

**GSA  
AUTHORIZED INFORMATION TECHNOLOGY SCHEDULE**

**GENERAL PURPOSE COMMERCIAL INFORMATION TECHNOLOGY  
EQUIPMENT, SOFTWARE AND SERVICES**

**EDSI  
22699 Old Canal Road  
Yorba Linda, CA 92887  
(714) 974-0885  
[www.EDSICORP.com](http://www.EDSICORP.com)**

Products and ordering information in this Authorized INFORMATION TECHNOLOGY Schedule Price List is also available on the GSA Advantage! System. Agencies can browse GSA Advantage! By accessing GSA's Home Page via the Internet at [www.fss.gsa.gov](http://www.fss.gsa.gov)



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## I. INFORMATION FOR ORDERING OFFICES

### SPECIAL NOTICE TO AGENCIES:

#### Small Business Participation

SBA strongly supports the participation of small business concerns in the Federal Supply Schedules Program. To enhance Small Business Participation SBA policy allows agencies to include in their procurement base and goals, the dollar value of orders expected to be placed against the Federal Supply Schedules, and to report accomplishments against these goals.

For orders exceeding the micropurchase threshold, FAR 8.404 requires agencies to consider the catalogs/pricelists of at least three schedule contractors or consider reasonably available information by using the GSA Advantage!<sup>TM</sup> on-line shopping service ([www.fss.gsa.gov](http://www.fss.gsa.gov)). The catalogs/pricelists, GSA Advantage!<sup>TM</sup> and the Federal Supply Service Home Page ([www.fss.gsa.gov](http://www.fss.gsa.gov)) contain information on a broad array of products and services offered by small business concerns.

This information should be used as a tool to assist ordering activities in meeting or exceeding established small business goals. It should also be used as a tool to assist in including small, small disadvantaged, and women-owned small businesses among those considered when selecting pricelists for a best value determination.

For orders exceeding the micropurchase threshold, customers are to give preference to small business concerns when two or more items at the same delivered price will satisfy their requirement.

1. **GEOGRAPHIC SCOPE OF CONTRACT:** This contract will support the 48 contiguous states and the District of Columbia.
2. **CONTRACTOR'S ORDERING ADDRESS AND PAYMENT INFORMATION:**

Payment will be made to:     EDSI  
  22699 Old Canal Road  
  Yorba Linda, CA 92887

Contractors are required to accept the Government purchase card for payments equal to or less than the micro-purchase threshold for oral or written delivery orders. Government Commercial Credit Cards will be acceptable for payment. In addition, bank account information for wire transfer payments will be shown on the invoice.

Below are the telephone number(s) that can be used by ordering agencies to obtain technical and/or ordering assistance.

EDSI GSA Program Office  
(714) 974-0885  
(714) 974-8155 Fax

3. LIABILITY FOR INJURY OR DAMAGE

The Contractor shall not be liable for any injury to Government personnel or damage to Government property arising from the use of equipment maintained by the Contractor, unless such injury or damage is due to the fault or negligence of the Contractor.

4. STATISTICAL DATA FOR GOVERNMENT ORDERING OFFICE COMPLETION OF STANDARD FORM 279:

Block 9: G. Order/Modification Under Federal Schedule  
Block 16: Contractor Establishment Code (DUNS): 18-849-0726  
Block 30: Type of Contractor – B. Other Small Business  
Block 31: Woman-Owned Small Business - Yes  
Block 36: Contractor's Taxpayer Identification Number (TIN): 33-0288103

4a. CAGE Code: OC908

4b. Contractor has registered with the Central Contractor Registration Database.

5. FOB DESTINATION: Services provided at EDSI and Government Sites.

6. DELIVERY SCHEDULE

a. TIME OF DELIVERY: The contractor shall deliver to destination within the number of calendar days after receipt of order (ARO), as set forth below:

SPECIAL ITEM NUMBER	DELIVERY TIME (Days ARO)
132-51	IAW SOW

b. URGENT REQUIREMENTS: When the Federal Supply Schedule contract delivery period does not meet the bona fide urgent delivery requirements of an ordering agency, agencies are encouraged, if time permits, to contact the Contractor for the purpose of obtaining accelerated delivery. The Contractor shall reply to the inquiry within three workdays after receipt. (Telephonic replies shall be confirmed by the contractor in writing.) If the Contractor offers an accelerated delivery time acceptable to the ordering agency, any order(s) placed pursuant to the agreed upon accelerated delivery time frame shall be delivered within this shorter delivery time and in accordance with all other terms and conditions of the contract.

7. DISCOUNTS

- a. Prompt Payment: None.
- b. Quantity: None.
- c. Dollar Volume: None.
- d. Government Educational Institutions: None.
- e. Other: Yes.

8. TRADE AGREEMENTS ACT OF 1979, as amended:

All items are U.S. made end products, designated country end products, Caribbean Basin country end products, Canadian end products, or Mexican end products as defined in the Trade Agreements Act of 1979, as amended.

9. AVAILABILITY OF EXPORT PACKING: N/A

10. SMALL REQUIREMENTS: The minimum dollar value of orders to be issued is \$ 2,000.

11. MAXIMUM ORDER

11a. Maximum Order: (All dollar amounts are exclusive of any discount for prompt payment.)

For Special Item 132-51 - Information Technology Professional Services, the maximum dollar value per order will be \$500,000.

12. USE OF FEDERAL SUPPLY SERVICE INFORMATION TECHNOLOGY SCHEDULE CONTRACTS. In accordance with FAR 8.404:

[NOTE: Special ordering procedures have been established for Special Item Numbers (SINs) 132-51 IT Professional Services and 132-52 EC Services; refer to the terms and conditions for those SINs.]

Orders placed pursuant to a Multiple Award Schedule (MAS), using the procedures in FAR 8.404, are considered to be issued pursuant to full and open competition. Therefore, when placing orders under Federal Supply Schedules, ordering offices need not seek further competition, synopsise the requirement, make a separate determination of fair and reasonable pricing, or consider small business set-asides in accordance with subpart 19.5. GSA has already determined the prices of items under schedule contracts to be fair and reasonable. By placing an order against a schedule using the procedures outlined below, the ordering office has concluded that the order represents the best value and results in the lowest overall cost alternative (considering price, special features, administrative costs, etc.) to meet the Government's needs.

- a. Orders placed at or below the micro-purchase threshold. Ordering offices can place orders at or below the micro-purchase threshold with any Federal Supply Schedule Contractor.
- b. Orders exceeding the micro-purchase threshold but not exceeding the maximum order threshold. Orders should be placed with the Schedule Contractor that can provide the supply or service that represents the best value. Before placing an order, ordering offices should consider reasonably available information about the supply or service offered under MAS contracts by using the "GSA Advantage!" on-line shopping service, or by reviewing the catalogs/pricelists of at least three Schedule Contractors and selecting the delivery and other options available under the schedule that meets the agency's needs. In selecting the supply or service representing the best value, the ordering office may consider--

- (1) Special features of the supply or service that are required in effective program performance and that are not provided by a comparable supply or service;
  - (2) Trade-in considerations;
  - (3) Probable life of the item selected as compared with that of a comparable item;
  - (4) Warranty considerations;
  - (5) Maintenance availability;
  - (6) Past performance; and
  - (7) Environmental and energy efficiency considerations.
- c. Orders exceeding the maximum order threshold. Each schedule contract has an established maximum order threshold. This threshold represents the point where it is advantageous for the ordering office to seek a price reduction. In addition to following the procedures in paragraph b, above, and before placing an order that exceeds the maximum order threshold, ordering offices shall--
- (1) Review additional Schedule Contractors' catalogs/pricelists or use the "GSA Advantage!" on-line shopping service;
  - (2) Based upon the initial evaluation, generally seek price reductions from the Schedule Contractor(s) appearing to provide the best value (considering price and other factors); and
  - (3) After price reductions have been sought, place the order with the Schedule Contractor that provides the best value and results in the lowest overall cost alternative. If further price reductions are not offered, an order may still be placed, if the ordering office determines that it is appropriate.
- NOTE: For orders exceeding the maximum order threshold, the Contractor may:
- (1) Offer a new lower price for this requirement (the Price Reductions clause is not applicable to orders placed over the maximum order in FAR 52.216-19 Order Limitations);
  - (2) Offer the lowest price available under the contract; or
  - (3) Decline the order (orders must be returned in accordance with FAR 52.216-19).
- d. Blanket Purchase Agreements (BPAs). The establishment of Federal Supply Schedule BPAs is permitted when following the ordering procedures in FAR 8.404. All schedule contracts contain BPA provisions. Ordering offices may use BPAs to establish accounts with Contractors to fill recurring requirements. BPAs should address the frequency of ordering and invoicing, discounts, and delivery locations and times.

- e. Price Reductions. In addition to the circumstances outlined in paragraph c, above, there may be instances when ordering offices will find it advantageous to request a price reduction. For example, when the ordering office finds a schedule supply or service elsewhere at a lower price or when a BPA is being established to fill recurring requirements, requesting a price reduction could be advantageous. The potential volume of orders under these agreements, regardless of the size of the individual order, may offer the ordering office the opportunity to secure greater discounts. Schedule Contractors are not required to pass on to all schedule users a price reduction extended only to an individual agency for a specific order.
  - f. Small Business. For orders exceeding the micro-purchase threshold, ordering offices should give preference to the items of small business concerns when two or more items at the same delivered price will satisfy the requirement.
  - g. Documentation. Orders should be documented, at a minimum, by identifying the Contractor the item was purchased from, the item purchased, and the amount paid. If an agency requirement in excess of the micro-purchase threshold is defined so as to require a particular brand name, product, or feature of a product peculiar to one manufacturer, thereby precluding consideration of a product manufactured by another company, the ordering office shall include an explanation in the file as to why the particular brand name, product, or feature is essential to satisfy the agency's needs.
13. FEDERAL INFORMATION TECHNOLOGY/ TELECOMMUNICATION STANDARDS REQUIREMENTS: Federal departments and agencies acquiring products from this Schedule must comply with the provisions of the Federal Standards Program, as appropriate (reference: NIST Federal Standards Index). Inquiries to determine whether or not specific products listed herein comply with Federal Information Processing Standards (FIPS) or Federal Telecommunication Standards (FED-STDS), which are cited by ordering offices, shall be responded to promptly by the Contractor.
- 13.1 FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATIONS (FIPS PUBS): Information Technology products under this Schedule that do not conform to Federal Information Processing Standards (FIPS) should not be acquired unless a waiver has been granted in accordance with the applicable "FIPS Publication." Federal Information Processing Standards Publications (FIPS PUBS) are issued by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST), pursuant to National Security Act. Information concerning their availability and applicability should be obtained from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. FIPS PUBS include voluntary standards when these are adopted for Federal use. Individual orders for FIPS PUBS should be referred to the NTIS Sales Office, and orders for subscription service should be referred to the NTIS Subscription Officer, both at the above address, or telephone number (703) 487-4650.
- 13.2 FEDERAL TELECOMMUNICATION STANDARDS (FED-STDS): Telecommunication products under this Schedule that do not conform to Federal Telecommunication Standards (FED-STDS) should not be acquired unless a waiver has been granted in accordance with the applicable "FED-STD." Federal Telecommunication Standards are issued by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST), pursuant to National Security Act. Ordering information and information concerning the availability of FED-STDS should be obtained from the GSA, Federal Supply Service, Specification Section, 470 East L'Enfant Plaza, Suite 8100, SW, Washington, DC

20407, telephone number (202) 619-8925. Please include a self-addressed mailing label when requesting information by mail. Information concerning their applicability can be obtained by writing or calling the U.S. Department of Commerce, National Institute of Standards and Technology, Gaithersburg, MD 20899, telephone number (301) 975-2833.

14. **SECURITY REQUIREMENTS:** In the event security requirements are necessary, the ordering activities may incorporate, in their delivery order(s), a security clause in accordance with current laws, regulations, and individual agency policy; however, the burden of administering the security requirements shall be with the ordering agency. If any costs are incurred as a result of the inclusion of security requirements, such costs will not exceed ten percent (10%) or \$100,000, of the total dollar value of the order, whichever is lesser.
15. **CONTRACT ADMINISTRATION FOR ORDERING OFFICES:** Any ordering office, with respect to any one or more delivery orders placed by it under this contract, may exercise the same rights of termination as might the GSA Contracting Officer under provisions of FAR 52.212-4, paragraphs (1) Termination for the Government's convenience, and (m) Termination for Cause (See C.1).
16. **GSA Advantage!**

The GSA Advantage! is an on-line, interactive electronic information and ordering system that provides on-line access to vendors' schedule prices with ordering information. GSA Advantage! Will allow the user to perform various searches across all contracts including, but not limited to:

- (1) Manufacturer;
- (2) Manufacturer's Part Number; and
- (3) Product categories.

Agencies can browse GSA Advantage! by accessing the Internet World Wide Web utilizing a browser (ex.: NetScape). The Internet address is <http://www.fss.gsa.gov/>.

#### 17. PURCHASE OF OPEN MARKET ITEMS

NOTE: Open Market Items are also known as incidental items, noncontract items, non-Schedule items, and items not on a Federal Supply Schedule contract.

For administrative convenience, an ordering office contracting officer may add items not on the Federal Supply Multiple Award Schedule (MAS) -- referred to as open market items -- to a Federal Supply Schedule blanket purchase agreement (BPA) or an individual task or delivery order, only if-

- (1) All applicable acquisition regulations pertaining to the purchase of the items not on the Federal Supply Schedule have been followed (e.g., publicizing (Part 5), competition requirements (Part 6), acquisition of commercial items (Part 12), contracting methods (Parts 13, 14, and 15), and small business programs (Part 19));
- (2) The ordering office contracting officer has determined the price for the items not on the Federal Supply Schedule is fair and reasonable;
- (3) The items are clearly labeled on the order as items not on the Federal Supply Schedule; and
- (4) All clauses applicable to items not on the Federal Supply Schedule are included in the order.

18. CONTRACTOR COMMITMENTS, WARRANTIES AND REPRESENTATIONS

- a. For the purpose of this contract, commitments, warranties and representations include, in addition to those agreed to for the entire schedule contract:
- (1) Time of delivery/installation quotations for individual orders;
  - (2) Technical representations and/or warranties of products concerning performance, total system performance and/or configuration, physical, design and/or functional characteristics and capabilities of a product/equipment/ service/software package submitted in response to requirements which result in orders under this schedule contract.
  - (3) Any representations and/or warranties concerning the products made in any literature, description, drawings and/or specifications furnished by the Contractor.
- b. The above is not intended to encompass items not currently covered by the GSA Schedule contract.

19. OVERSEAS ACTIVITIES

The terms and conditions of this contract shall apply to all orders for installation, maintenance and repair of equipment in areas listed in the pricelist outside the 48 contiguous states and the District of Columbia, except as indicated below:

          N/A          

Upon request of the Contractor, the Government may provide the Contractor with logistics support, as available, in accordance with all applicable Government regulations. Such Government support will be provided on a reimbursable basis, and will only be provided to the Contractor's technical personnel whose services are exclusively required for the fulfillment of the terms and conditions of this contract.

20. BLANKET PURCHASE AGREEMENTS (BPAs)

Federal Acquisition Regulation (FAR) 13.201(a) defines Blanket Purchase Agreements (BPAs) as "...a simplified method of filling anticipated repetitive needs for supplies or services by establishing 'charge accounts' with qualified sources of supply." The use of Blanket Purchase Agreements under the Federal Supply Schedule Program is authorized in accordance with FAR 13.202(c)(3), which reads, in part, as follows:

"BPAs may be established with Federal Supply Schedule Contractors, if not inconsistent with the terms of the applicable schedule contract."

Federal Supply Schedule contracts contain BPA provisions to enable schedule users to maximize their administrative and purchasing savings. This feature permits schedule users to set up "accounts" with Schedule Contractors to fill recurring requirements. These accounts establish a period for the BPA and generally address issues such as the frequency of ordering and invoicing, authorized callers, discounts, delivery locations and times. Agencies may qualify for the best quantity/volume discounts available

under the contract, based on the potential volume of business that may be generated through such an agreement, regardless of the size of the individual orders. In addition, agencies may be able to secure a discount higher than that available in the contract based on the aggregate volume of business possible under a BPA. Finally, Contractors may be open to a progressive type of discounting where the discount would increase once the sales accumulated under the BPA reach certain prescribed levels. Use of a BPA may be particularly useful with the new Maximum Order feature. See the Suggested Format, contained in this Schedule Pricelist, for customers to consider when using this purchasing tool.

21. CONTRACTOR TEAM ARRANGEMENTS

Contractors participating in contractor team arrangements must abide by all terms and conditions of their respective contracts. This includes compliance with Clauses 552.238-74, Contractor's Reports of Sales and 552.238-76, Industrial Funding Fee, i.e., each contractor (team member) must report sales and remit the IFF for all products and services provided under its individual contract.

22. INSTALLATION, DEINSTALLATION, REINSTALLATION

The Davis-Bacon Act (40 U.S.C. 276a-276a-7) provides that contracts in excess of \$2,000 to which the United States or the District of Columbia is a party for construction, alteration, or repair (including painting and decorating) of public buildings or public works with the United States, shall contain a clause that no laborer or mechanic employed directly upon the site of the work shall receive less than the prevailing wage rates as determined by the Secretary of Labor. The requirements of the Davis-Bacon Act do not apply if the construction work is incidental to the furnishing of supplies, equipment, or services. For example, the requirements do not apply to simple installation or alteration of a public building or public work that is incidental to furnishing supplies or equipment under a supply contract. However, if the construction, alteration or repair is segregable and exceeds \$2,000, then the requirements of the Davis-Bacon Act apply.

The requisitioning activity issuing the task order against this contract will be responsible for proper administration and enforcement of the Federal labor standards covered by the Davis-Bacon Act. The proper Davis-Bacon wage determination will be issued by the ordering activity at the time a request for quotations is made for applicable construction classified installation, deinstallation, and reinstallation services under SIN 132-8.

23. SECTION 508 COMPLIANCE

If applicable, Section 508 compliance information on the supplies and services in this contract are available in Electronic and Information Technology (EIT) at the following:

The EIT standard can be found at: [www.Section508.gov/](http://www.Section508.gov/).

24. PRIME CONTRACTOR ORDERING FROM FEDERAL SUPPLY SCHEDULES

Prime Contractors (on cost reimbursement contracts) placing orders under Federal Supply Schedules, on behalf of a Federal Agency, shall follow the terms of the applicable schedule and authorization and include with each order –

- (a) A copy of the authorization from the Agency with whom the contractor has the prime contract (unless a copy was previously furnished to the Federal Supply Schedule contractor); and
- (b) The following statement:  
This order is placed under written authorization from \_\_\_\_\_ dated \_\_\_\_\_. In the event of any inconsistency between the terms and conditions of this order and those of your Federal Supply Schedule contract, the latter will govern.

## II. INFORMATION TECHNOLOGY SERVICES TERMS AND CONDITIONS

### Terms and Conditions Applicable to Information Technology Professional Services (Special Item 132-51)

#### 1. SCOPE

- a. The prices, terms and conditions stated under Special Item Number 132-51 Information Technology Professional Services apply exclusively to IT Services within the scope of this Information Technology Schedule.
- b. The Contractor shall provide services at the Contractor's facility and/or at the Government location, as agreed to by the Contractor and the ordering office.

#### 2. PERFORMANCE INCENTIVES

- a. When using a performance based statement of work, performance incentives may be agreed upon between the Contractor and the ordering office on individual fixed price orders or Blanket Purchase Agreements, for fixed price tasks, under this contract in accordance with this clause.
- b. The ordering office must establish a maximum performance incentive price for these services and/or total solutions on individual orders or Blanket Purchase Agreements.
- c. To the maximum extent practicable, ordering offices shall consider establishing incentives where performance is critical to the agency's mission and incentives are likely to motivate the contractor. Incentives shall be based on objectively measurable tasks.
- d. The above procedures do not apply to Time and Material or labor hour orders.

#### 3. ORDERING PROCEDURES FOR SERVICES (REQUIRING A STATEMENT OF WORK)

##### **PROCEDURES FOR SERVICES PRICED ON GSA SCHEDULE AT HOURLY RATES**

FAR 8.402 contemplates that GSA may occasionally find it necessary to establish special ordering procedures for individual Federal Supply Schedules or for some Special Item Numbers (SINs) within a Schedule. GSA has established special ordering procedures for services that require a statement of work. These special ordering procedures which are outlined herein take precedence over the procedures in FAR 8.404 (b) (2) through (b) (3).

GSA has determined that the prices for services contained in the contractor's price list applicable to this Schedule are fair and reasonable. However, the ordering office using this contract is responsible for considering the level of effort and mix of labor proposed to perform a specific task being ordered and for making a determination that the total firm-fixed price or ceiling price is fair and reasonable.

- (a) When ordering services, ordering offices shall –
  - (1) Prepare a Request (Request for Quote or other communication tool):

(i) A statement of work (a performance-based statement of work is preferred) that outlines, at a minimum, the work to be performed, location of work, period of performance, deliverable schedule, applicable standards, acceptance criteria, and any special requirements (i.e., security clearances, travel, special knowledge, etc.) should be prepared.

(ii) The request should include the statement of work and request the contractors to submit either a firm-fixed price or a ceiling price to provide the services outlined in the statement of work. A firm-fixed price order shall be requested, unless the ordering office makes a determination that it is not possible at the time of placing the order to estimate accurately the extent or duration of the work or to anticipate cost with any reasonable degree of confidence. When such a determination is made, a labor hour or time-and-materials proposal may be requested. The firm-fixed price shall be based on the rates in the schedule contract and shall consider the mix of labor categories and level of effort required to perform the services described in the statement of work. The firm-fixed price of the order should also include any travel costs or other incidental costs related to performance of the services ordered, unless the order provides for reimbursement of travel costs at the rates provided in the Federal Travel or Joint Travel Regulations. A ceiling price must be established for labor-hour and time-and-materials orders.

(iii) The request may ask the contractors, if necessary or appropriate, to submit a project plan for performing the task, and information on the contractor's experience and/or past performance performing similar tasks.

(iv) The request shall notify the contractors what basis will be used for selecting the contractor to receive the order. The notice shall include the basis for determining whether the contractors are technically qualified and provide an explanation regarding the intended use of any experience and/or past performance information in determining technical qualification of responses. If consideration will be limited to schedule contractors who are small business concerns as permitted by paragraph (2)(i) below, the request shall notify the contractors that will be the case.

(2) Transmit the Request to Contractors:

(i) Based upon an initial evaluation of catalogs and price lists, the ordering office should identify the contractors that appear to offer the best value (considering the scope of services offered, pricing and other factors such as contractors' locations, as appropriate). When buying IT professional services under SIN 132—51 ONLY, the ordering office, at its discretion, may limit consideration to those schedule contractors that are small business concerns. This limitation is not applicable when buying supplies and/or services under other SINS as well as SIN 132-51. The limitation may only be used when at least three small businesses that appear to offer services that will meet the agency's needs are available, if the order is estimated to exceed the micro-purchase threshold.

(ii) The request should be provided to three (3) contractors if the proposed order is estimated to exceed the micro-purchase threshold, but not exceed the maximum order threshold. For proposed orders exceeding the maximum order threshold, the request should be provided to additional contractors that offer services that will meet the agency's needs. Ordering offices should strive to minimize the contractors' costs associated with responding to requests for quotes for specific orders. Requests should be tailored to the minimum level necessary for adequate evaluation and selection for order placement. Oral presentations should be considered, when possible.

(3) Evaluate Responses and Select the Contractor to Receive the Order:

After responses have been evaluated against the factors identified in the request, the order should be placed with the schedule contractor that represents the best value. (See FAR 8.404)

(b) The establishment of Federal Supply Schedule Blanket Purchase Agreements (BPAs) for recurring services is permitted when the procedures outlined herein are followed. All BPAs for services must define the services that may be ordered under the BPA, along with delivery or performance time frames, billing procedures, etc. The potential volume of orders under BPAs, regardless of the size of individual orders, may offer the ordering office the opportunity to secure volume discounts. When establishing BPAs, ordering offices shall –

(1) Inform contractors in the request (based on the agency's requirement) if a single BPA or multiple BPAs will be established, and indicate the basis that will be used for selecting the contractors to be awarded the BPAs.

(i) SINGLE BPA: Generally, a single BPA should be established when the ordering office can define the tasks to be ordered under the BPA and establish a firm-fixed price or ceiling price for individual tasks or services to be ordered. When this occurs, authorized users may place the order directly under the established BPA when the need for service arises. The schedule contractor that represents the best value should be awarded the BPA. (See FAR 8.404)

(ii) MULTIPLE BPAs: When the ordering office determines multiple BPAs are needed to meet its requirements, the ordering office should determine which contractors can meet any technical qualifications before establishing the BPAs. When multiple BPAs are established, the authorized users must follow the procedures in (a)(2)(ii) above and then place the order with the Schedule contractor that represents the best value.

(2) Review BPAs Periodically: Such reviews shall be conducted at least annually. The purpose of the review is to determine whether the BPA still represents the best value. (See FAR 8.404)

(c) The ordering office should give preference to small business concerns when two or more contractors can provide the services at the same firm-fixed price or ceiling price.

- (d) When the ordering office's requirement involves both products as well as executive, administrative and/or professional, services, the ordering office should total the prices for the products and the firm-fixed price for the services and select the contractor that represents the best value. (See FAR 8.404)

The ordering office, at a minimum, should document orders by identifying the contractor from which the services were purchased, the services purchased, and the amount paid. If other than a firm-fixed price order is placed, such documentation should include the basis for the determination to use a labor-hour or time-and-materials order. For agency requirements in excess of the micro-purchase threshold, the order file should document the evaluation of Schedule contractors' quotes that formed the basis for the selection of the contractor that received the order and the rationale for any trade-offs made in making the selection.

#### **ORDERING PROCEDURES SERVICES AVAILABLE ON GSA SCHEDULE AT FIXED PRICES**

Ordering procedures for other services available on schedule at fixed prices for specifically defined services or tasks should use the procedures in FAR 8.404. These procedures are listed in the pricelist, under "Information for Ordering Offices," paragraph #12.

#### **4. ORDER**

- a. Agencies may use written orders, EDI orders, blanket purchase agreements, individual purchase orders, or task orders for ordering services under this contract. Blanket Purchase Agreements shall not extend beyond the end of the contract period; all services and delivery shall be made and the contract terms and conditions shall continue in effect until the completion of the order. Orders for tasks which extend beyond the fiscal year for which funds are available shall include FAR 52.232-19 Availability of Funds for the Next Fiscal Year. The purchase order shall specify the availability of funds and the period for which funds are available.
- b. All task orders are subject to the terms and conditions of the contract. In the event of conflict between a task order and the contract, the contract will take precedence.

#### **5. PERFORMANCE OF SERVICES**

- a. The Contractor shall commence performance of services on the date agreed to by the Contractor and the ordering office.
- b. The Contractor agrees to render services only during normal working hours, unless otherwise agreed to by the Contractor and the ordering office.
- c. The Agency should include the criteria for satisfactory completion for each task order in the Statement of Work or Delivery Order. Services shall be completed in a good and workmanlike manner.
- d. Any Contractor travel required in the performance of IT Services must comply with the Federal Travel Regulation or Joint Travel Regulations, as applicable, in effect on the date(s) the travel is

performed. Established Federal Government per diem rates will apply to all Contractor travel. Contractors cannot use GSA city pair contracts.

6. INSPECTION OF SERVICES

The Inspection of Services–Fixed Price (AUG 1996) clause at FAR 52.246-4 applies to firm-fixed price orders placed under this contract. The Inspection–Time-and-Materials and Labor-Hour (JAN 1986) clause at FAR 52.246-6 applies to time-and-materials and labor-hour orders placed under this contract.

7. RESPONSIBILITIES OF THE CONTRACTOR

The Contractor shall comply with all laws, ordinances, and regulations (Federal, State, City, or otherwise) covering work of this character. If the end product of a task order is software, then FAR 52.227-14 Rights in Data – General, may apply.

8. RESPONSIBILITIES OF THE GOVERNMENT

Subject to security regulations, the ordering office shall permit Contractor access to all facilities necessary to perform the requisite IT Services.

9. INDEPENDENT CONTRACTOR

All IT Services performed by the Contractor under the terms of this contract shall be as an independent Contractor, and not as an agent or employee of the Government.

10. ORGANIZATIONAL CONFLICTS OF INTEREST

a. Definitions.

“Contractor” means the person, firm, unincorporated association, joint venture, partnership, or corporation that is a party to this contract.

“Contractor and its affiliates” and “Contractor or its affiliates” refers to the Contractor, its chief executives, directors, officers, subsidiaries, affiliates, subcontractors at any tier, and consultants and any joint venture involving the Contractor, any entity into or with which the Contractor subsequently merges or affiliates, or any other successor or assignee of the Contractor.

An “Organizational conflict of interest” exists when the nature of the work to be performed under a proposed Government contract, without some restriction on activities by the Contractor and its affiliates, may either (i) result in an unfair competitive advantage to the Contractor or its affiliates or (ii) impair the Contractor’s or its affiliates’ objectivity in performing contract work.

b. To avoid an organizational or financial conflict of interest and to avoid prejudicing the best interests of the Government, ordering offices may place restrictions on the Contractors, its affiliates, chief executives, directors, subsidiaries and subcontractors at any tier when placing orders against schedule contracts. Such restrictions shall be consistent with FAR 9.505 and shall be designed to avoid, neutralize, or mitigate organizational conflicts of interest that might

otherwise exist in situations related to individual orders placed against the schedule contract. Examples of situations, which may require restrictions, are provided at FAR 9.508.

11. INVOICES

The Contractor, upon completion of the work ordered, shall submit invoices for IT services. Progress payments may be authorized by the ordering office on individual orders if appropriate. Progress payments shall be based upon completion of defined milestones or interim products. Invoices shall be submitted monthly for recurring services performed during the preceding month.

12. PAYMENTS

For firm-fixed price orders the Government shall pay the Contractor, upon submission of proper invoices or vouchers, the prices stipulated in this contract for service rendered and accepted. Progress payments shall be made only when authorized by the order. For time-and-materials orders, the Payments under Time-and-Materials and Labor-Hour Contracts (Alternate I (APR 1984)) at FAR 52.232-7 applies to time-and-materials orders placed under this contract. For labor-hour orders, the Payment under Time-and-Materials and Labor-Hour Contracts (FEB 1997) (Alternate II (JAN 1986)) at FAR 52.232-7 applies to labor-hour orders placed under this contract.

13. RESUMES

Resumes shall be provided to the GSA Contracting Officer or the user agency upon request.

14. INCIDENTAL SUPPORT COSTS

Incidental support costs are available outside the scope of this contract. The costs will be negotiated separately with the ordering agency in accordance with the guidelines set forth in the FAR.

15. APPROVAL OF SUBCONTRACTS

The ordering activity may require that the Contractor receive, from the ordering activity's Contracting Officer, written consent before placing any subcontract for furnishing any of the work called for in a task order.

Following is a SUGGESTED Blanket Purchase Agreement (BPA) format, and language regarding Contractor Teaming Arrangements.



BPA NUMBER \_\_\_\_\_

(CUSTOMER NAME)  
BLANKET PURCHASE AGREEMENT

Pursuant to GSA Federal Supply Schedule Contract Number(s) \_\_\_\_\_, Blanket Purchase Agreements, the Contractor agrees to the following terms of a Blanket Purchase Agreement (BPA) EXCLUSIVELY WITH (Ordering Agency):

(1) The following contract items can be ordered under this BPA. All orders placed against this BPA are subject to the terms and conditions of the contract, except as noted below:

MODEL NUMBER/PART NUMBER	*SPECIAL BPA DISCOUNT/PRICE
_____	_____
_____	_____
_____	_____

(2) Delivery:

DESTINATION	DELIVERY SCHEDULES / DATES
_____	_____
_____	_____
_____	_____

(3) The Government estimates, but does not guarantee, that the volume of purchases through this agreement will be \_\_\_\_\_.

(4) This BPA does not obligate any funds.

(5) This BPA expires on \_\_\_\_\_ or at the end of the contract period, whichever is earlier.

(6) The following office(s) is hereby authorized to place orders under this BPA:

OFFICE	POINT OF CONTACT
_____	_____
_____	_____
_____	_____

(7) Orders will be placed against this BPA via Electronic Data Interchange (EDI), FAX, or paper.

(8) Unless otherwise agreed to, all deliveries under this BPA must be accompanied by delivery tickets or sales slips that must contain the following information as a minimum:

- (a) Name of Contractor;
- (b) Contract Number;
- (c) BPA Number;
- (d) Model Number or National Stock Number (NSN);

- (e) Purchase Order Number;
- (f) Date of Purchase;

(g) Quantity, Unit Price, and Extension of Each Item (unit prices and extensions need not be shown when incompatible with the use of automated systems; provided, that the invoice is itemized to show the information); and

- (h) Date of Shipment.

(9) The requirements of a proper invoice are specified in the Federal Supply Schedule contract. Invoices will be submitted to the address specified within the purchase order transmission issued against this BPA.

(10) The terms and conditions included in this BPA apply to all purchases made pursuant to it. In the event of an inconsistency between the provisions of this BPA and the Contractor's invoice, the provisions of this BPA will take precedence.

BASIC GUIDELINES FOR USING  
“CONTRACTOR TEAM ARRANGEMENTS”

Federal Supply Schedule Contractors may use “Contractor Team Arrangements” (see FAR 9.6) to provide solutions when responding to a customer agency requirements.

These Team Arrangements can be included under a Blanket Purchase Agreement (BPA). BPAs are permitted under all Federal Supply Schedule contracts.

Orders under a Team Arrangement are subject to terms and conditions of the Federal Supply Schedule Contract.

Participation in a Team Arrangement is limited to Federal Supply Schedule Contractors.

Customers should refer to FAR 9.6 for specific details on Team Arrangements.

Here is a general outline on how it works:

The customer identifies their requirements.

- Federal Supply Schedule Contractors may individually meet the customer's needs, or -
- Federal Supply Schedule Contractors may individually submit a Schedules “Team Solution” to meet the customer's requirement.
- Customers make a best value selection.

USA COMMITMENT TO PROMOTE

**SMALL BUSINESS PARTICIPATION  
PROCUREMENT PROGRAMS**

**PREAMBLE**

EDSI provides commercial products and services to the Federal Government. We are committed to promoting participation of small, small disadvantaged and women-owned small businesses in our contracts. We pledge to provide opportunities to the small business community through reselling opportunities, mentor-protégé programs, joint ventures, teaming arrangements, and subcontracting.

**COMMITMENT**

To actively seek and partner with small businesses.

To identify, qualify, mentor and develop small, small disadvantaged and women-owned small businesses by purchasing from these businesses whenever practical.

To develop and promote company policy initiatives that demonstrate our support for awarding contracts and subcontracts to small business concerns.

To undertake significant efforts to determine the potential of small, small disadvantaged and women-owned small business to supply products and services to our company.

To insure procurement opportunities are designed to permit the maximum possible participation of small, small disadvantaged, and women-owned small businesses.

To attend business opportunity workshops, minority business enterprise seminars, trade fairs, procurement conferences, etc., to identify and increase small businesses with whom to partner.

To publicize in our marketing publications our interest in meeting small businesses that may be interested in subcontracting opportunities.

We signify our commitment to work in partnership with small, small disadvantaged and women-owned small businesses to promote and increase their participation in Federal Government contracts. To accelerate potential opportunities please contact Gregory D. Corlin, (714) 974-0885, GCorlin@EDSICORP.com, fax (714) 974-8155.

**III. SERVICE ORGANIZATION'S ADDED VALUE**

EDSI is a customer-oriented service company. We offer high quality, cost effective, technical services utilizing the optimal mix of resources. Our professionals are the key to EDSI's success. EDSI's staff is comprised of professionals with expertise in Communications, Command & Control, Management Information Systems, Logistics Management, Test & Evaluation and Operations & Maintenance Management Systems. This is the mainstream of EDSI's revenue base. Our emphasis has been and continues to be "first in technology insertion as applied to current operating systems". Our goal is to achieve more efficient, higher quality services through the application of computer technologies. Since inception of the corporation, EDSI has been financially profitable. We attribute this success to aggressive operational management objectives. Our management staff is incentivized based on revenue projections and profit lines. This philosophy will continue in the future to secure EDSI's entrepreneurial style of leadership.

<i>EDSI's CUSTOMER BASE</i>	
US ARMY	Electronic Proving Ground, AZ Aberdeen Proving Ground, MD Ordnance Center Museum, MD Fort Indiantown Gap, PA Fort Hood, TX Charles E. Kelly Support Facility, PA
US NAVY	NAVSURFWARCENDIV Det, CA NAVSURFWARCENDIV Crane, CA Space and Naval Warfare Center, CA Naval Ordnance Center Pacific Division, CA Naval Systems & Sciences Laboratory, CA
US MARINE CORPS	Marine Corps Programs Department, CA MARCORSYSCOM, VA MCOTEA, VA Camp Lejeune, NC
US AIR FORCE	Electronic Systems Command, MA Kirtland Air Force Base, NM Gunter Air Force Base, AL Offutt Air Force Base, NE
DEFENSE INFORMATION SYSTEMS AGENCY	Joint Interoperability Test Center Joint Interoperability Engineering Organization
OTHER GOVERNMENT AGENCIES	General Services Administration Orange County Transit Authority FAA, TX
PRIVATE INDUSTRY	Computer Sciences Corporation Dynamics Research Corporation EDS Corporation Northrup Grumman IT Corporation SAIC, Inc. SenCom Corporation Stanley and Associates, Inc. Titan Corporation TRW, Inc. VSE Corporation

#### IV. SERVICE DESCRIPTIONS

EDSI is a leader in the small business segment of information technology services provided to both government and private industry. Our services are "tailored made" to fit the customer's needs in terms of proximity, technology and budget. EDSI considers, first, its skilled professionals, second, its established software development principles and practices, and last, its collection of corporate knowledge in terms of languages, platforms, environments and tools.

##### ***SOFTWARE DEVELOPMENT CONCEPTS AND TECHNIQUES***

As a Software Engineering Institute (SEI) focused firm, EDSI employs the principles and use the practices promoted by Carnegie-Mellon. Our experiences uniquely qualify us to tailor these practices to fit a wide variety of customer needs because we have successfully implemented similar programs for the government sector. EDSI understands that every project is unique in technology, objectives, schedule and budget. We place special emphasis on devising a software engineering approach that will respond to the customer's needs and still adhere to sound technical principles.

EDSI has refined our software development practices utilizing SEI guidelines as our foundation. We have defined three levels to our software development life cycle methodology.

Defining the overall framework for the development effort, Selecting an appropriate software development tools, and Use of software requirements analysis, design and implementation technologies.

EDSI manages its software development process through aggressive use of six core metrics areas. Namely, Requirements Definition & Stability, Manpower, Software Progress, Computer Utilization, Development Tools, and Cost/Schedule.

##### ***SOFTWARE DEVELOPMENT PRACTICES***

EDSI has refined its software development approach over the years of providing software support services using state-of-the-art methodologies and tools applied to unique and complex applications. Our repertoire of software development methodologies include functional decomposition, structured analysis and design, data modeling, spiral, prototyping, rapid application development and object orientation. EDSI has developed a standard software development environment that supports any and all of these methodologies and, at the project level, these processes received an SE Level 2 Rating. EDSI's Software Development Practices can be applied to new development efforts, as well as, maintenance efforts with the same high quality results.

##### ***SOFTWARE PROCESS IMPROVEMENT***

EDSI fully subscribes to the guidance of Carnegie Mellon University's Software Engineering Institute's Capability Maturity Model (SEI-CMM). EDSI has strong capabilities in the "Defined" Levels of Maturity and is committed to providing this level of quality services to our customers.

- Organizational Process Focus
- Organization Process Definition
- Training Program
- Integrated Software Management
- Software Product Engineering
- Intergroup Coordination
- Peer Reviews

**TOOLS AND TECHNOLOGY**

EDSI's software development lifecycle methodology makes extensive use of automated tools. Increasingly CASE tools are offering functionality which span the range of software project management to include Requirements Traceability, Scheduling, Cost, Configuration Management, Source Code Analyzers, Program Style, Test Planning and Test Results. While EDSI concentrates on the use of proven tools and technologies, we are constantly looking at and examining new tools and techniques for possible use to improve efficiency and effectiveness in software development.

<b>USE</b>	<b>TOOL</b>
SYSTEM DESIGN	Rational Rose, Playground, Paradigm+
SOFTWARE DESIGN	Cadre, System V, EasyCase, Software Through Pictures, Spiral
DATABASE DESIGN	ERWIN
GUI DEVELOPMENT	Delphi, XVT, X-Designer, PowerBuilder
WEB DEVELOPMENT	LiveWire Pro, PageMill, HTML, Java, XML
STATIC & SYNTAX CHECKING	McCabes, AdaMat, Lint
RUN-TIME MEMORY TESTING	Performance Awareness, Purify, TestCenter
SIZE/COST ESTIMATION	COCOMO
PERT & ACTIVITY CHARTING	Microsoft Project, Timeline
CONFIGURATION MANAGEMENT	SCCS, VAX CMS, GCS

## EDSI SERVICES

<b>IT MANAGEMENT &amp; PLANNING</b>	<b>DATABASE PLANNING &amp; DESIGN</b>
Environment Definition & Establishment Metrics System Strategic Planning	Planning Execution Reporting
<b>INFORMATION ANALYSIS &amp; DESIGN</b>	<b>SOFTWARE SUPPORT SERVICES</b>
Requirements Definition Software Analysis Interoperability Analysis Engineering Analysis & Design Logistics Analysis & Design Statistical Analysis & Design	Quality Assurance Configuration Management Independent Verification & Validation Documentation Risk Management
<b>PROGRAMMING</b>	<b>DATA MANAGEMENT</b>
Coding Integration Network Setup	Collection Analysis Entry Reporting

## INFORMATION TECHNOLOGY MANAGEMENT AND PLANNING

At the center of all IT projects is the management and planning of the project. EDSI provides coordinated, proven management techniques to this important aspect of IT projects. Some of the areas where EDSI provides services are:

***Environment Definition and Establishment*** - EDSI understands many different methodologies for developing software, and assists in the definition and establishment of the most cost effective development environment that supports the selected software development

methodology. EDSI provides the engineering analysis necessary to insure the success of a development program by correctly defining and configuring a development environment.

***Metrics*** - EDSI uses state-of-the-art tracking tools to assist in the management of IT projects. The Software Engineering Institute (SEI) estimates that over 75% of all projects are deficient in this important aspect of IT project management. EDSI tracks important metrics such as requirements met, function points, and project tracking data. EDSI also provides the analysis necessary to discern the trends identified by the data.

***System Strategic Planning*** - EDSI provides strategic plans for the goals and objectives of the organization. This strategic planning consists of defining near, mid and long term objectives.

## INFORMATION ANALYSIS AND DESIGN

EDSI provides a wide variety of information and analysis services in support of information technology requirements. We develop requirements, perform software analysis, interoperability analysis, engineering analysis, logistics analysis, and statistical analysis.

***Requirements Definition*** - EDSI provides a comprehensive review of the business process to arrive at a requirements definition for any information technology system. The definition of correct requirements is the hardest, yet most important of all system development activities. EDSI uses rapid prototyping, and extensive user involvement to insure the requirements defined actually solve the problem.

***Software Analysis*** - EDSI provides software analysis by analyzing specific user requirements for subsequent interoperability analysis, development of design objectives, and architecture development. Through this analysis, we determine the viability of various approaches using Commercial Off The Shelf (COTS), Government Off The Shelf (GOTS), Non-developmental items and reusable software components to provide viable software solutions to meet customer requirements.

**Interoperability Analysis** - EDSI evaluates customer requirements to determine how systems interact and interoperate with each other. Through this analysis, we develop an approach that ensures systems properly interface and operate with each other. EDSI documents all required interfaces and develops the design approach to allow programmers the opportunity to easily determine how systems will talk to each other.

**Engineering Analysis and Design** - EDSI utilizes standard engineering practices to develop information technology systems that gather and analyze data from various platforms. EDSI analyzes customer requirements, determining the best method of implementation from a software or hardware standpoint. EDSI recommends the best alternative to answer specific engineering questions, whether it is the development and installation of hardware to acquire information, or the use of software. EDSI is familiar with engineering practices in the area of electrical, mechanical, and chemical engineering to provide specific information required by customer requirements.

**Logistics Analysis and Design** - EDSI analyzes customer and system requirements to determine information requirements to support logistics systems for acquisition and fielded systems. Logistics information is an integral component of many systems as it provides the lifeline for support and successful operation of developed systems.

**Statistical Analysis and Design** - EDSI offers statistical analysis methodologies to answer specific issues developed by the customer. We utilize numerous tools and proven methods to derive processes to successfully answer customer requirements. We have a proven track record of successful implementation of statistical techniques in developing approaches to answer even the most difficult statistical requirements.

## **PROGRAMMING**

The core of any IT development or maintenance project is the actual coding of the solution. EDSI provides the full range of programming solutions, to include operating systems programming, Object-Oriented-Drag-and-Drop Rapid Application Development, and Spiral development.

**Coding** - Our programmers utilize numerous platforms, operating environments and languages to successfully implement the results of the requirements definition and design phase. The foundation developed and documented in these earlier phases are implemented utilizing strict coding standards to ensure reusability of code and ease of maintenance.

**Integration** - EDSI provides a complete engineering solution to the integration of the diverse hardware and software modules that comprise a complete system. Utilizing software and hardware test harnesses, EDSI tests the interfaces between the different components and determines the causes of problems and proposes or develops solutions for successful integration of the many parts.

**Network Setup** - EDSI defines, develops, tests and implements the network parameters necessary to the successful fielding of distributed systems. These systems may exist as client/server solution or an Internet based solution. EDSI insures the correct amount of security is built into the system as defined by the criticality and sensitivity of the data contained within the system.

## **DATABASE PLANNING AND DESIGN**

At the center of many information management systems is a database management system. The response and usability of the finished product usually depends upon the correct design and implementation of the database. EDSI provides the knowledge and experience to develop the optimum database solution for our information technology customers.

**Planning** - EDSI provides a full range of database planning and design activities. We provide these services for a variety of platforms such as personal computers, mainframe systems, and networked systems. Our approach complies with all standards required by a client as well as our own development methodology and approach. We utilize state of the art methodologies to evaluate and develop database schema and architecture to enhance the usability of the data. The results of the planning process is well documented to allow for further optimization and enhancement of the database package.

We have successfully provided support in the development of relational database strategies and their incorporation into the client server and object oriented environment. This includes the transition of legacy systems utilizing older database technologies into new architectures. This process enhances the use of the data by identifying common and shared data elements and removing redundancy of data elements across the system.

**Execution** - EDSI realizes that the execution of a properly developed database approach requires the continuous analysis of data processing requirements. The execution portion of a database project allows EDSI to further normalize the database schema as well as determine redundant or orphan components of the database. In addition, timing issues are resolved during the analysis of the execution of the database system. EDSI analyzes the performance related to the implementation of a database schema to ensure that user satisfaction is achieved. EDSI realizes that the data provided to the user is the product required, and that this information must be provided in a timely fashion. Our engineers continually evaluate the design of the database schema for improvements in performance.

**Reporting** - EDSI has developed a wide variety of reporting techniques to display and report data from specific databases. EDSI has utilized a number of relational platforms, as well as embedded systems to report information required by the user. Whether the data is graphical or tabular, EDSI designs report layouts to easily answer specific issues posed by the requester.

## **SOFTWARE SUPPORT SERVICES**

**Quality Assurance** - EDSI offers a full line of quality assurance services. These include the development of a quality assurance program, monitoring of the program and the documentation of the program. EDSI firmly believes that quality is part of the development process and not something that can be "tested" into a product at the end of its development.

**Configuration Management** - EDSI offers configuration management services for the complete life-cycle of IT projects. Too often, people believe CM is only for the source code or object code of a project. EDSI ensures that everything developed is properly managed. EDSI provides configuration management services for hardware, software and documentation domains. In addition, EDSI provides facility configuration management. EDSI utilizes MIL-STDs, as required, for management of configuration items. In doing so we have used an array of many tools to assist in the task of providing successful configuration management.

**Independent Verification & Validation** - EDSI provides Independent Validation and Verification (IV&V) for information technology products. We review all technical specifications and documents, such as Software Requirement Specification, Interface Requirement Specifications, Interface Control Documents, Software Design Documents and Software Detailed Design Documents, attend design reviews, review code, and provide tractability to requirements documents.

**Documentation** - EDSI has developed documentation in support of numerous projects. EDSI provides fully compliant MIL-STD documentation for project managers in accordance with many standards and formats. In addition, EDSI has written Feasibility Studies, Cost/Benefit Analysis Reports, Capacity Planning Documentation, Standards Documents, Compliance Report, Product Evaluations, Proof Of Concept Papers and others.

EDSI also provides documentation review services for their clients. EDSI has reviewed documentation for compliance to an applicable standard as well as review of technical content. EDSI has reviewed and provided technical guidance on documentation associated with DISN, X.400, X.500, POSIX and a host of other standards.

**Risk Management** - EDSI identifies and tracks those factors that impact the successful completion of any IT project. The early identification and tracking of these factors allow management to influence the result. EDSI identifies both avoidance and mitigation strategies to tackle the identified risks.

## **DATA MANAGEMENT**

EDSI provides a full range of data management services, to include the collection, analysis, entry, and reporting of various data. EDSI utilizes state of the art software packages and techniques to analyze data elements and consolidate information into a useable and more concise medium. EDSI provides data management in the areas of logistics, testing, software metrics, and other engineering sciences.

## V. LABOR CATEGORY QUALIFICATIONS

### Analyst \_\_\_\_\_

**Duties:** Level XV – Under direct supervision, assists in the engineering function for standard and/or custom devices, Aids in the design and developing of procedures and assists in the evaluation of equipment required to perform quality checks. Prepares recommendations for testing and documentation of procedures to be used from the product design phase through initial production. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** Bachelors Degree with no experience or two years equivalent experience only.

**Duties:** Level XIV - Under direct supervision, assists in research and fact-finding to develop or modify information systems. Assists in preparing detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** Bachelors Degree with no experience or three years equivalent experience only.

**Duties:** Level XIII - Under limited supervision, assists in formulating/defining system scope and objectives through research and fact-finding to develop or modify information systems. May assist in preparation of feasibility studies to provide cost estimate for proposed projects and prepare detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** Bachelors Degree with three years experience or four years equivalent experience only.

**Duties:** Level XI - Under limited supervision, performs all procedures necessary to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction. Interfaces with user community to understand their security needs and implements procedures to accommodate them. Ensures that user Community understands and adheres to necessary procedures to maintain security. Conducts accurate evaluation of the level of security required. Provides management with status reports. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level X – Under general supervision, formulates/defines system scope and objectives through research and fact-finding to develop or modify complex information systems. Prepares feasibility studies, cost estimates, and detailed specifications from which programs will be written. May present recommendations to management. Analyzes and revises existing system logic difficulties and documentation as necessary. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level IX – Under general supervision, formulates and defines systems scope and objectives through research and fact-finding combined with an understanding of applicable business systems and industry requirements. With

this knowledge, develops or modifies moderately complex information systems. Includes analysis of business and user needs, documenting requirements, and revising existing system logic difficulties as necessary. Guides and advises less experienced. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with three years experience; Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level VIII – Under general supervision, formulates/defines system scope and objectives through research and fact-finding to develop or modify the most highly complex information systems. Prepares feasibility studies, cost estimates, and detailed specifications from which programs will be written. Presents recommendations to management. Analyzes and revises existing system logic difficulties and documentation as necessary. Works at the highest technical level on the most complex phases of applications systems analysis. Provides leadership and training to lower level analysts. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with three years experience; Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level VII – Under general direction, formulates and defines systems scope and objectives based on both user needs and a good understanding of applicable business systems and industry requirements. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results. Includes analysis of business and user needs, documentation of requirements, and translation into

proper system requirement specifications. Works at the highest technical level of most phases of systems analysis while considering the business implications of the application of technology to the current and future business environment. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with five years experience; Bachelors Degree with nine years experience or twelve years equivalent experience only.

**Duties:** Level VI – Under general supervision, performs varied and complex assignments of the engineering function for standard and/or custom devices. Designs and develops procedures and assists in the evaluation of the equipment required to perform quality checks. Prepares recommendations for testing and documentation of procedures to be used from the product design phase through initial production. Responsible for ensuring that all products meet quality and customer performance standards. Provides training in new procedures to production testing staff. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with five years experience; Bachelors Degree with nine years experience; ten years equivalent general experience only or six years specialized experience only.

**Duties:** Level V – Responsible for managing the engineering function for standard and/or custom devices. Through subordinate supervisors or professional staff, identifies and evaluates procedures and equipment required to perform quality checks. Compiles and documents data necessary to analyze performance and makes recommendations for changes in the testing process. Develops special test equipment and software test programs as required. Ensures all products meet quality and customer performance standards. Procures appropriate test equipment. Develops training program for new product testing

procedures. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent general experience only or six years specialized experience only.

**Duties:** Level IV – Works independently with some general supervision. Performs analytical work in support of systems, programs and/or planning activities. Duties may involve independent assignments to research, analyze, design and, develop relationships and solutions to resolve problems within the specialty area. General fields for this category include Data Processing, Test, Logistics Management, Communications and Electronics, Mathematics, Financial Management, Acquisition Management, Security, Systems Analysis, Operations Research, Engineering Technology and Computer Systems Analysis. Expertise in theory and current practices in the specialty area are needed. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas. In addition to the responsibilities described above, requires advanced expertise in theory and current practices in the specialty area.

**Qualifications:** An Advanced Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent general experience only or eight years specialized experience only.

**Duties:** Level III – Formulates/defines system scope and objectives based on user defined needs. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations operating time and form of desired results. Prepares detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary. Has full technical knowledge of all

phases of applications systems analysis. May use CASE tools. Also has duties instructing, directing, and checking the work of other systems analysis personnel. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience; sixteen years equivalent general experience only or eight years specialized experience only.

**Duties:** Level II – Supervises activities of applications systems analysis personnel for a major project or several smaller projects. Responsible for quality assurance. Controls revenues and/or expenses within the operating unit and is responsible for meeting budget goals and objectives. Provides input to policy level direction regarding standards, budget constraints, etc. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience; eighteen years equivalent general experience only or ten years specialized experience only.

**Duties:** Level I – Top level technical expert in one or more highly specialized phases of applications systems analysis. Acts independently under general direction. Provides technical consulting on complex projects. Formulates/defines system scope and objectives. Often acts as business expert and assists users in defining needs. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time and form of desired results. Prepares detailed specifications from which programs will be written. Analyzes and revises existing system logic difficulties and documentation as necessary. Has full technical knowledge of all phases of applications systems analysis. May use CASE tools. May have duties instructing, directing, and

checking the work of other applications systems analysis personnel. May have quality assurance review responsibilities. May develop, analyze, review, prepare, evaluate, and report on information from numerous information sources in the engineering and business areas.

**Qualifications:** An Advanced Degree with twelve years experience; Bachelors Degree with fifteen years experience; twenty years equivalent general experience only or ten years specialized experience only.

## Hardware Engineer

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**Duties:** Level XIV - Under direct supervision, assists with developing and implementing CAD software engineering procedures and applications to research and resolve technical problems. Determines new methods and procedures for CAD software engineering. Develops CAD routines and utility programs, Analyzes architecture and hardware restrictions to plan projects in design of CAD software. Establishes list of necessary materials, equipment, and supplies for project completion. Determines appropriate vendors according to product requirements. Assigned projects are basic, but require initiative and judgment.

**Qualifications:** Bachelors Degree with no experience or three years equivalent experience only.

**Duties:** Level XII - Under limited supervision, performs engineering work and applied research, development, and design of new products. Work includes design, fabrication, modification, and evaluation of electronic apparatus, components, or circuitry for use in electronic equipment and devices. Analyzes equipment to establish operating data and conducts experimental tests.

**Qualifications:** Bachelors Degree with three years experience or six years equivalent experience only.

**Duties:** Level X – Under general supervision, performs varied and complex assignments to develop and implement internal reliability standards for electronic components and systems. With respect to reliability, evaluates the properties, techniques, and materials used in production. Establishes testing procedures for the physical testing of the system. Maintains records and prepares reports on the failure rate of defective components. Prepares recommendations for changes in the selection and application of components. Provides work leadership and training to lower level professional employees.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level IX - Under general supervision, responsible for the engineering part of a major project or an entire project of lesser complexity than those normally assigned to level IV engineers. Performs engineering work and applied research, development, and design of new products. Work includes design, fabrication, modification, and evaluation of electronic apparatus, components, or circuitry for use in electronic equipment and devices. Analyzes equipment to establish operating data and conducts experimental tests. May provide technical supervision to lower level engineers and other technical personnel.

**Qualifications:** An Advance Degree with three years experience; Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level VIII- Under general supervision with broad scope of responsibility, performs complex activities relating to the design, testing, and evaluation of mechanical and electromechanical devices and systems. Performs state-of-the-art product development activities, including drawing board layout and interpretation, and implementation of customer specifications.

**Qualifications:** An Advance Degree with three years experience; Bachelors Degree with seven

years experience or ten years equivalent experience only.

**Duties:** Level VI – Performs advanced customer support activities involving the installation, modification, and repair of highly complex equipment and systems. Conducts on-site installation of equipment and follows established testing procedures to ensure proper working order. Isolates equipment start-up malfunctions and takes corrective action. Trains customer personnel and possible OEM dealers in equipment operation and maintenance responsibilities. Makes technical presentations when required and has a strong knowledge of company products. Represents the company in a customer support role and is responsible for customer's satisfaction with equipment and servicing. Prepares daily logs and reports of work performed. Develops and certifies standard testing procedures. Provides work leadership and training lower level employees.

**Qualifications:** An Advance Degree with five years experience; Bachelors Degree with nine years experience; twelve years equivalent experience only or six years specialized experience.

**Duties:** Level V – Responsible for performing the most highly complex activities relating to the design, testing, and evaluation of mechanical and electromechanical devices and systems. Performs state-of-the-art product development activities, including drawing board layout and interpretation, and implementation of customer specifications. Assignments require the frequent use of initiative and judgment.

**Qualifications:** An Advance Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent experience only or six years specialized experience.

**Duties:** Level IV - Under general supervision, responsible for directing and coordinating all activities necessary to complete a major engineering project or several small projects. Performs engineering work and applied research, development, and design of new products. Work

includes complex design, fabrication, modification, and evaluation of electronic apparatus, components, or circuitry for use in electronic equipment and devices. Analyzes equipment to establish operating data and conducts experimental tests.

**Qualifications:** An Advance Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent experience only or eight years specialized experience.

**Duties:** Level I - Responsible for the completion of assigned engineering projects within budgetary and scheduling guidelines. Leads a group of engineers, analysts, and/or technicians assigned for the duration of a project or may function as ongoing lead job within a group of engineers associated with one or more technical areas within the systems level or hardware function.

**Qualifications:** An Advance Degree with twelve years experience; Bachelors Degree with fifteen years experience; twenty years equivalent experience only or ten years specialized experience.

### Subject Matter Expert \_\_\_\_\_

**Duties:** Level XIV - Under direct supervision, works as a technical or programmatic authority with experience in system acquisition, system engineering, specialty engineering or support disciplines. Assists in the analyses of and problem resolution in the development or evaluation of modern ADP, C4I, and sensor systems and subsystems. Includes personnel who provide analytical support in areas where capabilities are gained through extensive on-the-job experience or specialized Government training.

**Qualifications:** Bachelors Degree with no experience or three years equivalent experience only.

**Duties:** Level XIII -Under direct supervision, works as a technical or programmatic authority with experience in system acquisition, system engineering, specialty engineering or support

disciplines. Assists in the analyses of and problem resolution in the development or evaluation of modern ADP, C4I, and sensor systems and subsystems. May include specialty areas devised for military applications only. Includes personnel who provide analytical support in areas where capabilities are gained through extensive on-the-job experience or specialized Government training.

**Qualifications:** Bachelors Degree with three years experience or four years equivalent experience only.

**Duties:** Level XI - Acts independently with limited supervision to perform IT evaluations, and independent validation and verification of systems development.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level X - Acts independently with limited supervision. Performs IT assessments including business case analysis (costs/benefit and risk), performance measurements, independent validation and verification of systems development projects.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level VIII - Acts independently to provide support for complex, high-end information technology engineering life cycle systems to include systems engineering and integration; scientific and engineering applications development; and database application development. May encompass studies, analyses, design, development, configuration, integration, documentation, acquisition, modification, installation, testing, training, operation, and/or maintenance of stand alone and/or embedded hardware and software in a simulation, experimental, laboratory, military, and operational setting.

**Qualifications:** An Advance Degree with three years experience; Bachelors Degree with seven

years experience or ten years equivalent experience only.

**Duties:** Level VI - Acts independently to provide IT related to mission support services which require a diversity of skills suitable to a variety of information technology environments. May encompass system development and software maintenance, facilities planning, management, and operations, local area networks, metropolitan area networks, and wide area network system design, management, and support, software and application development, maintenance and enhancement support, data base generation and data base management.

**Qualifications:** An Advance Degree with five years experience; Bachelors Degree with nine years experience; twelve years equivalent experience only or six years specialized experience.

**Duties:** Level IV - Acts independently to provide legacy systems migration and enterprise systems development. May involve the modernization of legacy systems to web enabled applications, Internet/Intranet/Web Applications/Network Computing, and Next Generation Internet; or Information and System Security/Firewalls/Critical Infrastructures Software development; or customization of COTS software packages, and migration to modular applications.

**Qualifications:** An Advance Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent experience only or eight years specialized experience.

**Duties:** Level III - Acts independently to provide guidance and formulate concepts in IT trends as related to a specific mission or function where unique know of the subject matter is essential to carry out tasking. May include specialized fields in acquisition, security, or interoperability management. Includes personnel who provide analytical or management support in areas where capabilities are gained through extensive on-the-job experience or specialized Government training.

**Qualifications:** An Advance Degree with ten years experience; Bachelors Degree with thirteen years experience; sixteen years equivalent experience only or eight years specialized experience.

**Duties:** Level II - Works independently with no supervision required. Recognized for strong expertise in industry or military issues and trends.

Utilize expertise gained through direct experience to assess the operational and functional aspects of an organization and/or its operations and systems. Includes personnel who provide analytical and management support in areas where capabilities are normally gained primarily through extensive on-the-job experience or specialized formal Government or institutional training or certification.

**Qualifications:** An Advance Degree with ten years experience; Bachelors Degree with thirteen years experience; eighteen years equivalent experience only or ten years specialized experience.

**Duties:** Level I - Works independently with no supervision required. Recognized for strong expertise in industry or military issues and trends. Utilize expertise gained through direct experience to assess the operational and functional aspects of an organization and/or its operations and systems. Includes personnel who provide analytical and management support in areas where capabilities are normally gained primarily through extensive on-the-job experience or specialized formal Government or institutional training or certification. Provides guidance and direction to other professionals, acts in a consulting and/or advisory capacity; coordinates resolution of highly complex problems and tasks.

**Qualifications:** An Advance Degree with twelve years experience; Bachelors Degree with fifteen years experience; twenty years equivalent experience only or ten years specialized experience.

## Software Engineer \_\_\_\_\_

**Duties:** Level XIII - Under direct supervision, performs routine tasks to develop, apply, and

maintain quality requirements for company products. Reviews software documentation. Assists in writing test and configuration control procedures.

**Qualifications:** Bachelors Degree with three years experience or four years equivalent experience only.

**Duties:** Level XI - Under limited supervision, performs tasks to develop, apply, and maintain quality requirements for projects. Reviews documentation, assists the Test and Configuration Management Groups in writing procedural documentation. Attends in progress reviews, witnesses testing and performs quality audits. Develops and implements project level quality assurance plans and procedures. May make recommendations for corrective action.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level X – Under immediate supervision, works from specifications to assist in developing and modifying operating software programming applications. Assists with design, coding, benchmark testing, debugging and documentation of programs. Applications generally deal with utility programs, job control language, macros, subroutines and other control modules. May customize purchased applications and assist in maintaining program libraries and technical manuals.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level VII – Under general direction, formulates/defines specifications for complex operating software programming applications or modifies/maintains complex existing applications using engineering releases and utilities from the manufacturer. Designs, codes, tests, debugs and documents those programs. Usually responsible for applications dealing with the overall operating system, such as sophisticated file maintenance

routines, large telecommunications networks, computer accounting and advanced mathematical/scientific software packages. Competent to work at the highest technical level on all phases of software systems programming applications. May have responsibility for the evaluation of new and existing software products. May assist other systems programmers to effectively utilize the system's technical software.

**Qualifications:** An Advanced Degree with five years experience, Bachelors Degree with nine years experience or twelve years equivalent experience only.

**Duties:** Level IV – Formulates/ defines specifications for complex software programming applications or modifies/maintains complex existing applications using engineering releases and utilities from the manufacturer. Responsible for program design, coding, testing, debugging, and documentation. Has full technical knowledge of all phases of software development. Also has duties instructing, directing and checking the work of other personnel. Responsible for quality assurance review and the evaluation of new and existing software products. Acts as project leader for projects with small budgets or limited duration.

**Qualifications:** An Advanced Degree with seven years experience, Bachelors Degree with eleven years experience; fourteen years equivalent experience only or eight years specialized experience.

**Duties:** Level III – Responsible for all software systems programming activities. Applications generally affect the overall operating system, such as sophisticated file maintenance routines, advanced scientific software, large telecommunications networks and computer accounting. Responsible for meeting, budget goals and objectives. Provides input to policy level direction regarding standards, budget constraints, etc. Makes personnel decisions. Assigns personnel to projects and directs their activities. Projects software and hardware requirements in conjunction with other information

systems managers. Develops standards for all software system applications and provides technical guidance to the information systems staff. Directs the interface of software systems with the hardware configuration and the applications systems. Additional areas of responsibility include: configuration/capacity planning, software products evaluation, systems performance analysis and optimization. Prepares activity and progress reports for software systems programming activities.

**Qualifications:** An Advanced Degree with ten years experience, Bachelors Degree with thirteen years experience; sixteen years equivalent experience only or eight years specialized experience.

**Duties:** Level I – Supervises activities of all software systems programming personnel for a major project, or several smaller projects. Responsible for quality assurance. Makes decisions on personnel actions. Controls revenues and/or expenses within the operating unit and is responsible for meeting budget goals and objectives. Provides input to policy level direction regarding standards, budget constraints, etc

**Qualifications:** An Advanced Degree with twelve years experience, Bachelors Degree with fifteen years experience; twenty years equivalent experience only or ten years specialized experience.

## **Programmer**

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**Duties:** Level XV – Under direct supervision, assists in the analysis, design, programming, and modification of computer programs for software products and/or customer applications. Writes code and completes programming, testing, and debugging of applications. Finalizes forms, procedures and documentation needed for installation and maintenance of application programs. May interface with marketing and users to add new or custom features to company products. This is the entry level position, requiring detailed instructions on all work assignments.

**Qualifications:** Bachelors Degree with no experience or two years equivalent experience only.

**Duties:** Level XIV – Under direct supervision, assists in the research, evaluation, testing, and implementation of developing or modifying information systems for processing normal business operating problems. Assists in the preparation of detailed specifications from which programs will be written. Designs, codes, test, debugs, documents, and maintains those programs.

**Qualifications:** Bachelors Degree with no experience or three years equivalent experience only.

**Duties:** Level XII –Under limited supervision, assists in formulating and defining system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Prepares detailed specifications from which programs will be written. Designs, codes, tests, debugs, documents, and maintains those programs. Competent to work in most phases of applications systems analysis and programming activities, but spends majority of time programming.

**Qualifications:** Bachelors Degree with three years experience or six years equivalent experience only.

**Duties:** Level X - Under general supervision, formulates and defines system scope and objectives based on user needs. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results. Prepares detailed specifications from which programs will be written. Designs, codes, tests, debugs, documents, and maintains those programs. Competent to work at a high technical level in all phases of applications systems analysis and programming activities.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level VIII - Under general supervision, formulates/defines system scope and objectives through research and fact-finding to develop or modify complex information systems. Prepares feasibility studies, cost estimates, and detailed specifications from which programs will be written. May present recommendations to management. Analyzes and revises existing system logic difficulties and documentation as necessary. Competent to work in complex phases of applications systems analysis activities. May act in lead capacity and provide leadership and training to lower level

**Qualifications:** An Advanced degree with three years experience; Bachelors Degree with seven years experience or ten years equivalent experience only.

Level III - Responsible for designing, developing, and troubleshooting highly complex software programs for computer based systems. Performs systems modeling, simulation, and analysis in designing assemblers, linkers, compilers, and operating system utilities. Responsibilities include designing specific enhancements and planning upgrades to operating systems. Advises hardware engineers on machine characteristics that affect software systems. Provides input for documentation on new or existing programs. Provides work leadership by assigning and monitoring work, and training new employees. This is a staff level position, excluding programmers whose major responsibility is programming of applications.

**Qualifications:** An Advanced degree with ten years experience; Bachelors Degree with thirteen years experience; sixteen years equivalent experience only or eight years specialized experience.

## **System Engineer** \_\_\_\_\_

**Duties:** Level XII - Responsible for achieving overall technical integrity of organization's website. Maintains and upgrades hardware and software including website technical architecture related to hardware and telecommunication connectivity.

Administers e-mail, chat, and FTP services. Communicates router configuration changes and troubleshoots system errors and bugs. Maintains servers, creates monitoring reports and links, and ensures functionality of links. Monitors site for acceptable performance and user accessibility. Establishes backups and monitors site security.

**Qualifications:** Bachelors Degree with three years experience or six years equivalent experience only.

**Duties:** Level X - Plans and evaluates moderately complex existing network systems and makes recommendations for resources required to maintain and/or expand service levels. Provides assistance in network planning, engineering, architecture and the development of technical standards and interface applications. Evaluates new products as assigned. Provides resolution for network problems.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level VIII - Responsible for installing, configuring, and maintaining operating system workstations and servers, including web servers, in support of business processing- requirements. Performs software installations and upgrades to operating systems and layered software packages. Schedules installations and upgrades and maintains them in accordance with established IT policies and procedures. Monitors, and tunes the system to achieve optimum performance levels. Ensures workstation/server data integrity by evaluating, implementing, and managing appropriate software and hardware solutions. Ensures data/media recoverability by implementing a schedule of system backups and database archive operations. Supports media management through internal methods and procedures or through offsite storage and retrieval services. Develops and promotes standard operating procedures. Conducts routine hardware and software audits of workstations and servers to ensure compliance with established standards, policies, and configuration guidelines. Develops and maintains a comprehensive operating

system hardware and software configuration database/library of all supporting documentation.

**Qualifications:** An Advanced Degree with three years experience; Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level VI - Responsible for all activities relating to technical guidance for planning, directing and monitoring information systems operations. Plans and recommends system modifications or additional equipment to increase the capacity of the system. Prepares operational cost estimates for current and proposed projects. Evaluates vendor proposals for purchases of hardware. May advise on organizational, procedural, and workflow plans, methods and procedures analysis. Analyzes the results of workflow plans, monitors the operating system(s) and recommends changes to improve processing and utilization.

**Qualifications:** An Advanced Degree with five years experience; Bachelors Degree with nine years experience; twelve years equivalent experience only or six years of specialized experience.

**Duties:** Level V - Responsible for long-term strategic planning to ensure network capacity meets current and future network requirements including planning for remote hardware and communications facilities; development and implementation of methodologies for system analysis, installation and support. Defines and develops methodology to ensure compatibility of all software and hardware products. Provides ongoing coordination in the analysis, acquisition and installation of remote hardware and software.

**Qualifications:** An Advanced Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent experience only or six years of specialized experience.

**Duties:** Level IV - Responsible for the planning, design, engineering, and development of complex

computer-based systems. Develops systems requirements and specifications. Plans and coordinates the integrations installation, operation, and application of equipment from a systems standpoint. Performs functional tests to establish working parameters for hardware and software compatibility. Analyzes new hardware to determine application and integration with total operating system. Acts as a liaison between engineering personnel inside and outside the organization. Establishes parameters for appropriate documentation.

**Qualifications:** An Advanced Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent experience only or eight years of specialized experience.

**Duties:** Level III - Responsible for all information systems operations, activities, including computer operations, data entry, data control, and operations support. Controls revenues and expenses within business unit and is responsible for meeting budget goals and objectives. Provides input to policy level direction regarding standards, budget constraints, etc. Assigns personnel to projects, and directs their activities and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities and methods. Consults with personnel in other information systems sections to coordinate activities. Prepares activity and progress reports regarding information systems operations.

**Qualifications:**

An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience; sixteen years equivalent experience only or eight years of specialized experience.

**Duties:** Level I - Directs the preparation, review and consolidation of information systems budgets and business plans. Ensures adherence to budgets and business plans through periodic review of financial reports and capital appropriation requests.

May be responsible for developing, implementing and enforcing policies, standards and methodologies. May be responsible for hardware contract administration and/or outsourcing contract administration and service levels, including negotiation of contract provisions, interface with legal department and maintenance of appropriate documentation. May oversee information systems personnel administration, including selection, training, and personnel development. May be responsible for information systems security.

**Qualifications:** An Advanced Degree with twelve years experience; Bachelors Degree with fifteen years experience; twenty years equivalent experience only or ten years of specialized experience.

**Program Management**

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**Duties:** Level VII – Serves as a Task Team Leader for a single function or Project Leader for a single task order. Defines and directs technical tasks to be performed. Defines milestones and schedules. Allocates work, provides supervision to subordinates, reports on work in progress, prepares status reports to the customer and ensures the acceptability of the end product. Works independently with general supervision.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level VI – Serves as Project Manager for a large, complex task order or a group of task orders. May assist the Program Manager in working with the Government Contracting Officer, Contracting Officer's Representative, government management personnel and customer agency representatives. Under the guidance of the Program Manager, responsible for the overall management of the specific task order(s) and ensuring that the technical solutions and schedules in the task order are implemented as directed. Works independently with some general supervision.

**Qualifications:** Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level V - Serves as a Program Manager for an independent business unit. Responsible to the overall technical and management performance of the unit. Performs business unit Level project planning, execution and performance. Provides operations, cost and personnel management. Works independently with some general supervision required.

**Qualifications:** Bachelors Degree with nine years experience; twelve years equivalent experience only; or six years specialized experience.

**Duties:** Level IV - Performs acquisition planning and execution of documents. Provides acquisition support, financial management, and acquisition logistics related inputs to the acquisition process and the administration of orders and contracts. Assist in development and support of innovative approaches to contract order administration, warranty management, contractor repair, technical data, configuration/data management, and training planning/execution. Provide for budget, cost analysis, schedule analysis, financial planning, financial execution, related documentation and analysis required that support the business operations. Works independently with some general direction.

**Qualifications:** Bachelors Degree with eleven years experience; fourteen years equivalent experience only; or six years specialized experience.

**Duties:** Level III – Contributes to overall program requirements definition and to the development of innovative, comprehensive acquisition and support strategies. Develops and coordinates reports, assessments, and briefings for the executive management and staff. Supports the delivery of required presentations. Conducts market research for commercial hardware and software products and for integration requirements. Evaluate the merits of various technical and programmatic strategies; documents the costs, risks, advantages, and disadvantages and recommend improvements to

program planning. Develops detailed acquisition plans to implement the selected strategies. Coordinates current and emerging requirements with a broad national and international customer base. Works independently with some general direction.

**Qualifications:** An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience; sixteen years equivalent experience only; or eight years specialized experience.

**Duties:** Level II – Directs the preparation, review and consolidation of corporate, regional, subsidiary and/or divisional information systems budgets and business plans. Ensures adherence to budgets and business plans through periodic review of financial reports and capital appropriation request. May be responsible for developing, implementing and enforcing policies, standards and methodologies. May be responsible for contract administration including negotiation of contract provisions. May oversee personnel administration, including selection, training and personnel development. Works independently with no supervision required.

**Qualifications:** An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience; eighteen years equivalent experience only; or ten years specialized experience.

**Duties:** Level I – Responsible for all corporate information systems activities, including: systems analysis, programming, and computer and auxiliary operations. Sets policies and procedures, technical standards and methods, and priorities. Manages liaison between information systems and other functions in the company. Reports to senior management on information systems plans, projects, performance and related matters. Works independently with no supervision required.

**Qualifications:** An Advanced Degree with twelve years experience; Bachelors Degree with fifteen years experience; twenty years equivalent

experience only; or ten years specialized experience.

## Software Manager

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**Duties:** Level VI - Responsible for the effective development and implementation of programs to ensure that all information systems products and services meet minimum company standards and end-user requirements. Administers change control process for zero defect software development. Ensures adequate product testing prior to implementation. Administers problem management process including monitoring and reporting on problem resolution. Makes recommendations to superiors regarding the acquisition and/or implementation of software to increase information systems efficiency.

**Qualifications:** Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level III - Responsible for the planning, design, and development of software programs for computer based systems. Develops software requirements and software specification. Plans and coordinates the integration, operation, and application of equipment from a software standpoint. Reviews working parameters for hardware and software compatibility. Acts as liaison between engineering personnel inside and outside the organization. Establishes parameters for appropriate software documentation, instruction manuals, test procedures, and related material.

**Qualifications:** An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience, sixteen years equivalent experience only; or eight years specialized experience.

## IT Technician

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**Duties:** Level VII - Monitors and responds to technical hardware and software problems utilizing hardware and software testing tools and techniques. May interface with vendor support service groups to

ensure proper escalation during outages or periods of degraded system performance. May assist with installation of terminals and associated hardware. Works independently with direct supervision.

**Qualifications:** Associates Degree with six years experience or nine years experience only.

**Duties:** Level VI - Performs a variety of complex maintenance activities. Provides advanced troubleshooting and repairing technical support. Assesses and responds to situations where standard procedures have failed in isolating or fixing problem equipment or software. Works independently with direct supervision.

**Qualifications:** Associates Degree with eight years experience or twelve years equivalent experience only.

**Duties:** Level V - Monitors and responds to complex technical hardware and software problems utilizing a variety of hardware and software testing tools and techniques. Provides primary interface with vendor support service groups or provides internal analysis and support. May function as lead job providing guidance and training for less experienced technicians. Works independently with some direct supervision.

**Qualifications:** Associates Degree with ten years experience or fourteen years equivalent experience only.

**Duties:** Level III - Responsible for ensuring the timely process through which problems are controlled. Includes problem recognition, research, isolation, resolution and follow-up steps. Is able to resolve less complex problems immediately, while more complex problems are assigned to second level support. Typically involves use of a problem management database or help desk system. May provide guidance for less experienced personnel. Works independently with supervision.

**Qualifications:** A Bachelors Degree with ten years experience; Associates Degree with fourteen years

experience; eighteen years equivalent experience only or ten years specialized experience.

**Duties:** Level II - Responsible, under general supervision, for complex tasks typically relating to network monitoring, operations, installation and/or maintenance for local, off-site, and/or remote locations. May function as lead job in the absence of the Supervisor, but would not have ongoing lead responsibility. Works independently with some general supervision.

**Qualifications:** A Bachelors Degree with twelve years experience; Associates Degree with sixteen years experience; twenty years equivalent experience only or thirteen years specialized experience.

### **Project Administrator**

**Duties:** Level X - Performs high-level project administrative work under the general supervision of a manager. Types correspondence. Answers telephones, greets visitors, mail distribution, and makes travel arrangements. Works dependently with direct supervision.

**Qualifications:** Associates Degree with no experience or two years equivalent experience only.

**Duties:** Level IX - Performs high-level project administrative work under the general supervision of a manager. Types and proofreads reports and documentation. Maintains filing system for department. Answers telephones, responds to routine questions/requests, greets visitors, schedules meetings, mail distribution, and makes travel arrangements. Works dependently with direct supervision.

**Qualifications:** Associates Degree with two years experience or four years equivalent experience only.

**Duties:** Level VIII - Assists in the preparation of management plans, reports, briefings/ presentations and In-Process Review preparation. Carries out the clerical aspects of the documentation function. Works dependently with direct supervision.

**Qualifications:** Associates Degree with four years experience or six years equivalent experience only.

**Duties:** Level VI - Assists in the preparation of technical, financial or management documentation. Provides technical editing. Coordinates schedules to facilitate completion of contract deliverables, interchange meetings and In-Process Review preparation. Works independently with some direct supervision.

**Qualifications:** Associates Degree with eight years experience or twelve years equivalent experience only.

**Duties:** Level V - Performs high-level project administrative work under the general supervision of a manager. Maintains department filing system. Implements program administrative operating procedures. Supervises office personnel. Coordinates with vendors for office supplies and equipment.

**Qualifications:** Associates Degree with ten years experience or fourteen years equivalent experience only.

**Duties:** Level IV – Supervises all documentation activities. Assigns work to personnel and directs their activities, and reviews and evaluates their work. Confers with and advises subordinates on administrative procedures, technical problems, priorities and methods.

**Qualifications:** A Bachelors Degree with eight years experience; Associates Degree with twelve years experience; sixteen years equivalent experience only or eight years specialized experience.

**Duties:** Level II – Responsible for the integration of office automation systems and software. Analyzes, develops and maintains internal use libraries. Provides support and direction for user groups in the selection and use of automation systems and programs. Monitors new and future developments in office automation. Works independently with some general supervision.

**Qualifications:** A Bachelors Degree with twelve years experience; Associates Degree with sixteen years experience; twenty years equivalent experience only or thirteen years specialized experience.

**Duties:** Level I – Performs complex analytical, administrative and supervisory responsibilities for hardware, software and service contract activities. Reviews, analyzes and monitors contract performance. Originates and executes custom service contracts and purchase orders. Develops vendor relationships and negotiates purchasing contracts. Acts as a liaison between vendor and technical staff. Works independently with some general supervision.

**Qualifications:** A Bachelors Degree with fifteen years experience; Associates Degree with twenty years experience; twenty-five years equivalent experience only or fifteen years specialized experience.

### Chief Systems Engineer \_\_\_\_\_

**Duties:** Top Level expert in one or more highly specialized phases of systems engineering. Acts independently under general direction. Provides technical consulting on complex projects. Has full knowledge of all phases of the systems lifecycle as related to operational use and participates in reviews and interchange meetings. May have duties directing, instructing, and checking the work of others.

**Qualifications:** An Advanced Degree with twenty years experience; Bachelors Degree with twenty-five years experience, thirty years equivalent experience only; or fifteen years specialized experience.

### Principle Consultant/Expert \_\_\_\_\_

**Duties:** Responsible for most complex systems process analysis, design and simulation. Has the highest Level of understanding of an organization's business systems and industry requirements. Focus

is on process analysis with an understanding of technical problems and solutions as they relate to the current and future business environment. Creates process change and communicates these changes to interfacing or associated groups. May recommend and facilitate quality improvement efforts.

**Qualifications:** An Advanced Degree with twenty years experience; Bachelors Degree with twenty-five years experience, thirty years equivalent experience only; or fifteen years specialized experience.

### Program Manager \_\_\_\_\_

**Duties:** Serves as the contractor's single contract manager, and will be the contractor's authorized interface with the Purchasers Contracting Representative, government management personnel and customer agency representatives. Responsible for formulating and enforcing work standards, assigning contractor schedules, reviewing work discrepancies, supervising contractor personnel and communicating policies, purposes, and goals of the organization to subordinates. Will be responsible for the overall contract performance and will not serve in any other capacity under this contract.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of ten years experience, of which at least five years must be specialized. Specialized experience includes: complete engineering project development from inception to deployment, demonstrated ability to provide guidance and direction in the tasks similar to the representative scenarios provided in the statement of work, proven expertise in the management and control of funds and resources, demonstrated capability in managing multi-task contracts of this type and complexity. General experience includes increasing responsibilities in information systems design and management. With an Advanced degree (in the fields described above): seven years general experience of which at least five years specialized experience is required.

## Senior Computer Scientist \_\_\_\_\_

**Duties:** Provides technical and administrative direction for personnel performing software development tasks, including the review of work products for correctness, adherence to the design concept and to user standards, and for progress in accordance with schedules. Coordinates with the Program Manager to ensure problem solution and user satisfaction. Make recommendations, if needed, for approval of major systems installations. Prepares milestone status reports and deliveries/presentations on the system concept to colleagues, subordinates, and end user representatives. Provides daily supervision and direction to support staff.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of eight years experience, of which at least four years must be specialized. Specialized experience includes: analysis and design of business applications on complex systems for large-scale computers, data base management, use of programming languages such as Ada, COBOL, 4GL, and/or DBMS. Knowledge of current storage and retrieval methods and demonstrated ability to formulate specifications for computer programmers to use in coding, testing, and debugging of computer programs. General experience includes increasing responsibilities in assignments of a technical nature. Proven ability to work independently or under only general direction on complex application problems involving all phases of systems analysis is required. With an Advanced Degree (in the fields above): five years general experience of which at least three years must be specialized required. With ten years of general experience of which at least seven years must be specialized experience, a degree is not required.

## Computer Scientist \_\_\_\_\_

**Duties:** Analyzes and develops computer software possessing a wide range of capabilities, including

numerous engineering, business, and records management functions. Develops plans for automated information systems from project inception to conclusion. Analyzes user interfaces, maintain hardware and software performance tuning, analyze workload and computer usage, maintain interfaces with outside systems, analyze down times, analyze proposed system modifications, upgrades and new COTS. Analyzes the problem and the information to be processed. Defines the problem, and develops system requirements and program specifications, from which programmers prepare detailed flow charts, programs, and tests. Coordinates closely with programmers to ensure proper implementation of program and system specifications. Develops, in conjunction with functional users, system alternative solutions.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of five years experience, of which at least three years must be specialized. Specialized experience includes: analysis and design of business applications on complex systems for large-scale computers, including three years experience in data base management concepts, use of the programming languages such as Ada, COBOL, 4GL, and/or DBMS. Knowledge of current storage and retrieval methods, one year of systems analysis experience designing technical applications on computer systems and demonstrated ability to formulate specifications for computer programmers to use in coding, testing, and debugging of computer programs. General experience includes increasing responsibilities in information systems design and management. Must demonstrate the ability to work independently or under only general direction on requirements that are moderately complex to analyze, plan, program, and implement. With an Advanced Degree (in the fields described in B above): three years general experience of which at least two years must be specialized experience is required. With seven years of general experience of which at least five years must be specialized experience, a degree is not required.

## Junior Computer Scientist \_\_\_\_\_

**Duties:** Analyzes information requirements. Evaluates analytically and systematically problems of workflow, organization, and planning and assists Senior Computer Scientist and Computer Scientist develop appropriate corrective action. Help develop plans for automated information systems from project inception to conclusion. Defines the problem, and develops system requirements and program specifications, from which programmers prepare detailed flow charts, programs, and tests. Under the supervision of a Senior Computer Scientist and Computer Scientist coordinates closely with programmers to ensure proper implementation of program and system specifications. Develops, in conjunction with functional users, system alternative solutions.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position is for recent college graduates and requires no experience.

## Senior Information Specialist \_\_\_\_\_

**Duties:** Provides technical and administrative direction for personnel performing engineering and analysis tasks, including the review of work products for correctness, adherence to the design concept and to user standards, and for progress in accordance with schedules. Coordinates with the Program Manager to ensure problem solution and user satisfaction. Make recommendations, if needed, for approval of major systems installations. Prepares milestone status reports and deliveries/presentations on the system concept to colleagues, subordinates, and end user representatives. Provides daily supervision and direction to support staff.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of eight years experience, of which at least four years

must be specialized. Specialized experience includes: analysis, design, and application of information systems used to collect and analyze data, data base management, and use of programming languages and engineering techniques. Knowledge of current storage and retrieval methods and demonstrated ability to formulate specifications for data manipulation. General experience includes increasing responsibilities in assignments of a technical nature. Proven ability to work independently or under only general direction on complex application problems involving all phases of systems analysis is required. With an Advanced Degree (in the fields described in B above): five years general experience of which at least three years must be specialized required. With ten years of general experience of which at least seven years must be specialized experience, a degree is not required.

## Information Specialist \_\_\_\_\_

**Duties:** Analyzes and develops techniques for the processing of data in a wide range of capabilities, including numerous engineering, business, and records management functions. Develops plans for automated information systems from project inception to conclusion. Analyzes user interfaces, maintain hardware and software performance tuning, analyze workload and computer usage, maintain interfaces with outside systems, analyze downtimes, analyze proposed system modifications, upgrades and new COTS. Analyzes the problem and the information to be processed. Defines the problem, and develops system requirements and program specifications, from which engineers prepare detailed specifications, programs, and tests. Coordinates closely with other engineers to ensure proper implementation of program and system specifications. Develops, in conjunction with functional users, system alternative solutions.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of five years experience, of which at least three years must be specialized. Specialized experience

includes: analysis and design of applications for engineering or business use. Knowledge of current storage and retrieval methods, one year of systems analysis experience designing technical applications on systems and demonstrated ability to formulate specifications for engineers and analysts to use in analysis, application and testing of systems. General experience includes increasing responsibilities in information systems design and management. Must demonstrate the ability to work independently or under only general direction on requirements that are moderately complex to analyze, plan, program, and implement. With an Advanced Degree (in the fields described in B above): three years general experience of which at least two years must be specialized experience is required. With seven years of general experience of which at least five years must be specialized experience, a degree is not required.

### **Junior Information Specialist** \_\_\_\_\_

**Duties:** Analyzes and develops techniques for the processing of data in a wide range of capabilities, including numerous engineering, business, and records management functions. Analyzes information requirements. Evaluates analytically and systematically problems of workflow, organization, and planning and assists Senior Information Specialists and Information Specialists to develop appropriate corrective action. Help analyze user interfaces, maintain hardware and software performance tuning, analyze workload and computer usage, maintain interfaces with outside systems, analyze down times, analyze proposed system modifications, upgrades and new COTS develop plans for automated information systems from project inception to conclusion. Analyzes the problem and the information to be processed. Defines the problem, and develops system requirements and program specifications, from which engineers prepare detailed specifications, programs, and tests. Coordinates closely with other information specialists to ensure proper implementation of program and system specifications. Develops, in conjunction with functional users, system alternative solutions.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position is for recent college graduates and requires no experience.

### **Data Base Management Specialist** \_\_\_\_\_

**Duties:** Manages the development of data base projects. Plans and budgets staff and data base resources. When necessary, reallocates resources to maximize benefits. Prepares and delivers presentations on data base management systems (DBMS) concepts. Provides daily supervision and direction to support staff.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of eight years experience, of which at least four years must be specialized. Specialized experience includes: demonstrated experience with DBMS design and system analysis, current operating systems software internals and data manipulation languages. General experience includes increasing responsibilities in the development and maintenance of data base systems. With an Advanced Degree (in the fields described in B above): five years general experience of which at least three years must be specialized experience is required. With ten years of general experience of which at least seven years must be specialized experience, a degree is not required.

### **Senior Programmer** \_\_\_\_\_

**Duties:** Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flow charts. Translates detailed design into computer software. Tests, debugs, and refines the computer software to produce the required product. Prepares required documentation, including both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency.

Provides technical direction to programmers to ensure program deadlines are met.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires a minimum of five years experience, of which at least three years must be specialized. Specialized experience includes: experience as an applications programmer on large-scale data base management systems, knowledge of computer equipment and ability to develop complex software to satisfy design objectives. Demonstrated ability to work independently or under only general direction. With an Advanced Degree (in the fields described in B above) three years general experience of which at least two years must be specialized experience is required. With seven years of general experience of which at least five years must be specialized experience, a degree is not required.

### **Programmer**\_\_\_\_\_

**Duties:** Participates in the design of software tools and subsystems to support reuse and domain analysis. Assists other programmers to interpret software requirements and design specifications to code, and integrate and test software components.

**Qualifications:** A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position is for recent college graduates and requires no experience.

### **Technician**\_\_\_\_\_

**Duties:** Organizes and directs hardware installations on site surveys. Assesses and documents current site network configuration and user requirements. Designs and optimizes network topologies. Analyzes and develops new hardware requirements and prepares specifications for hardware acquisitions. Directs and leads preparation of engineering plans and site installation Technical Design Packages. Develops hardware

installation schedules. Mobilizes installation team. Directs and leads preparation of drawings documenting configuration changes at each site. Prepares site installation and test reports. Coordinates post installation operations and maintenance support.

**Qualifications:** Minimum education requirement is a certificate or Associates Degree. This position requires a minimum of eight years experience of which at least six years must be specialized. Specialized experience includes: supervision of installation technicians, analysis, design, and installation of computer-based systems; analysis, design, and installation of local area nets; and analysis and installation of communication systems. General experience includes increasing responsibilities in technical management. With an Associate's Degree: five years general experience of which at least three years must be specialized experience is required. With a Bachelor's Degree: three years general experience of which at least two years must be specialized experience is required.

### **Technical Writer/Documentation Specialist**\_\_\_\_\_

**Duties:** Assists in collecting and organizing information required for preparation of user's manuals, training materials, installation guides, proposals, and reports. Edits functional descriptions, system specifications, user's manuals, special reports, or any other customer deliverables and documents.

**Qualifications:** A Bachelor's degree in English, Literature, or other related discipline. This position requires a minimum of three years experience, of which at least one year must be specialized. Specialized experience includes: demonstrated experience in editing documents, including technical documents. Demonstrated ability to work independently or under only general direction. With an Advanced Degree (in the fields described in B above): two years general experience of which at least one year must be specialized experience is required. With seven year's general experience of which at least five years is specialized, a degree is not required.

## Program Administration Specialist \_\_\_\_\_

**Duties:** Assists in the preparation of management plans and reports. Coordinates schedules to facilitate completion of proposals, contract deliverables, task order review, briefings/presentations, and IPR preparation. Performs analysis, development, and review of program administrative operating procedures.

**Qualifications:** Requires a certificate or Associates Degree with a minimum of four years experience, of which at least two years must be specialized. Specialized experience in general contract administration. Works with limited supervision and direction. Required to use judgment and initiative in problem solving. With an Associate's degree in Computer Science, Business. Two years of general experience of which at least one year must be specialized experience. With A Bachelor's degree in any field, will require one year of general experience and one year of specialized experience.

## System Engineer \_\_\_\_\_

**Duties:** Level XV - Under direct supervision, performs general tasks to aid in the ongoing support of microenvironments. May perform LAN/hard disk backups; assists with end user questions and problems. May work on simple applications. Installs software and peripherals, may also troubleshoot basic hardware problems. Conducts research on new technology as requested.

**Qualifications:** Bachelors Degree with no experience or two years equivalent experience only.

**Duties:** Level XIV - Under general supervision, performs analytical, technical and administrative work in the planning, design and installation of new and existing- personal computer systems. Works on moderately complex applications. Confers with end users to determine types of hardware and software required. Writes programs to fulfill requirements or selects appropriate off-the-shelf software and modifies to suit. May maintain or utilize telecommunications protocols. Installs new

hardware and maintains existing hardware. Trains end users in use of equipment and software.

**Qualifications:** Bachelors Degree with no experience or three years equivalent experience only.

**Duties:** Level XIII - Under supervision, maintains integrity of the operating system environment. Performs system software upgrades including, planning/scheduling, testing, and coordination. Performs workstation and server administration setup. Coordinates disk space planning and management. Maintains growth statistics, space forecasts, tape libraries, and software and hardware inventories. Performs data backups and recoveries. Monitors and maintains continuity with system software licensing and maintenance agreements. Provides recommendations regarding hardware and system software planning and budgeting. Maintains production change control schedule and participates in change control.

**Qualifications:** Bachelors Degree with three years experience or four years equivalent experience only.

**Duties:** Level XII - Responsible for achieving overall technical integrity of organization's website. Maintains and upgrades hardware and software including website technical architecture related to hardware and telecommunication connectivity. Administers e-mail, chat, and FTP services. Communicates router configuration changes and troubleshoots system errors and bugs. Maintains servers, creates monitoring reports and links, and ensures functionality of links. Monitors site for acceptable performance and user accessibility. Establishes backups and monitors site security.

**Qualifications:** Bachelors Degree with three years experience or six years equivalent experience only.

**Duties:** Level XI - Monitors and responds to complex technical control facility hardware and software problems utilizing a variety of hardware and software testing tools and techniques. Provides primary interface with vendor support service groups or provides internal analysis and support to

ensure proper escalation during outages or periods of degraded system performance. May provide LAN server support. Use of PC/LAN communications hardware/software in a multi-protocol environment, and network management software. May function as lead job providing guidance and training.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level X - Plans and evaluates moderately complex existing network systems and makes recommendations for resources required to maintain and/or expand service levels. Provides assistance in network planning, engineering, architecture and the development of technical standards and interface applications. Evaluates new products as assigned. Provides resolution for network problems.

**Qualifications:** Bachelors Degree with five years experience or eight years equivalent experience only.

**Duties:** Level IX - Works with users to solve problems with available technology including: hardware, software and peripherals. Studies and analyzes systems needs, trains users on software and hardware, handles troubleshooting and provides quality assurance review of user systems. Typically performs time estimates and regularly reviews status of projects. Keeps abreast of technological developments and may install new hardware and software for user groups.

**Qualifications:** An Advanced Degree with three years experience; Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level VIII - Responsible for installing, configuring, and maintaining operating system workstations and servers, including web servers, in support of business processing- requirements. Performs software installations and upgrades to operating systems and layered software packages. Schedules installations and upgrades and maintains

them in accordance with established IT policies and procedures. Monitors, and tunes the system to achieve optimum performance levels. Ensures workstation/server data integrity- by evaluating, implementing, and managing, appropriate software and hardware solutions. Ensures data/media recoverability by implementing a schedule of system backups and database archive operations. Supports media management through internal methods and procedures or through offsite storage and retrieval services. Develops and promotes standard operating procedures. Conducts routine hardware and software audits of workstations and servers to ensure compliance with established standards, policies, and configuration guidelines. Develops and maintains a comprehensive operating system hardware and software configuration database/library of all supporting documentation.

**Qualifications:** An Advanced Degree with three years experience; Bachelors Degree with seven years experience or ten years equivalent experience only.

**Duties:** Level VII - Responsible for activities related to system administration. Assigns personnel to various projects, directs their activities, and evaluates their work. Ensures long-term requirements of systems operations and administration are included in the overall information systems planning of the organization. Responsible for the installation, maintenance, configuration, and integrity of computer software. Implements operating system enhancements that will improve the reliability and performance of the system.

**Qualifications:** An Advanced Degree with five years experience; Bachelors Degree with nine years experience or twelve years equivalent experience only.

**Duties:** Level VI - Responsible for all activities relating to technical guidance for planning, directing and monitoring information systems operations. Plans and recommends system modifications or additional equipment to increase the capacity of the system. Prepares operational

cost estimates for current and proposed projects. Evaluates vendor proposals for purchases of hardware. May advise on organizational, procedural, and workflow plans, methods and procedures analysis. Analyzes the results of workflow plans, monitors the operating system(s) and recommends changes to improve processing and utilization.

**Qualifications:** An Advanced Degree with five years experience; Bachelors Degree with nine years experience; twelve years equivalent experience only or six years of specialized experience.

**Duties:** Level V - Responsible for long-term strategic planning to ensure network capacity meets current and future network requirements including planning for remote hardware and communications facilities; development and implementation of methodologies for system analysis, installation and support. Defines and develops methodology to ensure compatibility of all software and hardware products. Provides ongoing coordination in the analysis, acquisition and installation of remote hardware and software.

**Qualifications:** An Advanced Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent experience only or six years of specialized experience.

**Duties:** Level IV - Responsible for the planning, design, engineering, and development of complex computer-based systems. Develops systems requirements and specifications. Plans and coordinates the integrations installation, operation, and application of equipment from a systems standpoint. Performs functional tests to establish working parameters for hardware and software compatibility. Analyzes new hardware to determine application and integration with total operating system. Acts as a liaison between engineering personnel inside and outside the organization. Establishes parameters for appropriate documentation.

**Qualifications:** An Advanced Degree with seven years experience; Bachelors Degree with eleven years experience; fourteen years equivalent experience only or eight years of specialized experience.

**Duties:** Level III - Responsible for all information systems operations, activities, including computer operations, data entry, data control, and operations support. Controls revenues and expenses within business unit and is responsible for meeting budget goals and objectives. Provides input to policy level direction regarding standards, budget constraints, etc. Assigns personnel to projects, and directs their activities and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities and methods. Consults with personnel in other information systems sections to coordinate activities. Prepares activity and progress reports regarding information systems operations.

**Qualifications:** An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience; sixteen years equivalent experience only or eight years of specialized experience.

**Duties:** Level II - Responsible for IS operations and for software systems analysis and programming. May also be responsible for one or more of the following: information center, database management, data security, telecommunications, IS training. Reviews systems development project requests and coordinates schedules and related departmental activities. Provides overall direction and guidance to assigned project personnel. Reviews and evaluates work of subordinate staff and prepares performance reports. Prepares activity and progress reports.

**Qualifications:** An Advanced Degree with ten years experience; Bachelors Degree with thirteen years experience; eighteen years equivalent experience only or ten years of specialized experience.

**Duties:** Level I - Directs the preparation, review and consolidation of information systems budgets and business plans. Ensures adherence to budgets and business plans through periodic review of financial reports and capital appropriation requests. May be responsible for developing, implementing and enforcing policies, standards and methodologies. May be responsible for hardware contract administration and/or outsourcing contract administration and service levels, including negotiation of contract provisions, interface with legal department and maintenance of appropriate documentation. May oversee information systems personnel administration, including selection, training, and personnel development. May be responsible for information systems security.

**Qualifications:** An Advanced Degree with twelve years experience; Bachelors Degree with fifteen years experience; twenty years equivalent experience only or ten years of specialized experience.

## **Technician**

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**Duties:** Level X - Under direct supervision, assists higher level technicians on routine activities typically relating to system monitoring, operations, and maintenance.

**Qualifications:** Associates Degree with no experience or two years equivalent experience only.

**Duties:** Level IX - Under direct supervision, responsible for moderately complex tasks typically relating to system monitoring, operations, installation, and/or maintenance.

**Qualifications:** Associates Degree with two years experience or four years equivalent experience only.

**Duties:** Level VIII - Under direct supervision, assists in monitoring and responding to technical hardware and software problems utilizing hardware and software testing tools and techniques. May assist with installation of terminals and associated hardware. Requires knowledge of data scopes, patch panels, modems, concentrators, and

associated terminals and network management software.

**Qualifications:** Associates Degree with four years experience or six years equivalent experience only.

**Duties:** Level VII - Monitors and responds to technical hardware and software problems utilizing hardware and software testing tools and techniques. May interface with vendor support service groups to ensure proper escalation during outages or periods of degraded system performance. May assist with installation of terminals and associated hardware. Works independently with direct supervision.

**Qualifications:** **Duties:** Level VI - Performs a variety of complex maintenance activities. Provides advanced troubleshooting and repairing technical support. Assesses and responds to situations where standard procedures have failed in isolating or fixing problem equipment or software. Works independently with direct supervision.

**Qualifications:** Associates Degree with eight years experience or twelve years equivalent experience only.

**Duties:** Level V - Monitors and responds to complex technical hardware and software problems utilizing a variety of hardware and software testing tools and techniques. Provides primary interface with vendor support service groups or provides internal analysis and support. May function as lead job providing guidance and training for less experienced technicians. Works independently with some direct supervision.

**Qualifications:** Associates Degree with ten years experience or fourteen years equivalent experience only.

**Duties:** Level IV - Responds to and diagnoses problems through discussions with users. Includes problem recognition, research, isolation and resolution steps. Typically is able to resolve less complex problems immediately, while more complex problems are assigned to second level

support. Works independently with direct supervision.

**Qualifications:** A Bachelors Degree with eight years experience; Associates Degree with twelve years experience; sixteen years equivalent experience only or eight years specialized experience.

**Duties:** Level III - Responsible for ensuring the timely process through which problems are controlled. Includes problem recognition, research, isolation, resolution and follow-up steps. Is able to resolve less complex problems immediately, while more complex problems are assigned to second level support. Typically involves use of a problem management database or help desk system. May provide guidance for less experienced personnel. Works independently with supervision.

**Qualifications:** A Bachelors Degree with ten years experience; Associates Degree with fourteen years experience; eighteen years equivalent experience only or ten years specialized experience.

**Duties:** Level II - Responsible, under general supervision, for complex tasks typically relating to network monitoring, operations, installation and/or maintenance for local, off-site, and/or remote locations. May function as lead job in the absence of the Supervisor, but would not have ongoing lead responsibility. Works independently with some general supervision.

**Qualifications:** A Bachelors Degree with twelve years experience; Associates Degree with sixteen years experience; twenty years equivalent experience only or thirteen years specialized experience.

**Duties:** Level I - Responsible, on an ongoing basis for guiding and directing a team of technicians involved in tasks and activities typically relating to network monitoring, operations, installation, and/or maintenance for local, off-site and/or remote locations or may serve as technical lead on a functional basis, providing a resource of strong expertise for the resolution of complex network

problems. Works independently with some general supervision.

**Qualifications:** A Bachelors Degree with fifteen years experience; Associates Degree with twenty years experience; twenty-five years equivalent experience only or fifteen years specialized experience.