



Frequency - TLMR Meeting
Department of Emergency Communications
February 1, 2008
0900 -1100 A.M.

Those in attendance were:

Charlie Gabriel, Project Director
Chick Langone, Langone & Associates
David A. Stevenson, Team Lead, Technical
Lori Hable, Secretary to the Commissioner 911
Ben Rinaldi, PSSS, 911, Lead Policy & Procedures
Sean Sparks, SODO, 911, Lead Technical
Bill Bleyle, Captain, Team Lead Onon Co Police Agencies
Ray Herrick, Team Lead Sheriff's Department
Richard Rioux, Team Lead Syracuse Police
Tony DiGregorio, Director, Team Lead EMS

Charlie Gabriel opened the meeting and thanked everyone for attending. The new radio system will have extensive capability that will need to be managed. Policy and Procedures need to be developed that will affect all agencies. We need to develop operational protocols such as talk paths and what is used for what. Motorola will send us a template on talk paths which we will send to each of you for review. Chick Langone will speak more on the talk paths later in this meeting. PSSS Ben Rinaldi from the 911 Center will be the Team Lead for Policy & Procedures development.

Charlie Gabriel asked Tony DiGregorio to speak with Joe Rinefield and tell him to not send out any letters about equipment as we need to discuss the budget first. The Team Leaders need to prepare combined letters to cover all disciplines (police, fire and EMS) at the same time with all the same information. This way everyone is receiving the same information in the same time period. As Team Leads, please get with each other to coordinate information.

All current information will be provided on the website to keep everyone in the loop.

Chick Langone provided a PowerPoint. Chick Langone discussed **Governance** of the new radio system:

- New System will have Extensive Capability that will need to be managed
 - System Administrator
 - System Technical Manager
 - Operations Committee
 - Oversight Committee
- Develop Operational Protocols
- Develop Talk path Partitioning
- Manage Subscriber System Registration
- Maintain Focus on the SAFECOM Continuum
 - Key to future grant \$ (There was an article in the newspaper today with Homeland Security stating our region can go after funding now)

- 5 “Lanes “ to follow for improved interoperability

Chick Langone then reviewed the **Interoperability Continuum**. This consists of 5 lanes; Governance; Standard Operating Procedure; Technology; Training and Exercises; and Usage. In order to get funding this has to be a multi agency system.

Concept of a Talk Path:

- A path that provides the capacity to talk and listen using radio frequencies (RF) and also called:
 - Talk group (trunked infrastructure)
 - Channel (any or no infrastructure)
 - Frequency (any or no infrastructure)
 - Simplex (no infrastructure)
 - Direct (no infrastructure)
 - **Mode (any of the above)**
- Difference is what infrastructure is required to complete the talk path.

Conventional Systems:

- Traditional Radio System (what we have today)
- Your current Radio System
- Discrete Communications Channels are accessed by users as needed
- No Central Control – Not managed
- Number of talk paths is ***dependent*** on the number of frequencies.

Trunked System:

- Over 100 years of experience in Telephone systems
- Core component of the telephone systems
- Trunking is the ability to share limited communications channels (telephone lines or radio frequencies) with a large number of users
- Users Do Not Require Dedicated Communications Channels
- Trunking Benefit
 - Handle large number of subscribers (mobiles and portables)
 - Dynamically control system operation

In the specs 300 talk groups were listed – there is not limit but we need to be practical. Baltimore City fire has a Trunked System. They have 45 talk groups programmed in their radios. They only use 10 – 15 talk groups. We need to think about how we need to operate and what our needs are.

What is Trunking?

Queuing analysis shows that more customers (radio users) can be handled with the same level of service when all clerks (in this case radio channels) are available to all customers.

(Shows pictures on the PowerPoint)

Two Systems:

Trunked (on the network)

Conventional - Off network (doesn't go through trunked)

The network is gateways providing connectivity (limited capability)

Radio on UHF radio band are national UTAC channels, Med channels, Statewide, Hill net etc. The new radios will work on the new TLMR network. For example, SWAT may possibly set up off network talk groups.

PSSS Sean Sparks distributed sheets with Conceptual Talk Group Plans. On this sheet 90 network talk groups are located.

- UTACS – not trunked
- Police Talk Around – not trunked
- Fire Talk around – not trunked
- Med channels – not trunked
- Digital or digital encrypted – Trunked

UTAC – Med – Hill Net – off network (analog through a repeater). Low power could be encrypted, digital mode; however you want to set it up to organize day to day emergencies.

Review the handout and see if it meets your needs. Monitored talk paths are the actual channels on the control center floor. Charlie Gabriel asked Tony DiGregorio to take this back to Joe Rinefierd and for Rick Rioux to take this back to City Fire. This introduces the subject and where you want to be needs to be decided by you. You can reprogram the radios; you are not locked in to what you originally programmed. It adapts to what you need. Charlie Gabriel asked Sean Sparks to add a column to the Conceptual Talk Group Plan sheet to include **Governance**.

Trunked System Features:

- Common Integrated Network
- Individual Agency Autonomy
- Intra & Inter-agency communications as needed
- Talk paths = talk groups and are **independent** from the number of frequencies.
- Radios Programmed According to user needs
- Talk group Partitioning
 - “Developing the Channel Plan”
- PTT-ID & Emergency
- Radio Inhibit
- Time out Timer for mobiles a7 portables
- Talk group scan
- Conventional Channel Scan
- Go Ahead Tone
- Busy Tone
- Out of Range Tone
- Dynamic Regrouping
- Communications Center Functionality
 - Transmit on talk groups
 - Transmit on Multiple Talk groups
 - Prioritize Talk groups for Emergency
 - Monitor Voice & PTT-ID Communications
 - Monitor Selected Tactical Talk Groups
 - Monitor Individual Radio Status
 - Record All Activity

- Receive System Status Alerts
 - Obtain Reports on System Activity
- Network Controller = Computer
 - Manages System Operation & Features
 - Change system Features
 - Validates Users – Controls Access
 - Dynamically Keeps track of user affiliation (who belongs in what talk group)
 - Prioritizes Calls
 - Manages busy Queue
 - Logs all system activity
 - Fast Response to call Requests

Talk paths Partitioning – High Level

- According to Governance Criteria Established by User Representatives
- Experience of mature systems indicates start small
- 911
- County fire
- City Fire
- EMS
- Volunteer EMS
- Sheriff
- City Police
- Village Police
- Emergency Management
- County Highway
- Local Towns & Villages
- County Probation
- County Mental Health & Social Services
- Common all Fire
- Common All Law Enforcement
- Common All County
- Emergency – Direct to 911

On or Off Network

- Subscriber Radios Provide “Talk Anywhere” Capability
 - Function of Subscriber Radio Programming
 - Mode = Trunked – conventional – Direct
- On Network – Uses County Trunked Radio Network Features
- Off Network – Cross Patch/Gateways can provide connectivity to:
 - VTAC, UTAC, 8TAC, SWN and other interoperable networks

Frequencies:

The County has licensed a number of new frequencies for the new radio system. We are reviewing the process to utilize them. How much to the legacy system needs to remain?

Any other agency requests to join the 911 System will have to wait until we put the radio system together for our emergency service providers.

Captain Bill Bleyle asked about the fail soft mode; the trunking pot goes away. Chick Langone explained that the fail soft mode goes back to a conventional mode to repeat mode. It is automatic and will assign you to a single channel.

Charlie Gabriel discussed with the Team Leads the Motorola Contract and pricing. The County agreed to \$34,700,000 for the radio project. Under the contract with Motorola the first year warranty is \$700,000. The County has agreed to a one time bulk purchase with Motorola extended into June 2009 at 9.4% discount price. We would like to have collectively all agencies send their request to 911 as one complete order and then it will be sent to United Radio. There is a two year maintenance cost and installation by the agency. This is a local driven cost and not part of the contract for the additional radios in the bulk order. The agency pays for the extended warranty plus installation. If you want more radios than what was that originally in the mix – you pay the extra. Pricing is below OGS pricing for the extra radios.

Charlie Gabriel has a conference call with Motorola today and will determine the pricing and place it on the website.

Captain Bill Bleyle asked who is the Team Lead for County Government? A call was placed to Jean Smiley, Administrator for Physical Services to see who she wants and we also need one for NYSP. The Team Leads will be placed on the Website with names and phone numbers.

Thank you all for coming to this meeting.