

## **Network Integrated Exercise (NIE) Sources Sought**

### **1. DESCRIPTION**

- 1.1 The US Army Program Executive Office for Integration (PEO I) is seeking interested sources with mature networked systems solutions to participate in one of two Network Integration Exercise (NIE) events. The purpose of this notice is to identify emerging capabilities to be evaluated against a set of entrance criteria for an opportunity to participate in an NIE.
- 1.2 The NIE is an Army hosted six week event to be conducted twice a year. It will employ the full brigade strength of a Brigade Combat Team (BCT) at Fort Bliss, TX. Its primary goal is to conduct parallel system tests of Army programs, with a secondary goal of evaluating capabilities of the current, theater provided and emerging networks. The exercise will also assess developmental networked and non-networked capabilities. The NIE events will include tactical exercises using current force equipment and emerging networked systems. Upcoming events will occur in October/November 2011 (referred to as 12.1) and April/May 2012 (referred to as 12.2) at Ft. Bliss, TX and the adjacent White Sands Missile Range (WSMR).
- 1.3 This is a Sources Sought announcement. This does not constitute a request for quote (RFQ), request for proposal (RFP), an Invitation for Bid (IFB) or as an obligation or commitment on the part of the Government to acquire any product or service. There is no basis for claims against the government as a result of information submitted or demonstrations provided in response to this sources sought announcement. The government does not intend to award a contract on the basis of this announcement or otherwise pay for any information or demonstrations provided by respondents to this request. This notice is for market research purposes only and is not indicative of a full requirement.
- 1.4 Sources must understand the entire financial burden of participating in this process, to include: submitting a White Paper, conducting a Candidate Solution Demonstration at a government facility, submitting solution candidates for laboratory testing, participating in pre-NIE integration activities, training soldiers to operate the candidate solution, and participating in and supporting the candidate solution in the NIE event, will be the sole financial responsibility of the source.
- 1.5 The government will provide assessment services for the source's candidate solution, a demonstration venue for the Candidate Solution Demonstration, laboratory testing venue and services, and access to the NIE site and facilities. The Government may provide integration support to integrate candidate solutions into military platforms and assist in network integration where applicable.
- 1.6 Eligible Respondents: Respondents that are not able to provide a solution to one of the Areas of Specific Interest (AOSI) and be able to participate throughout the entire NIE process should not submit a White Paper. Potential respondents are encouraged to

review this entire document thoroughly and carefully and consider their ability and willingness to fully participate in the process up to and including the NIE prior to committing to submit a White Paper.

## 2. REQUIREMENTS

2.1 The Army is seeking solutions that address the Army's Areas of Specific Interest (AOSI), that are at the representative model or prototype system stage and that have been tested in a relevant environment. This represents a major step up in capabilities demonstrated readiness. Examples include testing a prototype in a high-fidelity laboratory environment or in a simulated operational environment. The Army's "Areas of Specific Interest (AOSI) are listed below and explained in more detail in **APPENDIX A**.

Table 2.1 Areas of Specific Interest

- \*AOSI 1: Fuse operations and intelligence information to the tactical edge
- \*AOSI 2: Execute Command and Control on-the-move (C2OTM)
- \*AOSI 3: Share and display contextually relevant multi-source data
- AOSI 4: Digitally integrate Joint, Interagency, Intergovernmental, Multinational (JIIM) partners during planning and execution
- AOSI 5: Tailor network resources Line of Sight (LOS) and Beyond Line of Sight (BLOS) to match Commanders' priorities
- AOSI 6: Conduct Cyber/Electromagnetic Activities
- AOSI 7: Network-related Capabilities, which do not require the network for task performance, but are enabled by the network

\*AOSI 1, ASOI 2, and ASOI 3 are Highly Desired Capabilities for OCT/NOV 2011 NIE Event

### 2.2 SUPPORTING APPENDICES:

- APPENDIX A: AREAS OF SPECIFIC INTEREST (AOSI)
- APPENDIX B: WHITE PAPER FORMAT AND CONTENT
- APPENDIX C: TRANSPORT LAYER DATA SUBMISSION REQUIREMENTS
- APPENDIX C.1: DoDI 4630 WAVEFORM APPLICATION FORM
- APPENDIX C.2: RADIO EVALUATION AND ANALYSIS (REAL) CONSOLIDATED TEST PLAN
- APPENDIX D: COOPERATIVE TECHNOLOGY ASSESSMENT AGREEMENT
- APPENDIX E: NETWORK INTEGRATION EXERCISE RESPONSIBILITIES

## 3. ASSESSMENT PROCESS

3.1 PEO I intends to use a three-step process to seek sources that may be appropriate to include in the NIE. **Step 1**, the Government will solicit White Papers as outlined in **APPENDIX B** and evaluate solution described in the White Papers. **Step 2**, sources assessed in **Step 1** may be invited by the Government to conduct a Candidate Solution

Demonstration at an appropriate facility and may additionally be invited to submit the candidate solution hardware or software for laboratory testing. **Step 3**, following the demonstration and any laboratory testing, sources may be invited to participate with their product solution in the NIE. See **APPENDIX E** for details and responsibilities of the source for participation in the NIE.

3.2 Following step 1 and 2, any source not invited to proceed to the next step will be provided with a formal PRIVATE assessment report of the perceived merits and findings of the sources solution based on the information provided. The report will include the rationale for the Government decision. Sources proceeding to step 3 will receive a PRIVATE assessment formal report of the performance of the candidate solution in the NIE based on information collected during the exercise of the candidate solution at the NIE.

3.3 Alternate Paths to 1QFY12 and 3QFY12 NIE: Due to the imminence of the NIE event in October/November 2011, the Government will use an abbreviated process to assess solution candidates. Sources who submit White Papers with candidates believed to be ready to participate in the October/November 2011 event during Step 1 may be invited to provide an oral presentation and solution demonstration and subsequently may be invited to proceed to Step 3 and participate in the October/November 2011 NIE. Consequently **all White Paper submissions must include a declaration of which NIE event the source is proposing to participate.** Nevertheless, mature candidates with merit may be referred to the April/May 2012 NIE despite declaring for the October/November 2011 event.

Table 3.3 Event Schedule

EVENT	Oct/Nov 2011 NIE	Apr/May 2012 NIE
White Paper Due to PEO I	6/21/11	6/21/11
Notification of Invitation to Demonstration	6/23/11	7/18/11
Advisory Review for 1QFY12 NIE	6/28-30/11	N/A
Oral Presentation/Demonstration (APG)	6/28-30/11	7/20/11-8/26/11
Assessment to Candidates not invited to demonstrate	7/20/11	7/20/11
Industry Day Ft Bliss, TX	N/A	8/30-31/11
Conduct Laboratory Assessment (APG)	N/A	8/26/11-9/18/11
Notification of Invitation to NIE	7/18/11	11/4/11
Assessment to Candidates not invited to NIE	7/20/11	11/7/11
Advisory Review for 3QFY12 NIE	N/A	11/9-11/22/11
Candidate Solution at Ft. Bliss/WSMR	8/1/11	1/20/12
Field Support Representative at Ft. Bliss/WSMR	8/1/11-11/23/11	1/20/12-5/30/12
Candidate Solution Integration at Ft. Bliss/WSMR	8/1/11-9/29/11	1/20/12-2/29/12
NIE Equipment Training at Ft. Bliss/WSMR	8/1/11-9/30/11	3/1/12-3/31/12
Communications Exercise at Ft. Bliss/WSMR	10/1/11-10/14/11	4/1/12-4/20/12
Pilot Exercise at Ft. Bliss/WSMR	10/15/11-10/25/11	4/21/12-4/30/12
NIE at Ft. Bliss/WSMR	10/25/11-11/22/11	5/1/12-5/30/12
Assessment Report to NIE Participants	12/15/11	6/30/12

**3.3.1 Notification to sources wishing to submit a White Paper declaring Oct/Nov 2011 NIE Participation:** Review the above schedule carefully. Sources must be

prepared to respond rapidly with an oral presentation and short demonstration at Aberdeen Proving Grounds (APG), MD of their candidate solution within a week of submitting their White Paper and must be prepared to participate in the NIE process on site at Ft Bliss/WSMR with a mature product and support that product within weeks of notification.

**3.4 White Paper:** Complete a White Paper using the format in **APPENDIX B**.

3.4.1 Sources must submit a separate white paper for each candidate solution.

3.4.2 White Paper responses are to be submitted to the E-mail address identified in this notice.

3.4.3 A review of White Paper responses will be conducted by a Government Candidate Selection Committee. If, after the White Paper review, the Army is interested in more information on your solution, you will be notified by formal correspondence of the Army's interest in a Candidate Solution Demonstration. If the government is not interested in additional information at this time you will be notified by formal correspondence.

3.4.5 Sources planning to submit a **Transport Layer solution** for any of the AOSI should refer to **APPENDIX B** White Paper Outline, **APPENDIX C** Data Submission Requirements, **APPENDIX C.1** DoDI 4630 Waveform Application Form, and **APPENDIX C.2** Radio Evaluation and Analysis Lab (REAL) Consolidated Test Plan.

3.4.6 Sources planning to submit a solution that is primarily a **Software Application Solution** for any of the AOSI should refer to **APPENDIX B White Paper Outline**.

### **3.5 Candidate Solution Demonstrations**

3.5.1 If the source is invited, the government will provide a field or laboratory venue at Aberdeen Proving Grounds, Maryland for the source to provide a demonstration as described in the White Paper of the source's candidate solution.

3.5.2 The government will arrange with the source for an appropriate date to provide the demonstration that fits within the window of time indicated in Table 3.3

3.5.2 Sources should design their demonstration to not exceed six (6) hours in duration (April/May 2013 Candidate Solutions), excluding set-up, preparation and tear down time.

3.5.3 Sources must provide for and fund all their logistical support, their field service representative (FSR) support, and Candidate Solution support requirements during the entire demonstration period.

3.5.4 Sources must fill out **APPENDIX D: COOPERATIVE TECHNOLOGY ASSESSMENT AGREEMENT** with their White paper Submission.

3.5.5 A team of government reviewers will observe each candidate solution demonstration.

3.6 Laboratory Assessment: Sources may be invited to submit their candidate solutions to laboratory assessment at Aberdeen Proving Grounds to assess their Technical Merit, Burdens (Cost, support, (Size, Weight, Power and Cooling (SWAP-C)), Operator), Maturity, and Integration Potential.

3.7 All Candidate Solution Demonstration observations and laboratory assessment results will be briefed to the Government leadership. Solutions with perceived high merit may be referred to an upcoming NIE event.

#### **4. WHITE PAPER EVALUATION**

**4.1** Candidate Solution White Papers will be evaluated by a Candidate Selection Committee.

**4.2** The Candidate Selection Committee will use the following selection criteria, in descending order of importance, when conducting White Paper evaluations:

- a. Candidate Solution addresses one or more of the areas of the AOSI published in **APPENDIX A** of this Sources Sought.
- b. Integration Potential: Are there hurdles to integrating this concept with existing systems or does it overcome previously known hurdles. Stand alone system or Networkable? Are needed certifications complete?
- c. Technical Merit: Does the concept show technical innovation or substantial performance improvement?
- d. Burdens: What are the cost, support requirements, Size, Weight, and Power-Cooling (SWAP-C), spectrum use, operator needs? Are there reductions in burdens compared to current similar approaches?
- e. Operational Merit: Does the proposed solution provide significant enhancement in operational capability compared to existing fielded systems?
- f. Maturity: What is the availability of mature production representative prototypes and available quantities to participate in the NIE event?
- g. Demonstration Unit: What is the availability of a proposed solution that can be demonstrated at a Government facility?

- h. Field Support: What is the ability of the source to provide technical field support to and during the NIE event?
- i. Functional Maturity: Has the potential for successful performance of intended functions in an actual tactical operational environment been demonstrated?
- j. Interface Potential: What is the ability to interface to commercial/ military systems?
- k. Cost: What is the proposed unit cost?
- l. Sources Capabilities: What are the source's capabilities, experience, facilities, techniques or unique combinations of these which are integral factors for achieving the intended objectives?

**4.3 White Paper Review Result:** Once the source's White Paper has been evaluated, it will either, be selected for a Candidate Solution Demonstration, recommended to reapply for a future NIE event Cycle, or determined that the Candidate Solution does not meet the desired need. The Source will receive a PRIVATE assessment report on the perceived merits and findings, or shortfalls, of their Candidate Solution. Sources will be notified by formal correspondence.

## **5. Assessment of the Candidate Solution Demonstration**

5.1 Candidate Solution Demonstration: Sources may have an opportunity (if invited by the Government) to demonstrate their proposed solution at Aberdeen Proving Grounds, MD.

5.2 Candidate Solution Demonstration Evaluation: The Candidate Selection Committee will use the following selection criteria, in descending order of importance, when conducting Solution Demonstration Evaluations:

- a. Integration Potential: What interfaces were observed to be needed to integrate the candidate solution with existing equipment? Are needed certifications complete?
- b. Operational Merit: Did the candidate demonstrate capabilities indicated in their White Paper?
- c. Technical Merit: Was the candidate solution performance realized during the demonstration?
- d. Burdens: (Cost, Support, SWAP-C, Operator): What were cost, SWAP-C and operational burdens of demonstrated equipment? What were the operator burdens for operating or setting up the equipment?

- e. Maturity: Was the demonstrated equipment production representative?

5.3 Candidate Solution Laboratory Assessment: Sources may be requested to submit the solution to a laboratory assessment. (See Table 3.3 for the duration of the laboratory assessment). The Candidate Selection Committee will use the following selection criteria, in descending order of importance, when conducting Laboratory Assessment Evaluations:

- a. Integration Potential: What specific changes in the candidate or existing equipment are needed to achieve integration? Do certifications need to be completed?
- b. Technical Merit: Does the candidate exhibit technical performance needed to meet proposed operational capability?
- c. Burdens: (Cost, Support, SWAP-C, Operator): Measure SWAP-C, Operator Burden. Lower cost, easier support or maintenance, reduced SAWP, and Operator ease-of-use are more favorable.
- d. Maturity: Is the candidate configuration mature enough for an operational evaluation?

**5.4 Solution Demonstration Evaluation and Laboratory Assessment Result:** Once the source's Solution Demonstration has been evaluated and laboratory assessment conducted, it will either, be selected to participate in an upcoming NIE event, recommended to reapply for a future NIE event Cycle, or determined that the Candidate Solution does not satisfy the desired need. Sources will receive a PRIVATE assessment report on the perceived merits and findings, or shortfalls, of their submitted Candidate Solution. Sources will be notified by formal correspondence.

## **6. NIE PARTICIPATION**

6.1 Upon completion of a favorable White Paper review and Solution demonstration, a source may be invited by the Government to participate in an upcoming NIE event.

## **7. SUMMARY**

7.1 This Sources Sought is for information and planning purposes only, and does not constitute a Request for Proposal (RFP). This Sources Sought is not to be construed as a commitment by the U. S. Government. If a formal solicitation is generated at a later date, a solicitation notice will be published. No award will be made as a result of this Sources Sought. All information is to be submitted at no cost or obligation to the Government. All interested and potential sources must be registered in Central Contractor Registration (CCR), and current firms must update once a year to maintain active status. Please visit the CCR website to register and update at:

<https://www.bpn.gov/ccr/default.aspx> whether applying for assistance with awards, contracts, or other business opportunities, all entities are considered "registrants".

However, registration in no way guarantees that a contract will be issued. The following information is required to register in CCR: DUNS Number; Tax Identification Number (TIN) and Taxpayers Name; Statistical Information about your business; and Electronic Funds Transfer (EFT) Information. Once your business is registered in CCR, you also need to be registered in Online Representations and Certifications Application (ORCA): <https://orca.bpn.gov/> located on the left side of CCR web page there is a link to ORCA where you can register. Questions about the areas of interest are encouraged. However, TELEPHONE INQUIRIES WILL NOT BE ACCEPTED. The Government will accept questions via email ONLY to the email address listed below. The cut-off date for questions is fourteen (14) days after issuance of this notice. The Government reserves the right to reject, in whole or in part, any private sector input as a result of this Sources Sought. Interested parties are encouraged to respond to this notice and should clearly indicate the specific areas they are interested in. Responses should indicate business size and any socio-economic considerations under NAICS Codes associated with the areas of interest described above. Information shall be submitted in electronic format (Only e-mail White Papers, Microsoft Office 2000 compatible format), no DVDs/CDs, or other hard copy allowed to: EMAIL ADDRESS – [PEOITechAssessments@conus.army.mil](mailto:PEOITechAssessments@conus.army.mil). Responses are due **NLT 1300 (1:00 PM) Eastern Time, JUNE 21, 2011.**

## **APPENDIX A: AREAS OF SPECIFIC INTEREST (AOSI)**

### **AOSI 1. Fuse operations and intelligence information to the tactical edge:**

Commanders and leaders engaged at the tactical edge (in command posts, platforms, and while dismounted) have very limited capability to combine local information/intelligence, position location information, processed sensor data and intelligence, and higher-level environmental information together to define contextual significance/implications and inform understanding, decisions, and action.

Related areas of interest are:

- a. Capable of providing Collaborative Use of Information for Situational Awareness (SA)
- b. Capable of conducting Running Estimates
- c. Capable of providing Geospatial Information for SA
- d. Capable of improving Common Geospatial Representation
- e. Capable of conducting Predictive Analysis

### **AOSI 2. Execute Command and Control on-the-move (C2OTM):**

Commanders and leaders engaged in full spectrum operations require the capability to access, select, filter, share, display and collaborate on fused operations and intelligence information, while operating away from their command post, in air or ground platforms, and while dismounted at the tactical edge.

Related areas of interest are:

- a. Capable of improving education and standardized training for Mission Command (MC) Systems.
- b. Capable of providing C2OTM
- c. Capable of collecting and processing Intelligence On The Move

#### **EXAMPLE OF C2OTM ENABLERS**

- a. A single channel, vehicular mounted Soldier Radio Waveform (SRW) radio
- b. X Band on the move capability
- c. Common Data Link (CDL) to the mobile dismount
- d. Network Cross banding that would integrate disparate networks at the same security level.

### **AOSI 3. Share and display contextually relevant multi-source data:**

Commanders and leaders engaged in full spectrum operations in command posts, platforms and dismounted have limited capability to access, select, integrate, display and share relevant information (geospatially rectified and time stamped) from multiple sources.

Related areas of interest are:

- a. Capable of providing shared Situational Awareness (SA)/Situational Understanding (SU)
- b. Capable of providing shared SA/SU at Brigade
- c. Capable of Processing, Exploitation and Dissemination (PED) of SA/SU
- d. Capable of supporting the Intelligence Enterprise (IE)
- e. Capable of conducting Knowledge Management (KM)
- f. Capable of improving SA

g. Capable of improving the Transfer of Digital Data

**AOSI 4. Digitally integrate Joint, Interagency, Intergovernmental, Multinational (JIIM) partners during planning and execution:**

Commanders and leaders engaged in full spectrum operations have a need to improve the capability to digitally integrate with JIIM partners during planning and execution. This includes the need to synchronize Army cyber capabilities with United States CYBER Command (USCYBERCOM) capabilities to ensure fused situational cyberspace awareness and mission assurance to the Warfighter.

Related areas of interest are:

- a. Capable of improving Interoperability (Army & JIIM) to Meet Operational Requirements
- b. Capable of Exchanging Actionable Intelligence Data Across Security Domains
- c. Capable of supporting Communications Interoperability
- d. Capable of improving Compatibility of Communications Equipment
- e. Capable of improving Shared Technical Data

**AOSI 5. Tailor network resources Line of Sight (LOS) and Beyond Line of Sight (BLOS) to match Commanders' priorities:**

Commanders and leaders have a need to improve the capability to dynamically adapt the network architecture and resources (LOS and BLOS) to match network transport capabilities with the commander's priorities in support of full spectrum operations. This includes the ability to scale the flow of information to match bandwidth availability or increase bandwidth to match information flow requirements in an increasingly congested and contested cyberspace domain and the electromagnetic spectrum (EMS).

Related areas of interest are:

- a. Capable of supporting Top Secret/Secret Compartmentalized Information (TS/SCI) at the Battalion level
- b. Capable of Establishing, Operating and Defending Enterprise Network Operations
- c. Capable of supporting education and standardized training using new network management and spectrum management tools.
- e. Capable of supporting access to SA/SU Data by Dismounted Leaders at Squad and Platoon
- f. Capable of supporting Mission Command (MC) Network Access to Squad and Platoon in Restricted Terrain
- g. Capable of establishing and maintaining Communications Networks Over Wide Areas at Brigade
- h. Capable of improving Soldier communications at the Tactical Edge
- i. Capable of interoperating with existing Company Command Post (CP) Communications
- j. Capable of supporting the Patriot Battalion Network
- k. Capable of improving the Command Post (CP)/Platform
- m. Capable of supporting Mission Command (MC) Network Access to Squad, Platoon, and Company Dispersed Over Wide Areas
- n. Capable of improving NLOS Communications
- o. Capable of improving BLOS Communications

- p. Capable of improving Long Range Data and Voice
- q. Capable of supporting Enterprise ISR Data Access and Storage

**AOSI 6. Conduct Cyber/Electromagnetic Activities:**

Future Army forces at all echelons have a need to improve ability to plan, integrate, and execute C/EM activities and to provide C/EM situational awareness that informs the Common Operating Picture (COP).

Related areas of interest are:

- a. Capable of Conducting Inform and Influence Activities
- b. Capable of Conducting C/EM Offensive Operations and Dynamic Defense
- c. Capable of Defending Individuals and Platforms from C/EM Threats
- d. Capable of Rapidly Acquiring New C/EM Capabilities
- e. Capable of Integrating Investment Analysis (IIA) and C/EM Capabilities
- f. Capable of supporting ISR
- g. Capable of supporting Cyber/NetOps
- h. Capable of improving Spectrum Management
- i. Capable of improving Technical Planning

**AOSI 7. Network-related Capability, which do not require the network for task performance, but are enabled by the network.**

Related areas of interest are:

- a. Capable of Conducting Operations During Network Degradation/ Failure
- b. Capable of supporting Planning and Execution with Mission Partners
- c. Capable of supporting Execution of Stability Operations and Supporting Governance
- d. Capable of supporting Interaction and Gathering of Information from the Local Populations
- e. Capable of supporting Expertise in and Awareness of JIIM Capabilities
- f. Capable of supporting Expertise and the Ability to Conduct Unit Transitions
- g. Capable of supporting activities to Advise Commanders
- h. Capable of supporting activities to Build Relationships with Mission Partners

## APPENDIX B: WHITE PAPER FORMAT AND CONTENT

White papers shall be submitted in Microsoft Word for Office 2000 compatible format and are **due no later than June 21, 2011, 1300hrs (1:00 PM) Eastern Daylight Time.** (Only e-mail White Papers), no DVDs/CDs, or other hard copy allowed to: EMAIL ADDRESS [\\_PEOITechAssessments@conus.army.mil](mailto:PEOITechAssessments@conus.army.mil). White Papers should follow the same general format as described here. The total length should not exceed 25 pages, excluding cover page and all supporting test data. All pages shall be formatted for 8-1/2 by 11 inch paper with type not smaller than 12 point. Smaller font may be used for figures, tables and charts. All White Papers must be written in English. Proprietary information, if any, should be minimized and **MUST BE CLEARLY MARKED**. To aid the Government, please segregate proprietary information. Please be advised that all submissions become Government property and will not be individually graded or returned.

Format:

### I. TITLE PAGE

Title of Candidate Solution

**This is a Candidate for the <Oct/Nov 2011 NIE / April/May 2012 NIE> (Select one)**

Submitting Organization/Agency

(Provide full name and address of organization/agency submitting the proposed solution)

Sponsoring Government Organization/Agency (if applicable)

(Provide full name of the government organization/agency sponsoring the proposed solution, if applicable)

Primary Coordinating POC: Name, e-mail address, phone number\*

Technical POC: Name, e-mail address, phone number\*

System Engineering POC: Name, e-mail address, phone number\*

Administrative POC: Name, e-mail address, phone number\*

Contracting POC: Name, e-mail address, phone number\*

(\*Submitters should ensure that appropriate POCs and phone numbers are provided as requested in the solution submission. The Primary Coordinating POC should plan to be available to respond and turn around the requirement on a request within one working day in the event questions arise relative to the submissions. Primary Coordinating POC

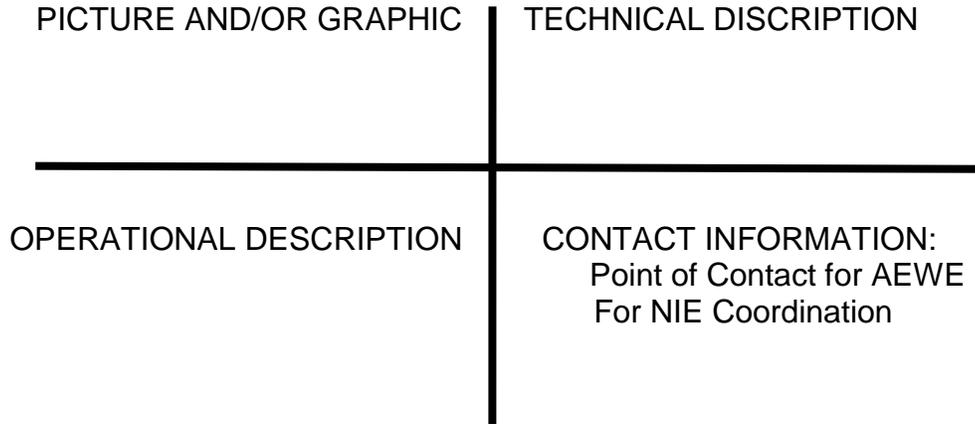
is the person that MBL will contact to make notifications and to coordinate events. The Primary Coordinating POC is then responsible to notify and coordinate with the other initiative POCs and Initiative Sponsors as applicable.)

## II. CANDIDATE SOLUTION CHECKLIST

Candidate Solution Checklist		
Review Number (Government Use Only)		Do not fill in
Item	Entry	Comment/Instructions
Name of Candidate Solution		Enter Descriptive Name
Company Name		Enter Company Name
Candidate for <b>Oct/Nov 2011 NIE</b> (yes/no)		"yes" if you can enter Oct/Nov NIE
Candidate for <b>Apr/May 2012 NIE</b> (yes/no)		"yes" if you can enter Apr/May NIE
Category of Candidate (SW/SW+HW/Radio)		"SW" if your candidate is a software application only "SW+HW" if your candidate is software and hardware "Radio" if your candidate is RF transport equipment
Brief Description		Briefly describe the function the candidate performs
Operational Benefit		Describe the operational benefit the candidate provides
Technical Innovation		Describe the technical improvement over similar capabilities
<b>Integration Requirements</b>		No Entry Here (Government Use Only)
Candidate is a stand-alone capability		"yes" if candidate does not interface with other equipment or software
Candidate integrates with existing Army Network		"yes" if candidate hooks up to Army transport layer
Candidate integrates with existing Army Software		"yes" if candidate exchanges data with other Army software applications
Other (describe)		Describe the extent to which the candidate is to be integrated with existing Army equipment if not indicate above
<b>Candidate Solution Maturity</b>		No Entry Here (Government Use Only)
Candidate is in production (TRL 7-9)		"yes" if candidate is or has been in production
Candidate is a mature prototype (TRL-6)		"yes" if candidate is a mature prototype that has been tested in a relevant environment
Candidate is NOT a mature prototype (TRL 1-5)		"yes" if candidate is NOT yet at mature prototype stage
Other (describe)		Describe the maturity IF NOT captured above
<b>Candidate Militarization</b>		No Entry Here (Government Use Only)
Militarized		"yes" if designed to meet MIL-STD/MIL-SPEC
Ruggedized for field environment		"yes" if not fully MIL-SPEC but ruggedized
Industrial/Commercial applications		"yes" if designed for industrial applications
Consumer/household applications		"yes" if designed for consumer market
Other (describe)		Describe the degree of militarization you candidate is designed for
<b>Candidate Availability</b>		No Entry Here (Government Use Only)
Quantity of units available by NIE date "on site"		Enter the number of units that will be available for the date that the item must be on site at the NIE. "none" if you cannot provide units for the NIE.
Quantity of units available for Demo at APG		Enter the number of units available for your demonstration at Aberdeen Proving Grounds. "none" if you cannot provide a demonstration.
Quantity of units available for laboratory testing		Enter number of units you can leave at Aberdeen for laboratory testing. "none" if you cannot leave units.
<b>Integration Support</b>		No Entry Here (Government Use Only)

Hardware integration		"yes" if you can support the physical integration of your candidate hardware on military equipment. "no" if you cannot provide support.
Electrical/Electronic Integration		"yes" if you can support the electrical and electronic integration of your candidate to other electronic equipment to include cabling. "no" if you cannot provide support.
Software Integration		"yes" if you can support the software integration on of your candidate to other software applications including the rapid development of patches and updates. "no" if you cannot provide support.
Configuration and Routing		"yes" if you can support the configuration/re-configuration of your candidate to integrate it with other equipment and architectures. "no" if you cannot provide support.
Other Integration (describe)		Describe any other integration tasks you would be supporting IF NOT captured above
<b>Vendor Support Agility</b>		No Entry Here (Government Use Only)
Are you able to support NIE with your candidate		"yes" if you can provide candidate solution at NIE location for the duration of the exercise indicated in Table 3.3.
Are you able to support NIE with field support		"yes" if you can provide field support personnel at NIE location for the duration of the exercise indicated in Table 3.3
Are you able to provide a demonstration		"yes" if you can provide a field demonstration of the candidate at Aberdeen Proving Grounds within the notification time indicated in Table 3.3
Are you able to provide candidates for laboratory testing		"yes" if you can leave items at Aberdeen Proving Grounds for Laboratory Testing for the duration indicated in table 3.3
Are you able to provide support for your candidate for laboratory testing		"on site" if you can have a field support representative on call on site at Aberdeen Proving Grounds "off site" if you can provide support from a remote location "none" if you cannot provide support
<b>Cost Burden - I understand that the cost of implementing all aspects of describing, presenting, demonstrating, supporting laboratory testing, preparing for integration, training soldier participants, providing on-site technical support at the NIE for my candidate solution are my responsibility and not the responsibility of the government unless indicated above with a "no" response in the categories marked "Candidate Availability", "Integration Support" and "Vendor Support Agility".</b>		

### III. NIE CANDIDATE SOLUTION QUAD CHART FORMAT



Example Quad Chart.

#### Example Quad Chart



## IV. CANDIDATE SOLUTION DESCRIPTION

**1. Solution Title:** (and short name, if any).

**2. System Description:** The source will use this paragraph to provide a brief description of the proposed solution and its capabilities. All information is to be UNCLASSIFIED. Hardware Nomenclature, Government Sponsor, Current NSA Certification level – with supporting documentation, Projected NSA Certification Level

**3. What “Areas of Specific Interest” (AOSI) does the proposed Solution Meet:** Paper must reference this RFI number and identify the applicable RFI Topic AOSI. The source will use this paragraph to provide a brief description or crosswalk as to what AOSI does their solution meet.

**4. Value to the Warfighter:**

1. Value: Provide the military value of the capability. State what the benefit is and who benefits from this capability.

2. Measure: What are the proper measures of how the proposed solution contributes to the associated capability? Examples: Increase data accuracy, decrease time and reduce resources required.

**5. Hardware Solution Performance:** The source will use this paragraph to describe their proposed solution performance (speed, distance, etc). Software Communication Architecture version (if supported); Number of hardware channels; Operating Frequency range; Power amplifier size (W); Volume (in<sup>3</sup>); Weight (lbs); Voltage (VDC); Current draw (A); Global Position System (GPS) integrated /type; Reliance on GPS; Antenna requirements.

**6. Software Solution Characteristics:** The source will use this paragraph to describe the software characteristics of their of any candidate solution such as operating system used, storage and processing requirements, interfaces and interoperability characteristics.

**7. Network Management Tools:** Support for Simple Network Management Protocol (SNMP); Configuration/Net Management utilities and the solution will tie into the Army Network and how it can be verified during an independent testing

**8. Concept of Operation, Employment, Recommended Echelon Level of Solution Insertion and Proposed Force Structure**

**(Individual/Soldier/Team/Squad/Platoon/Company/Battalion /BDE/Corp):** The source will use this paragraph to identify how and where the proposed solution will be employed and who will employ it (Squad, Platoon, Company, individual operators, staffs)

**9. Availability/Maturity:** The source will use this paragraph to describe the level of maturity of the proposed solution (e.g., proof of concept, prototype, and engineering

development, fielded) and its components. The source must identify known/anticipated upgrades between solution selection and NIE execution (approximately 12 months). Address realistic fielding dates.

**10. Production Delivery Schedule:** The source will use this paragraph to describe their planned delivery dates and quantities for their system. This schedule can also be presented in chart form with appropriate “Legend Key” for ease of understanding.

**11. Training Requirements:** The source will use this paragraph to outline a new concept/equipment-training plan for individual operators, maintainers, staffs, days, weeks, Program of Instruction (POI), and training manuals, etc. Identify and describe collective training required to operate, sustain, and exploit the capabilities of the proposed solution, to include the number of hours of instruction and the availability of published training material. Identify who will provide the training.

**12. Identify Known Safety Concerns or Issues:** The source will use this paragraph to outline any safety Concerns or Issues with their proposed system. The source will identify and articulate reduction efforts for all risk associated with their findings and assigned a HIGH, MODERATE, LOW, or UNKNOWN rating to each risk.

**13. Safety Release:** The source will use this paragraph to outline the current status of any safety releases for their proposed system. **Definition from AR 385-10** - A formal document issued to any user or technical test organization before any hands-on training, use, or maintenance by troops. The Safety Release is a stand-alone document which indicates the system is safe for use and maintenance by typical troops and describes the specific hazards of the system or item based on test results, inspections, and system safety analyses. Operational limits and precautions are included. The test agency uses the data to integrate safety into test controls and procedures and to determine if the test objectives can be met within these limits.

**14. Types of Interfaces needed with the Army Network Architecture:** The source will outline and identify in this paragraph all requirements for radios, software and hardware/software interfaces to support the solution connection to the Network.

**15. Test Experiment Environment:** Offeror will outline and identify in this paragraph the environment or venue that the proposed solution has been demonstrated (i.e., live, constructive or virtual environment, stand alone system, Vignettes, Threads, Instrumental Data, demonstration, or combination of any) for testing their claim of addressing an AOSI.

**16. Solution Vendor Test data results:** Offeror will outline, identify, and submit in this paragraph or a separate attachment all test data documents to support their claim of addressing an AOSI. Page count is restricted to 50 pages.

**17. Operating Frequency Management Data (Radio Solutions):** Offeror will outline, identify, and submit in this paragraph all operating frequency spectra for their system and Spectrum certification status.

**18. Waveform Information (Radio Solutions):** Voice capabilities; All supported waveforms (with version numbers); Link Budget (by modulation type); Burst rate (by modulation type); Network Capacity (by modulation type); Network size limitations (based on test results); Routing protocol; IP Routing architecture and protocols supported; Performance data (field testing and performance modeling)

**19. Logistical Footprint and Field Service Representation (FSR) Requirement per system:** Offeror will outline and identify in this paragraph the scope of their logistical footprint and FSR support needed to maintain their system in the NIE event indicated in Table 3.3 Event Schedule.

**20. Qualifications/Past Performance:** Offeror will outline their Past Performance to be relevant if the performance involves work that is the same or similar in nature, size, and complexity to the services being requested in this White Paper. Provide a brief description of the vendor's relevant past and present experience (both technical and management), key personnel qualifications, and any capabilities or facilities the vendor has that are uniquely suited to develop the solution to be pursued. The Offeror shall provide information on two recent contracts that best demonstrate their ability to perform the proposed effort, including the rationale for selection of the two examples. Government agencies, educational institutions, and other non-private enterprises should utilize the same attachment form and complete all applicable information on the form. Insert "N/A" when a response is not applicable

## **21. Cost**

21.1 Estimated Unit Cost

21.2 Estimated Supporting Equipment Cost

21.3 Estimated Unit Cost may be set up in incremental ranges or quantity price breaks. The Army encourages the use of quantity discounts. Quantity price breaks can be included in your price proposal, for example:

1 - 09 = \$1,000.00

10 - 24 = \$900.00

25 - 99 = \$750.00

21.4 Associated Warranty Terms (If Applicable)

**22. Information Assurance:** Sources will outline in this paragraph their solution Information Assurance plan and how it's incorporated into their system.

**23. Frequency Spectrum Certification:**

**24. Software Application (If Applicable):** Offeror's who are planning to submit a solution that is primarily a Software Application Solution for any of the AOSI should answer the following questions within their White Paper.

24.1 What Standards does the software use?

24.2 Were any third party developer kits used?

24.3 What are the CPU requirements?

24.4 What is the storage requirement?

24.5 How is bandwidth affected on the network when using the software?

24.6 What Echelon is the software used?

24.7 Where in the OSI model (or equivalent) does your solution fit?

24.8 What architecture was the software designed to operate on?

24.9 Where in the network architecture does the software reside?

24.10 Was third party software used?

24.11 Is the software open source or proprietary?

24.12 Is the software currently used in any programs of record?

24.13 What testing has been completed on the software?

24.14 What level of certification within the DoD has the software attained?

24.15 What was the development process used to make the software?

24.16 What level of certification (CMMI) does the software developer have?

24.17 Are the original developers still available in the company?

**25. Proposed Demonstration:** Describe the type of demonstration you propose to provide at Aberdeen Proving Grounds, MD. Include the equipment you will bring, power and environmental requirements, data feeds you will provide and the number of personnel supporting the demonstration.

**26. Availability of equipment for laboratory Assessment:** Indicate the type and quantity of equipment you would provide for laboratory assessment and the level of support you would provide on-site to assist in the assessment. Indicate if that equipment and personnel would be available for the entire duration of the laboratory assessment (see Table 3.3).

**27. Additional Features not included elsewhere:**

**V. TRANSPORT LAYER DATA SUBMISSION REQUIREMENTS**

**VI. DoDI 4630 WAVEFORM APPLICATION FORM**

**VII. VENDOR DEMONSTRATION/PRODUCT DISPLAY/FREE SERVICE AGREEMENT**

## **APPENDIX C: TRANSPORT LAYER DATA SUBMISSION REQUIREMENTS**

DATA SUBMISSION REQUIREMENTS: Please include the following information in your white paper package as backup:

### System Information

Product Name

Hardware Nomenclature

Government sponsor

Current NSA Certification level – with supporting documentation

Projected NSA Certification Level

### Waveform Information

Voice capabilities

All supported waveforms (with version numbers)

Link Budget (by modulation type)

Burst rate (by modulation type)

Network Capacity (by modulation type)

Network size limitations (with supporting test results)

MANET Routing protocol

IP Routing architecture and protocols supported

Performance data (field testing and performance modeling)

### Network Management Tools

Support for SNMP

Configuration/Net Management utilities

### Cost Information

Current cost

Estimated Cost @ TBD quantity

Associated Warranty Terms

Logistics/Support information

### Hardware Performance

SCA version (if supported)

Number of hardware channels

Operating Frequency range

Power amplifier size (W)

Volume (in<sup>3</sup>)

Weight (lbs)

Voltage (VDC)

Current draw (A)

GPS integrated /type

Reliance on GPS  
Antenna requirements

Additional Features not included elsewhere

Appendices:

APPENDIX C.1 DoDI 4630 waveform application

APPENDIX C.2 Radio Evaluation and Analysis Lab (REAL) Consolidated Test Plan (Abbreviated)

**APPENDIX C.1 DoDI 4630 WAVEFORM APPLICATION FORM**

DoDI 4630  
WAVEFORM APPLICATION FORM

1. WAVEFORM APPLICATION

a. WAVEFORM descriptions must be completed using the Waveform Application available on the DoD waveform portal. Waveform sponsors shall address all waveform parameters in a narrative format, as illustrated in Table 1. Depending on the acquisition stage of the waveform, some parameters may be target values, theoretical interim values obtained from design models, and/or empirical data collected from fielded waveforms. These values must be updated as the waveform progresses through the acquisition phases to fielding.

Table 1. List of Parameters

<b>General Information</b>	
<b>Parameter</b>	<b>Description</b>
Sponsor Information	
Program Management Office	
Waveform Identification	
Operating network	
Purpose	
Existing approved waveforms inadequate	
<b>Operating Environment</b>	
<b>Parameter</b>	<b>Description</b>
Joint Mission(s) Supported	
Threat Addressed	

Domain	
Architecture Hierarchy	
Network Size (units)	
<b>Operating Requirements</b>	
<b>Parameter</b>	<b>Description</b>
Mode of Operation	
Information Rates	
Network Throughput	
Operating Range	
Reliability	
Anti Jamming Characteristics	
Low Observable (LO) Features (LPI/LPD/LPE)	
Latency	
RF Noise Environment	
Commercial Interoperability (as Applicable)	
<b>Networking Requirements for Waveform Supported Network</b>	
<b>Parameter</b>	<b>Description</b>
Timing and Synchronization	
Formation	
Topology	
Mobility	
QoS	
Data Precedence	

Multimedia	
Multimedia Performance	
<b>Link Layer Performance</b>	
<b>Parameter</b>	<b>Description</b>
Message Support	
Channel Access	
Link Layer Addressing	
Packet Delivery	
<b>Network Layer Performance</b>	
<b>Parameter</b>	<b>Description</b>
Information Flow	
Addressing	
Routing	
Fragmentation	
Link Management	
<b>Network Management Requirements</b>	
<b>Parameter</b>	<b>Description</b>
Planning	
Configuration	
Fault Monitoring	
<b>Information Assurance</b>	
<b>Parameter</b>	<b>Description</b>
Confidentiality	

Availability	
Integrity	
Identification and Authentication	
Transmission Security (TRANSEC)	
Key Management	
Algorithm Management	
Cryptography	
Specifics of IA Accreditation Plan	
<b>Proposed Waveform Host</b>	
<b>Parameter</b>	<b>Description</b>
Existing Software Radio - Rationale, Integration Approach, & Impact to Joint Capabilities	
New Software Radio - Rationale, Integration Approach, & Impact to Joint Capabilities	
<b>Compliance with National, DoD, and Service Spectrum Policy</b>	
<b>Parameter</b>	<b>Description</b>
Compliance with DoD & Joint Staff Spectrum Policy	
Emission Bandwidth	
Spectrum Access	
Spectrum Reuse	
<b>Design Parameters</b>	
<b>Parameter</b>	<b>Description</b>

Processing Requirements	
SLOC	
Description of Internal & External Timing & Synchronization	
Spectrum Sharing	
Vocoder Algorithm	
Modulation	
Coding	
Information Rate	
Frequency Tuning Range	
Allocated Signal Bandwidth	
Signal Description	
Doppler Limitations	
Line of Sight Operating Range	
Media Access & Controls	
Channel Coding	
Waveform Spectral Efficiency	
Error Rates Expected Under Normal & Threat Conditions	
SWAP	
Roadmap to Joint Interoperability with Other Waveforms	
GIG Interface & Interoperability	

## **APPENDIX C.2 RADIO EVALUATION AND ANALYSIS (REAL) CONSOLIDATED TEST PLAN**

### **Test Plan Synopsis**

#### **1.0 Background**

This test plan establishes a series of baseline performance tests to be run in a Government “consumer testing lab” designed to quantify the performance of emerging new GOTS/COTS tactical radios, verify vendor claims, identify performance issues and interoperability concerns, define and test Internet Protocol (IP) routing architectures, and develop mitigation strategies to reduce risks before early field testing of new networks.

The testing is can include a wide variety of potential transport solutions including traditional tactical radios, commercial derivatives like Wimax or cellular, as well as emerging new Mobile Adhoc Network (MANET) radios designed to be used with IP routers and other IP networks to create an IP internetworked Systems of Systems (SoS) for the Warfighter.

#### **1.1 Objective**

The immediate objective of the tests summarized herein is to mitigate risks for Army fielding of networks in annual BCTIE/NIE experiments at Fort Bliss, Texas.

#### **1.2 Scope**

The target Government off-the-shelf (GOTS)/Commercial off-the-shelf (COTS) products fall into four main categories that serve either backbone, vehicular, or dismounted operational domains. These product categories include (1) traditional tactical push-to-talk (PTT) radios, (2) long range point-to-multipoint line of sight (LOS) technologies like Wimax or 802.16, (3) cellular derivatives for tactical use, and (4) MANET networked radios.

##### **1.2.1 Traditional tactical PTT radios**

Traditional tactical radios are being modified to support IP data transmission, even if bandwidth is relatively limited and no other networking services are provided. For this class of radios, point-point testing will be conducted to quantify the throughput using attached host computer devices for transmission of command and control or Situation Awareness data.

##### **1.2.2 Long range Point-to-multipoint LOS technologies**

Testing for this category will consider the CONOPS envisioned for such technology, typically involving static situations (e.g. long range TOC-to-TOC or inter-Command post connectivity). Accordingly, the tests will involve a series of baseline physical layer and

network performance measurements to provide a common baseline for comparison of LOS technology connecting base stations and access points.

Each system tested will involve at least one access point and one or more subscriber devices connected at RF by our attenuator test bed. While the systems under test will require some planned outdoor range testing, this test only addresses internal laboratory RF testing using cabled attenuators in a controlled environment. Therefore, frequency authorization will not be required.

We intend to measure link performance from access point to subscriber, as well as end-to-end performance between two subscribers through the access point using RFC-2544 as discussed in the MANET section of this test plan. We will use RFC 2544 to characterize the individual link performance, capturing the effectiveness of data rate adaptation or adaptive power control on end user throughput and latency. In the process, radio sensitivity and link budgets will be determined for each type of hardware.

Tests will also evaluate interoperability through external systems (e.g., through SIP/VoIP gateways or routers to back-haul networks).

The final phase of testing for this category will include Battle Command application performance tests as described in section 2.4.

### **1.2.3 Cellular derivative technologies**

Testing for this category will include a series of baseline physical layer and network performance measurements to provide a common baseline for comparison of cellular technology

Each system tested will involve one or more cellular Smartphone/handsets accessing a base station. While the systems under test will require some planned outdoor range testing, this test only addresses internal laboratory RF testing using cabled attenuators in a controlled environment. Therefore, frequency authorizations will not be required.

We intend to measure performance from handset to the base station, as well as end-to-end performance between two handsets through the base station using RFC-2544. Testing will characterize the individual link performance of the handhelds, capturing the effectiveness of data rate adaptation or adaptive power control on end user throughput and latency. In the process, radio sensitivity and link budgets will be determined.

Tests will also evaluate interoperability through external systems (e.g., through SIP/VoIP gateways or routers to back-haul networks).

The final phase of testing for this category will include Battle Command application performance tests described in section 2.4.

### **1.2.4 MANET networked radios**

The Army's Capability Set (CS) development process introduces a variety of networked MANET radios deployed in an hierarchical (tiered) architecture using interconnected vehicular backbone networks, typically less than 30 nodes each, along with a number of alternative lower tier stub networks such as Soldier Radio Waveform (SRW) running on Joint Tactical Radio System (JTRS) Handheld Manpack and Small-form Fit (HMS) radios or handheld AN/PRC-148 radios using the Single Channel Ground and Airborne Radio System (SINCGARS) waveform for Radio Based Situation Awareness (RBSA). At the lowest tier, Sensitive but Unclassified (SBU) SRW or SINCGARS RBSA networks feed the upper tier networks with Sensitive but Unclassified (SBU) Situation Awareness (SA) through one way cross domain guard devices but are otherwise isolated from routing to/from the higher tier networks.

## **2.0 Test Methodology**

The planned testing for all product categories follows a common methodical sequence from basic lab tests conducted with a single pair of radios to more complex topologies using a programmable laboratory attenuator matrix. The number of radios tested will vary based on hardware available and will generally vary up to a maximum number of radios supported in a single network by each technology. Additional limitations are introduced by the size of attenuator matrix currently available<sup>1</sup>. While initial performance testing is performed with an iXia test set as traffic generator, actual Battle Command applications are introduced in subsequent tests to quantify application layer performance.

For those radios that comprise IP networks, an important secondary phase of this testing is constructing the actual System of System (SoS) architectures proposed by the Network Synchronization Working Group (NSWG) for BCTIE risk mitigation. These architectures introduce external IP routers to connect multiple networks and evaluate the impact of external routing on each of the networks tested. Although routing tests appropriate to vehicle and dismounted domains will differ in details, they will be designed to characterize the performance of these networks in a larger SoS context and develop effective and survivable routing strategies under the constraints of each of the technologies.

The third phase of the testing involves introduction of Battle Command Applications to determine their operational effectiveness across actual interconnected networks.

Finally, live testing is contemplated, where appropriate and supportable, to provide critical field test data (specifically, range) prior to actual field deployments and to repeat earlier BC application testing in field environments. This phase of the testing is also important to evaluate platform integration requirements. This is particularly important as we move to field an architecture using radios and waveforms in frequency bands not previously tested.

---

<sup>1</sup> Currently using CERDEC Wideband Radio Network Testbed (WRNT) or JFW Industries Transceiver Test Set 50PMA-017

Testing generally follows the logical sequence summarized in Table 2-1:

<b>Test Summary</b>
Link sensitivity/ Adaptive Data Rate
Two node PtP (one hop) throughput/latency (for MANET)
Single Relay (two hop) throughput/latency (for MANET)
Fully Connected (Mesh) throughput/latency (for MANET)
Multihop Relay throughput/latency (for MANET)
Multihop relay voice (for MANET)
Capacity vs Network size
Multiple networks thru gateways
Different TRANSEC keys
QoS
Airborne relay connecting fragments (for MANET)
Network formation and merge (for MANET)
Network fragmentation and rejoins (for MANET)
Network convergence (for MANET)
Mobility between subnets
Battle Command Application tests
SoS Integration
Routing tests
Scenario modeling (recreating MLS and SIT)
Live Range testing

**Table 2-1 Test Summary**

**APPENDIX D: COOPERATIVE TECHNOLOGY ASSESSMENT AGREEMENT**  
COOPERATIVE TECHNOLOGY ASSESSMENT AGREEMENT BETWEEN  
U.S. ARMY PROGRAM EXECUTIVE OFFICE for INTEGRATION  
And (PROVIDER)

POINTS OF CONTACT:

(PROVIDER)

(NAME, TITLE, TELEPHONE, EMAIL)

U.S. ARMY PROGRAM EXECUTIVE OFFICE for INTEGRATION:

(NAME, TITLE, TELEPHONE, EMAIL)

This COOPERATIVE TECHNOLOGY ASSESSMENT (CTA) Agreement is entered into by and between (Provider), with offices located at (Address), hereinafter referred to as the "Provider", and the U.S. Army Program Executive Office for Integration, located at (Address – recommend Ft Bliss, TX address), hereinafter referred to as "PEO I." Provider and PEO I are also referred to individually as a "Party" and collectively as the "Parties." The Parties agree as follows:

TABLE OF CONTENTS

ARTICLE	TITLE	PAGE
Article 1	Purpose	
Article 2	Effective Date and Term of the Agreement	
Article 3	Financial Obligation	
Article 4	Title to Property	
Article 5	Condition of Property	
Article 6	Delivery, Inspection, and Return of Property	
Article 7	Damage or Loss of Property	
Article 8	Software	
Article 9	Data and Publication	
Article 10	Non-Disclosure	
Article 11	Termination	
Article 12	Disputes	
Article 13	Liability	
Article 14	Miscellaneous	
Article 15	Duration of Agreement and Effective Date	

## Article 1: **PURPOSE**

1.1 The purpose of this Agreement is to establish a cooperative effort between PEO I and (Provider) to perform a technology assessment of solutions at Technology Readiness Level (TRL) 6 or above supporting any of the areas of the Army's "Areas of Specific Interest" (AOSI) listed in Appendix A. The goal of this effort is evaluating capabilities of the current, theater provided and emerging network at the Network Integration Evaluation (NIE). A secondary goal is assessing developmental networked and non-networked capabilities. This work falls within the PEO I charter.

1.2 The Parties agree that entering into this Agreement for the stated Purpose is to their mutual benefit, and that such benefit constitutes full and adequate consideration for entering into this Agreement. By entering into this Agreement, neither party assumes any obligations of any kind to the other party not expressly stated herein. This Agreement does not constitute or create a joint venture, partnership, or formal business entity any kind.

1.3 Each Party agrees to participate in the efforts set forth in this AGREEMENT and to use such personnel, resources, facilities, skills, know-how, and information it considers necessary to successfully complete this AGREEMENT. Appendix B lists the type of items/services each party is anticipated to provide under the AGREEMENT.

## Article 2: **EFFECTIVE DATE AND TERM OF THE AGREEMENT**

This Agreement shall become effective upon the date of the last signature by the authorized representatives of the parties. The Term of the Agreement shall continue through the date all obligations created under this Agreement with respect to items provided have been resolved to the mutual satisfaction of the Parties.

## Article 3: **FINANCIAL OBLIGATION**

3.1 It is agreed by the Parties that the Property, Spare Parts, Technical Data, and FSR Support as required shall be provided under this AGREEMENT at no cost to the Government or to any employees, officers, or instrumentalities of the United States of America.

## Article 4: **TITLE TO PROPERTY**

4.1 Equipment. Title to all equipment acquired prior to or during this AGREEMENT shall remain the property of the party that purchased the same unless otherwise transferred, in writing. Any Government Furnished Equipment (GPE) made available to (Provider) under this AGREEMENT shall remain the property of the government and be used solely for the performance of the effort contemplated by this AGREEMENT. Upon completion of efforts under this AGREEMENT, the party owning the equipment shall be responsible for all costs attendant to the maintenance, removal, storage, and shipping of their equipment to their own facility.

4.2 Identification of Toxic, Hazardous, and Other Waste. The parties shall, when the generation of toxic, hazardous, or other wastes is expected during the course of the AGREEMENT, agree upon the expected type and quantity of such waste to be generated, the costs and availability of required disposal permits, and the cost of disposal. Responsibility for such costs shall be identified in advance and negotiated in accordance with Article 4.

#### Article 5: **CONDITION OF PROPERTY**

The property is furnished by the Provider to PEO I in an “as is” condition, and there are no guarantees or warranties concerning the condition of the equipment.

#### Article 6: **DELIVERY, INSPECTION, AND RETURN OF PROPERTY**

6.1. Provider shall deliver the Property for the Lab Demo to PEO I at the (Need APG ship to information) within XX business days of the Effective Date of this Agreement. Provider shall deliver the Property for the NIE to PEO I at the (Need FT Bliss ship to information) within XX business days of notification by PEO I.

6.2. Handling, packaging, transportation, and shipping costs for delivery of the Property to the Delivery Point shall be the responsibility of (Provider) .

6.3. Within seven (7) calendar days after receipt at the Delivery Point, PEO I shall inspect the condition of the Property and promptly report any damage to the Provider.

6.4. PEO I may retain the Property for the Purpose and under the conditions specified herein until (the Date of Termination of the AGREEMENT). The Parties may extend the Date of Termination of the AGREEMENT by mutual agreement in writing.

6.5. Within XX calendar days after the Date of Termination of the Bailment, PEO I shall return the Property to the Provider at (hereinafter the Return Point).

6.6. Handling, packaging, transportation, and shipping costs for delivery of the Property to the Return Point shall be the responsibility of (Provider).

6.7. Within seven (7) calendar days after receipt at the Return Point, the Provider shall inspect the condition of the Property and promptly report any damage to PEO I.

#### Article 7: **DAMAGE OR LOSS OF PROPERTY**

PEO I shall be liable for the loss or damage to the furnished property while in the possession of PEO I solely to the extent provided in accordance with the Federal Tort Claims Act (FTCA). PEO I shall not be responsible for wear and tear to the furnished property that is occasioned by normal and ordinary usage; to include use in a field environment during any evaluations. In the event of loss or irreparable damage to the furnished property, PEO I's maximum liability shall not exceed the Agreed to Value of the furnished property.

#### Article 8: **SOFTWARE**

8.1 Prior Software: The parties agree that all software, software databases and/or software documentation created prior to this AGREEMENT shall remain the property of the party which owned or controlled such material prior to execution of this AGREEMENT.

8.2 (Provider) Employee Software. Title to any copyright in Subject Software written solely by (Provider) in the course of performance of this AGREEMENT shall be held by (Provider.)

8.3 Limits on Rights to Software. U.S. Government does not own all software resident in its computers that may be used in the course of work under this AGREEMENT, and characteristically is the licensee of such third party software. Consequently, in such instances U.S. Government will not provide software, or rights to third party software to United Defense. U.S. Government will only demonstrate the software on U.S. Government computer systems. It will be the responsibility of (Provider) to obtain the appropriate hardware and software rights to run the Technology developed under this AGREEMENT.

8.4 Nothing in Article 8 shall prevent the parties from modifying these software rights in each subsequent Annex.

#### Article 9: **DATA AND PUBLICATION**

9.1 Prior Data. The parties agree that rights in data created prior to this AGREEMENT shall remain with the party creating such data.

9.2 Right of Access. PEO I and (Provider) agree to promptly exchange all Subject Data produced in the course of efforts under this AGREEMENT, whether developed solely by PEO I, jointly, or solely by (Provider). All Subject Data created under this AGREEMENT shall be the property of (Provider), subject however to a Government License.

### 9.3 Proprietary Information and Subject Data.

(i) "Proprietary Information" means information or data marked with a proprietary legend that embodies trade secrets developed at private expense prior to or independent of this AGREEMENT, or information which is confidential business or financial information provided that such information:

(a) is not generally known or available from other sources without obligations concerning its confidentiality;

(b) has not been made available by the owners to others without obligation concerning its confidentiality; and

(c) is not already available to the Government without obligation concerning its confidentiality.

(ii) If Proprietary Information will be provided by (Provider) to PEO I during the course of this AGREEMENT, (Provider) shall place the phrase "(Provider) Proprietary Information" on each page of information developed prior to or independent of this AGREEMENT clearly indicating what information on that page meets the definition of "Proprietary Information" as stated above. PEO I agrees that any such marked Proprietary Information furnished by (Provider) to PEO I under this AGREEMENT, or in contemplation of this AGREEMENT, shall be used by PEO I only for the purpose of carrying out this AGREEMENT. PEO I will protect such Proprietary Information in the same way that it protects information marked "For Official Use Only" and will use its best efforts to avoid disclosing, without the prior written consent of (Provider), such information, by copy or reproduction, for five (5) years from receipt by the Government except as such information may be subject to disclosure under the Freedom of Information Act (5 U.S.C. 552).

(ii) For a period of five (5) years after creation of Subject Data that would be a trade secret, commercial and/or financial information that would be privileged or confidential if the information had been obtained solely from a non-Federal party, PEO I shall provide appropriate protection against the dissemination of such information, including exemption from Subchapter IT of Chapter 5 of Title 5. (See 15 U.S.C. 3710a(c) (7) ()). In the event (Provider) notifies PEO I that it desires such Subject Data to be protected, PEO I shall mark such protected Subject Data with "Protected under the CTA No. ". Notwithstanding the above, any Subject Data which:

(a) is known to the recipient Party (without an obligation to keep same proprietary) at the time of disclosure;

(b) is acquired by the recipient Party after the date of disclosure from an independent third party who is not subject to any obligation of confidentiality in respect of such data;

(c) is at the time of its disclosure in the public domain or became public knowledge during the term of this AGREEMENT otherwise than by reason of the recipient Party's neglect or breach of the restrictions set out in this or any other AGREEMENT;

(d) is independently developed by the recipient Party without use of any or all of the delivered data;

(e) was inherently disclosed by public sale or other release of products or services authorized by the disclosing Party; or

(f) is treated otherwise by written agreement between the Parties;

shall not be so categorized and will be treated as unprotected Subject Data. PEO I does, however, retain a Government License in such Subject Data.

#### 9.4 Release Restrictions.

(i) PEO I in reporting on the results of evaluations under this AGREEMENT may publish Subject Data in technical articles and other documents to the extent it deems appropriate, subject to the restrictions in Articles 9.2, 9.3 and 9.5 hereof; and

(ii) PEO I may release such Subject Data, subject to Article 9.3 hereof, where such release is required pursuant to a request under the Freedom of Information Act (5 U.S.c. 552); except that such data will not be released to the public if a patent application is to be filed (35 U.S.C. Section 205) and until the party having the right to file has had a reasonable time to file. Neither party shall make any disclosure, which may adversely affect the other party's rights in such data.

9.5 Publication. PEO I and (Provider) agree that both parties shall have the right to publish Subject Data in either a report and/or in the open literature with the written consent of the other party. Any such publication(s) will be co-authored as appropriate by both parties with the decision concerning the principal author dependent upon the content of the proposed publication. Any such publication(s) will require reasonable notice to and consultation among the parties prior to the publication of Subject Data in order to jointly assure that no Proprietary

Information is released and that ample opportunity to file patent applications in a timely manner is available.

9.6 Nothing in this Article 9 shall prevent the parties from modifying these data rights in each subsequent Annex.

#### Article 10: **NON-DISCLOSURE**

10.1 If, in addition to the transfer of the Property, the Parties desire to exchange technical information related to the Property, the exchange of technical information shall be subject to any such supplemental nondisclosure agreement as they may enter into.

10.2 In addition to the transfer of the Property, the Parties intend to exchange technical information related to the Property. The Parties agree to use their best efforts to enter into the PEO I Standard Nondisclosure Agreement that shall apply to the transfers of technical information.

#### Article 11: **TERMINATION**

11.1 Termination. The parties may elect to terminate this AGREEMENT or portions thereof by mutual consent or by unilateral action at any time by giving the other party written notice, not less than 30 days prior to the desired termination date.

11.2 Termination Procedures. In the event of termination, the parties shall specify by written notice the disposition of all property and other results of work accomplished or in progress, arising from or performed under this AGREEMENT. Upon the receipt of written termination notice, the parties shall not make any new commitments that relate to this AGREEMENT. Notwithstanding any other provision of this AGREEMENT, any exclusive license entered into by the parties relating to this AGREEMENT shall be simultaneously terminated unless the parties mutually agree to retain such exclusive license.

#### Article 12: **DISPUTES**

11.1 Settlement. (Provider) and PEO I recognize that disputes arising under this AGREEMENT are best resolved at the lowest working level by the parties directly involved. Any dispute arising under this AGREEMENT which is not disposed of by agreement of the parties at the working level shall be submitted jointly to the then head of the PEO I or his designee and the head of (Provider) or his designee for resolution.

#### Article 13: **LIABILITY**

12.1 Property. (Provider) will be responsible for damage to Government equipment and facilities proximately caused by the negligence of (Provider) employees, agents, and/or business invitees. The Government responsibilities for damage to (Provider) equipment and facilities by Government employees, agents, and/or business invitees will be subject to the provisions of the FTCA or other applicable federal laws or regulations.

#### Article 14: **MISCELLANEOUS**

14.1 No Benefits. No member of, or delegate to the United States Congress, or resident commissioner, shall be admitted to any share or part of this AGREEMENT, nor to any benefit that may arise there from; but this provision shall not be construed to extend to this AGREEMENT if made with a corporation for its general benefit.

14.2 Governing Law. The construction, validity, performance and effect of this AGREEMENT for all purposes shall be governed by the laws applicable to the Government of the United States.

14.3 Entire Agreement. This AGREEMENT constitutes the entire agreement between the parties concerning the subject matter hereof and supersedes any prior understanding or written or oral agreement relative to said matter.

14.4 Waivers. None of the provisions of this AGREEMENT shall be considered waived by any party hereto unless such waiver is given in writing to all other parties.

14.5 Severability. The illegality or invalidity of any provisions of this AGREEMENT shall not impair, affect or invalidate the other provisions of this AGREEMENT.

14.6 Amendments. Any modification to this AGREEMENT shall be in writing, signed by all parties hereto, and approved as appropriate.

14.7 Assignment. Neither this AGREEMENT nor any rights or obligations of any party hereunder shall be assigned or otherwise transferred by either party without the prior written consent of the other party except that (Provider) may assign this AGREEMENT to the successors or assignees of a substantial portion of (Provider's) business interests to which this AGREEMENT directly pertains.

14.8 Notices. All notices pertaining to or required by this AGREEMENT shall be in writing, signed by an authorized representative and shall be delivered as follows:

If to (Provider):

If to PEO I:

14.9 Independent Contractors. Neither party shall be an agent of the other, both being independent contractors.

14.10 Use of Name or Endorsements. Neither party shall use the name of the other party or its employees on any product or service which is directly or indirectly related to this AGREEMENT without the prior written approval of the other party except that both parties are free to publicly announce the existence of this AGREEMENT. By entering into this AGREEMENT neither party directly or indirectly endorses any product or service provided, or to be provided, by the other party, its successors, assignees, or licensees.

14.11 Compliance with Export Control. The parties hereto acknowledge that information and technology resulting from the performance of this Agreement may be subject to export control laws and regulations, and each party is responsible for its own compliance with such laws and regulations. Nothing in this Agreement waives any such statutory or regulatory requirements.

14.12 Classified Data: An exchange of classified data shall comply with appropriate Department of Defense Contract Security Classification Specification and Industrial Security Manual.

14.13 Duration of Agreement. In no case will this AGREEMENT extend beyond 5 YEARS from the Effective Date of this AGREEMENT, unless it is revised in accordance with Article 13 of this AGREEMENT. The provisions of Article 3 - "Reports"; Article 5 - "Title to Property"; Article 6 "Software"; Article 7 - "Inventions and Patents"; Article 8 - "Data and Publications"; Article 12.5 "Indemnification"; and Article 13.10 - "Use of Name or Endorsements" shall survive the early termination of this AGREEMENT.

14.14 Effective Date. The effective date of this AGREEMENT shall be the latest date of execution below.

#### **Article 15. DURATION OF AGREEMENT AND EFFECTIVE DATE**

15.1 Duration of Agreement. In no case will this AGREEMENT extend beyond 5 YEARS from the Effective Date of this AGREEMENT, unless it is revised in accordance with Article 13 of this AGREEMENT. The provisions of Article 3 - "Reports"; Article 5 - "Title to Property"; Article 6 "Software"; Article 7 - "Inventions and Patents"; Article 8 - "Data and Publications"; Article 12.5 "Indemnification"; and Article 13.10 - "Use of Name or Endorsements" shall survive the early termination of this AGREEMENT.

15.2 Effective Date. The effective date of this AGREEMENT shall be the latest date of execution below.

IN WITNESS WHEREOF: the parties have caused this AGREEMENT to be executed

by their duly authorized representative as follows:

FOR THE PROVIDER:

FOR THE GOVERNMENT:

Signature:  
Typed Name:  
Title:  
Date:

Signature:  
Typed Name:  
Title:  
Date:

The following are items/services it is anticipated the Provider will provide under this AGREEMENT

Item(s) to be evaluated. This may include hardware, firmware, or software solutions.

Spare Parts. As required to support Lab Demo and NIE.

FSR Support. As required to support Lab Demo and NIE.

The following The following are items/services it is anticipated the Government will provide under this AGREEMENT

Facilities. To include Lab space, test sites, maintenance bays, secure storage, test vehicles, etc.

Testers.

Evaluators.

Reports. Evaluation reports, test data, etc.

Safety Certification/Release.

"A" Kits.

## **APPENDIX E: NETWORK INTEGRATION EXERCISE RESPONSIBILITIES**

**General:** Participation in the NIE involves integration of your candidate solution into a live field exercise where the equipment or software you provide will be operated by soldiers for a period in excess of six weeks. During the run up to the exercise, you will be required to train soldiers on the operation of your candidate solution, assist in the physical, electronic, software and data integration of your solution with emerging and existing equipment, assist in a preparatory communications exercise to verify connectivity of the exercise equipment and a trial run prior to the event itself.

**Solution Integration:** To the extent that your candidate solution integrates with existing equipment, you're equipment may need to undergo modification and adaptation. This can include physical modification and bracketing if physical integration is required, electronic or electrical cabling modification to connect the solution with other equipment, or software coding or patch application to allow your solution to interface with existing equipment. Software applications you provide may have to be hosted on existing computing platforms in a VM environment if your solution candidate does not use its own platform. Integration with existing equipment and systems may require Information Assurance qualification or NSA certification which if not already completed may result in denial of access to existing equipment for integration.

**Field Support Representative (FSR):** Your equipment, while on site at Ft. Bliss/WSMR will require on site field support representation to set up, tear down, assist in integration, maintain and train on the use of your candidate solution. Travel, accommodations and transportation for FSR personnel are your responsibility. Access to the actual test site will require the use of four wheel drive equipment.

**Government Integration Support:** The NIE is staffed by engineers and technicians familiar with integration of complex equipment into military hardware and software. Ultimately, it is their responsibility to assist in the integration process; however it is your responsibility to provide the integration support unique to your candidate solution.

**Access to Candidate Solution Equipment During NIE Execution:** Your FSR will have limited access to the equipment during the conduct of the NIE exercise itself. This equipment will be in the hands of soldiers and possibly at considerable distance over rough terrain.