

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30				1. REQUISITION NUMBER		PAGE 1 OF 85				
2. CONTRACT NO. DAAB15-00-A-1008		3. AWARD/EFFECTIVE DATE DEC 17 1999		4. ORDER NUMBER		5. SOLICITATION NUMBER				
7. FOR SOLICITATION INFORMATION CALL:			a. NAME Jana Borden		b. TELEPHONE NUMBER (No collect calls) (703)325-1709		8. OFFER DUE DATE/LOCAL TIME			
9. ISSUED BY USA CECOM ACQUISITION CTR - WASHINGTON 2461 EISENHOWER AVENUE (AMSEL-AC-WB-B) ALEXANDRIA, VA 22331-0700			CODE W4GV46		10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED <input type="checkbox"/> SET ASIDE: ____% FOR <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISAV. BUS. <input type="checkbox"/> S(A) SIC: SIZE STANDARD:		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE 13b. RATING CS			
					11a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)					
					14. METHOD OF SOLICITATION <input type="checkbox"/> RFP <input type="checkbox"/> IFB <input type="checkbox"/> RFP					
15. DELIVER TO: CODE			16. ADMINISTERED BY CODE							
In accordance with Individual Task Orders			See Block 9							
17a. CONTRACTOR/OFFEROR CODE 31902 FACILITY CODE		18a. PAYMENT WILL BE MADE BY CODE								
VSE Corporation 2550 Huntington Ave. Alexandria, VA 22303-0499		In accordance with Individual Task Orders								
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER			18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM							
19. ITEM NO.		20. SCHEDULE OF SUPPLIES/SERVICES		21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT			
		See Attached Pages <small>(Attach Additional Sheets as Necessary)</small>								
25. ACCOUNTING AND APPROPRIATION DATA				26. TOTAL AWARD AMOUNT (For Govt. Use Only)						
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED. <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED										
<input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR IS ATTACHED, ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED										
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <input type="checkbox"/> TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.				29. AWARD OF CONTRACT: REFERENCE OFFER <input type="checkbox"/> DATED _____ YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH						
30a. SIGNATURE OF OFFEROR/CONTRACTOR 				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER) 						
30b. NAME AND TITLE OF SIGNER Deborah R. Blakeman Assistant Vice President		30c. DATE SIGNED 17 Dec. 1999		31b. NAME OF CONTRACTING OFFICER Ana M. Kimberly Contracting Officer		31c. DATE SIGNED DEC 17 1999				
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED			33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		34. VOUCHER NUMBER		35. AMOUNT VERIFIED CORRECT FOR			
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE			32c. DATE		38. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		37. CHECK NUMBER			
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT			38. S/R ACCOUNT NUMBER		39. S/R VOUCHER NUMBER		40. PAID BY			
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE		42a. RECEIVED BY (Print)						
				42b. RECEIVED AT (Location)						
				42c. DATE REC'D (YYMMDD)		42d. TOTAL CONTAINERS				

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			13b. RATING D3		14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input type="checkbox"/> RFP		<input type="checkbox"/> 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)						
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30b. NAME AND TITLE OF SIGNER			30c. DATE SIGNED			31b. NAME OF CONTRACTING OFFICER Ana M. Kimberly Contracting Officer			31c. DATE SIGNED				
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						PARTIAL		FINAL					
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE						36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL			37. CHECK NUMBER				
						32c. DATE			38. S/R ACCOUNT NUMBER		39. S/R VOUCHER NUMBER		40. PAID BY
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41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER			41c. DATE			42b. RECEIVED AT (Location)							
						42c. DATE REC'D (YY/MM/DD)		42d. TOTAL CONTAINERS					

BPA COVER PAGE

BEST VALUE

BLANKET PURCHASE AGREEMENT

FEDERAL SUPPLY SCHEDULE

In the spirit of the Federal Acquisition Streamlining Act (FASA), the CECOM Acquisition Center - Washington and VSE Corporation IT Services Division enter into an agreement to facilitate the acquisition of Research & Development Support Services, Systems Engineering Integration Support and Information Technology Services from the General Service Administration (GSA) Federal Supply Schedule (FSS) Contract(s) GS-35F-0214J

Federal Supply Schedule contract BPA's reduce contracting and open market costs. Teaming Arrangements are permitted with Federal Supply Schedule BPA holders in accordance with the terms of their GSA contracts.

The parties agree that the Terms and Conditions set forth in the above referenced GSA FSS contract(s), this BPA and those set forth in the individual delivery order shall govern performance on that order. In no event will the Terms and Conditions set forth in either this BPA or the individual order be construed as changing the scope of the GSA FSS Contract(s) set forth above.

ANA M. KIMBERLY
Contracting Officer

DONALD M. ERVINE
CEO
VSE CORPORATION

If "Teaming" and your BPA Team Arrangement permits direct ordering to Team Partners, have each Team Partner sign and date below indicating agreement and compliance with the Terms & Conditions set forth in this document.

On this page, each Team Partner must provide the company name, title of individual, and GSA contract number.

BPA Teaming Partner	DATE
Title	
Company Name	GSA Contract Number:

BPA Teaming Partner	DATE
Title	
Company Name	GSA Contract Number:

BPA Teaming Partner	DATE
Title	
Company Name	GSA Contract Number:

(add/delete signature blocks as needed to accommodate team size)

The BPA Holder's Program Manager may make unilateral changes to the makeup of the BPA's Team. This may occur at any time during the life of the BPA. To make these changes the Program Manager must notify the Government in writing and provide a copy of this page with the appropriate signature(s). Note that any order issued prior to the change must be completed with the Team membership that was current at the time the order was placed unless agreed to by the ordering PCO.

CECOM Acquisition Center - Washington
BLANKET PURCHASE AGREEMENT
R&D SUPPORT SERVICES, SYSTEMS ENGINEERING AND INTEGRATION
SUPPORT

Pursuant to General Services Administration (GSA) Federal Supply Schedule (FSS) contract number(s) GS-35F-0214J ("Contract(s)"), a Blanket Purchase Agreement (BPA) is hereby established between VSE Corporation IT Services Division and the CECOM Acquisition Center - Washington, D.C under the terms and conditions of the above stated contract(s) and the following terms and conditions incorporated in this BPA:

ADMINISTRATIVE DATA

Primary Point of Contact:

Phillip Marsh, Contract Administrator

(Provide complete name, title,

Marsh_Phil@vsebav.com

corporate address, electronic mail

2550 Huntington Avenue, Alexandria, VA 22306

address and phone number)

(703) 329-4742

Alternate Point of Contact:

Deborah R. Blakeman, Assistant Vice President

Blakeman_Deborah@vsecorp.com

2550 Huntington Avenue, Alexandria, VA 22306

(703) 329-4458

Are you a Small Business under the SIC Code 8711 (Engineering Services

YES _____ NO X _____

Are you a Small Business Administration (SBA) certified Small Disadvantaged Business (SDB)? YES _____ NO X _____

Are you a Woman-Owned Business? YES _____ NO X _____

CAGE CODE: 31902 _____

DUNS NUMBER: 04-999-7380 _____

TIN: 54-0649263 _____

Cognizant DCMC Office (Include complete address):

Defense Contract Management District East

Defense Contract Management Command, Baltimore

217 East Redwood Street, Suite 1800

Baltimore, MD 21202-5299

DCMC POC Email Address:

Cognizant DFAS Office (Include complete address):

DFAS POC Email Address:
DFAS-Columbus Center
South Entitlement Operations
P.O. Box 182264
Columbus, OH 43218-2264

(A) AUTHORITY

This BPA is entered into pursuant to the terms of the BPA holder's FSS contract and FAR 8.404(b) (4).

(B) DESCRIPTION OF AGREEMENT

Under this agreement, the BPA holder will provide RDT&E Support Services (RDT&ESS), systems engineering integration support, support for system acquisition programs and development planning projects during all phases of the acquisition cycle, and information technology support. These services will be provided when ordered by an authorized Contracting Officer during the specified period stated in section G.13 of this BPA

RDT&E Support Services,(MOBIS)

YES _____ NO X _____

Computer Related Services (SIN 132-51) YES X _____ NO _____

(C) SERVICES AVAILABLE UNDER THIS BPA

Attachment A (provided by the BPA holder) contains a listing of all services. The listing shall contain the BPA holder's name, FSS contract number, FSS ordering number, name, and description for each labor category which may be ordered under this BPA with accompanying FSS and discounted rates including overtime rates where applicable. Pricing shall be provided for all years currently covered under the BPA holder's FSS contract. Each BPA holder or BPA team must check which site(s) services are being offered under this BPA (provide separate price lists for different locations as necessary).

- X Fort Belvoir, VA
- X Fort Hood, TX
- X Aberdeen Proving Ground, MD
- X Fort Leonard Wood, MO
- X Picatinny, NJ
- X Military District of Washington

- Fort Bragg, NC
- BPA Holder Facility
- Others (Please list)

(D) PRICING

The prices (loaded labor rates) included on the BPA list (or applicable “discounted” rates submitted in a proposal response to an RFQ resulting in the award of an order) that are in effect on the effective date of an order shall govern that order’s basic performance period. With regard to any option for an additional period of performance, the prices for the option period shall be established at the time of the initial order, using the BPA list of rates for the option period (or applicable discounted rates) and the established prices shall govern if the option is exercised; provided that if the contractor has been authorized a rate increase culminating from a negotiation under the Economic Price Adjustment provision of their GSA Schedule, and if such rates are approved and incorporated in the BPA before the exercise of the option, the increased rates would become applicable on the effective date as provided in their GSA Schedule to a later exercised option. Likewise, if there is a rate decrease in the GSA Schedule, the reduced rates would become applicable. CAVEAT: The contractor shall submit a request for a price increase as described above in a timely manner as no price increase shall apply to an order absent approval by the Contracting Officer and modification of the order to reflect the increase. The BPA holder shall update the BPA price list within 24 hours of a change in Schedule prices to insure that the BPA pricing remains current.

The BPA holder can voluntarily reduce prices at any time by giving 24 hour advance notice (by facsimile or electronic-mail) to the Contracting Officer. When in effect, the new price list will be posted on the BPA holder’s Internet site and made immediately available to all authorized BPA users. This BPA does allow for additional discounts if a “large order” is placed at one time. Whether an order is large enough to qualify for a discount is subject to the discretion of the BPA holder.

The BPA holder may also increase BPA prices whenever the GSA schedule rates increase. Any BPA price increase shall not take effect until the Contracting Officer receives written notification. In no event will the prices under this BPA exceed those on the applicable GSA schedule. Any order already issued shall not be affected by any change to BPA pricing (except as changes may apply to option years as described in D.1. above, if applicable). The prices offered under this BPA will undergo annual review by the Contracting Officer.

(E) MODIFICATION PROPOSALS

Modification proposals to this BPA shall be submitted to CECOM Acquisition Center – Washington.

(F) PREVAILING TERMS AND CONDITIONS

All orders placed against this BPA are subject to the terms and conditions of the GSA FSS Contract and all clauses and provisions in full text or incorporated by reference herein:

(F.1). Incorporated by reference:

FAR 52.245-5 GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) (JAN 1986)

(F.2) In full text are:

(F.2.A) ORGANIZATION CONFLICT OF INTEREST

Notice of Inclusion of Organizational Conflict of Interest Clause

a. The provisions of FAR Subpart 9.5 concerning organizational conflicts of interest govern orders issued under this BPA.

b. Potential conflicts may exist in accordance with FAR 9.505-1 through 9.505-4.

c. The Contracting Officer will determine on a case-by-case, order by order, basis whether a conflict of interest is likely to arise.

d. To avoid or mitigate a potential conflict, the Contracting Officer will impose appropriate constraints, such as the following.

1. The contractor agrees that if it provides under a BPA order systems engineering and technical guidance for systems and programs but does not have overall contractual responsibility, it will not be allowed to be awarded a contract to supply the system or any of its major components or be a subcontractor or consultant to a supplier of the system or any of its major components (FAR 9.505-1).

2. The contractor agrees that if it assists in the preparation of nondevelopmental specifications or of work statements for a system or services for a competitive acquisition under a BPA order, it will not be allowed to furnish these items, either as a prime contractor, a subcontractor or as a consultant (FAR 9.505-2).

3. The contractor agrees that if it gains access to proprietary data of other companies, it will protect such data and it will not use such proprietary data in supplying systems or components in future competitive procurements (FAR 9.505-4). In addition, the contractor agrees to protect the proprietary data and

rights of other organizations disclosed to the contractor during performance of any Task Order with the same caution that a reasonably prudent contractor would use to safeguard highly valuable property. The contractor also agrees that if it gains access to the proprietary information of other companies, that it will enter into an agreement with the other companies to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

4. The contractor agrees that it shall not distribute reports, data or information of any nature arising from its performance under this BPA, except as provided by the Task Order or as may be directed by the Contracting Officer.

5. Subcontracts: The contractor shall include the provisions at 3 and 4, including this paragraph, in agreements with consultants or subcontracts of any tier which involve access to information covered above. The use of this clause in such subcontracts shall be read by substituting the word "consultant" or "subcontractor" for the word "contractor" whenever the latter appears.

6. The contractor further agrees that it will neither evaluate nor advise the Government with regard to its own products or activities. The contractor will objectively evaluate or advise the Government concerning products or activities of any prospective competitors.

7. Government representatives shall have access to contractor's premises and right to inspect all pertinent books and records in order to insure that the contractor is in compliance with part 9 of the FAR and this provision.

8. The contractor agrees to develop, maintain and administer the following described specific programs:

"To thoroughly educate its employees, through formal training, company policy, information directives and procedures, in an awareness of the legal provisions of FAR 9 subpart 9.5 and its underlying policy and philosophy principles so that each employee will know and understand the provisions of this subsection and the absolute necessity of safeguarding information under a Task Order from anyone other than the contractor's employees who have a need to know, and the U.S. Government."

9. The term contractor herein used means (1) the organization (hereinafter referred to as "it or its") entering into this agreement with the Government (2) all business organizations which it may merge, join or affiliate with now or in the future and in any manner whatsoever or which hold or may obtain, by purchase or otherwise, direct or indirect control of it. (3) its parent organization if any and any of its present future subsidiary, associates, affiliates,

or holding companies (4) any organization or enterprise over which it has direct or indirect control now or in the future.

10. The organizational conflict of interest constraints established by the order are for the period of the order, plus 2 years, provided that the agreement to protect proprietary information from unauthorized use or disclosure lasts as long as the information remains proprietary unless the agreement with the other company provides otherwise.

11. The contractor may submit a response to any terms of constraint proposed by the Contracting Officer for the purpose of avoiding or mitigating a conflict.

(F.2.B) Government Facilities.

Government facilities will be provided by the Government to the BPA holder as specified in the order but will generally be in accordance with the provisions of this clause. Failure by the BPA holder to comply with the provisions of this clause will release the Government, without prejudice, from its obligation to provide base support by the date(s) required. If warranted, and if the BPA holder has complied with the provisions of this clause, the contractor may seek an equitable adjustment if the Government fails to provide base support by the date(s) and in accordance with the order.

a. Government facilities will be determined at the time of execution of each order. By way of general guidance, when directed to “collocate”, contractor personnel will be provided with the following: 1 Desk, 1 Chair, 1 Phone and 1 Computer. In addition, Government facility support will generally include access to and use of Government-controlled working space, material, equipment, automatic data processing services, or other support including the use of the Defense Switched Network (DSN) (for official phone calls only), which the Government determines can be made available at, or through, any Army installation where orders issued under this BPA will be performed.

b. All government property which the contractor is authorized to use under this base support provision shall remain in the custody of the Government, for accountability purposes. The contractor shall not remove such property from the Government facility, unless approved in writing by the Contracting Officer, and such property is furnished to the contractor under Government Property clause. Government property in the possession of the BPA holder, provided through the Government's facilities provision, will be used and managed in accordance with the Government Property clause.

c. Unless otherwise stipulated in the order, support will be provided on a no-charge-for-use basis and the value will be a part of the Government's contract consideration.

d. The BPA holder agrees that in the performance of this contract or any major subcontract, no direct or indirect costs for property will be incurred, if the Government determines that property is available at, or through any Government installation where this contract will be performed. Only the prior written approval of the Contracting Officer can relieve the BPA holder from this restriction.

(G) BPA SPECIFIC TERMS AND CONDITIONS:

(G.1) PROHIBITED ACTIVITIES

The BPA holder shall not perform tasks under any resultant order which involve the following:

a. preparation of any statement of requirements, objectives, or needs to be procured by the Government for support services to be acquired under the BPA, or by any other contract action under this program;

b. evaluation of the qualifications of a potential source or any proposal submitted to obtain an order under this BPA;

c. formulation of "best value" criteria, acquisition plans, solicitations or strategies for an order under this BPA; and

d. preparation of documentation for future orders for support services.

(G.2) SEGREGATION OF COSTS

a. The "Payments under Time-and-Materials and Labor-Hour Contracts" clause provides for reimbursement to the contractor of costs incurred for certain items and services purchased directly for the contract, subject to certain limitations set forth in the clause. Such items may include the lease/purchase of equipment, travel expenses for Government-directed travel, consumable materials, tuition and registration fees for specialized training, and other services or items acquired for the Government's account under the Government Property clause. The items and services which the BPA holder is authorized to purchase on a cost-reimbursement basis shall be the items and services described in the order(s) issued to the BPA holder as authorized for purchase.

b. Where and if appropriate to assure proper obligation of funds, the contractor will be instructed to segregate the cost of non-labor supply items and to identify supply items with a unit cost of \$100,000 or more when submitting a proposal for an order. The BPA holder shall segregate all costs associated with other direct costs authorized to be purchased on a cost-reimbursement basis (to be specified in each order) from other costs (labor hour effort) associated with

the performance of this contract in such a manner that the costs subject to reimbursement under each order shall be readily ascertainable.

c. The "Ceiling Price" referred to in the "Payments under Time and Materials and Labor-Hour Contracts" clause shall be the ceiling price as stated in each order. Where and if appropriate, subceilings will be used for different types or years of funds to assure proper obligation of funds in accordance with Government fiscal law. Orders, including options, may be funded incrementally with an allotment. In this situation, the level of allotment represents the "Ceiling Price".

d. The availability of obligated funds for performance may be limited by time. In that case, an order will identify a particular CLIN or CLINs, the accounting classification reference numbers for the accounting classifications funding the CLIN or CLINs, the date of performance beyond which there is no legal liability on the part of the Government for payment, and the period of performance covered by the obligation.

(G.3) REPRESENTATIVE OF THE CONTRACTING OFFICER

a. The following names are the Contracting Officer's Representatives at the appropriate office is (are) authorized to act as an official representative of the Contracting Officer.

(To be specified when orders are issued)

b. The above are designated by the Contracting Officer and are authorized to act within the limitations specified herein and written restrictions specifically imposed under the terms of the contract and by the Contracting Officer. This authority shall extend to the following: inspection, acceptance, or rejection of work.

c. This designation does not include authority to direct changes in scope, price, or terms or conditions of the contract. The authority herein also does not include authority to execute modifications to the contract which require the signature of the Ordering Contracting Officer, or to bind the Government by agreement in terms of a proposed contract change.

(G.4) LABOR HOUR ORDERS

a. The BPA holder shall furnish all the necessary qualified personnel, materials, facilities and management resources to furnish the services set forth in the Statement of Work (SOW) or Performance Work Statement (PWS) within the terms specified and at the price(s) stated. Delivery will be in accordance with individual task orders. All orders will be issued or modified at the contract-year labor rates in effect at the time of the effective date of the order or modification.

b. It is understood and agreed that the BPA holder shall use in the performance of the contract, the labor categories and hours specified in each order.

c. The labor categories and hours specified in each order represent the best estimate of the services to be performed. To enhance flexibility and to allow the BPA holder to determine the optimum labor mix for the order the BPA holder may without notice to the Government, increase or decrease the number of hours for each category specified in the individual order to the extent that the ceiling prices for the labor CLIN(s) are not exceeded. The BPA holder will not be paid more than the ceiling price of any individual order.

d. Government Reimbursement of BPA holder-Incurred Training Costs in Support of Mission-Unique Requirements. In situations where the "Government User" being supported by an order under the basic contract requires some "unique" level of support beyond the minimum requirements of the SOW because of program/mission-unique needs, then the BPA holder may directly charge the contract order in order to obtain the unique training required for successful SOW support if authorized in the order. Such education/training might be provided by Government entities such as DSMC, etc. or by "third party" private entities such as companies who specialize in providing professional or specialized training/education seminars/classes. Direct labor expenses, and travel related expenses allowable under the Joint Travel Regulations (JTR) and related to the training, may be billed as an ODC on a cost reimbursement basis. Tuition/Registration/Book fees (costs) that may be applicable to an individual course/seminar are recoverable as a direct cost if specifically authorized in a particular order. Documentation will be required to support the billing of such costs against the order which authorized payment.

e. In the event the BPA holder expends fewer hours than set forth in the individual order, the total order shall be adjusted to reflect the actual number of hours expended and the final order price. In no case will the final price exceed the ceiling price of the order.

f. Payment under individual orders for CLINs (to be specified in order) will be in accordance with FAR 52.232-7 entitled "Payments under Time-and-Materials and Labor-Hour Contracts". Withholding of amounts due as contemplated by the clause will apply to the total contract and not to individual orders. Withholding will not exceed \$50,000.00 for the entire contract, regardless of the number of orders issued against the contract, and will apply to the first order and continue until the maximum withholding amount is reached. To facilitate close-out of early orders the amount withheld may be transferred to any subsequent active order. Ceiling price, as used in the clause, applies to individual orders not to the total contract.

g. Personnel Changes: Any personnel, proposed as substitutes or replacements for personnel originally proposed for a Task Order, who become unavailable during the performance of the Task Order, shall be provided to the Government for review and approval. Substitutes must have equal or greater qualifications.

h. Payment procedures shall be in accordance with the BPA holder FSS contract. Payment will be made by the address specified in the individual delivery order.

(G.5) PAYMENT OF WORK PERFORMED

Hours of Work and Overtime

a. Work within the limits of the United States and its possessions shall not normally exceed eight (8) hours per day or forty (40) hours per normal work week. Work hours OCONUS shall correspond to hours worked by comparable Government personnel, provided a maximum of forty (40) hours per week is not exceeded.

b. Overtime must be approved by the Contracting Officer or designated representative. Overtime will be paid as straight time for exempt employees, and overtime for non-exempt employees at the rates set forth in the BPA list. There will be no uncompensated overtime. All approved overtime is subject to the "Ceiling Price" for the Task Order.

c. Authorized holidays for contractor personnel performing work at a Government installation shall correspond with Government holidays. Regular Government holidays are as follows:

New Years Day	Labor Day	Martin Luther King Day
Columbus Day	Presidents' Day	Veterans' Day
Memorial Day	Thanksgiving Day	Independence Day
Christmas Day		

Authorized holidays for contractor personnel located OCONUS will be addressed in the individual task orders.

d. Billable hours consist of:

*The number of normal hours that services are actually performed under the order;

* Hours may be billed for any local holiday which the area Commander administratively determines to be a non-work day;

*The number of hours that are necessary for travel by contractor's employees to perform services from facility to the assigned work site; in performing the duties

assigned; as a result of transfer to new assigned site of work; return from assigned site of work to contractor's facilities.

Billable travel time as defined in paragraph above shall include time as hereinafter and time at port or airfields awaiting transportation. Actual travel time will be computed on the basis of the number of quarters of a day beginning at 0600 hours spent in actual travel. Any time in travel during a quarter shall be considered travel during the entire quarter. However, travel time other than subsistence shall not be allowable in excess of eight hours a day or forty hours a week except as provided in paragraph above.

e. billable hours do not include:

* The number of hours necessary for travel by collocated contractor's employees from their residence to the program office they support and the return to their residence.

* The number of normal work days that the contractor personnel are not permitted to work because of lack of security clearances, proper identification required under the terms of the Task Order, even though such personnel might otherwise be available for work on those days.

* Contractor personnel will not be considered available for assignment until the following information concerning such personnel is submitted in writing to the issuing Contracting Officer's designated representative.

Name

Social Security

Passport Number (when required)

Security Clearance (date of the clearance and issuing agency)

Visa Number (when required)

The contractor will not submit the above information until the valid Task Order is issued.

* The number of normal days the contractor personnel are not available for work;

* The number of normal work days that the services were not performed or were not available because of security reasons, voluntary resignation, death, incapacity, illness, vacation or removal by the contractor or contractor's personnel.

(G.6) TRAVEL

The Government will reimburse the cost of travel required in conjunction with performance of orders issued under this BPA. Travel costs will be reimbursed in accordance with the Joint Travel Regulations (JTR).

Reimbursement for travel is limited to that required in the performance of the order. The airline and rental car portion of this travel will be handled by the

contractor's travel office. Contractor per diem and reimbursement for travel expenses will be billed to the government as other direct charges (ODCs). Travel costs subject to reimbursement are limited to travel occurring at the direction of the COR/Contracting Officer or performed in conjunction with a specific requirement for a trip authorized in the order. Details of estimated travel will be available when individual task orders are written. Costs arising from the relocation of BPA holder personnel from other geographic areas for the purpose of staffing an order, are not subject to reimbursement.

(G.7) COLLOCATION

The Government reserves the right to require the BPA holder at any given time to collocate a portion of its support services workforce with the Program Office or Staff supported. The Government will make available facilities, in accordance with the "Government Facilities" provision, for any such collocation. Collocation can only be directed by the Contracting Officer and must be in writing. The Government estimates that the percentage of the total labor hours (for orders under this BPA in effect at any one time during the period of performance for orders under this BPA) collocated will be approximately 50%. However, the Government reserves the right to require that all BPA holder personnel performing services on orders be located in BPA holder facilities. In the event that the Government requires collocation of more or less than 50% of contract employees performing on orders, this will not provide the basis for any equitable adjustment to the price, terms and/or conditions of the contract.

(G.8) FINANCIAL CONFLICT OF INTEREST

a. Except as provided for under subparagraph (d) hereof, the BPA holder shall not assign, nor allow, any employee for whom it receives payment under this BPA to perform any task under this BPA concerning any program, BPA holder, contract, or other matter if that employee, or that employee's spouse or dependent child, has a financial interest or affiliation in any non-Federal entity that would be impacted by performance of the task. For each employee who performs a task in violation of this prohibition, the price of the CLIN under which the BPA holder receives payment for that performance shall be reduced by the product of the hourly rate prescribed for that employee in the BPA schedule (including wages, indirect costs, general and administrative expenses and profit), multiplied by the number of hours in which that employee was performing the task in violation of this prohibition, and the BPA holder shall forfeit any right to receive said payment. Costs allocable to the expended hours for which payment has been forfeited shall be accounted for as unallowable costs and shall not be charged to this or any other Government contract.

b. "Financial interest" means any continuing financial interest (such as through a pension or retirement plan, shared income, continuing termination payments, or

other arrangements as a result of any current or prior employment or business or professional association) or any financial interest through legal or beneficial ownership of stock, stock options, bonds, securities, or other arrangements including trusts. "Affiliation" means a relationship as an employee, officer, owner, director, member, trustee, partner, advisor, agent, representative, or consultant; or a person having any understanding, plans or pending contacts regarding such a relationship in the future. (This includes sending resumes, making telephone inquiries or any act that reasonably could be construed as an indication of interest in a future affiliation).

c. The BPA holder shall obtain from each employee substantively involved in a given task, certification that the employee, or the employee's spouse or dependent child, does not have any direct financial interest or affiliation, as defined in subparagraph (b) hereof, which is directly related to the work he or she will be performing on any task awarded under this BPA.

d. Whenever the BPA holder wishes to assign an employee to perform a task under this BPA when that employee, or that employee's spouse or dependent child, has a financial interest or affiliation as defined under subparagraph (b) hereof in a non-Federal entity that would be impacted by performance of the task, the BPA holder shall, before making the assignment, obtain a written waiver from the task order Contracting Officer, by submitting to the Contracting Officer a written request for waiver together with all relevant supporting information. The Contracting Officer shall have the sole discretion to grant or deny the waiver in whole or in part. The Contracting Officer's determination shall be discretionary, final and conclusive and not subject to appeal under the Disputes clause or the Contract Disputes Act of 1978.

e. The BPA holder shall provide the Certificate of Non Conflict of Interest to the task order COR.

(G.9) NON-DISCLOSURE OF SENSITIVE INFORMATION

Contractor personnel may be required to sign non-disclosure statements to preclude disclosure of nonpublic information including but not limited to procurement, source selection and security sensitive information. The BPA holder shall provide the Certificate of Non-Disclosure to the task order COR.

(G.10) NONPERSONAL SERVICES

a. In performance of this BPA, the BPA holder will provide non-personal support-services as indicated in the Task Order either at the government's facilities and/or at the contractor's facilities. These services are needed to accomplish tasks that cannot be accomplished by Government personnel because of time constraints and/or expertise, which is not available. The types of

required services are: Project Management, System Engineering, Software Engineering, Testing, Training, Documentation Support, Administration, Quality Assurance, Integrated Logistics Support, Acquisition Management, and Information Technology support to the PM. This will be based upon the order's statement of work for the specific Task. Orders will be formally issued to the BPA holder as opposed to individual BPA holder employees.

b. The Government will neither supervise BPA holder employees nor control the method by which the BPA holder performs the required tasks. Under no circumstances shall the Government assign tasks to, or prepare work schedules for, individual BPA holder employees. It shall be the responsibility of the BPA holder to manage its employees and to guard against any actions that are of the nature of personal services, or give the perception of personal services. If the BPA holder feels that any actions constitute, or are perceived to constitute, personal services, it shall be the BPA holder's further responsibility to notify the Ordering Contracting Officer immediately.

c. These services shall not be used to perform work of a policy/decision making or management nature. All decisions relative to programs supported by the BPA holders will be the sole responsibility of the Government. Support services will not be ordered to circumvent personnel ceilings, pay limitations, or competitive employment procedures.

(G.11) BPA HOLDER IDENTIFICATION

BPA holder personnel will be required to wear company identification badges so as to distinguish themselves from Army employees. When conversing with Government personnel during business meetings and over the telephone, support BPA holder personnel shall identify themselves as such to avoid situations arising where sensitive topics might be better discussed solely between Government employees. Where practicable, support BPA holder occupying collocated space with their Government program customer should identify their work space area with their name and company affiliation. If collocated and granted email privileges, BPA holder personnel shall identify themselves as such in all emails issued.

(G.12) CONTRACT MANYEAR EQUIVALENT LIMITATIONS

Man-hours incurred by each support BPA holder employee working under an order are limited each year to the Contract Man-year Equivalent (CME) of 1904 hours, unless "mission essential" increases (at straight time) are authorized by the Contracting Officer.

(G.13) TERM OF BPA

a. This BPA expires on 28 January 2004 or such later ending date as determined by the exercise of any extension of any "General Schedule

extension” option by the GSA and exercise of the option to extend the term of the BPA by the PCO. The BPA holder is required to immediately notify, in writing, the Contracting Officer if at any time prior to 28 January 2004 the GSA Contract, upon which this BPA is based, is no longer in force. This BPA is not a contract. If the BPA holder fails to perform in a manner satisfactory to the Contracting Officer, this BPA may be canceled with 30 days written notice to the BPA holder by the Contracting Officer.

b. The Government may extend the term of this BPA by written notice to the Contractor at any time prior to the expiration of the BPA, provided, that the Government shall give the Contractor a preliminary written notice of its intent to extend at least 10 working days before the BPA expires. The preliminary notice does not commit the Government to an extension.

c. If the Government exercises this option, the extended BPA shall be considered to include this option provision.

d. The total duration of this BPA, including the exercise of any options under this clause, shall not exceed the period of the governing GSA FSS Contract.

e. It is expected that the period of performance for individual task orders will generally be up to two years. Depending on funding restrictions and the requirements of the users, the period may consist of a single performance period or a base and an option period. The Government may extend the term of a delivery order by the exercise of an option. The option may be exercised at any time during performance of the order, provided that the Government furnishes written notice to the contractor within five (5) working days of the expiration of the order.

f. The GSA Schedule contract permits extended performance of an order beyond the period of the GSA contract in order to complete the order.

(G.14) VOLUME

The Government estimates, but does not guarantee, that the potential volume of services ordered from all BPA holders will be 600 labor years over an approximate five year period. If the actual amount ordered is less than the estimate, the Government is not liable for the price difference between the quantity discount based on the estimate and the quantity discount for the amount ordered. The Government is under no obligation to the BPA holder to purchase any specified quantity of services.

(G.15) OBLIGATION OF FUNDS

This BPA does not obligate any funds. The Government is obligated only to the extent of authorized orders actually made under the BPA by the Contracting Officer.

(G.16) AUTHORIZED ORDERING OFFICIALS AND USERS

Government Contracting Officers at CECOM Acquisition Center – Washington are the only officials authorized to place orders under this BPA.

Any organization within the US Army may be a user of this BPA and is permitted to request that task orders be placed in support of their organization.

(G.17) REQUEST FOR TASK ORDER PLAN

a. The Government anticipates that competitive quote procedures will be used for Task Orders. Upon identification of the need for a Task Order, the Government will issue a Request for Quote (RFQ) to the contractor(s). The basis of issuing the order will be identified in the RFQ. The Contracting Officer has broad discretion in selection and will use such criteria as the ability of selectee to provide the level of quality required, previous performance under earlier, similar, or related taskings; and price.

b. Each Request for Quote for an order will contain a Statement of Work (SOW), or other performance-based work statement, describing the program to be supported, a description of the task, evaluation criteria, the deliverables if any, an order start date and completion date. Within fifteen (15) working days the BPA holder(s) solicited will respond to the SOW with a Performance Work Statement (PWS), technical solution, and an identification and explanation of the BPA Holders corporate capabilities (including tools and data bases developed by BPA Holder and relevant to the task(s)), past experience with similar tasks, labor mix and hours, other direct costs with applicable indirect costs and a proposed ceiling price for the order. Generally, the following supporting information shall be provided for orders to be issued on a Time and Materials basis:

1. Labor allocation matrix, indicating the total hours attributed to each applicable labor category, and the names, companies and number of hours of each individual assigned to the labor category for the Task Order. One page resumes for each assigned individual shall be provided upon Government request.

2. Bill of materials, indicating the source, quantity, unit cost and total cost for all required materials. The nature and cost associated with each ODC shall be described and shall be provided to the Government to

determine if it should be purchased separately or if it can be purchased under another GSA FSS.

c. The PWS and labor mix will be incorporated into any resulting order. The proposed technical solution may also be incorporated in the order. The Task Leader will be assigned by the BPA holder on a per site basis.

(G.18) ORDERS

a. Order Management Requirements: Delivery of services shall be implemented only if directed by an order. b. Order Accounting: The BPA holder's order accounting system shall provide traceability of all labor hour and cost reimbursable elements (e.g. travel, training, other authorized direct costs) ordered by each program's funding citation's Accounting Classification Reference Number (i.e. "ACRN" assigned at the "InfoSubCLIN" level in Section B), if required by the ordering office. Otherwise, traceability shall be at the CLIN level, to include segregation by Government appropriation (i.e. "color of money"), set forth in the order. Under no circumstances will any invoice exceed the period of performance, hours or "ceiling" dollar amount for any funded order. The BPA holder will separately track and invoice US Government and FMS charges. All invoices submitted for payment shall clearly identify:

1. Government order number.
2. period of performance
3. amount due by CLIN
4. labor hours provided per labor category

(G.19) MANAGEMENT REPORTS

a. The contractor shall submit a management reports in accordance with CDRLs identified in individual task orders. The BPA holder shall prepare and maintain a Monthly Funds Tracking Report for each order. The BPA holder shall submit reports to the Government if requested. The BPA holder will submit reports to the ordering office Contract Manager and the Task Order COR on a regular basis as defined by each order. Reporting shall include schedule by task, labor hour expenditures by labor category by task and cost reimbursable elements. These reports will be submitted electronically.

(G.20) PERFORMANCE

The following terms and conditions are applicable:

a. All services will be initiated within 30 calendar days following receipt of a valid order, unless otherwise specified in the order.

b. The BPA holder shall be familiar with DOD, Army and subordinate command acquisition regulations, directives and instructions. If a particular document is required in a specific order it will be cited within the order's PWS.

c. The BPA holder shall not provide technical direction to any acquisition contractor or government personnel at any time. Neither shall the Government directly supervise BPA holder employees. Day to day supervision of BPA holder personnel should be conducted by the BPA holder Task Leader wherever the BPA holder personnel are located. All direction of the BPA holder shall be through the Contracting Officer (PCO). Technical "tasking" assignments for the BPA holder will be transmitted by the Contracting Officer to the BPA holder's Program Manager.

d. Marketing Limitations: The BPA holder shall limit marketing/business opportunity telephone contact and personal visits with the Government personnel in the offices of authorized users to a reasonable level. Any marketing determined excessive by the Contracting Officer will be sufficient grounds for cancellation of this BPA.

(G.21) INVOICES

a. Inspection and acceptance shall be accomplished as follows: The COR in the Program Office will be the point of final inspection and acceptance by the Government for all services and items furnished under any resulting order unless otherwise specified in the individual Task Order. The BPA holder will submit each invoice, including all back-up data, for review and signature. When the COR receives an accurate and complete invoice, he/she will forward a signed copy to the Defense Finance Accounting Service (DFAS) within five (5) working days. If the invoice is incomplete or inaccurate the COR will return the unsigned invoice to the BPA holder Program Manager for correction. After correction, the invoice will then be returned to the COR who will forward a signed copy to DFAS for payment. Final payment for each order will be accomplished by final DD Form 250.

b. The requirements of a proper invoice are as specified in the BPA holder's Federal Supply Schedule contract.

c. An itemized invoice shall be submitted to the order's Government COR at least monthly or upon expiration of this BPA, whichever occurs first, for all services and items delivered during a billing period and for which payment has not been received. These invoices shall not be supported by copies of delivery tickets. "Approved-for-payment" Invoices will be submitted to the payment address specified on each individual order issued under this BPA.

d. Upon completion of the Task Order, the BPA holder shall commence procedures for the closing out of the order.

(G.22) SECURITY

If a DD 254, Department of Defense Contract Security Classification Specification is required, one will be attached to the Task Order addressing particular security requirements.

(G.23) YEAR 2000 (Y2K) COMPLIANCE

On task orders that require information technology that processes date related information, the BPA holder shall comply with the following:

Y2K Compliance

The contractor shall ensure products provided under this BPA, to include hardware, software, firmware, and middleware, are Year 2000 compliant. "Year 2000 Compliant" as used in this clause or elsewhere in this BPA, means, with respect to information technology, that the information technology, accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

(G.24) Year 2000 Warranty (Services)

On task orders issued under this BPA for information technology services:

(a) Definitions. "Acceptance," as used in this clause, means the act of an authorized representative of the Government by which the Government assumes for itself, or as an agent of another, ownership of existing and identified supplies, or approves specific services, as partial or complete performance of the contract.

"Correction," as used in this clause, means the elimination of a defect.

"Defect," as used in this clause, means that the items or services furnished by the Contractor under the contract contain information technology that does not accurately process date/time data (including, but not limited to, calculating comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

(b) Notwithstanding inspection and acceptance by the Government or any provision concerning the conclusiveness thereof, the Contractor warrants that all services performed under this contract will, at the time of acceptance, be free from defects. The Contracting Officer shall give written notice of any defect to

the Contractor on or before 31 December 2001. This notice shall state either (1) that the Contractor shall correct or repair any defective or nonconforming services, or (2) that the Government does not require correction or re-performance.

(c) If the Contractor is required to correct or re-perform, it shall be at no cost to the Government, and any services directed or re-performed by the Contractor shall be subject to this clause to the same extent as work initially performed. If the contractor fails or refuses to correct or re-perform, the Contracting Officer may, by contract or otherwise, correct or replace with similar services and charge to the Contractor the cost occasioned to the Government thereby, or make an equitable adjustment in the contract price.

(d) If the Government does not require correction or re-performance, the Contracting Officer shall make an equitable adjustment in the price of the applicable Task Order.

(G.25) Year 2000 Warranty (Commercial Items)

(a) The Contractor warrants that any Information Technology including, but not limited to, hardware, software, firmware, and middleware delivered under this BPA shall accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

(b) All warranties in the foregoing paragraph shall run for a period of sixteen (16) months from 1 January 2000. Should a warranted item fail to meet the requirements set out in the foregoing paragraph, the contractor agrees to correct or replace the item at no cost to the Government. The parties agree that this correction or replacement shall not act as a limitation of remedies and that the Government may seek such additional remedies as may be available through this BPA or at law or equity.

(c) This clause takes precedence over any other warranty or disclaimer thereof of this BPA. It is in addition to the rights and remedies set forth in any other warranty for this item.

VSE Corporation
FSS Contract No: GS-35F-0214J
FSS SCHEDULE 70
DESCRIPTIVE CATALOG

Special Item Number 132-51

Title: *Sr. Executive*

Item No.: *V0010*

Minimum/General Experience: Over 10 years of general senior level management and administrative experience working with all levels of Government and industry leadership in all aspects of information technology (IT). Current with IT technological advancements and recognized as an authority on evolving advancements in technology and its intrinsic application. Conversant in IT architecture and systems investment strategies to promote interoperability, eliminate duplicative operations, and emphasize system security. Facilitator of administrative matters associated with program and project development. Skilled in enterprise organizational design and proficient in directing resources to accomplish contract objectives.

Functional Responsibility: Provides executive level IT expertise. Directs the performance of an enterprise that encompasses a variety of related projects that are organized by program, project, and/or client-base. Assists clients in evaluating investment options and developing acquisition strategies. Provides technical leadership and oversight to technology development and application, and resource allocation within each program, project, and client-base. Program areas typically represent diversified functions including engineering, systems analysis, programming, quality control, and administration. Responsibilities include management of overall and individual contract and task order funds, personnel, and equipment resources. Accountable for quality and timely delivery of all contractual items from within the enterprise. Operates within customer specifications, written guidance, and contractual limitations following company business and policy directives. Serves as focal point to Government customers and technical personnel with regard to program and project activities. Assures that all required resources including work force, production standards, computer time, and facilities are available when needed to meet program implementation schedules. Confers with program managers and project personnel to provide technical advice and assistance in effectively responding to problem reports.

Minimum Education: Master's degree in administration, management, science, or engineering, or bachelor's degree in administration, business, science, or engineering with 15 years of related experience in progressive levels of management, or an equivalent combination of education and experience.

Title: *Sr. Program Manager*

Item No.: *V0020*

Minimum/General Experience: Minimum 20 years of experience as a senior level manager of complex programs or multiple projects involving utilization of automated project tools. General

management experience is required in planning directing, and controlling complete enterprise activities. Must be experienced in design of operating policies, plans, and procedures, and/or have provided professional advise and consultation in various aspects of business organizational improvements that considered the use of enhancements and advancements in automated information technology.

Functional Responsibility: Consults with managers, engineers, and technical personnel at all levels to define, interpret, and identify requirements for developing solutions to improve business, organizational, and technical practices taking full advantage of IT automated techniques. Performs enterprise resource planning involving formulation of operational policies, plans, and procedures, fiscal budgets and accountability, and metrics for monitoring and controlling technical accomplishments. Provides vision, leadership, and innovation in the development of end-user solutions that fulfill technical and/or management merits in compliance with the terms and conditions of governing contractual obligation. End-user solutions may have included but are not limited to automated systems definition, information integration and exchange, initiative review and promulgation, data compilation and analyses, information development and forecasting, management/fiscal planning, and management information system design. Provides senior level management representation and leadership in Government and industry meetings, conferences, and symposiums.

Minimum Education: Bachelor's degree in administration, business, economics, computer science or engineering, or an equivalent combination of education and experience.

Title: ***Program Manager***

Item No.: ***V0030***

Minimum/General Experience: Minimum 18 years of relevant experience as a manager of complex systems development and implementation efforts. General management experience is required in identifying finite work elements from Government-conveyed requirements, setting up systematic management oversight controls, and bringing program/project efforts to completion within budget and schedule.

Functional Responsibility: Consults with Government contracting officials, managers, and technical personnel to fully define, interpret, and implement information technology requirements. Plans, organizes, coordinates, and controls overall activities of programs and projects. Provides technical direction and management oversight to ensure that all efforts conform to the terms and conditions of the contract and individual orders. Acts as the contract management liaison between the Contracting Officer, requiring activity technical representative, and corporate management. Monitors and reports on work accomplishments, and cost and labor hour status. Investigates reported problems and initiates actions to provide expedient resolution. Provides management representation and leadership in Government and industry meetings. Performs internal planning and provides guidance and management structure for tracking progress of assigned work.

Minimum Education: Master's degree in administration, business, computer science or engineering, or an equivalent combination of education and experience.

Title: *Project Manager (Specialty Software)*

Item No.: *V0040*

Minimum/General Experience: Minimum four years of relevant experience managing projects involving various aspects of commercial software development. General management experience is required in identifying software project-unique tailoring and development requirements from meetings with industry and/or Government program and project leaders. Experienced in determining project requirements and defining specifications for software applications, database organization and structuring, and/or identifying networking objectives. Must be experienced in coordinating and providing the convergence of project requirements and personnel tasked in achieving development objectives. Multi-platform and operating system experience is desirable.

Functional Responsibility: Works with industry and/or Government program and project leaders to identify and define software unique tailoring and development requirements. Prepares requirements lists and specifications to use in the review of current software product capabilities and performance characteristics to establish work plans and cost estimates to accomplish tailoring and development requirements. Plans, organizes, and coordinates the overall exchange and convergence of project requirements with development efforts being performed by software engineers, database specialists, systems analysts, and other personnel to meet software project objectives. Acts as the management liaison during installations to effect smooth software start-up, database migrations, system initiation, and responsive problem resolution. Monitors and reports on work accomplishments. Provides representation and participation in industry and/or Government-related program/project meetings where software development is a discussion topic.

Minimum Education: Bachelor's degree in the arts or sciences, or an equivalent combination of education and experience.

Title: *Project Manager*

Item No.: *V0050*

Minimum/General Experience: Minimum eight years of relevant experience as a manager of simplistic and complex projects. General management experience is required in identifying project finite work elements from Government-conveyed requirements, setting up systematic management oversight controls, and bringing project efforts to completion within budget and schedule while achieving technical objectives.

Functional Responsibility: Works with Government officials, managers, and technical personnel to fully define, interpret, and implement information technology (IT) requirements. Plans, organizes, coordinates, and controls overall activities of individual projects. Provides technical direction and management oversight to ensure that all efforts conform to the requirements specified in individual orders. Acts as the management liaison between the requiring activity technical representative and corporate management. Monitors and reports on work accomplishments, and cost and labor hour status. Investigates reported problems and initiates actions to provide expedient resolution. Provides management representation and participation

in Government and industry meetings. Performs internal planning and provides guidance and management of project work assignments.

Minimum Education: Bachelor's degree is desirable in administration, business, computer science or engineering, or an equivalent combination of education and experience.

Title: ***Project Manager (Advisory)***

Item No.: ***V0060***

Minimum/General Experience: Minimum 14 years of relevant experience in management of programs and/or projects acting as an advisor on management and administrative-related issues. General experience is required in identifying program/project initiatives and defining management issues for establishing and maintaining systematic management oversight controls through the application of automated business tools.

Functional Responsibility: Works with Government officials, managers, and technical personnel in an advisory capacity to fully define, interpret, and implement new and re-engineered procedures, processes and techniques that take advantage of improvements in Information Technology (IT). Advises in the planning, organizing, coordinating, and control of overall activities of programs and individual projects. Provides technical direction and management oversight of internal resources to ensure that all efforts conform to the requirements specified. Provides management liaison and intervention between all levels of management, technical representatives, and corporate managers. Monitors and reports on planned versus actual work accomplishments, schedule conformity, and financial status. Provides management representation and participation in Government and industry meetings.

Minimum Education: Bachelor's degree in administration, business, computer science or engineering, or an equivalent combination of education and experience.

Title: ***Business/Financial Analyst I-II***

Item No.: ***See Table Below***

Minimum/General Experience: Relevant experience in business policy, practices, processes, and procedures. Practiced at reviewing, mapping, and documenting business operations, technology attributes, and/or financial systems. Must have experience performing studies requiring the use of extensive databases such as life cycle cost analysis, business process review, cost- reasonableness/cost-benefit/cost trade-off analysis, scientific test, technology applications, statistical analysis, feasibility study, and risk assessments. Must be familiar with and possess a working knowledge of business enterprise resource planning and/or basic accounting principles utilizing data base applications to support informational needs. The degree of competency and effectiveness of the service professional assigned increases according to the minimum education and experience requirements for each of the two levels of *Business/Financial Analyst* (see table below).

Functional Responsibility: Utilizing database applications, supports the review, development, and engineering/re-engineering of business policy, practices, processes, and procedures.

Supports the development of benchmarks and indexing to compare past, present, and future performance characteristics. Conducts studies such as forecasting, life-cycle cost analysis, business process review, cost sensitivity analysis, technology application, feasibility study, statistical probability, risk management, pro forma financial analysis, decision theory and methodology, and variance analysis. Conducts and/or participates in meetings with Government and industry to exchange ideas, data, and information to construct such particulars as cooperative agreements, detailed plans, program status, and/or fact-findings. Establishes and employs project management system tools to track costs, establish metrics, and assess variances.

Minimum Education: Bachelor's degree in administration, business, science, economics, or engineering, or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0100	I	Bachelor's degree or equivalent	10 years
V0110	II	Bachelor's degree or equivalent	15 years

Title: *Sr. Systems Specialist*

Item No.: **V0120**

Minimum/General Experience: Minimum of eight years of general experience and four years specialized experience as a systems specialist performing analyses and developing design concepts for business applications utilizing a full range of computer systems including complex, large-scale systems and adaptation of database management technology such as relational database management systems (RDBMS). Must be conversant in current state-of-the-art methods for storage, retrieval, and data migration, as well as able to formulate design specifications for programmers to lay out, code, test, and debug programs. General experience is required in all life-cycle phases of a system.

Functional Responsibility: Works as part of a product team or work-group on simple and/or complex application problems involving all phases of the system's life-cycle providing innovative approaches and solutions. Provides technical leadership and direction to personnel performing software development, including review of work product for purposes of quality control, adherence to design concepts, specifications, and/or user requirements, and for assessment of planned versus actual progress in accordance with established work plans and schedules. Coordinates with the Program Manager to ensure user satisfaction, problem resolution, and contract status reporting. Provides technical recommendations on major system installations and data migration efforts for Government consideration/approval. Prepares presentations on system design concepts to present to colleagues, subordinates, and end user representatives. Provides technical guidance from a systems perspective to other IT personnel working on assigned IT technical requirements.

Minimum Education: Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline, or an equivalent combination of education and experience.

Title: *Sr. Software Engineer*

Item No.: *V0130*

Minimum/General Experience: Minimum of eight years of general programming experience with at least three years of concentrated effort developing major systems in a client-server networked environment. Must be experienced in various operating systems, system architecture, functional program layout, database structuring, programming using state-of-the-art languages and tools, systems software and database concatenation, and data migration. Capable of designing and programming Internet web pages, stand-alone applications, and utilities.

Functional Responsibility: Applies technical knowledge in formulating new concepts and innovative methods for approaching programming tasks using the latest programming languages and tools. Serves as a senior technical advisor and interface with customers/users on technical programming issues. Participates and assists in the definition and layout of system and data base architecture and design. Formulates programming strategy and develops internal work plans and schedules in accord with the Program Manager to accomplish efforts within contract/task order constraints. Using approved design specifications, establishes the logic, originates coding, performs validation and verification testing, and debugs programs. Prepares/designs database structure, layout and mapping, screen layouts, and report formats. Proposes and implements modifications to existing and in-development systems. Provides source data to document program and system functionality and supportability features to allow preparation of user documentation. On a continuous basis, monitors programming efforts and progress, and prepares oral and written status reports. Defines and designs data capture forms, data conversion procedures, data validation/correction steps, and data base definition and indexing tables. Provides technical direction to lower level programming personnel.

Minimum Education: Bachelor's degree or seven years of directly related and progressively responsible experience or an equivalent combination of education and experience.

Title: *Programmer I-III*

Item No.: *See Table Below*

Minimum/General Experience: As a minimum, must have programming and database management experience in a client-server networked environment. Must have knowledge of various operating systems, functional program layout, database structuring, and programming using state-of-the-art languages and tools. Must be familiar with systems software and database concatenation and data migration techniques. Able to design and program Internet web pages, stand-alone applications, and utilities. The degree of competency and extensiveness in the client-server networked environment increases according to the minimum education and experience requirements of each of the three *Programmer* levels assigned (see table below).

Functional Responsibility: Applies technical knowledge in programming to design effective applications and utilities using the latest programming languages and designer tool kits. Participates as a member of a work group in the definition and layout of the system and database. Devises practical programming strategy and develops work plans to coincide with overall schedules to be accomplished within contract/task order constraints. Using approved design specifications, designs logic, originates coding, performs validation and verification testing, and

debugs programs. Prepares/designs database structure, layout and mapping, and develops screen layouts and report formats. Identifies opportunities to enhance or make improvements to program/system to achieve added capability and/or efficiencies and prepares proposals to recommend changes and/or modifications to design specifications. Provides source data to document program and system functionality and supportability features to allow preparation of user documentation. Prepares oral and written status reports. Defines and designs data capture forms, data conversion procedures, data validation/correction steps, and data base definition and indexing tables. Designs web page layouts and programs, incorporating hypertext linking, graphics, voice, and sound.

Minimum Education: Bachelor's degree or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0140	I	Bachelor's degree or equivalent	3 years
V0150	II	Bachelor's degree or equivalent	4 years
V0160	III	Bachelor's degree or equivalent	5 years

Title: *Software Engineer*

Item No.: **V0170**

Minimum/General Experience: Minimum of four years of general programming and database management experience in a client-server networked environment *working on a commercially offered software product*. Must have extensive knowledge of various operating systems, functional program layout, database structuring, and programming using state-of-the-art languages and tools. Must be familiar with systems software and database concatenation and data migration techniques. Able to design and program Internet web pages, stand-alone applications, and utilities.

Functional Responsibility: Applies technical knowledge in programming to design effective applications and utilities using the latest programming languages and designer tool kits. Participates as a member of a work group in the definition and layout of the system and database. Devises practical programming strategy and develops work plans to coincide with overall schedules to be accomplished within contract/task order constraints. Using approved design specifications, designs logic, originates coding, performs validation and verification testing, and debugs programs. Prepares/designs database structure, layout and mapping, and screen layouts and report formats. Identifies opportunities to enhance or make improvements to program/system to achieve added capability and/or efficiencies, and prepares proposals to recommend changes and/or modifications to design specifications. Provides source data to document program and system functionality and supportability features to allow preparation of user documentation. Prepares oral and written status reports. Defines and designs data capture forms, data conversion procedures, data validation/correction steps, and database definition and indexing tables. Designs web page layouts and programs, incorporating hypertext linking, graphics, voice, and sound.

Minimum Education: Bachelor's degree or five years of specific relevant experience in developing and implementing commercial applications; or graduation from a recognized technical school in computer programming, or an equivalent combination of education and experience.

Title: ***Jr. Programmer***

Item No.: ***V0180***

Minimum/General Experience: Must have general programming and database management experience in a client or client-server networked environment. Knowledgeable of operating systems, functional program layout, database structuring, and/or programming using state-of-the-art languages and tools. Familiar with various system software and database migration techniques. Able to perform basic design and programming of Internet web pages, stand-alone applications, and utilities.

Functional Responsibility: Applies basic knowledge of programming to design rudimentary applications and utilities using the latest programming languages and designer tool kits. Participates as a member of a work group in the layout of the system and database. Devises programming strategy and assists more senior level programmers in the development of work plans to coincide with overall schedules to be accomplished. Using approved design specifications, designs logic, originates coding, performs validation and verification testing, and debugs programs. Prepares/designs database structure, layout and mapping, and screen layouts and report formats. Identifies opportunities to enhance or make improvements to program/system to achieve added capability and/or efficiencies. Provides source data to document program to allow preparation of user documentation. Prepares oral and written status reports. Assists in the definition and design of data capture forms, data conversion procedures, data validation/correction steps, and data base definition and indexing tables. Designs basic web page layouts and programs incorporating hypertext linking, graphics, voice, and sound.

Minimum Education: Bachelor's degree or four years of specific relevant experience in information automation, or an equivalent combination of education and experience.

Title: ***Sr. Industrialist I-II***

Item No.: ***See Table Below***

Minimum/General Experience: Experienced as a senior level enterprise businessperson providing expertise in a particular field or area where complex industrial type programs or multiple projects are involved. Expertise encompasses the depth and breadth of a specialty such as environmental, energy, industrial waste, nuclear technology, defense systems, manufacturing technology, information security systems, and hardware/software configuration management, etc. Must be regarded as an expert or highly competent in the field of endeavor and have facilitated the design and development of governing policies, programmatic issues, and/or technology. Must be proficient in the application and promotion of information technology to meet evolving industrial program/project informational needs. The degree of competency and effectiveness of the service professional assigned increases according to the minimum education and experience requirements for each of the two levels of *Sr. Industrialist* (see table below).

Functional Responsibility: Provides consultant services to Government and/or industry executives, program managers, engineers, and technical staff at all levels in area of specialty/expertise. Services include review, definition, assessment, analysis, evaluation, design, and development of systemic policies, program initiatives, and technology advancements for implementing enhancements to business and technical practices. Develops comprehensive database to baseline and benchmark current practices, identify trend information, and to formulate forecasts for further evaluation. Taking full advantage of information technology automated techniques, performs detailed comparisons and develops supporting data and information to bolster recommended positions and solutions. Performs enterprise resource planning encompassing activities of formulating new and re-engineered operational policies, plans, and procedures, fiscal budgets and accountability, and metrics for monitoring and controlling technical accomplishments. Provide senior level representation at Government and industry meetings, conferences, and symposiums.

Minimum Education: Master’s degree in administration, business, information technology, science, or engineering, or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0190	I	Master’s degree	18 years
V0200	II	Master’s degree	20 years

Title: **Sr. CM Analyst**

Item No.: **V0210**

Minimum/General Experience: Minimum of four years of experience in all aspects of configuration management and product data management (CM/PDM) with extensive knowledge of current initiatives to evolve from traditional legacy data and systems to full digitization of technical data and information using standardized general machine language common to Government and industry. Must have in-depth knowledge of CM/PDM practices and policies, and be familiar with automated techniques to establish and implement CM/PDM database of authority, processes, and procedures supporting the full life cycle from transition to maintenance of commercial-off-the-shelf CM software.

Functional Responsibility: In a commercial environment, provides analytical support in the review of CM/PDM processes and procedures in the interest of automation. Identifies CM/PDM requirements and proposes automated solutions for implementing comprehensive systematic coverage taking in consideration the migration from legacy data systems to digital electronic form. Provides advice on all elements of CM including configuration identification, control, status accounting, functional/physical audits, and change tracking. Supports PDM efforts providing advice on automation features to implement comprehensive document identification, tracking, and control. Reviews current PDM processes and procedures and recommends systemic improvements that could implement continuous acquisition and life-cycle support (CALs) initiatives promoting common digital technical data and graphics interchange. Originates CM/PDM plans, systems descriptions, and reports.

Minimum Education: High school diploma and extensive technical training in CM, PDM, and CM/PDM automated systems.

Title: *CM Analyst*

Item No.: *V0220*

Minimum/General Experience: Minimum of two years of experience in configuration management and product data management (CM/PDM) knowledgeable of current initiatives to emerge from traditional legacy data and systems to full digitization of technical data and information using standardized general machine language common to Government and industry. Must have practical knowledge of CM/PDM practices and policies and familiarity with automated techniques to establish and implement CM/PDM database of authority, processes, and/or procedures supporting the full life cycle from transition to maintenance of commercial-off-the-shelf CM software.

Functional Responsibility: In a commercial environment, provides CM analytical support in the review of CM/PDM processes and procedures in the interest of automation. Assists in the identification of CM/PDM requirements to develop automated solutions for implementing comprehensive and systematic coverage to convert from legacy data systems to digital form. Provides support in all areas of CM including configuration identification, control, status accounting, functional/physical audits, and change tracking. Supports PDM efforts providing advice on automation features to implement document identification, tracking, and control. Reviews current PDM processes and procedures, and recommends improvements that could include implementing CALS initiatives promoting common digital technical data and graphics interchange. Develops source data for CM/PDM plans, systems descriptions, and reports.

Minimum Education: High school diploma and technical training in one or more of the following: CM, PDM, and/or CM/PDM automated systems.

Title: *CM Analyst I-III*

Item No.: *See Table Below*

Minimum/General Experience: Experience in configuration management and product data management (CM/PDM), knowledgeable of current Government initiatives to evolve from traditional legacy data and systems to full digitization of technical data and information using standardized general machine language common to Government and industry. Must have practical knowledge of CM/PDM practices and policies, and familiar with automated techniques to establish and implement CM/PDM database of authority, processes, and/or procedures supporting the full life-cycle from transition to maintenance of commercial-off-the-shelf CM software. The degree of competency and extensiveness of involvement in the CM/PDM environment increases according to the minimum education and experience required for each of the three *CM Analyst* levels assigned (see table below).

Functional Responsibility: Provides CM analytical support in the review of CM/PDM processes and procedures in the interest of automation. Assists in the identification of CM/PDM requirements to develop automated solutions for implementing comprehensive and systematic

coverage to convert from legacy data systems to digital form. Provides support in all areas of CM including configuration identification, control, status accounting, functional/physical audits, and change tracking. Supports PDM efforts providing advice on automation features to implement document identification, tracking, and control. Reviews current PDM processes and procedures and recommends improvements that could include implementing CALS initiatives that promote common digital technical data and graphics interchange. Develops source data for CM/PDM plans, systems descriptions, and reports.

Minimum Education: High school diploma and technical training in one or more of the following: CM, PDM, and/or CM/PDM automated systems.

Item No.	Level	Minimum Education	Minimum Experience
V0230	I	High school diploma	4 years
V0240	II	High school diploma	8 years
V0250	III	Bachelor's degree or equivalent	10 years

Title: ***Sr. Systems Analyst***

Item No.: **V0260**

Minimum/General Experience: Minimum eight years of computer experience working on complex problems involving all phases of systems analysis *working on large commercial and Government wide programs*. Must have a minimum of four years of specialized experience in breakdown and evaluation of office and business applications to be automated on complex large-scale, mid-tier, and single user computer systems, or LAN-based systems to include database management systems (DBMS). Fully conversant in current storage and retrieval methods and has proven capability to formulate specifications for computer programmers to use in developing computer programs.

Functional Responsibility: Conducts analytical studies of business practices, policies, procedures, and processes. Identifies elements to consider in establishing short and long-term automation goals. Develops initial system requirements information to make informed decisions. Catalogs, categorizes, and prioritizes system design features and prepares system specifications. Determines functional needs for system upgrades and/or modifications by analyzing existing business processes and comparing existing automated techniques to those routinely practiced. Interviews system users and surveys user interfaces to identify areas of opportunity and deficiency. Provides recommendations and prepares proposals based on results of analytical studies when system upgrades and/or modifications are appropriate.

Minimum Education: Bachelor's degree in computer technology, systems engineering, business management, or physical science, or an equivalent combination of schooling and practical systems analysis.

Title: ***Systems Analyst***

Item No.: **V0270**

Minimum/General Experience: Minimum four years of computer experience working on complex problems involving all phases of systems analysis *involving large commercial and Government wide programs*. Must have at least two years of specialized experience in breakdown and evaluation of office and business applications to be automated on complex large-scale, mid-tier, and single-user computer systems, or LAN-based systems to include database management systems (DBMS). Fully conversant in current electronic storage and retrieval methods, and has the proven capability to formulate specifications for computer programmers to use in developing computer programs.

Functional Responsibility: Conducts analytical studies of business practices, policies, procedures, and processes. Identifies elements to consider in establishing short and long-term automation goals. Develops initial system requirements information to make informed decisions. Catalogs, categorizes, and prioritizes system design features and prepares system specifications. Determines functional needs for system upgrades and/or modifications by analyzing existing business processes and comparing existing automated techniques to those routinely practiced. Interviews system users and surveys user interfaces to identify areas of opportunity and deficiency. Provides recommendations and prepares proposals based on results of analytical studies when system upgrades and/or modifications are appropriate.

Minimum Education: Bachelor's degree in computer technology, systems engineering, business management, or physical science, or an equivalent combination of schooling and practical systems analysis.

Title: *Systems Analyst I-II*

Item No.: *See Table Below*

Minimum/General Experience: Experienced working on complex problems involving all phases of systems analysis. Must have specialized experience in breakdown and evaluation of office, business, and/or technical applications to be automated on complex large-scale, mid-tier, and single-user computer systems, or LAN-based systems including database management systems (DBMS). Fully conversant in current electronic storage and retrieval methods and has the proven capability to formulate specifications for computer programmers to use in developing computer programs. The degree of competency and extensiveness of involvement in performing systems analyses increases according to the minimum education and experience required for each of the two *System Analyst* levels assigned (see table below).

Functional Responsibility: Conducts analytical studies of office, business, and/or technical applications, practices, policies, procedures, and processes. Identifies elements to consider in establishing short and long-term automation goals. Develops initial database and system requirements information to make informed decisions. Catalogs, categorizes, and prioritizes application and/or system design features and prepares specifications. Determines functional needs for applications and system upgrades/modifications by analyzing existing business and technical processes by comparing existing automated techniques to those routinely practiced. Interviews application and system users, and surveys user interfaces to identify areas of opportunity and deficiency. Provides recommendations and prepares proposals based on results of analytical studies when application and system upgrades/modifications are appropriate.

Minimum Education: Bachelor's degree in computer technology, systems engineering, business management, or physical science, or an equivalent combination of schooling and practical systems analysis.

Item No.	Level	Minimum Education	Minimum Experience
V0280	I	Bachelor's degree or equivalent	14 years
V0290	II	Bachelor's degree or equivalent	18 years

Title: **Research Analyst I-II**

Item No.: **See Table Below**

Minimum/General Experience: General business experience in collecting, retrieving, and reviewing data and information, and performing general analysis. The degree of competency and extensiveness of involvement in performing research analyses increases according to the minimum education and experience required for each of the two *Research Analyst* levels assigned (see table below).

Functional Responsibility: Performs basic research and analysis to support management, organizational, and business automation efforts. Collects and prepares data and performs routine data analysis. Compiles data, develops trend information, performs trade-off and what-if assessments, and prepares data/documentation to support system requirements. Develops data and information for presentation to user groups, associates, and clientele.

Minimum Education: Bachelor's degree in science, management, or mathematics or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0300	I	Bachelor's degree or equivalent	3 years
V0310	II	Bachelor's degree or equivalent	5 years

Title: **Sr. Applications Engineer**

Item No.: **V0320**

Minimum/General Experience: Minimum eight years of experience performing overall systems installation, interconnectivity, and initiation. Must be conversant in state-of-the-art hardware and software and capable of complex data mapping, migration, and concatenation. Experienced as a technical authority providing guidance and direction to other personnel such as software engineers, system analysts, and database administrators in the use of advance techniques for performing database migrations and concatenations. General prerequisite experience includes two or more of the following system environments: laptops, desktops, mini computers, and mainframe computers. Must be thoroughly familiar in a variety of operating systems, networking environments, and database systems.

Functional Responsibility: Responsible for the overall technical installation, data migration, implementation, integration, configuration, training, and demonstration of system development

projects assigned. Designs, tailors, and installs complex database applications. Assists in networking, data mapping and migrations, and interfaces. Provides/defines methodology for bridging and linking existing databases and other data systems considering appropriate network protocol. Assists in the development and programming of applications and interface software. Researches data locations and systems interfaces to determine methods for accomplishing migration and mapping to support new system implementation. Assists in performing data migrations. Establishes adequate recovery procedures within database designs to ensure protection from catastrophic failures. Develops and monitors procedures for updating data dictionaries. Identifies training needs and solicits *Trainer* support. Assists in providing training to users/user groups in the procedures involved in updating and accessing the database through use of applications software. Provides technical assistance to software users in the identification and resolution of database design and maintenance problems. Provides technical expertise on system attributes and functionality to user and data processing personnel.

Minimum Education: Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline or an equivalent combination of education and experience.

Title: *Applications Engineer*

Item No.: *V0330*

Minimum/General Experience: Minimum four years of experience performing overall systems installation, interconnectivity, and initiation. Must be conversant in current state-of-the-art hardware and software and capable of complex data mapping and data migration. Must have experience as a technical lead, providing guidance and direction to other less experienced database administrators and support personnel in the design and monitoring of database management systems implementation. General experience working on large, complex database design projects is a prerequisite.

Functional Responsibility: Responsible for the overall technical installation, data migration, implementation, integration, configuration, training, and demonstration of system development projects assigned. Specializes in design and installation of complex database applications. Tasked to provide linkages to existing databases and other data systems through appropriate network protocol. Provides assistance in the development and programming of applications and interface software. Researches data locations and systems interfaces to determine methods for effecting migration and mapping for new system implementation. Assists in performing data migrations. Establishes adequate recovery procedures within database designs to ensure protection from catastrophic failures. Develops and monitors procedures for updating data dictionaries. Identifies training needs and solicits *Trainer* support. Assists in providing training to users/user groups in the procedures involved in updating and accessing the database through use of applications software. Monitors database transactions to ensure correct usage of the database. Provides technical assistance to less experienced users in the identification and resolution of database design and maintenance problems. Provides technical expertise on system attributes and functionality to user and data processing personnel.

Minimum Education: Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline or an equivalent combination of education and experience.

Title: *Multimedia Specialist*

Item No.: *V0340*

Minimum/General Experience. Minimum of 10 years of experience in designing, developing, producing, coordinating, and recording professional management and technical conferences, meetings, and symposiums. Must be expert in utilization of multimedia techniques to design effective professional presentations and displays. Experienced in performing in-depth research on complex technical issues and programs to develop thought provoking and insightful media to communication and promote topical discussions and exchanges. Must be experienced in recording copious transcription type notes and preparing minutes that reflect in-depth understanding of topical matter.

Functional Responsibilities: Performs basic research and analysis to support management, organizational, business, and/or technology automation efforts. Collects and prepares data and performs trade-off and what-if assessments and data/documentation to support system requirements. Also, develops data and information for presentation to user groups, associates, and clientele. Will develop database routines to support data and information analysis for program and project requirements.

Minimum Education: Bachelor's degree in science, management, or mathematics or an equivalent combination of education and experience.

Title: *Systems Engineer I-III*

Item No.: *See Table Below*

Minimum/General Experience: Must have a combination of general business and technical experience as well as specific systems engineering experience. Knowledgeable in techniques for performing systems engineering related tasks from one or more of the following: requirements analysis; system/component integration; interoperability; interconnectivity; structured analysis; design methodologies; use of design tools and other design techniques; object oriented principles; data base structuring and bar coding; adaptation of network and telecommunications; configuration management/product data management(CM/PDM); integrated product team or multi-discipline team; test planning and testing; and, logical and physical function, operation, and technical architecture of large and complex information systems. Proficiency in hardware/software interfaces and integration is required for relevant systems engineering assignments. Must be familiar with test program set development for computer/equipment interfaces for those relevant systems engineering assignments. The degree of competency and extensiveness of involvement in performing systems engineering-related tasks increases according to the minimum education and experience required for each of the three *Systems Engineering* levels assigned (see table below).

Functional Responsibility: Performs engineering studies, analysis, and evaluations from a systems perspective for one or more of the following areas: requirements analysis; system/component integration; hardware/software interfaces and integration; interoperability; interconnectivity; structured analysis; design methodologies; use of design tools and other design techniques; test program set origination, object oriented principles; data base structuring and bar coding; adaptation of network and telecommunications; CM/PDM; integrated product team or multi-discipline team; test planning and testing; and, logical and physical function, operation, and technical architecture of large and complex information systems. May be required to design and develop fully integrated systems for complete enterprises. Determines required interactions and interoperability requirements and creates a total systems approach for commissioning complete systems or upgrades to existing systems. Reviews current technology to evaluate capabilities and features. Constructs system hardware and software design criteria and determines what commercial-off-the-shelf (COTS) hardware/software will fit the intended need. Provides extensive interaction with system users, managers, engineers, programmers, analysts, logisticians, technicians, and trainers to ensure a complete systems approach in providing an automated solution.

Minimum Education: Bachelor's degree in systems engineering, engineering, or science, or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0350	I	Bachelor's degree or equivalent	6 years
V0360	II	Bachelor's degree or equivalent	12 years
V0370	III	Bachelor's degree or equivalent	18 years

Title: ***Modeling, Simulation, and Survey Specialist***

Item No.: **V0380**

Minimum/General Experience: Minimum seven years of experience supporting Government and industry programs in the assessment of technical characteristics and apparent costs. Must have specific experience in using software tools and database technology to develop information and data for modeling and simulation of technical and program attributes as well as cost trade-offs to determine methods for optimizing. Must be experienced in performing research and capable of designing and conducting surveys to support justifications and/or hypotheses.

Functional Responsibility: Supports the systematic evaluation and assessment of current or proposed technical and program attributes and the associated intrinsic costs to determine methods for optimizing. Researches all aspects of current and/or proposed attributes to develop information and data to be used in modeling and simulation. Using available commercial-off-the-shelf software tools and/or uniquely developed software, structure databases to perform modeling and simulation to allow assessment of alternatives and trade-offs. Develops creative approaches and practical solutions for consideration. Supports the development of performance measurements and metrics to determine program and/or technical attainment. Designs and conducts surveys to develop trend information in support of program and/or technical initiatives. Summarizes survey data, conducts statistical evaluations, and documents findings. Supports the evaluation of technical or programmatic problems using modeling, simulation, and/or surveys.

Minimum Education: Bachelor's degree in science, engineering, management, or an equivalent combination of education and experience.

Title: *Network Engineer/Telecommunications Specialist*

Item No.: *V0390*

Minimum/General Experience: Minimum 12 years of experience in networking and the telecommunications field. Experienced in network protocol analysis, OSI protocol such as TCP/IP suite including IP, TCP, UDP, and TELNET FTP. Knowledgeable and conversant in general communications equipment and software. Thoroughly familiar with ATM, frame relay, bridges, routers, gateways, and detailed knowledge of operating systems such as Novell, Windows NT, UNIX, and AppleTalk. Certified network engineer (CNE) or enhanced CNE training and/or certification are highly desirable. Must be experienced in operation and maintenance of communication network systems including LAN, MAN, WAN, intranet, subnets, and the Internet. General experience requirements encompass communication network planning, installation, maintenance, troubleshooting, and repair.

Functional Responsibility: Evaluates communication hardware and software. Performs network installations, debugging, operations, and maintenance support. Provides technical expertise in configuring network hardware and software, emphasizing performance, availability, and supportability. Performs general LAN/MAN/WAN administration, providing technical expertise in the integration and test of elementary and complex large-scale computer integrated networks. Schedules and effects conversions and cut-overs. Supports and provides oversight to network control centers. Supervises and performs systems maintenance. Provides extensive interface with users and network sites. Provides Internet access installations interfacing LAN, intranet, and subnets according to specific need.

Minimum Education: Bachelor's degree in computer science, information systems, engineering, business, and technical training in network operations and maintenance or an equivalent combination of education and experience.

Title: *Interdisciplinary Engineer I-III*

Item No.: *See Table Below*

Minimum/General Experience: Must have general experience in the major areas of systems management and systems integration and be specialized in automated data processing (ADP) and/or telecommunication disciplines involving systems management interface, system integration, management information systems, integrated product teams, database structuring, network development, and/or technical integration encompassing a variety of hardware and software solutions. Must have practical experience in one or more of the following: operating systems software; application software engagement; management information systems; electronic communications analysis and design; networking; bar coding technology; electronic/mechanical engineering; environmental engineering; and/or civil engineering. The degree of competency and extensiveness of involvement in performing interdisciplinary

engineering-related tasks increases according to the minimum education and experience required for each of the three *Interdisciplinary Engineering* levels assigned (see table below).

Functional Responsibility: Provides senior level interdisciplinary engineering support of ADP tasks in such areas as software, electronics telecommunications, networking, bar coding, electronic, mechanical, environmental, or civil engineering. Translates mission requirements and information into practical solutions. Develops program strategies that employ current state-of-the-art information system, equipment, software, and technology. Defines interaction and/or interfaces between different categories of requirements and develops the appropriate solutions to support requirements while applying methodologies from any of the above listed disciplines. Serves as a liaison to interpret and translate among the various disciplines as a participant in work-groups, integrated product teams, and/or task teams and serves as a point of contact for evaluation of problems arising from the interdisciplinary nature of the task.

Minimum Education: Bachelor's degree in science, engineering, management, or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0400	I	Bachelor's degree or equivalent	6 years
V0410	II	Bachelor's degree or equivalent	8 years
V0420	III	Bachelor's degree or equivalent	10 years

Title: ***Sr. Automation Specialist***

Item No.: ***V0430***

Minimum/General Experience: Minimum of eight years of progressive experience in management assessment of automation requirements and application techniques. Must be fully versed in current and evolving computer technology to make informed decisions on strategic choice of computer hardware and software to be used to support management, organization, and business processes and applications.

Functional Responsibility: Provides advice in the practicality of automation of redundant tasks to improve business information and processes. Supports the layout and development of interactive training media, modeling and simulation, data collection and retrieval, database administration and networking, electronic manual processing and hypertext linking, computer assisted surveys, web page development, and database migration. Reviews areas such as business office automation plans for improved performance, quality of product, timeliness, and improved customer service. Develops proposals for implementing automation to reduce costs and improve management, organizational, and business services.

Minimum Education: Bachelor's degree in science, mathematics, business, or computer technology or an equivalent combination of education and experience.

Title: ***Logistics/Field Engineer I-II***

Item No.: ***See Table Below***

Minimum/General Experience: Minimum of two to four years of general experience in the broad area of logistics associated with acquisition programs and/or fielded systems and equipment. Must be knowledgeable in designing logistics pipeline models for simulation and evaluation of logistics system elements. At least two years of experience is desirable as an advisor in resolving system related problems such as those associated with interfaces and interoperability. The degree of competency and extensiveness of involvement in performing logistics services increases according to the minimum education and experience required for each of the *Logistics/Field Engineering* levels assigned (see table below).

Functional Responsibility: Conducts studies and analyses of logistics systems and planning. Reviews processes and procedures. Supports the recognition of logistic system elements and computer modeling techniques that provide simulation of logistics pipeline for the purpose of evaluation. Provides in-depth reports on quality and productivity enhancements that can be achieved through automation of logistics functions. Studies management and organizational relationships and provides advice on implementation strategies for outsourcing, privatizing, and optimizing. Participates in logistics forums and provides facilitation services between Government and industry. Provides on-location field service support of logistics requirements to enhance inventory assessments and resolve equipment-related problems.

Minimum Education: Bachelor's degree in business or science or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0440	I	Bachelor's degree or Equivalent	2 years
V0450	II	Bachelor's degree or Equivalent	4 years

Title: *Logistics/Field Engineer III-IV*

Item No.: *See Table Below*

Minimum/General Experience: Minimum 6 to 12 years of general experience in the field of logistics associated with life cycle support encompassing acquisition programs and in-service systems and equipment. Must have experience in designing and establishing logistics pipeline models for simulation and evaluation of logistics system elements. At least four years of experience is desirable as an advisor in resolving management planning issues and/or system-related problems such as those commonly associated with acquisition logistics programs, operational interfaces, and systems interoperability. The degree of competency and extensiveness of involvement in performing logistics services increases according to the minimum education and experience required for each of the *Logistics/Field Engineering* levels assigned (see table below).

Functional Responsibility: Performs comprehensive studies and analysis of logistics systems and planning. Reviews policies, processes, and procedures. Supports the development and definition of acquisition logistics systems elements, database systems, and computer models that provide computer generated logistics support analysis to support system planning and simulation of logistics pipeline for the purpose of systematic evaluation of performance. Provides highly evolved and in-depth knowledge of the Logistics Support Analysis process, inventory assessment

techniques, maintenance workload planning, technical document evolution (including Integrated Electronic Technical Manuals), configuration and data management, and database structuring and analysis. Provides in-depth reports on quality and productivity enhancements that can be achieved through automation of logistics functions. Studies management and organizational relationships and provides advice on implementation strategies for outsourcing, privatizing, and optimizing. Plans and develops training program requirements and curriculum, and investigates the adaptation of computer-based trainer technology. Participates in logistics forums and provides facilitation services between Government and industry. Provides on-location field service support of logistics requirements to enhance inventory assessment and resolve equipment-related problems.

Minimum Education: Bachelor's degree in business or science or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
V0460	III	Bachelor's degree or equivalent	6 years
V0470	IV	Bachelor's degree or equivalent	12 years

Title: ***Installation Technician***

Item No.: **V0480**

Minimum/General Experience: Minimum seven years of general experience and one year of specific installation experience in combination with completion of an appropriate original equipment manufacturer (OEM) training, training from an accredited technical school, or successful completion of an accredited in-house training program. Must have installation experience in a network environment that encompasses desktop equipment and software, intranet, LAN and subnet connectivity that includes equipment assembly, wiring between computers, patch-boards, and servers and network interconnectivity.

Functional Responsibility: Assembles, installs, and configures computer hardware and software. Performs physical connection of computers and networks through installation of cables (fiber optics, coax, twisted-pair), gateways, bridges, and interface controllers. Tests system components, traces and repairs outages, performs diagnostics, and makes other minor hardware repair. Performs diagnostic testing and system troubleshooting of LAN equipment. Repairs and replaces LAN components as required. Upgrades system components as required.

Minimum Education: High school diploma or training from a technical school or one year of on-the-job training.

Title: ***CM Trainer***

Item No.: **V0490**

Minimum/General Experience: Minimum six years of experience in information systems development, configuration management (CM), training, or related field. At least three years of experience in developing and providing CM and end-user training on computer hardware and application software. Must have specialized hands-on experience in CM training.

Functional Responsibility: Conducts the research necessary to design, develop, and revise CM training course materials. Becomes CM training topic of choice subject matter expert. Prepares appropriate training catalog descriptions and all instructor materials (course, outline, background material, test booklets, and training aids). Prepares student-training aids such as course manuals, workbooks, handouts, course critique forms, and certificates of completion. Trains personnel by conducting formal classroom courses, workshops, and seminars. Provides tutorial sessions, one-on-one, and on-the-job training when required.

Minimum Education: Bachelor's degree in the arts or sciences or an equivalent combination of education and experience.

Title: ***Product Trainer***

Item No.: ***V0500***

Minimum/General Experience: Minimum of two years of experience in information systems development, training, or related field. At least one year of experience developing and providing commercial-off-the-shelf software product and end-user training on computer hardware and applications software. Must have specialized hands-on experience in training topic of choice.

Functional Responsibility: Conducts the research necessary to design, develop, and revise training course materials for commercial-off-the-shelf software products. Becomes training topic of choice subject matter expert. Prepares appropriate training catalog descriptions and all instructor materials (course, outline, background material, test booklets, and training aids). Prepares student-training aids such as course manuals, workbooks, handouts, course critique forms, and certificates of completion. Conducts formal classroom courses, workshops, and seminars. Provides tutorial sessions, one-on-one, and on-the-job training when required.

Minimum Education: Bachelor's degree in the arts or sciences or an equivalent combination of education and experience.

Title: ***Sr. Database Engineer***

Item No.: ***V0510***

Minimum/General Experience: Must have extensive experience and proficiency gained by direct practice in database management system (DBMS) design, organization, and structuring. Has been involved in a full range of DBMS administration and utilization from a user perspective that encompasses simplistic to complex system requirements. Must be experienced in developing and implementing DBMS, undertaking such tasks as building file structures, table referencing, mapping, data migrations, interfacing, and report generation. Must have developed complex structured databases to support technical, scientific, programmatic, and/or management-related requirements for capturing, manipulating, and reporting.

Functional Responsibility: Performs complex DBMS design, organization, and structuring. From a users perspective, identifies database features, attributes and characteristics to allow the development of user friendly DBMSs. Performs such tasks as building file structures, table

referencing, data mapping, data migrations, interfacing, and report writing. Has the technical skills to interact with engineers and technical personnel to provide DBMSs that fulfill complex requirements.

Minimum Education: Bachelor's degree in the arts or sciences or an equivalent combination of education and experience.

Title: *Database Engineer*

Item No.: *V0520*

Minimum/General Experience: Must have experience gained by direct practice in database management system (DBMS) design, organization, and structuring. Has been involved in various DBMS administration and utilization from a user perspective. Must be experienced in developing and implementing DBMSs, performing such tasks as building file structures, table referencing, mapping, interfacing, and report generation. Must have developed DBMSs to support technical, scientific, programmatic, and/or management-related requirements for data capturing, manipulating, and reporting.

Functional Responsibility: Performs DBMS design, organization, and structuring. Identifies database features, attributes and characteristics to allow the development of user friendly DBMSs. Performs such tasks as building file structures, table referencing, data mapping, rudimentary data migrations, interfacing, and report writing. Has limited technical skills to interact with engineers and technical personnel to provide DBMSs that fulfill fundamental requirements.

Minimum Education: Bachelor's degree in the arts or sciences or an equivalent combination of education and experience.

Title: *Database Management Specialist*

Item No.: *V0530*

Minimum/General Experience: Minimum six years of experience in database management systems (DBMS) administration and utilization. Must have experience in DBMS technologies such as file structure, table referencing, mapping, data migration, and/or general interfacing. Must have experience in development of structured databases to support technical, programmatic, and management-related requirements for capturing, manipulating, and reporting.

Functional Responsibility: Provides DBMS structuring, administration, and utilization support. Monitors and reviews database performance and performs DBMS tests to ensure validity of data being accessed and disbursed. In support of system development efforts, assists in the definition of file organization, indexing and mapping methods, and security procedures. When required, assists in developing and effecting data migrations. Develops, implements, and maintains database back-up and recovery procedures for various processing environments, which ensures data integrity, security, and recoverability are built into DBMS applications. Develops and structures databases to support technical, programmatic, and management-related requirements.

Prepares data and information to support such purposes as plans, schedules, issues, justifications, and status reporting.

Minimum Education: Bachelor's degree or an equivalent combination of education and experience.

Title: ***Help Desk Specialist***

Item No.: ***V0540***

Minimum/General Experience: Minimum of ten years of experience providing general business systems support including at least one year of specific experience working in a help desk environment identifying and resolving equipment and/or software-reported problems. Proficiency gained from specialized training in assigned help desk topic is highly desirable.

Functional Responsibility: Responds to telephone problem reports by working to identify and duplicate hardware and/or software-related problems. Performs fault tree analysis by determining symptomatic responses to eliminate unavailing or dysfunctional circumstances and focusing on isolating the probable cause. As necessary, coordinates problem identification with programmers, analysts, software engineers, and/or trainers to develop and offer responsive solutions to allow continued functionality.

Minimum Education: High school diploma and technical proficiency training in assigned help desk topic.

Title: ***Technical Writer***

Item No.: ***V0550***

Minimum/General Experience: Two years of general business or technical composition experience including one year of experience performing specific documentation development and preparation including graphics integration.

Functional Responsibility: Collects technical data, documentation, and information. Prepares users manuals, installation guides, customized reports, system planning documents, other technical documentation, training materials, presentation materials, and meeting/briefing agendas, minutes and action items. Provides editorial and quality assurance support for functional descriptions, system specifications, user manuals, reports, and other client deliverables to support functional area media needs.

Minimum Education: Bachelor's degree in the arts or sciences or an equivalent combination of education and experience.

Title: ***CAD Operator I-II***

Item No.: ***See Table Below***

Minimum/General Experience: Minimum of two to four years of general experience in computer-aided drafting/design. The degree of competency and extensiveness of involvement in

performing computer aided design/drafting services increases according to the minimum education and experience required for each of the *CAD Operator* levels assigned (see table below).

Functional Responsibility: Provides electronic drafting application in the preparation of graphics, drawings, and documentation. Utilizes fundamental concepts and procedures to produce two-dimensional drawings for components, equipment, and complete systems.

Minimum Education: High school diploma and technical training preferred.

Item No.	Level	Minimum Education	Minimum Experience
V0560	I	High school diploma	2 years
V0570	II	High school diploma and technical training	4 years

Title: *CAD Operator III-IV*

Item No.: *See Table Below*

Minimum/General Experience: Minimum of four to eight years of general experience in computer graphics and/or computer-aided drafting/design and specific experience with complex engineering drawings and documentation. The degree of competency and extensiveness of involvement in performing computer-aided design/drafting services increases according to the minimum education and experience required for each of the *CAD Operator* levels assigned (see table below).

Functional Responsibility: Provides electronic drafting application support in the preparation of graphics, drawings, and documentation. Utilizes advanced concepts and procedures to produce complex and/or simplistic two-dimensional drawings and three-dimensional models. May assist engineers in the development of component design and be responsible for detailed and complex engineering drawing package preparation for components, equipment, and systems.

Minimum Education: High school diploma and technical training preferred for level III and a bachelor's degree or equivalent education and experience is required for level IV.

Item No.	Level	Minimum Education	Minimum Experience
V0580	III	High school diploma and technical training	8 years
V0590	IV	Bachelor's degree or equivalent	10 years

Title: *Automated Graphics Specialist I-II*

Item No.: *See Table Below*

Minimum/General Experience: General experience is required in contemporary and abstract illustrative art forms, common drafting techniques, desktop publishing, and computer graphics application programs. Specific experience is required with complex illustrative concepts using computer-generated graphic techniques and document production techniques. The degree of

competency and extensiveness of involvement in performing automated graphics services increases according to the minimum education and experience required for each of the *Automated Graphics Specialist* levels assigned (see table below).

Functional Responsibility: Provides computer-generated graphic designs, illustrative art, and pictorials using software applications such as Corel Draw, Adobe Illustrator, PowerPoint, MacDraw, and other commercial-off-the-shelf software products. Produces automated graphics such as illustrations, drawings, slides, brochures, flyers, signs, charts, displays, photos, animation, videos, etc. Efforts will include automated desktop publishing and production of documentation that incorporates automated graphics such as reports, papers, newsletters, and manuals. Will assist managers, engineers, and technical personnel in developing and designing document layouts, presentation methods, and identifying appropriate use of multimedia techniques.

Minimum Education: Associate’s degree or equivalent education and illustrative art experience is required for level I. A bachelor’s degree or equivalent education and illustrative art experience is required for level II.

Item No.	Level	Minimum Education	Minimum Experience
V0600	I	Associate’s degree or equivalent	7 years
V0610	II	Bachelor’s degree or equivalent	4 years

Title: ***Administrative Support***

Item No.: **V0620**

Minimum/General Experience: Five years of experience in specific functional area of support.

Functional Responsibility: Provides word processing, desktop publishing, drafting/graphics integration, reproduction services, and clerical support services to fulfill the technical preparation and delivery of documentation and data needed to support technical accomplishment of assigned tasks.

Minimum Education: High school diploma and technical training for applicable functional area of support.

Title: ***CM Technical Support***

Item No.: **V0630**

Minimum/General Experience: Extensive technical experience in configuration management and product data management (CM/PDM) working all aspects of documentation. Thoroughly familiar with procedures in establishing and maintaining baselines, configuration control, and status accounting. Experience gained in commercial and/or Government documentation in support of end item hardware and/or software is desirable.

Functional Responsibility: Provides technical advice and expertise to commercial and Government personnel on the details of CM/PDM as it relates to automated system processes

and techniques for establishing and maintaining database of authority. Provides liaison with assigned commercial and/or Government technical personnel responsible for CM/PDM and provides guidance on the proper approach to gain skills in the applications for performing automated CM/PDM functions. Provides one-on-one remedial support to develop proficiency in CM/PDM automated techniques.

Minimum Education: High school diploma and specialized proficiency training in CM/PDM automated functions.

Title: ***Data Analyst I-IV***

Item No.: ***See Table Below***

Minimum/General Experience: General business experience in reviewing and evaluating data and information from databases and computer-generated documents/reports. The degree of competency and depth of capability increases according to the minimum education and experience required for each of the four *Data Analyst* levels assigned (see table below).

Functional Responsibility: Researches, reviews, and analyzes technical, financial, and management-related documents and data. Works with computer-generated reports and extracts data from databases to develop and generate information and summary data to support such activities as engineering and technical evaluations; management and financial record keeping, tracking, and reporting; and, validation of information on source documentation.

Minimum Education: High school diploma and corresponding experience for level assigned (see table below).

Item No.	Level	Minimum Education	Minimum Experience
<i>V0640</i>	I	High school diploma	4 years
<i>V0650</i>	II	High school diploma	8 years
<i>V0660</i>	III	High school diploma	10 years
<i>V0670</i>	IV	High school diploma	12 years

Title: ***Data Technician I-II***

Item No.: ***See Table Below***

Minimum/General Experience: General technical experience in extracting data and information from computer databases, engineering drawings, and technical documents. The degree of competency and depth of capability increases according to the minimum education and experience required for each of the two *Data Technician* levels assigned (see table below).

Functional Responsibility: Reviews and interprets database information, engineering drawings, and technical documentation for proper content, call-outs, and terminology. Prepares records, graphs, charts, and reports that document review findings.

Minimum Education: High school diploma and corresponding experience for level assigned (see table below).

Item No.	Level	Minimum Education	Minimum Experience
V0680	I	High school diploma	4 years
V0690	II	High school diploma	8 years

Title: **Data Entry Operator I-II**

Item No.: **See Table Below**

Minimum/General Experience: General experience in performing basic data entry. The degree of competency and effectiveness of the service professional assigned increases according to the minimum educational and experience requirements for each of the two levels of *Data Entry Operator* (see table below).

Functional Responsibility: Provides data entry and clerical support services to fulfill the establishment and/or maintenance of databases. Produces technical data and reports as needed to support technical accomplishment of assigned tasks.

Minimum Education: High school diploma or an equivalent combination of higher education and experience may be used in place of minimum number of years experience.

Item No.	Level	Minimum Education	Minimum Experience
V0700	I	High school diploma	2 years
V0710	II	High school diploma	3 years

Title: **Quality Control Specialist I-III**

Item No.: **See Table Below**

Minimum/General Experience: Experienced in establishing quality control (QC) requirements and procedures, and identifying critical inspection points for computer software, various hardware, and/or documentation throughout the development process. Must have training in the requirements of ISO 9001 (as a minimum) and must have general quality auditing experience. The degree of competency and depth of capability increases according to the minimum education and experience required for each of the three *Quality Control Specialist* levels assigned (see table below).

Functional Responsibility: Responsible for developing and establishing QC requirements and procedures, and identifying critical checkpoints. Will prepare QC plans according to the governing quality specification or dictum. Performs quality inspections following detailed QC checklists in accordance with standardized QC procedures. Any/all quality-related problems will be identified, documented, and tracked through resolution. When required, provides training to others in ISO quality program requirements to enhance the quality process.

Minimum Education: Associate's degree in the arts or sciences or an equivalent combination of education and experience.

Item No.	Level	Minimum Education	Minimum Experience
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V0720	I	Associate's degree or equivalent	4 years
V0730	II	Associate's degree or equivalent	8 years
V0740	III	Associate's degree or equivalent	14 years

Price List

All Rates are contractor site rates - Gov't Site Rates are an Additional 20% off

Labor Category	Item No.	GSA Rate	CECOM BPA
Sr. Executive	V0010	193.05	188.34
Sr. Program Manager	V0020	127.03	123.93
Program Manager	V0030	85.42	83.34
Project Manager (Specialty Software)	V0040	130.04	126.87
Project Manager	V0050	65.05	63.46
Project Manager (Advisory)	V0060	60.00	58.54
Business/Financial Analyst I	V0100	66.12	64.51
Business/Financial Analyst II	V0110	93.90	91.61
Sr. Systems Specialist	V0120	135.24	131.94
Sr. Software Engineer	V0130	161.25	157.31
Programmer I	V0140	37.03	36.13
Programmer II	V0150	51.48	50.23
Programmer III	V0160	57.76	56.35
Software Engineer	V0170	119.63	116.72
Jr. Programmer	V0180	42.03	41.00
Sr. Industrialist I	V0190	113.96	111.19
Sr. Industrialist II	V0200	136.21	132.88
Sr. CM Analyst	V0210	119.63	116.72
CM Analyst	V0220	130.04	126.87
CM Analyst I	V0230	34.43	33.59
CM Analyst II	V0240	38.78	37.84
CM Analyst III	V0250	58.43	57.01
Sr. Systems Analyst	V0260	119.63	116.72
Systems Analyst	V0270	130.04	126.87
Systems Analyst I	V0280	48.07	46.90
Systems Analyst II	V0290	56.71	55.33
Research Analyst I	V0300	35.70	34.83
Research Analyst II	V0310	35.93	35.06
Sr. Applications Engineer	V0320	135.24	131.94
Applications Engineer	V0330	119.63	116.71
Multimedia Specialist	V0340	81.05	79.07
Systems Engineer I	V0350	57.04	55.65
Systems Engineer II	V0360	80.13	78.18
Systems Engineer III	V0370	88.85	86.68
Modeling, Simulation, and Survey Specialist	V0380	44.23	43.15
Network Engineer / Telecom Specialist	V0390	75.93	74.08

Labor Category	Item No.	Rate	CECOM BPA
Interdisciplinary Engineer I	V0400	48.04	46.87
Interdisciplinary Engineer II	V0410	50.14	48.92
Interdisciplinary Engineer III	V0420	50.77	49.53
Sr. Automation Specialist	V0430	71.83	70.08
Logistics / Field Engineer I	V0440	35.69	34.82
Logistics / Field Engineer II	V0450	45.10	44.00
Logistics / Field Engineer III	V0460	52.22	50.95
Logistics / Field Engineer IV	V0470	70.89	69.16
Installation Technician	V0480	41.32	40.31
CM Trainer	V0490	148.50	144.88
Product Trainer	V0500	119.63	116.72
Sr. Database Engineer	V0510	156.05	152.24
Database Engineer	V0520	130.04	126.87
Database Management Specialist	V0530	38.06	37.14
Help Desk Specialist	V0540	33.79	32.96
Technical Writer	V0550	36.13	35.25
CAD Operator I	V0560	32.71	31.91
CAD Operator II	V0570	35.92	35.05
CAD Operator III	V0580	38.50	37.56
CAD Operator IV	V0590	40.00	39.02
Automated Graphics Specialist I	V0600	31.22	30.46
Automated Graphics Specialist II	V0610	36.92	36.02
Administrative Support	V0620	33.79	32.96
CM Technical Support	V0630	119.63	116.72
Data Analyst I	V0640	26.82	26.16
Data Analyst II	V0650	30.22	29.48
Data Analyst III	V0660	36.95	36.05
Data Analyst IV	V0670	41.14	40.14
Data Technician I	V0680	25.34	24.72
Data Technician II	V0690	32.26	31.47
Data Entry Operator I	V0700	25.31	24.69
Data Entry Operator II	V0710	33.79	32.96
Quality Control Specialist I	V0720	46.49	45.36
Quality Control Specialist II	V0730	43.39	42.33
Quality Control Specialist III	V0740	52.06	50.79

STATEMENT OF WORK

1.0 SCOPE

The contractor shall provide non-personal support-services as indicated in the task order either at the government's facilities and/or at the contractor's facilities. These services are needed to accomplish tasks that cannot be accomplished by PM personnel because of time constraints and/or expertise which is not available. The types of required services are: Project Management, System Engineering, Software Engineering, Testing, Training, Documentation Support, Administration, Quality Assurance, Integrated Logistics Support, Acquisition Management, and Information Technology support to the PM. The contractor shall provide as specified by individual task orders any and all Program Management Support Services identified within this document for Army Program Offices worldwide.

2.0 CONTRACTOR RESPONSIBILITIES

The specified tasks required of the contractor's personnel are defined below. The Government shall retain the right to refuse any person who is bid that does not meet the qualifications required to perform any specified tasks.

a. Systems Engineering: These services include general systems engineering, systems implementation planning, target development, and system test and evaluation. Products include various specifications, plans, analyses, modeling, simulations, and reports.

b. General Support Engineering: Services include reviewing engineering output in the areas of systems level operation and maintenance procedures, performance improvements criteria, tools assessments, metrics management, quality assurance, configuration management, maintenance practices, and technical orders. Assist the PM with the design, development, review, and analysis of scheduling and logistic activities. Monitor and review manuals, regulations, pamphlets, and various Army acquisition documentation for applicability to the PM.

c. Test and Evaluation: Services include coordinating the PD with the IPT on test schedule, location, review of TEMP, System Evaluation Plan, Evaluation of Test Hardware, Detailed Test Plan, Test Incident Reports, collected test data, final test System Evaluation Report, test planning, surveys, test monitoring, reports and recommendations.

d. Technical Studies, Investigations or Analyses: Services include feasibility investigations, engineering and ILS investigations, BOIP (Basis of Issue Plan) for items, cost analyses, and analyses and evaluation of equipment,

systems, COTS or GOTS software products, and market investigations, quantities of deliveries, and assemblage of items.

e. Information Technology products include database development/maintenance, CD-ROM development, software development, data automation requirements, performance/detailed specifications, plans, manuals, analyses, reports, system operations, installation, maintenance, enhancements, configuration management and training programs.

f. PM Administrative Support: Provide the following services: clerical, mail, message, and facsimile processing, reproduction services, graphics support, and a technical data library. Additionally, in a facility coordinator role the contractor shall provide assistance with physical security, clearance verification, receptionist duties, and visitor control.

g. Presentation Materials: In conjunction with the completion of tasks issued to accomplish the requirements of this SOW, the contractor may be required to provide various presentation materials. Types and quantities of the required materials will be specified in conjunction with the applicable CDRL.

h. Meeting Reports: The contractor may be required to prepare reports on selected meetings conducted exclusively between the contractor and the government. Task Orders will be issued to identify the requirement for any such reports and they will be tied to an existing CDRL.

2.1 APPLICABLE DOCUMENTS

a. Documents that are applicable to the effort associated with this Statement of Work (SOW) are listed. It should be noted that MIL-STDs referenced are for information/guidance purposes only unless specified in individual task orders. These documents are in current usage by the PM and as such serve to define further typical DoD standards and parameters, which must be considered by the contractor. The contractor shall include pertinent references to these documents in its final products. The contractor shall have a working knowledge of relevant rules, regulations, and directives in order to eliminate a lengthy learning period. This listing of Applicable Documents may not include all documents which will be required for this effort. Additional documents relevant to this effort will be specified on the individual Task Orders awarded. Changes/updates to the following list will be addressed in the respective Task Order.

DoDD 5000 Series Documentation

DoDI 7045.7, 9 Apr 87 Implementation of the Planning, Programming and Budgeting System (PPBS), Thru Change 1

DoDD 7045.14, 28 July 90 The Planning, Programming and Budgeting
System (PPBS)(Including Change 1)

DFAS-IN Regulation 37-1, 18 Sep 95 Finance and Accounting Policy
Implementation

DFAS-IN Manual 37-100-99, Financial Management – The Army
Management Structure (Fiscal Year 99)

MIL- HDBK-881, 2 Jan 98 Work Breakdown Structure

AR 70-1, 15 Jan 98 Research, Development, and Acquisition, Army
Acquisition Policy

DoD 7000.14-R, DoD Financial Management Regulation

AR 380-67, 9 Sept 88 Department of the Army Personnel Security
Program W/ AMC Supplement 1

AMC Pam 715-13, 1 May 96 C/SSR Joint Guide

b. Any Task Orders issued to the contractor which contain references to documents not listed will have those documents attached as part of the tasking documentation or will have instructions as to how to obtain the required documents. The contractor will utilize a technical library on-line when available. When the requirements of the applicable document conflict with the instructions set forth in the tasking document, the contractor should bring this to the attention of the COR/Procuring Contracting Officer.

c. The contractor shall assist in developing, maintaining and updating DODD-5000. documentation. In addition, the contractor shall assist in preparing and coordinating program documents and reports required by external agencies to include the Department of the Army Staff. The contractor shall participate in DA-level Integrated Product Teams. The contractor shall assist in preparing the milestone documentation packages to support Milestone decisions.

2.2 CONCEPT FOR OPERATIONS

a. The contractor shall support those organizational elements specified. The basic concept for the relationship of organizational elements is that of the Project Manager and Product Managers or Product Directors establishing program objectives. Managers will evaluate performance of the activities to determine if objectives are being achieved in a timely, cost effective manner. Any necessary correction or redirection will be brought to the attention of the Contracting Officer's Representative (COR).

2.3 MISCELLANEOUS

a. In addition to labor hours and ordinary materials, there will be, on an as needed basis, a requirement for several categories of materials to meet special short lead-time or short term requirements such as subcontracting, emergency purchases of supplies, TDY, inter-site travel, training, and quick reaction capabilities involving materiel packing, handling, and special shipping. Such efforts will be documented on delivery orders and will be purchased on an individual basis per the direction of the PCO.

b. Travel will include frequent local area meetings and less frequent trips to field offices and contractor facilities at a variety of locations throughout the United States. Overseas travel also may be required. Travel requirements may arise on short notice and may involve TDY.

c. Contractor personnel may be required to attend training courses at the request of the government. Training will include only those specialized courses necessary for the proper support to the project office and must have the approval of the Contracting Officer. BPA holder personnel proposed to meet the Government Statement of Work (SOW) must possess the education, experience and skills of their FSS labor category and they are expected to be able to meet the minimum requirements of the SOW without training at the expense of the Government. Training to meet such minimum requirements must be provided by the BPA holder and be included in the fixed price labor rates. In situations where the "Government User" being supported by an order under the basic contract requires some "unique" level of support beyond the minimum requirements of the SOW because of program/mission-unique needs, then the BPA holder may directly charge the cost of the training as an ODC under the task order, provided that the training is authorized in the order.

d. Emergency purchases of supplies in response to a quick reaction requirement may be required, but only with the approval of the Contracting Officer.

e. Subcontracting, including consultants, may be utilized as a contingency in order to react to short lead-time, short term or special needs requirements with the approval of the Contracting Officer.

3.0 TASK ORDER MANAGEMENT

The contractor shall designate one on-site individual who is responsible for the cost, schedule and technical performance described herein. The contractor shall determine the management, organization authority, responsibility, controls, as applicable to this project. The contractor shall schedule work and staff in an optimum manner focusing on economies and efficiencies. The contractor must remain flexible and responsive to a changing

acquisition management environment that often has new direction and revised priorities. The contractor shall plan, coordinate, and supervise all assigned tasks to insure the tasks are completed within the time required and in the quality expected. The contractor shall maintain an accurate, job time-cost accounting system that will permit the examination of the contractor's cost-effectiveness and manpower utilization in support of the Government.

3.0.1 SCHEDULE AND COST

The contractor project manager shall manage the schedule of work, which allows his work force to meet the delivery of products as specified by the government. The contractor shall determine all major and minor problems associated with the areas of cost and scheduling techniques and shall recommend solution(s) to these problems and propose alternatives or solutions to all problems identified. The contractor shall notify the government of all revisions to the engineering and management methods and techniques utilized.

3.0.2 CONTROLS

The contractor shall establish control over the use of man-hours in delivering the products of this project. The contractor shall determine the control needed to prevent the use of work codes or project numbers by unauthorized personnel.

3.0.2.1 SCHEDULE AND COST TRACKING

The contractor shall determine the method for assessing the cost, schedule, and technical performance of the work of this project. The contractor shall determine the procedures for relating cost to schedule and technical performance to assess the logical relationship of these three factors as they apply to relevant tasks. Contract Funds Status Reports are required in accordance with Task Orders.

3.0.2.2 MANAGEMENT REVIEWS

The contractor shall present and administratively support progress reviews. These reviews will be held at the PM or the contractor's facility in accordance with the Task Orders. The topics of these reviews shall include staffing, management concerns, scheduling, costs, planned procurements, identification and discussion of program issues, and status of resolved or unresolved action items from previous meetings. The contractor shall make input to the agenda.

3.0.2.3 STATUS REPORT COST AND PERFORMANCE

The contractor shall prepare and deliver a CDRL item entitled Project Status Report Cost and Performance in accordance with individual Task Orders. This report shall contain a summary of staffing by category and summary of work performed during the reporting period; updated milestones to reflect changes in the project schedule; a synopsis of all meetings and travel the contractor has conducted in performance of the contract; all approved government task revisions; a synopsis of contractor proposed contractual amendments; a detailed description of all problems, risks, or delays experienced during the reporting period, and a description of all planned activity during the next reporting period (including risks and risk mitigation for the prospective effort). These reports shall indicate performance in terms of predicted and planned progress against actual progress. Cost performance shall include budgeted versus actual expenditures.

3.0.2.4 DELIVERABLE MANAGEMENT

Individual taskers shall be maintained in an electronic form and backed-up to ensure immediate availability should a “hard-copy” (paper) version be required. Every effort will be made to provide a “paperless” environment. The contractor shall maintain a data base to track the status of taskers, deliverables/CDRLs.

3.1 PROGRAM MANAGEMENT

A principal area of focus for the contractor work force shall be to provide management assistance for many of the functions assigned to the PM and other Army Project Offices. These functions are divided among the organizational elements of the PM and other Army Project Offices. The contractor shall provide support necessary to develop schedules, cost estimates, required documentation, and analyses of all aspects of acquisition management, business management and congressional liaison.

3.1.1 PROGRAM COST ESTIMATING AND ANALYSIS

3.1.1.1 COST ESTIMATING AND ANALYSIS

The contractor shall collect, review, and update cost data for software and hardware products, and prepare other special cost estimates. Virtually all of this work is to be conducted on-site with limited travel involved. The contractor shall use spreadsheet models and other government provided tools. The Government will approve all the tools and the methodology used in cost estimating. All estimates are to be updated as required. The contractor shall provide personnel

cognizant with applicable Army and DOD costing regulations. Most importantly, all products shall be documented in order to create an audit trail for the government cost representative and shall be subject to internal and external reviews.

3.1.1.2 COST ESTIMATING

a. The contractor shall provide the services to update estimates for the PM products and other associated projects and programs based on data from the PM and other activities, which either define the system requirements in more detail or define alternate program acquisition strategies.

b. In performing these tasks, the contractor shall prepare cost estimates for:

1. Software,
2. Hardware,
3. Pre-planned, Product Improvement,
4. Testing,
5. Training,
6. Research and Development,
7. Military Construction, Fielding, Sustaining,
8. Module and Unit Costs, and
9. Miscellaneous Costs.

c. These estimates shall be developed in a timely manner and in accordance with the requirements for presentation of Life Cycle Cost estimates for Army systems. The contractor shall be able to update cost estimates to current-year dollars, then year dollars, project base year dollars, or any other base year designated by PM personnel using the most current DOD inflation indices. The contractor shall develop estimates on a funding appropriation basis and on a logistics category basis for each program.

3.1.2 ASSISTANCE IN DEVELOPING POSITIONS

The Contractor shall provide comments to program managers in areas such as:

- a. Architectural changes,
- b. New or changed prototyping strategy,
- c. Incorporation (or deletion) of new (or existing) technical requirements,
- d. Changes in planned organizational usage and ILS concepts,
- e. Sizing of impact of hardware changes on software and vice-versa, and
- f. Funding justification and cost accounting.

3.1.3 REVIEWS AND STUDIES

As required, the contractor shall provide reviews and/or studies of other program cost analyses, data base analyses, or other related activities. The contractor will assist with Integrated Product Team (IPT) meetings and shall record and publish minutes. The contractor will assist in preparing for Milestone/Program reviews and will record and publish the results. The contractor shall document findings, lessons learned, and report the same to the government in a timely manner.

3.1.4 MASTER INTEGRATED SCHEDULE

The contractor shall assist in the maintenance of a Master Program Schedule. This schedule shall be integrated in such a manner as to account for significant dependencies.

3.1.4.1 PROJECT SCHEDULE ADMINISTRATION

The contractor shall provide assistance and training to program office personnel in developing schedules for their offices and directorates. This assistance and training shall include direction in the use of MS Project 95, MS ACCESS, and methods for integrating proposed and "what-if" schedules into the project office master schedule.

3.1.4.2 MILESTONE TRACKING

When inputting proposed schedules as a subset of the Master Schedules, the contractor shall report schedule deviations for all milestones. For key milestone deviations reflecting slippage, the contractor shall identify the impact of the slippage and project office action necessary to support on-time completion of the end activity. The contractor shall assist in the importing of contractor schedules into the PM Master Schedule by project.

3.2 PROGRAM MANAGEMENT DOCUMENTATION

The contractor shall provide recommendations to the program manager for developing and/or maintaining the acquisition management documentation required by DoD 5000 series, and applicable Army regulations. A primary function of the contractor is to review all documentation for continuity, compliance, and accuracy; making recommendations for corrections and improvements. This documentation includes, but is not limited to the following:

1. Mission Need Statement,
2. Operational Requirements Document (ORD),
3. Program Life Cycle Cost Estimate,
4. Acquisition Program Baseline (APB),

5. Test and Evaluation Master Plan (TEMP)
6. Modified Integrated Program Summary (MIPS) with all annexes,
7. Integrated Support Plan (ISP),
8. Program Management Plan (PMP),
9. Defense Acquisition Executive Summary (DAES),
10. AAE/VCSA Data Book,
11. System Threat Assessment Report (STAR),
12. Critical Intelligence Parameters (CIP),
13. Cost and Operational Effectiveness Analysis (COEA),
14. Competitive Alternative Source Waiver,
15. Memorandum of Agreement,
16. Memorandum of Understanding,
17. P-Forms, R-Forms and P18a Forms,
18. Smart Charts,
19. Quad Charts,
20. Congressional Briefing Books,
21. Acquisition Strategy Reports (ASR),
22. Milestone Read – Ahead Packages,
23. Exit Criteria,
24. Integrated Logistics Support Plans (ILSP),
25. Training Development Plans (TDP)
26. Material Fielding Plans (MFP),
27. Material Fielding Agreements (MFA),
28. Risk Assessments.
29. Army Acquisition Program Executive Reporting System (AAPERS)
30. Selected Acquisition Report (SAR)
31. Solicitation documentation
32. Handbooks

3.3 ENGINEERING SUPPORT OF PM PRODUCTS

a. System, hardware, and software engineering input required on engineering changes and upgrades of the PM products is to be compatible with the common hardware/software. The contractor shall also configure hardware, software and communication systems for demonstration and fielding and will install systems both at the PM and at other sites designated by the Government.

b. The contractor shall provide engineering input to system Product Managers, Product Directors, and Action Officers in engineering analysis of computer-assisted technologies employed. For these engineering analyses, the contractor shall have working knowledge of system threat assessments pertaining to survivability in electromagnetic, ADP (data corruption), and chemical contaminated environments. The engineering analyses shall consider, but not be limited to life cycle costs (5-10 years), value engineering, and engineering changes submitted to the Project Management Office for approval.

The analyses shall also consider engineering alternatives in computer-assisted technologies such as data processing architectures/configuration for intelligence operations at Echelon Above Corps (EAC), Corps, Heavy/Light Division, and special intelligence operations ranging from sensitive compartmented information (SCI) to unclassified security levels.

c. The contractor shall evaluate design approaches to system interfaces and develop the documentation, including System Integration Plans, to ensure interface requirements are achieved. The contractor shall report problem areas and make specific recommendations to the program office to resolve problems or issues.

d. The contractor shall evaluate design approaches to hardware use (COTS, GOTS and Development), design and architectures, system interfaces, and develop the appropriate documentation. The contractor shall report problem areas and make specific recommendations to the program office to resolve problems or issues. The contractor will evaluate RAM as well as EMI/EMC implications. Engineering analyses shall consider the cost-effectiveness of implementation of high-speed, large capacity storage and retrieval technologies for highly active, moderate, and archival transaction processing; graphical/lexical processing with high-resolution, color, flat panel displays/monitors; and the implementation of wireless LANs to enhance mobility/flexibility and to reduce setup and tear-down times. The contractor will configure systems for demonstrations, tests and fieldings.

e. The contractor shall investigate and analyze the user requirements and computer resource requirements as they relate to design issues, resource limitations, and requirements allocation. All evaluations shall include recommendations and proposed solutions. The scope of this requirements analysis work shall encompass, as a minimum, the following:

1. Pertinent Army and System Requirements,
2. Engineering Change Proposals/Requests,
3. Deviations,
4. Test Plans, Descriptions and Reports,
5. Requirements Reviews,
6. System Developer Deliverables,
7. Metrics,
8. COE,
9. PEO generated requirements,
10. Performance analysis.

f. The contractor shall provide the Communications Engineering support required to acquire and field communications products under the responsibility of the Project Management Office. This support shall encompass all phases, the acquisition process, and include the evaluation and specification of

communications architectures and operational requirements, as well as the assessment of design approaches for interfacing communications products with other Army and DoD systems. This support shall also include participation in communications product planning, reviews, and evaluations; and, evaluating and participating in the final test accreditation.

3.3.1 MODELING AND SIMULATION

The contractor shall have a working knowledge of modeling and simulation (M/S) software and systems used within the Services and in particular, the Army. The contractor shall perform analyses of the various M/S capabilities and recommend the best approach to employing the existing capabilities as well as recommending a course of action for development of M/S technologies. The contractor shall also have knowledge of industry M/S capabilities that could be employed for the benefit of system trade studies. The contractor shall maintain any M/S planning documents and provide briefings when called upon to coordinate M/S applications for the systems under development. The contractor shall act as the point of contact for M/S matters as they may be addressed for the various programs.

3.3.2 REQUIREMENTS ANALYSIS AND VALIDATION

Using the government approved Operational Requirements Document and the User Functional Description Document the contractor shall investigate and analyze the user requirements and computer resource requirements as they relate to design issues, resource limitations, and requirements allocation. All evaluations shall include recommendations and proposed solutions. The scope of this requirements analysis work shall encompass, as a minimum, the following:

1. Pertinent Army and System Requirements,
2. Engineering Change Proposals/Requests,
3. Deviations,
4. Test Plans, Descriptions and Reports,
5. Requirements Reviews,
6. System Developer Deliverables,
7. Metrics, and
8. Requirements Verification and Validation.

3.3.3 DESIGN SUPPORT

a. The contractor shall prepare evaluations of specifications and drawings, including revisions; and participate in design reviews and audits of those documents. The contractor shall prepare for and attend meetings, requirements reviews, design reviews, working groups, and briefings related to system and software development, and security accreditation and certification assess progress against the requirements. The contractor shall report issues and/or

problems and recommend to the PM specific actions to resolve them. The contractor shall evaluate and recommend solutions to security issues and problems; and will review PM actions items and problem or discrepancy reports.

b. The contractor shall investigate and analyze the developer's design approach, methodology, processes, and ability to efficiently and effectively meet system requirements All evaluations shall include recommendations and proposed solutions. The scope of this work shall encompass, at a minimum, supporting the following:

1. All aspects of the system design,
2. Formal and Informal Design Reviews,
3. System Developer Deliverables,
4. Metrics,
5. Test Plans, Descriptions and Reports,
6. Code Analysis/Inspection,
7. Human Factors Engineering,
8. Prototyping,
9. Access COTS and GOTS ,
10. Develop Algorithms,
11. Define Data Flow Processes.

3.3.4 DEVELOPMENT

The contractor shall assist the Government in the oversight of primary contractors and their development of the PM sponsored products. Additionally, the contractor , at the direction of PM 's Product Managers, shall evaluate COTS and GOTS products, prototype system capabilities, assess the prime contractor's development processes for compliance with government approved guidelines, and evaluate contractor developed products.

3.3.4.1 DOCUMENT REVIEWS

a. The contractor shall review all development contractor produced documentation, as well as other Army and DoD documentation, considering at least the following factors as appropriate:

1. Compliance with contract standards/requirements;
2. Compliance with PM directives;
3. Adequacy in supporting system development, quality, test, delivery, and field support;
4. Changes/modifications; and
5. Impact on other systems and/or subsystems..

b. All reviews shall be in the submission of technical reports, which shall include, as appropriate, recommendations and proposed solutions.

3.3.4.2 QA AND CM

The contractor shall assist in the evaluation of and participate in software-related QA and CM processes and products. All reports shall include recommendations and proposed solutions. These processes and activities are discussed in detail in D.3.4 and shall include, but not be limited to the following:

- a. FCA/PCA,
- b. Software Management and Change Processes,
- c. Configuration Control Boards,
- d. Developer QA and CM Procedures,
- e. Developer QA and CM Results,
- f. Production Item Inspections
- g. Production Qualification Testing
- h. Follow-on Test and Evaluation
- i. First Unit Equipment Inspections

3.3.4.3 TEST WITNESSING

The contractor shall attend system and software testing, and assist in the evaluation of the developer's associated test processes, organization, test plans and procedures, and test results. All evaluations shall include recommendations and proposed solutions.

3.3.4.4 SOFTWARE METRICS

a. The contractor shall collect, analyze, and report metrics for at least the following areas:

1. Software Faults,
2. Requirements Validation, and
3. Computer Resource Utilization.

b. Contractor evaluations of metrics data shall provide a risk assessment and include recommendations and proposed solutions for minimizing risk.

3.3.5 TEST AND EVALUATION

Test and evaluation of PM systems is an integral and high visibility facet of the development effort. Just as the traditional systems development arena is becoming evolutionary, so must the test and evaluation activities. Because new regulations and guidance now permit combining types of tests and stresses the concept of continuous evaluation, for the purposes of this SOW, test and evaluation includes the following activities:

- a. Developmental or Technical Tests,

- b. Operational Tests,
- c. Government Acceptance Tests,
- d. Contractor Tests,
- e. Qualification Testing,
- f. Regression Testing,
- g. Accreditation and Certification Testing,
- h. Security Testing,
- i. Interoperability and Joint Interoperability Testing,
- j. PM systems participation in other systems test activities, and
- k. Exercise/Demonstration activity in support of continuous evaluation.

3.3.5.1 SUPPORT TEST PLANNING

The contractor shall review and analyze existing test planning documentation and procedures to ensure their correctness and adequacy. The contractor will update existing documentation or draft and publish the necessary plans and procedures that document the PM testing program, incorporating command direction, and regulatory and statutory guidelines. The contractor will assist in the development and maintenance of integrated test schedules. As these documents and schedules impact on all PM directorates and many external elements, the contractor shall assist in ensuring that proper coordination is effected throughout the development process.

3.3.5.2 SUPPORT TEST RELATED MEETINGS AND CONFERENCES

The contractor shall assist in the coordination of test events with other government agencies. Additionally, the contractor shall assist in the preparation, coordination, and conduct of test related meetings sponsored by the Project Office. The contractor shall attend both contractor and government operational and technical meetings, design reviews, working groups, and briefings related to testing. When directed, the contractor shall prepare, coordinate, and publish minutes documenting these meetings. For meetings outside of the Project Office, where minutes are not appropriate, significant test related issues discussed shall be documented in trip reports. The contractor shall also make recommendations to the government based on topics and issues addressed at these meetings.

3.3.5.3 REVIEW TEST RELATED DOCUMENTATION

The contractor shall review all contractor and government test related documentation. These reviews shall be accomplished in a timely and accurate fashion. Particular attention must be paid to information presented, such as system details, capability statements, numerical data, and schedules, to ensure they are properly stated. Inaccurate data in these documents could cause serious problems during test and evaluation activities. Comments based on

reviews of these documents shall be prepared accurately and constructively and forwarded to the originator in a timely manner.

3.3.5.4 DEVELOP TEST RELATED DOCUMENTATION

The contractor shall develop, coordinate, and, after Government approval, publish test related documentation, specifically the Test and Evaluation Master Plan (TEMP). The TEMP must accurately describe the systems under development, the requirements that will be satisfied by this development, the test events, and the integrated schedule. The TEMP must be periodically reviewed to ensure it accurately reflects all current aspects of PM systems development. The contractor shall also, as required, prepare other test related documentation either separately or as part of documentation prepared by other PM or test community elements to include test plans, test procedures, and test reports.

3.3.5.5 SUPPORT CONDUCT OF TESTS

The contractor shall provide support to the government during the conduct of tests. While Federal regulations prohibit contractor participation in technical and operational test activities, it has proven beneficial to have contractor support on site during test conduct to assist with test related activities and to serve as a liaison with the Project Office. Further, the contractor shall support unit and system, integration, and formal acceptance testing. Due to the rapid pace and short duration of test events, quick resolution to problem situations is essential. The contractor shall provide the support required to assist in the resolution of these situations. During the conduct of the test, periodic status reports shall be provided to the Project Office by the contractor, preferably by e-mail or voice mail.

3.3.6 INSTALLATION AND CHECKOUT

The Contractor shall assist the PM with the installation and checkout of Government sponsored products. Once a product baseline has been established and approved by the Government, the contractor shall coordinate between PM Product Managers and the host site to facilitate the installation of designated products. The contractor, as a minimum, shall accomplish the following activities:

- a. Coordinate and Schedule product installation,
- b. Conduct site surveys,
- c. Submit site survey reports,
- d. Install product at Government designated site,
- e. Test and validate system operations, and
- f. Submit site installation report.

3.3.7 PROTOTYPING ENGINEERING AND SOFTWARE EVALUATION FACILITY

The contractor shall provide engineering support to develop, build, and test prototype hardware and software integration efforts in support of developmental efforts. Additionally, the contractor personnel will perform equipment/hardware configuration tasks, which support prototyping activities, demonstrations, systems configuration and test activities. Related to this task, the contractor shall manage the day-to-day operations of the Software Evaluation Facility. Support shall include systems design and development, configuration management, property accountability, and access control.

3.3.8 DEMONSTRATIONS AND EXERCISES

Because of the evolutionary methods being employed for system development, the PM will be deploying various products to field units in support of demonstrations and exercises. The objective is to provide timely feed back to the product developer. To this end, the contractor shall support the Government in the conduct of demonstrations and exercises by facilitating system configuration, defining interoperability requirements, establishing communications, coordinating events, and providing technical assistance to organizations and end users. At the conclusion of each demonstration or exercise, the contractor shall submit a technical assessment citing both positive and negative aspects of the product being deployed.

3.4 QUALITY ASSURANCE, SOFTWARE QUALITY ASSURANCE AND CONFIGURATION MANAGEMENT

a. The services to be provided by the contractor encompass Systems Quality Assurance (QA), Software Engineering Quality Assurance (SQA), and administration of the Configuration Management (CM) program for the PM . The contractor shall assist in achieving the PM quality goals and productivity objectives for each PM sponsored system. The contractor QA and CM staff shall support:

1. Systems quality assurance (QA) -- for hardware processes,
2. Software quality assurance (SQA), and
3. Configuration management (CM) -- for hardware/software

b. The contractor shall exploit appropriate PM management information system tools, including the PM Intranet resources, in support of these efforts. The goal is to minimize the effort spent in technical review and audit fact-gathering and report writing, and to maximize the time available for analyzing and reacting on the review/audit output results and conclusions.

3.4.1 GENERAL QA/SQA AND CM RESPONSIBILITIES

The following are tasks required of the contractor's QA/SQA/CM staff.

a. QA/SQA/CM Technical Plans and Documents: The PM will employ the standard configuration management practices and procedures identified in Mil-Std-973, MIL-STD_100 for Interpretation of Drawings and MIL-T 31000 for drawings.

b. QA/SQA/CM Support Engineering: The staff shall review and audit specifications, plans, engineering studies and analyses, and general contract data requirement deliverables. Review/audit products also include reviewing prime contract engineering output in the areas of systems level operation and maintenance procedures, performance improvements criteria, tools assessments, metrics management, configuration management, technical orders, maintenance practices, and technical orders.

c. Software QA And CM Processes: These processes and activities include, but are not limited to the following:

1. Functional Configuration Audit/Physical Configuration Audit (FCA/PCA),
2. Software management and change processes,
3. PM, and designated associate contractor Configuration Control Boards (as technical advisor),
4. Develop QA and CM procedures, and
5. Preparer of QA and CM activity results (Delivered reports include recommendations and proposed solutions).

d. Independent Verification and Validation (IV&V)Support: An IV&V team shall ensure via testing and validation procedures that the fielded system meets requirements and objectives, and shall help to reduce total system life cycle cost by promoting the discovery of design errors early in the system development. Products include reports, assessments, analyses, reviews, and independent tests.

3.4.2 CONFIGURATION MANAGEMENT

The contractor shall provide configuration management assistance for hardware and software to the PM. These efforts shall include but not necessarily be limited to baseline management, configuration management and configuration control audits. The contractor shall define a standard for "configuration management status accounting" record-keeping for the PM . The administration of these records will be retained by each of the PM product offices; however, the contractor shall assure the validity of the baseline configuration control

documentation through periodic audits, and assistance to the Product Managers in protecting their account status.

3.4.2.1 SYSTEM SUPPORT

a. The contractor shall review and analyze engineering drawings and associated lists for technical adequacy and conformance to contractual requirements and prepare a report detailing all discrepancies.

b. The contractor shall technically analyze new system concepts, test methods and Quality Assurance (QA) provisions prior to incorporation into the drawing package. Review maintenance operations for equipment in the field for technical adequacy and completeness. The contractor shall prepare a report detailing any inadequacies found and include recommendations for the resolutions of discrepancies.

c. The contractor shall maintain and update system documentation (i.e. system/subsystem and Software Unit Specifications, Drawings, Models, CAD/CAM Data, User, Computer Operation, and Program Maintenance Manuals.) Data Bank Maintenance and Operations Supports.

d. The contractor shall provide and supervise qualified contractor personnel on-site to maintain and operate data repository hereinafter referred to as the Data Bank. As required, the contractor shall:

1. Update and maintain hard copy, microfilm, and computer/data files to include drawings, configuration change documentation, specifications, standards, and technical manuals.
2. Perform routine preventative maintenance on a variety of on-site reproduction equipment (i.e., weekly cleaning, changing of chemicals, cleaning drums, etc.)
3. Perform generation and reproduction services (i.e., scan existing aperture cards to digital raster file, working size drawings/hard copy from aperture cards, bluelines, sepias, mylares, photopositives, viewgraphs, and reproduction and biding of technical manuals.
4. Establish and maintain a library of technical reports generated by and relevant to programs.
5. Provide graphics, and reproduction support for the presentation maintenance, and updating of specifications, standards, handbooks, Data Management Manual, and Data Management Standard Base.
6. Perform review and analysis of technical documents for proper format using the applicable specifications and standards for guidance.

3.4.2.2 STANDARDIZATION

The contractor shall provide support in the preparation, revision, amendments, and conversion of standardization documents.

3.4.2.3 BASELINE MANAGEMENT

The contractor shall maintain an active baseline file, updating the baselines as new items are approved. The contractor shall assist PM in monitoring the hardware and software contractors' configuration management efforts and make recommendations for correcting deficiencies and making improvements. The contractor shall conduct and/or participate in Physical Configuration Audits (PCA), Functional Configuration Audits (FCA), and Configuration Item Verification Review (CIVR) for selected projects.

3.4.2.4 CONFIGURATION CONTROL

a. The contractor shall review and analyze proposed technical changes to the PM functional, allocated, and product baselines, including new interfaces, draft impact assessments, and prepare comments from other PM contractors for presentation to the appropriate PM Configuration Control Board (CCB).

b. The contractor shall support the Configuration Control Board (CCB) actions on selected hardware and software projects, including impact of proposed changes, establishment of Configuration Baselines, preparation of Engineering Release Record (ERR) packages and implementation of approved ERR actions. Hardware projects, including all systems, models, and components identified for formal configuration control.

c. The contractor shall prepare recommendations for proposed upgrades and required documentation for the appropriate PM CCB, receive and process these potential baseline changes, place them under configuration control, and submit these to the Product Managers, or the appropriate PM Configuration Control Board (CCB), for consideration/approval.

d. The contractor shall review, evaluate, and maintain Configuration Management Plans (CMP) submitted to PM by contractors for control of hardware and software, and make comments for change as required. The review shall be conducted by the contractor using Mil-Std-973 as a guide. Reports of findings shall be submitted in a CMP Evaluation Report. The contractor shall prepare and revise hardware and software CMPs as requested by PM.

3.4.2.5 ENGINEERING CHANGES AND VALUE ENGINEERING

a. The contractor shall provide engineering input to Product Managers as value engineering changes (VECP), and proposed engineering changes

(P/ECP). The analyses submitted may consider engineering alternatives in computer-assisted technologies.

b. The contractor shall prepare documents for configuration management actions (i.e., Engineering Change Proposal (ECP), Request for Waivers (RFW), Request for Deviations (RFD), Notice of Revisions (NOR), Specification Change Notice (SCN), Drawings, Models, CAD/CAM data, and reproductions).

3.4.3 QUALITY ASSURANCE MANAGEMENT

The contractor shall manage the PM quality assurance program to be in consonance with the directed “(Software) Quality Assurance Plan(s)”, or Contract Statements of Work (SOW), of the various contractors designated by the PM Product Managers. Default quality assurance methods, practices and procedures shall be derived from ISO 9000-1 and 9003, and software planning standards.

3.4.3.1 QUALITY ASSURANCE METRICS

3.4.3.1.1 SOFTWARE QUALITY METRICS

The contractor shall coordinate with each of the PM Product Managers to assist them in developing a “best practices” quality metrics process. A key emphasis of the “best practices” will be the identification of initiatives for product, progress and process improvements, and the control mitigation of technical/performance risks. The contractor shall receive Product Manager development contractor software and technical metric reports periodically (via deliverable contract data), and evaluate these for product, progress and process improvement. Software metrics shall comply with the guidelines established in DA Pamphlet 73-1, Test and Evaluation Procedures and Guidelines.

3.4.3.1.2 RELIABILITY, AVAILABILITY AND MAINTAINABILITY METRICS

The contractor shall assist the government with the maintenance and operation of trade-off model. The contractor shall interface with the prime contractor in collecting technical performance measures (TPM) data and analyses from predicted data and test data, evaluate allocated RAM requirements and system design to assess the ramifications to operational requirements and mission effectiveness, and recommend to the PM specific changes to satisfy SSS requirements.

3.4.3.1.3 TEST SUPPORT

The contractor shall attend QA related testing, analyze test anomalies, recommend corrective action, witness "tear down" actions, report results and

recommend actions to the appropriate PM Product Manager office to resolve non-compliance with requirements.

3.4.3.2 QUALITY ASSURANCE ANALYSES

a. The contractor shall perform analyses of hardware and software, with emphasis on process control, in order to determine whether the nominal process control and software assurance requirements are being satisfied. The contractor shall report development progress, problems, and recommend actions to the appropriate PM Product Managers to improve QA performance.

b. The contractor shall assist the Readiness Management Division Logistics Supportability functions by ensuring that PM quality assurance plans meet information collection and delivery requirements needed for Material Release; further, that these provide input to Materiel Release actions and all other Product Assurance activity related to Type Classification.

3.4.3.3 QUALITY ENGINEERING

The contractor shall perform quality engineering analyses and review environmental testing and qualification acceptance testing, review Software Anomaly Reports (SAR), Software Problem Reports (SPR), Test Incident Reports (TIR), Quality Discrepancy Reports (QDR), and provide analysis and recommendations where appropriate. Analyses shall include development of solutions where quality or reliability deficiencies exist.

3.4.3.4 TECHNICAL REVIEWS AND AUDITS

The contractor shall participate in design reviews and audits at the prime contractors' facilities, at the PM, and other locations, as necessary to assess progress against QA/SQA requirements. The contractor shall review and evaluate engineering, technical, and planning documentation for current and advanced systems. The documentation reviews may include: system specifications, design specifications, technical support documents, operational documents, test documents, and maintenance documents. As a minimum, the contractor shall provide identification of technical deficiencies, inconsistencies and obsolete methodology and data in documentation review.

3.4.3.5 DOCUMENT REVIEWS

a. The contractor shall review contractor produced documentation, as well as other Army and DoD documentation for compliance with contract standards/requirements and adequacy in supporting system development, quality, test, delivery, and field support.

b. All reviews shall include recommendations for improvement and proposed solutions. The following list characterizes the type of documents to be reviewed:

1. System Specifications,
2. Interface Requirements Specifications, or, Interface Control Documents,
3. Prime Item Design or Product Specifications,
4. Software and Hardware Requirements Traceability Reports,
5. Software Requirements Specifications,
6. Software Development Plan,
7. Software Metrics and Anomaly Reports,
8. Software Quality Program Plans, and Reports,
9. Software User Manuals,
10. Computer Software Operator Manuals,
11. Software and System Test Plans, Procedures, and Reports,
12. Version Description Documents,
13. Configuration Management Plans,
14. Risk Management Plans, and Reports.
15. Software Development Folders, and
16. Requirements Trace Matrix.

3.4.4 DIRECTED INDEPENDENCE VERIFICATION AND VALIDATION (IV&V)

3.4.4.1 DEVELOP SOFTWARE IV&V AUDIT/CHECKLIST FORMS

The contractor shall develop forms, based upon applicable project standards and procedures, which will be used to assess prime contractor work in the areas of software product development, quality assurance, configuration management, and test and evaluation.

3.4.4.2 AUDIT DEVELOPMENT CONTRACTOR SOFTWARE QUALITY ASSURANCE AND CONFIGURATION MANAGEMENT (SQA/CM)

The contractor shall audit SQA/CM participation in developer activities. SQA/CM effectiveness and compliance with project standards shall be evaluated. Technical reports shall be to document areas of concerns and recommendations for improving the evaluated contractor's SQA/CM effectiveness.

3.4.4.3 CONDUCT INDEPENDENT TESTING

When requested by the Product Manager, the contractor shall test the software against test issues and criteria established by government technical and operational test organizations. The objective of this testing shall be to identify functional, performance, or security deficiencies which could impact on the ability of the system to perform to government standards. The contractor shall develop

and maintain independent test plans and procedures. The test planning shall include:

1. Equipment requirements and configuration for test,
2. Deviations from target hardware and software configurations,
3. Test structure,
4. Test schedule,
5. Test limitations,
6. Test dependencies,
7. Data collection,
8. Operations/processes required to evaluate data,
9. Reporting of results,
10. Failure reporting, and
11. Maintenance of test and system logs.

3.5 INTEGRATED LOGISTICS SUPPORT

3.5.1 INTEGRATED LOGISTICS SUPPORT MANAGEMENT

The contractor shall maintain ILS management documentation to support type classification, integrated logistics support, logistics engineering, material release, materiel fielding, supportability, sustainment, Integrated Logistic Support Plan (ILSP), and other long range plans and studies as necessary in accordance with the appropriate regulations for PM sponsored systems. In support of these initiatives, the contractor shall develop milestone schedules and maintain continuity of all ILS deliverables.

3.5.2 LOGISTICS SUPPORT ANALYSIS (LSA)

The contractor shall provide technical assistance to ensure LSA and its reports are used in the development of PM sponsored systems. The contractor shall review, analyze, assess, and report on the prime contractors' LSA documentation being developed for PM sponsored systems. LSAR Master Files will be available.

3.5.3 MAINTENANCE PLANNING

The contractor shall assist in the development of maintenance concepts and plans which will describe the levels of maintenance to be used in fielding. The Contractor shall review all related system hardware contracts and all other Government provided planning ensure that all maintenance requirements and factors are captured and documented for PM sponsored systems. The contractor shall participate in all Logistics and Maintenance demonstrations, as well as ILS Management Team meetings and submit appropriate technical reports when requested by the Government.

3.5.4 TECHNICAL PUBLICATIONS

The contractor shall assist the Government in the compilation, review, and verification and validation; and, as directed by the Government, develop Technical Manuals and Documentation for PM sponsored systems. Assist the government in verification and if required with contractor validation.

3.5.5 LOGISTIC DEMONSTRATION/MAINTAINABILITY DEMONSTRATION

The contractor shall provide Subject Matter Expertise (SME) input to various logistics test and evaluation documents for PM sponsored systems. These include the logistics demonstration and the maintainability demonstration and various technical tests. The contractor shall assist in the development and confirmation of the adequacy of the system support package. The contractor shall develop fault insertion lists, red-line technical documentation, and develop ILSP.

3.5.6 PACKAGING, HANDLING, STORAGE TRANSPORTATION PLAN (PHST)

The contractor shall provide inputs to the PHST requirements for PM sponsored systems.

3.5.7 MATERIAL FIELDING

The contractor shall provide input in creating and updating the material fielding, delivery plans, and associated documents for PM sponsored systems. These actions shall include the necessary letters of notification, MOAs, conducting of site surveys, and assistance to the receiving units to provide the appropriate planning for facility requirements.

3.5.8 SUPPLY SUPPORT

The contractor shall provide assistance in the provisioning process and support in evaluating (1) the spares requirements and parts standardization and (2) the range and quantity of support items necessary to operate and maintain a system for the first year fielded. The contractor shall participate in all phases of the development of the sparing concepts through SSP and SSPCL development and validation to sustainment. The contractor shall support ILSMT meetings, participate in provisioning conferences, provide input to the sparing concept, ensure provisioning is accomplished during material fieldings and participate in demonstrations and tests. The contractor shall prepare and evaluate lessons learned based on fielded systems and post-production support.

3.5.9 TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE)

The contractor shall provide input to the development and assistance with the evaluation of TMDE requirements for sponsored products. Test Requirements Documents will be provided.

3.5.10 TRAINING OF SPONSORED PRODUCTS

The contractor shall provide training support for PM sponsored products. Training initiatives shall address the development, implementation, and conduct of training for operators, supervisors, maintenance, and managers; evaluation of contractor developed training products; development of the Qualitative and Quantitative Personnel Requirements Base of Issue Plan; the Outline Individual; and Collection Training Plan, and New Equipment Training Plans. All training shall be developed in accordance with and evaluated against the tenets of Instructional Systems Development (DA Pamphlet 350-30) and MIL-STD-1379D, Contractor Training Programs. The contractor shall assist in coordination and scheduling of all training activities to ensure responsiveness to PM requirements. The contractor shall investigate and develop alternatives to the standard classroom methodology, i.e., distance learning and virtual classroom. As a minimum, when directed by the Product Manager, the contractor shall develop the following courseware:

1. Task and Skills Analyses,
2. Training Plans,
3. Instructor Lesson Plans,
4. Student Guides,
5. Audio/Visual Aids,
6. Computer Supported Learning Activities (Training Scenarios),
and
7. Student Course Evaluation Forms.

3.5.11 DESIGN INFLUENCE AND INTEGRATION OF LOGISTICS

The contractor shall provide technical advice as it pertains to design reviews (IPRs, PDRs, CDRs, Monthly, and Quarterly reviews, etc.) for PM sponsored systems to insure that all logistical aspects have received appropriate consideration, advise the government of the full range of logistic impacts of system Training Software from requirements definition through acquisition and evaluation, and perform Logistics Engineering design trade-off analysis and support the evaluation of Operations and Support cost impacts on design changes. The contractor shall develop program test plans and procedures for an integrated diagnostics assessment of program support. The contractor shall provide reports of its evaluations of the prime contractor's efforts in achieving objectives in the above areas of ILS.

3.5.12 PROVISIONING

The contractor shall report on its technical analysis of provisioning requirements for PM sponsored systems.

3.5.13 STANDARDIZATION AND INTEROPERABILITY

The contractor shall evaluate and identify actions necessary to ensure standardization and interoperability of the system within Army, DoD and NATO and other allied countries for PM sponsored systems.

3.5.14 TRANSPORTABILITY PLANNING AND DOCUMENTATION

The contractor shall provide input to the transportability planning and the development of documentation under the DoD Engineering for Transportability for sponsored products. The contractor will participate in pre-material release activities and will coordinate for releases and approvals.

3.5.15 MANPOWER AND PERSONNEL INTEGRATION

The contractor shall assist the government in monitoring the development and evaluation of the MANPRINT aspects of the sponsored products. The contractor will provide human factor recommendations and participate in field surveys and design reviews.

3.6 INFORMATION TECHNOLOGY

The contractor shall support all computer-related management activities. The contractor's duties will include hardware research, specification, and installation. The contractor will also include software research, installation, and training of users. The contractor shall maintain a Help Desk facility to resolve users' problems and to track such activities. The contractor shall work towards minimizing redundant and paper-intensive tasks by implementing computer-based solutions where appropriate. Also, given the growing usefulness of the Internet in general and the World-Wide Web in particular, the contractor will facilitate access to Internet-based resources, and work to provide information to others – remote members of the Program Office as well as the general public – using this medium.

3.6.1 SYSTEMS MANAGEMENT

a. The contractor shall ensure that systems be available 95% of the time or as required by individual task orders. The systems shall be available twenty-four hours a day, seven days a week. The contractor shall provide notification to the PM POC in the event that a system or systems will be unavailable for any period of time greater than 15 minutes. The contractor IT Manager or his

representative shall attend all meetings related to the LAN. All contractor IT managed systems shall conform to security guidelines described below under Information Security. When enhancements, upgrades or additional systems are required the contractor shall work with the PM POC to clearly identify the requirements. The contractor shall then develop enhancements, upgrades or additional systems according to Government approved design plans.

b. The contractor shall provide technical staff for PM Network Services operations. This will include server(s) system administration, Help Center support, PC technical support for hardware and software maintenance, and maintenance of the on-line filing system.

3.6.2 LAN ADMINISTRATION/MAINTENANCE

The contractor shall support a PC-based workstation for each employee assigned to the PM. The workstations shall be configured to access the LAN and software packages for office productivity (spreadsheet, word processing, scheduling), electronic mail and internet web-browsing shall be provided and configured. The contractor shall provide remote access to the PM LAN for authorized personnel. The remote access shall allow users to access electronic mail, shared files on the LAN and internet connectivity. The contractor shall conduct various type of engineering and ILS investigations and efforts to support the work described herein.

3.6.3 SUPPORTING SERVICES

a. The contractor shall provide the capability to print documents from any LAN workstation to a network printer.

b. The contractor shall provide public hard disk space on the network servers for commonly used file access.

c. The contractor shall provide individual hard disk space on the network servers enabling users to backup workstation data and providing supplemental hard disk space.

d. The contractor shall maintain PM databases. Database maintenance shall include access maintenance, database backups and modifications as required.

e. The contractor shall develop and maintain a PM intranet for simple and efficient file management and sharing within the PM.

f. The contractor shall maintain a PM LAN configuration database. The contractor shall maintain a system for dealing with assistance requests. The system must address acknowledgement of all requests within one hour, a

procedure for service, based on criticality, and an estimate of time to repair. Equipment that continues to cause user problems should be identified for repair or replacement.

g. The contractor shall provide Helpdesk support during the core hours of 7:00AM to 4:30PM or as required on specified Task Orders . The contractor shall maintain a service call database that tracks all IT related service calls. Contractor Helpdesk personnel shall be available by phone and electronic mail during core hours and shall enter all service calls into the service call database and notify other members of the contractor of the call. The contractor shall respond to all service calls within one hour and resolve all service issues.

3.6.4 INTERNET SERVICES

The contractor shall coordinate with the POC's of government facilities to ensure connectivity to the Internet. This connectivity will allow basic TCP/IP services to be used between PM and hosts on the Internet. These include Telnet, FTP, and HTTP protocols. The contractor shall maintain a Firewall between the PM LAN and the Internet to prevent unauthorized access to local machines. The Firewall allows several basic TCP/IP services to pass through it after authorization and packet analysis, but the Contractor shall create additional proxy services to allow other TCP/IP protocols to pass through it for mission-related activities. Maintenance of the Firewall necessitates the maintenance of local a Domain Name Service, which shall be run on two different servers. The contractor shall provide Simple Mail Transfer Protocol (SMTP) connectivity between PM and the Internet via the connection through Fort Belvoir.

3.6.5 WEBSITE MAINTENANCE AND DEVELOPMENT

The contractor will maintain a web server for the hosting of PM World-Wide Web pages for the public. The contractor shall update existing Web pages and create new ones as needed. They shall track web site usage statistics and present reports based on those numbers.

3.6.6 HARDWARE AND HARDWARE MAINTENANCE

a. The contractor shall perform hardware maintenance for all contractor IT managed systems and shall determine whether the most cost effective method of repair is off-site or on-site. The contractor shall coordinate with the PM Property Book Officer on all off-site repairs, equipment replacement, the return of equipment to vendors, or the movement of equipment from one work station to another.

b. The contractor shall specify the required connection equipment (such as switches, dial-in modems, VTC equipment, printers, and NIC cards). The contractor shall identify any required new desktop or portable hardware.

3.6.7 SOFTWARE

The contractor shall determine whether Standard COTS software will be provided to support all current and planned PM processes.

3.6.8 FILING SYSTEM

The contractor shall maintain the filing system on the appropriate server(s). A standard operating procedure will be written and training provided to facilitate rapid acceptance of this filing system by all PM personnel. The filing system will include an open "users" section, a protected "public" section, and an official storage "archives" section. Routine backups and files housekeeping procedures should be part of the system.

3.6.9 ELECTRONIC MAIL AND CALENDARS

The contractor shall utilize the Exchange server and Outlook, the PM network service will allow PM (core and matrix) personnel to receive email and view appropriate calendars. The PM email address will remain the same.

3.6.10 REMOTE OPERATIONS

The contractor shall ensure the PM has excellent remote access to the Expanded LAN Support System. The present system is a high-speed multi-user modem-based dial in system.

3.6.11 VIDEO TELECONFERENCE CENTER

The contractor shall provide support and assistance with the VTC center(s): monitor equipment to assure it is operational, report problems that require repair or replacement to the government, assist personnel in the set up of VTCs and operation of equipment.

3.6.12 BRIEFINGS AND REVIEWS

The contractor may be asked to attend briefings related to the Expanded LAN Support System. There will be a kick-off meeting shortly after the award of the contract, briefings in conjunction with system decision points, and quarterly in process reviews to summarize status, identify outstanding issues and discuss optional solution with the government.

3.6.13 INFORMATION SECURITY

The contractor shall be responsible for information security on the PM LAN and shall ensure that all systems are current and any security patches or fixes are applied. The contractor shall follow security guidelines as provided by

the Army Computer Emergency Response Team (ACERT). The contractor shall follow security directives from the PM.

3.6.14 USER TRAINING

The contractor shall provide familiarization computer training. The primary emphasis will be on desktop operating system, word processing, spreadsheet, graphics, electronic mail and scheduling packages. The contractor shall design training programs on the approved commercial or agency supplied software packages. This training shall be of sufficient length and detail to allow the user to acquire different levels of expertise as desired.

3.7 PROJECT ADMINISTRATION SUPPORT SERVICES

3.7.1 GENERAL ADMINISTRATIVE REQUIREMENTS

The contractor shall perform the following administrative services in support of PMs. The contractor's employees shall remain under the contractor's direct supervision at all times. Although the Government will coordinate directions and tasks within the scope of the contract, detailed instructions for contractor employees shall remain the responsibility of the contractor.

3.7.1.1 CLERICAL ADMINISTRATIVE SUPPORT

The contractor shall support the project offices with an administrative support pool for typing, word processing, and data entry tasks. This support pool will involve no more than one or two personnel and will be physically separated from the government personnel. The supervision and direction of the personnel in that pool shall remain the responsibility of the contractor. All word processing tasks requested by PM must be accompanied by a task order form available at the service desk. The requester's government supervisor will establish a priority, sign the work order, and leave it with the service desk. Completed work is passed back to the government through the service desk operated by the contractor. This individual is not to perform any of the typical secretarial functions such as filing, telephone answering, travel coordination, or any other task in support of any specific government worker.

3.7.1.2 MAIL RECEIPT AND DISTRIBUTION

The contractor shall process all official incoming and outgoing mail, documentation and packages, sort and provide for appropriate distribution, collect all official outgoing mail and packages, and deliver to mail room or to appropriate personnel in the PM. In addition, the contractor shall operate a full service distribution center.

3.7.1.3 REPRODUCTION AND EXPENDABLE SUPPLIES

The contractor shall provide central reproduction service and maintain satellite copier stations as appropriate for individual task orders. The contractor shall manage all reproduction activities for office personnel, and maintain and operate reproduction machines. In addition, the contractor shall order, control, and maintain adequate stock levels issue; and account for consumable supplies.

3.7.1.4 SECURITY SUPPORT

a. The contractor shall ensure that all personnel on-site shall have SECRET clearance. Contractor personnel shall adhere to government requirements for security badges at all government and affiliated contractor facilities. Contractor shall provide individuals with appropriate clearances, depending on need-to-know. Clearances will be up to TS/SCI.

b. The contractor shall provide support for the following tasks:

1. Maintaining the incoming visitor database;
 2. Identification Badges for incoming visitors;
 3. Maintaining PM personnel clearance database to include outgoing collateral Clearances;
 4. Preparing civilian Ids, requesting Pentagon Passes, and fingerprinting;
 5. Logging in of Collateral Classified documents,
- Maintaining SCI clearance database for incoming SCI clearances; and

3.7.2 SOFTWARE EVALUATION FACILITY

The contractor shall provide facility support to oversee the day-to-day operations. In addition to technical engineering and development taskers, the support contractor shall assist the government in property accountability, configuration management, hardware configuration, execution of demonstrations and access control.

3.7.3 GRAPHICS SUPPORT

The contractor shall prepare artwork, charts, viewgraphs, and graphs and convert them into 35m, black and white, color slides, if needed, for meetings and briefings using Government-owned computers with government owned software. This includes periodic support to PM field locations and remote sites. This graphics support pool is physically separated from government personnel and the supervision of graphics personnel is the responsibility of the contractor. The contractor shall update and maintain a graphics database of all artwork, charts, viewgraphs, slides etc. that were developed in the past, as well as all future work.

The contractor shall provide artwork and layouts for advertisements, award certificates and plaques.