

# **Performance Work Statement (PWS)**

**For**

## **The Army Resource Cloud (ARC)**

### **1.0 GENERAL INFORMATION**

**1.1** The contractor shall provide all personnel, equipment, tools, materials, supervision, and other items and non-personal services necessary to perform services as defined in this Performance Work Statement (PWS) except as Specified in section C-Part 3 as government furnished property. The contractor shall perform to the standards defined in this PWS.

**1.2 Background:** The Program Budget Data Management Division (PBDMD) of the Deputy Chief of Staff (DCS), Army G-8, Program Analysis and Evaluation (PA&E). G-8, PA&E is responsible for providing support during the Department of Defense Planning, Programming, and Budgeting (PPB) process culminating in the annual submission of the Army's portion of the President's Budget.

Inherent in this responsibility is the management of the Army Resource Cloud (ARC) environment and the oversight of all Information Technologies (IT) and the requirements for developing, administering, maintaining, and enhancing automated data and information systems that ensure efficient business operating processes.

The Army Resource Cloud (ARC) consists of multiple managed cloud environments and numerous hosted data, applications, and processes that enable Army Planning, Programming and Budgeting (PPB) processes to develop the Army Future Years Defense Program.

The ARC integrates multiple cloud services, commercial-off-the-shelf (COTS) applications, and custom applications storing data in multiple database engines including Oracle RDS, SQL Server RDS, Postgres, Mongo DB, and RedShift, while serving more than 23,000 users. Applications in the ARC exchange data with multiple other data systems and applications hosted in and out of the cloud. It performs a wide variety of automated validation routines, financial control enforcement, and produces outputs for submission to the Office of the Secretary of Defense (OSD) as outlined in the DoD Financial Management Regulation (FMR).

For reporting purposes, the ARC maintains authoritative Army resource data within a data warehouse and accumulates all US Army resource position history used to document the Army Program Operating Memorandum and Army input to the annual President's Budget. Data snapshots are run through declassification routines to produce an unclassified version along with the classified snapshot. The ARC team maintains and enhances an IT service delivery model that offers consistency and predictability in client service levels within the ARC, improved accountability and efficiency, better cost management, and evolving the organization.

Key activities that support ARC business operating processes include:

- a. Management of multiple-account cloud environments
- b. Administration, maintenance, and improvement of IT systems that collect Program Objective Memorandum (POM), Budget Estimate Submission (BES) and President's Budget resources data deemed necessary to accomplish the Department's mission.
- c. Ensuring the validity, integrity, and security of Army PPB data.
- d. Enabling the availability of data for broad Army analysis using analytical tools and integrated displays, as well as, enhancing its usefulness.
- e. Maintain and coordinate changes to Army programming data
- f. Publication and automated submission of the Army's POM and the submission of POM/BES and President's Budget positions to include the Army's Future Years Defense Program (FYDP) to the Office of Secretary of Defense (OSD)
- g. Supporting Army business transformation efforts by adapting the Army Resource Cloud (ARC) and by keeping pace with initiatives that improve the efficiency and effectiveness of PPB processes.

The Army Resource Cloud (ARC) consists of multiple cloud environments (IaaS, PaaS) and hosted data systems and processes. The major information systems include; cPROBE (the Army's Authoritative Program, Budget system of record), Master Data Management, cPROBE Data Warehouse, cWork, cSustain, cMan, Army Enterprise Equipping System (AE2S), cQuiP, Army Portfolio Management System (APMS), Information Technology Approval System (ITAS), User and Role Management (URM), MRTS, and External System Interfaces. The ARC integrates multiple cloud services, commercial-off-the-shelf (COTS) applications, and custom applications storing data in multiple databases including PaaS versions of Oracle, SQLServer, Postgres, and RedShift and an IaaS version of Mongo DB, while serving more than 20,000 users. Application in the ARC exchange data with multiple other systems and applications hosted in and out of the Cloud. It performs a wide variety of automated validation routines, financial control enforcement, and produces output for submission to OSD as outlined in the DoD Financial Management Regulation (FMR). The cPROBE system provides internal US Army Program Budget Guidance (PBG) for issuance to Army Commands (ACOM) and GFEBs.

For reporting purposes, the ARC maintains authoritative Army resource data within a data warehouse and accumulates all US Army resource position history. Data snapshots are run through declassification routines to produce an unclassified version along with the classified snapshot. The intent of the ARC Contract as defined in this PWS is to maintain and enhance an IT service delivery model that offers consistency and predictability in client service levels within the ARC, improved accountability and efficiency, better cost management, and evolving the organization.

Table 1.1 documents the applications that are part of the ARC at this time. Additional systems/applications will be hosted in the ARC environment over the life of the contract, coming into the environment through the documented onboarding process.

Fully-managed applications:

- cPROBE Repository: the Army's authoritative Programming and Budgeting database of record

- ARC Portal
- Master Data Management
- cPROBE Data Warehouse
- cWork Requirements Input
- cSustain Sustainment Tracking
- cMan Manning Programming
- cInstall Installation Programming
- Army Enterprise Equipping System (AE2S)
- cQuiP Equipment Data Tracking
- Materiel Release Tracking System (MRTS)
- Army Portfolio Management System (APMS)
- Information Technology Approval System (ITAS)
- User and Role Management (URM)
- Issue Tracking System (ITS)
- Data Science environment with R/Shiny server
- External Data Interfaces

Partially-managed applications (Applications are maintained by other contractors)

- IRMIS
- RM Online
- JICAP
- TRMIS

The list below documents the applications that the ARC supports:

- Funding Control System (FCS)
- Military Personnel Army (MPA)
- Operational Program 32 (OP-32)
- Army Resource Control System (ARC)
- Program and Financing System (PFS)
- Program Budget Decision System (PBDS)
- Civilian Army Budgeting System (CABS)
- Resource Formulation System (RFS)
- Civilian Manpower Integrated Costing System (CMICS)

The list below documents the feeder systems that currently provide or pull data from the ARC:

- Structure and Manpower Allocation System (SAMAS)
- The General Fund Enterprise Business System (GFEBS )
- Construction Appropriation Programming Control and Execution Systems (CAPCES)
- Resource Management system (RM-Online)
- Program Resources Collection Process (PRCP)
- Standard Data Collection System (SDCS)
- Resource Structure Management (RSM)

**1.3 Objectives:** To obtain contractor support for the management, development, maintenance and sustainment of the environment, systems, and applications hosted in the ARC in support of Headquarters Department of the Army.

**1.4 Scope:** The contractor shall provide services for the business capability definition; architectural design and evaluation; prototyping; engineering development; configuration, integration and migration activities, along with maintenance and sustainment of all business applications, and cloud infrastructure items. Each of these components will be executed throughout the life of this contract.

- Component I: Cloud Infrastructure Activities
- Component II: Security Activities
- Component III: Maintenance and Sustainment Activities
- Component IV: New Development of Systems/Applications
- Component V: Business Process Reengineering and Business Enterprise Architecture
- Component VI: Enterprise Reporting
- Component VII: Data Services
- Component VIII: Data Science Services

For ongoing business modernization efforts, the contract activities will be comprised of three distinct Phases: Business Capability Definition (BCD), Investment Management (IM), and Execution. Conceptually this encompasses more than just the acquisition of a Defense Business System (DBS); it weaves together all Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) to deploy a stand-alone business capability. Oversight, acquisition and investment management activities are all integrated in the Business Capability Lifecycle Management and IT Modernization.

During the course of contract performance, the contractor shall introduce and maintain innovative approaches for maintaining the ARC application suite for the architecture and integration within a constantly changing environment. The contractor shall develop and implement processes and provide system support for new and current initiatives that are developed within the numerous process improvements currently underway within Army G-8, PA&E. These initiatives include:

- Standard Financial Information Structure (SFIS)
- Single Army Financial Enterprise (SAFE)
- Consolidated Identity Management (Army/DoD Enterprise Identity and Access Management (IdAM) and other evolving enterprise processes)
- Army Request for Information Technology (ARFIT)
- Model-Based Integrated Process Improvement Methodology

The operating environment will dictate much of the engineering and project approach. Due to the nature and high frequency of changes within this environment, an integrated solution must be identified and deployed to meet emerging business requirements. Frequent, incremental updates will be the key to success; the analysis and engineering teams must be able to adapt their methodology to support the PPB operational requirements. This approach shall address all areas including maintaining an evolving architecture, maintenance and sustainment of ARC environment, systems and applications, and applying business process re-engineering

methodologies within the environment. The objective of the overall analysis of the architecture is to evolve system architectures and capabilities that enable future business process capabilities. The contractor shall provide a plan for consolidating ARC services while promoting Net- Centric data sharing, and Business Modernization Management requirements. Consolidation of IT services will strengthen accountability and leadership, and is a crucial strategy in achieving the PPB performance priorities and goals while better managing costs through centralization and elimination of redundant services and equipment. Consolidation will improve risk management by coordinating technical support staff's plans for and responses to security threats. The contractor shall provide a methodology of system implementation that removes redundant or unnecessary processes.

The Contractor shall deliver a Concept of Operations (CONOPS) that provides system identification, an overview of the document, an overview of the proposed system, and a brief description of the scope of the effort required to take the system from the current state to the final future state of deployment that will be achieved at the conclusion of the proposed deployment. The contractor shall deliver an Implementation and Transformation project plan that addresses the government's service needs, fits within the government's financial constraints, and allows for future growth and change.

The government will conduct periodic management, financial, technical, and design reviews. Upon contract award there will be a Technical Interchange Meeting. The contractor shall meet with the government weekly to provide acquisition status. The contractor shall provide monthly and weekly status reports. The contractor shall provide milestone schedules for each initiative within the program.

See Technical Exhibit 2 for the Delivery Schedule for all required documents.

## **1.5 General Information**

**1.5.1. Supervision of On-Site Contract Employees** The contractor shall ensure that provisions are in place for rapid response to tasks issued to onsite contractor personnel. During contract performance, all government direction will be provided through a contractor staff member responsible for supervision of on and off-site contractor personnel.

**1.5.2. Section 508 Standards** The following Federal IT Accessibility Initiative Standards are applicable to this acquisition:

- 1194.21 – Software Applications and Operating Systems;
- 1194.22 – Web Based Intranet and
- internet Information and Applications;
- 1194.26 – Desktop and Portable Computers; and
- 1194.41– Information, Documentation, and Support.

### **1.5.3. Policy Planning, Process, Program and Project Management**

**1.5.3.1 Technical Support** Contractor shall host a Technical Interchange Meeting (TIM) to ensure a common understanding between the contractor and the Government on the task order requirements. This Technical Interchange Meeting is to be conducted NLT 10 days after contract award and annually upon exercise of subsequent option years. TIM meeting minutes in written format are due NLT five (5) working days after the meeting.

**1.5.3.2. Status Reporting** As part of this work, the contractor shall provide a Plan of Action and Milestone (POA&M) listing at the start of this effort for task areas one through sixteen (see PWS Section 5.5.3, pages 26-38). The POA&M will describe the technical approach, organizational resources, and management controls planned by the contractor to meet the cost, performance, and schedule requirements established under this statement of work. Contractor shall submit the above POA&M 30 days following contract award with periodic updates provided for additional or schedule modifications.

The contractor shall provide a weekly status report that contains key weekly events, actions completed, Other Direct Costs (ODCs) and travel. The weekly status report shall include identification of expense using the assigned CLIN, a summary of travel, to include traveler name, destination, travel dates and total travel funding expended approved by the Contracting Officer's Representative prior to the travel. Review of these reports shall not constitute acceptance of charges on behalf of the Government.

The contractor shall provide an integrated master project schedule that includes key milestones with a summary of the major events and deliverables of the program, identified in a project schedule. Specific dates for deliverables shall be included in the schedule using project management software that can be exported to PDF or MS Word format.

Additionally, the contractor shall submit a monthly status reports to the COR. These reports will provide a summary of activities accomplished during the past week, activities anticipated for the next reporting period, and potential issues. The monthly reports will include a summation of topics covered in the weekly reports, an updated POA&M, and cost status.

**1.5.3.3 Financial Reporting** The contractor shall provide a Monthly Financial Status Report (MFSR) that includes a monthly and cumulative financial summary of labor expended, by CLIN and/or SubCLIN, related to each respective monthly effort. The MSFR shall:

- Include, by labor category, hours authorized, monthly and cumulative hours expended, hours remaining, billing rate, and monthly and cumulative labor costs expended, as well as a cumulative summary of Other Direct Costs (ODCs) and travel.
- Include a summary of hours and dollars expended by systems. System categories will be identified by the Contracting Officer's Representative and will include those systems current hosted in the ARC or that are in the onboarding process. This summary will record both contractor and hosting expenditures.
- Include a summary of travel, to include traveler name, destination, travel dates and total travel funding expended and presented for approval by the Contracting Officer's Representative prior to the travel. Upon completion of approved travel, the Contractor

shall include a copy of a final summary to include traveler name, destination, travel dates with all related total travel costs presented to the Contracting Officer's Representative. Review of these reports shall not constitute acceptance of charges on behalf of the Government.

The contractor shall submit all invoices in accordance with contract specifications.

**1.5.4 Duplication of Effort** The contractor shall ensure that there is minimum duplication of effort in the execution of all work specified in this PWS. The contractor shall build upon work previously accomplished by the Government, the contractor, or other contractors to the fullest extent practical.

**1.5.5 Cooperation/Coordination with other Contractors** There may be multiple contractors (i.e. from more than one contract vehicle and/or company) supporting the Army, tasked to work on systems that interface with the PPB Business Operating System. The contractor shall work with these other contractors as required and approved by the Government to accomplish Government requirements, goals, and objectives as efficiently and effectively as possible. This may include, but is not limited to sharing or coordinating information (as approved by the Government) resulting from the work required by this PWS or previous Government efforts, and/or working as a team to perform tasks in concert.

**1.5.6 Data Rights and Intellectual Property** Reference DFAR 252.227-7020, Rights in Special Works. The contractor shall not use or disclose information developed or delivered under this contract for any purpose other than as required for performance of the contractor's contractual obligations without the specific authorization of the Contracting Officer.

The following data rights and intellectual property clauses are applicable to this requirement and included in Section I:

- FAR 52.227-01 AUTHORIZATION AND CONSENT (DEC 2007) (ALT PARAGRAPH I)
- FAR 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (JUN 2020)
- FAR 52.227-3 PATENT INDEMNITY – Alternate II (APR 1984)
- FAR 52.227-10 FILING OF PATENT APPLICATIONS – CLASSIFIED SUBJECT MATTER (DEC 2007)
- FAR 52.239-1 PRIVACY OR SECURITY SAFEGUARDS (AUG 1996)
- DFARS 252.227-7013 RIGHTS IN TECHNICAL DATA--NONCOMMERCIAL ITEMS (FEB 2014)
- DFARS 252.227-7014 RIGHTS IN NONCOMMERCIAL COMPUTER SOFTWARE AND NONCOMMERCIAL COMPUTER SOFTWARE DOCUMENTATION (FEB 2014)
- DFARS 252.227-7015 TECHNICAL DATA—COMMERCIAL ITEMS (FEB 2014)
- DFARS 252.227-7016 RIGHTS IN BID OR PROPOSAL INFORMATION (JAN 2011)
- DFARS 252.227-7017 IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JAN 2011)
- DFARS 252.227-7019 VALIDATION OF ASSERTED RESTRICTIONS—COMPUTER SOFTWARE (SEP 2016)
- DFARS 252.227-7020 RIGHTS IN SPECIAL WORKS (JUN 1995)
- DFARS 252.227-7025 LIMITATIONS ON THE USE OR DISCLOSURE OF GOVERNMENTFURNISHED INFORMATION MARKED WITH RESTRICTIVE LEGENDS (MAY 2013)

- DFARS 252.227-7027 DEFERRED ORDERING OF TECHNICAL DATA OR COMPUTER SOFTWARE (APR 1988)
- DFARS 252.227-7028 TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT (JUN 1995)
- FARS 252.227-7030 TECHNICAL DATA—WITHHOLDING OF PAYMENT (MAR 2000)
- DFARS 252.227-7037 VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA (SEP 2016)
- DFARS 252.227-7038 PATENT RIGHTS—OWNERSHIP BY THE CONTRACTOR (LARGE BUSINESS) (JUN 2012)
- DFARS 252.239-7000 PROTECTION AGAINST COMPROMISING EMANATIONS (OCT 2019)
- DFARS 252.239-7001 INFORMATION ASSURANCE CONTRACTOR TRAINING AND CERTIFICATION (JAN 2008)
- DFARS 252.246-7001 WARRANTY OF DATA - BASIC

**1.5.7. Disclosure of Information.** Reference DFAR 252.204-7000 DISCLOSURE OF INFORMATION (OCT 2016). The contractor shall not use or disclose information developed or delivered under this contract for any purpose other than as required for performance of the contractor's contractual obligations without the specific authorization of the Contracting Officer.

The following data rights and intellectual property clauses are applicable to this requirement:

252.204-7000 Disclosure of Information.

252.204-7003 Control of Government Personnel Work Product.

252.204-7004 Antiterrorism Awareness Training for Contractors.

252.204-7007 Alternate A, Annual Representations and Certifications.

252.204-7008 Compliance with Safeguarding Covered Defense Information Controls.

252.204-7009 Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information.

252.204-7012 Safeguarding Covered Defense Information and Cyber Incident Reporting.

252.204-7016 Covered Defense Telecommunications Equipment or Services—Representation.

252.204-7017 Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services—Representation.

252.204-7018 Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services.

**1.5.8. Capability Maturity Model Integration (CMMI) Maturity Level** At time of proposal submission, the prime contractor shall have successfully achieved a minimum CMMI Level 3 rating as verified through completed external assessments. The contractor shall apply CMMI Level 3 methodologies to all business and technical processes. The contractor shall provide at least one Business Process Specialist who has conducted at least one CMMI Level 3 project and are capable of achieving these stated goals and necessary outputs. Verification of CMMI Level rating will be done from the CMMI Institute web site. Offerors may also supply a copy of this certification.

**1.5.9 Quality Control** The contractor shall develop and maintain an effective Quality Control program (QCP) to ensure services are performed in accordance with this PWS. The contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. The contractor's quality control program is the means by which he assures himself that his work complies with the requirement of the contract. As a minimum, the

contractor shall develop quality control procedures that address the areas identified in Technical Exhibit 1, “Performance Requirements Summary”. The quality control plan will not be considered accepted until the contractor receives the contracting officer’s approval in writing. The QC Plan is due 30 days after contract award. The QCP shall include the following;

**1.5.9.1 Organization and resources.** Organization chart and communication interfaces for all personnel performing QC functions. Identification of the authority of the QCP manager to monitor and control functions, and to implement remedial and preventive actions.

**1.5.9.2 Procedures for corrective action.**

**1.5.9.3** The Contractor shall submit its QCP to the KO and COR for Government review with the proposal. After KO and COR acceptance of the QCP, the Contractor shall receive the KO’s acceptance in writing of any proposed change to his QC system. Changes recommended by the Government shall be considered by the Contractor and incorporated into the QCP by the Contractor, if appropriate, and the QCP shall be resubmitted to the KO and COR within 10 calendar days of receipt. The Contractor shall submit updates to the plan to the KO and COR as required. The Contractor shall maintain support documentation for all actions taken over the life of the contract (e.g., work requests and inspection correction reports). These files shall be made available to the Government when requested by the KO or COR. Upon completion of the contract, the Contractor shall turn all files over to the COR.

**1.5.9.4 Quality Assurance** The government shall evaluate the contractor’s performance under this contract in accordance with the Quality Assurance Surveillance Plan. This plan is primarily focused on what the Government must do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable defect rate(s). The Government has the right to perform inspections and performance evaluation at any time. If any aspect of the performance is not in conformance with the requirements of the contract, the Government will have the right to issue to the Contractor a Contract Discrepancy Report (CDR). The Contractor shall explain in writing why performance was not in conformance with the requirements of the contract, how performance will be returned to conformance, and how recurrence of the problem will be prevented in the future. The Contractor shall complete and return the CDR to the COR within five working days after receipt of the CDR.

**1.5.10** Omitted.

**1.5.11 Government Remedies:** In addition to other remedies offered under the contract, the contracting officer shall follow 52.246-5, “Inspection of Services -- Cost-Reimbursement.” for contractor’s failure to perform satisfactory services or failure to correct non-conforming services.

**1.5.12 Recognized Holidays:** The contractor is not required to perform services on any Federal Holidays, or any other Presidential Proclamations. The dates for Federal holidays may be obtained from the Office of Personnel Management’s website at [www.opm.gov](http://www.opm.gov).

**1.5.13 Hours of Operation/Place of Performance:** The contractor is responsible for conducting business between the hours of 7:00AM through 7:00PM EST (Eastern Standard Time) Monday through Friday except Federal holidays or when the Government facility is closed due to local or national emergencies, administrative closings, or similar Government directed facility closings. The Contractor must maintain at all times an adequate work force within the NCR for the uninterrupted performance of all tasks defined within this statement of work when the Government facility is not closed. When hiring personnel, the Contractor shall keep in mind that the stability and continuity of the work force are essential. Contractor activities will be conducted primarily at contractor facilities. Some contractor activities will be performed at government facilities (located in Room 3C353, Pentagon). For these occasions, the government will provide office space and office automation equipment (hardware, software, and LAN access) for up to five contract staff personnel. The contractor shall provide support at times other than during the above stated hours in order to provide system updates and defect corrections when deemed necessary by the government in order minimize system downtimes. The COR will notify the contractor management when these off-business hours are necessary.

**1.5.14 Security Requirements:** The contractor is responsible for obtaining required identification cards, tags, and badges in accordance with AR 600-8-14. The contractor and subcontractor(s), if any, shall complete a background security check of all personnel (SF-85P) before new employees report for duty. Execution of SF-85P is a requirement for contractor personnel to receive a Common Access Card (CAC). All contractor personnel must be U.S. citizens. The contractor's security office will forward security clearance and visit requests to PAE for all personnel assigned to work on this task. All personnel that support this contract will be required to execute non-disclosure statements regarding POM, budget, and other PPB data after contract award and prior to accessing production data. All products and technical data, in accordance with data rights as cited in 227.7102.4, produced and delivered under this contract will become property of the government. All contractor positions other than those listed below require SECRET clearance eligibility. For positions requiring SECRET clearance eligibility, the contractor shall be responsible for providing SECRET cleared individuals as determined necessary by the Government after contract award.

The following positions require an active SECRET clearance at time of award:

- Program Manager
- Systems Engineers Cloud Certified (3)
- Application Developer (Master)
- Application Systems Analyst (Master)
- Database Specialist (Senior)
- Cloud Solutions Architect
- Data Warehousing Specialist (Master)
- Applications Developer (Senior)
- Enterprise Security Specialist (Senior)

In addition to an active SECRET clearance at time of award, the following positions require a completed favorable Single Scope Background Investigation (SSBI), Security+ Certification, and 8570.1 Level II certification:

- Systems Engineer Cloud Certified (3)
- Database Specialist (Senior)

**1.5.14.1 Non-Disclosure Statement.** Army has a Nondisclosure (NDA) requirement for each person supporting Army. The winning contractor personnel shall complete and sign a Nondisclosure Certification prior to commencement of the award. This requirement extends to all subcontractors and teaming arrangements. The non-disclosure statement shall be provided to the COR and Administrative Contracting Office (ACO). The contractor is responsible to obtain all necessary approvals prior to obtaining access to proprietary information, in accordance with FAR 9.505-4(b).

**1.5.14.2 Physical Security.** The contractor shall be responsible for safeguarding all government property provided for contractor use. At the close of each work period, government facilities, equipment, and materials for which the contractor is responsible shall be secured.

**1.5.14.3 Lock Combinations.** The Contractor shall establish and implement methods of ensuring that all lock combinations are not revealed to unauthorized persons. The Contractor shall ensure that lock combinations are changed when personnel having access to the combinations no longer have a need to know such combinations. These procedures shall be included in the Contractor's Quality Control Plan.

**1.5.14.4 Conservation of Utilities** The contractor shall instruct employees in utilities conservation practices. The contractor shall be responsible for operating under conditions that preclude the waste of utilities.

**1.5.15 Key Personnel Special Qualifications** The following are descriptions of the government minimum education, experience and certification requirements for personnel performing under the contract. The contractor shall propose current employees for all key positions, or shall include letters of intent to employ the individuals upon contract award, signed by the offeror and the employee. Resumes of key personnel that do not provide the necessary information to assess how well qualifications are met will be deemed insufficient and may result in removal from consideration. Key personnel positions are listed below:

- Senior Program Manager
- Project Manager (3)
- Cloud Solutions Architect
- Systems Engineer Cloud Certified (2)
- Application Developer (Master)
- Application Systems Analyst (Master)
- Database Specialist (Senior)
- Database Engineer (Master)
- Software Developer (Senior)
- Business Process Consultant
- Enterprise Security Specialist (Senior)

**1.5.15.1 Senior Program Manager.**

Serves as ARC prime contract senior manager and authorized interface for the Government Program Manager and Management. The Senior Project Manager performs supervisory program management and oversight to ensure successful program performance and is responsible for

overall performance on the S contract. Other responsibilities may include: assigning staff, formulating and enforcing work standards, assigning contractor schedules, reviewing work discrepancies, supervising contractor and subcontractor lead personnel, and communicating policies, purposes, and goals of the organization to subordinates; The Senior Project Manager is expected to devote an appropriate amount of time to the overall management of this Contract, including coordination with Government staff, and assuring quality of work performed. This position requires on-site visits to the government facility as needed or as directed by the Government.

**Qualifications:** Undergraduate degree in Information Systems Engineering, or Computer Science, or Business or related field. Minimum 15 years of management experience with 10 years of information systems management experience. Certified Project Management Professional. Minimum 5 years of experience with Army Planning, Program, and Budget business systems. The offeror must possess a thorough understanding of planning, programming and budget formulation systems, components and capabilities used within the Army and OSD. Experience must include the supervision of business solutions, infrastructure, systems design, development, responsibility for contract administration, and personnel hiring and scheduling.

#### **1.5.15.2 Project Manager**

Project managers are responsible for the day-to-day technical management of ARC task areas. Ensures technical solutions and schedules are implemented in a timely manner. Performs enterprise-wide horizontal integration planning and interfaces to other functional systems. Develops and manages the ARC technical project plans to completion within time and resource constraints. Manages project team scheduling, tracking, reporting, risk analysis, and cost management, leads the design, implementation and production life-cycle. Chairs integration meetings, stakeholder sessions, and requirement collection activities. Briefs Army leaders on current projects and the benefits to the Army.

**Qualifications:** Undergraduate degree in Information Systems Engineering, Computer Science, Engineering or Business or other related field. Certified Project Management Professional. Minimum 5 years program management experience with information systems. Project managers must have 3 years minimum experience with ARC applications and possess an understanding of related planning, programming and budget formulation business processes and a thorough understanding of PPB components, design, construction and capabilities. Project managers will have a minimum of one of the following disciplines; At least 3 years project management experience managing complex information systems using the latest industry technologies, good understanding of DoD Cyber Security requirements, and previous project management experience with complex information systems

#### **1.5.15.3 Cloud Solutions Architect:**

The Cloud Architect will design and develop cloud platform that is robust, scalable, and modeled on defense-in-depth and inherent security to translate policy, mission, and technical requirements to the enterprise. The architect will map user and application requirements in order to provide system and integration guidance to a team of cloud-certified engineers. The architect will contribute extensive knowledge of modern software development techniques and technology to design services that leverage leading technologies and architecture to produce services that meet

customers' demands. The Architect is responsible for implementing, managing, and monitoring the ARC and deployments IAW DoD Business Enterprise Architecture (BEA) requirements. This shall include the design and development of an automated DevSecOps Pipeline, CI/CD support infrastructure, and Data Validation Pipeline. Testing and implementation plans shall accompany all architectural designs. The Architect shall manage the complete life cycle for all ARC components with expert knowledge of technical design alternatives, including Open Source, and their implications by guiding the development teams in overall application technical design activities. This position will provide recommendations to both developers and engineers as necessary to ensure secure implementation of applications and assist engineers in the configuration of software and services. This position will manage system architecture, system integration, system standards, system design, and requirements specifications. This position requires extensive knowledge of cloud architectures, integration architectures, and knowledge of the Army PPB processes with complete understanding of ARC integration into BEA. This position requires extensive knowledge of DoD Laws, Regulations and Policies, and Army IT policies and directives to assure ARC compliance. Duty location at the Pentagon will occasionally be required.

**Qualifications:** Undergraduate degree in systems engineering, software engineering, computer science, or related engineering discipline from an accredited college or university. Minimum 10 years related technical specialized experience in the design, development, and implementation of complex, large-scale, enterprise information systems including maintenance, modification and resolution of errors; specialized experience in cloud platform deployment models, IAAS, PAAS, and SAAS. Minimum 3-5 years' work experience designing, executing, and supporting IT Cloud solutions, IaaS, PaaS, SaaS. Certifications: Certified Cloud Solutions Architect. It is crucial that this position have exceptional understanding of cloud computing technologies and computing trends and familiarity with enterprise architecture and enterprise application integration. Individual should also have adept knowledge of data modeling best practices and practical knowledge of Agile Software development methodology. Cloud architects require expert knowledge of key security concepts as security is a major pillar in cloud environment. This individual should also exhibit expert knowledge of data integration technologies and have experience with business intelligence/analytics implementations. The individual should be proficient in evaluating current or emerging technologies to consider factors such as Security, Reliability, Performance, Cost Optimization, and Operations, 5 focus areas in cloud architectures; evaluating existing systems to determine effectiveness and recommend changes to meet organizational requirements; establishing functional or technical standards to ensure operational requirements, quality assurances, and design constraints are addressed; collaborating with system engineers or software engineers/developers to select appropriate design solutions or ensure the compatibility of system components; critical thinking using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. The individual will be proficient with complex problem solving and be able to identify complex problems and review related information to develop and evaluate options and implement solutions, using analytical thinking and attention to details. Must have experience architecting cloud solutions and thorough knowledge System Development Lifecycle (SDLC).

#### **1.5.15.4 Systems Engineer:**

Possess extensive experience using latest technologies with proven record of implementing a wide variety systems and applications. Proven experience using one of the major cloud service providers currently running within the DoD. Oversees all cloud environments ensuring each environment is properly configured, all necessary error and security alerts are in place, costs are being controlled appropriately, and DoD prescribed security is adhered to.

**Qualifications:** Undergraduate degree in computer science, engineering, or mathematics from an accredited college or university and has a combined minimum of 10 year's experience in systems engineering, software engineering, and systems administration. Preferred Master of Science degree with experience performing within DoD environments. Will possess certification from at least one of the major DoD approved cloud service providers

#### **1.5.15.5 Application Developer (Master):**

Performs development, design, and implementation activities for custom applications. Uses latest technologies including web services development, micro services architecture, and Continuous Integration / Continuous Deployment/Delivery methods.

**Qualifications:** Senior-level system programmer with an undergraduate degree in computer science, engineering, or mathematics from an accredited college or university and has a minimum of 10 years of experience in computer programming. Must have technical experience with PPB process and systems.

#### **1.5.15.6 Application Systems Analyst (Master):**

Formulates/defines system scope and objectives. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results. Prepares detailed specifications for programs. Assists in the design, development, testing, implementation, and documentation of new software and enhancements of existing applications. Works with project managers, developers, and end users to ensure application designs meet business requirements. Formulates/defines specifications for complex operating software programming applications or modifies/maintains complex existing applications using engineering releases and utilities from the manufacturer. Designs, codes, tests, debugs, and documents those programs. Provides overall operating system, such as sophisticated file maintenance routines, large telecommunications networks, computer accounting, and advanced mathematical/scientific software packages. Assists all phases of software systems programming applications. Evaluates new and existing software products.

**Qualifications:** Experienced senior-level system programmer or system analyst with an undergraduate degree in computer science, engineering, or mathematics from an accredited college or university. Has a minimum of 10 years of experience in computer programming, systems analysis, or systems engineering. Must have technical experience with PPB process and systems. Must have extensive experience with J2EE and web applications utilizing an Oracle database management system (DBMS). Knowledge of XML, Web Services and DBMS data access as well as extensive knowledge of database design and implementation is required.

#### **1.5.15.7 Database Specialist (Senior):**

Performs overall control of database tier of the environment including interfacing between internal and external applications. Managing the Extract Transform and Load (ETL) processes, ensures data is cleansed.

**Qualifications:** Undergraduate degree in Information Systems Engineering, Computer Science, Engineering or Business, or other related field. Must have minimum 10 years DBA experience with 5 years of experience of Oracle database administration to include 1 year experience with Oracle 12c administration, database backup, server migration, optimization, and capacity planning and integrity routines. Must possess extensive knowledge of procedure performance tuning and troubleshooting. Must have data modeling experience. Possess 2 or more years of experience with Army or OSD PPB data models.

#### **1.5.15.8 Database Engineer (Master):**

Responsible for the environment's database layer of the ARC environment. Coordinates administrative functions to ensure data is reliably available and access times are minimized allowing quickest access possible to data. Responsible for all interfaces into and out of the data layer. Responsible for API hub allowing RestfulAPI exchanges with internal and external sources or systems. Ensures applications can access data with minimum latency. Facilitates change control, problem management, and communication among data architects, programmers, analysts, and engineers. Establishes and enforces processes to ensure a consistent, well managed, and well-integrated data infrastructure. Analyzes and identifies data and metadata requirements. Defines user requirements and database design specifications. Designs, implements, and supports data warehousing requirements. Implements business rules via stored procedures, middleware, or other technologies. Provides product support and maintenance. Performs data warehouse design and construction. Prepares/implements data verification and testing methods for the data warehouse.

**Qualifications:** Undergraduate degree in Information Systems Engineering, Computer Science, Engineering or Business, or other related field. Must have minimum 5 years Data Engineering experience

#### **1.5.15.9 Software Engineer (Senior):**

Designs, develops, enhances, debugs, and implements software. Troubleshoots production problems related to software applications. Researches, tests, builds, and coordinates the conversion and/or integration of new products based on client requirements. Designs and develops new software products or major enhancements to existing software. Addresses problems of systems integration, compatibility, and multiple platforms. Consults with project teams and end users to identify application requirements. Performs feasibility analysis on potential future projects to management. Assists in the evaluation and recommendation of application software packages, application integration and testing tools. Resolves problems with software and responds to suggestions for improvements and enhancements. Acts as team leader on projects. Instructs, assigns, directs, and checks the work of other software developers on development team. Participates in development of software user manuals. Meets with stakeholders to elicit requirements, reviews design changes, and presents prototype demonstrations. Will be required on-site for the government on approximately one-quarter of the year.

**Qualifications:** Undergraduate degree in computer science, engineering, or mathematics from an accredited college or university and has a minimum of 10 years of experience in computer programming using most prevalent languages.

#### **1.5.15.10 Business Process Consultant:**

Applies process improvement and reengineering methodologies and principles to conduct process modernization projects. Duties include activity and business process modeling, developing modern business methods, identifying best practices, charting and analysis of workflow, and creating and assessing performance measurements. Provides group facilitation, interviewing, training, and provides additional forms of knowledge transfer. May be under the supervision and direction of a Principal Business Process Reengineering Specialist or may work independently. Required to be on-site on approximately one-quarter of the year.

**Qualifications:** Undergraduate degree in Information Systems Engineering, Computer Science, Engineering or Business, or other related field from an accredited college or university. Must have a minimum of eight years of experience in business process reengineering and knowledge management. Must have extensive experience knowledge management/business processes methodologies and have conducted Army or OSD PPB-related improvement projects. Possess 3 or more years of experience with Army Planning, Programming, and Budget business processes. Project Management Professional (PMP) certified.

#### **1.5.15.11 Enterprise Security Specialist (Senior)**

Fills the DoD RMF role of Senior Information System Security Officer (S-ISSO). Performs integration of cybersecurity compliance (FISMA, RMF), cybersecurity operations, and systems development lifecycle (SDLC) security activities for all applicable environments and efforts. Provides support to all organization-wide information governance activities. Ensures adherence to enterprise information security policies, standards and practices to achieve the required level of consistency, quality and protection to meet overall business needs. Provides support in reviewing and editing existing Information Security Policies, procedures, and Standards. Skill and expertise combines cybersecurity with knowledge of Agile application development and DevSecOps—has established experience with cloud platform services, DevOps practices such as build/release management, secure SDLC/DevSecOps practices such as automating security processes in CI/CD pipelines, and general automation. Must resolve problems, mitigate delays, disputes and escalate issues. Requires the ability to understand complex information and communicate the information to people with diverse professional backgrounds. Provides recommendations to adapt and respond to dynamic cybersecurity landscape and continually improves security processes and posture.

**Qualifications:** Undergraduate degree in computer science, information assurance/cybersecurity engineering, or mathematics from an accredited college or university and has a minimum of 5 years of experience in enterprise information assurance/cybersecurity, cybersecurity operations, and federal cybersecurity compliance. Must be familiar with DoD Risk Management Framework. Understands NIST SP 800-53 and CNSSI 1253 security controls. Must be 8570 compliant DoD IAT and IAM Lv. III with field related certifications from internationally recognized certification bodies with at least one cloud security certifications. Preference for an additional cloud platform specific (AWS) security certification.

**1.5.16 Post Award Conference/Periodic Progress Meetings:** The Contractor shall attend any post award conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation Subpart 42.5. The contracting officer,

Contracting Officers Representative (COR), and other Government personnel, as appropriate, may meet periodically with the contractor to review the contractor's performance. At these meetings the contracting officer will apprise the contractor of how the government views the contractor's performance and the contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues.

**1.5.17 Contracting Officer Representative (COR):** To be identified at time of award: The COR monitors all technical aspects of the contract and assists in contract administration. The COR is authorized to perform the following functions: assure that the Contractor performs the technical requirements of the contract: perform inspections necessary in connection with contract performance: maintain written and oral communications with the Contractor concerning technical aspects of the contract: issue written interpretations of technical requirements, including Government drawings, designs, specifications: monitor Contractor's performance and notifies both the Contracting Officer and Contractor of any deficiencies; coordinate availability of government furnished property, and provide site entry of Contractor personnel. A letter of designation issued to the COR, a copy of which is sent to the Contractor, states the responsibilities and limitations of the COR, especially with regard to changes in cost or price, estimates or changes in delivery dates. The COR is not authorized to change any of the terms and conditions of the resulting order.

**1.5.18 Identification of Contractor Employees:** All contract personnel attending meetings, answering Government telephones, and working in other situations where their contractor status is not obvious to third parties are required to identify themselves as such to avoid creating an impression in the minds of members of the public that they are Government officials. They must also ensure that all documents or reports produced by contractors are suitably marked as contractor products or that contractor participation is appropriately disclosed. All contractor employees shall read all applicable security regulations, to be provided by the Government. Contractor personnel shall familiarize themselves with the Government's regulations and policies and site-specific regulations regarding access to sensitive materials, computer facility/IT network access, issue of security badges, etc., which shall be provided as required by the Government.

**1.5.19 Contractor Travel and Other Direct Costs (ODCs):** When travel is required, advance notification shall be provided to the appropriate Army point of contact to allow for clearances and site preparation. Reimbursement of expense shall be in accordance with the Joint Travel Regulation (JTR). Travel shall be approved in advance by the COR. Travel shall not commence until written approval is received. Allowable and allocable Other Direct Costs required to support the contract may be reimbursed subject to Government review and advance approval by the COR.

**1.5.20 Organizational Conflicts of Interest:** Contractor and subcontractor personnel performing work under requirement may receive or have access to proprietary information which may create a current or subsequent Organizational Conflict of Interest (OCI) as defined in FAR Subpart 9.5 and the Yellow Book OCI standards. The Contractor shall notify the Contracting Officer immediately whenever it becomes aware that such access or participation may result in any actual or potential OCI and shall promptly submit a plan to the Contracting Officer to avoid

or mitigate any such OCI. The Contractor's mitigation plan will be determined to be acceptable solely at the discretion of the Contracting Officer and in the event the Contracting Officer unilaterally determines that any such OCI cannot be satisfactorily avoided or mitigated, the Contracting Officer may affect other remedies as he or she deems necessary, including prohibiting the Contractor from participation in subsequent contracted requirements which may be affected by the OCI.

**1.5.21 Contract Deliverables:** The submission and review of information submitted under the Contract Deliverables Requirements List (CDRL) required by this PWS shall not limit the Government's rights and remedies under other provisions of the contract.

**1.5.22 Contractor Acceptance of Software License Agreements:** The contractor shall not accept any software license for software added to a Government system without prior review and acceptance of the license terms and conditions by the Government.

**1.5.23 Prohibition of Contractor Purchase of Hardware Items:** Contractor will not be required to purchase hardware items for support under this contract.

**1.5.24. Cybersecurity Maturity Model Certification (CMMC) Maturity Level** The Department of Defense is in early stages of implementing the Cybersecurity Maturity Model Certification (CMMC). Prime and sub-contractors shall prepare to achieve, at a minimum, level 4 certification to protect government Controlled Unclassified Information (CUI) as this standard matures.

**1.5.25 Manpower Reporting** The Office of the Assistant Secretary of the Army (Manpower & Reserve Affairs) operates and maintains a secure Army data collection site where the Contractor shall report all Contractor manpower (including subcontractor manpower) required for performance of this contract. The Contractor is required to completely fill in all the information in the format using the following web address <https://Contractormanpower.army.pentagon.mil>. The required information includes: 1) Contracting Office, KO, COR; (2) Contract Number, including task and delivery order number; (3) Beginning and ending dates covered by reporting period; (4) Contractor name, address, phone number, e-mail address, identity of Contractor employee entering data; (5) Actual direct labor hours (including sub-Contractors); (6) Actual direct labor dollars paid this reporting period (including sub-Contractors); (7) Total payments (including sub-Contractors); (8) Predominant Federal Service Code (FSC) reflecting services provided by Contractor (and separate predominant FSC for each sub-Contractor if different); (9) Estimated data collection cost; (10) Organizational title associated with the Unit Identification Code (UIC) for the Army Requiring Activity (the Army Requiring Activity is responsible for providing the Contractor with its UIC for the purposes of reporting this information); (11) Locations where Contractor and sub-Contractors perform the work (specified by zip code in the United States and nearest city, country, when in an overseas location, using standardized nomenclature provided on website); (12) Presence of deployment or contingency contract language; and (13) Number of Contractor and sub-Contractor employees deployed in theater this reporting period (by country). As part of its submission, the Contractor shall also provide the estimated total cost (if any) incurred to comply with this reporting requirement. Reporting period will be the period of performance not to exceed 12 months ending September 30 of each

Government fiscal year and must be reported by 31 October of each calendar year. Contractors may use a direct XML data transfer to the database server or fill in the fields on the website. The XML direct transfer is a format for transferring files from a Contractor's systems to the secure web site without the need for separate data entries for each required data element at the web site. The specific formats for the XML direct transfer may be downloaded from the web site.

**1.5.26 Small Business Participation Report.** Compliance with small business participation plans for small businesses will be monitored through submission of small business participation reports. The report shall be sent electronically within ten (10) days of the end of each period of performance to the Contracting Officer (KO), Contracting Officer Representative (COR), and contract specialist assigned to the contract.

## **2.0 GOVERNMENT FURNISHED PROPERTY, EQUIPMENT, AND SERVICES**

**2.1 GENERAL:** The government shall provide the facilities, equipment, materials, and/or services listed below.

**2.2 Onsite Equipment:** The Government shall furnish the necessary workspace for five contractor staff to provide the support outlined in this PWS to include desk space, telephones, computers and other items necessary to maintain an office environment. The materials and information provided to the Contractor by the Government or to which the Contractor had access in completing work under the contract, to include keys in accordance with Appendix D of AR 190-51, pagers, and access badges, are the exclusive property of the Government.

**2.3. Government Furnished Equipment:** The Government shall provide approved laptops for appropriate personnel to connect to the NIPRNET via VPN. This laptops will maintain US Army Gold Master configurations. The Government will not provide Internet Service Providers to any contractor staff, but allows the ability for at-home work except in the case of tasks requiring SIPRNet access.

**2.4 Utilities:** All utilities in the facility shall be available for the contractor's use in performance of duties outlined in this PWS. The Contractor shall instruct employees in utilities conservation practices. The contractor shall be responsible for operating under conditions that preclude the waste of utilities.

**2.5 Facilities:** The Government shall furnish the necessary workspace for the contractor staff to provide the support outlined in this PWS to include desk space, telephones, computers and other items necessary to maintain an office environment.

### **3.0 CONTRACTOR FURNISHED ITEMS AND SERVICES**

**3.1 General:** Except for those items specifically stated to be government furnished in Part 3, the contractor shall furnish everything required to perform this PWS.

**3.2 Secret Facility Clearance:** At time of proposal submission, the Contractor (and subcontractors/team members if applicable) shall possess or be eligible to receive and maintain a SECRET facility clearance from the Defense Security Service. The Contractors and subcontractors/team members (as applicable) shall have been granted a SECRET facility clearance from the Defense Industrial Security Clearance Office prior to performing work in support of this contract.

## 4.0 SPECIFIC TASKS

**4.1 BASIC SERVICES.** The contractor shall develop and maintain standard operating procedures for operating the cloud services, commercial-off-the-shelf (COTS), government-off-the-shelf, and custom-developed components of the ARC environment, systems, and applications.

**4.1.1 Business Process Management (BPM)** The contractor shall provide BPM methodologies, metrics and processes used to monitor and manage performance across many facets. The contractor shall provide a solution for Business Process Management (BPM) that provides an acceptable level of functionality to the Government. An acceptable solution shall allow the Army to:

- Define business processes and the workflow associated with each process.
- Define as rules and store centrally for use with any PPB system.
- Access a central business rules repository from which rules can be called.

**4.1.2 ARC Environments** There will be a minimum of five distinct environments to support this effort

- development (Commercial Cloud)
- quality assurance test, (Commercial Cloud)
- government test/training and (IL-4 Government Cloud and IL-6 Government Cloud)
- production (IL-4 Government Cloud and IL-6 Government Cloud)
- Data Science Environment (Commercial Cloud)

Throughout the performance of this effort, the contractor shall develop solutions in an environment that is physically separated from the test/training government test environment which is also physically separated from the production environment.

**4.1.3 Internal Management Controls and Regulatory Compliance.** The contractor shall perform oversight of productivity and management methods such as Quality Assurance and Configuration Management, to include an Integrated Master Schedule using Project Management Software and a Work Breakdown Structure. The contractor shall deliver and maintain a quality assurance program and document which conforms at a minimum to the practices described below:

1. The contractor shall perform and document a requirements evaluation (prior to design and development) that ensures requirements are realistic, unambiguous, consistent, necessary, and complete.
2. For deliverables, the contractor shall perform a 100% inspection and will ensure that system documentation accurately and completely describes the design, operational procedures, processing, and components as appropriate for the document type.

**4.1.4 Systems Engineering and Analysis** The contractor shall identify a set of systems that are independently useful systems, yet when integrated together; deliver significantly improved single system capability. The consideration of system-of-systems engineering should include the following factors or attributes:

- Larger scope and greater complexity of integration efforts;

- Collaborative and dynamic engineering;
- Engineering under the condition of uncertainty;
- Emphasis on design optimization;
- Continuing architectural reconfiguration;
- Simultaneous modeling and simulation of emergent system of systems; and
- Rigorous interface design and management.

**4.1.5 System Integration:** The contractor shall support efforts to integrate subsystems, complete detailed design, and reduce system-level risk to existing data and processes. This effort shall include the demonstration of prototype of an Engineering Development Model (EDM).

The contractor shall provide a Systems Engineering Management Plan (SIEMP) which provides details of the Project Plan. When used, the SIEMP focuses on the architectural plan of the project and the systems engineering processes to be used for the project. Its purpose is to elaborate those engineering tasks and provide detailed information on the processes to be used. Preparation of a SIEMP is most important if the project evolves from requirements through design implementation, integration, and verification and is very complex. This plan must encompass:

- Test and Evaluation plan
- Risk Management plan
- Quality Control plan

The contractor shall define and maintain a migration strategy assessments & recommendations to support newly integrated capabilities.

The contractor shall develop an integration solution process that translates the outputs of the Capabilities Development and a Critical Design Layout, as described in DoDI 5000.02, into alternative solutions and selects a final integration solution. The output of this process should be a design or physical architecture that forms the basis for design definition documentation such as specifications, baselines, and Work Breakdown Structures. Physical architectures should be sufficiently detailed to allow the following:

- a. Confirmation of upward and downward traceability of requirements;
- b. Confirmation of interoperability and open system performance requirements; and
- c. Demonstration of the appropriate products to satisfy the applicable acquisition phase exit criteria.
- d. Confirmation of requirements traceability and the soundness of the selected physical architecture shall be accomplished using a cost-effective combination of design analysis,
- e. Design modeling, and simulation, as applicable.

**4.2 Information Assurance (Reference applicable contract clauses)** Classified data will be stored on the system. Information Assurance actions and processes shall be implemented in all phases of operations that ensure security services are provided for the confidentiality, integrity, and availability of information being managed or processed by the government host site. Security services shall be provided to protect classified, non-classified, sensitive non-classified information at rest, in-use, or in-transit in accordance with the requirements defined in this document and the policy delineated in governing references. Annually, the contractor shall conduct the required Certification and Accreditation reviews to include vulnerability scans,

security reviews, test and evaluation studies, risk mitigations, and all other documentation necessary to achieve and maintain the Authority to Operate in accordance with the Risk Management Framework (RMF) (DoD 8510.1-M). This action will require full disclosure of the system architecture and configurations and will require unrestricted access to all information needed to support the independent verification and validation of security solutions as required by the RMF. All data traffic related to the ARC between host assets within the host site will be encrypted. The web site must be Public Key Infrastructure (PKI) enabled to work with DoD issued certificates. Systems shall use Secure Sockets Layer (SSL) for data over the web.

The Contractor shall not publish or disclose in any manner, without written consent of the Government, the details of any security safeguards designed or implemented by the Contractor under this contract. Any sensitive/privacy act data transmitted electronically, including email and attachments to email, will be encrypted.

The contractor shall compile and provide sufficient system documentation to ensure that the ARC is compliant with all appropriate DoD and Army security and Information Assurance standards and that the system documentation is updated as necessary to ensure system reaccredit in accordance with Risk Management Framework (RMF) policies. The contractor shall provide Certification and Accreditation activities as required to obtain and maintain the ARC authority to operate. Certification and Accreditation is required by Federal Information Security Management Act (FISMA) and Title III of Public Law 107-347. The contractor shall provide an Information Assurance Plan of Action and Milestone (POA&M) Report in accordance with the Delivery Schedule in Technical Exhibit 2. Specifically, the contractor shall:

- Must maintain the authorization record for ARC and cPROBE related for the RMF protection for the system w/in the enterprise mission assurance support service (eMASS).
- Deviations from compliance must have associated plans of action and milestones (POA&Ms)
- Must provide consultation and decision support around architecture, operations, and compliance WRT adopting new cybersecurity/information assurance tools, tactics, or processes/procedures.
- Must support the adoption and maintenance of DevSecOps practices, and the adoption of continuous authority to operate
- Must ensure data is protected as required per its classification.
- Any privacy related requirements see privacy appendix

**4.3 Technical Assessments and Reporting** The contractor shall provide technical and administrative support, including participation in, for working groups, meetings, General Officer Steering Committees (GOSC), pre-briefs to Army leaders, and quarterly in-progress reviews.

The contractor shall provide and update reports, standard operating procedures, design documents, and system documentation, test and evaluation documentation, including test scripts for major releases, as required and approved by the government. Contractor shall, at minimum, complete quarterly in-progress reviews. The contractor shall provide briefings, read ahead materials, minutes and other support within time limits set forth by the Government. Upon contract award, the contractor shall conduct a 90-day initial assessment of ARC environments, systems, applications, and business processes as a status baseline for future performance.

The contractor shall conduct ongoing assessments of the planning, programming and budget formulation process from the perspectives of: business process; organizational goals; data & information quality and availability; analytical requirements; policy; governance; technology; and provide a comparison to leading practices in both DoD and commercial entities.

The contractor shall conduct ongoing “current state” assessments of the linked business processes and technologies used throughout the planning, programming and budget formulation phases to execution from the following perspectives: people performing processes, process, organization and technology (to include data flows). Identify existing challenges and potential opportunities to improve integration across the processes and between internal and external systems and data sources.

The contractor shall conduct a stakeholder assessment, NLT 30 days after award and annually thereafter, of the ARC environments, systems, and applications; provide a comparison of analytical needs by type of user; identify potential process and technical improvements from those needs; and perform gap analysis.

The contractor shall provide recommendations to Army G8 leadership on possible courses of action given the findings of the assessments.

#### 4.3.1 Contract Activity Phases:

1. **Business Capability Definition (BCD) Phase:** The BCD Phase of BCL consists of analyzing a perceived business need, determining its root cause, conducting initial business process reengineering (BPR), developing high-level solution recommendations, and documenting the results of that analysis in a clearly defined and scoped Problem Statement.
2. **Investment Management (IM) Phase:** During the IM Phase, the analysis conducted during the BCD Phase expands in order to refine the solution scope, identify alternatives, propose a materiel solution, and define the parameters of the proposed materiel solution and operation. In this phase, the DoD Component develops a defensible and justifiable Business Case and Program Charter.
3. **Execution Phase:** The BCL Execution Phase is supported by the BCL Acquisition Business Model and consists of Prototyping, Engineering Development, Limited Deployment, Full Deployment, and Operations & Support.
  - a) **Prototyping** reduces risk by refining the materiel solution described in the Business Case. It tests the capability and the software in a development environment against user requirements and business process reengineering requirements as outlined in the Business Case.
  - b) **Engineering Development** builds the materiel solution and validates its consistency with the approved Business Case and Program Charter through developmental and operational testing.
  - c) **Limited Deployment** involves delivering the materiel solution to a limited number of users and conducting Initial Operational Test and Evaluation (IOT&E).
  - d) **Full Deployment** fields the materiel solution to the user community in accordance with the Business Case.

- e) **Operations and Support (O&S)** consists of sustaining the program or program increment over its total life cycle.

The contractor shall incorporate the software life-cycle methodology described above throughout the development of all new system applications or modules within existing applications.

#### **4.4 Technical Requirements Tenets**

This section of the PWS describes the technical requirements, and the prerequisites that are associated with the Goals & Objectives for the eight components in this PWS.

##### **4.4.1 Component I: Cloud Infrastructure Activities**

The contractor shall:

- a. Create Virtual Private Clouds/Network/Subnets
- b. Create Virtual Machines with STIG compliant images
- c. Create Docker container environment/deploy and maintain new containers
- d. Create and maintain failover environment to the maximum extent giving available funding
- e. Maintain IP Addressing for VPC, EC2, S3, Security groups
- f. Maintain user accounts, groups, roles, and access policies
- g. Manage and maintain the following environments
  - a. Commercial cloud development environment
  - b. GovCloud FOUO IL-4 environment
  - c. GovCloud Secret IL-6 environment
- h. Perform all necessary duties and transition to cArmy as services become available

##### **4.4.2 Component II: Security Activities**

The contractor shall:

- a. Conduct FISMA, RMF, and any other activities related to compliance with Federal Policies
- b. Implement, assess, maintain, document and monitor all applicable RMF and CNSSI 1253 security controls for ARC related eMASS records ( Maintain eMASS records in NIPR and SIPR environment
- c. Ensure the secure operation and maintenance of the information systems to include configuration management (e.g. STIG compliance)within applicable environments
- d. Maintain training currency / certifications with personnel's professional certificates, DoD 8570 compliance, and any other training required for security tools utilized by the Army (e.g. network/vulnerability scanning, host-based security systems)
- e.
- f. Implement and Adjudicate static and dynamic code analysis, and when necessary provide manual code reviews to ensure known vulnerabilities or coding weaknesses are not introduced into the environments.
- g. DevSecOps
- h. Adopt new security frameworks as required

##### **4.4.3 Component III: Maintenance and Sustainment Activities**

The contractor shall:

- a. Provide maintenance and sustainment for all environments
  - a. Administer Linux and Window operating systems
  - b. OS patches, Application patches
  - c. Deploy updated code revisions
  - d. Monitor application/network access
  - e. Troubleshoot application/networking issues
  - f. Provide reports on system/application availability
  - g. Manage DNS server
- b. Provide maintenance and sustainment for all systems/applications identified in Technical Exhibit 3.
  - a. Provide a Level of Effort for each Task to include cost, hours, and labor category
  - b. Execute transition to operations of new capabilities and technologies through close coordination with Government while maintaining mission continuity
  - c. Follow a documented implementation plan for all approved software deliveries, including gain Government approval to deploy, install and transition updates into an operational system
- c. Provide technical demonstrations
- d. Implement the Configuration Management Plan
  - a. Oversee the DEV/DEC/OPS process
  - b. Scan all software deliveries utilizing static code scanning software and analysis, including both software delivered by the contractor and other contractors supporting systems/applications hosted in the ARC by not developed/maintained by the contractor
- e. Maintain a Help Desk to
  - a. Provide Tier 1 level service for all systems and applications hosted within the ARC assistance and remedies to technical, operational, and user issues and questions utilizing the Issue Tracking System application
  - b. Provide Tier 2 and Tier 3 level service for all systems/applications for which the contractor provides maintenance and sustainment support
  - c. Maintain Standard Operating Procedures and Frequently Asked Questions documentation for systems and applications for which the contractor provides maintenance and sustainment support.
  - d. Track status of all help desk tickets using the Issue Tracker System
  - e. Collect and report metrics on help desk tickets
- f. Manage a Training program for all systems systems/applications for which the contractor provides maintenance and sustainment support
  - a. Deliver and maintain a Training Implementation Plan
  - b. Implement Training Implementation Plan
  - c. Maintain statistics on training implementation
- g. Provide Financial Management Business System Domain support
  - a. Maintain Enterprise Business Architecture
  - b. Maintain APMS record
- h. Maintain User and Role Management data
  - a. Manage, maintain and update a centralized user and role management platform.
  - b. Propose improvements to the URM process based on industry best practices
  - c. Maintain PKI and LDAP capabilities

- d. Maintain certificate revocation lists

#### **4.4.4. Component IV: Perform New Application Development**

The contractor shall perform software lifecycle activities to develop new applications and systems as directed.

1. Implement a hybrid agile process that prepares system elements for the processes of Integration, Verification, and Validation. It shall include testing of the implemented system element before the element passes to the Integration Process. Implementation shall also involve packaging, handling, and storage, depending on where or when the system element needs to be integrated into a higher-level assembly.
2. Develop the supporting documentation for the system element--such as manuals for operations, procedures, maintenance, and/or installation.
3. Provide a Functional Implementation plan within the Delivery Schedule outlined in Technical Exhibit 2
4. Develop system requirements from functional requirements
5. Document design,
6. Develop capabilities per the design using documented development practices
7. Perform integration and system tests,
8. Provide GAT materials and support,
9. Provide UAT materials and support,
10. Provide capability documentation

#### **4.4.5 Component VI: Business Process Reengineering and Business Enterprise Architecture**

The contractor shall:

- a. Maintain a current engineering and technology strategy that is consistent with best business practices.
- b. Develop data Interoperability Plan that complies with the Business Enterprise Architecture, providing consistent approaches to data sharing. Develop requirements in compliance with the Office of Business Transformation (OBT) including, but not limited to Standard Financial Information Structure (SFIS) compliance and mapping to the Army Single Financial Enterprise Architecture (SAFE)
- c. Maintain and enhance the ARC which integrates internal and external information across the entire US Army. Software configurations must integrate all business functions internal and external to the organization
- d. Document and prepare a test and evaluation plan e) Develop Certification of compliance with the Clinger-Cohen Act
- e. Develop Analysis of Alternatives (AoA) with recommendations as required
- f. Support U.S. Army architecture initiatives, generate required architectural documentation, and review emerging technology to ensure the ARC maintains architecture leadership within the U.S. Army.
- g. Adhere to and comply with recognized Army and DoD standards as outlined in section 5.3 in this PWS and any standards which may be manifested during any portion of the development phase of the newly designed system described within this PWS. As these standards may not be fully matured, the contractor shall follow these standards to

function seamlessly with all standards and frameworks as they are made known to the Army.

- Standard Financial Information Structure (SFIS) is a DoD-wide description for data structures used by all DoD financial systems. PPB ARC FM applications must adhere to SFIS standards. All data elements must map to data elements described within SFIS and functional elements within the new system development must be compliant with all Army and DoD standards as described above.
- The Office of Business Transformation (OBT) advocates an Army-wide initiative for improving the department's financial accountability and planning. OBT includes an enterprise resource system and the Business Enterprise Architecture (BEA).
- The Financial Information Systems Management Act (FISMA) describes the security requirements for DoD systems. The FISMA provides minimum security requirements and categorically separates information within financial systems. The contractor shall comply with the FISMA on new system development.

#### **4.4.6 Component VI: Enterprise Reporting**

The contractor shall

- a. Provide Enterprise Reporting Service support:
  - a. Tableau administration and environment management
  - b. QlikSense administration and environment management
  - c. Tableau report development
  - d. QlikSense report development
  - e. Dynamic Reporting Tool administration and environment management
- b. Maintain and expand analysis and data visualization capabilities
- c. Investigate, analyze, and recommend emerging reporting capabilities
- d. Collect and report on reporting usage metrics

#### **4.4.7 Component VII: Enterprise Data Services**

The contractor shall:

- a. Maintain database systems and provide database administrator for data sets integrated into the ARC, including PaaS or SaaS:
  - a. Oracle,
  - b. SQL Server,
  - c. PostgreSQL,
  - d. RedShift,
  - e. Mongo DB
- b. Provide Enterprise Data Services
  - a. Web Services Data Exchange (RestfulAPI Hub)
  - b. Database administration
  - c. Data abstraction layer (Catalog)
  - d. Security layer
  - e. System to System Interfaces
- c. Investigate and analyze emerging data management capabilities

#### 4.4.8 Component VIII: Data Science Services

The contractor shall:

- a. Maintain R Studio/Shiny/R Connect environment
- b. Maintain Jupyter Notebook environment
- c. Monitor storage usage within the environment
- d. Manage user accounts and collect usage metrics

#### 4.5 Task Areas

##### 4.5.1 Task Area 1: ARC Portal

**Description of Requirement:** The ARC Portal shall provide access to cPROBE applications, reports, and documentation as well as provide collaboration solutions from a single location using a single method for authentication [Single Sign On (SSO)]. The portal shall provide users access to enterprise-wide communication and collaboration solutions in one location. In addition to the Portal being used as the logical starting site for users, it serves as a "gateway" for access to the range of cPROBE services, information, and content.

The following objectives support the ARC portal mission:

- Approved Public Key Infrastructure (PKI) authentication utilizing single-sign-on methodology (EAMS-A or other evolving enterprise solution)
- Content repository provides library, virtual file system, and versioning services.
- Search engine allows keyword based search of all content.
- User & Role Management Capability (URM) Security Services.
- Reporting component includes managing report creation for the defect, enhancement and feedback details.

The ARC Portal will provide the Army with a single point of access for key information that can be individually personalized to provide the desired information environment within which users need to work. The portal promotes Knowledge Management (KM) and information sharing across the enterprise and a centralized point of access for additional applications. The cPROBE Enterprise portal will serve as the gateway to all Army PPB business capabilities and, where practicable, will comply with published DoD portal guidance and policy.

**Contractor Task:** The contractor shall provide technical assistance in support of Army changes to the ARC Portal. The contractor shall provide all supporting documents to include System Documentation, Maintenance Manual, and User Training Vignettes. The contractor shall update portal design as necessary to ensure the portal presents an up-to-date, professional, and intuitive interface for users. The contractor shall provide design updates in accordance with industry standard intervals to ensure the portal has a fresh look and feel and presents an appropriate Army aesthetic. All designs will be approved by government personnel. The contractor shall propose maintenance updates for the COTS product with which the ARC portal is implemented, as well as perform periodic review to ensure the best product is used to implement the portal.

#### **4.5.2 Task Area 2: cPROBE System Administration (SA) Tools**

**Description of Requirement:** cPROBE System Administration Tools allows PBDMD administrations to build new Army positions.

The system allows personnel to directly import into, validate data, and get transaction reports from the Operation Data Store (ODS). cPROBE is a web-based application, developed using JAVA to captures the Army resource changes at the detail level and process to combine various inputs including Dollar Funding, Direct OCO Funding, Dollar Requirements (HQDA, PEG, Command), Manpower Endstrength, Manpower Requirements, Civilian FTE, Civilian Costing (BES and POM) into a new position. Representative feeder systems to cPROBE include Resource Formulation System (RFS), cWork, Structure and Manpower Allocation System (SAMAS) and Civilian Costing System (CCS). The system provides report, download and query capabilities.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement of interfaces with the feeder systems and reports utilizing Enterprise Reporting tools. The contractor shall support the analysis and development of a net centric system-to-system interface for data exchange, and ensure compatibility with the various HQDA feeder systems of the PPB process.

#### **4.5.3 Task Area 3: OSD Submission/Reporting**

**Description of Requirement:** The OSD Submission/Reporting tool formats data from cPROBE and submits to ODS-maintained systems, including SCDS. The application is written in JAVA and utilizes web services to deliver the formatted systems at POM LOCK, BES LOCK, and President's Budget LOCK points. OSD is developing the next generation of their current systems; the OSD Submission/Reporting application must evolve to meet new reporting requirements.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement of Web Service interface with OSD systems and reports utilizing Enterprise Reporting tools. The contractor shall support changes to the application as reporting requirement changes are defined by OSD CAPE.

#### **4.5.4 Task Area 4: cPROBE Data Warehouse**

**Description of Requirement:** The cPROBE Data Warehouse is a COTS-based analytical tool that supports the PPB process. The data warehouse provides all users, involved in the PPB process, reporting and analytic tools for retrieving and viewing PPB data. Data is stored within the Oracle, PostgreSQL and Redshift environments. The Data Warehouse also stores and maps support data related to PPB and provides users the capability to analyze Army PPB data with this external-sourced data.

The Data Warehouse requires robust Extract/Transform/Load (ETL) support for the Informatica AWS Glue, and or other data cleansing tools. Budget positions published within cPROBE shall be loaded as soon as feasible to both NIPR and SIPR instances of the warehouse. The desired end state is an ETL process that runs automatically when new data is available to be loaded.

The use of PPB Data Warehouse reports and methodology is extensive within the framework of cPROBE, not limited to only PPB data, but business intelligence reports and displays utilize numerous other systems within cPROBE where reports or depictions of data are necessary for user information. Additionally, many users have tailored production versions of reports with personally-selected criteria and content for efficiency, which they may access at will.

This task requires database administration and maintenance support for the Oracle databases that make up the AE PPB data warehouse, as well as maintenance and development of reports that serve the cPROBE user community. Review evolving technologies and recommend changes to the environment. Provide administration, maintenance, security patches, licenses and upgrades of existing architecture and applications, as directed by the COR. Provide business intelligence report-writing expertise for current and future evolution of report styles.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current state of the PPB Data Warehouse, including the data warehouse model, the Extract/Transform/Load process, and the reporting interface. The contractor shall provide enhancements to support problem reports and resolution as directed by the COR. Maintenance duties include monitoring the accuracy of the data and the availability of all supporting network services. In addition, the contractor shall monitor the application of any software upgrades that could impact the system. Maintenance will be coordinated and downtime limited. The contractor shall perform supplementary efforts within the contract scope as requested by the COR for the support of other cPROBE subsystems. The completion of those tasks will be based on a timeline mutually agreed to by the government and the contractor. Such tasks may include, but are not limited to: development of additional functionality and software corrections identified by the government. The contractor shall provide routine and/or specially-requested training on capabilities of the PPB Data Warehouse and/or other cPROBE subsystems.

#### **4.5.5 Task Area 5: cWork**

**Description of Requirement:** cWork allows Army Commands, PEG, and HQDA users to input, review, and approve funding, dollar requirements, manpower endstrength, civilian FTE and manpower requirements changes in support of the US Army programming and budgeting activities. The application combines JAVA code and APEX applications to provide required capabilities.

The application allows user to directly import into, validate data, and get transaction reports from the Operation Data Store (ODS) at the detail level, as well as provides a submission workflow process. The changes entered by the Program Evaluation Groups (PEGs) and field-level resource managers are used throughout the PPB cycle. The leadership reviews the potential changes for inclusion in the next phase of the PPB cycle. cWork feeds resource requirements information to cPROBE System Administration Tools. Representative feeder systems to cPROBE include Resource Formulation System (RFS), Army Enterprise Equipping System (AE2S), cMan, cSustain, cInstall, Structure and Manpower Allocation System (SAMAS) and Civilian Costing System (CCS). The system provides report, download and query capabilities. Data is managed at the Key 5 (MDEP/APPN/APE/ROC/Dollar Type) level of detail.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement of interfaces with the feeder systems and reports, as well as work flow, data entry, and data display. The contractor shall implement enhancements as new requirements as identified by the Programming community. See cPROBE for performance standards.

#### **4.5.6 Task Area 6: cMan**

**Description of Requirement:** cMan allows G-1 identified users to input, review, and approve funding and dollar requirements (Field and PEG) changes in support of the Manning PEG programming and budgeting activities. The application is built with Oracle APEX and makes Tableau and DRT reports available to users.

The application allows user to directly import into, validate data, and get transaction reports from the Operation Data Store (ODS) at the detail level, as well as provides a submission workflow process. The changes entered by the Program Evaluation Groups (PEGs) and field-level resource managers are used throughout the PPB cycle. The leadership reviews the potential changes for inclusion in the next phase of the PPB cycle. cMan feeds resource requirements information to cWork. The system provides report, download and query capabilities. Data is managed at the Key 9 (MDEP/APPN/APE/ROC/Dollar Type/COMPO/Requirement Driver/Cost Factor/Category) level of detail.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement to data entry process, workflow, and reports, as well as data display. The contractor shall implement enhancements as new requirements as identified by the Programming community.

#### **4.5.7 Task Area 7: cSustain**

**Description of Requirement:** Sustain allows G-4 identified users to input, review, and approve funding and dollar requirements (Command and PEG) changes in support of the Sustaining PEG programming and budgeting activities. The application is built with Oracle APEX and makes Tableau and DRT reports available to users.

The application allows user to directly import into, validate data, and get transaction reports from the Operation Data Store (ODS) at the detail level, as well as provides a submission workflow process. The changes entered by the Program Evaluation Groups (PEGs) and field-level resource managers are used throughout the PPB cycle. The leadership reviews the potential changes for inclusion in the next phase of the PPB cycle. cSustain feeds resource requirements information to cWork. The system provides report, download and query capabilities. Data is managed at the Key 11 (MDEP/APPN/APE/ROC/Dollar Type/LIN/Commitment Group/Fund Type/Mandate Type/PEG Strategy Planning Priority/Program) level of detail.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement to data entry process, workflow, and

reports, as well as data display. The contractor shall implement enhancements as new requirements as identified by the Programming community.

#### **4.5.8 Task Area 8: cInstall**

**Description of Requirement:** Sustain allows G-9 identified users to input, review, and approve funding and dollar requirements (Command and PEG) changes in support of the Installation PEG programming and budgeting activities. The application is built with Oracle APEX and makes Tableau and DRT reports available to users.

The application allows user to directly import into, validate data, and get transaction reports from the Operation Data Store (ODS) at the detail level, as well as provides a submission workflow process. The changes entered by the Program Evaluation Groups (PEGs) and field-level resource managers are used throughout the PPB cycle. The leadership reviews the potential changes for inclusion in the next phase of the PPB cycle. cInstall feeds resource requirements information to cWork. The system provides report, download and query capabilities. Data is managed at the Key 9 (MDEP/APPN/APE/ROC/Dollar Type/Installation/OSD Location/ Type/PEG Strategy Planning Priority/Program) level of detail.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement to data entry process, workflow, and reports, as well as data display. The contractor shall implement enhancements as new requirements as identified by the Programming community.

#### **4.5.9 Task Area 9: AE2S**

**Description of Requirement:** AE2S allows G-8 FD-identified users to manage Financial and Equipment related data for MDEPs managed by the Equipping PEG. The Financial Management module allows users to update funding and requirements at the Key 7 (MDEP/APPN/ APE/ROC/ Dollar Type/LIN/COMPO) level of detail. The Equipment Management module allows users to manage delivery quantity allocation and procurement data at the same level of details.

Users input, review, and approve O&M and procurement appropriation changes in support of the Equipping PEG programming and budgeting activities. The application is built with JAVA and utilizes micro services.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement to data entry process, workflow, system interfaces, and reports, as well as work flow, data entry, and data display. The contractor shall implement enhancements as new requirements as identified by the Programming community.

#### **4.5.10 Task Area 10: cPIT**

**Description of Requirement:** cPIT allows PEG users to augment user reported IT data to define how IT is represented in the POM. Approved users input, review, and approve changes to user reported data to ensure all IT funding programmed in the POM is account for at the individual system level. The application is built with Oracle APEX and makes Tableau and DRT reports available to users.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement to interfaces with the interface systems and reports, as well as work flow, data entry, and data display. The contractor shall implement enhancements as new requirements as identified by the Programming community.

#### **4.5.11 Task Area 11: Select and Native Process (SNAP) Generation and Analysis**

**Description of Requirement:** The SNAP applications allows users to generate OSD-defined SNAP exhibits from data stored within cPROBE or entered directly by users through templates. Up to 35 SNAP exhibit templates are supported. Users can analyze previously submitted exhibits. The application interfaces with the OSD CAPE SNAP database to populate master data and template dropdown options. The application is built with Oracle APEX and makes Tableau and DRT reports available to users.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current application. Enhancements will include improvement of interfaces with OSD and reports, as well as work flow, data entry, and data display. The contractor shall implement enhancements as new Exhibit requirements as identified by OSD.

#### **4.5.12 Task Area 12: Master Data Management**

**Description of Requirement:** The Master Data Management is a JAVA application run on Oracle WebLogic. MDM is used to define the cPROBE master data elements, define the processes for managing the cPROBE master data, define the processes for sharing cPROBE master data, define the relationships and associated business rules for linking master data elements, identify additional data elements, their sources, and business rules for making available for cPROBE use. In terms of the master data elements that the Army is responsible for, this will be the single authoritative source. In addition, there are relationships with externally owned master data, and Master Data Management is the single authoritative source for the Army's PPB processing.

**Contractor Task:** The contractor shall upgrade MDM, leveraging emerging best business practices and technical approaches. Maintenance duties include monitoring the application for any sudden or recurring errors or loss of service. In addition, the contractor shall monitor the application of any software upgrades that could impact the system. Maintenance will be coordinated and downtime limited. Sustainment duties include supporting the daily operation of MDM, as well as the development and application enhancements necessary to support the information resource, data element change coordination, and application links functions of the web page. The contractor shall not accept any software license agreements without prior Government review and approval.

#### **4.5.13 Task Area 13: User & Role Management**

**Description of Requirement:** User and Role Management (URM) focuses on user registration and account management, as well as the administrator functions used to support URM. User registration is the mechanism for creating a cPROBE account used across all cPROBE applications. Account management allows users and administrators to access, view, and change account information such as information about the person using the account and the systems and roles applied to the account.

The URM environment creates an integrated archive and provides administrators with the ability to efficiently access and manage the delivered content in a single location, which decreases the redundancy of media across the systems. URM incorporates standards and best practices into an enterprise-wide URM solution that works seamlessly with the implemented configuration management (CM) tools and processes.

**Contractor Task:** The contractor shall periodically provide technical assistance in support of Army changes to URM. The contractor shall provide all supporting documents to include System Documentation, Maintenance Manuals, and User Training Vignettes. The Army anticipates directed changes to URM once per quarter.

#### **4.5.14 Task Area 14: General Fund Enterprise Business System (GFEBS ) Interface**

**Description of Requirement:** The GFEBS Interface will provide cPROBE Program Budget Guidance (PBG) and Funds Management Master data to GFEBS. The interface will:

- Transform data into GFEBS format
- Export PBG data to comma-separated values (CSV) files
- Export Master data to extensible markup language (XML) files
- Rename files based on naming convention
- Insert header record into PBG files
- Transmit files to GFEBS

Program Budget Guidance (PBG) data will be transmitted to General Fund Enterprise Business System (GFEBS) twice a year to load into their data warehouse; however, there is an exception for Amended President's Budget. Following are the timeframes that PBG data is transmitted to GFEBS:

- Program Objective Memorandum (POM) / Budget Estimate Submission (BES) during August/September timeframe
- President's Budget (PB) during February/March timeframe
- Amended President's Budget during (November/December) timeframe if required

Funds Management Master data will be transmitted to GFEBS on a daily basis to add and/or modify Master data. There are three types of Master data transfers:

- Refresh
- Deltas between current and previous date
- Deltas between current and previous PBG position

Process crosswalk data approximately four to six times a year

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current GFEBS interfaces, ensuring that data is delivered to GFEBS on schedule and that data is received as agreed. .

The contractor shall provide enhancements which will include improvement of interfaces to accept and send additional data fields as well as design and deploy additional reports utilizing business intelligence software.

#### **4.1.15 Task Area 15 Issue Tracking System (ITS).**

**Description of Requirement:** ITS is used to track user-reported issues, requests for enhancement, defects, and comments. The system will provide a workflow beginning with the initial request and ending with a Government POC closure. The contractor will be included in the workflow and will enter LOE for change requirements. Tier 1 help desk staff perform initial review then route to appropriate Tier II and Tier III analysts. The application is a JAVA application built upon Oracle WebLogic.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current Issue Tracking System, ensuring that data is processed as entered by users.

#### **4.1.16 Task Area 16 Dynamic Reporting System (DTS).**

**Description of Requirement:** DTS is used to display curated data from the ODS and DW to users. The application allows users to format data, filter data, and customize the views available within the tool. The application is a JAVA application run on Oracle WebLogic.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current Dynamic Reporting System, ensuring that data is processed as requested by users. The contractor will implement suggested enhancements approved by the COR.

#### **4.5.17 Task Area 17: CAPCES Interface**

**Description of Requirement:** The CAPCES interface accepts data from G-9, processing changes to military construction program elements.

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current CAPCES interfaces, ensuring that data is processed on schedule and that data is received as agreed. The contractor shall work with the G-9 contractor to update this interface as required.

The contractor shall provide enhancements which will include improvement of interfaces to accept and send additional data fields as well as design and deploy additional reports. The contractor shall recommend changes to the interface if a Restful API interface would better serve the environment.

#### **4.5.18 Task Area 18: Army Portfolio Management Solution (APMS)**

**Description of Requirement:** APMS is used by CIO G-6 to record all required information regarding every information technology (IT) system used in the Army. APMS updates OSD DoD Information Technology Portfolio Repository (DITPR) via web services. Access to APMS is via the shared ARC portal. APMS shares other cPROBE COTS and capabilities and provides data entry, reporting capabilities, and adds collaboration tools inherent to the cPROBE toolset.

**Contractor Task:** The contractor shall provide enhancements, updates, and maintenance and sustainment of the APMS system. Enhancements will include updates driven by OSD and DITPRS reporting requirements, BEA information reporting requirements, and business process changes approved by the CIO G-6 Configuration Control Board (CCB).

#### **4.5.19 Task Area 19: Information Technology Approval System (ITAS)**

**Description of Requirement:** ITAS is used by HQDA to approve IT expenditures throughout the Army. Access to ITAS is via the shared ARC portal. ITAS shares other cPROBE COTS and capabilities and provides data entry, reporting capabilities, and adds collaboration tools inherent to the cPROBE toolset.

**Contractor Task:** The contractor shall provide enhancements, updates, and maintenance and sustainment of the ITAS system. Enhancements will include updates driven by G-6 policy and reporting requirements, and business process changes approved by the CIO G-6 Configuration Control Board (CCB).

#### **4.5.20 Task Area 20: cQuiP**

**Description of Requirement:** cQuiP is the authoritative Army's equipment lifecycle management application that documents decisions made on Army equipment. The application identifies the requirement, links the funding source, builds the documentation and assists in fielding the equipment. At the end of its lifecycle, cQuiP supports the decision to retire the equipment. There are 9 modules to support the process, and 33 unique workflows.

**Contractor Task:** The contractor shall provide maintenance and sustainment for the current cQuiP application, ensuring that data is processed as requested by users. The contractor will implement enhancements approved by the COR.

#### **4.5.21 Task Area 21: Materiel Release Tracking System (MRTS)**

**Description of Requirement:** The Materiel Release Tracking System (MRTS) application supports creating, storing, reporting, and retrieving weapon system materiel releases completed in accordance with Army Regulation 700-142, Type Classification, Materiel Release, Fielding and Transfer. It provides a mechanism to monitor, control, and ensure that conditionally released equipment attains a full materiel release status in a timely manner, as defined by the approved get-well plan. The Materiel Release (MR) process is intended to assure that Army materiel is safe, meets operational requirements, and is logistically supportable before it is released.

**Contractor Task:** The contractor shall provide maintenance and sustainment for the current MRTS application, ensuring that data is processed as requested by users. The contractor will implement enhancements approved by the COR.

#### **4.5.22 Task Area 22: Enterprise Reporting**

**Description of Requirement:** The systems and applications hosted within the ARC all have access to the Enterprise Reporting tools (Tableau Server, Qlik Sense) to support user analysis and display of data.

**Contractor Task:** The contractor shall maintain the commercial software, ensure good reporting practices are followed with production reports, and provide metrics on tool and report usage.

#### **4.5.23 Task Area 23: Enterprise Data Services**

**Description of Requirement:** The systems and application hosted within the ARC are dependent on the data stores that support individual applications. To perform

**Contractor Task:** The contractor shall provide maintenance and sustainment of the current database and data services applications integrated into systems and applications hosted within the ARC. The contractor shall perform data administration and performance monitoring across the set of data store tools.

#### **4.5.24 Task Area 24: Restful API Interfaces**

**Description of Requirement:** Army Data Standards are moving toward a more regulated data exchange process. Systems and application must now make their data available to approved US Army consumers.

**Contractor Task:** The contractor shall deliver Restful API services, including the design, implementation, integration, and maintenance to from any system deemed a viable candidate to be assimilated into ARC. The contractor shall conduct an analysis of any data exchange requirement to determine how to meet the requirement using a Restful API.

The contractors will review existing system-to-system interfaces, assessing the feasibility of making the data available via Restful API.

#### **4.5.25 Task Area 25: Migrate ARC-hosted systems to cArmy Cloud**

**Description of Requirement:** CIO G-6 is deploying a new cloud environment to host US Army systems; this new environment may be the optimal environment for cPROBE applications and systems. This new environment may provide many services that cPROBE staff now provide.

**Contractor Task:** The contractor shall provide services required to transition all cPROBE systems and applications from the AWS GovCloud environments to the new environment and provide all necessary documentation and implementation of IA standards, in order to obtain full Certification and Accreditation (C&A) under the RMF. The contractor shall provide all services necessary to obtain the required certifications to operate in the new data center.

#### **4.5.26 Task Area 26: OnBoard Systems and Application into the ARC Environment**

**Description of Requirement:** The US Army may determine that additional system should be hosted in the ARC, either subject to Authority to Operate or functioning within the environment with their own Approving Official. G-8 PAE has published an Onboarding process detailing the steps and processes a candidate system and/or application must meet.

**Contractor Task:** The contractor shall research candidate systems identified to be hosted in the ARC environment, providing analysis and recommendations on how the system may be

onboarded. The contactor shall follow the OnBoarding SOP, as well as suggest improvements and updates to the partner systems. For planning purposes, should expect to on-board 2 systems per year that require direct contractor maintenance and sustainment support, and 1 system that is hosted in the ARC environment but does not require contractor maintenance and sustainment support.

#### **4.5.27 Task Area 27. System & Application Support**

**Description of Requirement:** The ARC environment contains integrated system encompassing a wide range of hardware and software components in the production and Government test environments. The hardware and operating system software is provided and maintained by the current Data Center personnel, in coordination with system administrators. Applications hosted within the ARC are expected to be highly available – with 99% availability anticipated during the 7am to 7pm hours of operation. System downtime must be scheduled in advance during off-hours, with notice to all users announced on the ARC portal.

**Contractor Task:** The contractor shall apply patches and software updates as mandated by vulnerability scans, DISA notifications, and supplier security notifications to both the ARC production and Government test environments on both NIPR and SIPR domains.

The contractor shall monitor system availability, system performance, apply tuning updates, and provide recommendations for hardware and application updates based on system performance. Recommendations shall include, but not be limited to, server memory increases, server storage increases, CPU replacements, and server replacement.

The contractor shall support data migrations and manual data updates.

The contractor shall maintain technical diagrams detailing the server, application, and networking environment for the ARC environment. Updates to the technical diagrams shall be delivered whenever a component changes.

The contractor shall report metrics on server up-time, usage, and outage events. The contractor shall ensure all ARC applications have a minimum uptime of 98% during core hours and 95% uptime for all other hours excluding approved downtimes. The contractor shall monitor life cycle management of hardware, software, licenses, SSL certificates and maintenance agreements.

#### **4.5.28 Task Area 28: Help Desk**

**Description of Requirement:** The ARC requires a fully function help desk, manned during system operating hours. Personnel will manage issues submitted by users, interact with users to determine additional information, and record appropriate metrics.

**Contractor Task:** The contractor shall provide Incident management, Problem Management, Service Request Fulfillment, Knowledge Management, Change Management support service, provide support for new and existing ARC applications. The contractor support shall provide support Monday – Friday from 07:00 -17:00 for approximately 20,000 users in the ARC environment. The contractor shall provide.

- a. Provide Tier 1 level service for all systems and applications hosted within the ARC assistance and remedies to technical, operational, and user issues and questions utilizing the Issue Tracking System application
- b. Provide Tier 2 and Tier 3 level service for all systems/applications for which the contractor provides maintenance and sustainment support
- c. Maintain Standard Operating Procedures and Frequently Asked Questions documentation for systems and applications for which the contractor provides maintenance and sustainment support.
- d. Track status of all help desk tickets using the Issue Tracker System
- e. Collect and report metrics on help desk tickets
- f. Processing of all tickets in accordance with established documentation.
- g. Ticket recording, classification and initial support.
- h. Investigation, diagnosis, resolution and recovery of incident where possible.
- i. Ticket escalation management and incident closure monitoring.
- j. Identifying, resolving and reporting on underlying root cause of incidents.
- k. Disseminate and facilitate communication between the right service support groups/technicians and affected business systems and end users from different mediums (e-mail, phone, self-help)
- l. Drafting, revising and validating Self Help and Knowledge Articles in the Knowledge Management Database.
- m. Drafting, revising, validating and disseminating various Standard Operating Procedures for the helpdesk and external users as required.
- n. Facilitate entry and management of Requests for Change (RFC) into the Change Management Lifecycle Process.

The contractor shall conduct random and scheduled customer satisfaction surveys throughout the year to ensure that service levels are being met. Results of these random surveys shall be summarized and provided in the Monthly Performance Report

#### **4.5.29 Task Area 29. Transform IL-4 Environment to IL-5**

**Description of Requirement:** In order to store Personally Identifiable Information within the ARC environment, additional controls must be implemented, Impact Level 5 requires additional controls including NIST SP 800-53 rev4 Privacy controls plus supplemental control guidance as well as the CNSI 1253 Privacy Overlay. While the ARC is currently at Impact Level 4, there may be requirements to move to Impact Level 5.

**Contractor Task:** The contractor shall implement processes, update documentation, and update eMASS to reflect the additional controls required to meet Impact Level 5. The contractor shall monitor ARC environment to ensure all IL-5 controls are met.

#### **4.5.30 Task Area 30. Transform IL-Business Processes Engineering**

**Description of Requirement:** In order to maintain currency for PPB processing and technical solutions, the ARC team must continuously review the business processes ARC capabilities implement.

**Contractor Task:** The contractor shall periodically assess the organization missions and goals to ensure ARC capabilities support appropriately. The contractor shall make recommendations based on their assessment. The contractor shall support and perform specific business process reengineering activities as tasked by the COR.

#### **4.5.31 Task Area 31. Transition of ARC Help Desk to Army Managed Service**

**Description of Requirement:** The Army is undertaking an effort to consolidate its Tier 1 help desk processing into a single managed service overseen by the G-6. As this service matures, the ARC will utilize this service.

**Contractor Task:** The contract shall support the transition of the ARC Tier 1 process and software solution to the Army Helpdesk Program of Record. The transition shall include the documented issue tracker standard operating procedures and processes.

#### **4.5.32 Task Area 32. ARC Training**

**Description of Requirement:** The ARC serves a diverse community of users, providing application and data support for a wide range of subject matter. Training will be provided to support application usage among the user community, and will be available to users in classroom and virtual environments.

**Contractor Task:** The contractor shall provide and maintain training materials, publish training vignettes, present classroom-based training courses and present web-based training courses on all ARC applications maintained by the contractor. The contractor shall obtain Government approval prior to publishing any materials.

The contractor shall maintain and extend training materials which support 2-8 hour training sessions for each application to include presentation and exercise documentation. Training materials shall be updated as maintenance or sustainment changes are made to the following applications

The contractor shall maintain a set of training vignettes that present 4-6 minutes audio/video presentations on using functional capabilities within applications. Vignettes shall be updated as maintenance or sustainment changes are made to the following application functions:

Training materials and vignettes shall be posted to the ARC portal, and shall reflect current functionality for the application suite.

Classroom training courses will be presented in the SCS Training Room at the Pentagon, and on-site as required. The contractor shall plan for 2 on-site training trips each year, utilizing local travel only.

Web-based training courses shall be presented using the Defense Collaboration Services (DCS) web conferencing tool or MS Teams.

The contractor shall maintain training course registration and metric reporting capabilities through the ARC portal. The contractor shall provide and maintain online training registration

and cancellation forms which will allow users to register for and cancel attendance at training sessions.

#### **4.5.33 Task Area 33. Transition Planning**

**Description of Requirement:** To ensure continuity of operations, the contractor must provide a plan and execute that plan as they transition into position as integrators for the ARC at the beginning of the contract. The contractor must provide a plan to transition ARC integration to a new contractor at the end of this contract.

**Contractor Task:** The contractor shall deliver an incoming transition plan, as well as provide resources to execute this plan. The plan must be delivered within 5 working days of start of the contract, and must detail how the contractor will work with the incumbent to successfully transition.

The contractor shall deliver an outgoing transition plan, provide updated documentation for all ARC components, as well as provide resources to execute this plan. The plan shall be delivered within 120 days of the start of the contract. The outgoing transition plan shall detail how the incumbent contract team will interact with the incoming contract team, as well as define the specific documentation to be delivered, including but not limited to:

- Requirements Documentation
- System and Software Design Documentation
- Test Plans
- Test Scripts (manual and automated)
- User Guides
- Training Materials
- Configuration Control Repositories

This outgoing transition plan shall define the scope and timing for information sharing sessions with the incoming team.

#### **4.5.33 Task Area 33. Business Process Re-engineering Support**

**Description of Requirement:** The mission of the DoD-initiated Office of Business Transformation (OBT) effort is to transform business operations to achieve improved Warfighter support while enabling financial accountability across the Department of Defense. OBT intends to implement enterprise level business capabilities that will accelerate department-wide improvements in business processes and information systems. In order to accomplish its mission, OBT is relying on three principles: clear standards, clear lines of authority, and tiered accountability.

The Deputy Director, PAE, and Chief, PBDMD, serve as key Army representatives to the Financial Management Transformation Team of OBT. As such, they are called upon to provide input and represent Army interests in the OBT effort.

**Contractor Task:** The contractor shall provide technical assistance in support of Army inputs to OBT. Performance frequency is estimated to be no more than once quarterly. Additionally, the contractor shall support ongoing business process re-engineering initiatives, improving ARC and PPB processes.

## 5.0 APPLICABLE PUBLICATIONS

**5.1 Publications.** The Contractor shall ensure compliance with all DOD and Army regulations related to the functions being performed. Many, but not all, publications applicable to this PWS are listed below. All publications listed are available via the Internet.

- a) DoD Directive 5000.1, The Defense Acquisition System
- b) DoD Instruction 5000.02, Operation of the Defense Acquisition System
- c) Army Regulation 1-1: Planning, Programming, Budgeting and Execution System (PPB), 30 January 1994.
- d) RFG, Volume 9 -- <http://www.asafm.army.mil/budget/di/rfg/rfg.asp>
- e) Federal IT Accessibility Initiative, Section 508 -- <http://www.section508.gov/>
- f) DoD Instruction 8510.01 Risk Management Framework (RMF) for DoD Information Technology (IT), March 12, 2014.
- g) CMMI <http://www.sei.cmu.edu/cmmi/models>
- h) 508 Compliance Specifications <http://www.section508.gov>
- i) 508 Compliance Test Site <http://app.buyaccessible.gov/baw/>
- j) DFAS 4200.02-R
- k) DFAS Information Management Regulation 8000.1-R, Part E
- l) DFAS 5400.11
- m) DFAS 7900.4-

Contractor shall coordinate with the COR on other publications that may be applicable during performance, and shall comply with the latest version of any such publication unless prior coordination with the COR directs otherwise.

The following material is referenced in support of the development of the Configuration Management Plan (CMP):

- a) EIA-649-B 2011 National Consensus Standard for Configuration Management
- b) IEEE Std. 828-1990, IEEE Std. 1042-1987 IEEE Standard for Software Configuration Management Plans, IEEE Guide to Software Configuration Management
- c) ISO 10007 Quality Management – Guidelines For Configuration Management
- d) CMII Institute of Configuration Management

## 5.2 Instruction and Directives

The contractor shall comply with the appropriate DISA and DoD-approved architectures, programs, standards, and guidelines, such as:

- a) IEEE/EIA 12207 Software Development Standard
- b) Federal Information Management Security Act (FISMA)
- c) DoD Instruction 8510.01 Risk Management Framework (RMF) for DoD Information Technology (IT), March 12, 2014

# TECHNICAL EXHIBIT

1

## Acronym List

Acronym	Definition
A&A	Assessment & Authorization
AAA	Army Audit Agency
AAC	Acquisition Advice Code
AAG	Army Analytic Group
AAMBO	Army Application Migration Business Office
AAMPT	Army Application Migration Pre-assessment Tool
AAO	Army Acquisition Objective
AAO Calc Group (CG)	Army Acquisition Objective Calculation Group
AAR	After Action Report
AATAM	Army Automated Training Application Module
ABAC	Attribute-Based Access Control
ABAP	Advanced Business Application Programming
ABC	Army Battle Command
ABCT	Army Brigade Combat Team
ABEA	Army Business Enterprise Architecture
ABO	Army Budget Office
ABS	Army Business System
ACA	Agent of the Certification Authority
ACART™	Architecture Compliance and Requirements Traceability
ACAS	Assured Compliance Assessment Solution
ACAT	Acquisition Category
ACC	Army Component Commands
ACFT	Aircraft
ACOM	Army Command
ACP	Army Campaign Plan
ACPERS	Automated Civilian Personnel System
AcqBiz	Acquisition Business
ACRS	Army Consolidated Records Schedule
ACSIM	Assistant Chief of Staff for Installation Management
ACTCO	Action Code
AD	Active Directory
ADCCP	Army Data Center Consolidation Plan
ADD	Accreditation Decision Document
ADDIE	Analysis, Design, Development, Implementation, and Evaluation
ADF	Application Development Framework

Acronym	Definition
ADL	Automatic Disposal List
ADM	Acquisition Decision Memorandum
ADO	ActiveX Data Objects
ADOP	Additive Operational Projects
ADPE	Automated Data Processing Equipment
ADS	Authoritative Data Source
AE2S	Army Equipping Enterprise System
AEI	Army Enterprise Infrastructure
AEMS	Army Equipment Modernization Strategy
AES	Java Advanced Encryption Standard
AESIP	Army Enterprise Systems Integration Program
AF	Appropriation File (position)
AFAM	ATRRS Funding Allocation Model
AFBRT	Army Financial Benefits Reporting and Tracking
AFC	Army Family Covenant or Army Future Command
AFHC	Army Family Housing Construction
AFMO	Army Financial Management Optimization
AFRICOM	U.S. Africa Command
AG	Activity Group
AI	Action Item
AIAP	Army Information Assurance Program
AIM	Acquisition Information Management
AIM-HI	Army Installation Management - Headquarters Information
AIS	Automated Information System
AIT	Advanced Individual Training
AITR	Army Information Technology Registry
AKO	Army Knowledge Online
AL	Approval Level
ALARACT	All Army Action
ALM	Application Lifecycle Management
ALT	Acquisition, Logistics, and Technology
ALTESS	Acquisition Logistics and Technology Enterprise System and Services
AMC	Army Material Command
AMI	Amazon Machine Image
AMRD	Army Modernization Reference Data
AMM or AMMO	Ammunition
AMS	Army Modernization Strategy
AMSCO	Army Management Structure Code
AoA	Analysis of Alternatives
AO	Authorizing Official
AP	Analysis Plan
APA	Aircraft Procurement Army

Acronym	Definition
APB	Army (A) Planning, Programming and Budgeting (P) Business Operating System (B)
APC	American Power Conversion Corp. (now part of Schneider Electric)
APE	Army Program Element
APEX	Application Express
APF	Appropriated Fund
APG	Army Planning Guidance or Architecture Product Guide
APGM	Army Programming Guidance Memorandum
API	Application Program Interface
APL	Approved Product List
APM	Assistant Project Manager
APMS	Army Portfolio Management Solution
APO	Army Procurement Objective
APPB	Army Programming, Planning, and Budgeting
APPBE	Army Planning, Programming, Budgeting, and Execution
APPG	Army Planning Priorities Guidance
APPN/VA	Appropriation/Budget Activity
APPN/BA	appropriation/budget activity
APS	Army Prepositioned Stocks or Army Prepositioned Sets
AQL	Acceptable Quality Level
AQO	Automation Quality Organization
AQPS	Acquisition Quantities Projection System
AR	Army Regulation
ARA	Assigned Responsible Agency
ARB	Army Resources Board or Architecture Review Board
ARC	Army Resource Cloud
ARC	Army Resource Controls System
ARCYBER	Army Cyber Command
ARCENT	Commander, Army Forces Central Command
ARC-SAG	Army Resource Controls-Sub-Activity Group
ARDEC	Armament Research Development and Engineering Center
ARF	Army Resource Framework
ARFIT	<i>Army Request for Information Technology</i>
ARFORGEN	Army Force Generation
ARIS	Architecture of Integrated Information Systems
ARIMS	Army Records Information Management System
ARL	Army Research Lab
ARLOC	Army Location
ARNG	Army National Guard
ARNORTH	Army North (U.S. Army)
AROC	Army Requirements Oversight Council
ARPL	Army Resource Prioritization List

Acronym	Definition
ARPRINT	Army Program for Individual Training
ARSOUTH	Army South (U.S. Army)
ARSTAF	Army Staff
ARSTRUC	Army Structure
ARTIS	Alpha Remote Terminal Interactive System
AS	Aerospace Standard or Application Server or Army Strategy
ASA	Assistant Secretary of the Army
ASA (ALT)	Assistant Secretary of the Army (ASA) for Acquisition, Logistics, and Technology (ALT)
ASA (FM)	Assistant Secretary of the Army (ASA) for Financial Management (FM)
ASA (FM&C)	Assistant Secretary of the Army (ASA) Financial Management and Comptroller (FM&C)
ASA (M&RA)	Assistant Secretary of the Army (ASA) Manpower and Reserve Affairs (M&RA)
ASARS	Automated Scheduling and Reporting System
ASC	Acquisition Support Center
ASCC	Army Service Component Command
ASCII	American Standard Code for Information Interchange
ASD	Assistant Secretary of Defense or Application Security and Development
ASD-NII	Assistant Secretary of Defense (Networks and Information Integration)
ASG	Auto Scaling Group
ASGMT	Assignment Code
ASI	Additional Skills Identifier
ASIOE	Associated Support Item of Equipment
ASIP	Army Stationing and Installation Plan
ASM	Automatic Storage Management
ASN	Allotment Serial Number
ASO	Aggregate Storage Option
ASP	Active Server Pages or Army Strategic Plan
ASPAD	Acquisition Support and Program Analysis Division
ASPG	Army Strategic Planning Guidance
AST	ARFORGEN Synchronization Tool
ASTMIS	Army Science and Technology Management Information System
AT	Anti-terrorist
AT&L	Acquisition, Technology, and Logistics
ATC	Authority to Connect or Army Type Classification or Army Type Code
ATEC	U.S. Army Operational Test and Evaluation Command
ATL	Active Template Library
ATM	Army Training Model
ATO	authority to operate
ATRM	Aviation Training Resource Model
ATRRS	Army Training Requirements and Resources System

Acronym	Definition
ATSC	Army Training Support Center
AUG	Augmentation Table
AUTS	Automated Update Transaction System
AV	All Views or Army Vision
AWC	Air Warfare Commander (U.S. DoD)
AWCF	Army Working Capital Fund
AWOA	Army Working Officers Association
AWOC	Acquisition Workforce Oversight Council
AWS	Amazon Web Services
BA	Budget Activity
BAG	Budget Activity Group
BATF	Budget Account Titles' File
BBP	Best Business Practice
BCA	Budget Constraint Act or Business Case Analysis
BCAP	Boundary Cloud Access Point
BCL	Business Capability Lifecycle
BCD	Business Capability Definition
BCP	Budget Change Proposal
BCT	Brigade Combat Team or Base Combat Training
BDM	BEA Development Methodology
BDMD	Belcamp Maryland City
BEA	Business Enterprise Architecture
BEIS	Business Enterprise Information System or Business Enterprise Information Service
BEP	Business Enterprise Priority
BES	Budget Estimate Submission
BESPOM	Budget Estimate Submission & Program Objective Memorandum
BF	Base File (position)
BFS	Budget Formulation System
BGEN	Briefing Generation
BGFY	Beginning Fiscal Year
BI	Business Intelligence
BIC	Business Initiative Council
BIDW	Business Intelligence Data Warehouse
BIN	office symbol referring to "bucket" to group things
BIR	band-aid and incremental repair
BL	Billet Loads
BLI	Budget Line Item
BLIN	Budget Line Item Number
BLTM	Battalion Level Training Model
BMA	Business Mission Area or Business Management Area
BMMP	Business Management Modernization Plan

Acronym	Definition
BO	Budget Obligation or Budget Office
BO 1	Current Funded/ Army TOA Dollars
BO 4	Manpower Authorization end Strength
BO 5	Civilian Costing Totals form ABO
BO 6	Manpower full-time equivalent based on 2,080 hours. Costing based on rate x BO 6 FTE
BO 7	PEG Requirement as submitted by the PEG
BO 8	HQDA External Requirement as managed by PAE
BO 9	Manpower Requirement
BO C	POM Manpower Rate for Civilians. Used to determine affordability
BO R	Command Requirement as submitted by the Major Command
BOE	Basis of Estimates
BOI	Basis of Issue
BOIP	Basis of Issue Plan
BOIPFD	Basis of Issue Plan Feeder Data
BOR	Budget Obligation Requirement
BOS	Business Operating System or Budget Operating System
BP	Business Process or BES/POM File (position)
BP&F	Budgeting, Planning and Forecasting
BPC	Building Partner Capacity
BPG	Business Practice Guide
BPM	Business Process Model or Business Process Modeling or Business Process Management
BPMN	Business Process Modeling Notation
BPR	Business Process Reengineering
BQY	Brio Insight
BR	Budget Rate or Business Rule
BRAC	Base Realignment and Closure
BRP	Budget Requirements and Program Board
BRR	Baseline Release Request
BS	Bachelor of Science
BSA	Budget Sub Activity
BT	Business Transformation or Basic Training
BTA	Business Transformation Agency or Business Transformation Authority
BTG	Business Transformation Guidance
BTI	Business Transformation Infrastructure
BTO	Business Transformation Office
BUC	office symbol (not an acronym)
BUC-E	Budget Execution Division
BUC-F	Budget Formulation Division
BUO-F	Budget Formulation and Integration Division
BUR	Baseline Upgrade Release

Acronym	Definition
cBudget	Cloud Budget Data
cForces	Cloud Force structure inputs to the program
cInstall	Cloud Installation requirements and resources
c-PIT	Cloud Information Technology Project
cLibrary	Cloud Document Library
cMan	Cloud Manpower resource requirements
cPROBE	Cloud Master Data, User Management, Historical Repository, and Analytical Tools
cQuiP	Cloud Equipping requirements and resources
cShare	Cloud Communities sharing analysis
cSustain	Cloud Sustainment resource requirements
cTrain	Cloud Training requirements and coordination
cWork	Cloud Changes to the POM and Budget
C&A	Certification and Accreditation
C&E	Cost and Economic
C2SD	Command and Control Systems Division
C3I	Communications, Command, Control, and Intelligence
C4	Command, Control, Communications, Computers
CA	Certification Authority
CAA	Center for Army Analysis
CAB	Combat Aviation Brigade
CABS	Civilian Army Budgeting System
CAC	common access card or Combined Arms Center
CAD	course administrative data
CADM	Core Architecture Data Model
CAE	Component Acquisition Executive
CAER	Command Accountability and Execution Review
CAGE	Commercial and Government Entity
CAGR	Compound Annual Growth Rate
CAP	Connection Approval Procedures or Certified Authorization Professional or Cloud Access Point
CAPCES	Construction Appropriation Programming, Control, and Execution System
CAPE	Cost Assessment and Program Evaluation
CAPPMIS	Career Acquisition Personnel and Position Management Information System
CAR	Causal Analysis and Resolution or Certification Authority Representative
CARDS	Catalog of Approved Requirement Documents
CASE	Computer Aided Software Engineering
CAT	Category
CATS	Corrective Action Tracking System
CBA	Cost Benefit Analysis
CBE	Command Budget Estimate
CBGEN	Briefing Generation Capability

Acronym	Definition
CBM	Core Business Mission
CBO	Congressional Budget Office
CBP	Component Budget POC
CBT	Computer Based Training
CC	Common Criteria
CC/S/A	Combatant Commands/Services/Agencies
CCA	Clinger-Cohen Act
CCB	Change Control Board or Configuration Control Board
CCDAC	Combat Capabilities Development Command Armaments Center
CCDR	Combatant Commander
CCI	Control Correlation Identifier
CCME	Council of College and Military Educators
CCP	Common Control Provider
CCR	Central Contractor Registration
CCRI	Command Cyber Readiness Inspection
CCSS	Commodity Command Standard System
CD	Compact Disk or Channels Directory or Code Drop
CD&D	Content Discovery and Delivery
CDA	Cross Domain Appendix or Capabilities Development and Analysis
CDC	Core Data Centers
CDD	Capabilities Development Document
CDES	Cross Domain Enterprise Service
CDK	Cloud Development Kit
CDMO	Cross Domain Management Office
CDR	Critical Design Review or Content Discovery and Retrieval
CDRL	Contract Data Requirements List
CDRT	Capabilities Development for Rapid Transition
CDS	Cross Domain Solution
CDSA	Context Data Source Adapter
CDSAP	Cross Domain Solutions Assessment Panel
CDTAB	Cross Domain Technical Advisory Board
CDVAR	Cross Domain Validation and Approval Request
CEA	Cost-effectiveness Analysis
CEAC	Cost and Economic Analysis Center
CENTPORT	Enterprise Portal
CES	Core Enterprise Services
CF	CloudFormation
CFN	Cold Fusion
CFO	Chief Financial Officer
CHESS	Computer Hardware Enterprise Software and Solutions
CI	Capability Increment or Configuration Item
CIA	Confidentiality, Integrity, Availability

Acronym	Definition
CIDC	Criminal Investigation Division Command (U.S. DoD)
CIDR	Classless Inter-Domain Address
CIdS	Capability Identification System
CIMWOG	Civilian Manpower Working Group
CINC	Commander in Chief
CIO	Chief Information Officer
CIO/G-6	Chief Information Officer/G-6
CIPAD	Command and Installation Program Analysis Division
CIR	Change Implementation Request
CIS	Comptroller Information System or Center for Internet Security
CISD	Computational and Information Sciences Directorate
CISSP	Certified Information Systems Security Professional
CIT	Common Information Technology or Continuous Integration Testing
CIV	Civilian
CJCS	Chairman, Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CKO	Chief Knowledge Office
CL	Confidentiality Level
CLI	Command Line Interface
CLIN	Contract Line Item Number
CLOC	Count Lines of Code
CM	Configuration Management
CM/DM	Configuration Management/Data Management
CMC	Commodity Management Code
CMD	Command
CME	Contractor Manpower Equivalent
CMF	Career Management Fields
CMI	Component Major Item
CMICS	Civilian Manpower Integrated Costing System
CMII	Configuration Management II
CMIS	Civilian Manpower Integration Support
CMMC	Cybersecurity Maturity Model Certification
CMMI	Capability Maturity Model Integration
CMP	Configuration Management Plan
CMRA	Contractor Manpower Reporting Application
CNA	Commander's Narrative Assessment
CNAF	Contractor Non-Appropriated Funds
CND	Computer Network Defense
CNGB	Chief, National Guard Bureau
CNSS	Committee on National Security Systems
CNSSI	Committee on National Security Systems Instruction
CO	Contracting Officer

Acronym	Definition
COA	Course of Action or Collection of Adjustments
COB	close of business
CoC	Council of Colonels
COCOM	Combatant Commander
COI	Community of Interest
COL	Colonel
COM	Contracts Manual
COMPO	Component
COMSEC	Communications Security
CONOPS	Concept of Operations
CONUS	Continental United States
COOP	Continuity of Operations Plan
COP	Common Operational Picture
COR	Contracting Officer's Representative
COTR	Contracting Officer's Technical Representative
COTS	Commercial off-the-shelf
CP	Civilian Personnel or Change Proposal
CPA	Chairman's Program Assessment or Commander's Program Assessment
CPAS	Corrective and Preventive Action System
CPD	Capabilities Production Document
CPGM	Command Program Guidance Memorandum or Compliance Program Guidance Manual
CPI	Cost Performance Index or Continuous Process Improvement or Command Program Issues
CPLAN	Command Plan
CPP	Cost Performance Portal
CPR	Chairman's Program Recommendations
CPTC	Cloud Permission to Connect
CPU	central processing unit
CR	Change Request
CRA	Chairman's Risk Assessment
CRC	Cyclic Redundancy Check
CRE	Civilian Rates & Execution
CRL	Certificate Revocation Lists
CRM	Command Resource Module
CRP	Capability Roadmap Package
CRR	Central Rules Repository
CS	Component Suffix
CSA	Chief of Staff, Army
CSCI	Computer Software Configuration Item
CSD	Contract Services Data
CSF	critical success factor

Acronym	Definition
CSM	Client Measurement Survey
CSO	Cloud Service Offering
CSOC	Cyber Security Operations Center
CSP	Cloud Service Provider
CSS	cascading style sheet
CSSO	Cloud Service Support Office
CSSP	Cloud Security Service Provider
CSV	Comma Separated Values
CT	Congressional Tracking
CTA	Common Table of Allowances
CTQ	Critical to Quality
CTU	Consolidated TOE Update
CTYPE	Civilian Type or Cost Type
CUFR	Critical Unfunded Requirement
CUI	Controlled Unclassified Information
CV	Capability Viewpoint
CVE	Common Vulnerabilities and Exposures
CVS	Concurrent Version System
CWOC	Classification Commands
CY	Current Year
D-DACT	Dismounted Digital Automated Communications Terminal
D3	File format (not an acronym)
DA	Department of the Army
DA Pam	Department of the Army Pamphlet
DAA	Designated Approving Authority
DAB	Defense Acquisition Board
DADMS	DON Application and Database Management System
DAMO	Department of the Army, Military Operations
DAMO-FMF	G-3/5/7 Force Integration and Management
DAO	data access object or Defense Attaché Office
DAPR	Department of the Army Programs
DAPR-DPI	Department of the Army, Programs Program and Budget Data Management Division
DAPR-ESD-SP	Army G-8 (DAPR) Executive Services Division (ESD), Support Office (SP)
DAPR-FDR	G-8 Programs and Priorities
DAQS	Data Analysis Query System
DAQSDB	Data Analysis Query System Database
DAR	Decision Analysis and Resolution
DARPL	Dynamic Army Resourcing Priority List
DAS	Data Access Service or Direct-Attached Storage
DASA	Deputy Assistant Secretary of the Army
DASA FIM	Deputy Assistant Secretary of the Army Financial Information Management

Acronym	Definition
DASC	Department of the Army (DA) Systems Coordinator
DATO	Denial of Authorization to Operate
DAWG	Deputies Advisory Working Group
DB	database
DBA	Database Administrator
DBAC	Direction Based Access Control
DBCLN	Database Schema Cleanup
DBMS	DataBase Management System
DBO	Database Owner
DBS	Defense Business Systems
DBSMC	Defense Business Systems Management Committee
DC	Data Center
DCIO	Deputy Chief Information Officer
DCIMS	Data Center Inventory Management System
DCMA	Defense Contract Management Agency
DCMO	Deputy Chief Management Officer
DCO	Data Center Optimization or Document Center Optimization or Document Change Order
DCS	Deputy Chief Staff or Department Chief of Staff
DCS, G-1	Deputy Chief Staff, Personnel
DCSPRO	Deputy Chief of Staff for Programs
DDL	data definition language
DDMR	DoD Discovery Metadata Registry
DDMS	DoD Discovery Metadata Standard or DoD Discovery Metadata Specification
DDTCD	Data Distribution and Classification Tagging Document
DECC	Defense Enterprise Computing Center
DEPSECDEF	Deputy Secretary of Defense
DER	Data Engineering Resources
DES	Data Encryption Standard
DFARS	Defense Federal Acquisition Requisition Supplement
DFAS	Defense Finance and Accounting Service
DFAS-IN	Defense Finance and Accounting Service – Indianapolis Center
DFG	Defense Fiscal Guidance
DHCP	Dynamic Host Configuration Protocol
DHTML	Dynamic HyperText Markup Language
DI	Disposition Instruction
DIACAP	DoD Information Assurance Certification and Accreditation Process
DIARMF	Defense Information Assurance Risk Management Framework
DID	Data Item Description
DIMA	Defense Intelligence Mission Area
DIP	DIACAP Implementation Plan
DISA	Defense Information Systems Agency

Acronym	Definition
DISR	DoD Information Technology Standards Registry
DITPR	DoD Information Technology Portfolio Repository
DITSCAP	DoD Information Technology Security Certification and Accreditation Process
DIV	Data and Information Viewpoint
DIV-1	Data and Information Viewpoint Level 1
DIV-2	Data and Information Viewpoint Level 2
DIV-3	Data and Information Viewpoint Level 3
DKO	Defense Knowledge Online
DLL	dynamic-link library
DM	Data Management
DMA	Delivered Media Archive
DMAG	Deputy's Management Action Group
DMAIC	Define, Measure, Analyze, Improve, Control
DMC	Defense Mission Category
DMHRSi	Defense Medical Human Resource System-Internet
DMIS	Defense Medical Information System
DMOPS	Depot Maintenance Operations Planning System
DMP	Data Management Plan
DMS	Database Management System or Defense Mission Systems
DMZ	Demilitarized Zone
DNS	Domain Name System
DoD / DOD	Department of Defense
DoDAC	Department of Defense Ammunition Code
DoDAF	Department of Defense Architecture Framework
DoDD	Department of Defense Directive
DoDI	Department of Defense Instruction
DoDIC	Department of Defense Identification Code
DOIM	Director of Information Management
DOTMLPF	Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel and Facilities
DOTWIMP	Defects, Overproduction, Transportation, Waiting, Inventory, Movement, and Processing
DP	Decision Point
DPAE	Director, Program Analysis & Evaluation
DPD	Defense Programming Database or Defense Programming Document
DPG	Defense Planning Guidance or Defense Programming Guidance
DPM	Deputy Program Manager
DPPG	Defense Planning and Programming Guidance
DQMP	Data Quality Management Program
DR	Discrepancy Report
DRB	Discharge Review Board or Defense Resources Board or Director's Review Board

Acronym	Definition
DREN	Defense Research & Engineering Network
DRMO	Defense Reutilization Marketing Offices
DRR	Delivery Readiness Review
DRRS-A	Defense Readiness Reporting System - Army
DRT	Dynamic Report Tool
DRU	Data Retrieval Utility or Direct Reporting Unit
DSA	Digital Signature Algorithm
DSAWG	Defense IA/ Security Accreditation Working Group
DSD	Defense Systems Division
DSE	Data Service Environment
DSL-A	Data Service Layer – Army
DSN	Defense Switched Network
DSR	Days Sales Receivable or Defense Strategy Review
DST	Decision Support Tool
DTC	Department Transfer Code
DTG	Date Time Group
DTIC	Defense Technical Information Center
DTO	DISA Task Order
DTS	Data Transformation Services
DTS-W	Defense Telecommunications Services - Washington
DUIC	Derivative UIC
DUSA	Deputy Under Secretary of the Army
DUSA BT	Office of the Deputy Under Secretary of the Army for Business Transformation
DUSD	Deputy Under Secretary of Defense
DW	Data Warehouse
DWCF	Defense Working Capital Fund
E/S	End Strength
E2E	End-to-End
E2EA	End-to-End Analysis
EA	Enterprise Architecture
EAAP	Educational Assistance Award Program
EAC	Estimate at Completion
EAG	Enterprise Architecture Guidance
EAMS-A	Enterprise Access Management Service – Army
EAS	Exhibit Automation System
EBS	Elastic Block Storage
EC2	Elastic Compute Cloud
ECC	Equipment Category Code
ECCT	Encryption for Confidentiality – Data in Transit
ECDSA	Elliptic Curve Digital Signature Algorithm
ECN	Engineering Change Notice

Acronym	Definition
ECP	Engineering Change Proposal
ECR	Engineering Change Request
EDIPI	Electronic Data Interchange Personal Identifier
EDM	Electronic Data Manager or Enterprise Data Model
EDSC	Enterprise Data Services Catalog
EDT	Eastern Daylight Saving Time
EE	Equipping or equipment
EEA	Eco-efficiency Analysis
EET	Electronic Evidence Tool
EE PEG	Equipping Process Evaluation Group
EIA	Electronic Industries Association
EIC	End Item Code
EIEMA	Enterprise Information Environment Mission Area
EIR	Enterprise Information Repository
EIS	Enterprise Information System
EKR	Enterprise Knowledge Repository
ELA	Enterprise License Agreement
ELB	Elastic Load Balancing or Elastic Load Balancer
EM	Equipment Management
eMASS	Enterprise Mission Assurance Support Service
EMD	Engineering and Manufacturing Development [Phase] or Enterprise Master Data
EMDS	Enterprise Management Decision Support
EMR	Elastic Map Reduce
EOE	Element of Expense
EOH	Executive Office of the Headquarters or Equipment on Hand
EOR	Element of Resource
EP&DP	Employee Performance and Development Process
EPDL	Executable Process Definition Language
EPG	Engineering Process Group
EPI	Engineering Process Improvement
EPLRS	Enhanced Position Location and Reporting System
EPM	Enterprise Performance Management
EPMM	Efficiency Performance Management Module
EPO	Employment Partnership Office
EPP	extended planning program or extended planning period
EQP	Equipment
ERC	Equipment Readiness Code
ERP	Enterprise Resource Planning
ES	Enterprise System
ESD	Enterprise Service Division
ESLOC	Equivalent Source Lines of Code

Acronym	Definition
ESM	Enterprise Service Management
ESS-P	Enterprise Security Services-Pentagon
EST	Enterprise Systems Technology
EST	Eastern Standard Time
EST TC	Estimated Type Classification Date
ESTA	Enterprise Systems Technology Activity
ETA	Electronic Transportation Acquisition
ETC	Estimate to Complete
ETL	Extract, Transform, Load
ETP	Enterprise Transition Plan
ETR	Equipment Transparency Report
EUSA	Eighth U.S. Army
EV	Economic Viability or Earned Value
EVM	Earned Value Management
EVMS	Earned Value Management System
EXCOM	Executive Committee
EXSUM	Executive Summary
FA	Functional Area
FA&D	Force Accounting & Documentation
FA-49	Functional Area-49
FAD	Funding Authorization Document or Force Activity Designator
FAL	Force Analysis Loop
FAM	Funding Allocation Model
FAMS	Forms and Account Management Service
FAQ	frequently asked questions
FCA	Functional Configuration Audit
FCB	Functional Capabilities Board
FCM	Force Costs Model
FCS	Funding Control System
FD	Funding Distribution or Feeder Data or Force Development
FDCCI	Federal Data Center Consolidation Initiative
FDD	Functional Design Document
FDIIS	Force Development Investment Information System
FDM	Financial Data Quality Management (Oracle acronym)
FDP	Force Development Plans
FDR	Force Development Requirements
FDU	Force Design Update
FEDLOG	Federal Logistic Data
FedRAMP	Federal Risk and Authorization Management Program
FEMA	Federal Emergency Management Agency
FFMIA	Federal Financial Management Improvement Act
FG	Funding Guidance or Fiscal Guidance

Acronym	Definition
FIC	Force Infrastructure Code
FIM	Financial Information Management
FIPS	Federal Information Processing Standards
FISMA	Federal Information Security Management Act
FL	Fair Lakes
FM	Financial Management or Functional Manager
FM&C	Financial Management and Comptroller
FMCOI	Financial Management Community of Interest
FMEA	Failure Modes and Effect Analysis
FMIS	Financial Management Information System
FMR	Financial Management Regulation
FMS	Financial Management System or Force Management System
FMSA	Force Management Support Agency (Documenting Manpower and equipment Requirements & Authorizations for the Army)
FMSWeb	Force Management System Web
FOA	Full Operational Assessment
FOB	Forward Operating Base
FOC	full operational capability
FORSCOM	U.S. Army Forces Command
FoSs	Families of Systems
FOUO	For Official Use Only
FRA	Flash Recovery Area
FRN	Federal Registry Notice or Number
FRP	Force Review Point or Full-rate Production
FSA	Force Structure Allowance
FSC	Federal Service Category or Federal Service Code or Federal Supply Class
FSM	Facility Sustainment Model
FTE	Full-Time Equivalent
FTP	File Transfer Protocol
FUE	First Unit Equip
FY	fiscal year
FYDP	Future Years Defense Program or Future Years Defense Plan
G&A	General & Administrative
G-1	Office of the Deputy Chief of Staff for Personnel, Army
G-2	Office of the Deputy Chief of Staff for Intelligence, Army
G-3/5/7	Office of the Deputy Chief of Staff for Operations & Plans, Army
G-4	Office of the Deputy Chief of Staff for Logistics, Army
G-6	Office of the Deputy Chief of Information Officer, Army
G-8	Office of the Deputy Chief of Staff for Programs, Army
G-8 FD	G-8 Funding Distribution
G-8 PAE PDD RAND	G-8 PAE PDD Research AND Development
G-TSCMIS	Global-Theater Security Cooperation Management Information System

Acronym	Definition
GA	Governance, Acquisition
GACKO	Governance, Acquisition and Chief Knowledge Office
GAO	Government Accountability Office
GAT	Government Acceptance Test
GCCS	Global Command and Control System
GCCS-J	Global Command and Control System, Joint
GDF	Guidance for Development of the Force
GDS	Global Data Services
GFE	Government Furnished Equipment
GFEBS	General Fund Enterprise Business System
GFI	Government Furnished Information
GIG	Global Information Grid
GKO	Guard Knowledge Online
GLOC	Geographic Location Code
GNO	Global Network Operations
GO	General Officer
GOSC	General Officer Steering Committee
GOTS	government off-the-shelf
GPO	Group Policy Object (a Microsoft term)
GPS	Global Positioning System
GPWA	Group Project Work Authorization
GRS	General Records Schedules
GSA	General Services Administration
GUI	Graphical User Interface
GUID	Global Unique Identifier
GWOT	Global War on Terrorism
HA	High Availability
HASC	House Armed Services Committee
HBSS	Host Based Security System
HCEN	Headquarters Classified Enterprise Network
HCI	Human-Computer Interaction
HCIG	Human-Computer Interaction Guidance
HCIRB	Human-Computer Interaction Review Board
HD	Help Desk
HEN	Headquarters Enterprise Network
HFE	Human Factors Engineering
HIPAA	Health Insurance Portability and Accountability Act
HIPS	Host Intrusion Protection System
HP	Hewlett Packard
HQDA	Headquarters, Department of the Army
HQIS	Headquarters Installations
HR	Human Resources

Acronym	Definition
HRC	Human Resources Command
HRM	Human Resource Management or Human Resources Manual
HTAR	How the Army Runs
HTML	HyperText Markup Language
HTTP	Hypertext Transfer Protocol
HTTPS	Hypertext Transfer Protocol Secure Sockets Layer
HW	Hardware
HWCI	Hardware Configuration item
I3	Integration, Improvement and Initiatives
I&A	Identification & Authentication
I&E	Installation & Environment
I&TPP	Implementation and Transformation Project Plan
I/O	input and output
IA	Information Assurance
IaaS	Infrastructure as a Service
IAB	Information Assurance Branch
IACORA	Information Assurance Certification or Accreditation
IAG	Information Assurance Guidance
IAM	Information Assurance Manager or Identity and Access Management
IAO	Information Assurance Officer
IASO	Information Assurance Security Officer
IAT	Information Assurance Technical (Level)
IATF	Information Assurance Technical Framework
IATO	Interim Approval to Operate
IATT	Interim Authorization to Test
IAVA	Information Assurance Vulnerability Alert
IAVB	Information Assurance Vulnerability Bulletin
IAVM	Information Assurance Vulnerability Management
IAW	In Accordance With
IC	Intelligence Community or Issue Code
IC ISM	Intelligence Community Information Security Markings
ICAN	Installation Campus Area Network
ICD	Initial Capabilities Document or Interface Control Document
ICMP	Internet Control Message Protocol
ICOM	inputs, controls, outputs, mechanisms
ICSA	International Computer Security Association
ID	Identifier
IdAM	Identity and Access Management
IDD	Interface Design Description
iDRR	Internal Delivery Readiness Review
IDS	Intrusion Detection Systems
IE	Information Exchange or Internet Explorer

Acronym	Definition
IEEE	Institute of Electrical and Electronic Engineers
IEP	Integrated Enterprise Process
IER	Information Exchange Requirements
IES	Information Exchange Specification
IET	Initial Entry Training
II	Installations
IIS	Internet Information Services
ILIN	Investment Line Item Number
IM	Instant Messaging
IMCEN	Information Management Support Center
IMCOM	Installation Management Command
IMCOM HQ	IMCOM Headquarters
IMCOM, EUR	IMCOM Europe
IMCOM, PAC	IMCOM Pacific
IMO	Information Management Officer
IMPS	Integrated Master Project Schedule
IMS	Integrated Master Schedule
INFOCON	Information Operations Condition
INFOSEC	Information Security
INSCOM	Intelligence and Security Command
INT	Integration Test
INT-GFEBS	Interface General Fund Enterprise Business System
IOC	Initial Operational Capability or Interoffice Correspondence
IOW	Intelligence Operator's Workstation
IP	Internet Protocol
IPL	Integrated Priority List
IPN	Installation Processing Node
IPPD	Integrated Product and Process Development
IPR	In Progress Review
IPRS	Intranet Program Review System
IPT	Integrated Project Team
IR	Interactive Reporting
IPV6	Internet Protocol Version 6
IR&D	Internal Research and Development
IRB	Investment Review Board
IRI	Information Resource Integration
IRIS	Integrated Resourcing and Incentive System
IRMIS	Integrated Resource Management Information System
IRPL	Integrated Requirements Prioritization List
IRS	Interface Requirements Specification
IRWC	Interactive Reporting Web Client
IS	Information System

Acronym	Definition
iSCSI	Internet Small Computer System Interface
ISM	Information Security Markings
ISO	International Organization for Standardization
ISR	Intelligence, Surveillance, Target Acquisition or Installation Status Report
ISSM	Information System Security Manager
ISSO	Information Systems Security Officer
IT	Information Technology
IT Pfm	Information Technology Portfolio Management
ITA	Information Technology Agency
ITAS	Information Technology Approval System
ITDR	internal test design review
ITIL	Information Technology Infrastructure Library
ITIM	Information Technology Issue Management
ITIP	Information Technology Investment Plan
ITP	individual training plan
ITR	Internal Transaction Record or Information Technology Requirement
ITRM	Institutional Training Resource Model
iTRR	Internal Test Readiness Review
ITS	Issue Tracking System
IUS	Internal Use Software
JAD	Joint Application Development
Jbook	Justification Book
JCA	Joint Capability Assessment or Joint Capability Area
JCIDS	Joint Capability Integration Development System
JCS	Joint Chiefs of Staff
JCSFL	Joint Common System Function List
JDIT	Information Technology Agency, Army
JDIT-NS	Information Technology Agency – Network Security Directorate, Army
JICAP	Joint Industrial Capability Analysis Process
JIE	Joint Information Environment
JIRA	Not an acronym; name of issue tracking tool developed by Atlassian
JITC	Joint Interoperability Test Command
JLTV	Joint Light Tactical Vehicle
JPA	Java Persistence API
JPD	Joint Planning Document
JPG	Joint Planning Guidance or Joint Programming Guidance
JRE	Java Runtime Environment
JROC	Joint Requirements Oversight Council
JS	Joint Staff
JSF	JavaServer Faces
JSON	JavaScript Object Notation
JSP	Joint Services Provider (formerly ITA) or Java Server Pages

Acronym	Definition
JTA	Joint Table of Allowance
JTCW	Joint Tactical COP Workstation
JTF	Joint Task Force
JWID	Joint Warfare Interoperability Demonstration
KM	Knowledge Management
KMG	Knowledge Management Guidance
KMS	Key Management Systems
KPI	Key Performance Indicator
KPP	Key Performance Parameter
KSA	Key System Attribute
KSLOC	1000 Source/Software Lines of Code
kWh	Kilowatt Hour
LAN	local area network
LAQA	LIN Available Quantities and Allocations
LAQA COAs	LAQA Collection of Adjustments
LCC	Logistics Control Code
LCL	Lower Control Limit or Life-Cycle Logistics
LCMC	Life Cycle Management Command
LDAC	Logistics Data Analysis Center
LDAP	Lightweight Directory Access Protocol
LDM	Logical Data Model
LIDB	Logistics Integrated Data Base
LIN	Line Item Number
LIW	Logistics Information Warehouse
LM	LIN Management
LMDB	LIN Management Database
LMP	Logistics Modernization Program
LMS	Learning Management System
LNO	Liaison Officer
LOCCO	Location Code
LOE	level of effort
LOGMAPSS	Logistics Management Automation PPBE Support System
LOGSA	Logistics Support Activity or Logistics Support Agency
LOGSACS	Logistics Structure and Composition System
LP	Limited procurement
LQA	LIN Quantity Amount
LRIP	Low-rate Initial Production
LROI	Lifecycle Return on Investment
LSS	Lean Six Sigma
LV	Line Item Number Validation
M&AO	Measurement and Analysis Office
M&RA	Manpower and Reserve Affairs

Acronym	Definition
M&S	Maintenance and Sustainment
M&TE	Measuring and Test Equipment
MA	Mission Assurance
MA or M&A	Measurement and Analysis
MAC	Mission Assurance Category
MACOM	Major Command or Major Army Command
MAFPAD	Manpower and Force Programs Analysis Division
MAGTF	Marine Air Ground Task Force
MAIS	Major Automated Information System
MAN	metro area network
MANDAY	Army MAN-DAY System
MAP	Mission Assurance Plan or Measurement and Analysis Plan
MAPP	Mission Assurance Plan Procedure
MAR	Migration Assessment Report
MATDEV	Material Developer
MB	Megabyte
MBI	Major Budget Issue
MC	Mission Critical
MCA	Military Construction, Army
MCN	Management Control Number
MCNG	Military Construction, Army National Guard
MDA	Model-Driven Architecture or Milestone Decision Authority
MDAC	Microsoft Data Access Components
MDAP	Major Defense Acquisition Programs
MDAP PNO	Major Defense Acquisition Programs Program Number
MDB	MS Access data file extension
MDC	Message Distribution Center
MDEP	Management Decision Evaluation Package
MDL	Metadata Locks
MDM	Master Data Management
MDR	Master Data Repository
MDW	Military District of Washington
ME	Mission Essential
MEDCOM	U.S. Army Medical Command
MEMO	Memorandum
MEPCOM	Military Entrance Processing Command (U.S. Army)
MEPRS	Medical Expense and Performance Reporting System
MET	Metrics Manual
MFC	Military Field Commander
MFORCE	Master Force
MIL	Military
MILCON	Military Construction

Acronym	Definition
MILPAY	Defense Military Pay Office
MILPERS	Military Personnel
MIME	Multipurpose Internet Mail Extensions
MIP	Military Intelligence Program
MLS	Multi-Level Security
MM	Manning
MMIS	Modification Management Information System
MNVR	Maneuver
MNVRSP	Maneuver Support
MO	Mission Owner
MOA	Memorandum of Agreement
MOD	Modernization
MOERULE	Major Organizational Entity Rule or Major Organizational Entry Rule
MOR	M is mission; O is base operations (less RPMA); and R is real property maintenance activities
MOS	Military Occupational Specialty
MOU	Memorandum of Understanding
MP	Military Personnel or Measurement Plan
MPA	Military Personnel, Army or Military Pay, Army
MPA-FMS	Military Personnel Army Financial Management System
MPS	Mobilization Planning System
MQ1	MQ1 is a suite of enterprise-wide quality management, compliance, and business process management software
MR&A	Manpower and Reserve Affairs
MRMC	Medical Research and Materiel Command
MRTS	Materiel Release Tracking System
M&S	Modeling and Simulation
MS	Master of Science or Microsoft (company) or Milestone or Mission Support
MSA	Modular Smart Array
MSAS	Military Simulation Assessment System
MSLS	Missiles
MSP	Maintenance and Sustainment Implementation Plan
MSR	Material Status Record
MSSM	Materiel Supply & Service Management
MSST	Mission Support Systems and Technologies
MTBF	Mean Time Between Failure
MTOE	Modified Table of Organization and Equipment
MTF	Military Treatment Facilities
MTOE	Modified Table of Organization and Equipment
MUD	Multiuser Development
MWD	Military Working Dog
MWGMUD	DoD Metadata Working Group Multiuser Development

Acronym	Definition
N/A	Not Applicable
NAF	Non-Appropriated Funds
NARA	National Archives and Records Administration
NAS	Network-Attached Storage
NAT	Network Address Translation
NCA	National Command Authority
NCDSP	Net-Centric Data Sharing Plan
NCES	Net-Centric Enterprise Services
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NCR	National Capital Region
NCS	National Security Council
NCW	network-centric warfare
NDA	Non-Disclosure Agreement
NDAA	National Defense Authorization Act
NDEV	NIPR Development
NDI	Non-developmental Item
NDS	National Defense Strategy
NE	not executed
NECC	Net-Enabled Command Capability
NESI	Net-Centric and SOA
NET/DET	New Equipment/Displaced Equipment Training
NETC-EST-I	Network Enterprise Technology Command (NETC), Enterprise Systems Technology (EST), Information Assurance (I)
NETC-EST-IC	Network Enterprise Technology Command (NETC), Enterprise Systems Technology (EST), Information Assurance (I) & Compliance Directorate I
NETCOM	Network Enterprise Technology Command
NG	National Guard or Northrop Grumman
NG/AR	National Guard/Army Reserve
NGB	National Guard Bureau
NGB ARA	NGB Australian Regular Army
NGB ARL	NGB Army Research Lab
NGC	Northrop Grumman Corp.
NG-CMMI	Northrop Grumman-Capability Maturity Model Integration
NGGN	Northrop Grumman Global Network
NGMS	Northrop Grumman Mission Systems
NGREA	National Guard Reserve Equipment Authorization
NIAP	National Information Assurance Partnership
NIC	Network Interface Card
NIEM	National Information Exchange Model
NII	Networks and Information Integration
NIIN	National Item Identification Number
NIP	National Intelligence Program

Acronym	Definition
NIPR	Non-classified Internet Protocol Router or Unclassified but Sensitive Internet Protocol Router
NIPRNET	Non-classified Internet Protocol Router Network
NISO	Network Infrastructure Services for Operations
NIST	National Institute of Standards and Technology
NLT	no later than
NMS	National Military Strategy
NMSD	National Military Strategy Document
NN	Newport News
NNTP	Network News Transfer Protocol
NOFC	Notification of Future Change
NPRD	NIPR Production
NSA	National Security Agency
NSC	National Security Council
NSLIN	Non-standard Line Item Number
NSN	National Stock Number
NSS	National Security Strategy or National Security Systems
NTFS	New Technology File System
NTP	Network Time Protocol
NTRN	NIPR Training
NTST	NIPR System Testing
NW	Networthiness
O&M	Operations and Maintenance
O&S	Operations & Support
OA	Operating Agency
OA22	Operating Agency 22
OAA	Office of the Administrative Assistant, Army
OAC	Operations Research / Systems Analysis Advisory Committee
OAS	Oracle Advance Security
OAT	Operational Acceptance Testing
OBE	Overcome by Events
OBIEE	Oracle Business Intelligence Enterprise Edition
OBT	Office of Business Transformation
OCAR	Office of the Chief Army Reserve
OCE	Open Catalog Extension
OCERA	Office of Cost Estimation and Risk Analysis
OCO	Overseas Contingency Operations
OCONUS	Outside Continental United States
OCR	Oracle Cluster Registry
OCSP	Online Certificate Status Protocol
ODASA	Office of Deputy Assistant Secretary of the Army
ODASA-CE	ODA-A - Cost and Economics

Acronym	Definition
ODBC	Open Database Connectivity
ODC	Other Direct Costs
ODCMO	Office of the Deputy Chief Management Officer
ODCSLOG	Office of the Deputy Chief of Staff for Logistics
ODCSOPS	Office of the Deputy Chief of Staff for Operations & Plans
ODCSPRO	Office of the Deputy Chief of Staff for Programs
ODI	Oracle Data Integrator
ODR	Operational Design Review
ODS	Operational Data Store
OE	Operational Energy
OEM	Oracle Enterprise Management
OEP	Organizational Execution Plan
OGC	Office of the General Counsel
OH	On-Hand
OIA&C	Office of Information Assurance and Compliance
OID	Object Identifier
OLAP	Online Analytical Processing
OLE	Object Linking and Embedding
OLP	Object Link Provider
OMA	Operations and Maintenance, Army
OMAR	Operation and Maintenance, Army Reserve
OMB	Office of Management and Budget
OMD	Object Model Diagram
OMG	Object Management Group
OMNG	Operation and Maintenance, Army National Guard
ONS	Operational Needs Statement
OO	Organizing or object-oriented
OOA	object-oriented analysis
OOD	object-oriented design
OODA	Observe, Orient, Decide, and Act
OP-32	Operational Program 32
OPA	Other Procurement, Army
OPA2	Other Procurement Army Investment Plan
OPAGY	Operating Agency
OPPB	Organizational Process Performance Baseline
OPR	Office of Primary Responsibility
OPSEC	Operational Security
OPT	Oracle Performance Tuning
OPTEMPO	Operating/Operations Tempo
ORDAB	Organizational Requirements Document Approval Briefing
ORF	Operational Readiness Float
ORG	Organization

Acronym	Definition
ORG_ID	Organizational Identifier
ORGID	Organization Identifier
ORM	Object-Relational Mapping
ORSA	Operations Research & System Analysis
OS	Operating System
OSD	Office of the Secretary of Defense
OSDBO	Office of the Secretary of Defense Budget Obligation
OSDPE	OSD Program Element
OSDST	Office of the Secretary of Defense Science & Technology or OSD Submission Tool
OSMIS	Operating and Support Management Information System
OSS	Open Source Storage
OSSP	Organization Set of Standard Processes
OSUT	One Station Unit Training
OT&E	Operational Test and Evaluation
OTEMPO	Operations Tempo
OTOE	Objective TOE
OTSG	Office of the Surgeon General
OU	Operating Unit
OUSD	Office of the Under Secretary of Defense
OI(C)	Office of the Under Secretary of Defense, Comptroller
OV	Operational View
OV-1	Operational View Level 1
OV-2	Operational View Level 2
OV-3	Operational View Level 3
OV-5a	Operational View Level 5a
OV-5b	Operational View Level 5b
OV-6c	Operational View Level 6c
OVAL	Open Vulnerability Assessment Language
OWB	Oracle Warehouse Builder
P&D	Production and Deployment
P&F	Program and Financing
P&R	Personnel and Readiness
PaaS	Platform as a Service
PAD	Program Analysis Division
PAE	Program Analysis and Evaluation
PAED	Program Analysis and Evaluation Directorate
PAF	Program Assessment Form
PAL	Process Assets Library
PAMP	Pay Allowance (Military Personnel)
PAX	Programming Administration & Execution System
PB	President's Budget

Acronym	Definition
PBAS	Program Budget Accounting System
PBAT	Program and Budget Assessment Team
PBD	Program Budget Decision
PBDCT	PBD Coordination Team
PBDMD	Program Budget Data Management Division
PBDS	Program Budget Decision System
PBE	Planning, Programming, and Budgeting Business Operating System Enterprise
PBG	Program Budget Guidance
PBR	Program Budget Review
PBS	Program Budget System
PBSOW	Program Budget Statement of Work
PC	Personal Computer
PCA	Physical Configuration Audit or Pre-Certification Authority
PCAP	Pre-Certification Authority POC
PCDB	Process Capability Database
PCP	Program Change Proposal
PCP/BCP	Program Change Proposals/ Budget Change Proposals
PCR	Policy Compliance Report
PCS	Permanent Change of Station
PCTR	Policy and Compliance Tailoring Report
PDA	Personal Digital Assistant
PDC	Panel for Documentation of Contractors
PDD	Program Development Division
PDEC	Product Director Enterprise Computing
PDF	Portable Document Format
PDM	Program Decision Memorandum or Physical Data Model
PDP	Policy Decision Point
PDPL	PCDB Designated Project List
PDR	Preliminary Design Review
PE	Program Element
PED	Processing, Exploitation, and Dissemination
PEF	Program Execution Framework
PEG	Program Evaluation Group
PENTCIRT	Pentagon Computer Incident Response Team
PEO	Program Executive Office or Program Executive Officer
PEO AMMO	PEO Ammunition
PEO AVN	PEO Aviation In Army
PEO C3 TAC	PEO Command, Communications, and Control Tactical Communications
PEO CS&CSS	PEO Combat Support/Combat Service Support
PEO EIS	Program Executive Office Enterprise Information System
PEO I&EW	PEO Intelligence and Electronic Warfare

Acronym	Definition
PEO M&S	PEO Maintenance and Sustainment
PEO/PM	Project Executive Office/Program Manager
PEO STRI	PEO Simulation, Training and Instrumentation
PEP	Policy Enforcement Point
PER	Personnel
PERSACS	Personnel Structure and Composition System
PF	Program Files or POM File (position)
PfM	Portfolio Management
PFS	Program and Financing System
PI	Product Integration
PIA	Privacy Impact Assessment
PII	Personally Identifiable Information
PIM	Platform Independent Model
PIN	Personal identification number
PIT	Pre-Integration Test
PK	Primary Key
PKE	Public Key Enabling
PKI	public key infrastructure
PLI	Position Location Information
PM	Project Manager or Project Management or Program Manager
PM Pro	Project Management Professional Tool
PM/DASC	Program Manager Department of the Army Systems Coordinator
PMAD	Personnel Management Authorization Document
PMBOK	Project Management Body of Knowledge
PMC	Project Monitoring and Control
PMP	Project Management Plan
PMT	Payment
PNO	Program Number
PO	Purchase Order
POA	Plan of Action
POA&M	Plan of Action and Milestones
POC	point of contact / Proof of Concept
POI	programs of instruction
POL	Petroleum, Oils, and Lubricants
POM	Program Objective Memorandum
POM/BES	Program Objective Memorandum / Budget Estimate Submission
POMBGFY	Program Objective Memorandum Beginning Fiscal Year
POMEFY	Program Objective Memorandum Ending Fiscal Year
POR	Program of Record
POSCO	Personnel Occupational Specialty Code
POV	Proof of Value
PP	Planning and Programming

Acronym	Definition
PPB	Process Performance Baseline or Planning, Programming, and Budgeting
PPB BOS	Planning, Programming, and Budgeting Business Operating System
PPBC	Planning Program Budget Committee
PPBDW	Planning, Programming, and Budgeting Data Warehouse
PPBE	Planning, Programming, Budgeting, and Execution
PPBES	Planning, Programming, Budgeting, and Execution System
PPBS	Planning, Programming, and Budgeting System
PPG	Plans, Policy or Guidance
PPM	Procurement Policy Manual
PPO	Personnel Proponent Office
PPQA	Process and Product Quality Assurance
PPSM	Ports, Protocols, and Services Management
PPT	PowerPoint
PR	Problem Report
PRA	Program Review Authority or Project Review Authority
PRCP	Program Resources Collection Process
PRM	Policy & Requirements Manual
PROBE	Program Optimization and Budget Evaluation
PROBE SYNC	Program Optimization and Budget Evaluation Synchronization
PROCM	Procurement Manual
PRS	Problem Reporting System
PRTS	Peer Review Tracking System
PS	Portal Server or PowerSteering
PSA	Principal Staff Assistant
PSE	Patch Set Exception
PSG	Prioritization Steering Group
PSM	Platform Specific Model
PT	Pentagon
PTC	Project Training Coordinator
PUC	Procurement Unit Cost
PVCS	Polytron Version Control System
PY	Prior Year
QA	Quality Assurance
QAP	Quality Assurance Plan
QASP	Quality Assurance Surveillance Plan
QC	Quality Center
QCP	Quality Control Plan
QDR	Quarterly Defense Review or Quadrennial Defense Review
QER	Quality Evaluation Records
QM	Quantitative Management or Quality Management
QMC	Qlik Management Console
QMS	Quality Management System or Quota Management System

Acronym	Definition
QoS	Quality of Service
QPM	Quantitative Project Management
QPP	Quality Program Plan
QRC	Quick Reaction Capabilities
ORSA	Operations Research Systems Analysis
QVD	Qlik View Data
R2MS	Resource Requirements Management System
RAC	Real Application Cluster
RAF	Regional Aligned Forces
RAG	Resource Activity Group or Resource Aggregation Group
RAID	Redundant Array of Independent Disks
RAM	Reliability, Availability and Maintainability
RBAC	Role-based Access Controls
RBuilder	Requirements Builder
RBPE	Risk Based Process Evaluation
RC	Reserve Component or Resource Code
RCERT	Regional Computer Emergency Response Team
RCOA	Recommended Course of Action
RDA	Research, Development, and Acquisition
RDAISA	Research, Development, & Acquisition Information Systems Agency (now ALTESS)
RDAP	Research, Development and Acquisition Plan
RDBMS	Relational Database Management System
RDECOM	Research Development and Engineering Command
RDG	Remote Desktop Gateway
RDP	Remote Desktop Protocol
RDS	Relational Database Service
RDT&E	Research, Development, Test ,and Evaluation
REA	Readiness and Enhancement Account
REIMA	Reimbursable APE
REIMC	Reimbursable Command
REIMM	Reimbursable MDEP
REIMS	Reimbursable Source
REQMP	Requirements Management Plan
ReST	Representational State Transfer
RFC	Request for Change
RFG	Resource Formulation Guide
RFS	Resource Formulation System
RGS	Report Generator System
RIC	Resource Identification Code or Routing Identifier Code
RICC	Reportable Item Control Code
RLI	resource line item

Acronym	Definition
RLS	Row-Level Security
RM	Risk Management or Resource Manager or Records Management
RM Plan	Risk and Opportunity Management Plan
RMA	Risk Manager's Assistant
RMD	Resource Management Decision or Records Management Disposition
RMDB	Requirements Management Database
RMF	Risk Management Framework
RMP	Risk Management Plan
RMT	Resource Management Tool
RO	Retention Objective or Requisition Objective
ROA	Rules of Allocation
ROC	Resource Organization Code
ROM	Rough Order of Magnitude
ROV	results of value
RPD	Rapid Process Development
RPILM	Real Property & Installations Lifecycle Management
RPLANS	Real Property Planning
RPM	Real Property Maintenance
RPO	Recovery Point Objective
RPSUID	Real Property Site Unique Identifier
RR	Requirements Review
RRB	Risk Review Board
RS	Resource Summary
RSA	Rivest, Shamir, and Adleman
RSM	Resource Structure Management
RSS	Rich Site Summary
RSW	Resource Services Washington
RTM	Requirements Traceability Matrix
RTO	Recovery Time Objective
RVI	Requirements Volatility Index
S3	Simple Storage Service
S&DIT	Software and Development Integration Team
S&T	Science & Technology
S/MIME	Secure / Multipurpose Internet Mail Extensions
SA	System Administrator or System Architect
SA Tools	System Admin Tools
SAAA-DA	Office of the Administrative Assistant, Army (OAA) Deputy Administrative Assistant
SaaS	Software as a Service
SACS	Structure and Composition System
SAFE	Single Army Financial Enterprise
SAFM	Assistant Secretary of the Army Financial Management and Comptroller

Acronym	Definition
SAFM-CE-PS	Assistant Secretary of the Army (Financial Management and Comptroller) (SAFM), Cost Analysis (CE), Programs and Strategy Directorate (PS)
SAFM-FMT	Assistant Secretary of the Army (Financial Management and Comptroller) (SAFM), Financial Information Management (FM), Information Services Office (T)
SAG	Sub-Activity Group
SALE	Single Army Logistics Enterprise
SAMAS	Structure and Manpower Allocation System
SAMI	Synchronized Accessible Media Interchange
SAML	Security Assertion Markup Language
SAN	Storage Area Network
SANS	SysAdmin, Audit, Networking, and Security
SAP	Special Assessment Programs
SAR	Security Assessment Report
SAS	Special Air Service
SASC	Senate Armed Services Committee
SAT	Self-Assessment Tool or System Admin Tools
SAV	Sophos Anti-Virus
SB	Supply Bulletin
SC	Schools Catalog
SC(A)	Signal Command (Army)
SCA	Subcontract Administrator
SCA-V	Security Control Assessor/Validator
SCAMPI	Standard CMMI Appraisal Method for Process Improvement
SCCA	Secure Cloud Computing Architecture
SCD	Services Contract Data
SCN	Shipbuilding and Conversion
SCO	Software Change Order
SCOV	Special Cause of Variation
SCR	Software Change Request
SCS	Schedule Coordination System
SCCA	Secure Cloud Computing Architecture
SDC	Small Data Center
SDCS	Source Data Collection System or Standard Data Collection System
SDD	Software Design Document
SDDC	Surface Deployment and Distribution Command
SDE	System Data Exchange
SDEV	SIPR Development
SDF	Software Data File or Software Development File/Folder
SDG	Software Development Guidance
SDL	Software Development Library
SDLC	Software Development Life Cycle

Acronym	Definition
SDP	Software Development Plan or System Decision Plan
SDPD	Software Development Process Description
SDR	System Design Review
SDSPM	Software Development Standards and Procedures Manual
SDT	Second Destination Transportation
SDX	State Data Exchange
SE	Systems Engineering
SEC	Senior Executive Committee
SECARMY	Secretary of the Army
SECDEF	Secretary of Defense
SEER-SEM	System Evaluation and Estimation of Resources – Software Estimation Model
SEI	Software Engineering Institute
SEMP	Systems Engineering Management Plan
SEP	Systems Engineering Procedure or Systems Engineering Plan
SEPG	Software Engineering Process Group
SES	Senior Executive Service
SETAF	Southern European Task Force
SFIS	Standard Financial Information Structure or Single Financial Information Structure
SFTP	Secure File Transfer Protocol
SG	Security Groups
SHA	Secure Hash Algorithm
SHB	Secure Host Baseline
SIA	Service Interface Agreement
SIAO	Senior Information Assurance Officer
SIEMP	Systems Integration Engineering Management Plan
SIM	Simulation
SIO	Standard Installation Organizations
SIP	System Identification Profile
SIPOC	Suppliers, Inputs, Process, Outputs, and Customers
SIPR	Secret Internet Protocol Router
SIPRNET	Secret Internet Protocol Router Network
SL	Service Lines or structure loads or Substitute Line Item Number (LIN)
SLA	Service Level Agreement
SLAMIS	SSN-LIN Automated Management & Integrating System
SLAMIS-AMRD	SLAMIS – Army Modernization Reference Data
SLIN	Standard Line Item Number (LIN)
SLOC	Source Lines of Code
SLRG	Senior Level Review Group
SMART	Specific, Measurable, Achievable, Relevant, and Timely
SMDC	U.S. Army Space and Missile Defense Command
SME	Subject Matter Expert

Acronym	Definition
SM	System Modeling
SMP	Stakeholder Management Plan
SMS	Short Message Service
SMTP	Simple Mail Transfer Protocol
SNaP	Select and Native Programming (SNaP) Data Collection System
SNMP	Simple Network Management Protocol
SNS	Simple Notification Service
SO	System Owner
SOA	Service Oriented Architecture
SOAF	Service Oriented Architecture Framework
SOAP	Simple Object Access Protocol
SOCOM	U.S. Special Operations Command
SOP	Standard Operating Procedure
SoSs	Systems of Systems
SOUTHCOM	US Southern Command
SOW	Statement of Work
SP	Special Publication
SP2	Service Pack 2
SPARC	Scalable Process Architecture
SPAWAR	Space and Naval Warfare Systems Command
SPC	Special Project Code or Statistical Process Control
SPG	Strategic Planning Guidance
SPI	Schedule Performance Index
SPID	Service Profile Identifier
SPM	Standard Process Manual or Senior Program Manager
SPR	Software Problem Report or System Problem Report
SPRD	SIPR Production
SPRT	sustain, prepare, reset, and transform
SQA	Software Quality Assurance
SQL	Structured Query Language
SQM	Supplier Quality Management
SQT	Soldier Qualification test or Software Qualification Testing
SR	Service Request
SRC	Standard Requirements Code
SRG	Senior Review Group
SRR	Software Requirements Review or Software Readiness Review
SRS	Software Requirements Specification
SS	Sustaining or Shared Services
SSA	Single Security Architecture
SSAA	System Security Authorization Agreement
SSB	SAMAS Scenario Builder
SSDD	Software System Design Document or System Subsystem Design Document

Acronym	Definition
SSEPG	Systems/Software Engineering Process Group
SSH	Secure Shell
SSL	Secure Sockets Layer
SSLI	Standard Study Line Item or Selected Software License Inventory
SSM	Systems Service Manager
SSN	Standard Study Number or Social Security Number
SSN-LIN	Standard Study Number-Line Item Number
SSO	Single sign-on or Synchronization Staff Officer
SSP	System Security Plan
SSR	System Specification Review
SSTS	Sustainment Systems Technical Support
ST	Science and Technology
STACO	Station Code
STAMIS	Standard Army Management Information System
STANFINS	Standard Finance System
STD	Software Test Description or Standard
STIG	Security Technical Implementation Guide
STM	Standard Training Module
STP	System Test Plan or Software Test Plan or Short Term Project
STR	System Test Report or Software Test Report or Software Trouble Report
STRAMS-E	Student/Trainee Management System - Enlisted
STRN	SIPR Training
STST	SIPR System Testing
SubLIN	Substitute Line Item Number
SUM	System User's Manual
SUST	Sustainment
SV	System View
SV-6	System View Level 6
SVN	Subversion
SVP	Special Visibility Program
SW	software
SWCI	Software Configuration Item
SWG	Server Working Group
T3G	Tools, Templates, Training, and Guidance
T&E	Test and Evaluation
TAA	Total Army Analysis
TAADS	The Army Authorization Document System
TAADS-R	The Army Authorization Document System-Redesign
TAC	Treasury Agency Code
TACITS	Total Army Centralized Individual Training Solicitation
TACOM	Tank-automotive and Armaments Command
TAD	Target Audience Description

Acronym	Definition
TADSS	Training Aids, Devices, Simulators, and Simulations
TAEDP	Total Army Equipment Distribution Plan
TAF	Transparent Application Failover
TAMIS	Total Ammunition Management Information System
TAP	The Army Plan
TASO	Terminal Area Security Officer
TB	Technical Bulletin
TBD	to be determined
TC	Treasury Code or Type Classification
TCO	Tactical Control Officer
TCP/IP	Transmission Control Protocol/Internet Protocol
TD	Task Description or Technology Development
TDA	Table of Distribution and Allowance
TDE	Transparent Data Encryption
TDF	Test Data File
TDP	Technical Data Package
TDS	Technology Development Strategy
TDY	Temporary Duty
TEMP	Test and Evaluation Master Plan
TEP	Test and Evaluation Plan
TEST	Refers to the Test Team
TGM	Technical Guidance Memorandum
THREATCON	Terrorist Threat Condition
TiGS	Tenant in Good Standing
TIM	Technical Interchange Meeting
TLS	Transport Layer Security
TM	Technical Manager
TMFY	Terminating Fiscal Year
TNS	Transparent Network Substrate
TOA	Total Obligation Authority
TOE	Table of Organization and Equipment
TOMA	Training Operations Management Activity
TOR	terms of reference
TP	Training Plan
TPM	Technical Performance Measure
TPN	Tactical/Mobile Processing Node
TPP	Transformation Project Plan
TPSN	Troop Program Sequence Number
TPY	Transparency Data Collection
TR	Tailoring Report
TRADOC	U.S. Army Training and Doctrine Command
TRANS	Transactional System

Acronym	Definition
TRAP	Training Resource Arbitration Panel
TRAS	Training Requirements and Analysis System
TRM	Training Resource Model
TRMC	Test Resource Management Center
TRMIS	Tracking Resource Management Information System or Training Resource Management Information System
TRR	Test Readiness Review
TS	Technical Solution
TT	Training
TTHS	Trainees, Transients, Holdees, and Students
TTL	time-to-live
TTM	Testing Traceability Matrix
TTS	Table Transfer System
TV	Technical Standards View or Technical View
TVM	Test Verification Matrix
TWG	Technical Working Group or Transition Working Group
TYPCD	Unit Type Code
TYPCO	Type Unit Code
UARS	Unit Automated Reservation System
UAT	User Acceptance Test
UAV	Unmanned Aerial Vehicle
UC	Unified Capabilities or Use Case
UCDSMO	Unified Cross Domain Solution Management Office
UCW	Unconventional Warfare
UDA	User Defined Attribute
UDDI	Universal Description, Discovery and Integration
UDP	User Datagram Protocol
UFR	Unfunded Requirement or Un-Financed Requirement
UFS	Unit Focused Stability
UFT	Unified Functional Testing
UG	User Guide
UI	User Interface
UIC	Unit Identification Code
ULC	Unit Level Code
UML	Unified Modeling Language
UNTDS	Unit Description
UOM	Unit of Measure
URL	universal resource locator
URM	User and Role Management
USA	Under Secretary of the Army
USAAC	U.S. Army Accessions Command
USAAFR	<i>U.S. Army Air Forces</i>

Acronym	Definition
USACE	U.S. Army Corps of Engineers
USAFMSA	U.S. Army Force Management Support Agency
USAFRICOM	U.S. Africa Command
USAMAA	U.S. Army Manpower Analysis Agency
USAMMA	United States Army Medical Materiel Agency
USAR	U.S. Army Reserve
USARC	U.S. <i>Army Reserve</i> Command
USAREUR	U.S. Army Europe - 7th Army
USARPAC	U.S. Army Pacific Command
USASOC	U.S. Army Special Operations Command
USD	Under Secretary of Defense
USD (C)	Under Secretary of Defense Comptroller
USD (P)	Under Secretary of Defense for Policy
USEUCOM	U.S. European Command
USFK	U.S. Forces-Korea
USG	U.S. Government
USMA	United States Military Academy
USMC	U.S. Marine Corps
USSGL	United States Standard General Ledger
USSOUTHCOM	U.S. Southern Command
UTC	Unit Type Code
UX	user experience
V&V	Verification and Validation
VAB	Vulnerability Assessment Branch
VAC	Value Analysis Categories
VAREQ	Validation for Requirements
VCSA	Vice Chief of Staff of The Army
vCPU	Virtual Central Processing Unit
VDD	Version Description Document
VDI	Virtual Desktop Infrastructure
VDP	VMWare Data Protection
VIS	Virtual Insight
VLAN	virtual local area network
VM	virtual machine
VMF	Variable Message Format
VoIP	Voice over Internet Protocol
VPC	Virtual Private Cloud
VPN	virtual private network
VRA	Validated Requirement Level
VS	Validation Strategy
W2K3	Windows 2003
WAN	wide area network

Acronym	Definition
WARBUCS	Web Army RDA Budget Update Computer System
WAWF	Wide Area Work Flow
WBS	Work Breakdown Structure
WCCB	Working Configuration Control Board
WDK	Workflow Development Kit or Web Development Kit
WLS	WebLogic Server
WMA	Warfighting Mission Area
WRS	War Reserve Stock
WSDL	Web Services Description Languages or Web Service Definition Language
WSLM	Weapon System Lifecycle Management
WSRP	Web Services Remote Portlet
WSUS	Windows Server Update Services
WTCV	Weapons Track Combat Vehicles
WWW	World Wide Web
WXP	Windows XP
WY	Work Years
WYSIWIG	what you see is what you get
XFS	Extents File System
XHTML	Extensible HyperText Markup Language
XML	Extensible Markup Language
XSD	XML Schema Design
XTD	XML Type Definition
ZLIN	Developmental Line Item Number (LIN)

**TECHNICAL  
EXHIBIT  
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**Performance Requirements  
Summary**

The contractor service requirements are summarized into performance objectives that relate directly to mission essential items. The performance threshold briefly describes the minimum acceptable levels of service required for each item. These thresholds are critical to mission success. The listing of these performance summaries does not relieve the contractor of any performance or standards otherwise identified in the contract.

<b>Task</b>	<b>ID</b>	<b>Indicator</b>	<b>Standard</b>	<b>Acceptable Quality Level</b>	<b>Method of Surveillance</b>
Task Area 1. ARC Portal	1	The contractor shall provide maintenance and sustainment of the current portal, including monitoring performance of the COTS product.	Weekly	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 2. cPROBE System Admin Tools	2	The contractor shall provide maintenance and sustainment of the current application, including updating business rules and capabilities as the business process changes.	Weekly	100%	Direct Observation & 100% Inspection
Task Area 3. OSD Submission Reporting	3	The contractor shall provide maintenance and sustainment of the current application, including updating the business rules and capabilities as OSD submission and reporting rules evolve.	+/- Weekly	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 4. cProbe Data Warehouse	4	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 5 cWork	5	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 6 cMan	6	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy

Task Area 7 cSustain	7	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 8 cInstall	8	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 9 cInstall	9	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 10 cPIT	10	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 11 Select & Native Processing Generation	11	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 12 Master Data Management	12	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 13 User & Role Management	13	The contractor shall provide maintenance and sustainment of the current application, including loading data, monitoring performance, and recommending tools to improve processing.	Weekly	100%	Direct Observation and Random Sampling of Accuracy
Task Area 14. GFEBs Interface	14	The contractor shall provide maintenance and sustainment of the current GFEBs interfaces, ensuring that data is delivered to GFEBs on schedule and that data is received as agreed.	As required for each cycle	Weekly	Periodic Inspection

Task Area 15. Issue Tracking System	15	The contractor shall provide maintenance and sustainment of the current application, ensuring inputs entered by users are properly recorded, reported, and distributed.	As required for each cycle	Weekly	Periodic Inspection
Task Area 16. Dynamic Reporting System	16	The contractor shall provide maintenance and sustainment of the current application, ensuring data is delivered to users as requested.	As required for each cycle	Weekly	Periodic Inspection
Task Area 17. CAPCES Interface	17	The contractor shall provide maintenance and sustainment of the current application, ensuring data into cPROBE correctly	As required for each cycle	Weekly	Periodic Inspection
Task Area 18 Army Portfolio Management Solution (APMS)	18	The contractor shall provide enhancements, updates, and maintenance and sustainment of the current application. Enhancements will include updates driven by OSD and DITPRS reporting requirements, BEA information reporting requirements, and business process changes approved by the CIO G-6 Configuration Control Board (CCB).	Weekly/Monthly	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 19 IT Approval System (ITAS))	19	The contractor shall provide enhancements, updates, and maintenance and sustainment of the current application. Enhancements will include updates driven by business process changes approved by the CIO G-6 Configuration Control Board (CCB).	Weekly/Monthly	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 20 cQuiP	20	The contractor shall provide enhancements, updates, and maintenance and sustainment of the current application. Enhancements will include updates driven by the cQuiP working group.	Weekly/Monthly	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 21 MRTS	21	The contractor shall provide enhancements, updates, and maintenance and sustainment of the current application. Enhancements will include updates driven by the application owner.	Weekly/Monthly	100%	Direct Observation, Periodic Inspection & User Survey

Task Area 22 Enterprise Reporting	22	The contractor shall provide enhancements, updates, and maintenance and sustainment of the current business intelligence tools and data extracts.. Enhancements will include updates based on information technologies.	Weekly/ Monthly	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 23 Enterprise Data Services	23	The contractor shall evaluate the current architecture and infrastructure to obtain information from the feeder systems. The contractor shall develop, reengineer and integrate any processes needed to maintain existing and new partner system interfaces utilizing web services. This includes multiple feeder streams that handle incoming and outgoing feeds, multiple reader streams that handle user connections which contains all shared data. This will eliminate manual feeds and processes during the data transfer, and other related manual processes, including but not limited to data reconciliation and reporting.	Weekly/ Monthly	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 24 Restful APIs	24	The contractor shall evaluate the current tools used to make cPROBE data available to partners.	New Interface Deployment	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 26 Onboarding	25	The contractor shall implement the documented onboarding process, maintaining metrics and working with partners.	Each onboarding partner	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 28 Help Desk	26	The contractor shall maintain a fully functioning help desk	Monitoring of submitted issues and calls	100%	Direct Observation, Periodic Inspection & User Survey
Task Area 28 Help Desk	27	95 % of Incidents reported shall be assigned correctly to the right support group at first attempt.	Monitoring of submitted issues and calls	100%	Direct Observation, Weekly Inspections
Task Area 28 Help Desk	28	No more than 3 valid customer complaints per month.	Monitoring of submitted issues and calls	100%	Direct Observation, Weekly Inspections
Task Area 28 Help Desk	29	98% procedural compliance in accordance with established Service level Agreements	Monitoring of submitted issues and calls	100%	Direct Observation, Weekly Inspections

Task Area 32 Training	30	The contractor shall provide and maintain training materials, publish training vignettes, present classroom-based training courses and present web-based training courses on all ARC applications.	As required by the Government and for each	100%	Direct Observation & User Survey
Task Area 32 Business Process Re-engineering Support	31	The contractor shall provide technical assistance in support of Army inputs to OBT. Performance frequency is estimated to be no more than once quarterly. Additionally, the contractor shall support ongoing	As required by the Government	100%	Observation and Random Sampling

**TECHNICAL EXHIBIT**

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**CONTRACT DELIVERABLES  
REQUIREMENTS LIST (CDRL)**

Contract deliverables are due as specified in the table below:

<b>CDRL Number</b>	<b>Deliverable Title</b>	<b>Due Date</b>	<b>Remarks</b>
A001	Concept of Operations (CONOPS)	10 business days after contract award	
A002	Implementation and Transformation	30 days after Contract Award	
A003	Weekly Status Report including project schedule with	Each Friday of following week	
A004	Weekly Status Meeting	Weekly	
A005	Technical Interchange Meeting (TIM)	10 business days after Contract Award	
A006	Technical Interchange Meeting	5 business days following the meeting	
A007	Monthly Status Report including project schedule with milestones	15 <sup>th</sup> day of following each month	
A008	Monthly Detailed Financial Status	15 <sup>th</sup> day of following each month	
A009	Quality Control Plan	30 days after Contract Award	
A010	Business Process Management (BPM)	With each Initiative and as Requested by the Government	
A011	Test & Evaluation Master Plan (TEMP)	30 days after Contract Award	
A012	Implement Test Plan and Documentatio	As agreed upon Gov't approval of plan	
A013	Integrated Master Project Schedule / T&E Master Production	45 days after Contract Award	
A014	Work Breakdown Structure	45 days after Contract Award	

A015	Information Assurance Plan of Action and Milestone (POA&M)	45 days after Contract Award	
A016	90-Day Initial Assessment of ARC Business Processes and Systems	90 days after contract award	
A017	Ongoing System Assessments and Recommendations on Related Actions	As Requested by the Government	
A018	Stakeholder Assessment and Comparison of Analytical Needs and Recommendations on Related Actions	30 days after Contract Award and annually thereafter	
A019	In-Progress Review Agenda and Presentatio	Quarterly	Read-ahead materials due 5 days before
A020	In-Progress Review Minutes	Quarterly	2 days after
A021	Data Interoperability Plan	30 days after Contract Award	
A022	Requirements Plan for BTO / SAFE	60 days after Contract Award	
A023	Test and Evaluation Plan	As Requested by the Government	
A024	Certification of Compliance with Clinger-Cohen Act	As Required	
A025	Analysis of Alternatives and Related Recommendations	As Required or as Requested by the	
A026	Concurrent Technical Management Process for Identifying Integrated	As Required or as Requested by the	
A027	Identification of Interdependent Systems - Report	As Required or as Requested by the	
A028	Identification of Independent Systems Appropriate for	As Required or as Requested by the	
A029	Detailed Design for Subsystem Integration with Engineering	As Required or as Requested by the	
A030	Risk Management Plan	45 days after Contract Award	
A031	Systems Integration Engineering	30 days after Contract Award	
A032	Architectural Compliance Technology Development Strategy Plan	30 days after Contract Award	

A033	Capabilities Development and Analysis Document with Final Integration Solution	30 days after Contract Award	
A034	Level of Effort for each Task	As Assigned, Directed, & Approved	
A035	Configuration Management Plan	45 days after Contract Award	
A036	Quality Assurance Surveillance Reporting	Each month	Submit Report to the COR
A037	System & Technical Demonstrations	As scheduled	
A038	Critical Design Requirements Reviews	As needed for each design	
A039	Maintenance & Sustainment Implementation Plan	30 days after Contract Award	
A040	Incoming Transition Plan	5 days after Contract Award	
A041	Outgoing Transition Plan	120 days after Contract Award	
A042	Training Plan	60 days after Contract Award	
A043	Implement Training Plan	As Required	
A044	Training Plan of Action Strategy Report	As required	
A045	Test scenarios	5 days before start of each Government testing event	Scenarios must include detailed test steps with screen shots
A046	On-line User's Manual for each cPROBE Application	As required	As updates to Applications are deployed

A047	Software Installation Manuals	As required	As updates to COTS packages
A048	Detailed Network Diagrams	As Hardware or Software components change	Identify hardware and software
A049	Standard Operating Procedures for Hardware Operations Activities	As processes are deployed or updated	
A050	Standard Operating Procedures for COTS Operations Activities	As processes are deployed or updated	
A051	Standard Operating Procedures for Application Operations Activities	As processes are deployed or updated	

## TECHNICAL EXHIBIT

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#### APPLICATIONS SUBJECT TO MAINTANCE AND SUSTAINMENT

The contractor shall maintain the following applications, including correcting defects, enhancing capabilities, updating integrated COTS/Services, monitoring for cybersecurity, maintaining Risk Management Framework documentation necessary for maintaining the Authority to Operate.

1. cPROBE Repository: the Army's authoritative Programming and Budgeting database of record
2. ARC Portal
3. Master Data Management
4. cPROBE Data Warehouse
5. cWork Requirements Input
6. cSustain Sustainment Tracking
7. cMan Manning Programming
8. cPIT Analysis
9. Army Enterprise Equipping System (AE2S)
10. cQuiP Equipment Data Tracking
11. Materiel Release Tracking System (MRTS)
12. Army Portfolio Management System (APMS)
13. Information Technology Approval System (ITAS)
14. User and Role Management (URM)
15. Issue Tracking System (ITS)
16. Data Science environment with R/Shiny server
17. External Data Interfaces
18. cPROBE System Administration (SA) Tools
19. OSD Submission/Reporting
20. Select and Native Process (SNAP) Generation and Analysis
21. General Fund Enterprise Business System (GFEBS ) Interface
22. Dynamic Reporting System (DTS)
23. CAPCES Interface

## **TECHNICAL EXHIBIT**

### **5**

#### **APPLICATION HOSTED IN THE ARC NOT SUBJECT TO APPLICATION MAINTENANCE**

The contractor will maintain server instance, provide cybersecurity services including monitoring, software scanning, auditing, and maintain RMF documentation in support of the Authority to Operate for the following systems/applications, and all other systems that are onboarded into the ARC:

1. RM Online
2. Integrated Resource Management Information System (IRMIS)
3. Training Resource Management Information System (TRMIS)
4. Joint Integrated CBRN Analytic Platform (JICAP)

## **TECHNICAL EXHIBIT**

### **6**

#### **SERVICES INTEGRATES IN THE ARC**

The below list identifies those services integrated into the ARC.

1. Oracle RDS
2. SQL Server RDS
3. RedShift RDS
4. AWS Cloud Watch
5. AWS Cloud Trail
6. AWS Lamda

## TECHNICAL EXHIBIT

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### COMMERCIAL SOFTWARE INTEGRATED IN THE ARC

The below list identifies the commercial software packages integrated into the ARC. The contractor shall be responsible for maintaining licenses for these packages.

1. Tableau Server
2. R / RStudio / Shiny Server / R Studio Connect
3. Qlik Sense and Qlik Server
4. Informatica Powercenter
5. Oracle Web Logic
6. Liferay Portal
7. Oracle Application Express (APEX)
8. Red Hat Linux
9. Microsoft Server 2012
10. Splunk
11. R-Studio
12. SageMaker
13. AppStream
14. Calibra
15. PowerSteering
16. Apache
17. Tomcat
18. NGINX
19. Mongo DB
20. Postgres
21. Data Robot
22. Aris
23. Jupyter Notebook
- 24.