatch “channel” is too congested (but recognition that this is an issue of fleetmapping, not system capacity)

# User Survey: Reliability



- Quantitative
  - Needs Very Well Met (5/5): 31.2%
  - Needs Well Met (4/5): 39.4%
  - Needs Adequately Met (3/5): 26.6%
  - Needs Only Somewhat Met (2/5): 2.8%
  - Needs Not Met (1/5): 0.0%
  
- Quantitative
  - No mention of cases of unreliability
  - Notice by few of concern ("worry") over their dependence on one radio tower ("if we lose 'tower x', we know we'll be without service")

# User Survey: Capabilities



- Quantitative
  - Needs Very Well Met (5/5): 23.9%
  - Needs Well Met (4/5): 34.9%
  - Needs Adequately Met (3/5): 30.3%
  - Needs Only Somewhat Met (2/5): 2%
  - Needs Not Met (1/5) 1.8%
- Quantitative
  - Notice by few that encryption that provides clear audio quality is needed
  - Notice by few of desire for patching to IFERN (VHF and 800) channels
  - Notice by few of desire for patching to MPD/MFD OpenSky channels
  - Desire by very few to get more information on availability of (and cost-performance data about):
    - Digital Data
    - GPS
    - Emergency button

# User Survey: Interoperability



- Quantitative
  - Needs Very Well Met (5/5): 19.3%
  - Needs Well Met (4/5): 33.9%
  - Needs Adequately Met (3/5): 32.1%
  - Needs Only Somewhat Met (2/5): 11.0%
  - Needs Not Met (1/5): 3.7%
- Quantitative
  - Notice by many of need for “more and easier” interop within each County and between Waukesha & Milwaukee Counties (i.e. SMART, pursuits)
  - Notice by many of need for easier method of interop with
    - MPD and MFD
  - Notice by few of need for some level of interop with
    - IFERN and other simplex interop channels
  - Notice by very few of need for some level of interop with
    - WI State Patrol
    - Ozaukee County (Sheriff and FD)
  - • Notice by few of desire for better sharing/coordination of alias databases

# User Survey: Roaming/Scanning



Roaming/Scanning Feature	Would use very often	Would use somewhat often	Might or might not use	Would probably not use	Would never use
Ability to talk between agencies in both counties (inter-county interoperability) on authorized talkgroups	11.0% (12)	<b>35.8% (39)</b>	<b>33.0% (36)</b>	16.5% (18)	3.7% (4)
Ability to roam on all talkgroups between the two counties	12.1% (13)	<b>30.8% (33)</b>	<b>29.0% (31)</b>	24.3% (26)	3.7% (4)
Ability to scan the talkgroups (as authorized) of agencies in both counties	<b>20.2% (22)</b>	<b>35.8% (39)</b>	19.3% (21)	21.1% (23)	3.7% (4)

# User Survey: Security



- Quantitative
  - Needs Very Well Met (5/5): 26.6%
  - Needs Well Met (4/5): 37.6%
  - Needs Adequately Met (3/5): 32.1%
  - Needs Only Somewhat Met (2/5): 2.8%
  - Needs Not Met (1/5): 0.9%
- Quantitative
  - No real concern over site/system physical or cyber security
  - Notice by few over concern over encrypted communications (to baffle scanners incl. Radio Reference)

# User Survey: Maintenance & Reporting\*



- Quantitative
  - Needs Very Well Met (5/5): 24.8%
  - Needs Well Met (4/5): 36.7%
  - Needs Adequately Met (3/5): 35.8%
  - Needs Only Somewhat Met (2/5): 1.8%
  - Needs Not Met (1/5): 0.9%
- Quantitative
  - Notice by few in Milwaukee County over lack of 'standard process' for reporting problems with infrastructure
  - Notice by few in Milwaukee County over lack of 'standard process' for subscriber maintenance (required frequency of maintenance)

\* - Maintenance and Reporting were separate topics with separate question sets but the responses on both topics were nearly identical

# User Survey: Subscriber Radio Audio & Concerns



- Audio Quality
  - Very Good:                      Portable 21/99      Mobile 28/87
  - Good:                              Portable 46/99      Mobile 38/87
  - Acceptable:                      Portable 29/99      Mobile 21/87
  - Bad:                                Portable 3/99      Mobile 0/87
- Quantitative
  - Easier scan lists
  - Larger displays / Top mounted displays
  - Bigger knobs
  - "Bump-proof" volume knobs
  - Smaller radios
  - Coiled cord for Speaker Mics and SMAs
  - **Multiple options for radios (more choice for procurement)**
  - **Few options for radios (reduced training requirements)**

# Management Survey: Strategic Value & Cost



- Operational Value
  - Notice from almost all that radio is important to meeting agency's operational goals
  - Notice from almost all that radio meets operational needs
  
- Operational Cost - Actual
  - Notice from many that they don't know annual cost of radio use
  - Notice by many that radio cost is \$0
  - Notice by few of actual amount of radio costs (\$4200 to \$103k)
  
- Operational Cost – Desired
  - Notice by many that cost should be zero or limited only to subscriber radio capital costs
  - Notice by some that costs should be fairly determined by formula based on air-time usage

# Management Survey: Service



- Current Service PoC
  - Notice by most of either WCC or Milwaukee Two-Way
  - Notice by very few of other shops (Brandt)
  - Notice by very few of Milwaukee IMSD
  - Notice by few of "don' know"
  
- Service Satisfaction
  - Notice by most that current service provider is good (or "ok", or "satisfactory", or even "excellent")
  - Notice by very few for need to adjust programming (be more lax on system key)
  - Notice by very few for need for "competition and choice" in service pricing

# Management Survey: Coverage & Capacity



- Coverage
  - General response: Coverage is satisfactory
  - Problem areas:
    - General and specific buildings
    - "Hwy 164 and on Edgewood ave west of center road"
    - "Oconomoc area"
  
- Capacity
  - General response: Some busies are encountered by understood
  - Problems:
    - Too many busies during large events
    - Too much congestion on some dispatch "channels"

# Management Survey: Capabilities & Interoperability



- Capabilities
  - General response: Feature set is satisfactory
  - Desired improvements:
    - Alert tones
    - Pre-emptive emergency
    - GPS / location-based
  
- Interoperability
  - General response: Current is ok but improved/easier interop between Counties would be used
  - Specifics:
    - Would like better interop at border (scan, pursuit channels)
    - Would like some method to communicate outside of Counties (SMART; Jefferson, Ozaukee, Racine Counties)

# Management Survey: Reliability, Maintenance, & Other



- Reliability
  - General response: Systems have been reliable
  - Concern: Are service parts going to remain available? (1/19)
  
- Maintenance
  - General response: System is well maintained
  - Concern: System components (2/18) and system services (4/18) are too tightly controlled – should be multi-vendor
  
- Other
  - "COVERAGE – COVERAGE – COVERAGE"
  - "Digital coverage?"
  - More open approach to programming (3/17)
  - **Want continued involvement/awareness in process**