M E T R O P O L I T A N E M E R G E N C Y S E R V I C E S B O A R D

RADIO TECHNICAL OPERATIONS COMMITTEE
TENTATIVE AGENDA
Board Room, Metro Counties Government Center
July 22, 2015
1:00 – 3:00 p.m.

MEMBERS:

Ulie Seal, Chair
MN Fire Chiefs Association

Ron Jansen, Vice Chair
Dakota County

Jeff Bjorklund
Metropolitan Airports Commission

Chris Caulk
Isanti County

Jon Eckel
Chisago County

Clif Giese
Metro Region EMS

John Gundersen
Hennepin County

Chad LeVasseur
Metropolitan Council

Rod Olson
City of Minneapolis

Chuck Steier
At-large member, U of M Police

Jake Thompson
Anoka County

Dean Tilley
Washington County

Tim Walsh
Carver County

Chris Weldon
Scott County

Scott Williams
Ramsey County

Open
MN Chiefs of Police Association

1. Call to Order

2. Approval of June 24, 2015 Minutes

3. Agenda Items
    a. Anoka County Console Upgrade to MCC 7500s – Jake Thompson
    b. Minnetonka Console Upgrade to MCC 7500s – Jeff Nelson

4. Moves, Additions & Changes to the System
    a. Existing/Other Systems
    b. Update on Removal of Voting from Interoperability System

5. Committee Reports
    a. Metro Mobility System Usage Update—Chad LeVasseur/Dana Rude
    b. SMG Update
    c. Reports from SECB Committees—Jill Rohret

6. Other Business
    a. Regional Talkgroup Permissions Update – None

7. Adjourn

Ulie Seal, Chair

Metropolitan Emergency Services Board
Radio Technical Operations Committee
Meeting Notes
June 24, 2015

Members Present: Ron Jansen, Vice Chair; Jeff Bjorklund; Jon Eckel; Clif Giese; John Gundersen; Chad LeVasseur; Rod Olson; Dave Pikal; Chuck Steier; Jake Thompson; Dean Tilley; Tim Walsh; and Chris Weldon.

Guests Present: Jill Rohret, Metropolitan Emergency Services Board; Mike Fink, Motorola; Nate Timm, Washington County Sheriff's Office; Rick Juth, ECN; and Dana Rude, Metro Mobility.

Call to Order: Ron Jansen called the meeting to order at 1:00 p.m.

Minutes of the May 27, 2015 Meeting:
M/S/C – Clif Giese moved to approve the May 27, 2015 meeting minutes. Dean Tilley seconded. The motion carried.

Radio/IPAWS Regional Funding Priorities: Jill Rohret reminded members of the discussion held at the May meeting. The committee needs to finalize the funding priorities today so they can be approved by the MESB at its July meeting. These funding priorities will be used for next year's grants. A re-cap of the list from the previous month: Motorola IP Simulcast Training (Course ACS715217); metro region dispatcher scenario training; TIC Plan maintenance; IPAWS software; and a portable tower.

Jansen suggested adding funds for a CRTF exercise.

M/S/C – Dean Tilley moved to recommend approval of the funding priorities list as read by Rohret, including funds for a CRTF exercise. Jake Thompson seconded. The motion carried.

Amendments to Metro Standard 3.35.0: Rohret stated that she was approached by Minnesota State Patrol, the Metro Warning Point, about why the standard required hailing on METCOM, then moving to ME TAC 5-8, and then moving again to a STAC. In practice, State Patrol tends to hail on METCOM and then move directly to a STAC. This simplifies things for the dispatcher during an already busy time in the PSAP. Rohret polled metro PSAP managers and the overwhelming response was positive.

Nate Timm asked why we don't patch directly to the NWS talkgroup. He understands there are summing issues with the Gold Elite consoles.

Rohret responded that not all metro PSAPs currently have MCC 7500s, and the standard needs to work for the current weather season. If the Radio TOC wishes to reconsider that once Gold Elites are no longer on the system next year, they may.

Jon Eckel stated that he thinks that we don't go directly to the NWS Chanhassen talkgroup because the metro PSAPs do not want to listen to all of the non-metro weather traffic.

Jake Thompson asked if references to ME TACS on page 1, section 2 should be removed.

Rohret replied that she thought of removing that reference, but decided to keep it in as allowed talkgroups just in case. It can easily be removed if that is the committee's wish.

Rick Juth noted that the MIMS CV reference on page 2 should be MNCOMM.

Rod Olson noted that Minneapolis doesn't have all the STACs in its consoles, but will have access to portables with STAC 9-12. He also wondered if we really want to drag traffic across the state.

Rohret responded that the Minneapolis PSAP responded positively about the change. She agrees about dragging traffic, but it does mirror what is being done in practice. Also, it is rare that a storm warning is isolated to only the nine metro counties.

Olson stated that Minneapolis will use portables.

M/S/C- Chris Weldon moved to recommend approval of the amendments to Metro Standard 3.35.0, including changing MIMS to MNCOMM. Dave Pikal seconded. The motion carried.

Regional Standard for Roaming/Requested Sites: Jon Eckel stated he edited the document based on what was discussed at the last meeting. He also noted that Rohret made some grammatical and formatting changes.

Rohret reminded members that this standard also applies to their roaming onto non-metro sites. She also said that she would be contacting ECN for a standard number [The standard will be numbered Metro 2.9.1].

M/S/C – Jon Eckel moved to recommend approval of the regional standard on roaming and site access. Jake Thompson seconded. The motion carried.

Ramsey County Console Upgrade to MCC 7500s: Dave Pikal stated that Ramsey County would like to upgrade its current 19 Gold Elite consoles to MCC 7500 consoles, plus a patching console. They will install three eight-port CCGWs and use 21 CCGW ports. They will return 1,507 IDs and keep one CEB for logging until the April 1 deadline.

M/S/C – John Gundersen moved to approve the Ramsey County console upgrade. Jeff Bjorklund seconded. The motion carried.

Moves, Additions & Changes to the System: Thompson stated that it is likely the Anoka County console upgrade request will be ready for the July TOC agenda.

John Gundersen said that the SATCOW is still deployed in Washington County and should be done on October 1.

Jansen stated bid for the Sperry water tower received only one bid. It will be re-bid early next year. Until then no changes will be made.

Dean Tilley said that he retires in four days. Nate Timm will replace him.

Jansen stated the Metro Owner's Group discussed removing the voting from the interoperability system with MnDOT. MnDOT wanted something official to be approved, so Tim Lee drafted the documents being passed out. He did note that no EMS people were at the meeting; Lee was going to reach out to them to confirm.

Clif Giese said that a VMED28 tower would be at City Center, which would cover West MRCC. He thinks there should be one on the east side for East MRCC.

Rohret wondered if the MnDOT John Ireland Boulevard building would be close enough.

Gundersen noted that HCHC should be HCGC.

Juth stated that MIMS should be MNCOMM.

Rohret asked for clarification as to what "after 7.15" means. Is it after upgrade ops leaves? After consoles are touched? After the punch list is done? That is a very wide timeframe.

Jansen believes it is after consoles are touched, but the Radio TOC will determine the timing.

Olson would like to see intermodulation studies at HCGC before approving this.

Metro Mobility Update: Dana Rude stated that usage is quite high and they are very aware and not ignoring it. They discuss it with their providers regularly but they are not getting a desired result. The usage increase is disproportionately large compared to the increase in their number of radios on the system. There are lots of changes occurring with the restructuring of Metro Mobility; there are a lot of new employees.

Rohret asked if the new employees are being trained properly and reminded Rude of the statewide training standards that also require records of training to be kept.

Rude said he assumes they are being trained. He has seen the training syllabus and radio training is included. He said it would be nice to get more frequent usage updates than every 4-5 weeks.

Chad LeVasseur said he would provide them.

Rude said that all consoles were installed today. Training begins tomorrow and includes radio usage. The interface between the radios and the MDCs were discussed at a meeting with both Motorola and Trapeze. Though there are licensing and non-disclosure issues, the feeling was that it is possible to do. If it occurs, the communication system in Metro Mobility buses will be similar to how Metro Transit buses communicate, and would impact overall usage. Rude reiterated that Metro Mobility is not happy with the usage situation either. He then noted that Dakota County operations begin on Sunday.

LeVasseur stated that communications would function through an interface between the radios and MDCs. All buses would sit on an idle talkgroup; if dispatch wishes to reach a single bus, there will be a call from the console to the single bus. The radio in the bus will automatically switch over to the desired talkgroup until it is no longer needed, when it will automatically go back to the idle talkgroup. If a bus wants to reach dispatch, they hit a button on the MDC, which sends a message to dispatch. Dispatch then initiates the communication function.

Eckel said that capacity on subsystems has been increased by local governments. At what point will capacity be increased at the cost of those using the subsystems (EMS, Transit, others)? If this isn't a concern, why are we talking about it? If it is a problem, talking about it isn't working.

LeVasseur said that when we started having discussions in 2012, Metro Mobility's usage was very high. It was reduced to meet the usage targets, but they are now increasing usage again, though not to the same level as in 2012. They are looking at how to bring it down again.

Rude said that Trapeze thinks it is just a matter of signaling levels and hoping that it is just a software solution that is needed.

Thompson stated that he thinks the possible solution between the radios and the MDCs is a good one. To Eckel's point, there are lots of non-infrastructure owning users who use the system, and their usage is increasing as well. There needs to be a standard for when this happens so that it is addressed in the same

fashion across the state. Even people who own infrastructure, like the Department of Corrections, roam onto local subsystems a lot. There needs to be standard that applies to everyone.

Jansen cautioned that there are state-owned channels on most local subsystems which complicates matters.

M/S/C – Jake Thompson moved to have the region send a letter to the SECB requesting a committee be formed to address the issue and draft a statewide standard. Jon Eckel seconded. The motion carried.

Thompson and Eckel will draft a letter.

SMG/MOG Update: The SMG meeting was cancelled.

SECB Committee Reports: Rohret stated that the OTC action items on tomorrow's SECB agenda are approval of console upgrades for Isanti County, approval of participation plans for Lake of the Woods County and Roseau County, and approval of a BDA in Lac Qui Parle County.

Gundersen stated that the final agenda item at the OTC was approved in concept only. Stevens and Kandiyohi County are experiencing some coverage issues where a BDA will not help, but a full tower site isn't needed either. They have been testing using a frequency pair to patch a specific talkgroup to provide in-building coverage. The OTC approved the concept, but not a frequency pair. The proposal originally included using an 8SOA, but that was denied. They need to work with the frequency advisor to find a frequency pair.

Other Business: Rohret stated she hopes to have the Radio Coordinator position filled by September. She also said that ECN will be holding a meeting on July 6, at 1:00 here at the MESB to discuss the 7.19 upgrade. She strongly encouraged in-person participation.

Adjournment:
M/S/C – Jeff Bjorklund moved to adjourn. Jake Thompson seconded. The motion carried.

The meeting was adjourned at 2:10.

Anoka County
COUNTY ADMINISTRATION
Central Communications / Radio Service

Participation Plan Amendment

Anoka County is formally requesting approval of an amendment to its participation plan for the replacement of its current Gold Elite dispatch consoles to the new MCC7500 console. Currently Anoka County operates 9 dispatch positions. We will be increasing our console count to 11 MCC7500 consoles plus one patch console. To connect conventional resources we will be adding 3 four port CCGWs and 1 eight port CCGW. These will be used for backup control stations, fire paging and weather audio. Initially we will utilize 11 ports but will have the capability of utilizing 20 ports. Anoka County will also be purchasing an AIS and a firewall for our logging solution.

I have met with MnDOT and discussed the T1 plan for the migration and final operation. They have agreed that we will be turning back 4 of the 6 T1s that are currently being used.

In summary we will be increasing our console count from 9 to 11 consoles plus 1 patch position, 4 T1s will be turned back to MnDOT and our CCGW capability will be 20 CCGW ports. At this current time we will not be looking to turn back any radio IDs to MnDOT as we are looking to utilize them for our transition when we start changing subscriber models over the next few years.

Respectfully,

Jake Thompson

Jake Thompson

Anoka County, Minnesota Dispatch Console
Dispatch Center

To Water's Edge Master Site (Core)

To 4 APX Consolettes 1 WX Audio

GGM8000 8 Port CCGW Located in Penthouse

Site Gateway

Site Gateway

Customer Supplied Fiber Circuits

Penthouse

2620-24 (CLN1856)

LAN Switch

2620-24 (CLN1856)

LAN Switch

GGM8000 4 Port CCGW

To 3 APX Consolettes

SSG140 Firewall

To Optional Logging Recorder

SDM3000 AUX I/O

To Customer Supplied Switches and Sensors

GCP 8000 Conventional Site Controller

// 2

// 2

// 2

// 2

// 2

PSAP

Existing Network Management Terminal

MCC 7500 Dispatch Console #1

MCC 7500 Dispatch Console #2

MCC 7500 Dispatch Console #11

MCC 7500 Patch Position Table Top

AIS to Support Optional Logging Recorder

Note:

- Operators equipped with four speakers.
- Monitors supplied by customer.
- 12 Dual Band APX control stations included.
- No antennas, feed line, or combiners included.
- Equipment housed in two 7 foot racks.

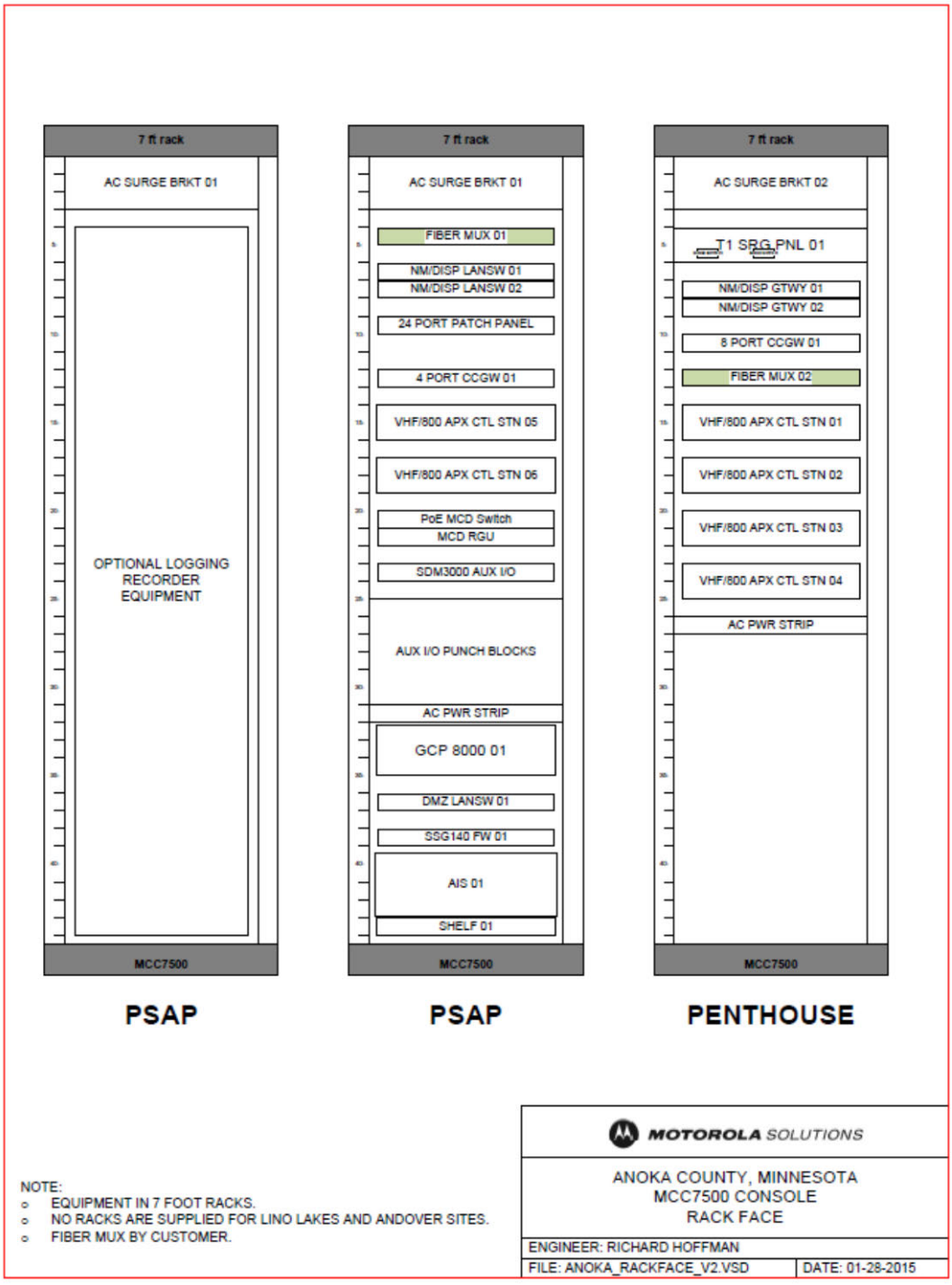
MOTOROLA SOLUTIONS

ANOKA COUNTY, MINNESOTA
MCC7500 DISPATCH CONSOLE
PSAP

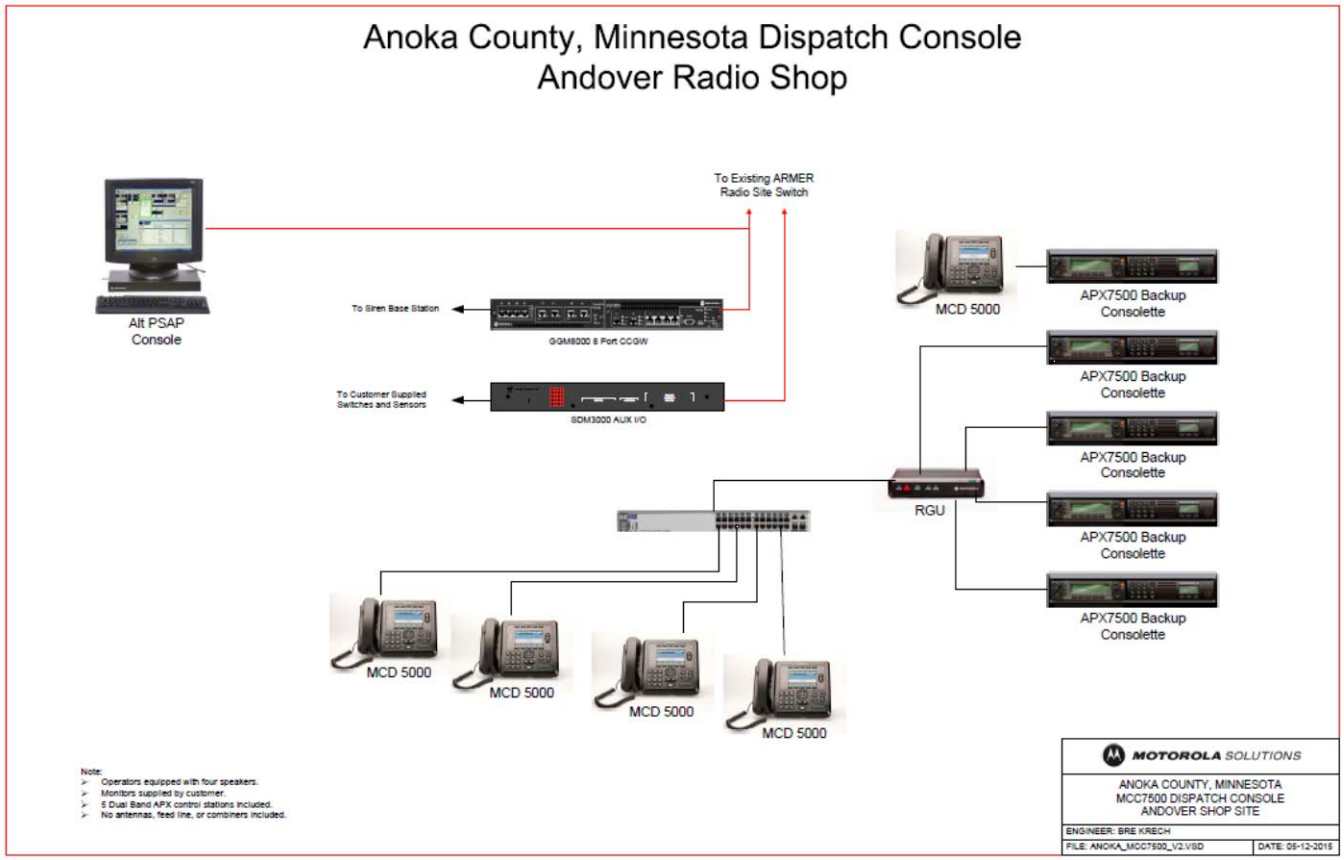
ENGINEER: RICHARD HOFFMAN

FILE: ANOKA_MCC7500_V2.VSD | DATE: 01-26-2015

3.15 RACK DRAWINGS



3.14 BLOCK DIAGRAMS



Anoka County, Minnesota Dispatch Console
Lino Lakes Prime Site

Note:
- Operators equipped with four speakers.
- Monitors supplied by customer.
- 12 Dual Band APX control stations included.
- No antennas, feed line, or combiners included.
- Equipment housed in two 7 foot racks.

MOTOROLA SOLUTIONS

ANOKA COUNTY, MINNESOTA
MCC7500 DISPATCH CONSOLE
LINO LAKES PRIME SITE

ENGINEER: RICHARD HOFFMAN	
FILE: ANOKA_MCC7500_V2.VSD	DATE: 01-26-2015

7900 International Drive – Suite 300
Bloomington, MN 55425
E-Mail: jeff.nelson@pscalliance.com
Voice 612.216.1502
FAX 888.384.9171

Updated
Technical Plan

for ARMER

800 MHz Trunked Radio System Participation

by

Minnetonka Police Department

Submitted to:
Metropolitan Emergency Services Board

July 15, 2015

This document has been prepared under contract by PSC Alliance Inc. for the benefit of Minnetonka. Questions concerning content of the plan may be directed to: Jeff Nelson, PSC Alliance Inc. at the address shown above or via email: jeff.nelson@pscalliance.com.

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Executive Summary & Overview of St. Louis Park's Updated Participation Plan

Below is a high level synopsis of the plan being proposed by the City of Minnetonka to update their consoles from the existing Gold Elite model to the MCC 7500 series at their Public Safety Answering Point (PSAP). Further narrative is contained later in this document describing the topics which are summarized below. Minnetonka has been a user of the ARMER system since 2006. The City now seeks approval to replace its Motorola Gold Elite Consoles with four (4) MCC 7500 consoles plus a patch position. This plan update only modifies aspects of previously approved plans relating to dispatch consoles.

The primary PSAP site at the Minnetonka Police Department will be equipped with a Conventional Site Controller, one (1) eight port CCGW interfaced to existing control stations, a fire paging system, and backup resources in the event of a network failure.

Two (2) DS1 circuits will be needed to support the console connection at the Minnetonka PSAP location. The existing, City provisioned, microwave link now connecting the PSAP to the Zone 2 master site will continue to be used for one route of connectivity. Via a previously approved (MESB/SECB) alternate connection method, Minnetonka is establishing a redundant connection via St. Louis Park's fiber link. The Motorola console architecture would be integrated with the ARMER Zone 2 controller at Golden Valley.

Radio ID loading on the ARMER would significantly decrease based upon efficiencies available from the MCC 7500 console architecture.

The target in-service date for the MCC7500 console equipment is the third quarter of 2015.

SECTION 1 - BACKGROUND

Introduction

This document is prepared as the technical plan for Minnetonka's console upgrade initiative for use in conjunction with the Minnesota ARMER 800 MHz trunked radio system. The primary audience for this plan is the Metropolitan Emergency Services Board (MESB) Technical Operations Committee (TOC) and the Statewide Emergency Communications Board Operations and Technical Committee (SECB-OTC).

Project Funding

Minnetonka has identified local funding to accomplish the construction and system upgrade objectives identified in this document.

SECTION 2 – ELEMENTS OF THE TECHNICAL PLAN

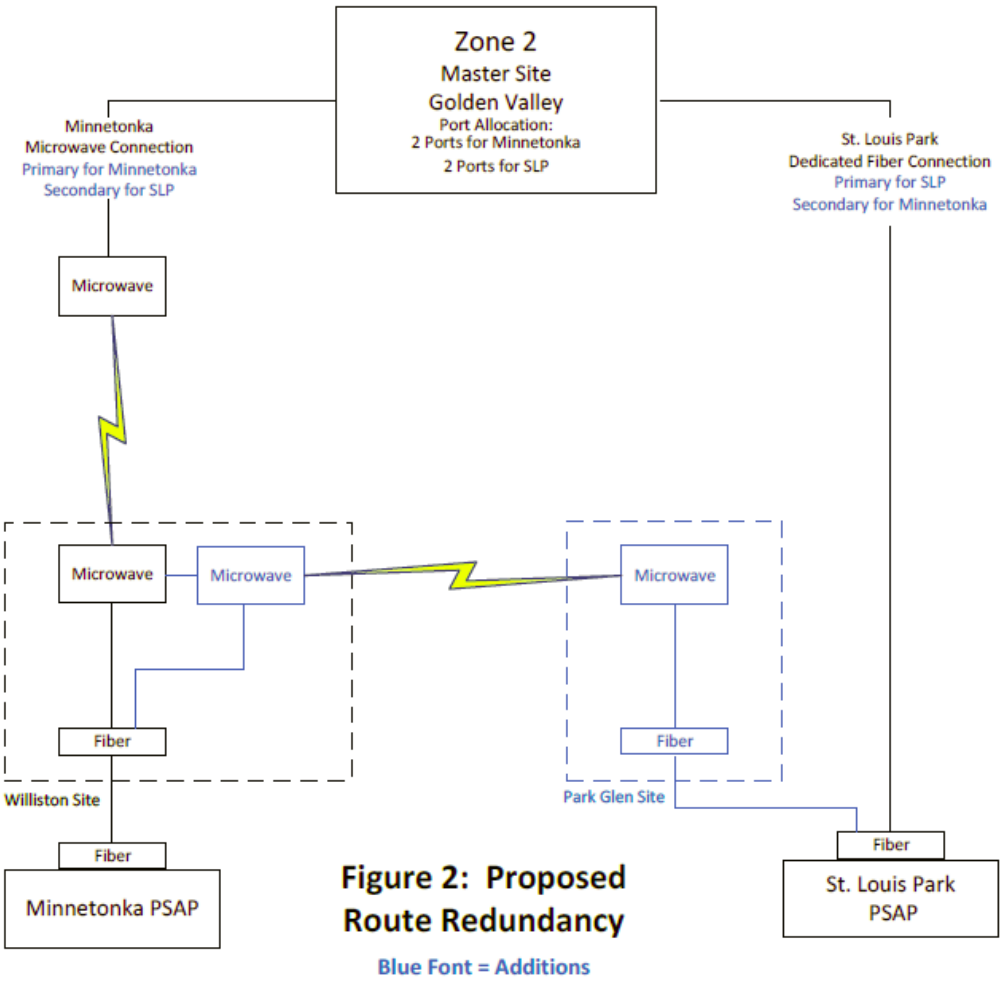
Minnetonka's PSAP Location & Resources

Minnetonka's PSAP is located in the Police Department located at 4600 Minnetonka Blvd., Minnetonka, MN 55345. The PSAP is currently equipped with existing Motorola Gold Elite consoles which are connected through a local Central Electronic Bank with LORI/LOMI recording. This plan includes the replacement of the existing consoles with MCC 7500 workstations. Two (2) DS1 ports are requested to connect the center to the Zone 2 controller.

Minnetonka PSAP Connectivity

Minnetonka operates private fiber which connects it to the Williston Water tank where the connection transitions onto a City owned 11 gHz microwave link to the Sheriff's Naper Street facility in Golden Valley. Failure of this link interrupts primary console capabilities for Minnetonka and causes local control stations to be used. In a parallel improvement project, St. Louis Park and Minnetonka agreed to share their ARMER connection methods to enhance each other's reliability. (See prior plan dated September, 2014) The net port count for primary PSAP ARMER console connectivity does not change under this request. A graphic showing the diverse console connectivity approved in the 4th quarter, 2014 is shown in Figure 1.

Figure 1 – T1 Connectivity



PSAP Logging

Audio logging at the Minnetonka PSAP is currently accomplished via local LORI/LOMI presentation from the Gold Elite CEB with some talk groups logged via Minnetonka local control stations. Approval of this plan will eliminate the LORI/LOMI logging and all PSAP radio logging will be accomplished over-the-air or using logging ports on the CCGW for conventional stations where necessary and control stations for ARMER talk groups. No archiving information server (AIS) is being acquired or implemented.

PSAP Backup & Redundancy

Local control stations are already installed at the Minnetonka PSAP and will be interfaced to the new MCC 7500 CCGW. These backup control stations will permit access to the ARMER system in the event that the dual DS1 links to the Zone 2 controller are lost. Each of the MCC 7500 console positions will have access to the backup control stations.

Minnetonka also maintains a backup PSAP arrangement with St. Louis Park. Certain Minnetonka dispatch resources will appear on the St. Louis Park consoles in the event that staff need to abandon the PSAP in Minnetonka.

Subscriber Radio Fleet/Radio ID's

Currently Minnetonka is authorized 270 console IDs due to the inefficiencies of the Gold Elite architecture. Upon conversion to the MCC 7500s only five (5) console IDs will be required resulting in the turn back of 265 IDs from the amount allocated to Minnetonka.

Interoperability

Primary interoperability will be achieved via shared use of the common 800 MHz digital trunked infrastructure. Minnetonka intends to preserve its VHF paging, backup control stations, conventional public works, and backup radio capability.

Fleet Map

Minnetonka will incorporate statewide, regional and neighboring talk groups in console and subscriber radios consistent with requirements established for use of the ARMER system.

Schedule

Minnetonka seeks to migrate to the MCC 7500 consoles in the third quarter of 2015 with decommissioning of the existing Central Electronics Bank upon completion of the transition. The City has been working steadily toward that goal for several months.

Training

The Minnetonka staff received initial ARMER training when they went live on the system. The Supervisor and staff strive to remain current on ARMER policies and practices through policy review and informal training.

System Maintenance

Minnetonka intends to coordinate the maintenance and support of the console equipment, link equipment, VHF equipment, and other specialty systems through suitable agreement(s) with a qualified service provider(s).

System Administration

Minnetonka does not operate a network management client but instead relies upon Hennepin County for this service.

SUMMARY

Minnetonka looks forward to approval of this plan with expected preliminary migration to the MCC 7500 consoles in the forthcoming months of 2015.