



Regional Wireless Cooperative

Board of Directors

Agenda

March 24, 2011

	ITEM	PRESENTER
1)	Call to Order and Roll Call	Chair Meyer – Tempe
2)	Approval of Meeting Minutes from January 27, 2011 This item is for information, discussion and action.	Chair Meyer – Tempe Est. 2 min.
3)	Glendale Membership The purpose of this item is to review and request Board approval of Glendale’s request to become an RWC Member. This item is for information, discussion and action.	Mr. David Felix – RWC / Chief Conrad – Glendale Est. 10 min.
4)	Interoperability Participant Policy The purpose of this item is to request approval of the Interoperability Participant Policy. This item is for information, discussion and action.	Mr. David Felix – RWC Executive Director Est. 5 min.
5)	TRWC Talkgroup Usage and Joint Executive Committee Meeting Update The purpose of this item is to provide a status of the TRWC’s talkgroup usage on the RWC system and an update regarding the joint Executive Committee meeting. This item is for information, discussion and possible action.	Mr. David Felix – RWC Executive Director / Mr. Bill Phillips – Phoenix Est. 15 min.
6)	RWC Auditor Selection Update The purpose of this item is to provide an update on the selection of the auditor for the 2011 RWC Financial Statement Audit. This item is for information, discussion and possible action.	Mr. David Felix – RWC Executive Director / Mr. Tahir Alhassan – RWC Est. 10 min.
7)	Associate Billing Update The purpose of this item is to present the legal opinion on billing ambulance companies as Associates. This item is for information and discussion.	Mr. David Felix – RWC Executive Director Est. 10 min.
8)	RWC Lifecycle Planning and FCC Mandates Briefing for 800 MHz Re-Banding and 700 MHz Narrow-Banding The purpose of this item is to update the Board on RWC Lifecycle planning and potential impacts related to FCC mandates for 800MHz re-banding and 700MHz narrow-banding. This item is for information and discussion.	Mr. David Felix – RWC Executive Director / Mr. Bill Phillips – Phoenix Est. 20 min.

9)	Call to the Public This item is for information only.	Chair Meyer – Tempe Est. 1-5 min.
10)	Next Meeting: May 26, 2011; 10:00 – 11:30 a.m. This item is for information only.	Chair Meyer – Tempe
11)	Adjourn	Chair Meyer - Tempe



**Board of Directors
MINUTES
January 27, 2011**

Phoenix City Council Chambers
200 West Jefferson Street
Phoenix, Arizona 85003

Board Members Present

Mark Brown	Mike Frazier	David Neuman*
Carol Campbell*	Jim Haner	Shannon Tolle*
Wayne Clement	Jim Heger	Paul Wilson
Bob Costello	John Imig*	Ed Zuercher
Chad Dragos	Patrick Melvin	
David Fitzhugh	Charlie Meyer	

Board Members Absent

Brad Hartig
Mark Schott
Susan Thorpe
Marc Walker

*Board Alternate

Staff Present

Tahir Alhassan	David Felix	Jennifer Hagen	Bill Phillips
Dave Clarke	Celicia Fiedler	Rick Kolker	
Jesse Cooper	John Gardner	Steve Kreis	

Public Present

Brenda Buren	Joe Gibson	Cy Otsuka	Michael Todd
Jim Case	Loretta Hadlock	Vicky Scott	Tim Ulery
Dave Collett	Dave Heck	Dale Shaw	Mirta Vazquez
Dan Couch	Mark Mann	Nick Spino	
Bill Fleming	Chris Nadeau	Janne Stringer	

1. Call to Order

Chair Meyer called the meeting to order at 10:02 a.m. and announced the following new member and alternate representatives:

- Board Member Mr. Clement replacing Mr. Medina – Town of Guadalupe
- Board Alternate Mr. Neuman for Mr. Walker – City of Chandler
- Board Alternate Mr. Imig for Vice-Chair Thorpe – City of Peoria
- Board Alternate Mr. Tolle for Mr. Hartig – City of Scottsdale
- Board Alternate Ms. Campbell for Mr. Schott – City of Surprise

2. Approval of the Meeting Minutes from December 16, 2010

Chair Meyer asked if the Board had any changes to the minutes; Mr. Felix responded that there were two amendments to the minutes:

- a) Board Member Mr. Fitzhugh should be listed as present
- b) Item 4, paragraph 2 “City of Surprise” should read “City of Phoenix”

A **MOTION** was made by Mr. Zuercher and **SECONDED** by Mr. Brown to accept the amendments and approve the minutes. **MOTION CARRIED UNANIMOUSLY.**

3. TRWC Talkgroup Usage and Joint Executive Committee Meeting Update

Mr. Felix introduced Mr. Phillips to present an update on the TRWC talkgroup usage of the RWC system. Mr. Phillips stated that he would provide an overview of the total system usage for July through December (2010), and that the Board package contained detailed usage information by talkgroup and subsystem. He explained that December depicted a significant drop in the number of calls, possibly due to it being a holiday month. He further identified November as an anomaly with very high usage. He explained that the duration of calls ranged between 10 and 20 hours per month; however, the most important statistic was the percent of channel use during the busiest hour, which was still very significant at almost 1/2 channel of usage.

Mr. Felix added that the 40 radios the RWC Board authorized the TRWC to use were removed from the Interoperability talkgroups and assigned to specific talkgroups, Investigation 1 and 2. He clarified that the 40 radios were for the TRWC’s operational use in the Valley, for units assigned to the Mesa Police Department (PD) that worked independent of any joint taskforce, multi-agency event, or surveillance. He added that the usage reflects the change in talkgroups.

Mr. Felix explained that he instructed Mr. Alhassan to begin charging the TRWC for Operations and Maintenance (O&M) on the radios on a quarterly basis as of the last quarter of calendar year 2010 until June 2011. He added that the TRWC had accepted the arrangement, and that the RWC and TRWC would be looking into another solution to the TRWC’s operational need.

Mr. Felix conveyed that one of the items resulting from a (October 2010) meeting between the RWC and TRWC Chairs, Vice-Chairs, and Executive Directors was for the Executive Directors to meet regularly and to facilitate a joint meeting with the two Executive Committees. Mr. Felix explained that the joint meeting was held on January 24, 2011, and he commended Judi Mueller, from the City of Phoenix Human Resources Department, who facilitated the meeting. Mr. Felix stated that in addition to the attendance of the two Executive Committees, there

was technical representation from the RWC and TRWC, as well as operational representatives from Mesa PD.

Mr. Felix identified a number of areas that were covered during the meeting such as the two groups getting organized, answering the questions of why the groups were meeting, why it was important to meet, and what the consequences would be if they did not meet. He stated that the two groups would begin looking at long term plans, how to keep the two systems compatible, and how to interoperate and operate on the two systems. Mr. Felix also stated that the focus question for the meeting was “How do we connect the two systems to provide long term equitable operational use of the two systems for the benefit of all members?”

Mr. Felix explained that during a discussion about the operational need of Mesa’s detectives, it was realized that some of their activities were truly multi-agency; thus, they could use the interoperability talkgroups during those events. He stated that the group discussed the difference between interoperability and operability, although more work needs to be done so the groups are clear on the definitions.

Mr. Felix stated that the two groups initially plan to meet approximately every two weeks so they can continue working to resolve the issues by the June timeframe. He added that progress briefings would be provided to the Board. He further stated that overall the two groups had very positive comments and there was no negative associated with the meeting.

Chair Meyer thanked the RWC and TRWC Executive Directors for putting together the meeting. In response to a question by Chair Meyer, Mr. Felix replied that the IGA provided for interoperability between the two systems for multi-agency events in which interoperable talkgroups could be used without charge. He explained that the talkgroups were already programmed into the radios. He added that the IGA did not define specific rules for engaging the interoperability talkgroups and that the RWC still needed to define specific interoperability rules.

Mr. Felix added that the (40) radios discussed were for single agency operational use and that the TRWC would be charged O&M during this interim period of time, as was agreed to and approved by the Board last year.

No action was taken on this item.

4. Special Assessments

Mr. Felix explained that the IGA, Exhibit A 4.2.2 described events that may warrant a special assessment and one such situation was to pay the cost of special projects, system changes, and/or expansions not previous included in the budget. He stated that in this case, the special assessment would be specific to

cities or towns for work that Phoenix ITS would be doing to bring those entities onto the network.

Mr. Felix indicated that (prior to this meeting) he was asked if other Members would be assessed a portion of these costs and he replied that they would not. He stated that the costs would go specifically to Buckeye, Chandler, Goodyear, and Scottsdale. He added that each entity had ongoing projects that Phoenix ITS needed to complete and that the cost to each entity may be slightly adjusted. He noted that the Executive Committee recommended approval of the special assessments as outlined, contingent upon mutual agreement by those Members, which already occurred.

Mr. Heger questioned whether special assessments were specific to entities coming onto the system. Mr. Felix replied that other Members would not be assessed.

Mr. Zuercher asked if each of the four entities agreed that the amounts were fair and reasonable. Mr. Felix replied that the amounts were pre-negotiated with each of the entities.

A **MOTION** was made by Mr. Wilson and **SECONDED** by Mr. Heger to approve the special assessments. **MOTION CARRIED UNANIMOUSLY.**

5. **RWC Financial Statement Audit Update**

Mr. Melvin joined the meeting at the beginning of this item.

Mr. Felix explained that the RWC Governance, Exhibit A 4.4 outlined that an audit of the RWC financial records would be conducted annually and that the Board would determine the scope of the audit. Mr. Felix introduced Mr. Alhassan to explain the scope of work.

Mr. Alhassan stated that the meeting materials contained a draft request for an audit, and the scope of work was included. He explained that the City of Phoenix, being the Administrative Managing Member, had a Qualified Vendor List (QVL) of approximately 12 firms and that the intent was to send the request to firms on the QVL. He stated that a selection would be made, followed by the contract and agreement process. He added that the Executive Committee had been briefed and provided input.

In response to a question by Mr. Zuercher, Mr. Alhassan responded that the intent was to retain the firm for one year, although an option to renew for two or more years could be included.

In response to questions by Mr. Wilson, Mr. Alhassan affirmed that the audit would be consistent with GASB rules 34s and 45s and that there would not be a

need to perform a single audit in reference to grant funds because no grant money was received in fiscal year 2011, the fiscal year subject to the audit.

Mr. Alhassan expressed that there were other levels of audits; although he did not recommend them for the RWC audit. He defined the following:

- a) Compilations – the RWC would provide account balances to the auditor and the auditor would compile a financial statement.
- b) Financial Statement Review – the RWC would compile a financial statement and the auditor would conduct a review of the financial statement and provide a review report of the findings.

Mr. Alhassan stated that the recommendation was for the highest level of service which was a complete audit. He explained that at the end of the examination the auditor would provide the RWC with an audit opinion. He noted that, more importantly, the auditor would advise on how to improve internal controls. Mr. Alhassan expressed that since this would be the first year for an audit, he anticipated the auditor would identify areas for improvement.

Chair Meyer asked for a general description of the criteria that would be used to select the firm. Mr. Alhassan responded that because the firms were on the City of Phoenix's QVL and had already went through the Request for Proposal (RFP) process and were evaluated and considered qualified, the RWC would be comparing pricing.

In response to a question by Mr. Fitzhugh, Mr. Alhassan responded that a portion of the approved budget had been identified to pay for the audit. Mr. Felix clarified that the budget exists, although in the event that the amount allocated was not enough to cover the costs, a transfer of funds could occur from RWC staff cost savings to cover the difference.

In response to a question by Chair Meyer, Mr. Alhassan responded that the RWC had the option to reduce the scope, although he did not want to speculate on the price.

In response to a question by Mr. Melvin, Mr. Alhassan responded that the audit price would be known by the end of February or early March.

In response to a question by Mr. Melvin, Mr. Alhassan explained that cost savings came through staffing, since staff started later in the year – August 2010. He added that there was a similar joint venture that the RWC used as a reference to help determine costs.

In response to a question by Mr. Zuercher, Mr. Felix responded that the difference may be a few thousand; however, the amount was not being published at this time to prevent a vendor from having access to it.

Mr. Heger commented that the RWC needed to be careful about limiting the scope. He suggested that rather than limiting the scope, the RWC make the appropriate budget changes next year, if necessary. Mr. Alhassan stated that the RWC would have another opportunity to realign the budget in the fall.

Chair Meyer stated that the audit would be a baseline audit. He added that this would be an audit of a complex cooperative which may be a factor in the price.

Mr. Fitzhugh requested that the next Board report include a brief discussion about whether items were funded or required a transfer from other accounts and how the award was managed.

Mr. Felix explained that the Governance called for approval of the scope of work. He stated that if proposals were received and a recommendation ready, it would be brought to the March 2011 Board meeting for approval.

Chair Meyer stated that the Administrative Managing Member decides on the firm; however, the Board sets the scope. He added that the financial impact of the audit could be included as an agenda item.

In response to a question by Mr. Zuercher, Mr. Felix confirmed that the contract would be between the City of Phoenix and the firm.

A **MOTION** was made by Mr. Heger and **SECONDED** by Mr. Melvin to approve the audit scope of work. **MOTION CARRIED UNANIMOUSLY.**

6. **Associate Member Billing**

Mr. Felix reported on this item. He explained that at the last Board meeting a question was raised regarding direct billing to Associate Members, specifically Southwest Ambulance and Professional Medical Transport, for O&M charges for radios they would use on the network. He reminded that the question was whether direct billing to a for-profit entity would compromise the tax-exempt status of the RWC. He updated that the item currently awaits a formal opinion from bond counsel.

No action was taken, as this item was for information and discussion.

7. **Chandler Mall Communications**

Chair Meyer stated that the Chandler Mall incident was a fairly significant event involving multiple agencies and speaks to the purpose of interoperable communications.

Mr. Felix explained that anytime a significant event occurs, a briefing will take place to determine what went well and what went wrong. He stated that a

meeting was facilitated with the Chandler Police Department's operations and communications staff, Mesa Police Department, Tempe Police Department, Department of Public Safety (DPS), and US Marshals. He relayed that at the briefing, the group discussed the communication systems and sequence of events that occurred. Mr. Felix explained that Tempe, as an RWC Member, had an updated system, Mesa (TRWC) had interoperability talkgroups, DPS had UHF, US Marshals had either 800 MHz radios or VHF, and Chandler had 800 MHz conventional. He added that because there were disparate radios on scene, a decision was made to activate a Department of Justice patch for Mesa and Chandler, which DPS and the US Marshals were added to later. He stated that as more agencies were patched together, they experienced more degrades of service. He added that the degrades of service worked to the lowest common denominator; therefore, whoever had the lowest quality of radio, had the lowest degraded service, resulting in delays and inaudible communication. He also stated that the event did not have a communications leader to address the situation.

Mr. Felix explained that an individual from DPS's telecommunications had commented that the situation sounded like a failure of NIMS (National Incident Management System), which is a structure that takes place to manage these types of events to include a communications component.

Mr. Felix expressed that the result of the debriefing was that everyone had a clear understanding of how the event rolled out and recognized the need to have communications leaders that are specially trained to set up communications. He added that discussions also occurred in which an agency may opt out of a patch and stay on its own system on the perimeter.

Mr. Felix added that as a follow-up, the Mesa Police Department had prepared a debriefing paper which would be shared with the RWC Members. He added that the RWC Working Group was going to review the incident from a technical and policy standpoint so, in the future, guidance could be provided in the form of field guides or training to communication centers.

In response to a question by Mr. Melvin, Mr. Felix replied that Mesa's report was technical, but would be shared. Mr. Melvin stated that his reason for asking was that it would be beneficial for ones that did not participate in the incident to have a summary of what happened so that they can avoid any pitfalls that were experienced. Mr. Felix stated that the RWC would provide a summary report that would be supplemental to the report Mesa had prepared.

In response to a question by Chair Meyer regarding the characteristics of the degradation of communications, Mr. Felix replied that either only a portion goes through or goes through delayed, poor audio quality, or the system is busy and the user gets a bonk but thinks the transmission goes through. He added that the degradation occurs because the systems are working off different standards and protocols.

In response to a question by Chair Meyer, Mr. Felix confirmed that if an agency knows the characteristics of its system and radios, it may be able to anticipate where it would fall in terms of service ability or communications during a multi-agency event. He added that not knowing who else was tied into a patch can also pull down audio quality for all users.

In response to a question by Mr. Frazier, Mr. Felix responded that all users were affected and experienced a different type of effect depending on what system they were on. He added that the patch was overextended.

In response to a question by Chair Meyer, Mr. Felix stated that the Operations Working Group would perform a review of the incident from a policy and procedure standpoint. He stated that some areas would self correct, such as Chandler would soon have the interoperability talkgroups. He added that the education piece was that there would be better management on the operational and communications side of using a patch. He noted that because the State and other agencies like US Marshals would not be interoperable at a standard based level in the future, some type of patch or gateway would inevitably need to be used.

No action taken, as this item was for information and discussion.

8. Motorola Scorecard Update

Mr. Felix introduced Mr. Fleming of Motorola. Mr. Fleming stated that as of January 1, 2011, he was now representing the entire RWC. Mr. Fleming introduced Mirta Vazquez, field quality director, who delivered the Scorecard presentation.

Ms. Vazquez explained that the scorecard initiative, which began at the end of 2004, was a joint process between Motorola and its top customers. She stated that scorecard customers were large entities with plans and strategies in place and had an idea of how Motorola could assist them. She added that, at present, there were 27 scorecard customers worldwide and 11 in the United States which included 5 public safety entities.

Ms. Vazquez explained that the scorecard initiative was a way for Motorola to improve its performance by validating a customer's key requirements through measurable objectives. Ms. Vazquez stated that quarterly meetings were held with Motorola's local team, select executives, and RWC Members. She stated that the process was a win-win for the RWC and Motorola. She summarized the benefits to the customer and Motorola. Ms. Vazquez explained the continuous improvement model in which performance data was collected, the customer evaluated the performance, and then Motorola used the feedback to make improvements and provide updates on issues and progress.

Ms. Vazquez stated that the 2011 Scorecard for the RWC had 13 metric/performance items. She expressed that many of the deliverables were very strategic and would also help other customers of the same size. She shared examples of successes of the RWC Scorecard, one of which was the Technology Roadmap. She explained that the RWC was the first to request a five-year rolling plan and now every customer's scorecard had this process. She explained that customers needed a long term plan for future releases and upgrades.

Mr. Fleming provided an example of a metric item, using the Federal Communications Commission mandate that would be forthcoming in 2017. He stated that next week, Motorola would be delivering a proposal on how the RWC would transition to meet the 2017 deadline. He stated that, in this case, specific goals were set with a pass/fail rating. He shared that another metric item was to take a five-year view and visit every Member annually to review the RWC roadmap and focus on Member-specific requirements to align with the roadmap.

Mr. Felix explained that the Scorecard was used to hold Motorola accountable, hold down costs, and get the most out of the money spent. He stated that the Scorecard was vetted by the Operations Working Group and Executive Committee. He added that meetings with Motorola were very productive and the process was not simply an exercise.

No action taken, as this item was for information and discussion.

9. RWC Strategic Plan

Mr. Felix presented this item. He stated that the purpose of the information was to inform the Board and address areas in which staff was fulfilling the needs of the Board and the RWC.

Mr. Felix explained that the RWC staff attended a full-day retreat. He expressed that as a new team it was important to identify roles and responsibilities and examine ways to ensure that the Board and RWC were supported. He stated that identifying areas of responsibility allowed for staff to be held accountable for accomplishing individual responsibilities. He also stated that staff identified areas to set focus upon and outlined those on a spreadsheet.

Mr. Felix shared that some of the other objectives of the retreat included identifying customers and stakeholders, establishing values, and performing a Strengths, Weaknesses, Obstacles, and Threats analysis. He also summarized the goals in each of the strategic areas contained on the spreadsheet: Staff, Funding, Administration, Relationships, and Information/ Communication.

No action taken, as this item was for information and discussion.

10. RWC Website Demonstration

Mr. Clarke presented the RWC website and its features. He explained that the site was scheduled to go live on January 31, 2011, and that the domain name was RWCAZ.org. He further stated that he developed the site at no cost and arranged no cost hosting through the City of Phoenix servers. He stated that the site was designed to be an on-line information brochure. Mr. Clarke expressed that if Board Members desired not to have certain contact information displayed they could notify him of any edits and he would make the requested changes.

Mr. Imig inquired about a secure portion for Members only. Mr. Clarke replied that he was looking into that feature so that sensitive information would not be available to the public. Mr. Imig stated that some resources would be good for Members, although site maps and system design should not be publicly accessible. Mr. Felix stated that having a secure site was discussed early on. He added that the RWC would be obtaining updated web tools to help build the site and bring it to life. Mr. Clarke stated that he intended to develop additional visual elements.

Mr. Zuercher stated that there was nothing that indicated where the RWC was located and inquired whether there was some way to identify its geographical location. Mr. Clarke thanked Mr. Zuercher for his suggestion and stated he could envision a scrolling text listing the Members.

No action taken, as this item was for information and discussion.

11. Call to the Public

None.

12. Next Meeting: March 24, 2011; 10:00 – 11:30 a.m.

Chair Meyer announced the date of the next meeting.

13. Adjournment

Chair Meyer adjourned the meeting at 11:24 a.m.



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: March 24, 2011

FROM: David Felix, RWC Executive Director Item 3
Steven Conrad, Glendale Police Chief

SUBJECT: **GLENDALE MEMBERSHIP**

BACKGROUND

The City of Glendale submitted a letter in October 2010 requesting that the RWC provide cost information for Glendale's migration to the RWC network. Cost information was provided to Glendale, in addition to a migration proposal from Motorola.

Additionally, at the October 28, 2010 RWC Board meeting, the Board of Directors approved Glendale Fire's request to transition onto the RWC network on a temporary basis with the understanding that Glendale was moving forward with formal membership.

THE ISSUE

On February 22, 2011, the Glendale City Council approved the City of Glendale entering into the Regional Wireless Cooperative Amended and Restated Intergovernmental Agreement (IGA) on behalf of the Glendale Fire and Police Departments. Subsequently, RWC staff has received the City of Glendale's signed IGA.

RECOMMENDATION

The RWC Executive Committee recommends approval of the City of Glendale's request to become an RWC Member.

Attachments: City of Glendale's October 2010 cost request letter
City of Glendale's signed IGA

October 28, 2010

Mr. David Felix
Executive Director
Regional Wireless Cooperative
149 North 4th Avenue
Phoenix, AZ 85003

Dear Director Felix:

In an effort to enhance interoperability both locally and regionally, Glendale is interested in furthering the discussions with the Regional Wireless Cooperative (“RWC”) in regards to migrating to that system. We are requesting the RWC provide us with cost information for the migration to the system and for our ongoing costs. This information will allow us to determine the potential for and timing of the migration.

Glendale Police Chief Steve Conrad and Fire Chief Mark Burdick’s staff is available to assist you with radio counts and any other information that you may need to properly determine the impact to the RWC system and to develop the corresponding budgetary information. Thank you in advance.

Sincerely,



Ed Beasley
City Manager

EB/jrm

CC: Steve Conrad, Police Chief
Mark Burdick, Fire Chief

AMENDED AND RESTATED INTERGOVERNMENTAL AGREEMENT TO
PLAN, DESIGN, CONSTRUCT, OPERATE, MAINTAIN AND FINANCE
THE REGIONAL WIRELESS COOPERATIVE NETWORK

124822- GLE
Intergovernmental Agreement
Amended and Restated

26. Counterparts. This Agreement, which includes Exhibit A, "Regional Wireless Cooperative Governance Document," may be signed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in multiple counterparts by their duly authorized officers.

For City of Glendale
City/Town/Agency Name

Date 2-23-11

By Horatio Skeete
(Signature)

Horatio Skeete, Asst. City Manager
Printed Name and Title

ATTEST:

Pamela Hanna
(Signature)

PAMELA HANNA, CITY CLERK
Printed Name and Title

APPROVED AS TO FORM and within the powers and authority granted under the laws of Arizona.

Craig Tindall
(Signature)

Craig Tindall, City Attorney
Printed Name and Title

<p style="text-align: center;">REGIONAL WIRELESS COOPERATIVE POLICIES AND PROCEDURES</p>	
<p>Subject: RWC Interoperability Participant Policy</p>	<p>No. Effective Date 3/15/11</p>

1.0 Purpose

- 1.1. Defines a policy to form a relationship between the Regional Wireless Cooperative (RWC) and other Interoperability Participant in order to facilitate interoperability.

2.0 Owner

- 2.1. RWC Operations Working Group (OWG)

3.0 Applies To

- 3.1. Entities that are requesting to become an Interoperability Participant for use of the capabilities within the RWC, as well as current Interoperability Participant.

4.0 Background

- 4.1. The network has evolved and the number of interoperability requests has increased, RWC Members may need to communicate with Interoperability Participants.

5.0 Policy Statement

- 5.1. The RWC Governance and IGA provide a definition of Interoperability Participant. This policy outlines the application process and participant responsibilities.

6.0 Supporting Rules

- 6.1. An entity may become an Interoperability Participant to support existing Members with intermittent interoperable situations.
- 6.2. Interoperability Participants do not have RWC voting rights
- 6.3. Interoperability Participants do not have a representative on the OWG.
- 6.4. Interoperability Participants do not have representation on the Board of Directors.
- 6.5. Categories of membership are specifically defined in Exhibit A of the RWC IGA, Section 3.1.2.

7.0 Responsibilities

- 7.1. Requests to become an Interoperability Participant must be submitted to the RWC Executive Director on Agency letterhead.

7.2. Submissions must include

- 7.2.1. Agency name and single point of contact
- 7.2.2. Supporting letter(s) from interoperating RWC Member(s)
- 7.2.3. RWC Subscriber Inventory form.
- 7.2.4. Length of access to talk groups (i.e.: short term, no end date)
- 7.2.5. The authorized service provider or entity that will program the subscribers
- 7.2.6. Specific talk groups to program into subscribers, including encryption
- 7.2.7. Purpose of request
- 7.2.8. Signature of authorized agency representative
- 7.2.9. Signed form acknowledging requirements to follow identified RWC Policies and Procedures

7.3. The Executive Director will provide the OWG a written summary of the application packet to include:

- 7.3.1. Requesting Interoperating Participant
- 7.3.2. Interoperating RWC Member(s)
- 7.3.3. Talk group plan
- 7.3.4. Purpose of request
- 7.3.5. Number of subscribers/users

7.4. Potential RWC Interoperability Participants must be aware of the following:

- 7.4.1. RWC costs incurred beyond standard interoperability offerings will be the responsibility of the Interoperability Participant.
- 7.4.2. The talk group plan will be approved by the OWG.
- 7.4.3. The control and programming of the programming materials into subscriber radios must be approved by the OWG.

7.5. The Operations Working Group will approve, deny or request additional information.

7.6. The Executive Director will contact the Interoperability Participant regarding approval status and provide them with the approved talk groups and/or interoperability decks.

7.7. The Executive Director will follow up with all Interoperability Participants to obtain an updated subscriber inventory list annually.

- 7.7.1. The Executive Director will provide annual reports to the OWG containing Interoperability Participant total subscriber counts and RWC talk group information.

8.0 Conditions for Exemption or Waiver

- 8.1. As approved by the OWG

9.0 Applicable Documents:

- 9.1.



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: March 24, 2011

FROM: Tahir Alhassan, RWC Accountant III Item 6

SUBJECT: **RWC AUDITOR SELECTION UPDATE**

BACKGROUND

The RWC Intergovernmental Agreement, Exhibit A, Section 4.4 outlines that, “an audit of RWC financial records will be conducted annually.” The RWC Board of Directors approved the scope of work for the audit at the January 27, 2011 RWC Board meeting.

THE ISSUE

The RWC staff sent the audit solicitation to nine (9) firms listed on the City of Phoenix Audit Department’s Qualified Vendor List and/or under existing contract. The RWC obtained the following response: three (3) proposals were received, three (3) firms declined, and three (3) firms were unresponsive. The summary below outlines each responding firm’s estimated hours and fees:

Firms	Hours	Fees
Eide Bailly, LLP	200	\$26,900
Clifton Gunderson, LLP	168	\$18,500
Henry and Horne, LLP	121	\$17,930

Although Henry and Horne, LLP proposed the lowest audit fee, a review of each submitted proposal revealed that Clifton Gunderson, LLP had extensive experience auditing joint ventures, proposed audit hours in line with other audits, and a familiarity with the SAP accounting system; therefore, Clifton Gunderson, LLP was selected as the auditor for the RWC financial statements.

The audit timeline would be as follows: July - kickoff meeting and preliminary work; October - field work and financial statement review; November - final review and audit opinion.

FUNDING

The RWC approved budget for fiscal year 2011/2012 allocated \$15,000 for audit expenses. To account for the audit fee shortfall of \$3,500, the budget will be realigned during the budget process in the fall.

RECOMMENDATION

The RWC Executive Committee has been briefed and concurs with the selection of Clifton Gunderson, LLP as the auditor for the RWC financial statements.



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: March 24, 2011

FROM: David Felix, RWC Executive Director Item 7

SUBJECT: **ASSOCIATE BILLING UPDATE**

BACKGROUND

The RWC Intergovernmental Agreement, Exhibit A, Section 3.1.2 outlines, within the RWC structure, a category identified as Associates. Associates must be under contract to provide public safety services to a Member; and unless directed otherwise, fees or costs and weighted votes connected with an Associate's use of the Network shall be assessed to the Member supported by the Associate.

THE ISSUE

At the December 16, 2010 RWC Board meeting, an operational procedure of direct billing to Associates was discussed. However, prior to implementation of this procedure, the Board had requested that staff obtain a legal opinion on whether direct billing to an Associate would adversely affect the RWC's use of tax exempt bonds.

The following summarizes the legal opinion with regards to billing a for-profit entity and in this case, ambulance companies:

- An ambulance company may not use nor purchase, from the City, radios that were originally obtained by the City through bond money.
- An ambulance company may be charged Operations & Maintenance (O&M) only.
- O&M charges may not be applied towards upgrades to the RWC network.
- The O&M should be calculated based upon an ambulance company's proportionate Operations & Maintenance cost of the RWC network.
- The RWC may direct bill an ambulance company for O&M, or an RWC Member may bill an ambulance company for O&M; an off-line meeting with Fire partners will determine the preferred method of billing; however, Law recommends being as consistent as possible with the type of billing method and that the RWC do the billing.
- Referring to an ambulance company as an "Associate Member" is not consistent with the governance and should be replaced with the term "Associate".

RECOMMENDATION

This report is provided for information and discussion.



BOARD OF DIRECTORS REPORT

TO: Regional Wireless Cooperative (RWC) Board Members Agenda Date: March 24, 2011

FROM: RWC Executive Committee Item 8

SUBJECT: **RWC LIFECYCLE UPGRADES, 800 MHZ RE-BANDING AND 700 MHZ NARROW-BANDING**

BACKGROUND

With any system, especially one as large as the RWC network, there are many upgrades and product changes that occur as part of the life of the system. As required by the RWC IGA, a five year plan is being maintained to prepare for such changes; this plan includes lifecycle upgrades, system changes, and product improvements and obsolescence. There are also two Federal mandates, 800 MHz Re-Banding and 700 MHz Narrow-Banding, which also affect how the system will change over the next several years. The purpose of this report is to inform the Board of these items and several significant changes related to same, show how they interact with each other, and begin discussion on how the RWC will proceed to address these changes.

THE ISSUE

Two Federal mandates are looming on the horizon: one is to re-band all 800 MHz frequencies; the second is that all 700 MHz frequencies are to be narrow-banded by January 2017.

800 MHz Re-Banding has been mandated by the FCC to reduce interference between public safety and cellular carriers in the 800 MHz frequency band. The cellular carriers' frequencies are moving out of the low 800 MHz band and public safety frequencies are being moved down into this area, contiguous with the 700 MHz frequencies. Since Sprint/Nextel is the largest carrier with frequencies in the affected band, this entire effort, nationwide, is being funded by Sprint/Nextel, in exchange for frequencies in other bands, away from public safety.

The RWC system falls into to Wave 4 of the re-banding effort; this is the last Wave, and was so timed because of the close proximity to the Mexican Border, and what the RWC does with the 800 MHz band affects Mexico. Although deadlines have changed considerably and there is no identifiable deadline to complete this effort, 800 MHz Re-Banding is imminent, pending the resolution of a treaty between the US and Mexico. Once the treaty is completed and signed, the RWC will likely face an accelerated schedule to complete the re-banding.

700 MHz Narrow-Banding is a requirement to change the current 12.5 KHz bandwidth of the 700 MHz channels to 6.25 KHz, effectively doubling the number of channels available. At this time, the January 2017 deadline is firm, but there is much discussion and requests to delay this implementation. Some discussion even argues that there are enough 700 MHz channels available and that the narrow-banding is not necessary at all. However, until a specific decision is made, the RWC must plan to meet the current deadline. In fact, the RWC has been working along these lines by installing equipment capable of being narrow-banded for areas using 700 MHz frequencies; all that is required is the proper software update.

In order to meet the narrow-banding requirement, the RWC's 700 MHz equipment must use a different communication protocol called Time Division Multiple Access (**TDMA**), which allows the equipment to broadcast two voice conversations on a single 700 MHz channel. This is called narrow-banding equivalence since the channel is not literally narrow-banded, but it carries two conversations as if it had been cut in half, and two channels were used to carry the same two conversations.

Currently, the RWC is using the Frequency Division Multiple Access (**FDMA**) protocol. Both protocols may be used on the same system, and even on the same subsystem within the system. However, we recently learned that both protocols may NOT be used on the same talkgroup at the same time. This limits the seamless roaming ability, consequently, significantly curtailing one of the main reasons that the RWC exists. Thus, in order to comply with the Federal mandate, the RWC must convert the 700 MHz parts of the system to TDMA, and in order to maintain seamless roaming, the entire network must be converted to TDMA.

The RWC is currently planning for system upgrades to version 7.11, in January of 2013, and to version 7.15 in January of 2015. These upgrades have been included in the five year plan and budget recently submitted to the Board. In addition to these upgrades, Motorola has briefed the RWC on the product roadmap for the next five years. The roadmap includes several key product changes where support for certain products will be ending necessitating upgrades and/or changes in these products. The critical product changes that must be considered are those affecting base stations, consoles, and subscribers.

Product support for STR 3000 series base stations ends in 2014; and therefore, these base stations must be replaced with the newer GTR 8000 series. Similarly, Gold Elite consoles will not work once we upgrade to past version 7.15, and Gold Elite product support ends in 2018. Consequently, the RWC must plan to replace the Gold Elite consoles with the MCC 7500 consoles.

Another item which requires upgrading is the General Purpose Input Output Module (GPIOM) for the MCC 7500 consoles. This item must be upgraded to the Voice Processing Module (VPM) before the system is upgraded to version 7.15 in 2015. All of the above are also required to support the TDMA conversion discussed above. Finally, subscriber radios are normally on a regular replacement cycle. Typical cycles have

been to replace portables every five years and mobiles every seven years. The current financial situation, which all RWC Members face, has forced most to use replacement cycles of seven years for portables and ten years for mobiles, or perhaps longer. However, since system acceptance in 2004/2005, the RWC is now rapidly approaching the time to replace these radios.

As with the base stations and consoles, the subscribers also need to be replaced to support the TDMA protocol. Some users who have purchased more recent models may be well poised for the TDMA conversion, requiring only software upgrades to the radios, or they have received upgrade guarantees for the radios they purchased.

The following chart shows the relationship between the Federal mandates and the lifecycle items. Note that as discussed, no real deadline can be attached to the 800 MHZ Re-Banding, hence it is not shown.

RWC Lifecycle and FCC Mandates

	2011	2012	2013	2014	2015	2016	2017
FCC Mandates	Fixed →					700 MHz Narrow-Banding	
Upgrades	Movable →	7.11			7.15		7.19
End Product Support	Fixed →			STR (2014)		Gold Elite (2018)	
Subscribers	Dependent on mandate →	Normal replacement cycle 7 – 10 years				Subscribers TDMA Capable	

The following chart depicts the above in a slightly different manner showing which changes are required as part of the normal lifecycle upgrade, and which are required for the 700 MHz Narrow-Banding; the point to be made is that the upgrades are required, regardless of the FCC mandate.

Conversion or Upgrade	FCC Narrow-Banding Mandate	Normal Lifecycle
STR's to GTR's	Required	Required
MCC 7500 GPIOM to VPM	Required	Required
Gold Elite to MCC 7500	Required	Required
Subscribers	Required to convert to TDMA	Required, but timing more flexible

DISCUSSION

It is apparent that the RWC will need to move forward to address the mandates as well as the lifecycle upgrades. The Operations Work Group and Executive Committee are in the process of reviewing a proposal from Motorola to accomplish the lifecycle upgrades and meet the FCC 700 MHz Narrow-Banding mandate. The cost to upgrade the infrastructure is approximately \$30 M with another \$10 M to provide the final upgrades (software and licensing) to move to the TDMA protocol, which allows us to meet the narrow-banding requirement.

The GPIOM to VPM, Gold Elite to MCC 7500 and subscriber upgrades will need to be addressed by each Member. Motorola will be visiting and working with each Member separately to address those costs. Since the subscriber piece is so expensive, an estimate has been developed based on a price of \$6,500/radio. This price is high and, hopefully, some less expensive options may become available in the future; several manufacturers are already developing and certifying TDMA capable radios.

The following table shows an estimate of how the above costs will be distributed among the Members, based on the radio counts set forth in the latest five year plan. This is only an estimate based on a snapshot in time. Note that although several of the Fire agencies show no cost at this time, that is only because the Fire transition plan is still under development and the final radio counts have not yet been determined.

	Radio Counts	Percent of Total	Estimated Share of Infrastructure Cost	Estimated Share of Subscriber Cost (\$6500/radio)
Avondale	291	1.58%	\$632,368	\$1,891,500
Buckeye	178	0.97%	\$386,809	\$1,157,000
Chandler	620	3.37%	\$1,347,314	\$4,030,000
Daisy Mountain	0	0.00%	\$0	\$0
El Mirage	74	0.40%	\$160,808	\$481,000
Glendale	1,478	8.03%	\$3,211,822	\$9,607,000
Goodyear	310	1.68%	\$673,657	\$2,015,000
Guadalupe	0	0.00%	\$0	\$0
Maricopa	0	0.00%	\$0	\$0
Peoria	977	5.31%	\$2,123,105	\$6,350,500
Phoenix	11,210	60.90%	\$24,360,298	\$72,865,000
Scottsdale	1,547	8.40%	\$3,361,765	\$10,055,500
Sun City FD	26	0.14%	\$56,500	\$169,000
Sun City West FD	0	0.00%	\$0	\$0
Sun Lakes	0	0.00%	\$0	\$0
Surprise	271	1.47%	\$588,906	\$1,761,500
Tempe	1,425	7.74%	\$3,096,648	\$9,262,500
Grand Total	18,407	100.00%	\$40,000,000	\$119,645,500

While the above upgrades must be accomplished with or without the Federal mandate for narrow-banding, if the Federal mandate is delayed, the RWC's costs may be extended over a longer period of time, enabling Members to have more time to identify the required funding, especially for the subscriber replacement. There has been much discussion at the national level about delaying the narrow-banding deadline, or eliminating it altogether. The RWC Executive Director is looking into these options and whether or not the RWC should file appropriate requests with the FCC.

Options are also being explored with respect to upgrading the infrastructure as necessary, but not converting to TDMA. This can extend the subscriber replacement portion of the project, but it adds risk as the RWC waits to see if the FCC mandate is extended or dismissed. Also, this approach could cost more in the long run since all base stations would have to be converted increasing our hardware costs; thus even though the RWC may not have to incur the software costs to convert to TDMA, this could be entirely offset by the increased hardware cost.

Funding options will also need to be explored, such as the use of bonds and grants. The RWC could also look at whether or not to gradually accumulate capital through annual special assessments to spread the cost out evenly; assess costs by “phase” (the Motorola proposal splits the project into four phases), or collect funding as a lump sum from each Member. Finally, the 800 MHz Re-Banding project may be leveraged through a “buyout.” “Buyout” refers to negotiating with Sprint/Nextel to obtain a cash amount to perform the re-banding, but in this case, the funds would be applied to convert the entire system to 700 MHz and avoid the need to re-band 800 MHz altogether.

RECOMMENDATION

This report is for information purposes only. It is anticipated that the RWC Board will need to choose a direction in the near future and begin moving forward on a plan to perform the upgrades and narrow-banding. In that regard, future updates and requests for action will be brought through the Operations Working Group and Executive Committee with recommendations for Board action between now and the end of July.