PASSIVE

RADIO FREQUENCY IDENTIFICATION (pRFID) III

PERFORMANCE WORK STATEMENT

Revision 14

28 June 2022

PASSIVE RADIO FREQUENCY IDENTIFICATION TECHNOLOGY IV (pRFID-III)
PERFORMANCE WORK STATEMENT (PWS)

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1 SCOPE

The Mission of Automated Movement and Identification Solutions (AMIS) is to provide a single point of contact for procurement and technical expertise across the suite of Automatic Identification Technology (AIT) enabling technologies that support focused logistics, Total Asset Visibility (TAV), and the integration of global supply chains. The Passive Radio Frequency Identification (pRFID) III Contract will provide hardware, software, documentation, and, incidental services to authorized users worldwide. Incidental services include training, warranty and maintenance services, and technical engineering services (TES). All Passive RFID hardware will conform to the EPC Global Standards / Specifications for each Class of Tags. In addition, future requirements involving portal readers, extended memory Tags, sensor enabled Tags, and smart fixed readers will be reviewed on a biannual basis to determine applicability with regard to Government use and implementation. Hardware and software delivery and installation, as well as performance of associated training and warranty and maintenance services, will be required at CONUS and OCONUS Government sites. Performance of TES will be required at CONUS and OCONUS Government sites, and the Contractor facility.

1.1 PROJECT OBJECTIVES

The objective of the pRFID III acquisition is to provide a state-of-the-art, common, integrated structure for logistic identification, tracking, locating, and monitoring of commodities and assets. In addition, Item Unique Identification (IUID) marking, data collection, storage information, retrieval methods, information processing, and transmission of Tag data will greatly enhance systems within the Department of Defense (DoD), United States Coast Guard, other Federal Agencies, North Atlantic Treaty Organization (NATO), Coalition Partners and, other Foreign Military Sales (FMS). Passive RFID technology will provide standardization and interoperability amongst Government Users of Passive RFID equipment and incidental services acquired from the pRFID III Contract.

1.2 DESCRIPTION AND SPECIFICATION

This Description and Specification sets forth the requirements for the pRFID III Contract.

The Contracts shall provide for commercially available Passive RFID technology communications hardware, software, TES, documentation, training, and warranty and, maintenance services, to provide a common, integrated structure for logistics tracking, locating, and monitoring of assets for all Users.

The definition of Passive RFID (also referred to as pRFID) components for the purposes of this Contract are those commercial products necessary for Passive Radio Frequency Identification, the tracking of tagged commodities and assets, data collection, keyless data entry, data processing, data storage, and retrieval. The standalone terms “Passive RFID and “pRFID” as used in this Contract initially refer to Passive technology.

The pRFID III Contract will provide pRFID hardware and software that will be used in fixed and mobile locations. The pRFID III requirements include, but are not limited to, microprocessor-based RFID hardware, software, data communications, and turnkey integration services to include: pRFID Tags, pRFID Fixed Readers; pRFID Enabled Printers; pRFID Hand-Held Readers; pRFID Vehicle Mount Readers; pRFID Smart Tables; Rechargeable Batteries and Battery Chargers; Software

(Configuration/Operational Software for PC, Configuration/Operational Software for Hand-Held Reader, Application Development Software and Special Software Development Tool Kits/Utility Libraries, Integration Software, pRFID Enabled Printer Software); upgrades and updates to all delivered Software; Separately Orderable Components; TES (Installation, De-installation, and Relocation of pRFID components); Software Development Services; Middleware Development Services for Task Orders; Commercially available Middleware for Task Orders; System Integration; IUID marking and Implementation Support; Warranty; Maintenance; Program Management; and Training.

Turnkey solutions integrating technology purchased under the pRFID III Contract with existing Government provided AIT shall be provided under TES Task Orders to provide a transparent solution to the User. The pRFID Tags provided under this Contract shall have 100% readability in an optimal environment, as defined by the Contractor, when applied to but not limited to the following materials: metals, fiberboard, plastic, wood, and glass. pRFID Tags (available in roll form) provided on this Contract shall be compatible with the Printer provided under this Contract. pRFID Printers shall write to and correctly verify programmed Tags after printing / encoding. pRFID technologies are applied to areas such as inventory and warehousing environments; supply chain tracking, control of maintenance, repair, and tracking facilities; control of entry and exit points of military facilities, and roadside installations; control of transactions at custody exchange points (e.g., weapons issue facilities); the military transportation community (e.g., seaports and aerial ports); the handling of hazardous explosives; and for other regulated materials.

The Government reserves the right to add a transit case(s) to the Contract to support missions that require rapid deployment worldwide of groups of pRFID equipment. In the event the Government has a requirement to add a transit case(s) to the Contract, the Contracting officer will request a CCP, and the Contractor shall submit a CCP in accordance with the paragraphs “Current Technology Substitutions and Additions” and “Contract Change Proposal (CCP) Response Time” stated in Section H of the base IDIQ contract.

1.3 GENERAL

The Government shall utilize pRFID technologies in applications that demand performance on a higher level than that available with bar code and other automated data storage and retrieval technologies. Passive RFID Tags will be affixed to pallets, cases, and assets or other objects of interest to capture and transmit varying amounts of data, which can be stored (either permanently or temporarily) and processed. The Government requires pRFID Readers that shall be programmable to read pRFID, Tags. The Reader shall read and write information to pRFID Tags. This feature shall enable a User to locate, track, and monitor the status of a Tag and its associated commodity and asset, or to alter the data stored on a Tag.

1.4 PASSIVE RFID APPLICATIONS

Some anticipated applications of pRFID technology include, but are not limited to the following:

a. Inventory and warehousing environments;

b. Supply chain tracking;
c. Large open-area storage facilities (austere marshaling areas, and staging and assembly areas), with or without electrical power or an established communications infrastructure;
d. The control of maintenance, repair, and tracking facilities;
e. The control of entry and exit points of military facilities, and roadside installations;
f. Restricted office and laboratory environments;
g. The control of transactions at custody exchange points (for example, weapons issue facilities);
h. The military transportation community (for example, seaports and aerial ports), and petroleum distribution points (including fueling operations at airports, in-flight, and at sea);
i. The handling of hazardous, explosive, or otherwise regulated materials; and
j. The control of military convoys.

1.5 GEOGRAPHIC LOCATIONS

The Government requires equipment that can be used worldwide in accordance with the EPC global Standard, Version 2.0 (excluding Japan).

1.6 RESTRICTION OF HAZARDOUS SUBSTANCES (ROHS)

All hardware provided under the Contract shall comply with the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002L0095:EN:HTML.

1.7 OFFICIAL HOURS OF OPERATION

The Contractor shall provide support during local Official Hours of Operation (defined in paragraph “Definition of Terms” in this Part), based on the geographic location of the Government site at which the support will be provided except for Hours of Operation requirements that are specified in paragraphs “Toll-Free Customer Support Help Desk” and “On-Call Maintenance” in this Part.

1.8 ATTACHMENTS AND EXHIBITS

The following exhibits are contained in Section J:

a. Exhibit A - Safe Separation Distance between a RF Source and Unshielded Munitions Containing 10 mA No-fire Current Electro-explosive Devices (EEDs).
b. Exhibit B – pRFID III Contract Status Report

2 APPLICABLE DOCUMENTS, DEFINITIONS, AND ACRONYMS

2.1 FEDERAL INFORMATION PROCESSING STANDARDS

Copies of the Federal Information Processing Standards (FIPS) may be obtained from the following:

U.S. Department of Commerce
National Technical Information Service
5301 Shawnee Road

Alexandria, VA 22312
Telephone: 1-800-553-6847
http://www.ntis.gov/

2.2 ELECTRONIC PRODUCT CODE (EPC) GLOBAL STANDARDS

Copies of the EPCglobal Standards may be obtained from the following:

EPCglobal US
Princeton Pike Corporate Center
1009 Lenox Drive, Suite 202
Lawrenceville, NJ 08648
Phone: 609.620.4671
Fax: 609.620.0255
Website: http://www.gs1us.org/resources/standards

2.3 FEDERAL COMMUNICATION COMMISSION (FCC) REGULATIONS

Federal Communications Commission (FCC) Regulations can be obtained from the Government Printing Office web site listed below:

http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title47/47tab_02.tpl

International Transcription Services
732 North Capitol Street, NW
Washington, DC 20401-0001
Telephone Ordering: 202-512-1800

2.4 UID AND IUID POLICY REGULATIONS

Updates to Policy and associated Guides for Unique Identification (UID) and IUID of Tangible Items, can be obtained from the following:

http://www.uidforum.com/

http://www.acq.osd.mil/dpap/pdi/uid/index.html

2.5 ARMY SECURITY POLICY REGULATIONS

http://www.army.mil/usapa/epubs/25_Series_Collection_1.html

2.6 DOD SECURITY POLICY REGULATIONS AND DFARS

Security Policy Regulations: http://www.dtic.mil/

DFARS: http://www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html

2.7 OMB CIRCULAR NO. A-130 REVISED

http://www.whitehouse.gov/omb/circulars/a130/a130trans4.html

2.8 DEFINITION OF TERMS

THE FOLLOWING ARE DEFINITIONS OF TERMS USED IN THIS SPECIFICATION. ALL OTHER DEFINITIONS AND MEANINGS USED IN THIS SPECIFICATION WILL BE THOSE THAT ARE COMMONLY USED IN THE RADIO FREQUENCY IDENTIFICATION TECHNOLOGY INDUSTRY.

a. Continental United States (CONUS): All locations and sites within the 48 contiguous States.

b. Industrially Hardened Components: Components that can operate in a warehouse or manufacturing setting and are capable of surviving the rough treatment and handling often found in shipping areas, loading docks, catwalks, ladders, or on the floor of a manufacturing facility.

c. Non-incendive: See paragraph entitled “Hazardous Environment.”

d. Outside Continental United States (OCONUS): All locations outside the 48 contiguous States of the U.S. OCONUS locations include, but are not limited to, Alaska, Hawaii, U.S. Territories and Possessions, Europe, Asia, and Australia.

e. Official Hours of Operation: Official hours of operation are from 8:00 a.m. to 5:00 p.m. local time, Monday through Friday, excluding Federal holidays, for each Government facility possessing Passive RFID components.

f. Return Material Authorization (RMA): This is a number that shall be assigned by the Contractor for tracking Passive RFID EPCglobal components returned for warranty or maintenance service. This number shall be furnished to the RFID user to assist in ascertaining the status of those components.

2.9 ACRONYMS

The following are acronyms used in this Specification:

AC	Alternating Current
AIS	Automated Information System
ANSI	American National Standards Institute
CLIN	Contract Line Item Number
CONUS	Continental United States
COR	Contracting Officer’s Representative
DC	Direct Current
DoD	Department of Defense
EIT	Electronic and Information Technology
EPC	Electronic Product Code
FCA	Functional Configuration Audit
FCC	Federal Communications Commission
FIPS	Federal Information Processing Standard
FMS	Foreign Military Sales
HERO	Hazards of Electromagnetic Radiation to Ordnance
HHR	Hand-Held Reader

IA	Information Assurance
IEEE	Institute of Electrical and Electronics Engineers
IPT	Integrated Product Team
IUID	Item Unique Identification
DISR	Defense Information Standards Registry
MESR	Monthly Equipment Service Report
NI	Non-incendive
NIAP	National Information Assurance Partnership
NIST	National Institute of Standards and Technology
NTIA	National Telecommunications and Information Administration
OCONUS	Outside Continental United States
OEM	Original Equipment Manufacturer
OG	Ordering Guide
PC	Personal Computer
PCA	Physical Configuration Audit
PM	Product Manager
PPR	Project Progress Review
PWS	Performance Work Statement
RC	Repair Center
RFID	Radio Frequency Identification
RMA	Return Material Authorization
SLIN	Sub-Line Item Number
TCP/IP	Transmission Control Protocol/Internet Protocol
TES	Technical Engineering Services
WLAN	Wireless Local Area Network
UID	Unique Identification
UL	Underwriters Laboratory
USB	Universal Serial Bus

3 PASSIVE RFID TECHNOLOGY REQUIREMENTS

3.1 GENERAL

The Contractor shall provide all necessary hardware, software, data communications, cables, connectors, peripherals, training, installation support services, TES, and documentation (e.g., User Manuals) to operate and maintain the pRFID technologies as stated in this Specification. Due to the diversity of applications, the Contractor shall provide the TES necessary to configure, install, interface, and integrate, the appropriate hardware and software to satisfy specified applications, which will identified in the TES Task Order. The Government requires equipment that supports the requirements of the Joint Technical Architecture, if applicable. The Government requires Contractor support during Official Hours of Operations except for Hours of Operation requirements that are specified in paragraphs “Toll-Free Customer Support Help Desk” and “On-Call Maintenance” in this Part. The Government requires commercial software packages and software for application development. Program Management is required to support the Government’s efficient execution of this Contract. Warranty services are required to ensure the operational availability of pRFID equipment. TES / Turnkey solutions are required to help the Government incorporate pRFID equipment into various

Automated Information Systems (AIS). Training and documentation are required to inform and educate the Government User.

3.2 DEFENSE INFORMATION STANDARDS REGISTRY (DISR) COMPLIANCE

The DISR is the minimal set of rules governing the arrangement, interaction, and interdependence of the parts or elements that together form an information system. Its purpose is to ensure that DoD systems are interoperable, scalable, and portable. The pRFID III equipment specified in this Contract is not considered by DoD to be a system. Rather, pRFID III equipment is used to provide data entry front-ends for DoD systems. This Specification includes small computer platforms and components that may be proprietary, or that have neither the capacity nor the scope to satisfy DISR requirements. For example, the operating systems for hand held terminals do not meet Common Operating Environment requirements. DISR requirements for modeling and designing a system are also not required by this Contract. Systems developers incorporating pRFID III equipment purchased from this Contract will address product modeling and design requirements in their system models and designs. The DISR requirement for purposes of this Contract is for pRFID III equipment to interface with supported systems. Interface requirements for pRFID III equipment are part of the specifications for these components. For each component provided by the Contractor, the Contractor shall identify each external interface of the component for which a standard interface specified in the DISR applies, and shall certify that each interface is compliant with a DISR standard.

3.3 OPERATING ENVIRONMENTS

The pRFID III equipment may be subject to operating in diverse / rugged environments, and under a full spectrum of climatic conditions (desert and Arctic areas). The pRFID III equipment may be subject to rough handling, shock, and vibration during transportation, setup, and dismantling. The pRFID III equipment shall be capable of use in industrial, hazardous, and ordnance environments, on board surface and subsurface naval vessels, aircraft, tanks, in conditions that range from protected and controlled (office settings) to extremely harsh and severe environments and in areas with high levels of electromagnetic noise and interference. All components acquired from this Contract shall meet applicable Environmental Protection Act requirements. The Government requires pRFID equipment that shall operate in the following environments: electromagnetic, hazardous, ordnance and radio frequency environments. The Government requires pRFID equipment that shall operate, at a minimum, in the following temperature ranges:

pRFID Fixed Reader
Operating Temperature: -4 to 120 degrees F
Storage Temperature: -4 to 140 degrees F

pRFID Hand Held Reader (Models A, B G)
Operating Temperature: 32 to 120 degrees F
Storage Temperature: -4 to 140 degrees F

pRFID Hand Held Reader (Models C, D, E and F) Operating Temperature: -4 to 120 degrees F Storage Temperature: -20 to 150 degrees F

pRFID Enabled Bar Code Label Printer Operating Temperature: 45 to 95 degrees F Storage Temperature: 25 to 100 degrees F

3.3.1 Electromagnetic Environment

Commercial pRFID equipment may be used in vicinity with spectrum-dependent devices that receive low-level signals and/or transmit high-level signals (See MIL-STD-464C: Interface Standard for Systems Electromagnetic Environmental Effects). In order to certify the use of commercial pRFID equipment in these environments, the Government may subject representative categories of equipment to radiated emission and susceptibility tests (See MIL-STD 461F: Requirements for the Control of Electromagnetic Interference Emissions and Susceptibility). The Contractor shall provide timely support for Government-testing efforts by providing technical data sheets and responding to Contracting Officer's Representative requests for additional data.

3.3.2 Electrostatic Discharge

Commercial pRFID packaging of the Tags shall control and dissipate the effects of electrostatic discharge, minimally 5kV, with regard to the degradation or damage to the electronics, which make up the components of the Tag.

3.3.3 Hazardous Environment

The Contractor shall provide, no later than 90 days after the Notice to Proceed, equipment that is identified and certified as Non-incendive (NI) for operation in environments where flammable and explosive gases and vapors may be present, where specifically required in this Specification. The following minimum NI requirements shall be met:

1. Class 1 and 2 (Gases and Vapors)
   Division 2 (Not present in normal operation)
   Groups
   A (Acetylene)
   B (Hydrogen)
   C (Ethyl Ether, Ethylene)
   D (Acetone, Ammonia, Benzene, Butane, Cyclopropane, Ethanol, Gasoline, Hexane, Methanol, Methane, Natural Gas, Naphtha, Propane)

2. Class 2 (Combustible Dust)
   Division 2 (Not present in normal operation)
   Groups
   F (Combustible carbonaceous dusts)
   G (All other combustible dusts, such as grain dust)

3. Class 3 (Easily Ignitable Fibers)

Division 2 (Not present in normal operation)

NI is a rating classification of equipment specifically defined in the National Electrical Code (NEC). In order to receive a NI rating, the Contractor shall have demonstrated under normal operation equipment cannot produce a spark or other undesirable effects that might cause combustion in any potentially hazardous environment. The presence of gases, vapors, flammable liquids, combustible dust, or ignitable fiber or filings are examples of potentially hazardous environments. Equipment shall be certified by an approved testing laboratory meeting Occupation Safety Hazards Act standards. Circuits shall not be capable of producing a spark under normal operation. The pRFID III equipment may be used under conventional, chemical, or biological warfare conditions. The Contractor shall label Passive RFID III components that are approved for use in a hazardous environment in accordance with governing body markings.

3.3.4 Ordnance Environment

The pRFID equipment may be used near ordnance susceptible to radiated energy. In order to certify the use of pRFID equipment in these environments, the Government may subject representative categories of equipment to stringent Hazards of Electromagnetic Radiation to Ordnance (HERO) environment testing (See MIL-STD 464C). The Contractor shall support HERO testing via a TES Task Order.

3.3.5 Testing

The Contractor shall support Government-testing efforts by providing technical data sheets and responding to the COR’s requests for additional data.

3.3.6 Safety

A determination of the required safe separation distance can be made by referring to the graph entitled “Safe Separation Distance Between an RF Source and Unshielded Munitions Containing 10 mA No-fire Current Electro-Explosive Devices (EEDs)” in Exhibit-A. This graph relates safe separation distances to irradiate output power as a function of operating frequency. Although many ordnance items have no EEDs, and other items have EEDs that are less sensitive to RF energy, this requirement represents a worst-case scenario that ensures safe operation around what frequently is unknown ordnance (unknown to transporters and others).

3.3.7 Device Labels

All items requiring HERO testing shall have a warning label affixed to each item that clearly indicates the safe separation distance that must be maintained between ordnance and the irradiating source after HERO evaluation is completed after contract award. The safe separation distance will be determined after HERO testing is completed (post-award). All separation distances shall be specified and added to labeling at that time. All equipment shall be clearly marked with applicable pRFID and WLAN operating frequency ranges. All equipment certified as Non-Incendive shall be marked in accordance with the National Electrical Code. Any CAC Reader that is not

certified for NI operation shall have a label affixed which states “Not for use in an NI environment”.

3.3.8 Radio Regulatory Compliance

The Government requires pRFID technologies that operate in worldwide frequency spectrums. DoD will obtain “Equipment Frequency Allocation Guidance” approvals for procuring equipment that is designed to either emit or receive electromagnetic (radio frequency) energy. DoD will also obtain frequency assignments to operate the items at each specific location in CONUS. The Government will operate equipment acquired under this Contract consistent with Federal regulations governing the use of the electromagnetic spectrum and the policies and procedures of DoD Directives and Instructions: DoDI 3222.3 Operation of the DoD Electromagnetic Environmental Effects Program; DoDD 4650.1 Policy for Management and Use of the Electromagnetic Spectrum; DoDD 5000.1 The Defense Acquisition Program; and DoDI 5000.2 Operation of the Defense Acquisition Program. To facilitate obtaining frequency allocations and assignments in CONUS, the Government requires equipment that is non-licensed to comply with National Technical Information Association Manual Annex K and with FCC Part 15, regulations for Government operations. In order to verify the use of pRFID III equipment the Government may subject selected pieces of equipment to electromagnetic compatibility tests (see MIL-STD-461F). The Contractor shall provide all technical data required to complete a DD Form 1494, Application For Equipment Frequency Application, after Contract award to support the DoD frequency allocation-to-equipment process, including information concerning specifications and testing of the transmitter, receiver and antenna characteristics.

3.3.9 Rugged Environment

Certain pRFID III equipment will be used by the Government in “rugged environments” (i.e., industrial and field settings under temperate, arctic, maritime and desert conditions). The words “rugged” or “ruggedized,” when used herein mean that the Government requires that such pRFID equipment be designed, built, and tested to ensure reliable and continuous performance in all rugged environments. In this environment, pRFID equipment may be subjected to rough handling, continuous operational use, vibration, dropping onto hard surfaces, and shock caused by transportation over rough terrain.

3.4 BAR CODE REQUIREMENTS

When bar code capability is required by this specification, equipment and software shall decode and printers shall print symbologies that comply with industry standards and specifications for Code 39, Code 128, CODABAR, Interleaved 2 of five, European Article Numbering System (EAN), Universal Product Code (UPC), PDF 417, and Data Matrix ECC 200. Where bar code capability is required by this specification, the Contractor-provided equipment shall provide for the printing and decoding of the data printed on the Passive RFID EPCglobal Enabled Bar Code Labels per these standards. Equipment shall be capable of printing or decoding these symbologies with a nominal ‘x’ dimension of 10 mils for linear and PDF (10 mil cell module width for Data Matrix).

3.5 ORIGINAL EQUIPMENT MANUFACTURER ENGINEERING CHANGES

All Original Equipment Manufacturer (OEM)-sponsored Engineering Changes (ECs) adopted prior to the date of Contract award shall be incorporated into the hardware and software delivered under this Contract.

3.6 CONNECTIVITY TO GOVERNMENT-OWNED COMPUTERS

The Government currently uses a wide variety of processor-based computers that will connect with the Contractor-provided pRFID equipment. Connections shall be in accordance with standard protocols (ex., RS-232, RS-485, USB, TCP/IP, Institute of Electrical and Electronics Engineers (IEEE) 802.11).

3.7 AC/DC POWER REQUIREMENTS

3.7.1 Power Requirements

The Contractor shall provide equipment designed and certified to meet quality and safety standards of Underwriters Laboratory (UL) or an equivalent laboratory. The Contractor shall provide pRFID equipment equipped with power supplies, fuses, adapters, and cables to use with locally available commercial power. The pRFID equipment shall be compatible with the power supply, and power outlets or connectors, for the geographic area in which the component is to be operated as specified in the Task Order, Delivery Order, or purchase card order. Plug Types for various geographic locations are listed on the web site:
http://www.interpower.com/ic/guide.html.

3.7.2 Battery Operated pRFID Readers

Each battery operated Reader shall be delivered with two sets of rechargeable batteries (one complete set of operational batteries and one complete set of spare batteries) and an AC Adapter (if required for AC operation).

3.7.3 Rechargeable Batteries

Rechargeable Batteries shall provide sufficient capacity to allow a minimum of four hours of continuous Reader operation. Rechargeable Batteries shall not require discharge in order to attain full functionality and total rated battery capacity. The Contractor shall provide rechargeable batteries that are capable of charge operations without removal from pRFID III equipment. All rechargeable batteries shall be User-replaceable by hand or with the use of commonly available tools. The Contractor shall provide battery chargers as Separately Orderable Components, and shall replace re-chargeable batteries during the warranty period for batteries that are found defective (e.g. will not hold four-hour charge). The Contractor may provide battery chargers designed either to charge a single operating set of batteries, or to charge multiple battery sets concurrently.

3.7.4 Internal Back-up Power

The Contractor shall provide:

a. A method to maintain the configuration settings within all applicable pRFID III equipment (any Hand-Held Reader (HHR), Reader, or other products that include firmware);
b. A method for the configuration settings to be maintained for a minimum of 400 hours when the rechargeable battery or the AC Adapter power (if required for AC operation) is not available;
c. A method for the rechargeable battery or AC Adapter power (if required for AC operation) source to recharge the internal back-up power source, if any.

3.7.5 Battery Protection

The Contractor shall provide a methodology to prevent premature battery depletion while in shipment or in storage before initial use for any device containing non-rechargeable batteries.

3.7.6 Hand-Held Reader (HHR) Low-Power Operation

Battery-operated Hand-Held pRFID Readers shall provide the User at a minimum with a low battery power indicator. The low-battery power indicator shall provide the User with at least five minutes of advanced warning of an automatic shutdown. Battery-operated Hand-Held Readers shall automatically shut down before battery power is completely exhausted in order to preserve stored data and conserve power. Battery-operated Hand-Held Readers shall have an automatic, User-definable, time-out capability to conserve battery power during periods of inactivity. The Government requires a feature that allows the User to terminate the time-out period and restore full operation with a single command to the Reader.

3.8 ACCESSIBILITY

The Contractor shall provide a comprehensive list of all provided specific electronic and information technology (EIT) products (supplies and services) that fully comply with Section 508 of the Rehabilitation Act of 1973, per the 1998 Amendments, and the Architectural and Transportation Barriers Compliance Board's Electronic and Information Technology Accessibility Standards at 36 CFR Part 1194. The Contractor shall clearly indicate where this list with full details of compliance can be found (e.g., Contractor, subcontractor, vendor's, or other exact web page location). The Contractor shall ensure that the list is easily accessible by a typical User beginning five calendar days after receipt of the pRFID III Contract award. The Contractor shall maintain this detailed listing of compliant products for the full Contract term, including all forms of Contract extensions, and shall ensure that the detailed listing is updated no later than three calendar days of any changes to the Contractor's, subcontractor's, or vendor's product line. The Contractor shall ensure that all EIT products that are not fully compliant are the most compliant products and services available to satisfy this pRFID III Contract. The Contractor shall, for every EIT product provided under this pRFID III Contract that does not comply with 36 CFR Part 1194, make every effort to replace or upgrade it with a compliant product or service, if commercially available at no additional cost to the Government.

3.9 EQUIPMENT DELIVERY REQUIREMENTS

The Contractor shall provide all necessary software, cables, power adapters, connectors, drivers, essential accessories, and ancillary items in order to make each

deliverable hardware item fully operational, which meets the intent of this Contract. All wireless products (such as, but not limited to HHRs, Access Points, Network switches /controllers, etc.) shall include an integrated, certified, interoperable FIPS 140-2 security solution and shall be WPA2 compliant (certified to the IEEE 802.11i interoperability standard).

3.10 EXPEDITED DELIVERY REQUIREMENTS

The Contractor shall provide Expedited Delivery for CONUS and OCONUS locations when specified in equipment orders (Delivery Orders and Government wide Purchase Card Orders). Delivery shall comply with the requirements of the paragraph entitled “Expedited Delivery” in Section H of the base IDIQ contract.

3.11 UNIQUE IDENTIFICATION

Applicable items, as identified in DFARS 252.211-7003, Item Identification and Valuation (Dec 2013), found in Section I of the RFP, shall be permanently marked in accordance with latest version of Military Standard-130, Department of Defense Standard Practice: Identification Making of US Military Property and Version 3.0 of the DoD Guide to Uniquely Identifying Items. If an original part number is used as a component of the Unique Item Identifier (UII), it shall be the identifier assigned by the original design activity or by a controlling nationally recognized standard. Contractors using Wide Area Workflow (WAWF) shall use the receiving report capability of WAWF to register the Item Unique Identification (IUID) of those end items (CLINs) requiring IUID but may use alternate methods of registering other items such as IUID-required components of end items. Contractors not using WAWF will use alternate methods to register all items requiring IUID. The required Error Correction Code 200 Data Matrix marks containing the data from which the unique item identifier (UII) is derived shall be verified and validated as prescribed by MIL-STD-130 (latest version). A copy of that validation and verification report for the first instance of each CLIN, SLIN and component delivered under the contract and designated by DFARS 252.211-7003 as requiring IUID shall be provided to the COR within 7 days of the date the uniquely identified item is shipped. The contractor shall maintain the additional reports of verification and validation required by DFARS 252.211-7003, subject to government examination, for one year. DFARS 252.211-7003 requires that the packaging of uniquely identified items be marked as provided by MIL-STD-129 (latest version). That version is currently MIL-STD-129R, which requires use of a PDF417 mark and enveloping of UIIs and serial numbers. Within 60 days of the base IDIQ contract award, contractors shall provide an IUID Marking Activity Validation and Verification report (DI-MGMT-81894A) assuring the COR that packaging will be marked IAW MIL-STD-129 requirements (IAW CDRL A014).

3.12 IPV6 CAPABLE ASSETS

The Contractor shall warrant that each item delivered under the pRFID III Contract shall accurately transmit, receive, process, and function correctly using the Internet Protocol Version 6 (IPv6). Specifically, the Contractor warrants that: 1) each item delivered complies with the current DISR developed IPv6 standards profile; 2) each item delivered maintains interoperability with IPv4 (specifically, shall operate on/coexist on a network supporting IPv4 only, IPv6 only, or a hybrid of IPv4 and IPv6); and 3) each item delivered is supported by the Contractor’s IPv6 technical support. Additionally, as IPv6

evolves, the Contractor shall upgrade or provide an appropriate migration path for each item delivered. The duration of this warranty and the remedies available to the Government for breach of this warranty shall be as defined in, and subject to, the terms and limitations of the Contractor's standard commercial warranty or warranties contained in this Contract, provided that notwithstanding any provision(s) to the contrary in such commercial warranty or warranties, the remedies available to the Government under this warranty shall include repair or replacement of any product whose non-compliance is discovered and made known to the Contractor no later than one year after acceptance. Nothing in this warranty shall be construed to limit any rights or remedies the Government shall otherwise have under this pRFID III Contract with respect to defects other than IPv6 performance.

3.13 HAZARDS OF ELECTROMAGNETIC RADIATION TO PERSONNEL (HERP)

The Contractor shall ensure that all equipment provided under the Contract shall comply with all applicable human exposure to RF safety standards per the following regulations:

a. DODI 6055.11 - Protection of DoD Personnel from Exposure to Radiofrequency Radiation and Military Exempt Lasers
b. IEEE Standard C95.1, 1999 Edition - IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
c. CFR 47 Chapter I, Part 1, Subpart I, Section 1.1310 - Radiofrequency radiation exposure limits
d. NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management - 8.2.28 Radiation Hazards, and Annex K - Technical Standards for Federal "Non-Licensed" Devices

4 pRFID EQUIPMENT REQUIREMENTS.

4.1 pRFID REQUIREMENTS

a. The Government requires all pRFID Tags be read and written, using a variety of Readers as described in this Part.

b. All pRFID Readers and Printers provided under this Contract shall be furnished with labels clearly indicating: (1) that the item is approved for use in either of the two frequency ranges specified, and (2) appropriately marked in accordance with requirements of paragraph 3.3.7 above. The Vendor shall maintain a current and updated list of countries and frequencies, and provide equipment (by country) approved for use in the country designated in the government order. All products shall be marked with the frequency, or in accordance with the host-country regulations.

4.2 PRFID FUNCTIONAL / DEVICE REQUIREMENTS

4.2.1 pRFID Fixed Reader[RESERVED, NOT AVAILABLE FOR ORDERING]

The Contractor shall provide 902-928MHz fixed Readers that shall read pRFID tags without any firmware and software changes. The reading range of Tags shall be

attenuable from its maximum operating distance to near contact through the Reader's firmware or other easily addressable method. The Readers shall accommodate a minimum of two antennas. The Reader shall read a minimum of 100 tags per second. The write range of Tags shall be attenuable from its maximum operating distance to near contact through the Reader's firmware or other easily addressable method. The pRFID Fixed Readers shall also be easily upgradeable to accommodate any future firmware changes. In addition, the pRFID Fixed Readers shall be easily installed by one individual in a location using the Contractor-provided, separately orderable, Mounting Kit. The Contractor shall provide a Mounting Kit as a Separately Orderable Component.

4.2.1.1 Low Profile Fixed Reader[RESERVED, NOT AVAILABLE FOR ORDERING]

The Contractor shall provide 902-928MHz HERO TESTED low profile fixed pRFID Readers with appropriate standoff distance identified per 3.3.7. The fixed reader shall have size dimensions less than or equal to 7.5” H x 6.9” W x 1.2” D, and shall weight less than or equal to 1.5lbs. The readers need to be delivered must be able to acquire access to a Cribmaster Last Point Read (LPR) license. The Contractor shall also provide a far field pRFID Antenna compatible with the low profile fixed reader. The readers/antenna when combined must meet the Hazards of Electromagnetic Radiation Ordnance (HERO) standards, required by Naval Facilities Command Instruction (NAVFACINST) 11010.45, Regional Planning Instruction Site Approval Process. The reader/antenna combo must have received approval from Naval Ordnance Safety and Security Activity (NOSSA) to operate. Readers must also support wireless 802.1-x authentication.

In addition to the above reader and antenna, the following brand name or equivalent items need to be provided as separately orderable items: [RESERVED, NOT AVAILABLE FOR ORDERING]

a. RP TNC Male Connector Crimp/Solder Attachment OR Equivalent Male Connector Crimp/Solder Attachment with Impedance 50 ohms, 240 series connector compatible with 240-LLPL coaxial RF cable.
b. RF Connector, TNC Straight Crimp Jack for RG-8X, LMR-240, 50 Ohm, Reverse Polarized
c. Universal Power Cord compatible with the Low profile fixed reader. Voltage: INPUT: 110VAC, 60 Hz, 1.5 AMPS, OUTPUT: +24V DC, 800mA - Plugs: INPUT: Std 3 Prong 120 VAC, 15 AMP – OUTPUT.
d. OUTDOOR ANTENNA BOX - UV Resistant, Weatherproof, Polycarbonate antenna box with IP-66 rating or better, shock resistant, with 1"- 2" access holes on the bottom of housing for cables and has a Mounting bracket capable of mounting to a 3" pipe.
e. WATER TIGHT READER ENCLOSURE - Weatherproof IP-66 rated or better - UV Resistant - shock Resistant Polycarbonate Reader Enclosure with 1"- 2" access holes on the bottom of housing for cables and has a Mounting bracket capable of mounting to a 3" pipe.
f. Fully Articulating Die Cast Wall OR Mast Mounting Bracket for 2 or 4 stud panel Antennas. Height: Min: 6" Max: 9".

4.2.1.2 Dock Door RFID Portal /Reader[]

The Contractor shall provide 902-928MHz Class 1 Gen2 (ISO 18006) Dock Door RFID Portals/ Readers. The Readers shall be fully integrated and accommodate a minimum of three antennas as part of the configuration solution. The antennas shall have the capability to be rotated to reduce cross RF reads between receiving stations. The read range of the dock portal shall be attenuable and still retain adequate RF power to maintain coverage for material passing through the dock (1 to 12 feet). The door dock portals shall have integrated motion sensors to turn on the RF reader when activity is detected at the dock area. The RF reader shall be provided with a minimum 32GB integrated SD storage card, and the integrated operating system shall be compliant with current DISA Security Technical Implementation Guides. The portals shall accommodate Power over Ethernet and provide LED indicators for troubleshooting /diagnostics. Additionally the dock reader shall provide a 802.11 a/b/g/n FIPS 140-2 compliant data interface.

In addition to the above Dock Door RFID Portal / Reader, the following ancillary items shall to be provided as separately orderable items:

a. Primary/Secondary option – Dock Door Portal/Reader contains antennas only, no reader. The RF and General-Purpose Input/Output are bundled from Primary RFID Portal/Reader.
b. Dock Door Installation Kit (hardware only) – includes brackets, connector wiring/cabling per device (also accommodates the Secondary optional configuration)
c. Dock Door Floor Mounting Kit

4.2.1.3 Compact /Sealed RFID Reader with Integrated Antennas[

The Contractor shall provide 902-928MHz compact and sealed (IP 65) RFID reader/antenna enclosures. The overall size of the integrated RFID reader unit with antennas shall not exceed 48” long by 12” wide by 1.5 “thick. Readers shall be fully integrated and accommodate a minimum of two antennas as part of the enclosure configuration. The enclosure shall accommodate a proximity sensor to provide a response to traffic moving in front of or between units. The RFID reader shall support Ethernet, a FIPS 140-2 compliant 802.11 configuration, serial port, and console port. Additionally, the RFID reader/antenna enclosure shall include built-in stack light and minimum 80dB audible annunciator.

In addition to the above Compact/Sealed RFID Reader / Antenna Enclosure, the following ancillary items shall to be provided as separately orderable items:

a. Primary/Secondary Enclosure – contains antennas, 802.11 communications, stacklight, annunciator, proximity sensor, Ethernet, console, USB, and serial ports, no reader.
b. RFID Reader/Antenna Enclosure Installation Kit (hardware only) – includes brackets, wiring/cabling per device (also accommodates the Secondary optional configuration)
c. Reader Display Counter Module
d. RFID Reader/Antenna Enclosure Floor Mounting Kit

e. RFID Reader/Antenna Enclosure External Proximity sensor with mounting hardware and interface cable

4.2.1.4 RFID Fixed Readers

The Contractor shall provide 902-928MHz 2 port Class 1 Gen2 (ISO 18006) RFID Fixed Readers. The Readers shall provide for input power or PoE connectivity (PoE is the default baseline configuration). The RF reader shall have the following minimum interfaces; General Purpose Input Output (GPIO), controller area network bus, RJ45 Ethernet, USB A, serial port and diagnostic indicators. The Reader shall have a minimum 32GB integrated SD storage card and the integrated operating system shall be compliant with current DISA Security Technical Implementation Guides. The Reader shall provide a 802.11 a/b/g/n (FIPS 140-2) and provide store and forward capability for all transactions.

In addition to the above RFID Reader, the following additional configurations and ancillary items shall to be provided as separately orderable items:

a. Same required RFID readers as described in 4.2.1.4 but accommodate a 4 port RFID Reader in lieu of 2 ports.
b. Same required RFID readers as described in 4.2.1.4 but accommodate for a 8 port RFID Reader in lieu of 2 ports
c. IP 67 rated NEMA Enclosure (with appropriate cutouts)
d. Hardware Installation Kit (hardware only) to include I Beam Mount, and connector cables per device

4.2.2 pRFID Vehicle Mount Fixed Reader. [RESERVED, NOT AVAILABLE FOR ORDERING]

The Contractor shall provide 902-928MHz Passive pRFID Vehicle Mount Readers that shall read pRFID tags without any firmware and software changes. The reading range of Tags shall be attenuable from its maximum operating distance to near contact through the Reader's firmware or other easily addressable method. The Vehicle Mount Reader shall include a minimum of two antennas. The Reader shall read a minimum of 100 tags per second. The Vehicle Mount Reader is intended to read all tags being transported by the vehicle, from single items to a complete pallet load. The Vehicle Mount Reader is intended only to read Tags transported by the vehicle. The pRFID Vehicle Mount Readers shall also be easily upgradeable to accommodate any future firmware changes. In addition, the Vehicle Mount Readers shall include all wiring, power adapters (for forklift power), hardware required for mounting, installation, and operation on a standard industrial warehouse vehicle.

4.2.3 pRFID Smart Table.

The Contractor shall provide 902-928MHz pRFID Smart Tables. The Smart Table shall include fixed Readers that shall read / write Class 1, Gen 2, tags without any firmware and software changes. The reading range of Tags shall be attenuable from its maximum operating distance to near contact through the Reader's firmware or other easily addressable method. The Smart Table shall include an appropriate antenna configuration to function to its' fullest extent. The Reader shall read Tags, which are placed on or above the table or placed in non-metallic containers or shipping cartons on

the table. The Reader shall not read tags that are removed from the proximity of table. The Reader shall read a minimum of 100 tags per second. The write range of Tags shall be attenuable from its maximum operating distance to near contact through the Reader's firmware or other easily addressable method. The pRFID Smart Table shall accommodate an operating system that is compliant with current DISA Security Technical Implementation Guides. The Readers shall provide for input power or PoE connectivity. The pRFID Smart Table shall have the following minimum interfaces; Ethernet, controller area network bus, Cat5/6 RJ45, serial port and diagnostic/local notification indicators.

The following pRFID Smart Table work surfaces configurations and ancillary items shall to be provided:

a. 48” x 36”
b. 60” x 20”
c. 36” x 24”
d. 72""x 36”
e. PRFID Smart Table Installation kit

4.2.3.1 pRFID Smart Table Adjustable Height

In addition to the requirements stated in paragraph 4.2.3.a (excluding the controller area network bus, Cat 5/6 RJ45, and serial ports), the pRFID Smart Table shall have a minimum adjustable height from 21 inches to at least 30 inches. The height adjustments shall be in 1incn increments.

4.2.4 pRFID Hand-Held Reader

The Contractor shall provide Hand-Held Readers that shall read and write to Class 1, Gen 2 (ISO 18000-6c) pRFID Tags. The Readers shall be capable of reading a minimum of 100 tags per second. The reading range of Tags shall be attenuable from its maximum operating distance to within 1/32 of an inch through the Readers’ firmware or other easily addressable method. The write range of Tags shall be attenuable from its maximum operating distance to within 1/32 of an inch through the Readers’ firmware or other easily addressable method. The pRFID Hand-Held Readers shall also be easily upgradeable to support future product revisions. The pRFID Hand-Held Readers shall be an ergonomically designed unit that shall be functionally equivalent to the Fixed Reader. The pRFID Hand-Held Readers shall be User-programmable, and shall provide the User with assistance or prompts to perform required functions.

The pRFID Hand-Held Readers shall be portable and powered by Rechargeable Batteries. Each pRFID Hand-Held Reader, antenna, power supply, and any component required for operation shall be integrated to operate as a one-piece Hand-Held unit with a trigger handle (excluding Models C, D, E , F and G). The pRFID Hand-Held Readers shall have installed Microsoft Windows Mobile 6.x or a later version., unless otherwise noted. The Hand-Held Readers shall have Common Criteria Certification for Windows Mobile incorporated, and should relevant AIT equipment specific Common Criteria Protection Profiles be adopted, the Hand Held Readers will be required to be compliant a the Medium Robustness level within one year of Common Criteria Protection Profile adoption announcement.

The pRFID Hand-Held Readers shall have a manual data input interface as well as User-programmable functions. The manual data input interface shall be capable of utilizing a full alphanumeric data entry system (26 alphabetic and 10 numeric characters). The pRFID Hand-Held Readers shall have a User-selectable, night-readable display, capable of displaying at least 80 characters without scrolling. The Government requires that the pRFID Hand-Held Readers be capable of scanning and decoding the linear and 2D symbologies listed in the paragraph entitled “Bar Code Requirements.” The pRFID readers shall operate in rugged environments. The Government desires pRFID Hand-Held Readers that can operate in a wider temperature range than the environmental temperatures stated in the paragraph entitled “Operating Environments” in this Part. Radio Frequency Data Communication capability shall be included in the Hand-Held Reader and shall conform to the requirements of IEEE 802.11a/b/g, with user ability to configure for a, b, g, or any combination thereof. All IEEE 802.11a/b/g/N products include an integrated, certified, interoperable FIPS 140-2 security solution and shall be WPA2 compliant (certified to the IEEE 802.11i interoperability standard).

Each Hand Held Reader shall include a communications/charging dock with appropriate power supply and power cable, a complete set of operational batteries, and a complete set of spare batteries. The communications/charging dock shall be support charging the HHR operational battery without removal from the HHR and simultaneous charging of the spare battery. The communications dock shall provide for both USB and Ethernet connectivity of the HHR.

Hand Held Reader Models A and B shall include an integrated memory storage card with a minimum of 2GB. Hand Held Reader Models C, D, E and F shall include an integrated memory storage card with a minimum of 4GB. Hand Held Readers shall include a utility program to monitor and display battery status.

All Hand Held Readers shall be capable of supporting CAC enablement software. HHRs shall also be capable of supporting DoD Public Key Infrastructure (PKI) interfaces (reference: http://iase.disa.mil/pki/index.html).

This device, as all hardware items, is subject to the Equipment Delivery Requirements described in paragraph 3.9 and the Security Standards described in paragraph 6.2, of this document. Hardware is required to be fully operational.

4.2.4.1 Separately Orderable Components (excluding ModelG)

[RESERVED, NOT AVAILABLE FOR ORDERING HHR-A, HHR-B, HHR-C and HHR-D

CAC Reader including CAC Reader software and a provision to pair and charge the CAC reader, as/if required. If the CAC Reader is not certified for NI operation, there shall be a label affixed which states “Not for use in an NI environment”. If the CAC Reader utilizes Bluetooth radio communications, the Bluetooth communications must be FIPS 140 encrypted.

Carrying Device for carrying the Hand Held Reader, which shall be hands-free device (e.g., holster or belt clip).

Rechargeable Battery

AC Adapter

Docking Station (Models C, D, E, and F) to include ac adapter and power cord

USB Smart Card Reader (Models E and F only) – SCR shall:

a. be bus powered;
b. accommodate an operating temperature of 32 to 120 degrees Fahrenheit;
c. have integrated 1.5 meter (minimum) cable with USB type A connector;
d. contain an LED status indicator;
e. be compatible with Win 10 OS (32 and 64 bit); and,
f. is ISO IEC 7816 compliant.

4.2.4.2 Hand Held Readers shall be offered in the following configurations:

4.2.4.2.1 A Model, Standard 902-928MHz and 862 MHz~870 MHz
Shall meet all requirements as stated in paragraph 4.2.4 above. [RESERVED, NOT AVAILABLE FOR ORDERING]

4.2.4.2.2 B Model, Non-Incendive 902-928MHz and 862 MHz~870 MHz
In addition to the requirements stated in paragraph 4.2.4 above, Model B Hand Held Readers shall be certified Non-Incendive as described in the paragraph titled "Hazardous Environments" in this document. [RESERVED, NOT AVAILABLE FOR ORDERING]

4.2.4.2.3 C Model, 902-928 MHZ and 862 MHz~870MHz (Tablet Form Factor)

Hand Held Reader, SMALL DISPLAY, INTEGRATGED IMAGER, FULL ALPHANUMERIC KEYPAD CAPABILITY. [RESERVED, NOT AVAILABLE FOR ORDERING]

The Contractor shall provide user-programmable HHR-C that meets all requirements as stated in paragraph 4.2.4 above. In addition to those requirements, the C Model shall have dimensions no larger than 5.5" x 8.5" x 1.4" with an active viewing area of 7". The C model HHR shall have an IP68 rating and meet or exceed multiple 4-foot drops to concrete per Mil-Std 810.

The HHR-C shall be delivered with an integrated Common Access Card (CAC) Reader or Mini USB port for integration with a CAC reader (purchased separately). The HHR-C at a minimum shall have the following integrated features (functions); Global Navigation Satellite (GNSS) Global Positioning System, Long Range Bluetooth (v4.0), 4G LTE (GSM or Verizon support), 8MP camera, near field communication (ISO/IEC 14443), scratch resistant display with 1280 x 800 resolution. User shall have the capability to enable/disable all radios both manually and by firmware. The HHR-C shall be capable of communicating with the Portable/Wearable Bar Code Label Printer through a cable interface.

The mobile device shall accommodate the latest version DISA approved Microsoft Operating System, (Windows 10 Professional, updated with the latest Service Pack), and must implement and be in compliance with the International Standard ISO/IEC 11889:2015 or the Trusted Computing Group Trusted Platform Module (TPM) 2.0 Library, Revision 1.16 (or later) specification. For Army orders: unless otherwise specified the HHR shall be integrated with a default Win 10 AGM, (latest approved version, if applicable) Operating System and Application image load as stated in the guidelines under NETCOM Technical Authority Implementation Memorandum For Army End-User Computing Environment, Version 2 (NETC-G-0412-002-E-STD) or most current version. NETCOM will manage and maintain configuration management control over the standard AGM configuration. The AGM support desk maintains a list of approved hardware vendors. If the Contractor is not listed on the approved Army vendors list, the Contractor shall coordinate with the pRFID III customer (Army government agency) the availability of the appropriate AGM-based image so that it can be integrated onto the HHR platform, or the Contractor shall obtain a customer waiver (exemption) for the AGM install. The contractor shall maintain and update images for their platforms using the AGM standard configuration and provide NETCOM with a copy of each platform specific image delivered to the Army. Note: The US Army Golden Master program is responsible for the release of the Army Standard Baseline Configurations for commonly used computing environment within the Army Enterprise Infrastructure. The AGM baseline may change throughout the life of the contract as directed by the Government.

4.2.4.2.4 D Model, Non-Incendive 902-928MHz and 862 MHz~870 MHz

In addition to the requirements stated in paragraph 4.2.4.2.3 above, Model D Hand Held Readers shall be certified Non-Incendive as described in the paragraph titled Hazardous Environments in this document. [RESERVED, NOT AVAILABLE FOR ORDERING]

4.2.4.2.5 E Model, 902-928 MHZ (Tablet Form Factor)

Hand Held Reader, SMALL DISPLAY, INTEGRATGED IMAGER, FULL ALPHANUMERIC KEYPAD CAPABILITY.
The Contractor shall provide user-programmable HHR-E that meets all requirements as stated in paragraph 4.2.4 above. In addition to those requirements, the E Model shall have dimensions no larger than 5.5” x 8.5” x 1.4” with an active viewing area of 7”. The E model HHR shall have minimum 8GB of RAM, an IP68 rating, and meet or exceed multiple 4-foot drops to concrete per Mil-Std 810.

The HHR-E shall be delivered with an integrated Common Access Card (CAC) Reader or USB port for integration with a CAC reader (purchased separately). The HHR-E at a minimum shall have the following integrated features (functions); Global Navigation Satellite (GNSS) Global Positioning System, Long Range Bluetooth (v5.0), 4G LTE (GSM or Verizon support), 8MP camera, near field communication (ISO/IEC 14443), scratch resistant display with 1280 x 800 resolution. User shall have the capability to enable/disable all radios both manually and by firmware. The HHR-E shall be capable of communicating with the Portable/Wearable Bar Code Label Printer through a cable interface.

The mobile device shall accommodate the latest version DISA approved Microsoft Operating System, (Windows 10 Professional, updated with the latest Service Pack), and must implement and be in compliance with the International Standard ISO/IEC 11889:2015 or the Trusted Computing Group Trusted Platform Module (TPM) 2.0 Library, Revision 1.16 (or later) specification. The contractor shall harden the OS to the DISA Risk Management Executive (RME) configuration. The current method of hardening Windows 10 is to create the system using the Win 10 Secure Host Baseline image and then applying the Security Technical Implementation Guide Group (STIG) Group Policy Object (GPO) requirements. . The point of contact (POC) at DISA is disa.letterkenny.re.mbx.stig-customer-support-mailbox@mail.mil
For Army orders: unless otherwise specified the HHR shall be integrated with a default Win 10 AGM, (latest approved version, if applicable) Operating System and Application image load as stated in the guidelines under NETCOM Technical Authority Implementation Memorandum For Army End-User Computing Environment, Version 2 (NETC-G- 0412-002-E-STD) or most current version. NETCOM will manage and maintain configuration management control over the standard AGM configuration. The AGM support desk maintains a list of approved hardware vendors. If the Contractor is not listed on the approved Army vendors list, the Contractor shall coordinate with the pRFID III customer (Army government agency) the availability of the appropriate AGM-based image so that it can be integrated onto the HHR platform, or the Contractor shall obtain a customer waiver (exemption) for the AGM install. The contractor shall maintain and update images for their platforms using the AGM standard configuration and provide NETCOM with a copy of each platform specific image delivered to the Army. Note: The US Army Golden Master program is responsible for the release of the Army Standard Baseline Configurations for commonly used computing environment within the Army Enterprise Infrastructure. The AGM baseline may change throughout the life of the contract as directed by the Government

4.2.4.2.6 F Model, Non-Incendive 902-928MHz

In addition to the requirements stated in paragraph 4.2.4.2.5 above, Model F Hand Held Readers shall be certified Non-Incendive as described in the paragraph titled Hazardous Environments in this document. 4.2.4.2.7 G Model, 902-928 MHZ (Tablet Form Factor)

Hand Held Reader, SMALL DISPLAY, INTEGRATGED IMAGER, FULL ALPHANUMERIC KEYPAD CAPABILITY.

The Contractor shall provide user-programmable HHR-G that meets all requirements as stated in paragraph 4.2.4 above. In addition to those requirements, the G Model shall have dimensions no larger than 3.75” x 7.75” x 1.25”, weigh less than 2 Lbs., with an active viewing area of 6”. The G model HHR shall have minimum 8GB of RAM, 256 GB SSD, an IP65 rating, and meet or exceed multiple 4-foot drops to concrete per Mil-Std 810.

The HHR-G shall be delivered with an integrated Common Access Card (CAC) Reader. The HHR-G at a minimum shall have the following integrated features (functions); Global Navigation Satellite (GNSS) Global Positioning System,
WiFi 802.11 FIPS 140-2 compliant, Bluetooth (FIPS 140-2 compliant), 8MP camera, scratch resistant display with 720 x 1440 resolution. User shall have the capability

to enable/disable all radios both manually and by firmware. The HHR-G shall be capable of communicating with the Portable/Wearable Bar Code Label Printer through a cable interface.

The mobile device shall accommodate the latest version DISA approved Microsoft Operating System, (Windows 10 Professional, updated with the latest Service Pack), and must implement and be in compliance with the International Standard ISO/IEC 11889:2015 or the Trusted Computing Group Trusted Platform Module (TPM) 2.0 Library, Revision 1.16 (or later) specification. The contractor shall harden the OS to the DISA Risk Management Executive (RME) configuration. The current method of hardening Windows 10 is to create the system using the Win 10 Secure Host Baseline image and then applying the Security Technical Implementation Guide Group (STIG) Group Policy Object (GPO) requirements. . The point of contact (POC) at DISA is disa.letterkenny.re.mbx.stig-customer-support-mailbox@mail.mil
For Army orders: unless otherwise specified the HHR shall be integrated with a default Win 10 AGM, (latest approved version, if applicable) Operating System and Application image load as stated in the guidelines under NETCOM Technical Authority Implementation Memorandum For Army End-User Computing Environment, Version 2 (NETC-G- 0412-002-E-STD) or most current version. NETCOM will manage and maintain configuration management control over the standard AGM configuration. The AGM support desk maintains a list of approved hardware vendors. If the Contractor is not listed on the approved Army vendors list, the Contractor shall coordinate with the pRFID III customer (Army government agency) the availability of the appropriate AGM-based image so that it can be integrated onto the HHR platform, or the Contractor shall obtain a customer waiver (exemption) for the AGM install. The contractor shall maintain and update images for their platforms using the AGM standard configuration and provide NETCOM with a copy of each platform specific image delivered to the Army. Note: The US Army Golden Master program is responsible for the release of the Army Standard Baseline Configurations for commonly used computing environment within the Army Enterprise Infrastructure. The AGM baseline may change throughout the life of the contract as directed by the Government

4.2.4.2.8 RESERVED

4.2.4.2.9 Separately Orderable Components (for Model G)

A). Carrying Device for carrying the Hand Held Reader, Hands-free device (e.g., holster or belt clip) – two configurations

> HHR only

> HHR with Pistol Grip UHF Handle

B). Rechargeable Battery
C). Multiple Battery Charger (Minimum 2) to include ac adapter and power cord
D). Pistol Grip Handle - two configurations[> Supports to trigger the barcode scanner module.

> Supports UHF RFID Reader

E). Tethered Replacement Styli

F). Transparent Screen Protector
G). Detachable Hand Strap

H). Docking Station /Battery Charger to include ac adapter and power cord. Minimum, (3) USB 3.0 Type A, (1) HDMI, and (1) RJ45 Ethernet interface ports.

J). Single Charging Station with AC adapter and power cord.
Support to charge with or without pistol grip UHF Reader
K). AC/DC Power adapter with Power cord[

4.2.5 pRFID Tags.

The Government requires pRFID Tags. These Tags will be used in industrial, hazardous, and ordnance environments described in this Part.

a. The Government requires pRFID tags integrated with Shipping Labels. The Shipping Labels shall be of synthetic label media for use with Thermal Transfer resin ribbon. They shall be provided in roll form suitable for use with the pRFID Enabled Bar Code Label Printer. They shall be provided in 4” by 2” and 4” by 6” label sizes.

b. The Government requires pRFID tags integrated with labels and optimized for tracking of documents. The Document Tracking labels shall be of paper media for use with Direct Thermal printing (no ribbon). They shall be provided in roll form suitable for use with the pRFID Enabled Bar Code Label Printer.

c. The Government requires pRFID hardened tags suitable for permanent attachment to office equipment and other assets. The tags shall be hermetically sealed.

d. The Government requires pRFID hardened tags with an incorporated standoff suitable for permanent use on various materials including metals and containers holding liquids. The tags shall be hermetically sealed.

e. The Government requires EPCglobal Class 3, Gen 2 battery assisted, hardened tags with an incorporated standoff suitable for permanent use on various materials including metals and containers holding liquids. The tags shall be hermetically sealed.

f. The Government requires EPCglobal Class 1, Gen 2 tamper evident passive contactless UHF tags suitable for mounting via an integrated wire loop. The tags shall be hermetically sealed

4.2.5.1 pRFID TAG READABILITY REQUIREMENTS

pRFID tags shall meet the following performance requirements as set forth in Military Standard 129P w/Change 4, paragraph 4.9, Passive Radio Frequency Identification (RFID):

a. The requirement for the palletized unit load passive RFID tags, the pRFID tags on the shipping containers and exterior containers within the palletized unit load, and the UID item unit pack pRFID tags that

are passing through a portal, is that the read distance shall be at least 3 meters (3.3 yards), reading passive RFID tags at 10 miles per hour (for example, forklift).

b. Conveyor. The requirement for an individual shipping container pRFID tag, an individual exterior container pRFID tag, and the UID item pack pRFID tag moving on a conveyor, is that the read distance shall be a minimum of 1 meter (1.1 yards), reading pRFID tags traveling at a speed of 600 feet per minute.

4.2.6 pRFID Enabled Bar Code Label Printer.

The Contractor shall provide 902-928MHz Enabled Bar Code Label Printers that concurrently print bar codes, text, and graphics, as well as write, read, and verify the Tag's information. The pRFID Enabled Bar Code Label Printers shall have the ability to encode Tag information and print the label utilizing embedded Bar Code Label and Form Design Software. The Contractor shall provide a pRFID Enabled Bar Code Label Printer with the following features and components:

a. Ruggedized construction;
b. Concurrently printing bar code symbols, text, graphics, as well as write/read/verify the Tag;
c. Pre-configured from the factory to print labels and write to/read tags upon delivery;
d. Easily upgradeable to new firmware revisions;
e. Print using thermal transfer printing;
f. Print roll-fed continuous Tags;
g. Print bar code symbologies with a minimum resolution of 203 dpi;
h. Print all bar code symbols and densities with at least a Grade A print quality, as defined in ANSI IEEE 802.11g X3.182-1990 (R1995);
i. Print bar codes and nomenclature in all four of the cardinal directions;
j. Store User-designed forms and label formats in printer protected memory comparable in size and data content to the DD Form 1387, Military Shipment Label;
k. Print the linear (with Human Readable Information) and 2D bar code symbologies listed in the paragraph entitled "Bar Code Requirements," in addition to free text, symbols, and graphics;
l. Have at least the following ports: USB, parallel, IEEE 802.3/Ethernet Network Interface Card with 10BaseT connector supporting TCP/IP;
m. A minimum four-inch throat size;
n. Delivered with one 4" wide resin-based printer ribbon;
o. Delivered with an Operator Maintenance Kit;
p. Driver support provided for all Microsoft supported versions of Microsoft Operating Systems;
q. Non-operational Tags shall not be utilized and shall be marked accordingly.

4.2.6.1 Separately Orderable Components

The Contractor shall provide the following Separately Orderable Components for the pRFID Enabled Bar Code Label Printer:

a. Operator's Maintenance Kit;

b. Replacement Print Head;

4.2.6.2 Consumable Supply

The Contractor shall provide a Resin-based printer ribbon as a Consumable Supply for the pRFID Enabled Bar Code Label Printer.

4.2.7 pRFID Desktop Reader/Writer[RESERVED, NOT AVAILABLE FOR ORDERING]

The Contractor shall provide a 902-928 MHz and 862 MHz~870 MHz pRFID Reader/Writer designed for a desktop/laptop and powered by USB connection. The Reader/Writer shall be compatible with CribMaster Software v.9.6 or greater with a read/write range not to exceed 5”. The Reader/Writer shall have an IP40 rating and needs transponder compatibility with EPC Class 1 Gen 1 and Gen 2 tags. The Reader/Writer needs to be compatible with Microsoft Operating Systems WIN 7 and WIN 10, 32 and 64 bit.

4.2.8 pRFID Kits[RESERVED, NOT AVAILABLE FOR ORDERING]

pRFID Shipyard Kits shall be available for ordering on the pRFID III. The pRFID Shipyard Kit #1 shall at a minimum contain the following:

a. 902-928 MHz Low Profile fixed pRFID READER, see 4.2.1.1 for further requirements. Quantity: 1

b. 902-928 MHz Far Field Reader Antenna, see 4.2.1.1 for further requirements Quantity: 3
c. 150' 240 LLPR flexible coaxial cable, compatible with Shipyard Kit #1 item a. Any Jacket Color other than Black. Quantity: 1
d. Male Connector Crimp/Solder Attachment with Impedence 50 ohms and is compatible with pRFID Kit #1 item c. Quantity: 3
e. RF Connector, TNC Straight Crimp Jack for RG-8X, LMR-240, 50 Ohm, Reverse Polarized and is compatible with pRFID Kit #1 item c. Quantity: 3

The pRFID Shipyard Kit #2 shall at a minimum contain the following:

a. 902-928 MHz Low Profile fixed pRFID READER, see 4.2.1.1 for further requirements. Quantity: 1
b. 902-928 MHz Far Field Reader Antenna, see 4.2.1.1 for further requirements Quantity: 3
c. WATER TIGHT READER ENCLOSURE IP-66 rated or better - UV Resistant - shock Resistant Polycarbonate Reader Enclosure with 1"- 2" access holes on the bottom of housing for cables and has a Mounting bracket capable of mounting to a 3" pipe. Must be compatible with pRFID Kit #2 item a. Quantity: 1
d. 100’ 240 LLPR flexible coaxial cable - UV resistant outdoor Low Loss Flexible 100’ coaxial cable with 50 Ohms Impedance for use with Radio Frequency Communication, compatible with Shipyard Kit #2 item a. Jacket Color Black. Quantity: 1
e. Male Connector Crimp/Solder Attachment with Impedance 50 ohms and is compatible with Shipyard Kit #2 item d. Quantity: 2
f. RF Connector, TNC Straight Crimp Jack for RG-8X, LMR-240, 50 Ohm, Reverse Polarized and is compatible with Shipyard Kit #2 item d. Quantity: 2
g. UV Resistant, Weatherproof, Polycarbonate outdoor antenna box with IP-66 rating or better, shock resistant, with 1"- 2" access holes on the bottom of housing for cables and has a Mounting bracket capable of mounting to a 3" pipe. Must be compatible with Shipyard Kit #2 item b. Quantity: 2

The Contractor shall provide a hard copy and electronic setup manual with the Shipyard Kit which specifies the step-by-step instructions with illustrations for equipment connection, setup, and use. All cables and connectors used to fulfil the requirement must accommodate and be compatible with each other and all readers/antennas/box enclosures in the kit.

4.2.9 RFID Tag Verifier / Encoder

The Contractor shall provide 902-928MHz RFID tag verifier / encoder. The tag verifier / encoder shall not exceed 12” x 12” x .75” and shall have an integrated RFID antenna that allows for on product RFID tag verification and commissioning. The RFID tag verifier / encoder shall support the following minimum interfaces; Power over Ethernet and direct power, Serial, USB-A, and Ethernet (RJ45). The RFID verifier /encoder shall accommodate an operating system that is compliant with current DISA Security Technical Implementation Guides. The RFID tag verifier / encoder shall have integrated diagnostic / operator visual indicators that provide equipment notification status and indication to the operator of the material readability.

4.3 RADIO FREQUENCY DATA COMMUNICATION CONFIGURATIONS

The Contractor shall provide UC-APL approved Radio Frequency Data Communication (RFDC) configurations components that use spread spectrum transmission for linking information to material flow in various applications; for example, in yard, warehouse, and retail operations. Configuration components are access points and gateways.

NOTE: Access Points and Gateways are to be ordered only in conjunction with turn-key solutions being stood up through pRFID III Task Orders. Access Points and Gateways will not be separately orderable items on the pRFID III.

4.3.1 TECHNICAL REQUIREMENTS

The Contractor shall provide spread spectrum RFDC equipment conforming to IEEE 802.11standards. The Contractor shall provide components with field-selectable/adjustable frequency bands. Components shall have an operating range of at least 500 feet in open unrestricted environments. Since the allowable power and frequency bands configurations vary from country to country, the Contractor shall provide units with allowable output power and frequency bands consistent with the laws, regulations, and rules of the country stated on the Delivery Order, or Task Order. These components shall comply with requirements of FCC Part 15, Subparts A, B, and C for Class A digital devices. In order to certify the use of pRFID equipment in these environments, the Government may subject representative categories of equipment to radiated emission and susceptibility tests (See MIL-STD 461D: Requirements for the Control of Electromagnetic Interference Emissions and Susceptibility, and MIL-STD-462D: Measurement of Electromagnetic Interference Characteristics). Components shall maximize net throughput and conform to IEEE 802.11, Wireless Local Area Networks (WLANs), and provide TCP/IP addressing.

4.3.2 RF ACCESS POINT

RF access points are small transceivers that are wired into network configurations (combined transceiver, controller, and bridge between wireless and wired communication). These access points permit two-way communications between mobile RF data collection terminals, and a PC or LAN. The Contractor shall provide RF access points that provide IEEE 802.11 spread spectrum communications. The RF access points shall be provided with appropriate antenna(s). The RF access points shall have a direct interface for communicating with a host computer. The access point shall be provided with an IEEE 802.3/Ethernet interface card with a 10BaseT connector and shall implement TCP/IP addressing and shall provide Simple Network Management Protocol, and Management Information Base (MIB) I and MIB II reporting. IEEE 802.3af “Power over Ethernet” function shall be provided. Access Points shall be user configurable by both serial and IP connection. User Configuration function shall allow complete integration into new and existing IEEE 802.11 Wireless Networks.

The Contractor shall provide the following models of the RF Access Point:

a. Access Point, Protected Environment, these RF Access Points shall be sufficiently ruggedized for use in industrial warehouse and warehouse docking areas when mounted under-cover and shall comply with the IEC 60529 IP54 (minimum) rating requirement; and[RESERVED, NOT AVAILABLE FOR

ORDERING]

b. Access Point for worldwide indoor/outdoor use, these RF Access Points shall be sufficiently ruggedized and weatherproof (rain, wind, etc.) for use in outdoor locations and shall comply with the IEC 60529 IP66 (minimum) rating requirement. [RESERVED, NOT AVAILABLE FOR ORDERING]

4.3.3 RF GATEWAY

RF gateways provide a communications point between access points and a PC or LAN. The Contractor shall provide RF gateways that provide IEEE 802.11 conformant spread spectrum communications. The RF gateways shall have a direct interface for communicating with a host computer. The RF gateways shall be provided with an IEEE 802.3/Ethernet interface card with a 10BaseT connector and shall implement TCP/IP addressing and shall provide Simple Network Management Protocol, and Management Information Base (MIB) I and MIB II reporting. The Contractor shall provide a Federal Information Processing Standard (FIPS 140) gateway solution to communicate securely with associated FIPS 140 Hand Held Bar Code Terminal Client. The gateway solution shall be a minimum: FIPS 140-2 Level 2 Compliant and Certified, accommodate 30 LAN-connected APs, accommodate 125 Remote APs, provide Wireless Intrusion detection and Licenses (if applicable), contain software to enforce role based access and security policies to each user or device, and 8 AP Licenses (if applicable). Gateway IA Solution procured must be on the Department of Defense Unified Capabilities Approved Products List (DoD UC APL) (https://aplits.disa.mil/processAPList.do). The gateway Information Assurance (IA) Solution shall be preloaded and configured on a hardware appliance device prior to delivery to the Government.

4.4 Barcode Scanning and RFID Imager

The Contractor shall provide a 902-928 MHz and 862 MHz~870 MHz pRFID imaging device that provides a combination 1D/2D bar code scanner and RFID reader that has a size dimension less than or equal to 8.5” H x 3.5”W x 6”D, and weigh less than 20 oz. The imager shall accommodate both hands-free and handheld scanning applications. The imaging devices shall have an integrated aiming pattern to easily scan bar codes printed with direct thermal, thermal transfer, dot matrix, ink jet, and laser technologies, as well as bar codes printed on colored substrates. The imager shall read and decode the symbologies as identified in paragraph 3.4

The imager shall have the capability to read Class1, Gen2, tags. The imager shall be adjustable to increase or decrease the RFID data capture read range, and shall be easily configured to switch between handheld and hands-free scanning modes without any firmware and software changes. The reading range of tags shall be attenuable from its maximum operating distance to near contact. The imaging device shall have an operational temperature range of 32 to 104 degrees Fahrenheit, minimum ingress protection rating of IP50, withstand multiple 4 feet drops to concrete, and provide audible/visual notifications of a successful barcode scan and RFID tag read.

The Contractor shall provide a combination imager that:

a. Include a cable interface consisting of a coiled, strain-relieved USB cable, expandable from 3 feet to 8 feet in length.

4.5 Handheld combination RFID Reader and 1D/2D Scanner

The Contractor shall provide an ergonomically designed, handheld 902-928MHz pRFID device that provides a combination 1D/2D bar code scanner and RFID reader for Class1, Gen2, tags. The handheld pRFID reader / bar code scanner shall have an integrated operating system that is compliant with current DISA Security Technical Implementation Guides and shall accommodate a 140-2 FIPS compliant Bluetooth interface for encrypted wireless connectivity to a third party mobile device.

The Reader shall be capable of reading a minimum of 100 tags per second. The bar code scanner shall read and decode the symbologies as identified in paragraph 3.4, The handheld combination RFID Reader and 1D/2D Scanner shall be easily configured to switch between RFID and bar code scanning modes.

The overall size of the handheld combination RFID Reader and 1D/2D Scanner shall not exceed 7.5” long by 3.5” wide by 5.5 “high, weigh less than 16 ounces, and have a minimum 52 Ingress protection rating and operational temperature range between 20 to 100 degrees Fahrenheit. The handheld combination RFID Reader and 1D/2D Scanner shall be provided with 1 set of operational rechargeable battery that shall provide sufficient capacity to allow a minimum of four hours of continuous Reader operation.

In addition to the above handheld combination RFID Reader and 1D/2D Scanner, the following configuration and ancillary items shall to be provided as separately orderable items:

a. Handheld combination RFID Reader only (no integrated imager)
b. Single Slot Charging Cradle with power supply and cable
c. Multiple Slot Charging Cradle with power supply and cable

4.6 Fixed Mount Imager

The Contractor shall provide a fixed mount imager that is compatible with the hardware specified in Sections 4.2.1.3 (Compact/Sealed Reader), 4.2.1.4 (RFID/WiFi Reader), and 4.2.3 (Smart Table configurations).The imager shall be provided with a mount and USB Cable and have a minimum IP rating of 54.

The imager shall not exceed 1.25 inches Height, 2.5 inches Length, 2.5 inches width, weigh less than 5 ounces, and have an operational temperature range of minus 4 to 122 degrees Fahrenheit.
The imager shall read and decode the symbologies as identified in paragraph 3.4. The imager shall be easily configured to switch between presentation (Hands free, point of sale), or trigger-activated mode. The imager shall provide omni-directional scanning and provide an aiming pattern to ensure quick and accurate bar code reads.

5 SOFTWARE, FIRMWARE, AND SECURITY REQUIREMENTS.

5.1 SOFTWARE REQUIREMENTS

5.1.1 Environment

The Contractor shall provide Software that shall support, at a minimum, PCs using Microsoft operating systems. Hand-Held readers shall be provided with an industry standard operating system, which allows users to execute applications on the Hand-Held reader. The operating system on the handheld shall be an IA compliant Windows Operating System Win Mobile 6.x or the most current version of the operating system. The Contractor shall provide as a minimum, Configuration/Operational Software to utilize all components that make up the pRFID Class of devices for each technology for the Desktop PCs and Hand-Held readers, Software Development Kit license, and Application Development Software. All software offered will include; upgrades, fixes, inherent capabilities, revisions, and peripheral connectivity to maintain the operability, usability, and expansion of the intended software requirement.

5.1.2 Graphical User Interface

All Contractor-provided software for Desktop PCs shall provide a Graphical User Interface (GUI), which shall be the industry-based application software package that supports pRFID technology. The Government requires a GUI that is integrated on the pRFID Hand-Held Readers.

5.1.3 Capability

All pRFID software shall be provided on CD ROM or DVD. The Government's requirement is to have the necessary software to enable the Government User to perform the technical, functional, and operational requirements of the Passive RFID hardware offered.

5.2 CONFIGURATION / OPERATIONAL SOFTWARE FOR FIXED READER PC

The Contractor shall provide Configuration / Operational Software for PC that, as a minimum, shall provide the Government User with the necessary software utilities to set up, control, and operate the pRFID equipment in actual operational environments. The Government requires software that is user programmable utilizing High Order programming languages. The Contractor shall provide Configuration / Operational Software for PC and shall add, delete, revise, configure, and test Readers / Tags in the operating environment and provide operational status of all pRFID system components and indicate which components need attention, and provide selective addition and deletion of data. pRFID software shall schedule Reader time management and report low battery power conditions for Readers that are battery powered. pRFID software shall perform ad hoc and global searching for specific Tag data stored in a database and subsequently, paste the data into an Microsoft Word or Excel document; manage queried data via database functions; import and export data to database files; and print reports from data gathered from the RFID System, such as manifests, and lists of Tags and Readers present in the operating environment. The Fixed Reader Configuration/Operational Software and all required documentation (in accordance with Paragraph 13, "Documentation Requirements," in Section H of the base IDIQ contract) shall be provided to the Government for installation on a PC with the fixed reader and shall not be separately priced.

5.3 CONFIGURATION / OPERATIONAL SOFTWARE FOR HHR

The Contractor shall provide Configuration Software for the HHR that allows the User to manage the pRFID hardware when away from the host computer, which includes data collection pRFID reading and writing to tags, and if wireless communications are included, communication with a host computer. As a minimum, the Configuration Software for HHR shall provide the Government User with the software utilities to set up, control, and operate the pRFID hardware in actual operational environments. The Government understands that some software functions on the HHR are developed as part of the firmware; however, the Government requires the capability to execute code using High Order programming languages. The Configuration Software for the HHR shall add, delete, revise, configure, and test Readers / Tags in the operating environment and provide operational status of all pRFID system components and provide selective addition and deletion of data. pRFID software shall schedule Reader time management and report low battery power conditions for Readers that are battery powered. The HHR Configuration Software shall be installed on the HHR prior to delivery to the Government and shall not be separately priced. All required documentation (in accordance with Paragraph 13 “Documentation Requirements,” in this Part D) shall be included and shall not be separately priced.

5.4 APPLICATION DEVELOPMENT SOFTWARE

5.4.1 pRFID Application Development Software

The Contractor shall provide Application Development Software that shall support, at a minimum, PCs with Microsoft supported versions of Microsoft Operating Systems. The Government requires the ability to program, develop, and execute code to support the pRFID Configuration Software. Some of the desired features of the Application Development Software include the ability to download executable code to other devices; tools, libraries, and executive software needed to generate executable code; ASCII file import and export capability; and Structured Query Language capability.

5.4.2 Separately Orderable Components

The Contractor shall provide any special tool kits or utility libraries as Separately Orderable Components.

5.4.3 HHR Software Development Kit [RESERVED, NOT AVAILABLE FOR ORDERING]

The HHR software development kit (SDK) shall support all of the features of the HHR. Software development kit libraries provided by the Contractor shall interface with Basic, .NET, and C/C++ language compilers and program development environments. Library routines shall be callable by programs developed with standard languages, including Basic, .NET, and C/C++. The SDK shall include all necessary library routines, run time support, and distribution rights to permit full functionality of developed software using the SDK on all deployed platforms, including scanner/imager, pRFID Reader, screen backlight, and other device-specific features.

5.4.4 Small Arms Room Management Software

The contractor shall provide commercial automated small arms room management software. The software shall use pRFID and be able to use bar code and data matrix-based AIT, including data matrix encoded unique item identifiers compliant with MIL-

STD-130N, to automate processes related to all small arms and other serially managed items found in Army arms rooms. The automated processes shall include, as a minimum, issue, receipt, inventory, maintenance management, and ammunition management. The software shall assign specific serialized arms and accessories to specific soldiers and control issues based on those assignments. The software shall produce standard and ad-hoc management reports, an automatic data backup capability and document transactions on appropriate standard Army printed forms. Access to the system shall be CAC enabled. The software shall be deployable, and allow use of its full suite of capabilities in both garrison and in field environments such as the Army's National Training Center. The small arms room management software shall support the assignment and labeling of uniquely managed items not marked with standard unit item identifiers (UII) with machine-readable temporary unique identifiers and associate items to their assigned serial numbers and to their UIIs, if assigned. For uniquely managed items lacking UIIs, the small arms room management software shall associate to temporary unique identifiers as well as providing an automated capability for the armor to issue and receive using electronic signatures and CACs. The small arms room management software shall allow performance of manual inventories, input of that data to the digital arms room module, and manage non-standard weapons and sensitive items. The small arms room management software shall support continuity of operations by providing data backup and a process for data recovery. Provide an automated capability to restrict issue of weapons for administrative reasons.

The Government requires the following functions and capabilities to be included in the small arms room management software. The additional functions are as follows: maintain a lifecycle history of items while managed by the system, including issues, turn- ins and maintenance; provide host Interactive Electronic Technical Manuals (IETM), to include ability to use all IETM features not requiring external communications; provide a capability to read and store information from all types of standard Army bar coded media and ECC200 data matrix symbologies, employing the area imager in the keyboard wedge mode; maintain and track training information related to Soldier skill qualification on items in the arms room; provide warning when Soldier qualification doesn't match an item's skill qualification requirement; provide an intuitive user interface that requires minimal training; enable automated cyclic inventory scheduling; automate key control management; automate the production of weapons cards; provide a feature during system shut down that will alert the armorer to weapons pending return; provide automatic alerts for issued items not returned to the arms room as scheduled; automate functionality of current weapon key control registers, Standard Form 701, DA Form 3749, DA Form 2062 and DA Form 2404, key control for weapon racks and trigger locks (Key Control Register and Inventory 5513-R); maintain a lifecycle history of items while managed by the system, including issues, turn-ins and maintenance. The Government will require this capability for both stand-alone PCs as well as servers.

5.5 PASSIVE RFID ENABLED PRINTER SOFTWARE

The Contractor shall provide pRFID Enabled Printer Software that combines the features of bar code printing with encoding pRFID embedded labels. The pRFID Enabled Printer Software shall automatically test each RFID label and the encoded data before actually printing the label. If the RFID label is deemed "non-operational," the label shall not be utilized and shall be marked accordingly. The process of verifying each label and printing shall continue with the next "usable" label. In addition, the pRFID Enabled

Printer Software shall provide bar code label, form design, and printing software with graphic support, as well as ISO 9075 SQL Call-Level Interface (open database connectivity). The software shall be capable of generating low, medium, and high density bar codes, as well as 2D Symbology (as a minimum, PDF 417, Data Matrix ECC 200, etc.), in addition to free text, symbols, and graphics. The software shall generate the DD 1387 form. The Contractor shall provide software that allows rapid label and form design without requiring the User to learn the complexities of bar code symbologies and printer control languages, displays a "what-you-see-is-what-you-get" editor for designing bar code labels and forms, and allows viewing of the bar code labels and forms prior to printing. The software shall also permit the use of fixed or variable data for label, form text, and bar codes, and shall import information to be utilized with labels and forms from databases. The pRFID Enabled Printer Software shall execute under all supported versions of Microsoft Windows software and Microsoft Operating Systems. The pRFID Enabled Printer Software shall be supplied preinstalled with the printer and shall not be separately priced.

5.6 FIRMWARE REQUIREMENTS

The Contractor shall provide all necessary firmware required for the operation of the pRFID equipment configuration and components. Firmware shall reflect the baseline configuration and all subsequent Government-approved Engineering Changes. All firmware provided shall be easily implemented by methods determined by the Contractor and approved by the Government. All firmware shall be installed prior to equipment delivery.

6 SECURITY

6.1 HHR AND HHT ACCESS PROTECTION

All HHR and HHT devices shall have the capability to protect access or lock the device.

6.2 SECURITY STANDARDS

All software and hardware provided on the pRFID Contract shall conform to all applicable Army and DoD security requirements to include the requirement that all specified products shall adhere to the requirements of the Unified Capabilities Approved Products List located at: https://aplits.disa.mil/ (requires CAC for access). The contractor shall ensure that all contractor personnel accessing information systems are properly trained and certified as required. The Contractor shall comply with the following standards, and Government guidelines to include all new versions, amendments, and modifications made to the listed documents and standards, as applicable.

a. Office of Management and Budget (OMB) Circular No. A-130 Revised, (Transmittal Memorandum No. 4) Management of Federal Information Resources – Appendix III, Security of Federal Automated Information Resources, 28 November 2002.
b. National Institute of Standards and Technology (NIST) Federal Information Processing Standards (FIPS) Publication 140 – 2, Security Requirements for Cryptographic Modules, 25 May 2001, w Change Notices 12-03-2002.
c. Department of Defense Directive (DoDD) 8100.2, Use of Commercial Wireless Devices, Services, and Technologies in the Department of Defense (DoD) Global Information Grid (GIG), 14 April 2004.

d. Assistant Secretary of Defense Memorandum, Use of Commercial Wireless Local-Area Network (WLAN) Devices, Systems, and Technologies in the Department of Defense (DoD) Global Information Grid (GIG), 02 June 2006.
e. Department of Defense Directive (DoDD) 8500.01E, Information Assurance (IA), 24 October 2002, current as of April 24, 2007.
f. Department of Defense Instruction (DoDI) 8500.2, Information Assurance (IA) Implementation, 06 February 2003.
g. Department of Defense Instruction (DoDI) 8510.01, DoD Information Assurance Certification and Accreditation Process (DIACAP), November 28, 2007.
h. Army Regulation (AR) 25-2, Information Assurance, 23 March 2009.
i. Best Business Practice 03-EC-M-0003, Wireless Security Standards, Version 2.0, 15 June 2007.
j. DFARS Clause 252.239-7001.

After award, the contractor may propose alternatives at no additional cost to the Government that meet or exceed the provisions of the listed standards.

6.3 DOD INFORMATION ASSURANCE REQUIREMENTS

All devices and/or systems provided by the Contractor that receive, process, store, display or transmit information shall comply with the applicable Information Assurance (IA) requirements specified in Department of Defense Directive 8500.1E, *Information Assurance (IA)* (reference g) and Department of Defense Instruction 8500.2, Information *Assurance (IA) Implementation* (reference h). Examples of systems which must meet these IA requirements include but are not limited to: stand-alone information systems; networked computers and servers; mobile computing devices such as laptops, handhelds, and personal digital assistants operating in either wired or wireless mode; and other information technologies as may be developed and/or proposed by the Contractor.

6.4 DOD WIRELESS DEVICE SECURITY REQUIREMENTS

pRFID implementations that utilize Institute of Electrical and Electronics Engineers (IEEE) Standard 802.11 Wireless Local Area Network (WLAN) products to store, process, or transmit unclassified information shall comply with the requirements specified in Assistant Secretary of Defense Memorandum, Use of Commercial Wireless Local-Area Network (WLAN) Devices, Systems, and Technologies in the Department of Defense (DoD) Global Information Grid (GIG) (reference d).

6.5 ARMY WIRELESS DEVICE SECURITY REQUIREMENTS

Army pRFID implementations that utilize Institute of Electrical and Electronics Engineers (IEEE) Standard 802.11 Wireless Local Area Network (WLAN) products or other wireless technologies to store, process, or transmit unclassified information shall comply with the applicable requirements specified in Army Regulation (AR) 25-2, *Information Assurance* (reference h) and Army Best Business Practice 03-EC-M-003, *Wireless Security Standards* (reference i). Other Services (e.g., USAF, USN) pRFID implementations that may include wireless devices will have the security requirements stated in the individual contract order.

6.6 COMMON CRITERIA COMPLIANCE REQUIREMENTS

Common Criteria compliance is determined and verified by favorable product testing against a Common Criteria Protection Profile (CCPP). CCPPs are developed under

sponsorship of the National Security Agency (NSA). Common Criteria tests are conducted by a Common Criteria Test Laboratory (CCTL) that has been approved and accredited by the National Information Assurance Partnership (NIAP). NIAP is a partnership agreement between NSA and the National Institute of Standards and Technology (NIST). No such CCPP currently exists for pRFID technology. Therefore, upon approval and adoption of a CCPP for pRFID technology, the Contractor shall no later than six months after the adoption of a relevant CCPP submit product(s) with documentation to a designated CCTL for Common Criteria testing. Subsequently, only products tested and compliant at the Medium Robustness level (as defined in the CCPP standard) shall be permitted through this Contract. Information regarding Common Criteria Compliance can be obtained from the following web site: http://www.commoncriteriaportal.org/.

6.7 SECURITY CERTIFICATION AND ACCREDITATION SUPPORT

The Contractor shall support all Government efforts to obtain Certification and Accreditation (C&A) for the products provided under this Contract in accordance with the guidance contained in the *Interim Department of Defense (DoD) Certification and Accreditation (C&A) Process Guidance* (reference j) and DoD Instruction 8510.bb, *DoD Information Assurance Certification and Accreditation Process (DIACAP)* (reference i).

In support of the Government's C&A activities, the Contractor shall provide copies in vendor format of component design specifications, component user manuals, results of any security tests already completed, and component vulnerability assessments. For testing in support of certification and accreditation, the Contractor shall provide the Government with access to Contractor personnel involved with design, engineering, operations, and security attributes of the products.

6.8 SECURITY MAINTENANCE SERVICES

The Contractor shall ensure that the devices and/or systems provided under this contract comply with all new versions, amendments, and modifications made to the security documents and standards cited in this Solicitation, when applicable and commercially available. To ensure continued compliance, the Contractor shall perform the necessary configuration changes, as approved by the Government. These configuration changes may include, but are not limited to: performing system configuration changes, installing patches and bug fixes; conducting hardware/software upgrades, updates, and replacements.

6.9 GOVERNMENT EVALUATION

The Contractor shall support Government compliance verification evaluation and security certification and accreditation of the products provided under this Contract. The Government will coordinate the scheduling of any evaluation with the Contractor. The Contractor shall cooperate with Government personnel and Government representatives who plan, conduct, and report any Government testing. Support of Government testing, when requested, includes Government or its agents access to Contractor facilities, documentation, and/or personnel used by the Contractor to produce the products provided under this Contract. The Contractor shall assist in resolving any problems resulting from the Government verification evaluations and security certification and accreditation process. This shall address problem reports, technical investigations, and any testing performed.

7 MANAGEMENT

The requirements found in this section 7 Management, shall not be separately priced.

7.1 pRFID PROGRAM MANAGEMENT

a. The Contractor shall provide the following pRFID Program Management activities and services:

1. Two-work day response to program issues and problems associated with the execution of the Contract as identified by AMIS;
2. Support by means of Electronic Commerce/Electronic Document Interchange (EC/EDI), web access for Contractor-provided information and data;
3. Maintain accurate records
4. Provide response within one workday to questions or problems;
5. Provide information to various Services and Agencies with the approval of AMIS;
6. Receive and process customer Delivery Orders, purchase card orders, and Task Orders;
7. Develop, update, and maintain the Ordering Guide as per CDRL A002;
8. Coordinate shipments and deliveries;
9. Report order and delivery status as per CDRL A001;
10. Provide the requisite Repair Center(s) (RC) to perform all warranty and maintenance services required by this Contract;
11. Maintain warranty and maintenance records;
12. Provide access for pRFID Users to an identified database location for this Contract;
13. Develop and execute a management plan that incorporates configuration management and risk management, and provide a pRFID Management Plan as per CDRL A003;
14. Schedule project reviews and internal seminars and conferences, and present Contractor's vision of new technology;
15. Schedule and perform demonstrations;
16. Conduct quarterly Project Progress Reviews (PPR) year 1 and quarterly thereafter as per CDRL A004;
17. Provide Status Reports to include Warranty Status Reports as per CDRL A009;
18. Provide Monthly Equipment and Service Reports (MESR) as per CDRL A008.
19. Report Contractor Manpower Information in accordance with the paragraph entitled "Contractor Manpower Reporting" in this Part.

b. The Government desires Contractors, and their respective subcontractors, teaming partners and commercial manufacturers who currently hold and maintain commercial quality certifications, e.g. ISO certifications, Lean Six Sigma, Capability Maturity Model Integration (CMMI), over the life of the Contract.

7.1.1 Points of Contact

The Contractor shall provide a list of Contractor points-of-contact to the Contracting Officer's Representative (COR) no later than ten workdays after the effective date of the Contract. The list shall include names, telephone numbers, facsimile numbers, e-mail addresses, and areas of responsibility for the pRFID Contract. The Contractor shall

notify the COR no later than five workdays of replacement of a point-of-contact.

7.1.2 pRFID III Contract Program Manager

a. The Contractor shall identify to the Government a Program Manager for the pRFID III Contract as per CDRL A012. The Program Manager shall at no additional cost to the Government be available with a 24 hours' notice to meet with the Government at Fort Belvoir at 1420 Jackson Loop, Ft. Belvoir VA 22060. The pRFID III Contract Program Manager shall address and resolve pRFID III programmatic issues, facilitate information exchange with the Government, and enhance management coordination.

b. The Contractor's pRFID III Program Manager shall manage all Delivery Orders, Task Orders, and purchase card orders, and shall be the Contractor's authorized point-of-contact for the AMIS, the COR, and the point-of-contact for Delivery Orders, Task Orders and purchase card orders as per CDRL A012. The Contractor's pRFID III Program Manager shall be responsible for formulating and enforcing work standards, assigning schedules, and reviewing work discrepancies, communicating policies, purposes, and goals of the organization to the assigned Contractor personnel for performance of this Contract. The Contractor's pRFID III Program Manager shall manage Delivery Order and Task Order performance.

7.2 USER GUIDE (UG)

7.2.1 Purpose

The Contractor shall develop and provide to the Government an User Guide (UG), to assist Government personnel in determining the system configuration that will best meet their Passive RFID operational requirements. The Contractor shall provide the UG no later than 90 calendar days after issuance of the base IDIQ contract and be available to Users on the Contractor's web site. The UG shall be a comprehensive tool that aligns with the Pricing CLIN structure to enable prospective Users to formulate a workable process as to potential solutions utilizing the CLINS within the Contract which best meets their operational requirements.

7.2.2 User Guide Review

The Contractor shall provide a draft UG electronically to the COR of the AMIS, and Contracting Officer for review no later than 30 calendar days after issuance of the base IDIQ contract. The Contracting Officer will either approve the UG or provide comments to the Contractor for incorporation into the UG. The Contractor shall then have 15 workdays to edit the UG based on Government comments. Upon Government acceptance and approval by the Contracting Officer of the draft, the Contractor shall make the UG available to Users on the Contractor's web site.

7.2.3 User Guide Approval and Posting

The Contracting Officer must approve the initial UG prior to making the UG available to the Government personnel on the Contractor's web site. Subsequent UG revisions resulting from a formal Contract modification shall be made available to the Government personnel on the web site no later than five workdays of issuance of the Contract

modification. The Contractor shall update the UG for other changes (e.g., Government points of contact) within five workdays after the receipt of a request from the COR. The Contractor shall post Contractor-related administrative changes within five workdays of the change.

The UG shall be divided into logical sections for ease of use. The sections shall provide a User with a complete User list, with a detailed description of features and prices for User of all hardware, hardware cables, software, user procedures, recommended equipment configurations, technical engineering services (TES), training, warranty, maintenance, CLIN price list, and any additional information that the Contractor includes to simplify the implementation of a Passive RFID solution. The UG shall be a simple, easy to understand document that allows Users to order and build configurations that meet their needs. The Contractor shall provide access for authorized Government Users with ".MIL" email addresses to the UG via the World Wide Web.

7.2.3.1 Sections

Each section of the UG shall be technically accurate, align with the Pricing CLIN structure and complete with descriptions of the hardware (to include pictures), software, and technical engineering services. CLINs shall be used throughout the document to facilitate the User's ability to properly identify and order the appropriate item(s). CLINs shall be clearly annotated on drawings, charts, product descriptions, specification sheets, etc. When a product requires additional equipment to make a complete workable product, the additional equipment and CLINs, if applicable, shall be clearly identified in the description. All references to a geographic area where products may, or may not, be used shall be clearly annotated in the UG and the CLIN description, if applicable. The UG shall include, but not be limited to, the sections identified below which address the minimum requirements for each Section.

7.2.3.2 Hardware

The hardware section shall be organized into sub-sections based upon the major types of equipment provided, and shall include a discussion of the main features of each piece of equipment, including physical dimensions, power requirements (wattage and voltage), and heat generated by equipment. Precautions, such as the minimum distance between various devices, shall be provided. The UG shall contain instructions for the User to specify equipment destination to ensure the pRFID equipment is compatible with the commercial power supply and adapter plugs for the geographic area in which it will be operated.

7.2.3.3 Hardware Cables

This Section shall list all cables with Model Numbers provided and equipment cable requirements in a chart format that shall allow the User to identify the correct cables for connecting pRFID devices. CLINs shall be provided on the chart. All cable requirements for equipment installation shall be described in this section. This Section shall clearly indicate the appropriate cables and interfaces for the various pRFID components and provide a reference to the applicable parts.

7.2.3.4 Software

This section shall provide a full description of all software CLINs provided that include a discussion of the primary function, minimum memory requirements, program capabilities, and major features and benefits. This section shall explain, in non-technical terms, the recommended software packages for specific applications. The Contractor shall maintain an asset record showing the software version and configuration installed on all shipped products. The Contractor shall track and update the asset record when the Contractor makes changes to products and product software when returned for service or when changes are made by the Contractor on fielded systems.

7.2.3.5 User Ordering Procedures

This section shall contain ordering procedures that provide the User with all the necessary information required to order pRFID products and Technical Engineering Services. Contractor points-of-contact, telephone numbers, Help Desk access, and addresses shall be included.

7.2.3.6 Recommended Equipment Configurations

This section shall address the Contractor's recommended equipment configurations to meet various Users' pRFID requirements with easy to understand, step-by-step directions, and any physical or facility considerations. The recommended configurations shall represent the most economical hardware, software, and technical engineering services that meet possible User requirements. This section shall provide information to assist the User's with building a pRFID configuration that best meets their needs. The configurations shall include the appropriate CLIN numbers.

7.2.3.7 Technical Engineering Services (TES)

This Section shall contain procedures that provide the User with all necessary labor categories available with their fixed labor rates information required to estimate and order TES. All TES CLINs identified shall be addressed in this Section.

7.2.3.8 Training

This Section shall provide type of Training available and suggested as part of a passive RFID implementation.

7.2.3.9 Warranty

This Section shall address all warranty provisions of the Contract i.e., how to obtain warranty service, Help Desk telephone number and hours of operation, warranty repair sites, RMA issue procedure etc.

7.2.3.10 Maintenance

This Section shall describe the various maintenance services available to User worldwide with CLIN prices, how to order maintenance services, and Help Desk instructions for User maintenance support.

7.2.3.11 CLIN Price List

This Section shall provide the contract CLIN Price List with products and services provided for each CLIN/SLIN. The CLIN Price List will be updated within five days of addition or deletion of a CLIN/SLIN on contract.

7.3 pRFID III MANAGEMENT SUPPORT PLAN

The Contractor shall manage the Contract in accordance with the Government-approved pRFID Management Support Plan. The plan may be revised or updated at the request of the Government. The pRFID Management Support Plan shall include, but not be limited to the following:

a. Management and Reporting Methodology for Gathering, Validating and Generating Reports;
b. pRFID Configuration Management Plan (see Paragraph PWS 7.4 for separate CM Annex / deliverable);
c. Risk Management;
d. Integrated Process Team (IPT) Methodology;
e. Electronic Commerce and Electronic Data Interchange Methodology;
f. Web Site Methodology;
g. Training Development and Support;
h. Technology Assessment and Control;
i. Logistics Support to include the Contractor's approach to satisfying unusual or surge requirements and to deal with crises.
j. Go to Market strategy to addressing the Contractor's approach to sales in the DoD Market.

7.3.1 Integrated Product Teams

The Contractor shall participate with the Government on pRFID Integrated Product Teams (IPTs) and provide minutes of the meetings no later than five workdays after each meeting. IPTs will be composed of representatives from all functional disciplines, working together to identify and resolve issues. IPTs will also make sound and timely decisions, build a successful and balanced program, and make maximum use of timely input from the entire Team, including customers and suppliers.

7.3.2 Project Progress Reviews

The Contractor shall conduct Project Progress Reviews (PPRs) for Government personnel at a mutually agreeable facility. The AMIS will schedule the initial PPR. It is anticipated that the first PPR will occur no later than 90 calendar days after the base IDIQ contract award effective date specified in the Notice to Proceed. Thereafter, PPRs shall occur on a quarterly basis for the next twelve months of the Contract, and quarterly thereafter, for the life of the Contract. During each PPR, the Contractor shall present material that addresses:

a. Status of current technological substitutions and additions;
b. Status of configuration and risk management activities;
c. Status of Task Orders, Delivery Orders and purchase card orders, to include but not

limited to, received and processed dates (listed by ordering agency), scheduled delivery date, and shipped date;
d. Actions under warranty and maintenance;
e. Significant trends (quantities by CLIN, component reliability safety issues, problems, and recommended solutions);
f. Minutes from the previous PPR;
g. Activities determined to be of importance to the Government, such as unanticipated problems, and high visibility issues identified by the Government;
h. Status of significant program events;
i. Customer feedback;
j. Agencies and organizations contacted and initiatives with each;
k. Reason for delinquent Task Orders, Delivery Orders, and purchase card orders.

The Contractor shall include in each review, a current organizational chart that includes the names and telephone numbers of all key personnel proposed and included with the pRFID contract, or as may be proposed and used in securing subsequent task orders. All changes to key personnel changes are to be identified at the time changes are known and explanation included for how the contractor shall minimize impact of such changes. Key personnel for this Contract are Project Manager and the Contract Program Manager. The Contractor shall give the Government the right of first refusal for employment openings under the contract in key positions listed within the PWS. The Contractor shall report to the Contracting Officer the names of individuals identified on the list who are hired within 90 days after contract performance begins.

The Contractor shall prepare and coordinate with the COR, an agenda for all PPRs at least five workdays before a scheduled PPR. The Contractor shall provide the briefing charts to the COR electronically three workdays prior to the day of the PPR. The Contractor shall prepare and coordinate minutes of the PPRs with AMIS no later than five workdays after the PPR. Coordination shall be accomplished through electronic mail. Upon AMIS approval, the Contractor shall, no later than five workdays, post the minutes on the web site specified in the paragraph “Web Site” in this Part. The Contractor shall hotlink the web site to the AMIS web site.

7.3.3 Status Report

The Contractor shall prepare and submit a Status Report in Microsoft Office Excel format, monthly as per CDRL A005. The report shall include all orders placed by the Government and by Government Contractors (reference the paragraph “Government Contractor’s Use of Contract” in User Guide during the reporting period. The Contractor shall submit the first report to the COR on the 10th day of the month following the one-month period after the Contract effective date specified in the Notice to Proceed. The Contractor shall submit subsequent reports in monthly increments on the 10th day of the month following the reporting period throughout the performance period of the Contract. The report shall include, as a minimum, a list of all equipment delivered by:

a. CLIN, with brief description, by month, by Service or Agency, total quantities and dollar amount;
b. Year-to-date, total quantities and dollar amount;
c. Contract-to-date, total quantities and cumulative dollar amount;
d. The totals for each category (above) shall also reflect the values for

products/equipment and services in a summary table.

An example report format is located at Exhibit B in this Part.

7.3.4 Contractor Manpower Reporting

The contractor shall report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract via a secure data collection site. The contractor is required to completely fill in all required data fields using the following web address: http://www.ecmra.mil/, and then click on "Department of the Army CMRA" or the icon of the DoD organization that is receiving or benefitting from the contracted services.

Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year, beginning with 2013. Contractors may direct questions to the help desk by clicking on "Send an email" which is located under the Help Resources ribbon on the right side of the login page of the applicable Service/Component's CMR website. See CDRL A013.

7.4 CONFIGURATION MANAGEMENT

7.4.1 pRFID III Configuration Management Plan

The pRFID equipment shall be configuration-controlled, accounted for, and audited in accordance with the Contractor developed and Government-approved, pRFID Configuration Management Plan as per CDRL A006. The Contractor shall provide the pRFID Configuration Management Plan as an Annex to the pRFID Management Plan, which shall be submitted to the COR for approval no later than 30 calendar days after issuance the Contract effective date specified in the Notice to Proceed. The pRFID Configuration Management Plan shall reflect best commercial practices and shall be in accordance with accepted industry standards. The Contractor shall submit the initial Baseline with the Configuration Management Plan. The baseline matrix shall include, at a minimum: Equipment Nomenclature, Manufacture Model Number, Manufactures Part Number Firmware Version, Date of Implementation, Software Version, Relevant Specification Paragraph, and any constraints. The matrix shall be in Microsoft Office Excel format. Any changes in hardware or software will be a change to the baseline and will require Government approval. Once changes to the baseline are reviewed and approved by the Government the Contractor shall provide configuration updates to the User Guide showing changes in hardware and software versions, date of change, and other nomenclature.

Plan shall define those instances when the Contractor shall notify the Government of pending changes to the pRFID Equipment Baseline Configuration.

7.4.2 Changes and Modifications

All OEM changes prior to Contract award shall be included in equipment provided under this Contract at no additional cost to the Government. The Contractor shall notify the Contracting Officer of all OEM-sponsored changes to any equipment provided on the Contract. All changes shall be provided to the Government at least 45 calendar days prior to implementation for evaluation and will be subject to the Contracting Officer’s

approval before the changed products may be placed on the Contract.

7.4.3 Changes to Software

The Contractor shall notify the Contracting Officer of all changes to the software and documentation provided under the Contract throughout the warranty period, including any software updates (for example, bug fixes, new features, enhancements, and revisions) as they become available. Software changes are defined as any software product and documentation which is provided for any other customer free of charge, or which the software manufacturer does not consider a new product. Changes to firmware, software or documentation (e.g., User Manuals) (including packaging and shipping) shall be provided at no additional cost to the Government.

7.4.4 Notification of Software Changes

The requirement for any software change involving a change to form fit or function is that the Contractor shall provide AMIS one copy of the changed software with documentation (e.g., User Manuals) for each affected software item previously accepted by the Government. Any changes to the baseline will require the contractor to perform all functions detailed in approved configuration management plan to ensure that any changes to the software or firmware will not affect performance, security requirements, safety, NI, Hero, and other requirements within this PWS. After Government evaluation of the changed software, the Contracting Officer will notify the Contractor of the acceptance or rejection of the latest release. Software changes not involving a change to form fit or function shall be provided to the Government on the Contract after notification is provided to the Contracting Officer.

7.4.5 Correction of Safety Hazards or Equipment Malfunctions

In accordance with commercial practices, the Contractor shall notify the Contracting Officer and AMIS of all OEM-sponsored changes to correct safety hazards or equipment malfunctions. The Contractor shall implement changes to correct safety hazards in accordance with commercial practices. The implementation shall be in accordance with a mutually agreed-upon schedule. All such changes shall be implemented at no additional cost to the Government.

7.4.6 Configuration Audits

The Government is required to maintain configuration control over functional and performance requirements (form, fit, and function). Subject to the issuance of a TES Task Order, the Contractor shall support the Government in performing Functional Configuration and Physical Configuration Audits. The Contractor shall provide a demonstration of the equipment. At least seven workdays prior to commencement of the equipment demonstration, the Contractor shall deliver a Demonstration Plan to the Government. The Plan shall include the agenda, demonstration procedures, and a matrix identifying the baseline equipment. The baseline matrix shall include, at a minimum: Equipment Nomenclature, Model Number, Firmware Version, Software Version, Relevant Specification Paragraph, and any constraints. The matrix shall be in Microsoft Office Excel format.

7.4.7 Physical Configuration Audit

A Physical Configuration Audit (PCA) is the formal examination of the “as-built”

configuration of a commercial item against its technical documentation to establish or verify the commercial item's product baseline.

7.4.8 Functional Configuration Audit

A Functional Configuration Audit (FCA) is the formal examination of the functional characteristics of a configuration item to verify that the item has achieved the requirements specified in its functional and allocated configuration documentation. The FCA is performed by the Government's Configuration Management Team or Quality Control Representative, by auditing the requirements specifications against the pRFID Contractor specifications of each configuration item (hardware, middleware, and software).

7.5 RISK MANAGEMENT.

Risk Management is an essential part of program management. The Contractor shall continually identify, assess, manage, and control project risks as per CDRL A007. The objective is to reduce program uncertainties, and to classify risks according to their probability of occurrence, and possible consequences. In accordance with the Government-approved Management Plan, the Contractor shall identify project risks or actions that affect the accomplishment of program objectives. The program risk events include, but are not limited to the following:

a. Technical performance;
b. Operational performance;
c. Schedule performance;
d. Training;
e. Technical standards;
f. Logistics readiness.

The Contractor shall prioritize project risks and determine the status of risk reduction or mitigation efforts. The Contractor shall report the status of risk management efforts during the PPRs.

7.6 MONTHLY EQUIPMENT AND SERVICE REPORT

The Contractor shall provide AMIS, the COR, and Contracting Officer with a Monthly Equipment and Service Report (MESR) in Microsoft Office Excel format via electronic mail and post it on the Contractor's web site for on-line viewing and ad hoc inquiries by authorized Users. The initial MESR shall be submitted covering the month the first pRFID item is received by the Contractor for repair (warranty or maintenance), and shall be provided no later than 10 calendar days after the end of each subsequent month e.g., January report is due by 10 February. The Contractor shall provide, as part of the MESR, a consolidated list of service User calls for troubleshooting assistance. This detailed information for warranty and maintenance repairs will be used to identify trends and compliance with equipment turn-around requirements. The MESR shall include a separate line item of description for each pRFID item service incident and, as a minimum, shall include the following:

a. Return Material Authorization (RMA) number and date assigned to User Category of

service action: Per-incident maintenance, On-call maintenance or Warranty;

b. Identify if User requests same serial number item returned. Also, note if User changed their mind because of time delay in receiving the same serial number in return;
c. Identity of the Federal agency (that is, Army, Navy, DLA, etc.), Government User and Point of Contact, and site requiring the maintenance;
d. Parts breakout: nomenclature; National Stock Number (NSN), if available; part numbers; model number, CLIN; and serial number;
e. Quantity of each type of component repaired or replaced by CLIN under the Contract to date;
f. Equipment Warranty expiration date;
g. Delivery Order number or purchase card order date and activity;
h. Date field engineer arrival on-site, or receipt of the failed pRFID equipment at the repair facility;
i. Date repair action was completed, or equipment was sent back to the User, shipper or carrier, or when picked up by the User; and
j. Remarks section providing information outside of the items listed above, which gives a brief, non-technical description of equipment problems identified, repair action accomplished, parts replaced, serial numbers of replacement pRFID items (if the item was replaced by the Contractor), problems identified but causes not isolated, or a statement of no evidence of failure.

7.7 WARRANTY STATUS REPORT

The Contractor shall provide a Warranty Status Report in Microsoft Office Excel format, once each Contract year as requested by the COR, to include but not limited to, a list of all equipment due to leave warranty status no later than the next twelve months with serial number, model number, Federal Agency, Unique Control Number, Delivery Order number, shipping date, warranty end date, Government User, point of contact and telephone number. The initial report format shall be provided by the Contractor for Government review and approval no later than 30 calendar days after issuance of the base IDIQ contract.

7.8 KEY PERSONNEL

The following personnel are considered key personnel by the Government:

TITLE	***PERSONNEL QUALIFICATION***
Project Manager	The Contractor shall provide at minimum of two (2) years' experience with the RFID field with previous accomplishments of similar size and scope of this CRS. Secret clearance is required.

Contract Manager	The Contractor shall provide day-to-day office support activities including correspondence preparation, archival, entering and maintaining data within various databases, preparation of project support documentation, IT support, receptionist duties, maintaining schedules of senior management, and coordinating travel arrangements. The acceptable candidate must possess a Bachelor's Degree, a secret security clearance, and 2+ years of experience.

The Contractor shall provide a Contract Manager who shall be responsible for the performance of the work. The name of this person, and an alternate, shall act for the Contractor when the Project Manager is absent and shall be designated in writing to the Contracting Officer. The Contract Manager, or alternate, shall have full authority to act for the Contractor on all contract matters relating to the operation of this contract. The Contract Manager, or alternate, shall be available between 8:00 a.m. to 4:30p.m. (Or anytime there are contract personnel traveling overseas) Monday through Friday except Federal holidays or when the Government facility is closed for administrative reasons.

8 Equipment Return and Tracking

The Contractor shall affix a label to all hardware items deemed appropriate by the Government offered under the pRFID III Contract that states the Contractor's name, help desk phone number and website for warranty and maintenance tracking. The Contractor shall provide a method to enable the Government User and the Contractor to quickly identify and track components being forwarded to, and returned from, the Contractor Repair Center (RC) of choice for warranty and maintenance services. The Contractor shall assign the User a RMA number prior to the Government mailing-in the failed equipment to the RC for repair or replacement. The User shall be informed of the RMA number and serial number of each component returned to the Contractor for warranty and maintenance service. All failed equipment returned to the RC shall be identified by the RMA number. The RMA number will be used by the Government to help track the failed component through the warranty or maintenance service process.

9 CUSTOMER SUPPORT.

Customer Support shall not be separately priced and shall be provided as per CDRL A010.

9.1 TECHNICAL ASSISTANCE

The Contractor shall provide Technical Assistance, as follows:

a. Troubleshooting and correction of equipment problems;
b. Processing requests for On-call Maintenance;
c. Processing Mail-in warranty and maintenance service issues; for example, assigning RMA numbers;
d. Providing Contractor address of the Repair Center(s).

9.1.1 Toll-Free Customer Support Help Desk

At a minimum, the Contractor shall provide toll-free telephonic support for a Customer Support Help Desk in CONUS and OCONUS. The Help Desk shall be operational between the hours of 8:00 A.M. through 5:00 P.M., local time, Monday through Friday, and shall provide Users with the ability to submit/call-in a helpdesk ticket 24 hours a day, 7 days per week. This excludes U.S. Federal and Host Nation Country holidays in the geographic location. . The Help Desk shall respond to the User's call no later than 12 hours after receiving User call 95% of the time, maintain a database of calls received and acted upon, and track User calls for troubleshooting assistance. Except for the purpose of leaving a phone number for the Contractor to return a call no later than one hour during periods of high call volume, recorded answering services are not acceptable to the Government; however, the Contractor may use an on-line knowledge base, and an on-line RMA input functionality to assist Help Desk staff meet the workload. Contractor personnel staffing the Customer Support Help Desk shall possess sufficient expertise to recommend troubleshooting procedures and possible corrective actions for equipment and software acquired under the pRFID Contract. Contractor personnel staffing the Help Desk shall understand and speak fluent English. The Contractor shall maintain records of User calls for troubleshooting assistance capturing the following: failed item Point-of-Contact, location, date, problem, and resolution. This information shall be provided in the MESR.

9.1.2 Web Site

The Contractor shall establish and maintain a worldwide web site for Government Users no later than 60 calendar days after the Contract effective date specified in the Notice to Proceed as per CDRL A011. The web site shall be hot linked to the AMIS web site and be available daily on a 24-hour basis, until the expiration of the last active Order issued under the Contract. The web site shall not be password protected and shall only be accessible from a .mil or .gov web domain. As a minimum, the Web site shall include, or provide hotlinks to the following:

a. Methods for User to track status of Delivery Orders and Task Orders using the Government's order number and a Unique Control Number;
b. Warranty and maintenance tracking using the RMA number;
c. Exchange of technical information between the Contractor and individual User and groups;
d. Point-of-Contact, telephone and facsimile number, email address and mailing address for each RC;
e. Technical troubleshooting support;
f. Failed equipment tracking and status;
g. User Guide;
h. Reference and User Manuals (i.e., Commercial Manuals, Technical Manuals, Software Manuals);
i. Project management reports (schedules, IPT and PPR minutes, etc.);
j. Recent news items from PM J-AIT or the Contractor (for example, notifications of the web site being down for maintenance, etc.);
k. Other data as mutually agreed to by the Government and the Contractor;
l. Passive RFID device drivers;
m. Monthly Equipment and Service Report, Status Report, and Warranty Status Report; and
n. List of products that fully comply with Section 508 of the Rehabilitation Act.

The Contractor shall ensure that all device drivers required to operate pRFID equipment are posted to the web site. At a minimum, the Contractor shall post to the web site those drivers that were developed by the Contractor for use under this Contract. All initial drivers shall be posted to the web site no later than 60 calendar days after the Contract effective date specified in the Notice to Proceed. New and updated drivers shall be posted to the web site no later than 48 hours of the COR's approval. In the event that drivers are updated, the original version shall also be maintained on the web site.

10 WARRANTY

The Contractor shall provide a minimum of a three-year warranty All warranties shall include all parts, labor, and transportation costs for all pRFID components provided under this Contract. The Contractor shall provide a minimum of a three-year warranty for all software products.The Contractor shall repair or replace all failed pRFID components covered under warranty in this Contract in accordance with the procedures described in the Warranty Support paragraph. All warranties shall be included in the purchase price of the component, and not priced separately. The Contractor shall immediately notify the ordering Contracting Officer and order Point of Contact (POC) regarding equipment requiring repair or replacement due to apparent User abuse, negligence, or missing significant parts, such as circuit cards or boards.

10.1 WARRANTY SUPPORT

During the equipment warranty period, the Contractor shall implement changes to correct equipment malfunctions in accordance with best commercial practices. The implementation shall be in accordance with a mutually agreed-upon schedule. These changes shall be made at no additional cost to the Government. The warranty shall fully protect the Government against equipment malfunctions due to material defects, workmanship, or intrinsic operating problems. The warranty period for items ordered by Delivery Order shall begin upon Government acceptance of the equipment. In the event the Contractor is authorized to use a Certificate of Conformance, the warranty period for items ordered by a Delivery Order shall begin on the date of shipment. The warranty period for items ordered by purchase card shall be in accordance with the paragraph entitled "Government wide Commercial Purchase Card" in Ordering Guide. The warranty shall include mail-in procedures and on-call procedures as specified below.

10.2 WARRANTY MAIL-IN PROCEDURES

The requirement for warranty mail-in service, including commercial carriers, is that the Contractor shall bear all shipping costs, both from and back to Government sites. The Contractor shall be responsible for the equipment from the time of receipt until safe return to the Government. The Government will provide the Contractor with any unusual transportation instructions for return shipment after repair. When the User does not require the same serial number equipment, the Contractor shall ship a replacement item no later than 24 hours after notification of failed pRFID components. If the User requires the same serial number equipment, the Contractor shall restore all malfunctioning equipment covered under warranty to an operational condition and ship the equipment back to the User no later than ten workdays after receipt of the failed equipment (CONUS and OCONUS). In the event a same serial number component requested by the User cannot be repaired, the Contractor shall notify the Government User no later than three workdays after receipt of the component at the Contractor's facility. The Government User will provide the Contractor with disposition instructions for un-repairable pRFID components.

[1] Extended warranties timeframes are not available for ordering periods 7 and 8.

10.3 COMPONENT RETURN AND TRACKING

The Contractor shall provide a method to enable the Government User and the Contractor to quickly identify and track pRFID components that have been sent to a Contractor RC for warranty service. The Contractor shall assign a RMA number and inform the User of the RMA number as the tracking number, and serial number for each pRFID component returned to the Contractor for warranty service.

10.4 WARRANTY REPLACEMENT PARTS

The requirement for Contractor Warranty service is that only new parts, or parts warranted as new by the OEM, shall be used for repairs of failed Government pRFID components. Additionally, all replacement parts shall be equal to or better than the replaced parts in terms of quality and performance. The warranty for all replacement items installed during the initial warranty period shall be equal to the remaining warranty period for the original item, or 90 calendar days, whichever is greater. Failed parts replaced by the Contractor shall become the property of the Contractor. However, the Government reserves the right to purchase unserviceable parts containing sensitive or classified material, as required by statute or regulation.

10.5 WARRANTY ON-CALL PROCEDURES

The Contractor shall provide on-call warranty service for pRFID Fixed Readers in both CONUS and OCONUS. The requirement for CONUS locations is that the Contractor shall provide on-call repair no later than five workdays of notification. The requirement for OCONUS locations is that the Contractor shall provide on-call repair no later than seven workdays of notification. The Contractor shall provide on-call warranty service outside the official hours of operation when required by the using activity. When warranty service outside the official hours of operation is ordered in CONUS locations, the Contractor shall replace or return the equipment to an operational condition no later than five calendar days from the time the Contractor is notified of the malfunction. The requirement for OCONUS locations is that the Contractor shall replace or return the equipment to operational condition no later than seven calendar days of notification. The Contractor shall provide On-call Warranty service support to repair the item on-site.

11 MAINTENANCE

Upon expiration of the warranty on purchased products per order under this IDIQ, the user may purchase via Task Order, worldwide maintenance to repair or replace pRFID components and provide updates and changes to software covered under maintenance based on established CLINs. Maintenance prices shall include all parts, labor, and transportation back to the User.

11.1 MAINTENANCE TURN-AROUND TIME

The repaired pRFID component shall be returned and received by the User no later than ten workdays after receipt at the Contractor’s facility. In the event the pRFID component cannot be repaired, the Contractor shall notify the Government User no later than three workdays after receipt of the component at the Contractor’s facility. The Government

User will provide the Contractor with disposition instructions for un-repairable RFID components.

11.1.1 pRFID Component Return and Tracking

Upon receipt of a Task Order, the Contractor shall provide a method to enable the Government User and the Contractor to quickly identify and track pRFID components sent to a Contractor RC for Maintenance. The Contractor shall assign a RMA number and inform the User of the RMA number as the tracking number and serial number for each pRFID component returned.

11.1.2 Mail-In Maintenance

Upon receipt of a Task Order, the Contractor shall provide Mail-in Maintenance to include parts and labor on a Monthly and Per-incident basis for pRFID Fixed Readers, Vehicle Mount Readers, Hand Held Readers, and Printers. In accordance with Transportation paragraph in this section, the Contractor shall be responsible for transportation back to the User for all mail-in items.

11.1.3 On-Call Maintenance

Upon receipt of a Task Order, the Contractor shall provide worldwide On-call Maintenance for pRFID Fixed Readers, Hand Held Readers and Printers. When maintenance service is ordered in CONUS locations, the Contractor shall replace or return the equipment to an operational condition no later than five workdays from the time the Contractor is notified of the malfunction. The requirement for OCONUS locations is that the Contractor shall replace or return the equipment to operational condition no later than seven workdays of notification.

This on-call maintenance may be required by the using activity outside the official hours of operation. When maintenance outside the official hours of operation is ordered for CONUS locations, the Contractor shall replace or return the equipment to an operational condition no later than three workday’s days from the time the Contractor is notified of a failure. When maintenance outside the official hours of operation is ordered for OCONUS locations, the Contractor shall replace or return the equipment to operational condition no later than five calendar days of notification. The Contractor shall provide the required maintenance service in accordance with the Task Order issued for the instant requirement or in accordance with a Task Order issued pursuant to the subparagraph entitled “Special Funding of Per Incident Maintenance” in Section H of the base IDIQ contract.

11.1.4 Maintenance Procedures

Upon receipt of a Task Order, the Contractor shall replace or return equipment to an operational condition and ship the equipment back to the User no later than 10 workdays after receipt of the failed equipment (CONUS and OCONUS). Transportation arrangements shall be in accordance with the provisions of the paragraph entitled “Transportation” in this Part. In the event a pRFID component cannot be repaired or if any discrepancy is noted between the equipment received and the Task Order, the Contractor shall notify the Government User no later than three workdays after receipt of the component at the Contractor’s facility. The Government User will provide the Contractor with disposition instructions for un-repairable pRFID components.

11.1.5 Maintenance Replacement Parts

Contractor Maintenance support shall utilize only new parts, or parts warranted as new by the Original Equipment Manufacturer, that shall be used for repairs of failed Government pRFID components. Additionally, all replacement parts shall be equal to or better than the replaced parts in terms of quality and performance. Failed parts replaced by the Contractor shall become the property of the Contractor. However, the Government reserves the right to purchase unserviceable parts containing sensitive or classified material, as required by statute or regulation to be destroyed or retained by the Government. The effective warranty for all replacement items installed during the maintenance period shall be a minimum of 90 calendar days.

11.1.6 Software Maintenance

Upon receipt of a Task Order, the Contractor shall provide Software maintenance for all commercial software provided under this Contract in accordance with customary commercial software maintenance terms and conditions offered to the public to include all fixes, updates and changes necessary to maintain the software in an operational state. Software maintenance releases and software updates shall support all developed applications (fielded or not) that are developed under the Technical Engineering Services portion of the contract. Such support shall include, but is not limited to Application Interfaces and firmware changes.

11.2 PREVENTIVE MAINTENANCE

Preventive maintenance includes all actions performed in an attempt to retain an item in a specified condition by providing systematic inspection, detection, and prevention of incipient failures. Unless otherwise specified, Government personnel will perform all preventive maintenance for items acquired under this Contract. The Contractor shall provide to the Government, in detail, all requirements and procedures for preventive maintenance and troubleshooting-level diagnostics, in documentation and User Manuals. The Contractor shall provide Material Safety Data Sheets to the Contracting officer, COR and all users as specified in the individual order in accordance with FAR Clause 52.223-3 in Section I. The Contractor shall provide documentation for each appropriate hardware CLIN that shall include preventive maintenance checks, service schedules, and troubleshooting-level diagnostics. The Contractor shall be responsible for all other maintenance and support.

11.3 TRANSPORTATION

Transportation of pRFID components shipped to the Contractor for Maintenance will be arranged and paid for by the Government. Return transportation of repaired or replaced components shipped to the User shall be arranged and paid for by the Contractor. The Contractor shall use a return shipping method equal to or better than the User's method of shipment to the Contractor. The Government will provide the Contractor with any unusual transportation instructions for return shipment after repair.

12 TECHNICAL ENGINEERING SERVICES

12.1 GENERAL

The Contractor shall provide TES on-site at Government sites and at the Contractor's facility as specified in the Task Order. TES shall include those services required for End

to End, RFID turnkey implementation, IUID implementation support, equipment integration, site analysis, installation, de-installation, relocation, problem-solving, user unique training, IPT support, conducting PCAs/FCAs, software development; communications, interfaces to other Government systems, post implementation maintenance, equipment and systems engineering services, System Design and systems integration to include middleware integration to enterprise systems. Any cables or adapters not listed in this Contract, middleware or other items and materials required for installation of Contractor-provided pRFID components, may be ordered through this Contract in accordance with the provision entitled “Incidental Materials”. TES shall be ordered by a Task Order only. The Contractor shall maximize the use of hardware on the most recent pRFID contract whenever possible. All hardware and software solutions require Government approval. Contractor shall identify any requirements for interface with any other systems and identify required data elements as well as the digital requirements for implementation of the End-to-End Turn-key solution. The Government Program Manager will have the right to reject or require correction of any deficiencies found in the system, subsystem, or supply items that do not meet the requirements of the TES. Government rights under DFARS 227.7203-5(a) applies to all contractor developed software which is delivered for turnkey solutions via Technical Engineering Services.

12.1.1 Proposal Request for TES

The Government will issue proposal requests for TES in accordance with Ordering Guide, paragraphs *Ordering Procedures for Orders Exceeding Micro purchase Threshold*, and *Task Order – Technical Engineering Services (TES)*. Proposals submitted in response to a proposal request shall comply with the requirements of the Ordering Guide.

12.1.2 Travel

Prices for Contractor personnel travel and per diem to perform TES shall be in accordance with the requirements set forth in “Task Orders – Technical Engineering Services”.

12.1.3 TES Trip Report

The Contractor shall submit a TES Trip Report to the Task Order POC or Task Order COR, if applicable, no later than five workdays after the completion of each trip made for TES. The trip report shall be in the Contractor’s format and shall contain as a minimum:

Report Date;

a. Customer Name, address, POC and telephone number;
b. Project Name;
c. Time arrived, time departed;
d. Any recommended or provided Incidental Material description;
e. Contractor’s summary of work completed;
f. Contractor POC name and signature.

12.1.4 TES Response Time

The Contractor shall provide TES within the time specified in the Task Order for specific technical services. The on-site locations and objectives of the TES to be provided shall be stated in the Task Order.

12.1.5 Software Development Services

Software Development Services (SDS) shall be limited to development incidental to the pRFID-related mission that utilizes equipment acquired under this Contract. The pRFID SDS shall be limited to the development work required to implement, modify, interface, and integrate pRFID application(s) to an existing Government application(s) and database(s) e.g., SARSS, TIS. Services include new software development, which may include translation of existing Government code that has been determined necessary to ensure operation of the system.

12.2 INSTALLATION / DE-INSTALLATION / RELOCATION

12.2.1 Site Surveys and Installation Plans

The Contractor shall conduct a pre-installation, de-installation, or relocation site survey as specified in the Task Order for each location requiring site survey services. The primary purpose of the site survey is to determine the scope of work for the required installation, de-installation or relocation of pRFID equipment configurations. Within ten workdays after completion of the site survey, the Contractor shall provide an Installation Plan with supporting documentation and attachments. The Contractor shall submit the Installation Plan via electronic mail to the point of contract specified in the Task Order. Individual documents of over 5 Megabytes in size may be provided by link to a web page or data repository for electronic download, provided they are individually listed and linked from within the original electronic mail message. The Installation Plan shall include, but is not limited to, the following items:

a. Specific details on the methodology for installation and the resources required;
b. Detailed description, by major subheadings, of all installation work to be done by the Contractor at the site, and scheduling and dependency of the various tasks;
c. Site layout plan including detailed drawings or digital pictures of all components, such as racks, cabinets, or consoles;
d. General component specifications including equipment, physical specifications, templates, manufacturer's specific machine configuration and space requirements, special operational line-of-sight requirements between various components, lighting requirements, site construction requirements, power requirements, cabling requirements, network connections, communication lines, cooling requirements, shipping requirements, and all special requirements that do not fall under normal operating conditions;
e. Description of any actions, such as site modifications, which the Government will complete prior to installation of the pRFID equipment, in sufficient detail to facilitate successful installation of the equipment.

12.2.2 Installation/De-installation

The Contractor shall install and de-install pRFID configurations as specified in the Task Order. The Contractor shall provide all necessary installation support equipment, cables for the interface of the various components forming an installation, including the pRFID devices, servers, peripheral devices, and power sources as required. Upon receipt of a Task Order requiring installation/de-installation, and in accordance with the schedule contained therein, the Contractor shall install/de-install pRFID equipment in accordance with the approved Installation Plan. In instances where work to be performed by the Contractor requires interaction with existing facilities and equipment, the Contractor shall be responsible for any damage to existing facilities or equipment. After installation is completed, the Contractor shall remove all packing, shipping, and storage materials left

over from the installation.

12.2.3 Relocation of Passive RFID Components

Upon receipt of a Task Order requiring relocation of pRFID equipment, and in accordance with the schedule contained therein, the Contractor shall install pRFID equipment in accordance with the approved Installation Plan. The extent of the services performed by the Contractor shall be specified in the Task Order and may vary from minimal involvement to total responsibility for the relocation.

12.2.4 Installation Plans

The Contractor shall submit an Installation Plan with supporting documentation and attachments for evaluation as a part of its proposal for TES. The Installation Plan shall include, but is not limited to, the following items:

a. Specific details of the methodology for the installation and the resources required;
b. Detailed description, by major subheadings, of all installation work to be accomplished by the Contractor at the site to include scheduling and dependency of the various tasks;
c. Site layout plan including detailed drawings of all pRFID components, such as racks, cabinets, or consoles;
d. General component specifications including equipment, physical specifications, templates, manufacturer's specific machine configuration and space requirements, special operational line-of-sight requirements between various components, lighting requirements, site construction requirements, power requirements, cabling requirements, network connections, communication lines including satellite communications, cooling requirements, shipping requirements, and all special requirements that do not fall under normal operating conditions;
e. Description of any actions, such as site modifications, which the Government will complete prior to installation of the pRFID equipment, in sufficient detail to facilitate successful installation of the equipment.

12.3 CONTRACT SUPPORT PERSONNEL.

The Contractor shall provide personnel for all technical labor categories described in Attachment (5). The Government will issue proposal requests for specific tasks to be performed under Task Orders. Personnel performing TES and training under this Contract shall possess the qualifications that the Contractor requires for, and be part of the same work force, providing such services to the public. The Contractor shall provide personnel for labor categories that represent a blend of demonstrated technical, supervisory and managerial expertise, analytical skills and knowledge to provide specific tasks, using efficient and state-of-the-art processes, made up of functions including, but not limited to, the following:

a. pRFID component integration;
b. Installation and de-installation;
c. User unique training, on-site or classroom;
d. Systems integration;
e. Complex programming support;
f. Designing, developing, and troubleshooting complex applications;

g. Modeling simulation;
h. Analysis in designing operating systems utilities;
i. Troubleshooting, following established testing procedures to ensure equipment is operating properly;
j. Development and revision of technical documentation for software, hardware, and systems;
k. Testing online documents for correct operation, content and usability;
l. Analyzing systems to identify project objectives and data elements;
m. Preparing high level flow-charts and diagrams from which detailed program designs may be further developed;
n. Database management, associated data analysis and design, and data dictionary tools, as well as distributed systems, and data base development methods and techniques;
o. Total system development and integration efforts, including all equipment, software, telecommunications, and networks, based on expert knowledge of automatic identification and data capture fields;
p. Outlining problems, and providing solutions to data communication projects and problems based on expert knowledge of modern data transfer methods and networks;
q. Technical problem analysis and resolution based on expert knowledge of RF equipment and systems, wireless technologies, and wireless test procedures requirement analysis.

13 DOCUMENTATION REQUIREMENTS

13.1 GOVERNMENT RIGHTS

The Government shall receive data rights in accordance with the applicable clauses in the contract. The Contractor shall provide online access to, including the capability to download, all User Manuals and software reference documentation for any piece of equipment that interfaces with a host computer system. User Manuals and software documentation shall be in English and in the Contractor's format using Portable Document Format (PDF) files.

13.2 COMMERCIAL USER MANUALS

The Contractor shall provide commercial User Manuals for each piece of equipment that provide step-by-step procedures for each function performed by the equipment. These User manuals shall identify all preventive maintenance tasks and troubleshooting procedures. The commercial User Manuals shall be included with each delivered piece of equipment and shall not be separately priced.

13.3 SOFTWARE REFERENCE DOCUMENTATION

The Contractor shall provide software reference documentation for use by software developers creating Passive RFID applications for all software offered in hard copy and for online access. The documentation shall contain specific details for the integration of pRFID equipment. The documentation shall be at a level of detail sufficient to fully define the operator interface and application operations. The software reference documentation shall be included with each delivered piece of equipment and shall not be separately priced.

14 TRAINING REQUIREMENTS

14.1 WEB BASED AND CD-ROM TRAINING

In accordance with the Task Order (TO) PWS, the Contractor shall provide multimedia training as specified herein. Training shall be provided on CD-ROM and via the internet on a trusted web site. The Web Based training shall allow users to train from the web site and have the ability to download a version of the training for execution on a standalone windows based computer. The training shall instruct the students how to operate, maintain, and repair the equipment, and develop unique application software programs for pRFID equipment acquired under this Contract. The Contractor shall provide a web-based and CD-ROM training package with updates for both the base period and any extension periods of the Contract. Training updates may include the addition of new or modified products and other types of training updates as necessary.

14.1.1 Target Audiences and Areas

Target audiences utilizing the pRFID training will include technically skilled specialists responsible for supporting and implementing the use of pRFID components and end Users responsible for operating the Contractor-provided hardware and software. The pRFID Configuration Training shall encompass an overview of instruction in the following areas:

a. pRFID Configuration Overview (hardware, software, communications). Hardware characteristics and principles of operation, pRFID Configuration hierarchy and software components (including the Operating System communication software interfaces), data structures, queues, and internal tables of the Operating System;
b. Hardware and Software Architecture. Communications processing (including protocols), software designs, interfaces, and assembly (Operating System development) language.
c. Operating System commands;
d. Operating System tailoring and generation, method for the distribution of fixes, problem resolution, and implementation of new software releases;
e. Operations of equipment to include, but not limited to: configuring Reader(s), collecting information, reading and writing information, searching data to identify priorities and finding specific items, creating prioritized lists of containers to be unloaded, and locating specific containers based on container number or content data;
f. Diagnostics to include, but not limited to: problem definition and resolution, and diagnostic software utilization;
g. Security features (including management considerations, controls, procedures, and software design); and
h. Hardware maintenance and support. Preventive maintenance checks and services, and user-level repair operations.

14.1.2 Training

The Contractor shall provide access to Web Based training materials showing user installation instructions, start-up, or and downloads for diagnostics or software updates. The contractor shall provide a CD-ROM with the same materials offered on the Web with the initial shipment of each device as user documentation and Training materials; or provide a help/tutorial application on the device (not mandatory). At a minimum, the

government desires materials cover topics such as hardware and software installation, problem diagnostics, performance measurements, diagnostic software, and basic component operations.

14.1.3 Special Training Materials

Under Technical Engineering Services, the government may order and the Contractor shall provide AMIS with Multi-media training materials. Such requests may include requirements for a draft storyboard(s) and draft graphical materials no later than 60 calendar days after the date of the first Task Order for the Web-Based or CD-ROM training. The AMIS will review and approve the drafts and provide comments to the Contractor. The Contractor shall amend or edit the draft MMTP based on the Government's comments and resubmit a revised draft no later than 14 calendar days after receipt of the Government's comments. The Contractor shall provide the final MMTP no later than 30 calendar days after receipt of AMIS's final approval of the draft MMTP materials. The Contractor shall at the Government's discretion attend a minimum of two meetings at AMIS designated facilities to provide for Government review and input into the MMTP prior to AMIS final approval of the draft MMTP materials. The Contractor shall provide AMIS draft storyboards, scripts, and graphics materials ten workdays prior to each meeting. The Contractor shall also provide an agenda at least ten workdays prior to each meeting, and shall provide meeting minutes no later than ten workdays after the conclusion of each meeting.

14.1.4 Training Deliverables

If ordered, the Contractor shall provide the following items in accordance with the approved MMTP within 45 days after approval of the MMTP or within 45 days after the date of the order, whichever is later:

a. Web-based training

b. One (1) Master CD-ROM to be used by the Government for reproduction and distribution purposes. This Master CD-ROM, along with a one (1) copy of the CD-ROM, shall be delivered to the COR.

14.1.5 Training Package Updates

Prior to implementing updates to the training package, the Contractor shall submit the updates to the COR for approval.

15 CERTIFICATION

15.1 PASSIVE RFID CERTIFICATIONS

15.1.1 Energy Star

Equipment meeting the specifications defined in PB 95-250304 shall be certified by the Contractor and properly labeled as meeting the Environmental Protection Agency requirements.

15.1.2 Non-incendive Certification

The Contractor shall certify that equipment identified as Non-incendive, as well as its sub-components, shall be designed, manufactured and tested to Non-incendive standards, as specified at time of order in the most current National Electrical Code (NEC), for the environment specified in the paragraph 3.3.3 “Hazardous Environment.”

15.1.3 Product Safety Certification

Equipment shall be certified that it meets ANSI/UL1950-1997. Such certification shall be made by an authorized, Nationally Recognized Testing Laboratory.

15.1.4 Electromagnetic Compatibility (EMC) Compliance and Hazards of Electromagnetic Radiation to Ordnance (HERO) Compliance

All applicable equipment shall meet, as appropriate, the requirements of National Telecommunications and Information Administration (NTIA) Manual Annex K, FCC Part 15, regulations for Government operations and, International Standards. In order to certify the use of commercial Passive RFID equipment in these environments, the Government may subject representative categories of equipment to radiated emission and susceptibility tests (See MIL-STD 461E: Requirements for the Control of Electromagnetic Interference Emissions and Susceptibility, and MIL-STD-462E: Measurement of Electromagnetic Interference Characteristics). The applicable equipment shall remain unchanged after installation of Contractor-provided internal devices. All applicable equipment for CONUS shall meet the International Special Committee on Radio Interference (CISPR) 22, Class A (International) standards for Radio Frequency Interference/Electromagnetic Interference, and be Underwriters and European Community certified. .

15.1.5 Self-Certification.

The Contractor’s self-certification of standards (e.g., ISO 9075) and DISR shall be based on the results of testing or inspection the Contractor undertakes or authorizes others to undertake on the Contractor’s behalf. Self-certification shall be performed in accordance with ANSI Z-34.2-1987, American National Standard for Certification — Self-Certification by Producer or Supplier.

16 BACKGROUND INVESTIGATIONS FOR CONTRACTOR PERSONNEL

16.1 BACKGROUND

When applicable, Contractor personnel performing services under this contract, task order shall be required to undergo a background investigation. Task Orders may require Contractor personnel to have access to Unclassified Sensitive information in accordance with DoDD 8500.01E, DoDI 8500.2, AR-25, and the Privacy Act of 1974 (Public Law 93-579). At a minimum, some CONUS and OCONUS Task Orders will require the Contractor personnel accessing this information to have a favorable National Agency Check (NAC) and/or a DoD Secret clearance (Interim Secret clearances are acceptable). Investigative packages may contain the following forms:

1. SF-85, Questionnaire for Non-Sensitive Positions
2. SF-85P, Questionnaire for Public Trust Positions
3. SF-86, Questionnaire for National Security Positions
4. Credit Report Release Form
5. FD-258, Fingerprint Card,

16.2 NAC FILE RECORDS

a. The Contractor shall take the necessary steps to ensure the ability to timely respond to the Task Orders stating a requirement for a NAC or DoD Secret clearance. When a Task Order specifically addresses a requirement for a NAC, the Contractor personnel assigned to this effort shall complete a Standard Form 85 or 85P. When a Task Order specifically addresses a requirement for a DoD Secret clearance, the Contractor personnel assigned to this effort shall complete a Standard Form 86.

b. The completed paperwork shall be submitted to the Contractor Security Manager for review of completeness. The Contractor Security Manager shall obtain a DoD Secret clearance from the Defense Security Service (DSS) or from the appropriate Government agency. The Contractor shall maintain a record of all requested NAC and DoD Secret clearance approvals and disapprovals.

16.3 CONTINUED PERFORMANCE DURING SUPPORT OF CRISIS SITUATIONS, CONTINGENCY OR EXERCISE

The Contractor shall provide continued performance during support of crisis situations, contingency or exercise in accordance with the paragraph entitled “Continued Performance During Support of Crisis Situations, Contingency or Exercise” in Section H of the contract.

17 ORGANIZATION CONFLICT OF INTEREST (OCI).

17.1 NON-DISCLOSURE AGREEMENT

a. Without exception, all contractors are required to report potential OCI issues to the Contracting Officer immediately regardless of the stage of the acquisition/contract/order (e.g. Pre-solicitation, pre-award, post award, etc.) and regardless of what provisions and clauses are provided for in the contract/order. The cognizant Contracting Officer will provide the specific certificate of non-disclosure and or requirement for a mitigation plan when applicable.

b. The Contractor agrees that if it gains access to proprietary data of other companies, it will protect such data, and it will not use such proprietary data in supplying systems or components in future competitive procurements (FAR 9.505-4). In addition, the Contractor agrees to protect the proprietary data and rights of other organizations disclosed to the Contractor during performance of this Contract with the same caution that a reasonably prudent Contractor would use to safeguard highly valuable property. The Contractor also agrees that if it gains access to the proprietary information of other companies that it will enter into an agreement with the other companies to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

18 ANTI-TERRORISM / OPERATIONS SECURITY REQUIREMENTS. Each task/delivery order on this contract may have different requirements resulting in different considerations for AT/OPSEC, etc. The AT/OPSEC coversheet may be included at each task/delivery order, except for supply contracts under the simplified acquisition level threshold ($150,000 for non-contingency), field ordering officer actions, and Government purchase card purchases. All items listed below are included in the basic requirements of the PWS except for number six (6), whereas individual OPSEC Standing Operating Procedure/Plan may be required for specific task orders depending on the AT/OPSEC requirements.

1. AT Level I Training. All contractor employees, to include subcontractor employees, requiring access Army installations, facilities and controlled access areas shall complete AT Level I awareness training within 14 calendar days after contract start date or effective date of incorporation of this requirement into the contract, whichever is applicable. The contractor shall submit certificates of completion for each affected contractor employee and subcontractor employee, to the COR or to the contracting officer, if a COR is not assigned, within 14 calendar days after completion of training by all employees and subcontractor personnel. AT level I awareness training is available at the following website: https://atlevel1.dtic.mil/at.

2. Access and General Protection/Security Policy and Procedures. Contractor and all associated sub-contractors employees shall comply with applicable installation, facility and area commander installation/facility access and local security policies and procedures (provided by government representative). The contractor shall also provide all information required for background checks to meet installation access requirements to be accomplished by installation Provost Marshal Office, Director of Emergency Services or Security Office. Contractor workforce must comply with all personal identity verification requirements as directed by DOD, HQDA and/or local

policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in contractor security matters or processes.

3. AT Awareness Training for Contractor Personnel Traveling Overseas. This training is required for US based contractor employees and associated sub-contractor employees to make available and to receive government provided area of responsibility (AOR) specific AT awareness training as directed by AR 525-13. Specific AOR training content is directed by the combatant commander with the unit ATO being the local point of contact.

4. iWATCH Training. The contractor and all associated sub-contractors shall brief all employees on the local iWATCH program (training standards provided by the requiring activity ATO). This local developed training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity to the COR. This training shall be completed within 30 calendar days of contract award and within 30 calendar days of new employees commencing performance with the results reported to the COR NLT 45 calendar days after contract award.

5. Contractor Employees Who Require Access to Government Information Systems. All contractor employees with access to a government info system must be registered in the ATCTS (Army Training Certification Tracking System) at commencement of services, and must successfully complete the DOD Information Assurance Awareness prior to access to the IS and then annually thereafter.

6. For Task Orders that Require an OPSEC Standing Operating Procedure/Plan. The contractor shall develop an OPSEC Standing Operating Procedure (SOP)/Plan within the timeframe specified in the individual order, to be reviewed and approved by the responsible Government OPSEC officer, per AR 530-1, Operations Security. This SOP/Plan will include the government's critical information, why it needs to be protected, where it is located, who is responsible for it, and how to protect it. In addition, the contractor shall identify an individual who will be an OPSEC Coordinator. The contractor will ensure this individual becomes OPSEC Level II certified per AR 530-1.

7. For Contracts that Require OPSEC Training. Per AR 530-1, Operations Security, new contractor employees must complete Level I OPSEC training within 30 calendar days of their reporting for duty. All contractor employees must complete annual OPSEC awareness training.

8. For Information assurance (IA)/information technology (IT) training. All contractor employees and associated sub-contractor employees must complete the DoD IA awareness training before issuance of network access and annually thereafter. All contractor employees working IA/IT functions must comply with DoD and Army training requirements in DoDD 8570.01, DoD 8570.01-M and AR 25-2 within six months of employment.

9. For information assurance (IA)/information technology (IT) cortication. Per DoD 8570.01-M , DFARS 252.239.7001 and AR 25-2, the contractor employees supporting IA/IT functions shall be appropriately certified upon contract award. The baseline certification as stipulated in DoD 8570.01-M must be completed upon contract award.

10. For Contract Requiring Performance or Delivery in a Foreign Country, DFARS Clause 252.225-7043, Antiterrorism/Force Protection for Defense Contractors Outside the US. The clause shall be used in solicitations and contracts that require performance or delivery in a foreign country. This clause applies to both contingencies and non-contingency support. The key AT requirement is for non-local national contractor personnel to comply with theater clearance requirements and allows the combatant commander to exercise oversight to ensure the contractor's compliance with combatant commander and subordinate task force commander policies and directives.

11. For Contracts That Require Handling or Access to Classified Information. Contractor shall comply with FAR 52.204-2, Security Requirements. This clause involves access to information classified "Confidential," "Secret," or "Top Secret" and requires contractors to comply with— (1) The Security Agreement (DD Form 441), including the National Industrial Security Program Operating Manual (DoD 5220.22-M); any revisions to DOD 5220.22-M, notice of which has been furnished to the contractor.