

**Questions & Answers #6 to
Request for Proposals (RFP)
Statewide Public Safety Wireless Communications System
RFP #060B9800036 (Addenda #9 & #10)
May 12, 2009**

Ladies/Gentlemen:

The Department of Information Technology received the following questions by e-mail for the above referenced RFP (Addenda #9 & #10), and they are answered below for all Offerors:

129. Item #1 of Amendment #9 requires that vendors provide a performance bond for “Tower Installation Work” only.
 - a. Does tower work include the tower steel, foundations, lighting systems and all labor associated with constructing a tower?
Answer: Yes, tower work does include the tower steel, foundations, lighting systems and all labor associated with constructing a tower per RFP Section 3.4.2.1.
 - b. Is the performance bond value to be equal to the value of the tower work included with the Task Order and not the value of the entire Task Order which may include other non-tower related equipment and services?
Answer: The performance bond is for the entire Task Order.
 - c. It is our understanding that Attachment F2 only contains “optional” site development equipment and services. Tower Installation work is also incorporated in Attachment F1 as part of the main bid (Public Safety Design and Upgrade from Public Service Design). Does the State only require performance bonds for the “optional” tower work?
Answer: Although there is tower installation work incorporated in Attachment F1 as part of the delivered system (Public Safety Design and Upgrade from Public Service Design), the State anticipates that all tower work will be performed as part of a Task Order. Therefore, the State will require performance bonds for the “optional” site development work.
 - d. Would the State specify when BAFO pricing is required to be submitted?
Answer: Once the State completes its evaluation of the technical proposals, it will open the financial proposals. Once the financial proposals have been evaluated, BAFOs will be requested from the offerors who have submitted acceptable proposals (RFP Section 5.5.2 #6).
130. Item #14 of Amendment #9 allows the bidding of monopole antennas and low power transceivers. Would the State confirm that vendors must equip and develop monopole sites with shelters, generators, fencing, grading, etc in accordance with the requirements defined in RFP Sections 3.2.10.8.4, 3.4.3 and 3.4.4?
Answer: The requirements for a site will be on a Task Order-by-Task Order basis and may include any or all of the aforementioned items.
131. Item #21 of Amendment #9 specifies that coverage must be based on the use of a $\frac{1}{4}$ wave antenna on the portable. The redesign work needed to comply with this requirement has been started. However, it must be noted that because the $\frac{1}{4}$ wave antenna has poor RF

performance characteristics, the State's RFP change has major impacts on vendor's system design. **Answer:** Please see Addendum #10

a. This change means that significantly more RF sites will be needed to maintain compliance with the State's in-building coverage reliability requirement. Initial coverage analysis indicates that the RF site count will increase by a significant amount.

Answer: Please see Addendum #10

b. In addition to adding more sites, many of the originally proposed RF sites may no longer be needed or suitable based on the overall site list.

Answer: Please see Addendum #10

c. The addition of more RF sites changes vendor's designs for microwave and backhaul systems. More links will be needed as well as new routing plans must be developed.

Answer: Please see Addendum #10

d. New site development quotes must be obtained from third party firms.

Answer: Please see Addendum #10

e. Frequency plans must be revised to accommodate the new and changed RF sites.

Answer: Please see Addendum #10

f. All of these design changes make much of the information in the proposals submitted on November 6, 2008 obsolete. Formal questions from the State based on the original proposal may no longer be relevant.

Answer: Please see Addendum #10

g. Revising the coverage design, updating the proposal, re-publishing coverage maps and re-quoting all equipment and services will a minimum of 90 days if not longer.

Answer: Please see Addendum #10

The need for the State to ensure a level playing field for comparison of coverage from all vendors is clearly understood. Defining a common antenna and portable configuration is key to establishing that playing field. However, defining use of the $\frac{1}{4}$ wave antenna has huge cost and performance impacts on the 700 MHz system design. Since the $\frac{1}{4}$ wave antenna RF efficiency is the worst of all portable antenna options, the State will have to purchase significantly more RF sites and pay a much higher system price. The standard antenna that many vendors ship with their 700/800 MHz radios is the $\frac{1}{2}$ wave flexible whip. The $\frac{1}{2}$ wave flexible whip is only 7 inches long, easily bends and is widely used by many public safety agencies in the State of Maryland.

Answer: Please see Addendum #10

Would the state allow vendors to base their coverage designs on a $\frac{1}{2}$ wave flexible whip antenna in lieu of the $\frac{1}{4}$ wave antenna?

Answer: Please see Addendum #10

If the State ultimately determines that the requirement to use a $\frac{1}{4}$ wave antenna on the portable must remain, it is our intent to submit a separate request asking that vendors be provided 90 days to update their system design to comply with the new requirement.

Answer: Please see Addendum #10

132. Item #22 of Amendment #9 provides additional frequency constraints concerning 700 MHz channels. Please clarify which specific six (6) 12.5 KHz 700 MHz frequencies are available in Cecil County. Do those 6 frequencies include the SHA General Pool Channels assigned to Cecil County?

Answer: Yes. Two (2) channels are the SHA General Pool Channels assigned to Cecil County.

If so, what are the other 4 specific State Use frequencies that are allowed?

Answer: The State will work with the selected Offeror to identify the additional four (4) 12.5 KHz frequencies for Cecil County. The four frequencies identified by the State and the selected Offeror will come from the “state” or “general” pool of 700 MHz channels.

This restriction will impact the frequency re-use plan. Will the State have an agreement with Cecil County to utilize their other General Pool channels as published in the Region 20 Plan?

Answer: The CAPRAD sort that is used in the Region 20 Plan for 700 MHz assigns channels on a geographic basis and not to a political entity such as the government of Cecil County.

133. **Item 1. Section 1.37 Performance Bond** - This change requires the successful Offeror to procure a performance bond for Tower Installation Work in the amount equal to the TO Agreement value. Is there an average Task Order amount that we should use to determine the price for procuring a bond?

Answer: The cost of tower construction will be determined at the time of the Task Order agreement due to the unique variables that exist site-to-site.

134. In addition, this section states that based on the new bonding requirement, Offerors will be allowed to submit a best and final offer (BAFO). When does the State expect the Offerors to submit the BAFO? Does the State expect the BAFO to also incorporate changes as a result of Addendum 9 and other possible clarifications?

Answer: The State will notify offerors when it desires BAFO pricing. BAFO pricing will be requested after the technical evaluation is completed. Also, see Question #129 d. above.

135. **Item 20. Section 3.4.2.1, Existing Tower Modification** - Please specify which towers were built in the last ten years?

Answer: The State has provided ASRs (antenna structure registrations) in the Appendix 10. Offerors can look these registrations up and determine the date of construction. For those towers under 200 ft, which require no ASR, the following is information is provided: Frederick SHA (date of construction - 9/30/05), Keysers Ridge (date of construction - 5/16/07), Lambs Knoll (date of construction - 10/13/05), Marlu Ridge (date of construction - 9/30/02), and Sandy Point (date of construction - 4/30/08).

136. **Item 21. Section 3.2.14.2, Coverage** - Is there a specific reason why the State added a requirement that the portable radios be configured using a 1/4 wave antenna as opposed to their use being an option? This change has potential to effect price.

Answer: Please see Addendum #10.

137. **Item 22. Section 3.2.14.7** - Do the six (6) frequencies for Cecil County include the 4 frequencies being provided by the SHA in the general pool for Cecil County?

Answer: No, two (2) channel blocks were allotted to SHA in Cecil County. Please see the answer to Question 132.

138. **Item 25. Section 3.3.7** - Is there a specific reason why the State added a requirement that the portable radios be configured using a 1/4 wave antenna as opposed to their use being an option? This change has potential to effect price.

Answer: Please see Addendum #10.

139. Since no date was specified for the BAFO for F2, should we conclude that information is due at the same time as the response to questions from the State (yet to be provided)?

Answer: Once the State completes its evaluation of the technical proposals, it will open the financial proposals. Once the financial proposals have been evaluated, BAFOs will be requested from the Offerors who have submitted acceptable proposals (RFP Section 5.5.2 #6).

140. Does the BAFO extend to the other areas of the RFP Response? Also, if the State would provide the name of the individual (contact information) to whom the vendors can contact to discuss and clarify the latest additions/deletions indicated in Addendum 9 it is appreciated.

Answer: Changes to an Offerors' technical proposal are made during the technical evaluation process (in answers to clarification questions, at oral presentations, in answers to questions raised at oral presentations, etc.) The individual to contact regarding questions about Addendum #9 (or any question about the procurement) is the Procurement Officer.

141. In Addendum #9, the State has requested vendors not perform a structural analysis on towers constructed within the last 10 years. RFP Appendix 10 - Master Site List does not contain data as to when the towers were constructed. Is the State requesting this reduction in scope be reflected in the BAFO pricing and if so, please provide an updated Appendix 10 -Master Site List with each tower's date of construction.

Answer: The State has provided ASRs (antenna structure registrations) in the Appendix 10. Offerors can look these registrations up and determine the date of construction. For those towers under 200 ft, which require no ASR, the following is information is provided:
Frederick SHA (date of construction - 9/30/05),
Keyzers Ridge (date of construction - 5/16/07),
Lambs Knoll (date of construction - 10/13/05),
Marlu Ridge (date of construction - 9/30/02), and
Sandy Point (date of construction - 4/30/08).

142. Will the state permit the use of suitable carrier-grade outdoor electronics cabinets, with appropriate environmental controls, for housing system electronics at sites where a full shelter is not required or economical, such as low-power sites on monopoles?

Answer: Yes, the state would allow the vendor to propose suitable carrier grade outdoor electronics cabinets at sites that do not justify a full blown shelter. Outdoor equipment cabinets may be suitable in limited situations, provided emergency power, network backhaul, and site monitoring requirements are still compliant with the RFP. They may be proposed in locations where coverage is needed for limited amount of expected users.

143. The State has significantly and materially changed the scope of the Request For Proposal (RFP) by the addition of a third paragraph to RFP Section 3.2.14.4, 700 MHz Channel Plan, that reads The Contractor can also use 800 MHz channels that are available to the State. Although there are several references in the RFP to operations within the 700/800

MHz band of frequencies, the RFP repeatedly and explicitly specifies that the new statewide trunked radio system shall be based on 700 MHz frequencies available to the State. So to have the State responses been to questions from vendors. For example:

- Section 3.1.4 – “The system will use a common infrastructure and operate within the 700/800 MHz band of frequencies allocated to and licensed by the State of Maryland or any of its public safety partners. ... The primary land mobile radio frequency infrastructure for new equipment must operate in the 700 MHz band on frequencies available to and licensed by the State of Maryland. ... Multiple band operations or overlay systems cannot be used as an approach to providing the system coverage required in an area or region.”
- Section 3.2.14.4, 700 MHz Channel Plan - “The Contractor shall develop a 700MHz Channel Plan using the 700 MHz State License channels. ... Due to the uncertainty to secure spectrum agreements with the RPCs and neighboring State License holders, the State of Maryland reserves the right to add/delete/modify restrictions placed upon the usage of the 700 MHz frequencies.”
- Section 3.5.3.5 Revised 700 MHz Channel Plan - “The Contractor shall create and provide a revised 700 MHz channel plan. The plan shall be delivered 90 days after NTP. For illustrative purposes, see Appendix 14, 700 MHz Channel Plan.”
- Section 4.4.5.14, 700 MHz Channel Plan - “The Offeror shall include a proposed 700 MHz channel plan providing the defined RF coverage, physical and functional channel allocations, and channel loading for existing and future State requirements. The plan submitted will be the basis of the formally submitted plan required by Section 3.5.3.5 Revised 700 MHz Channel Plan and meet the requirements of the Section 3.2.14.4 700 MHz Channel Plan. For illustrative purposes, see Appendix 14, 700 MHz Channel Plan.”
- Q&A’s #1, August 28, 2008, Question and Answer 8 referenced to RFP Section 3.1.4, 2nd paragraph
 - Question: ... The RFP later goes on to state that multiple band operation or overlay systems cannot be used as an approach to providing the system coverage...” Is our understanding correct that the State will not accept hybrid networks (i.e. multi-band or multi technology designs) as solutions for meeting statewide coverage requirements?
 - **Answer: That is correct. Multiple band systems are not desired and cannot be used to meet the State’s standard proposal requirements.**

This major change in the RFP, from an exclusive 700 MHz system to one in which multiband 700 MHz and 800 MHz frequencies are now permitted, will require extensive re-design, extensive antenna subsystem vendor re-quote, and extensive re-pricing; in many ways a completely new system architecture and design for vendors to consider and propose and for the State to evaluate.

- The 800 MHz frequencies available to the State need to be identified and then evaluated with respect to their use and potential re-use within the State
- 800 MHz and 700 MHz FCC regulatory requirements must be considered, not just 700 MHz
- Combined 700 MHz and 800 MHz Channel Plans must be developed and evaluated
- New antenna subsystems must be considered for 800 MHz site implementations due

to frequency dependent antennas, TTAs, etc. Some sites with exclusive 700 MHz frequencies, some sites with exclusive 800 MHz frequencies, and some sites with dual 700 MHz and 800 MHz frequencies

- Pricing obtained from antenna subsystem vendors for new antenna subsystems
- Coverage predictions and guarantees then re-evaluated based on multi-band system designs
- New proposal system description provided as well as responses to sections of the RFP where equipments were proposed based on 700 MHz frequencies.
- New system pricing provided.

Answer: The State has not “materially and significantly” changed the scope of the Request for Proposal in Addendum #9 by amending Section 3.2.14.4 to permit the use of 800 MHz frequencies in the Offeror’s proposed system design. The State’s use of the word “can” denotes a permissive condition intended to provide Offerors with additional flexibility in crafting an appropriate channel plan for the project. Offerors are not required to use 800 MHz frequencies in their proposed system design. This amendment to the RFP was prompted by the release of the Federal Communications Commission (“FCC”) Public Notice DA 08-2810 which was published on December 29, 2008 after the release of the RFP. As noted in questions recently sent to Offerors, the State recognizes that the physical proximity of neighboring states creates challenges relative to the development of a channel plan in 700 or 800 MHz. The State is extremely sensitive to channel plan challenges and we have taken steps to assist Offerors in the preparation of a channel plan by developing a model, which was included in the RFP, as well as the application to Regional Planning Committee Twenty (“Region 20”) for additional general pool frequencies in all of Maryland counties and the City of Baltimore. These frequencies have been provided to all Offerors. While the State prefers the establishment of the required channel plan in 700 MHz as indicated in previous direction granted to Offerors, the State must react to the actions of the FCC when additional frequency tools become available. To that end, frequency information was provided in Addendum #9, as a change from previous guidance. Accordingly we have amended the RFP in response to the actions of the FCC to permit Offerors to consider the use of the 800 MHz band when 700 MHz alternatives have been exhausted.

144. Please clarify specifically what 800 MHz frequencies are available to the State for the Contractor to use, as stated in the third paragraph added to RFP Section 3.2.14.4, 700 MHz Channel Plan that reads The Contractor can also use 800 MHz channels that are available to the State.
- (a) Are these the “State Use Only” 800 MHz frequencies assigned for State of Maryland use in the Region 20 800 MHz Plan?
- Please identify which of these “State” frequencies are available for Contractors to use, and if there are any constraints on their use, i.e. currently used at locations XXX but available for use in other sections of the State subject to reuse and interference considerations.
- (b) Are these the general use 800 MHz frequencies assigned to cities and counties within the State of Maryland as identified in the Region 20 800 MHz Plan?
- Please identify which of these frequencies are currently not be used by the city or county to whom they have been assigned in the Region 20 Plan and are thus available to the State for Contractors to use.
- (c) Are these 800 MHz frequencies (“State” or general use) those currently in use on

existing city and county 800 MHz systems within the State of Maryland, with whom the State has an agreement to operate on, especially if “State” frequencies have been given to the city or county?

- Please identify the applicable existing city and county 800 MHz system and frequencies.
- Are these frequencies, a subset of those used in the existing city or county system, to be utilized in the required traffic analysis, and the coverage provided by the existing systems to be utilized to satisfy the RFP coverage requirements?
- Since the RFP requires a P25 Phase 2 system design, how will the State consider operations on old existing city and county 800 MHz systems that are nominally P25, but not fully P25 Phase 1 compliant systems?

Answer: There are no “state only” frequencies in 800 MHz as found in the 700 MHz band (see 47 CFR §90.531(b)(5)). At this time, the State cannot identify specific frequencies in the 800 MHz National Public Safety Planning and Advisory Committee (“NPSPAC”), interleaved, expansion, or guard bands. Nevertheless, we recognize that the FCC will consider future applications for spectrum in the 800 MHz interleaved, expansion, and guard bands pursuant to the maturation of Docket WT 02-55 and the guidance provided in FCC 08-253 (at ¶17). In FCC 08-253, the Commission describes a future process in which channels formerly assigned to Sprint-Nextel will be reallocated to public safety. The FCC’s Public Notice DA 08-2810 was the first step taken by the Commission in response to FCC 08-253 to accept applications on channels formerly assigned to Sprint-Nextel. In addition, there may be 800 MHz frequencies abandoned by jurisdictions as they migrate to new systems in 700 MHz. Finally, when all other alternatives have been exhausted, Region 20 (800 MHz) may be able to identify a very limited number of NPSPAC channels (formerly 821-824/866-869 MHz frequencies) in specific localities when required.

145. Please clarify the meaning of the addition to Section 3.2.14.7 of the RFP that reads – In Cecil County, the State can only provide six (6) 12.5 KHz 700 MHz frequencies. There are no 800 MHz frequencies known to be available in this County. Offerors shall design their system for Cecil County based upon the six (6) available 700 MHz frequencies.
- (a) Cannot the “State” 800 MHz frequencies, or subsets thereof, assigned for State of Maryland use in the Region 20 800 MHz Plan be used anywhere in the State including Cecil County? Or are there no “State” frequencies available for the State, and thus the Contractor, to use anywhere in the State of Maryland?
- (b) Does this statement in Item #22 mean that there are no general use 800 MHz frequencies in the Region 20 800 MHz Plan assigned to Cecil County that can be used?
- (c) Please clarify the number of 700 MHz frequencies that can be used in Cecil County
- Item 22 states there are six (6) 700 MHz frequencies available to Cecil County
 - Appendix 1A to Addendum #9 shows that there are two (2) General Pool 700 MHz frequencies available to Cecil County; two 25 kHz channels each comprised of four 6.25 kHz channels 249-252 and 589-592
 - The Region 20 Plan for 700 MHz shows five (5) General Use CAPRAD 700 MHz frequencies available to Cecil County
- (d) Please clarify the meaning of the requirement in Item 22 that Offerors shall design their system for Cecil County...
- The RFP nowhere requires vendors/contractors to design their system and

provide coverage guarantees on a County basis, for counties in general or for any specific county. Rather the RFP specifies coverage on a Regional implementation basis, incorporating many cities and counties and areas of the State within each Region.

- Does Item 22 mean that vendors are now required to provide a compliant coverage design and coverage guarantee for Cecil County, and for all other counties?

Or does Item 22 mean that RF sites located within Cecil County shall be constrained to only use the 6, or 2, or 5 available 700 MHz frequencies?

Answer: Cecil County is geographically located in close proximity to the states of New Jersey and Delaware as well as the Commonwealth of Pennsylvania. In consideration of the fact that there are only ninety-six (96) 700 MHz 12.5 KHz state channel frequencies, all of which are available to all states, territories, and the District of Columbia, Maryland must react to the reality that only a subset of state 700 MHz channels will be available in this geographical area. To that end, the RFP was amended by Addendum #9 to delimit the proposed system to the use of six frequencies in Cecil County in anticipation that the limited state 700 MHz spectrum will be required for sites in other counties. The State is very concerned about the development of an appropriately crafted channel plan. Addendum #9 was issued, in part, to provide more flexibility for Offerors to craft appropriate channel plans. The State is looking to the Offerors to provide expert assistance in this matter based upon their experience with other statewide or wide area 700/800 MHz systems built in RF congested areas such as the Mid-Atlantic portion of the United States. Based upon the information provided by Offerors in response to our questions, as well as the future Offeror presentations, the State may issue further guidance relative to the critical issue of spectrum availability.

146. Per the State's direction in item #3 in Addendum #10, can the State provide vendors with a copy and/or access to all of the property owned by the State or under the State's control?

Answer: Such information would potentially be available to the winning vendor after award. The State would evaluate proposed site feasibility as part of the detailed implementation plan. Offerors should propose their search rings for sites, and the State will address the detailed site plans after award.