



**Technical and Operational Changes to the
Fire & EMS Radio Systems**

Ulster County
Emergency Communications
May 2010

[The problems]

- Poor coverage
- Overloaded frequencies
- Lack of interoperability

Statewide Wireless Network

- Late 1990's New York State Technology Enterprise Corp – NYSP lead agency
- 2000 New York State Office for Technology began looking for partnerships
- 2002 RFP issued, and in 2004 M/A-Com was selected as the prime contractor
- NYS signed a \$2 Billion agreement with M/A-Com
- 2006 Ulster County signed a Preliminary Planning Agreement with OFT

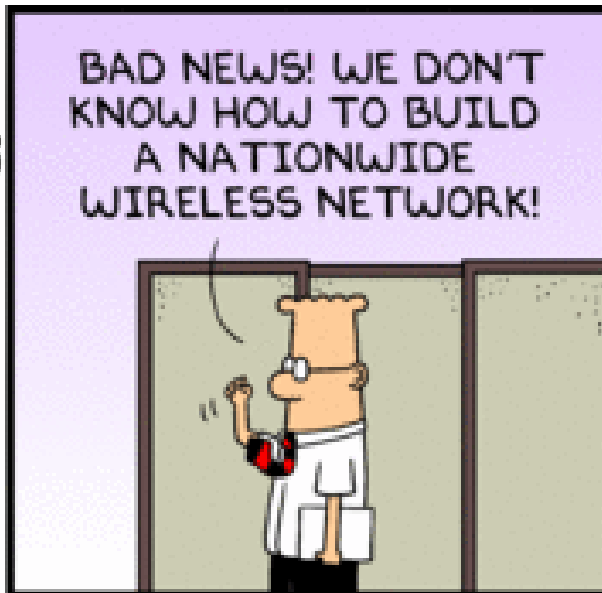
[SWN (continued)]

- Timeline: design and acquisition 2006; engineering through 2007; construction in 2009; wrap up in 2010
- 2006-2007 we met with local emergency services; advised to establish capital reserve funds for communications
- 2007 Ulster County signed a Non-Disclosure Agreement with OFT
- 2007-2008 Testing in the PRB region of Erie and Chautauqua Counties
- Jan 15, 2009 NYS Comptroller terminates contract with M/A-Com

[Wireless Dilbert]



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[New York State's "Plan B"]

- June 2009 NYS OFT announces a complete change in direction. Instead of from the *top down*, the new favored model for a statewide system will be built from the *bottom up*.
- Regional collaborations are favored and are eligible for funding (the most successful is in Onondaga and surrounding counties).

Ulster County's "Plans B,C, D..."

- In early 2008 Ulster County initiated a series of meetings with stakeholders and departments to look at alternatives
- After the OFT announcement in 6/09, Ulster County hosted a regional meeting for all counties from NYC to Albany on July 30, 2009.

Individual meetings between EC staff and the fire & EMS agencies

- Review of run cards, pre plans, officer lists, inventories, etc.
- For many, the complexity of the operation was an eye opener
- Chance to air concerns and offer suggestions
- Regular meetings with department officers / comm. center supervisors

Addressing the needs of fire and EMS

- A committee was formed consisting of:
 - Fire Coordinator
 - EMS Coordinator
 - Fire Advisory Board
 - Emergency Communications

[A reasonable approach]

- Make minor changes to the existing system – an interim step – NOT a solution
- Hire an independent contractor to perform a study (a required element for additional funding)
- Develop a long range radio system replacement plan

[The interim step]

- Fire to be addressed in 2010; EMS in 2011
 - Since EMS frequencies are subject to 1/1/13 narrow banding requirements, it is fiscally prudent to wait for the consultant's report

[The interim step (cont.)]

Designed to:

- Reduce radio traffic
- Provide additional radio capabilities
- Be low cost

It will not:

- Improve coverage
- Provide interoperability

[Reducing radio traffic]

- Why is there more traffic?
 - More radios
 - Lack of procedures
 - More 2nd and 3rd dispatches
 - More mutual aid
- Procedures must be addressed

[Radio procedures]

- Subsequent dispatches changed from 3 minutes to 5 minutes
- Multiple units use a single transmission whenever possible
- Requested that no officers call out
- Only the first unit calls on the scene; provide a status report

[Radio procedures (cont.)]

- The switch to an operations channel will occur with the first unit calling on the scene (or sooner at the request of the OIC).
- Use of ICS is a must
- IC should use a mobile radio whenever possible

[Radio Procedures (cont.)]

- IC should go direct to their own units on operations channel
- One returning to quarters transmission by the OIC
- Use the telephone to call in quarters

[Radio Procedures (cont.)]

- No need to call out on drills
- All members must be trained!

- Elimination of the quick call system
- Elimination of the weekly pager test

[Additional radio capabilities]

- Obvious need for more frequencies
- Unwise to invest in new low band transmitters while a study is underway
- Create an operations channel
- Create a response channel
- Expand F4 & F5 with additional PLs

Radio configuration

	TX	RX	PL	Function
F-1	46.34	46.46	114.8	Command
F-2	46.46	46.46	114.8	Response
F-3	46.30	46.30	None	Fire ground
F-4	46.28	46.28	114.8	Operations
F-5	46.32	46.32	114.8	Operations
F-6	46.28	46.28	127.3	Operations
F-7	46.32	46.32	127.3	Operations

[Operations Channel]

- Operations channels will be assigned by UC 911 based on geography
 - There WILL be overlaps
 - Overlaps will be no worse than existing F-2
- Implementation on or around August 2.

[Low cost]

- The first 5 channels require NO modification to existing radios
- Additional channels require programming only for most modern radios
- Manageable investment by County

[Radio system consultant]

- Scope of work / deliverables:
 - Assessment report on existing system
 - Needs analysis conducted with end users
 - Suggested system solutions (including a matrix of advantages, disadvantages and cost analysis of each)
 - Identify potential funding sources
- Time line:
 - Bid opening is May 20, 2010
 - Final report no later than 9 months after signing contract
 - A follow up RFP will be published for implementation of the selected solution. Must build on this product.

[Radio system consultant (cont.)]

- Proposed solution must:
 - Take into consideration the needs and functionality identified as desirable by stakeholders
 - Improve coverage
 - Addresses migration from existing system
 - Utilizes most appropriate spectrum and frequencies
 - Identify upgrades and modifications necessary at tower sites (including new sites)
 - Explore expanded microwave and fiber networks
 - Provide extensive redundancy
 - Address future operational and technical enhancements of voice, paging and data capabilities

[Long Range Plans]

No preconceived notions!!!!

Reality: It all comes down to money

- Madison County \$14 million
- Nassau County \$42 million
- Onondaga County \$32 million
- Oswego County \$20 million
- Rockland County \$20 million
- Saratoga County \$12 million
- Tompkins County \$14 million

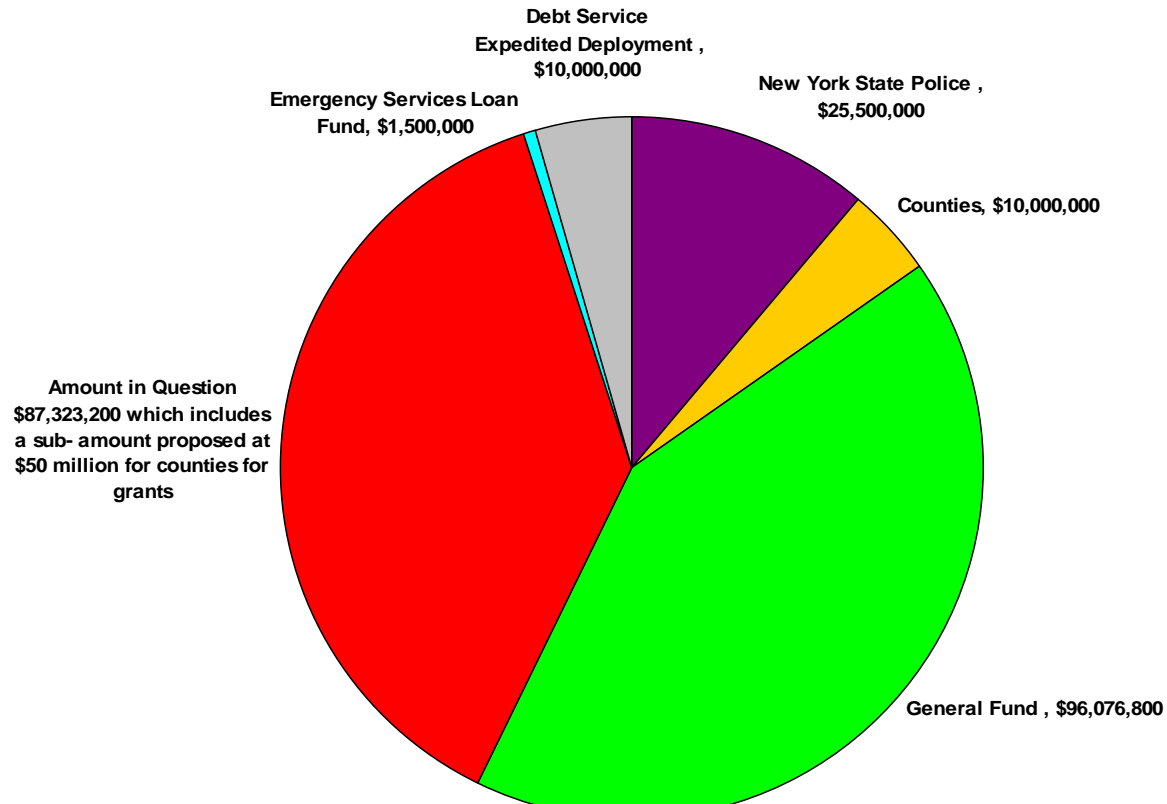
[Reality: It all comes down to money (cont.)]

Ulster County faces a potential budget **gap** of between \$15 - \$25 million in 2011.

The County Executive and the County Legislature recognize the value of Ulster County's emergency services. They are supporters of our mission. We must all work together to find ways to enhance our systems in a way the taxpayers of Ulster County can afford.

NYS W-911 Surcharge Distribution

New York State Wireless 9-1-1 Surcharge Distribution
(Based on an estimated \$230,400,000 revenue from NYS Dept of Taxation for 2010)



Amount in Question
\$87,323,200 which includes
a sub- amount proposed at
\$50 million for counties for
grants

- State Police
- County 911
- General Fund
- Amount in Question with \$50 million proposed for 911 grants
- Emergency Services Loan Fund
- Debt Service Expedited Deployment

[It's not just the County....]

- The ten highest budgets...
 - Woodstock \$1,117,598
 - Ulster Hose \$1,095,301
 - Highland \$1,007,105
 - Plattekill \$ 780,000
 - Ellenville \$ 739,046
 - Centerville \$ 626,165
 - Accord \$ 625,050
 - Wallkill \$ 523,306
 - Olive \$ 492,031
 - Port Ewen \$ 434,014

[It's not just the County (cont)..]

- The ten lowest budgets....

○ Connelly	\$ 42,000
○ Vly Atwood	\$ 51,275
○ Marbletown	\$ 64,123
○ Lomontville	\$ 84,000
○ Pine Hill	\$ 85,000
○ Big Indian	\$ 95,000
○ Cragsmoor	\$ 99,012
○ Cottekill	\$107,277
○ Malden	\$125,260
○ Tillson	\$125,300

[It's not just the County (cont)..]

- 20% of the FDs in Ulster County have budgets greater than \$400,000
- 14% of the FDs in Ulster County have budgets less than \$100,000
- 65% of the FDs in Ulster County have budgets between \$100,000-\$400,000
- The median budget is \$243,490

[Summary]

- Interim steps
- Consultants recommendations
- New radio system? Funding will be key.

- Questions / comments