GSA SCHEDULE
AUTHORIZED INFORMATION TECHNOLOGY
SCHEDULE PRICE LIST

Federal Network Systems LLC
11710 Plaza America Drive, Suite 600
Reston, VA 20191

www.jacobs.com

Contract Number: GS-35F-0440N
Multiple Award Schedule
Code F – Information Technology
F.03 – IT Services Subcategory

Special Item Number 54151S – IT Professional Services
Special Item Number OLM – Order Level Materials

Contract Period: September 25, 2018 – September 24, 2023
Pricelist Current through Modification #PO-0032, Dated September 24, 2018

General Services Administration
Federal Supply Service

Products and ordering information in this Authorized INFORMATION TECHNOLOGY Schedule Pricelist is also available on the GSA Advantage! System. Agencies can browse GSA Advantage! By accessing GSA's Home Page via Internet at www.gsa.gov.
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INFORMATION FOR ALL ORDERING OFFICES
APPLICABLE TO ALL SPECIAL ITEM NUMBERS

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 micro-purchase 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! on-line shopping service (www.fss.gsa.gov). The catalogs/pricelists, GSA Advantage! and the Federal Supply Service Home Page (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 micro-purchase 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:
The geographic scope of the contract is worldwide, restrictive to other provisions within this contract.

2. Contractor's Ordering Address and Payment Information:

Ordering Address:
11710 Plaza America Drive, Suite 600
Reston, VA 20190

Payment Address:
Federal Network Systems LLC
C/O Bank of America
P.O. Box 409767
Atlanta, GA 30384-9767
Account # 3752094235
ABA No. 111000012

Contractor must accept the credit card for payments equal to or less than the micro-purchase for oral or written orders under this contract. The Contractor and the ordering agency may agree to use the credit card for dollar amounts over the micro-purchase threshold (See GSAR 552.232-79 Payment by Credit Card). In addition, bank account information for wire transfer payments will be shown on the invoice. The following telephone number(s) can be used by ordering agencies to obtain technical and/or ordering assistance:
For ordering assistance: (703) 984-4305.
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 9G: Order/Modification Under Federal Schedule
   - Block 16: Data Universal Numbering System (DUNS) Number: 13-342-4023
   - Block 30: Type of Contractor - C. Large Business
   - Block 31: Woman-Owned Small Business – No
   - Block 36: Contractor's Taxpayer Identification Number (TIN): 04-350-6726

   FNS CAGE Code: 1PTG2
   Federal Network Systems has registered with the System Award Management Database.

5. FOB DESTINATION (CONUS AND OCONUS)
The Contractor shall conform to FOB Destination requirements at the request of the ordering agency. Please note that Contractor primarily provides services.

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:

<table>
<thead>
<tr>
<th>SPECIAL ITEM NUMBER</th>
<th>DELIVERY TIME (Days ARO)</th>
</tr>
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<tbody>
<tr>
<td>5415S</td>
<td>As mutually agreed by the ordering agency</td>
</tr>
<tr>
<td>OLM</td>
<td>As mutually agreed by the ordering agency</td>
</tr>
</tbody>
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   (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 (3) 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: Prices shown are NET Prices; Basic Discounts have been deducted.
   (a) Prompt Payment: net thirty (30) days from receipt of invoice or date of acceptance, whichever is later
   (b) Quantity: None
   (c) Dollar Volume: None
   (d) Government Educational Institutions: Government Educational institutions are offered the same discounts as all other Government customers.
   (e) Other: None

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. STATEMENT CONCERNING AVAILABILITY OF EXPORT PACKING: N/A

10. SMALL REQUIREMENTS: The minimum dollar value of orders to be issued is $100.
11. MAXIMUM ORDER

(a) The Maximum Order value for the following Special Item Numbers (SIN) is $500,000:

Special Item Number 54151S - Information Technology (IT) Professional Services

12. USE OF FEDERAL SUPPLY SERVICE INFORMATION TECHNOLOGY SCHEDULE CONTRACTS.

In accordance with FAR 8.404:

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, synopsize 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 meet 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 --

Review additional Schedule Contractors’

1. 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). (In accordance with Section 20 of this Agreement) 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-STD): Telecommunication products under this Schedule that do not conform to Federal Telecommunication Standards (FED-STD) 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-STD 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. CONTRACT OR TASKS/SPECIAL REQUIREMENTS.
a. Security Clearances: The Contractor may be required to obtain/possess varying levels of security clearances in the performance of orders issued under this contract. All costs associated with obtaining/possessing such security clearances should be factored into the price offered under the Multiple Award Schedule.
b. Travel: The Contractor may be required to travel in performance of orders issued under this contract. Allowable travel and per diem charges are governed by Pub. L. 99-234 and FAR Part 31 and are reimbursable by the ordering agency or can be priced as a fixed price item on orders placed under the Multiple Award Schedule. Travel in performance of a task order will only be reimbursable to the extent authorized by the ordering agency. The Industrial Funding Fee does NOT apply to travel and per diem charges.
c. Certifications, Licenses and Accreditations: As a commercial practice, the Contractor may be required to obtain/possess any variety of certifications, licenses and accreditations for specific FSC/service code classifications offered. All costs associated with obtaining/possessing such certifications, licenses and accreditations should be factored into the price offered under the Multiple Award Schedule program.
d. Insurance: As a commercial practice, the Contractor may be required to obtain/possess insurance coverage for specific FSC/service code classifications offered. All costs associated with obtaining/possessing such insurance should be factored into the price offered under the Multiple Award Schedule program.
e. Personnel: The Contractor may be required to provide key personnel, resumes or skill category descriptions in the performance of orders issued under this contract. Ordering activities may require agency approval of additions or replacements to key personnel.
f. Organizational Conflicts of Interest: Where there may be an organizational conflict of interest as determined by the ordering agency, the Contractor’s participation in such order may be restricted in accordance with FAR Part 9.5.
g. Documentation/Standards: The Contractor may be requested to provide products or services in accordance with rules, regulations, OMB orders, standards and documentation as specified by the agency’s order.
h. Data/Deliverable Requirements: Any required data/deliverables at the ordering level will be as specified or negotiated in the agency’s order.
i. Government-Furnished Property: As specified by the agency’s order, the Government may provide property, equipment, materials or resources as necessary.
j. Availability of Funds: Many Government agencies’ operating funds are appropriated for a specific fiscal year. Funds may not be presently available for any orders placed under the contract or any option year. The Government’s obligation on orders placed under this contract is contingent upon the availability of appropriated funds from which payment for ordering purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are available to the ordering Contracting Officer.
k. Overtime: For professional services, the labor rates in the Schedule should not vary by virtue of the Contractor having worked overtime. For services applicable to the Service Contract Act (as identified in the Schedule), the labor rates in the Schedule will vary as governed by labor laws (usually assessed a time and a half of the labor rate).

15. CONTRACT ADMINISTRATION FOR ORDERING OFFICES: Any ordering activity, 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 (l) Termination for the ordering activity’s convenience, and (m) Termination for Cause (See 52.212-4)

16. GSA Advantage!
GSA Advantage! 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. The Internet address is http://www.gsaadvantage.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.

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)
The use of BPAs under any schedule contract to fill repetitive needs for supplies or services is allowable. BPAs may be established with one or more schedule contractors. The number of BPAs to be established is within the discretion of the ordering activity establishing the BPA and should be based on a strategy that is expected to maximize the effectiveness of the BPA(s). Ordering activities shall follow FAR 8.405-3 when creating and implementing BPA(s).

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 reinstallations 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:

www.jacobs.com

The EIT standard can be found at: www.Section508.gov/.
24. INSURANCE-WORK ON A GOVERNMENT INSTALLATION (JAN 1997) (FAR 52.228-5)28.310

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective—

(1) For such period as the laws of the State in which this contract is to be performed prescribe; or

(2) Until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance and shall make copies available to the Contracting Officer upon request.

25. SOFTWARE INTEROPERABILITY.
Offerors are encouraged to identify within their software items any component interfaces that support open standard interoperability. An item’s interface may be identified as interoperable on the basis of participation in a Government agency-sponsored program or in an independent organization program. Interfaces may be identified by reference to an interface registered in the component registry located at http://www.core.gov.

26. ADVANCE PAYMENTS
A payment under this contract to provide a service or deliver an article for the United States Government may not be more than the value of the service already provided or the article already delivered. Advance or pre-payment is not authorized or allowed under this contract. (31 U.S.C. 3324)

27. ORDER-LEVEL MATERIALS
(a) This Schedule is authorized to allow for order-level materials (OLMs) in accordance with GSAR 538.7201. A listing of all OLM-authorized Schedules is available at www.gsa.gov/olm.

(b) Clauses 552.212-4 Contract Terms and Conditions - Alternate I and 552.238-82 Special Ordering Procedures for the Acquisition of Order-Level Materials provide additional information on inclusion of OLMs in task and delivery orders placed against a Federal Supply Schedule (FSS) contract or FSS blanket purchase agreement (BPA).

(c) OLMs are only authorized for inclusion at the order level under a Time-and-Materials (T&M) or Labor-Hour (LH) Contract Line Item Number (CLIN) and are subject to a Not To Exceed (NTE) ceiling price.
TERMS AND CONDITIONS APPLICABLE TO INFORMATION TECHNOLOGY (IT)
PROFESSIONAL SERVICES (SPECIAL ITEM NUMBER 132-51)

1. SCOPE
   (a) The prices, terms and conditions stated under Special Item Number 132-51 Information Technology Professional Services and Special Item Number 132-52 Electronic Commerce Services apply exclusively to IT/EC 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)
   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 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 (e.g., 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.
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.

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 (3) 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:

(i) 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 —

(i) 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.

(a) 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.)

(b) 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.

(c) 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.)

(d) 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.

(e) 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 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 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/EC 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/EC Services.

9. INDEPENDENT CONTRACTOR
   All IT/EC 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/EC 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 apply to time-and-materials orders placed under this contract. For labor-hour orders, the Payment under Time-and-Materials and Labor-Hour Contracts (FEB 2002) (Alternate II (FEB 2002)) 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.

16. DESCRIPTION OF IT SERVICES AND PRICING
A description of FNS labor category descriptions and associated labor rates are provided below. The IT Labor Rates represent fully loaded hourly rates for each category at the FNS Facility and Customer Facility for the contract period ending March 24, 2018. The published labor rates are inclusive of the GSA FSS Industrial Funding Fee (IFF). This contract allows for Firm-Fixed Price (FFP), Fixed Price/Level of Effort, Time and Materials or Labor-Hour Task/Delivery Orders.
As defined in GSAR 552.238-115 Special Ordering Procedures for the Acquisition of Order-Level Materials, Order-Level Materials (OLMs) are supplies and/or services acquired in direct support of an individual task or delivery order placed against a Federal Supply Schedule (FSS) contract or FSS blanket purchase agreement (BPA). OLMs are not defined, priced, or awarded at the FSS contract level. They are unknown before a task or delivery order is placed against the FSS contract or FSS BPA. OLMs are only authorized for inclusion at the order level under a Time-and-Materials (T&M) or Labor-Hour (LH) Contract Line Item Number (CLIN) and are subject to a Not To Exceed (NTE) ceiling price. OLMs include direct materials, subcontracts for supplies and incidental services for which there is not a labor category specified in the FSS contract, other direct costs (separate from those under ODC SINs), and indirect costs. OLMs are purchased under the authority of the FSS Program and are not “open market items.”

Items awarded under ancillary supplies/services or other direct cost (ODC) SINs are not OLMs. These items are defined, priced, and awarded at the FSS contract level, whereas OLMs are unknown before an order is placed. Ancillary supplies/services and ODC SINs are for use under all order type CLINs (Fixed-Price (FP), T&M, and LH), whereas the Order-Level Materials SIN is only authorized for use under T&M and LH order CLINs.

The Order-Level Materials SIN is only authorized for use in direct support of another awarded SIN. Price analysis for OLMs is not conducted when awarding the FSS contract or FSS BPA; therefore, GSAR 538.270 and 538.271 do not apply to OLMs. OLMs are defined and priced at the ordering activity level in accordance with GSAR clause 552.238-82 Special Ordering Procedures for the Acquisition of Order-Level Materials. Prices for items provided under the Order-Level Materials SIN must be inclusive of the Industrial Funding Fee (IFF). The value of OLMs in a task or delivery order, or the cumulative value of OLMs in orders against an FSS BPA awarded under an FSS contract, cannot exceed 33.33%.
## IT SERVICES HOURLY RATES

**SIN 54151S**

<table>
<thead>
<tr>
<th>Contractor Facility</th>
<th>September 25 2018 - September 24, 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labor Category</strong></td>
<td></td>
</tr>
<tr>
<td>Management (A1-A3)</td>
<td></td>
</tr>
<tr>
<td>A1.-A3.  RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>A4.-A13  RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>A15.-    RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>A17.     RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>A18.     Senior Technical Professional</td>
<td>$ 267.05</td>
</tr>
<tr>
<td>A19.-    RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>A22.     RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>NETWORK SERIES (B1-B24)</td>
<td>$</td>
</tr>
<tr>
<td>B1.-     RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>B24.     RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>D.       Computer Operations Series (D1-D7)</td>
<td>$</td>
</tr>
<tr>
<td>D1.-D7.  RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>E.       Technician Series (E1-E2)</td>
<td>$</td>
</tr>
<tr>
<td>E1.-E2.  RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>E3.      RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>F.       Support Series (F1-F6)</td>
<td>$</td>
</tr>
<tr>
<td>F1.-F6.  RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>F4.      RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>F5.      RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>F6.      Technical Typist</td>
<td>$</td>
</tr>
<tr>
<td>G.       RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>H.       RESERVED</td>
<td>$</td>
</tr>
<tr>
<td>I.       RESERVED</td>
<td>$</td>
</tr>
</tbody>
</table>
Federal Network Systems LLC  
Contract Number: GS-35F-0440N

**Customer Facility**

**Labor Category**

**Management (A1-A3)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1. Program Manager</td>
<td>$226.33</td>
</tr>
<tr>
<td>A2. Project Manager</td>
<td>$184.61</td>
</tr>
<tr>
<td>A3. Project Administrator</td>
<td>$87.49</td>
</tr>
<tr>
<td>A4.-</td>
<td>-</td>
</tr>
<tr>
<td>A.13 Technology (A15-A23)</td>
<td>-</td>
</tr>
<tr>
<td>A15. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>A16. Principal Technologist</td>
<td>$249.00</td>
</tr>
<tr>
<td>A17. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>A18. Senior Technical Professional</td>
<td>$159.19</td>
</tr>
<tr>
<td>A19. Technical Professional</td>
<td>$150.38</td>
</tr>
<tr>
<td>A20. Staff Technical Professional</td>
<td>$114.42</td>
</tr>
<tr>
<td>A21. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>A22. Senior Data Control Specialist</td>
<td>$83.28</td>
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</table>

**B. NETWORK SERIES (B1-B24)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1. Senior Network Engineer</td>
<td>$154.33</td>
</tr>
<tr>
<td>B2. Network Engineer</td>
<td>$135.75</td>
</tr>
<tr>
<td>B3. Junior Network Engineer</td>
<td>$ 77.10</td>
</tr>
<tr>
<td>B4. Senior Systems Engineer</td>
<td>$145.00</td>
</tr>
<tr>
<td>B5. Systems Engineer</td>
<td>$135.75</td>
</tr>
<tr>
<td>B6. Junior Systems Engineer</td>
<td>$ 87.93</td>
</tr>
<tr>
<td>B7. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>B8. Junior Sustaining Engineer</td>
<td>$123.80</td>
</tr>
<tr>
<td>B9. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>B10. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>B11. Network Security Project Manager</td>
<td>$142.51</td>
</tr>
<tr>
<td>B12. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>B13. Senior Network Security Engineer</td>
<td>$154.33</td>
</tr>
<tr>
<td>B14. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>B15. Junior Network Security Engineer</td>
<td>$115.68</td>
</tr>
<tr>
<td>B16. Senior Network Security Analyst</td>
<td>$166.78</td>
</tr>
<tr>
<td>B17. Network Security Analyst</td>
<td>$123.80</td>
</tr>
<tr>
<td>B18. Junior Network Security Analyst</td>
<td>$ 98.69</td>
</tr>
<tr>
<td>B19. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>B20. Technical Writer, Network Security</td>
<td>$ 65.57</td>
</tr>
<tr>
<td>B21. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>B22. Network Administrator</td>
<td>$ 87.49</td>
</tr>
</tbody>
</table>

**D. Computer Operations Series (D1-D7)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.</td>
<td>-</td>
</tr>
</tbody>
</table>
Customer Facility

**Labor Category**

**Management (A1-A3)**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>D2. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>D3. Applications Engineer</td>
<td>$135.75</td>
</tr>
<tr>
<td>D4. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>D6. Systems Operator</td>
<td>$87.49</td>
</tr>
<tr>
<td>E1. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>E2. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>E3. Technical Specialist, Telephony</td>
<td>$91.60</td>
</tr>
<tr>
<td>F1. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>F2. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>F3. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>F4. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>G1. Senior Installation Technician</td>
<td>$109.15</td>
</tr>
<tr>
<td>G2. Installation Technician</td>
<td>$72.86</td>
</tr>
<tr>
<td>G3. Senior Video Technician</td>
<td>$126.34</td>
</tr>
<tr>
<td>G4. Video Technician</td>
<td>$80.44</td>
</tr>
<tr>
<td>G5. LAN Technician</td>
<td>$126.34</td>
</tr>
<tr>
<td>G6. WAN Technician</td>
<td>$153.00</td>
</tr>
<tr>
<td>G7. PC Repair Technician</td>
<td>$93.14</td>
</tr>
<tr>
<td>G8. Site Survey Technician</td>
<td>$78.54</td>
</tr>
<tr>
<td>G9. System Integrator</td>
<td>$126.34</td>
</tr>
<tr>
<td>G10. Warehouse Operations Supervisor</td>
<td>$92.97</td>
</tr>
</tbody>
</table>

**Technician Series (E1-E2)**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>E2. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>E3. Technical Specialist, Telephony</td>
<td>$91.60</td>
</tr>
</tbody>
</table>

**Support Series (F1-F6)**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>F2. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>F3. RESERVED</td>
<td>-</td>
</tr>
<tr>
<td>F4. RESERVED</td>
<td>-</td>
</tr>
</tbody>
</table>

**Installation & Maintenance Series (G1-G10)**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1. Senior Installation Technician</td>
<td>$109.15</td>
</tr>
<tr>
<td>G2. Installation Technician</td>
<td>$72.86</td>
</tr>
<tr>
<td>G3. Senior Video Technician</td>
<td>$126.34</td>
</tr>
<tr>
<td>G4. Video Technician</td>
<td>$80.44</td>
</tr>
<tr>
<td>G5. LAN Technician</td>
<td>$126.34</td>
</tr>
<tr>
<td>G6. WAN Technician</td>
<td>$153.00</td>
</tr>
<tr>
<td>G7. PC Repair Technician</td>
<td>$93.14</td>
</tr>
<tr>
<td>G8. Site Survey Technician</td>
<td>$78.54</td>
</tr>
<tr>
<td>G9. System Integrator</td>
<td>$126.34</td>
</tr>
<tr>
<td>G10. Warehouse Operations Supervisor</td>
<td>$92.97</td>
</tr>
</tbody>
</table>

**Engineering & Design Series (H1-H5)**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. Network Engineer</td>
<td>$168.01</td>
</tr>
<tr>
<td>H2. Video Engineer</td>
<td>$121.97</td>
</tr>
<tr>
<td>H3. Circuit Design and Documentation Technician</td>
<td>$94.11</td>
</tr>
<tr>
<td>H4. Configuration Management Analyst</td>
<td>$116.27</td>
</tr>
<tr>
<td>H5. UNIX System Engineer</td>
<td>$150.11</td>
</tr>
</tbody>
</table>

**Network Operations Series (I1)**

<table>
<thead>
<tr>
<th>Labor Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1. Network Operations Controller</td>
<td>$93.67</td>
</tr>
</tbody>
</table>
1. QUALIFICATION REQUIREMENTS. To perform on this schedule, contractor personnel must meet the minimum requirement for the skill categories described herein. In addition to the total and specialized experience defined in the skill categories, specific areas of required expertise may be further defined in a Government task request.

2. TASK LEADER. Where the size of a task order warrants, a task leader shall be named for the task order by FNS to manage FNS’s efforts.

3. SUBSTITUTION OF EDUCATION FOR EXPERIENCE. A Bachelor's degree or higher may be substituted for the general and specialized experience for those labor categories requiring a high school diploma. Substitution shall be approved by the COTR.

4. SUBSTITUTION OF EXPERIENCE FOR EDUCATION. Substitution of experience for education is not allowed for some of the categories. The restriction has been identified within the category descriptions where it applies. The substitution rate for categories with no restriction will be two (2) years of experience for one (1) year of education unless otherwise specified. Substitution shall be approved by the COTR.

5. MINIMUM/GENERAL EXPERIENCE & EDUCATION FORMAT. The minimum experience and educational requirements for each skill category are as follows:

(1) Experience Requirements.
   (a) Total Experience. Minimum years of general experience in information systems technology.
   (b) Specialized Experience. Minimum specific experience required directly relates to the particular skill category and level. The experience is not in addition to but is a part of the general experience required in paragraph a. Required experience may be further defined in the task order.
   (c) Task Leader. Indicates this category may serve as a task leader on one or more task orders. Management experience will be required since the category qualifications do not require managerial experience. Task leaders must have supervisory or project leader experience. This experience is not in addition to the experience requirements for the skill category. Project leader experience is experience that demonstrates an individual’s ability to accomplish projects/tasks through others.

(2) Functional Responsibility. This section will contain a description of duties representative of the position.

(3) Education and Other Requirements. Minimum educational requirements needed to qualify for the position. The COTR may approve substitutions of experience for education if the COTR determines the experience is superior in nature and provides the skills at a level necessary to successfully perform the duties of the position.

   (a) Substitution. Permitted substitutions or a statement that substitutions not allowed for this category.
A. MANAGEMENT (A1-A3)

These positions provide contractor management, senior level managers, and technical support for complex analysis tasks in the area of information technology. Such personnel will interface directly with Government personnel in day-to-day management.

A1. PROGRAM MANAGER

(1) Experience requirements:

(a) Total Experience. Fifteen (15) years of progressive experience in the development of systems in broad-based information technology (IT) settings involving the use of contemporary tools and techniques for information systems development.

(b) Specialized Experience. Ten (10) years of specific experience in project development from inception to deployment, demonstrated ability to provide guidance and direction in tasks of varying levels of size and scope of effort, proven expertise in the management and control of funds and resources, demonstrated capability in managing multi-task contracts of this type and complexity envisioned for this schedule

(2) Functional Responsibility. Serves as the contractor's single program manager for a large, complex task order (or a group of task orders affecting the same common/standard/migration system), and shall be the contractor's authorized interface with the Government authorized 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. Shall be responsible for the overall contractor’s performance. Plans and supervises multiple projects and/or task orders involving complex information systems software development.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business or other related scientific or technical discipline

(a) Substitution:

– With a Master of Sciences degree (in the fields described in section b above): thirteen (13) years general experience of which at least nine (9) years specialized experience is required

– With a Ph.D. (in the fields described in b above) twelve (12) years general experience of which at least eight (8) years must be specialized experience

A2. PROJECT MANAGER

(1) Experience requirements:

(a) Total Experience. Twelve (12) years of progressive experience in the development of systems in broad-based information technology (IT) settings involving the use of contemporary tools and techniques for information systems development; may work under the guidance of a Program Manager

(b) Specialized Experience. Nine (9) years of specific experience in project development from inception to deployment, demonstrated ability to provide guidance and direction in tasks of varying levels of size and scope of effort, proven expertise in the management and control of funds and resources, demonstrated capability in managing multi-task contracts of this type and complexity envisioned for this schedule

(2) Functional Responsibility. Serves as the project manager for a large, complex task order (or a group of task orders affecting the same common/standard/migration system) and shall assist the Program Manager in working with the Government’s authorized representative, the task order-level COTR(s), 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 insuring that the technical solutions and schedules in the task order are implemented in a timely manner. Performs enterprise wide horizontal integration planning and interfaces to other functional systems. Plans and supervises multiple projects and/or task orders involving complex information systems software development.
(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business or other related scientific or technical discipline

(a) Substitution:
   - With a Masters degree (in the fields described in section b above): ten (10) years general experience of which at least seven (7) years specialized experience is required
   - With a Ph.D. (in the fields described in b above) eight (8) years general experience of which at least six (6) years must be specialized experience

A3. PROJECT ADMINISTRATOR

(1) Experience Requirements:
   Four (4) or more years experience, preferably in finance, contract administration, database management or administration of technical projects

(2) Functional Responsibility. Maintains computer and manual files regarding program costs and schedules, and other administrative matters. Analyzes program cost/schedule performance, and prepares reports for Program Managers. Alerts Program Managers to significant variances or other extraordinary items. Reviews reports submitted by technical staff, and initiates corrective procedures when errors are suspected. Provides data needed for estimating expenses, budgets, contractual deliverables

(3) Education Requirements. BS/BA or equivalent experience

TECHNOLOGY SERIES (A15-A22)

A15. CHIEF TECHNOLOGIST

(1) Experience requirements:
   (a) Total Experience. Seventeen (17) years of experience in providing expert, independent services and leadership in specialized technical areas. Provides expertise on an as needed basis to all task assignments while coordinating with team members to ensure the problem has been properly defined and that the solution satisfied requirements. Possesses requisite knowledge and expertise so recognized in the professional community that the Government is able to qualify the individual as an expert in the field for a specific Task Assignment. Demonstrates exceptional oral and written communications skills
   (b) Specialized Experience. Thirteen (13) years of specific experience is required while demonstrating progressive accomplishments as an expert in large and complex information technology systems implementations. Expertise is applied across multiple information technology platforms and the integration of diverse architectures. Must demonstrate the ability to work independently and lead large technologically oriented teams focused on a specific problem or requirements set. Demonstrates exceptional oral and written communications skills

(2) Functional Responsibility. Serves as a technology expert in the architecture and development of large systems requiring state-of-art technology that is based on complex engineering techniques and/or processes. Establishes system requirements using analysis of enterprise-wide or large scale information systems to determine critical features and establishing performance models to ensure the viability of the required tasks, the interrelationships of the tasks, and that a recommended solution will meet all requirements in an effective manner. Designs systems architectures that include software, hardware, and communications to support the total set of system requirements as well as provide for present and future cross-functional requirements and interfaces. Ensures these systems are compatible and in compliance with the standards for open systems architectures, the Open Systems Interconnection (OSI) and International Standards Organization (ISO) reference models, and profiles of standards - such as Institute of Electrical and Electronic Engineers (IEEE) Open Systems Environment (OSE) reference model - as they apply to the implementation and specification of Information Management (IM) solution of the application platform, across the application program interface (API), and the external environment/software application. Ensures that the common operating environment is compliant with agency standards. Evaluates analytically and systematically problems of work flows, organization, and planning and develops appropriate corrective action.
(3) Education and Other Requirements. A Master of Science degree from an accredited university with a major in Engineering, Computer Science or other related scientific or technical discipline

(a) Substitution:
   − With a Ph.D. (in the fields described in b above) fourteen (14) years general experience of which at least ten (10) years must be specialized experience
   − With a Bachelor of Science degree in Engineering, Computer Science or other related scientific or technical discipline and twenty (20) years general experience of which at least fifteen (15) years must be specialized experience, a Masters degree is not required

A16. PRINCIPAL TECHNOLOGIST

(1) Experience requirements:

(a) Total Experience. Fifteen (15) years of experience in providing expert, independent services and leadership in specialized technical areas. Provides expertise on an as needed basis to all task assignments while coordinating with team members to ensure the problem has been properly defined and that the solution satisfied requirements. Possesses requisite knowledge and expertise so recognized in the professional community that the Government is able to qualify the individual as an expert in the field for a specific Task Assignment. Demonstrates exceptional oral and written communications skills

(b) Specialized Experience. Twelve (12) years of specific experience is required while demonstrating progressive accomplishments as an expert in large and complex information technology systems implementations. Expertise is applied across multiple information technology platforms and the integration of diverse architectures. Must demonstrate the ability to work independently or under only general direction

(2) Functional Responsibility. Serves as a technology expert in the architecture and development of large systems requiring state-of-art technology that is based on complex engineering techniques and/or processes. Establishes system requirements using analysis of enterprise-wide or large scale information systems to determine critical features and establishing performance models to ensure the viability of the required tasks, the interrelationships of the tasks, and that a recommended solution will meet all requirements in an effective manner. Designs systems architectures that include software, hardware, and communications to support the total set of system requirements as well as provide for present and future cross-functional requirements and interfaces. Ensures these systems are compatible and in compliance with the standards for open systems architectures, the Open Systems Interconnection (OSI) and International Standards Organization (ISO) reference models, and profiles of standards - such as Institute of Electrical and Electronic Engineers (IEEE) Open Systems Environment (OSE) reference model - as they apply to the implementation and specification of Information Management (IM) solution of the application platform, across the application program interface (API), and the external environment/software application. Ensures that the common operating environment is compliant with agency standards. Evaluates analytically and systematically problems of work flows, organization, and planning and develops appropriate corrective action

(3) Education and Other Requirements. A Master of Science degree from an accredited university with a major in Engineering, Computer Science or other related scientific or technical discipline

(a) Substitution:
   − With a Ph.D. (in the fields described in b above) twelve (12) years general experience of which at least nine (9) years must be specialized experience
   − With a Bachelor of Science degree in Engineering, Computer Science or other related scientific or technical discipline and seventeen (17) years general experience of which at least thirteen (13) years must be specialized experience, a Masters degree is not required
A17. DIVISIONAL TECHNOLOGIST

Experience requirements:

(a) Total Experience. Twelve (12) years of experience in providing expert, independent services and leadership in specialized technical areas. Provides expertise on an as needed basis to all task assignments while coordinating with team members to ensure the problem has been properly defined and that the solution satisfied requirements. Possesses requisite knowledge and expertise to be recognized as a specialist in the field for a specific Task Assignment.

(b) Specialized Experience. Ten (10) years of specific experience is required while demonstrating a progressive accomplishment as an expert in large and implementing complex information technology systems. Expertise is applied across multiple information technology platforms and the integration of diverse architectures. Must demonstrate the ability to work independently or under only general direction.

(2) Functional Responsibility. Serves as a technology expert in the architecture and development of large systems requiring state-of-the-art technology that is based on complex engineering techniques and/or processes. Establishes system requirements using analysis of enterprise-wide or large scale information systems to determine critical features and establishing performance models to ensure the viability of the required tasks, the interrelationships of the tasks, and that a recommended solution will meet all requirements in an effective manner. Designs systems architectures that include software, hardware, and communications to support the total set of system requirements as well as provide for present and future cross-functional requirements and interfaces. Ensures these systems are compatible and in compliance with the standards for open systems architectures, the Open Systems Interconnection (OSI) and International Standards Organization (ISO) reference models, and profiles of standards - such as Institute of Electrical and Electronic Engineers (IEEE) Open Systems Environment (OSE) reference model - as they apply to the implementation and specification of Information Management (IM) solution of the application platform, across the application program interface (API), and the external environment/software application. Ensures that the common operating environment is compliant with agency standards. Evaluates analytically and systematically problems of work flow, organization, and planning and develops appropriate corrective action.

(3) Education and Other Requirements. A Master of Science degree from an accredited university with a major in Engineering, Computer Science or other related scientific or technical discipline.

(a) Substitution:
   - With a Ph.D. (in the fields described in b above) ten (10) years general experience of which at least nine (9) years must be specialized experience.
   - With a Bachelor of Science degree in Engineering, Computer Science or other related scientific or technical discipline and fifteen (15) years general experience of which at least eleven (11) years must be specialized experience, a Masters degree is not required.

A18. SENIOR TECHNICAL PROFESSIONAL

Experience requirements:

(a) Total Experience. Twelve (12) years of progressive experience in the development of systems in broad-based information technology (IT) settings providing in-depth subject matter expertise and an ability to translate these into system requirements, systems architecture, and research, development, and test tasks. Possesses requisite knowledge and expertise to be recognized as a specialist in the field for a specific Task Assignment.

(b) Specialized Experience. Ten (10) years of superior functional knowledge of task order specific requirements, or developing functional requirements for complex integrated ADP systems. Must demonstrate the ability to work independently or under only general direction.
(2) Functional Responsibility. At a large-scale information system or enterprise-wide level, analyze user needs to determine functional and cross-functional requirements. Performs functional allocation to identify required tasks and their interrelationships. Applies business process improvement practices to re-engineer methodologies/principles and business process modernization projects. Applies, as appropriate, activity and data modeling, transaction flow analysis, internal control and risk analysis and modern business methods and performance measurement techniques. Assist in establishing standards for information systems procedures. Develops and applies organization-wide information models for use in designing and building integrated, shared software and database management systems. Constructs sound, logical business improvement opportunities consistent with corporate Information Management guiding principles, cost savings, and open system architecture objectives.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited university with a major in Computer Science, Engineering, or other related scientific or technical discipline

(a) Substitution:
- With a Ph.D. (in the fields described in b above) six (6) years general experience of which at least four (4) years must be specialized experience
- With a Master of Sciences degree (in the fields described in section b above): nine (9) years general experience of which at least six (6) years specialized experience is required

A19. TECHNICAL PROFESSIONAL

(1) Experience requirements.

(a) Total Experience. Ten (10) years of progressive experience in systems analysis and computer programming in highly complex and broad-based information technology (IT) settings providing in-depth subject matter expertise and an ability to translate these into system requirements, systems architecture, and research, development and test tasks. In depth experience in the use of contemporary communications systems, computer hardware, relational data base technologies, and high order programming languages

(b) Specialized Experience. Eight (8) years of superior functional knowledge of task order specific requirements, or developing functional requirements for complex integrated ADP systems. Should have proven expertise in the management and control of funds and resources and demonstrated capability in managing multi-task task orders. Must demonstrate the ability to work independently or under only general direction

(2) Functional Responsibility. At a large-scale complex information system or enterprise-wide level, analyze user needs to determine functional and cross-functional requirements. Performs functional allocation to identify required tasks and their interrelationships. Applies business process improvement practices to re-engineer methodologies/principles and business process modernization projects. Applies, as appropriate, activity and data modeling, transaction flow analysis, internal control and risk analysis and modern business methods and performance measurement techniques. Assist in establishing standards for information systems procedures. Develops and applies organization-wide information models for use in designing and building integrated, shared software and database management systems. Constructs sound and logical improvement opportunities consistent with corporate Information Management guiding principles, cost savings, and open system architecture objectives.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited university with a major in Computer Science, Engineering, or other related scientific or technical discipline

(a) Substitution:
- With a Ph.D. (in the fields described in b above) three (3) years specialized
- With a Master of Sciences degree (in the fields described in section b above): six (6) years general experience of which at least four (4) years specialized experience is required
A20. STAFF TECHNICAL PROFESSIONAL

(1) Experience requirements:

(a) Total Experience. Eight (8) years of progressive experience in systems analysis and computer programming in highly complex and broad-based information technology (IT) settings involving the use of contemporary communications systems, computer hardware, relational data base technologies, and high order programming languages

(b) Specialized Experience. Six (6) years of specific experience in large, complex information systems software development projects. Must have demonstrated expertise through effective use of state-of-the-art development tools and models. Must have proven expertise in the effective use of highly specialized personnel resources and a demonstrated capability in managing multi-task activities simultaneously

(2) Functional Responsibility. At a large-scale complex information system or enterprise-wide level, analyze user needs to determine functional and cross-functional requirements. Performs functional allocation to identify required tasks and their interrelationships. Applies business process improvement practices to re-engineer methodologies/principles and business process modernization projects. Applies, as appropriate, activity and data modeling, transaction flow analysis, internal control and risk analysis and modern business methods and performance measurement techniques. Assist in establishing standards for information systems procedures. Develops and applies organization-wide information models for use in designing and building integrated, shared software and database management systems. Constructs sound and logical improvement opportunities consistent with corporate Information Management guiding principles, cost savings, and open system architecture objectives.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited university with a major in Computer Science, Engineering, or other related scientific or technical discipline.

(a) Substitution.

– With a Master of Sciences degree (in the fields described in section b above): five (5) years general experience of which at least four (4) years specialized experience is required

A21. SENIOR PROJECT ADMINISTRATOR

(1) Experience Requirements

(a) Total Experience. Six (6) years progressive experience in IS/ADP systems administration

(b) Specialized Experience. Three (3) years intensive and progressive specific experience in the administration of complex data systems

(2) Functional Responsibility. Specifies proper types of files organization, indexing methods, and security procedures. Advises project teams on the design of complex databases (e.g., schema and subschema details). Defines specialized aspects of user's data base administrator documentation. Performs detailed comparisons of various data base systems. Performs duties in a complex, distributed, heterogeneous computing environment, which may involve different types of hardware platforms, operating systems applications, and network environments. Provides expertise in data storage systems. Performs administration tasks (installing, maintaining, monitoring, recovering, rebuilding, upgrading, patching and performance tuning). Implements software solutions for performance enhancement, operator interface, and increased user capability. Augments other skill categories by providing unique IS/ADP systems administration knowledge in areas that require in-depth current knowledge of a specialized IS discipline. Such specialized knowledge can only be achieved through intensive, extensive, and continuous application of the specialty at a level exceeding that of the more general and broad based IS requirements of the skill category series

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited university with a major in Computer Science, Engineering, or other related scientific or technical discipline

(a) Substitution:

– With a Master of Sciences degree (in the fields described in section b above): four (4) years general experience of which at least two (2) years specialized experience is required
A22. SENIOR DATA CONTROL SPECIALIST

(1) Experience requirements:

(a) Total Experience. Five (5) years progressive experience in the management Data Base Systems and their administration

(b) Specialized Experience. Three (3) years intensive and progressive specific experience in the administration of complex data systems

(2) Functional Responsibility. Performs assigned portions of managing the data input into complex information systems. Analyzes and administers data for both the developing team and the customer. Handles daily administrative tasks, produces and edits technical reports based on data system processing, monitors use of data and performs updates as required. Participates in all phases of system development with emphasis on the data collection, input, documentation, and acceptance phases. Designs and prepares technical reports and related documentation, and makes charts and graphs to record results

(3) Education and Other Requirements. An Associate's degree from an accredited college or university in Computer Science, Engineering or other related scientific or technical discipline

(a) Substitution. Substitution not allowed for this category.

B. NETWORK SERIES (B1-B22)

These positions provide contractor management, senior level managers, and technical support for network engineering tasks in the area of information technology. Such personnel will interface directly with government personnel in day-to-day management.

B1. SENIOR NETWORK ENGINEER

(1) Experience Requirements:

(a) Total Experience. Five (5) years or more of progressive experience in planning, designing and analyzing data or telecommunications networks. This experience must demonstrate a working knowledge of Ethernet, FDDI, frame relay and ATM, and a working knowledge of operating systems and protocols such as Novell, NT, UNIX, SNA and TCP/IP. Must have experience with network analysis/management tools and techniques and be familiar with PCs in a client server environment. Must be familiar with IT and long distance and local carrier management. Knowledge of computer languages such as C, C++, SQL is a plus. Supervisory or project leader experience is also required.

(2) Functional Responsibility. Responsible for the design and implementation of data communications or telecommunications networks. Plans and monitors the installation of communication circuits and recommends enhancements. Manages and monitors LANs and associated equipment (e.g., bridges, routers, hubs, modem pools, gateways, etc.). Analyzes interface requirements between WANs and other computer networks. Analyzes network characteristics (e.g., traffic, connect time, transmission speeds, packet sizes and throughput). Conducts short and long term planning to meet communications system requirements.

(3) Education and Other Requirements. A Bachelor of Science or Masters of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering other related scientific or technical discipline.

(4) Substitution. Six (6) or more years direct network experience, Bachelor of Science or Bachelor of Arts degree from an accredited college or university with a major in a non-technical discipline. Demonstrated network aptitude and depth of overall network familiarity based upon experience.
B2. NETWORK ENGINEER

(1) Experience Requirements. (a) Total Experience. Two (2) to five (5) years network experience

(2) Functional Responsibility. Duties are performed under the supervision of a senior engineer or technical project manager. Assists in the design and implementation of LAN/WANs using hub and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Prepares trade-off studies and evaluations for vendor equipment. Assists in generating network monitoring and performance reports for LAN/WANs utilization studies. Recommends network design changes/enhancements for improved system availability and performance. Knowledge includes demonstrated capability in at least one primary network element, such as operating systems, platforms or protocols

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline

   a) Substitution. Three (3) to six (6) years direct network experience, Bachelor of Science or Bachelor of Arts degree from an accredited college or university with a major in a non-technical discipline. Demonstrated network aptitude based upon experience

B3. JUNIOR NETWORK ENGINEER

(1) Experience Requirements: (a) Total Experience. Minimum required. Entry level position. Zero to two (2) years network experience

(2) Functional Responsibility. Duties are performed under the direct guidance of a senior engineer. Assists in the design and implementation of LAN/WANs using hub and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Assists in generating network monitoring and performance reports for LAN/WANs utilization studies. Provides input for network design changes/enhancements for improved system availability and performance.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline.

   a) Substitution. One (1) to three (3) years direct network experience, Bachelor of Science or Bachelor of Arts degree from an accredited college or university with a major in a non-technical discipline. Demonstrated network aptitude based upon experience.

B4. SENIOR SYSTEMS ENGINEER

(1) Experience Requirements:

   a) Total Experience. Five (5) years or more of intensive and progressive specific experience in planning, designing and analyzing telecommunications networks. This experience must include demonstrated knowledge of Ethernet, FDDI, frame relay and ATM, and a working knowledge of operating systems and protocols such as Novell, NT, UNIX, SNA and TCP/IP. Must have experience with network analysis/management tools and techniques and be familiar with PCs in a client server environment. Must be familiar with IT and long distance and local carrier management. Demonstrated ability as a supervisor or project leader essential. Highest skills in written and oral communications needed. Knowledge of computer languages such as C, C++, SQL, HTML, is a strong plus. Supervisory or project leader experience is also essential.

   b) Substitution. Demonstrated capability in at least one primary network element, such as operating systems, platforms or protocols.

(2) Functional Responsibility. Assists in the design and implementation of LAN/WANs using hub and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Prepares trade-off studies and evaluations for vendor equipment. Assists in generating network design changes/enhancements for improved system availability and performance.
(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in
Computer Science, Information Systems, Engineering or other related scientific or technical discipline.

   a) Substitution. Six (6) or more years direct network experience, Bachelor of Science or Bachelor of Arts degree from an
   accredited college or university with a major in a non-technical discipline. Demonstrated system-level network aptitude
   based upon experience. Demonstrated technical and project leadership ability.

B5. SYSTEMS ENGINEER

(1) Experience Requirements:

   a) Total Experience. Three (3) to five (5) years of intensive and progressive specific experience in planning, designing
   and analyzing telecommunications networks. This experience must include demonstrated knowledge of Ethernet, FDDI,
   frame relay and ATM, and a working knowledge of operating systems and protocols such as Novell, NT, UNIX, SNA
   and TCP/IP. Must be familiar with network analysis / management tools and techniques and be familiar with PCs in a
   client server environment.

   (2) Functional Responsibility. Assists in the design and implementation of LAN/WANs using hub and router technology.
   Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the
   existing systems environment. Prepares trade-off studies and evaluations for vendor equipment. Assists in generating
   network monitoring and performance reports for LAN/WANs utilization studies. Assists with network design
   changes/enhancements for improved system availability and performance.

   (3) Education and Other Requirements. A Bachelor of Science or Masters of Science degree from an accredited college or
   university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical
   discipline.

   a) Substitution. Four (4) to seven (7) years direct network experience, Bachelor of Science or Bachelor of Arts degree
   from an accredited college or university with a major in a non-technical discipline. Demonstrated system-level network
   aptitude based upon experience.

B6. JUNIOR SYSTEMS ENGINEER

(1) Experience Requirements:

   a) Total Experience. One (1) to three (3) years of progressive specific experience in planning, designing and analyzing
   telecommunications networks. This experience must include familiarity with Ethernet, FDDI, frame relay and ATM,
   and a working knowledge of operating systems and protocols such as Novell, NT, UNIX, SNA and TCP/IP. Must be
   familiar with PCs in a client server environment.

   (2) Functional Responsibility. Assists in the design and implementation of LAN/WANs using hub and router technology.
   Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the
   existing systems environment. Assists with changes/enhancements for improved system availability and performance.

   (3) Education and Other Requirement. A Bachelor of Science degree from an accredited college or university with a major in
   Computer Science, Information Systems, Engineering or other related scientific or technical discipline.

   (a) Substitution. Two (2) to four (4) years direct network experience, Bachelor of Science or Bachelor of Arts degree from
   an accredited college or university with a major in a non-technical discipline. Demonstrated system-level network
   aptitude based upon experience.
B7. SUSTAINING ENGINEER

(1) Experience Requirements:

(a) Total Experience. Three (3) or more years of intensive and progressive specific experience in planning, supporting and analyzing telecommunication networks. This experience must include demonstrated knowledge of network data transport protocols such as Ethernet, frame relay and ATM, and a working knowledge of operating systems and protocols such as Novell, NT, UNIX, SNA, and TCP/IP. Must have practical experience with network management tools.

(2) Functional Responsibility. Assists in the design and implementation of LAN/WANs using hub and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Prepares trade-off studies and evaluations for vendor equipment. Directly involved with network monitoring and performance data collection and presentation for LAN/WANs utilization studies. Recommends network design changes/enhancements for improved system availability and performance.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline.

(a) Substitution. Four (4) or more years experience and less than a Bachelor of Science or Bachelor of Arts degree completed in a technical or non-technical discipline. Proven ability to work effectively individually or as part of a project team. Experience as a project leader is a plus.

B8. JUNIOR SUSTAINING ENGINEER

(1) Experience Requirements: (a) One (1) to three years direct network experience

(ii) Functional Responsibility. Duties are performed under the direct guidance of a senior engineer, or project manager. Assists in the design and implementation of LAN/WANs using hub and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Directly involved with network monitoring and performance data collection and presentation. Assists with network design changes/enhancements for improved system availability and performance. Generally involved with maintenance and control of a network, and its management center.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in a non-technical discipline.

(a) Substitution. Two (2) to four (4) years experience and less than a Bachelor of Science or Bachelor of Arts degree completed in a technical or non-technical discipline

B9. SENIOR SALES ENGINEER

(1) Experience Requirements:

a) Total Experience. Seven (7) or more years of intensive and progressive specific experience in planning, designing and analyzing telecommunications networks. This experience must include demonstrated knowledge of legacy network protocols, as well as knowledge of Ethernet, FDDI, frame relay and ATM, and a working knowledge of operating systems and protocols such as NT, UNIX, SNA and TCP/IP. Must have experience with network analysis/management techniques and be familiar with PCs in a client server environment. Must be familiar with IT and long distance and local carrier management. Highest skills in written and oral communication. Experience as a supervisor or task leader essential. Knowledge of computer languages is a plus.
(b) Task Leader. Indicates this category may serve as a task leader on one or more task orders. Management experience will be required since the category qualifications do not require managerial experience. Task leaders must have supervisory or project leader experience. This experience is not in addition to the experience requirements for the skill category. Project leader experience is experience that demonstrated an individual’s ability to accomplish projects/tasks through others.

(2) Functional Responsibility. Responsible for direct or indirect involvement in the design and implementation of LAN/WANs using hub and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Prepares trade-off studies and evaluations for vendor equipment. Recommends network design changes/enhancements for improved system availability and performance.

(3) Education and Other Requirements. A Bachelor of Science or Masters of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline.

(a) Substitution. Ten (10) or more years direct network experience, minimum of Bachelor of Science or Bachelor of Arts degree from an accredited college or university with a major in a nontechnical discipline. Demonstrated system-level network aptitude based upon experience. Proven high aptitude for technical and project leadership. Proven ability to work effectively individually or as part of a project team.

**B10. SALES ENGINEER**

(1) Experience Requirements:

a) Total Experience. Five (5) to eight (8) years of intensive and progressive specific experience in planning, designing and analyzing telecommunications networks. This experience must include demonstrated knowledge of legacy network protocols, as well as knowledge of Ethernet, FDDI, frame relay and ATM, and a working knowledge of operating systems and protocols such NT, UNIX, SNA and TCP/IP. Must be familiar with PCs in a client server environment. Highest demonstrated skills in written and oral communications. Experience as a supervisor or task leader essential. Knowledge of computer languages is a plus.

b) Task Leader. Indicates this category may serve as a task leader on one or more task orders. Management experience will be required since the category qualifications do not require managerial experience. Task leaders must have supervisory or project leader experience. This experience is not in addition to the experience requirements for the skill category. Project leader experience is experience that demonstrates an individual’s ability to accomplish projects/tasks through others.

(2) Functional Responsibility. Responsible for direct or indirect involvement in the design and implementation of LAN/WANs using hub and router technology. Performs hardware/software analyses to provide comparative data of performance characteristics and suitability within the existing systems environment. Prepares trade-off studies and evaluations for vendor equipment. Recommends network design changes/enhancements for improved system availability and performance.

(3) Education and Other Requirements. A Bachelor of Science or Masters of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering or other related scientific or technical discipline.

a) Substitution. Eight (8) or more years direct network experience, Bachelor of Science or Bachelor of Arts degree from an accredited college or university with a major in a non-technical discipline. Demonstrated system-level network aptitude based upon experience. Proven high aptitude for technical and project leadership. Proven ability to work effectively individually or as part of a project team.

**B11. NETWORK SECURITY PROJECT MANAGER**

(1) Experience Requirements:

a) Total Experience. Ten (10) years of technical management in the area of network security.

b) Specialized Experience. Four (4) years of specialized experience in the area of designing and implementing network security architectures in support of both legacy and distributed topologies.
(2) Functional Responsibility. Provides direct supervision and management to a team of network security engineers and analysts with respect to deliverable execution. Responsible for program management based on work breakdown structures to accomplish specific network security tasks. Must be familiar with Microsoft Project and Excel.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Business or other related disciplines.

   a) Substitution. Education may be substituted by an additional two (2) years of experience for each year of education requirement.

**B12. NETWORK SECURITY SENIOR CONSULTANT**

(1) Experience Requirements. a) Total Experience. Six (6) years of network security consulting.

   (b) Specialized Experience. Four (4) years of specialized network security experience in the areas of PKI, VPN and firewall engineering.

(2) Functional Responsibility. Advises customer on procedures and processes on PKI and VPN related issues in support of distributed architectures based on customer’s network security requirements. Familiar with firewall installations, configurations, and implementations in support of the customer. Assists customer with design and implementation of secure network architectures. Familiar with network security COTS based products.

(3) Education and Other Requirements. A Masters of Science degree from an accredited college or university with a major in Computer Science, Business or other related disciplines.

   a) Substitution. Substitution not allowed for this category.

**B13. SENIOR NETWORK SECURITY ENGINEER**

(1) Experience Requirements:

   (a) Total Experience. Six (6) years of network security experience.

   (b) Specialized Experience. Four (4) years of specialized in the area of PKI, VPN and firewall engineering.

(2) Functional Responsibility. Serves as a senior engineer on a team that is responsible for providing secure solutions in both legacy and distributed environments. Must have hands-on experience with developing and implementing VPNs using PKI COTS based products. Experienced with conducting network security test and evaluation processes leading up to certification and accreditation on distributed networks. Understands and is familiar with the installation, configuration and implementation of various COTS based firewalls.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Business, or other related disciplines.

   (a) Substitution. Substitution not allowed for this category.

**B14. NETWORK SECURITY ENGINEER**

(1) Experience Requirements:

   (a) Total Experience. Four (4) years of network security experience.

   (b) Specialized Experience. Two (2) years of specialized in the area of firewall engineering and PKI.

(2) Functional Responsibility. Serves as an engineer on a team that is responsible for providing secure solutions in both legacy and distributed environments. Must have hands-on experience with developing and implementing firewalls using COTS based products. Experienced with conducting network security test and evaluation processes leading up to certification and accreditation on distributed networks. Understands and is familiar with the installation, configuration and implementation of various PKI encryption products.
(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Business, or other related disciplines.
(a) Substitution. Substitution not allowed for this category.

B15. JUNIOR NETWORK SECURITY ENGINEER

(1) Experience Requirements: (a) Total Experience. Two (2) years of network security experience.

(2) Functional Responsibility. Serves as a junior engineer on a network security team that is responsible for providing secure solutions in both legacy and distributed environments. Must have hands-on experience with developing and implementing firewalls and access control applications, including MLS, using COTS based products. Some experience with conducting network security test and evaluation processes leading up to certification and accreditation on distributed networks.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Business, or other related disciplines
(a) Substitution. Substitution not allowed for this category

B16. SENIOR NETWORK SECURITY ANALYST

(1) Experience Requirements:
(a) Total Experience. Six (6) years of network security experience
(b) Specialized Experience. Four (4) years of specialized in the area of Network Security Policy, including certification and accreditation processes

(2) Functional Responsibility. Serves as a senior analyst on a team that is responsible for providing secure solutions in both legacy and distributed environments. Must have hands-on experience with developing and implementing network security policy and procedure. Working knowledge of certification and accreditation processes of critical applications in support of both legacy and distributed network architectures. Familiar with OMB A-130 and DITSCAP requirements

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Business, or other related disciplines.
(a) Substitution. Substitution not allowed for this category

B17. NETWORK SECURITY ANALYST

(1) Experience Requirements:
(a) Total Experience. Four (4) years of network security experience.
(b) Specialized Experience. Two (2) years of specialized in the area of Network Security Policy, including certification and accreditation processes.

(2) Functional Responsibility: Serves as an analyst on a network security team that is responsible for providing secure solutions in both legacy and distributed environments. Must have hands-on experience with developing and implementing network security policy and procedure. Working knowledge of certification and accreditation processes of critical applications in support of both legacy and distributed network architectures. Familiar with OMB A-130 and DITSCAP requirements

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Business or other related disciplines.
(a) Substitution. Substitution not allowed for this category
B18. JUNIOR NETWORK SECURITY ANALYST

(1) Experience Requirements: (a) Total Experience. Two (2) years of network security experience.

(2) Functional Responsibility. Serves as an analyst on a network security team that is responsible for providing secure solutions in both legacy and distributed environments. Some hands-on experience with developing and implementing network security policy and procedure.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Business or other related disciplines.
   (a) Substitution. Education may be substituted by an additional 2 years of experience for each year of education requirement.

B19. SENIOR TECHNICAL WRITER (NETWORK SECURITY)

(1) Experience Requirements:
   (a) Total Experience. Five (5) years of technical writing or documentation experience.
   (b) Specialized Experience. Three (3) years of specialized network security oriented technical documentation experience.

(2) Functional Responsibility. Prepares and edits network security IT/ADP documentation incorporating information provided by user, specialist, analyst, programmer, and operations personnel. Must have a substantial knowledge of the capabilities of network security. Duties include writing, editing, and graphic presentation of technical information for both technical and non-technical personnel. Interprets technical documentation standards and prepares documentation according to standards. Must be capable of working independently. Plans and supervises multiple projects and/or tasks involving a wide range of IT network security related tasks.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in English, Computer Science, Business or other related disciplines.
   (a) Substitution. Substitution not allowed for this category.

B20. TECHNICAL WRITER (NETWORK SECURITY)

(1) Experience Requirements:
   (a) Total Experience. Three (3) years of network security technical writing or documentation experience.
   (b) Specialized Experience. One (1) year of specialized network security technical documentation experience.

(2) Functional Responsibility. Prepares and edits network security IT/ADP documentation incorporating information provided by user, specialist, analyst, programmer, and operations personnel. Must have a substantial knowledge of the capabilities of network security in support of information systems. Duties include writing, editing, and graphic presentation of technical information for both technical and non-technical personnel. Interprets technical network security documentation standards and prepares documentation according to standards. Must be capable of working independently. This category provides incidental support for other approved requirements.

(3) Education and Other Requirements. An Associate's degree from an accredited college or university or two (2) years of college or university study in English, Computer Science or related discipline.
   (a) Substitution. Substitution not allowed for this category.
**B21. NETWORK MANAGER**

(1) Experience Requirements:

(a) Total Experience. Five (5) years experience in one or more of the following areas: data communications engineering, data communications hardware or software analysis, network administration or management, or data communication equipment installation and maintenance.

(b) Task Leader. Indicates this category may serve as a task leader on one or more task orders. Management experience will be required since the category qualifications do not require managerial experience. Task leaders must have supervisory or project leader experience. This experience is not in addition to the experience requirements for the skill category. Project leader experience is experience that demonstrates an individual’s ability to accomplish projects/tasks through others.

(2) Functional Responsibility. Performs a variety of network management functions in support of MIS services related to the operation, performance or availability of data communications networks. Modifies command language programs, network start up files, assigns/re-assigns network device logicals, analyzes network performance and recommends adjustments to wide variety of complex network management functions with responsibility for overall performance and availability of networks. LAN/WAN consultant skilled in network analysis, integration and tuning. Experience with cable/LAN meters, protocol analyzers, SNMP and RMON based software products. Knowledge of Ethernet, FDDI and high speed WAN's and routers. Analyze client LAN's/WAN's, isolate source of problems, recommend reconfiguration and implementation of new network hardware to increase performance. Working knowledge of network operating systems. Modifies command language programs, network start up files, assigns/re-assigns network device logicals. Conducts load balancing efforts to achieve optimum device utilization and network performance. Manages network E-mail functions. Establishes mail boxes and monitors mail performance on the network. Coordinates with engineering groups to resolve hardware problems. Works with customer and operations staff in scheduling preventative and emergency maintenance activities. May serve as task leader on one or more task orders.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Technology, Engineering, or a related discipline. If applicable, shall be certified as a network engineer for the specific network operating system as defined in the Government task request. The certification criteria are determined by the network operating system vendor.

(a) Substitution. Substitution not allowed for this category.

**B22. NETWORK ADMINISTRATOR**

(1) Experience Requirements.

(a) Total Experience. Three (3) years experience in one or more of the following areas: data communications engineering, data communications hardware or software analysis, network administration or management, data communication equipment installation and maintenance, or computer systems administration and management.

(2) Functional Responsibility. Performs a variety of network management functions related to the operation, performance or availability of data communications networks. Experience with cable/LAN meters, protocol analyzers, SNMP and RMON based software products. Knowledge of Ethernet, FDDI and high speed WAN's and routers. Analyze client LAN's/WAN's, isolate source of problems, recommend reconfiguration and implementation of new network hardware to increase performance. Working knowledge of network operating systems. Modifies command language programs, network start up files, assigns/re-assigns network device logicals, participates in load balancing efforts throughout the network to achieve optimum device utilization and performance. Establishes new user accounts on the network granting access to required network files and programs. Manages network E-mail functions. Establishes mail boxes and monitors mail performance on the network. Troubleshoots network/user problems, presents resolutions for implementation. Prepares a variety of network resource reports.
(3) Education and Other Requirements. An Associate's degree from an accredited college or university in a related field, or two years of college or university study in a related field. If applicable, should be certified as a network administrator for a specific network operating system as defined in the Government task request. Certification criteria are determined by the network operating system vendor.

(a) Substitution. Substitution not allowed for this category

C. RESERVED

D. COMPUTER OPERATIONS SERIES (D1-D6)

D1. RESERVED

D2. COMPUTER SYSTEMS ANALYST

(1) Experience requirements.

(a) Total Experience. Three (3) years progressive experience in the analysis and design of business or scientific applications using database management systems or high-order programming languages.

(2) Functional Responsibility. Performs systems analysis, design, programming, documentation, or implementation of complex system applications and related IT/ADP systems concepts for effective implementation. Participates in all phases of the software development life cycle with emphasis on the planning, analysis, programming, testing and acceptance phases. Designs and prepares technical reports and related documentation, and makes charts and graphs to record results. Prepares and delivers presentations and briefings as required.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, or other related scientific or technical discipline.

(a) Substitution. Substitution not allowed for this category

D3. APPLICATIONS ENGINEER

(1) Experience requirements.

(a) Total Experience. Eight (8) years of progressive in managing or performing software engineering activities.

(b) Specialized Experience. Six (6) years of specific experience working with C++, SQL, and third/fourth generation languages in the design and implementation of systems and using database management systems. General experience includes increasing responsibilities in software engineering activities. Knowledgeable of applicable standards.

(2) Functional Responsibility. Analyzes and studies complex system requirements. Designs software tools and subsystems to support software reuse and domain analyses and manages their implementation. Manages software development and support using formal specifications, data flow diagrams, other accepted design techniques and Computer Aided Software Engineering (CASE) tools. Estimates software development costs and schedule. Reviews existing programs and assists in making refinements, reducing operating time, and improving current techniques. Supervises software configuration management.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in Computer Science, Information Systems, Engineering, Business or other related scientific or technical discipline.

(a) Substitution:

- With a Master degree (in the fields described in section b above): six (6) years general experience of which at least four (4) years specialized experience is required
- With eleven (11) years of general experience of which at least nine (9) years of specialized experience, a degree is not required

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**D4. OPERATIONS MANAGER**

(1) Experience: Seven years experience, of which at least five years must be specialized. Specialized experience includes: supervision and operation experience on a large-scale computer system, knowledge of hardware, software and operating systems. General experience includes operations experience on a large scale computer system or a multi-server local area network.

(2) Functional Responsibility: Manages computer operations. Ensures production schedules are met. Ensures computer system resources are used effectively. Coordinates the resolution of production related problems. Ensures proper relationships are established between customers, teaming partners, and vendors to facilitate the delivery of information technology services. Provides users with computer output. Supervises staff operations.

(3) Educational Requirement(s): A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline.

  – With a Master's degree (in the fields described in above): five (5) years general experience of which at least three (3) years must be specialized experience is required
  – With ten years of general experience of which at least eight (8) years must be specialized experience, a degree is not required

**D5. RESERVED**

**D6. SYSTEMS OPERATOR**

(1) Experience: Minimum of three years experience, of which at least two years must be specialized experience operating a large-scale computer system or a multi-server local area network. Must demonstrate sufficient knowledge of programming to understand how programs use computer hardware.

(2) Functional Responsibility: Monitors and supports computer processing. Coordinates input, output, and file media. Distributes output and controls computer operation which may be mainframe, mini, or client/server based.

(3) Educational Requirement(s): An Associate's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline is required.

  – With a Bachelor's degree (in the fields described above): two (2) years general experience of which at least one (1) year must be specialized experience is required
  – With seven (7) years general experience of which at least five (5) years is specialized, a degree is not required.
E. TECHNICIAN SERIES (E1-E3)

E1. RESERVED

E2. COMMUNICATIONS TECHNICIAN

(1) Experience Requirements:
   (a) Total Experience. Three (3) years experience installing and maintaining communications and cable systems. Experience should include termination of voice and data circuits including copper and fiber house wiring.

(2) Functional Responsibility. Responds to help calls referred by the Help Desk or Customer Support. Implements, installs, and repairs voice and data cable systems. Creates and maintains records on cable assignments, terminations and directory headings, telephone, circuit, and other communication equipment types.

(3) Education and Other Requirements.
   (a) A high school diploma
   (b) Two (2) years technical school training related field
   (c) Substitution. Substitution not allowed for this category

E3. TELEPHONY TECHNICAL SPECIALIST

(1) Experience: Three (3) to five (5) years of experience providing installation and maintenance support to various Private Branch Exchange (PBX) systems.

(2) Functional Responsibility: Performs installation, moves, adds, changes and repairs to various telecom systems. Work may include installing wiring, running jumpers and performing quality assurance testing.

(3) Education and Other Requirements: Associates degree. A high school diploma or equivalent, and seven (7) years experience may be substituted for an AA degree.

F. SUPPORT SERIES (F1-F6)

F1. SENIOR TECHNICAL WRITER

(1) Experience Requirements.
   (a) Total Experience. Five (5) years of technical writing or documentation experience
   (b) Specialized Experience. Three (3) years of specialized IT oriented technical documentation experience

(2) Functional Responsibility. Prepares and edits IT/ADP documentation incorporating information provided by user, specialist, analyst, programmer, and operations personnel. Must have a substantial knowledge of the capabilities of computer systems. Duties include writing, editing, and graphic presentation of technical information for both technical and non-technical personnel. Interprets technical documentation standards and prepares documentation according to standards. Must be capable of working independently. Plans and supervises multiple projects and/or tasks involving a wide range of IT related tasks.

(3) Education and Other Requirements. A Bachelor of Science degree from an accredited college or university with a major in English, Computer Science, Business, or other related disciplines.

   (a) Substitution. Substitution not allowed for this category.
**F2. TECH WRITER**

1. Experience Requirements:
   
   (a) Total Experience. Three (3) years of technical writing or documentation experience
   (b) Specialized Experience. One (1) year of specialized ADP technical documentation experience

2. Functional Responsibility. Prepares and edits IT/ADP documentation incorporating information provided by user, specialist, analyst, programmer, and operations personnel. Must have a substantial knowledge of the capabilities of computer systems. Duties include writing, editing, and graphic presentation of technical information for both technical and non-technical personnel. Interprets technical documentation standards and prepares documentation according to standards. Must be capable of working independently. This category provides incidental support for other approved requirements.

3. Education and Other Requirements. An Associate's degree from an accredited college or university or two (2) years of college or university study in English, Computer Science or related discipline
   (a) Substitution. Substitution not allowed for this category

**F3. ADMINISTRATIVE SUPPORT/GRAPHICS SPECIALIST**

1. Experience: At a minimum, one years of specialized experience using commercial automated word processing (e.g. MS Word, WordPerfect), graphics systems (Harvard, Freelance, PowerPoint, etc.) and desktop publishing systems. Demonstrated ability to work independently or under only general direction.

2. Functional Responsibility: Directly supports Program Manager or Project Manager by maintaining personnel and other files; prepares correspondence, schedules and coordinates travel. Assists in the preparation of presentation graphics and supports the development of contract deliverables and reports by developing and updating graphic presentations to improve the quality and enhance the usability of these documents. Responsible for integrating the graphics generated with automated tools and the deliverable documents.

3. Education: High school diploma and a minimum of two years experience in office administration and developing graphic/artistic presentations for publications and documents (preferably technical documentation).

**F4. HELP DESK MANAGER**

1. Experience: Minimum of seven years experience. Of which at least five years must be specialized. Specialized experience includes: management of help desks in a multi-server environment, comprehensive knowledge of PC operating systems, e.g. DOS, Windows, NT, as well as networking and mail standards and supervision of help desk employees. General experience includes information systems development, network and other work in the client/server field, or related fields. Demonstrated ability to communicate orally in writing and a positive customer service attitude.

2. Functional Responsibility: Provides daily supervision and direction to staff who are responsible for phone and in-person support to users in the areas of e-mail, directories, standard Windows desktop applications, and applications developed or deployed under a particular contract. These personnel serve at the second point of contact for trouble shooting hardware/software, PC, printer and network problems.

3. Education: Bachelor's degree in Computer Science, Information Systems, Engineering, Business or other related discipline
   - With a Master's degree (in the fields described above): five years general experience of which at least three years must be specialized experience is required
   - With ten years general experience of which at least eight years is specialized, a degree is not required
F5. HELP DESK SPECIALIST

(1) Experience: Minimum of five years experience, of which at least three years must be specialized. Specialized experience includes; knowledge of PC operating systems, e.g., DOS, Windows, NT, as well as networking and mail standards and work on a help desk. General experience includes information systems development and other work in the client/server field, or related fields. Demonstrated ability to communicate orally and in writing and a positive customer service attitude.

(2) Functional Responsibility: Provides phone and in-person support to users in the areas of e-mail, directories, standard Windows desktop application, and applications developed under this contract or predecessors. Serves as the initial point of contact for troubleshooting hardware/software, PC, printer, and network problems.

(3) Education: An Associate's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline is required.
   - With a Bachelor's degree (in the fields described above): four years general experience of which at least two years must be specialized experience is required
   - With eight years general experience of which at least six years is specialized, a degree is not required

F6. TECHNICAL TYPIST

(1) Experience Requirements: (a) Total Experience.
   One (1) year of technical typing

(2) Functional Responsibility. Prepares draft and final form technical documents. Must be capable of typing at average or above average speed. Must be capable of typing technical narratives and data. Responsible for spelling, grammar, and proper format, and for proofreading finished documents. Must be capable of using various word processing equipment. This category provides incidental support for other approved requirements.

(3) Education and Other Requirements. High School diploma
   (a) Substitution. Substitution not allowed for this category

G. INSTALLATION AND MAINTENANCE SERIES (G1-G10)

FNS participates substantially in the performance of classified contracts for the United States Government. Staff cleared to the TS/SCI security clearance level may be proposed by FNS under this Group 70 schedule, contingent on individual solicitation work scope requirements; and personnel availability.

G1. SENIOR INSTALLATION TECHNICIAN

(1) Experience: Five (5) to seven (7) years of experience with installation of voice or data networks. Experienced in word processing and use of spreadsheet software packages. Trained in copper and fiber termination and testing, working knowledge of crypto gear, routers, and Asynchronous Transfer Mode (ATM) or Internet Protocol (IP) based networks.

(2) Functional Responsibility: Integration management, planning and installing new systems, and conducting ad hoc modifications to existing systems. Individual will be responsible for adhering to project and work schedules.

(3) Education and Other Requirements: A high school diploma or equivalent.
**G2. INSTALLATION TECHNICIAN**

1. Experience: Two (2) to four (4) years of experience with network installations, including the physical placement of conduit, Category 5 and fiber optic cable, wall jacks, hardware, racks and communications equipment.

2. Functional Responsibilities: Routine network installations; may include surveys, installing other conveyances, pulling and terminating cable, determining and implementing required pin outs, installing and configuring equipment., testing and documenting installations, dressing and labeling cables, racks, patch panels.

3. Educations and Other Requirements: A high school diploma or equivalent.

**G3. SENIOR VIDEO TECHNICIAN**

1. Experience: Three (3) to five (5) years of experience integrating video into existing infrastructure, including data or voice systems. Has knowledge of ANSI/IEEE formats for analog and digital systems, Broadband cable, NTSC/HDTV and ISDN.

2. Functional Responsibilities: The Senior Video Technician will be required to support both Video distribution systems and Video teleconferencing systems.

3. Education and Other Requirements: A high school diploma or equivalent.

**G4. VIDEO TECHNICIAN**

1. Experience: Two (2) to four (4) years of experience in first tier (preliminary) trouble shooting and maintenance of VTC equipment.

2. Functional Responsibilities: Duties include VTC scheduling, as well as first tier technical support, maintaining VTC schedules and conference room reservations, training on the VTC equipment, first tier trouble shooting, acting as a facilitator of test calls, acting as a facilitator of second tier call-out and trouble ticket input, installing and operating of video teleconference equipment, troubleshooting LAN-based and ISDN-based video equipment, proving customer training on new installations, acting as on-site technical support, and providing assistance to project management and project engineering.

3. Education and Other Requirements: A high school diploma or equivalent.

**G5. LAN TECHNICIAN**

1. Experience: Two (2) to four (4) years experience with specifications of LAN components, system integration techniques, and routing protocols such as EIGRP, OSPF, RIP, and BGP.

2. Functional Responsibilities: The LAN Technician will analyze customer problems and determine the best technical solution, with specifications of LAN components and system integration techniques. Individual will assess bandwidth requirements to support numerous offsite facilities. Individual will also implement connectivity to function with crypto equipment at each site while ensuring high availability of critical data. Duties also include operations and maintenance of Cisco systems equipment.

3. Education and Other Requirements: A high school diploma or equivalent, and one of the following Cisco certifications: CCNA, CCNP, CCIE, CCDA, CCDP. A high school diploma or equivalent and seven (7) years of total experience may be substituted for the Cisco-specific certification.

**G6. WAN TECHNICIAN**

1. Experience: Two (2) to four (4) years experience with specifications of WAN components, system integration techniques, and routing protocols such as EIGRP, OSPF, RIP, and BGP.

2. Functional Responsibilities: The WAN Technician will analyze customer problems and determine the best technical solution, with specifications of WAN components and system integration techniques. Individual will assess bandwidth requirements to support numerous offsite facilities. Individual will also implement connectivity to function with crypto equipment while ensuring high availability of critical data. Duties also include operations and maintenance of Cisco systems equipment.
(3) Education and Other Requirements: A high school diploma or equivalent, and one of the following Cisco certifications: CCNA, CCNP, CCIE, CCDP, CCDA, CCDP. A high school diploma or equivalent and seven (7) years of total experience may be substituted for the Cisco-specific certification.

G7. PC REPAIR TECHNICIAN

(1) Experience: Two (2) years of training and experience in the field of computer repair. Familiarity with the operation, maintenance, and repair PC’s, Disk Drives, CD Rom’s, Floppy Drives, Tape Devices, Video Displays, and software applications including Microsoft NT, Office (Word, Excel, Access), Lotus Notes.

(2) Functional Responsibilities: Depot level component diagnostics and repair for a variety of computer equipment. Technician is required to be competent in the performance of standard shop practices such as soldering, use of power and hand tools as well as all standard safety practices associated with the repair and maintenance of electronic equipment. Will communicate via e-mail with customers in assisting with troubleshooting.

(3) Education and Other Requirements: Associates degree. A high school diploma or equivalent and certification from a bonafide technical school, or two years technical training gained as a result of military service or professional experience may be substituted for an Associates degree.

G8. SITE SURVEY TECHNICIAN (NETWORK SURVEYOR)

(1) Experience: Two (2) to four (4 years experience with site surveys for complex projects, reading architectural drawings, determine materials needed for a requirement based on engineering designs, estimate man-hours needed for requirements based on materials needed.

(2) Functional Responsibilities: Conduct site surveys for complex projects and provide the material lists, labor estimates and roll up pricing information to the Project Manager in the form of a Bill of Materials (BOM). Assist with the preparation of bids and proposals. Work within project and work schedules, demonstrate the ability to meet scheduled milestones (including the identification of changes in the work scope.

(3) Education and Other Requirements: A high school diploma or equivalent.

G9. SYSTEM INTEGRATOR

(1) Experience: Ten (10) years of experience in systems analysis and engineering in highly complex and broad-base information technology (IT) settings or developing functional requirements for complex integrated communications systems.

(2) Functional Responsibilities: Oversee/conduct the analysis of user requirements and cross-functional group requirements. Apply business process improvement practices to re-engineer methodologies/principles and business process modernization projects. Apply, as appropriate, activity and data modeling, transaction flow analysis, internal control and risk analysis and modem business methods and performance management techniques. Assist customer in establishing standards for information systems procedures. Develop and apply established standards for information systems procedures. Develop and apply organization-wide information models for use in designing and building integrated, shared, highly reliable, and secure network centric computing infrastructures. Construct sound and logical improvement opportunities consistent with the corporate information management guiding principles, cost savings and open system architecture objectives.

(3) Educational and Other Requirements: Bachelors degree. A high school diploma or equivalent and fourteen (14) years of total experience may be substituted for a Bachelors degree.
G10. WAREHOUSE OPERATIONS SUPERVISOR

(1) Experience: Seven (7) to ten (10) years of logistics experience supporting field locations.

(2) Functional Responsibilities: Oversees employees responsible for supporting field locations. Supervises the repairing and maintaining field equipment as well as a group responsible for managing inventories and providing warehouse services.

(3) Education and Other Requirements: HS Diploma required.

H. ENGINEERING AND DESIGN SERIES (H1-H5)

FNS participates substantially in the performance of classified contracts for the United States Government. Staff cleared to the TS/SCI security clearance level may be proposed by FNS under this Group 70 schedule, contingent on individual solicitation work scope requirements; and personnel availability.

H1. ASYNCHRONOUS TRANSFER MODE (ATM) NETWORK ENGINEER

(1) Experience: Five (5) years of experience with modern, complex and large-scale communications networks with a focus on ATM switches and technology. Ability to develop detailed communication system architectures, design communication network solutions, and apply engineering expertise to implementation activities.

(2) Functional Responsibility: Analyzes Communication networks and emerging requirements to determine viability of current architecture and needed improvements/changes with a focus on ATM networks. Assesses complex operational network characteristics and identifies potential problem areas and proposes corrective solutions. Provides practical guidance on deployment planning for new/revised capabilities and transition from existing networks. Develops specifications, plans, and other technical documentation.

(3) Education and Other Requirements: Bachelors Degree. A high school diploma or equivalent and nine (9) years of total experience may be substituted for a Bachelors degree.

H2. VIDEO ENGINEER

(1) Experience: five (5) years of engineering experience with video components and system integration techniques.

(2) Functional Responsibilities: Analyze customer requirements and determines the best technical solution with specifications of video components and system integration techniques to satisfy the requirements for complex design and technology activities. These activities consist of video distribution and teleconferencing design and test efforts.

(3) Educational and other requirements: Bachelors degree. A high school diploma or equivalent and nine (9) years of total experience may be substituted for a Bachelors degree.

H3. CIRCUIT DESIGN & DOCUMENTATION TECHNICIAN

(1) Experience: Two (2) to four (4) years experience with design and documentation for telecommunication circuits for voice or data premises distribution systems. Candidate must have knowledge of multiplexers, modems, cable and connector types, and common data interface standards.

(2) Functional Responsibilities: Document telecommunication circuits for voice and data premises distribution systems. Modify plans of building wiring and wiring interconnections to satisfy requirements for new circuits and changes to existing circuits. Uses computer added design tools to prepare engineering drawings of telecommunications circuits for voice and data premises distribution systems. Modify drawings of building wiring and wiring interconnections to satisfy requirements for new circuits and changes to existing circuits.

(3) Educational and Other Requirements: A high school diploma or equivalent.
H4. CONFIGURATION MANAGEMENT (CM) ANALYST

(1) Experience: Six (6) years of experience with CM plans for networking telecommunications documentation in support of active programs.

(2) Functional Responsibilities: Collaborates with management and engineers to develop and implement a CM plan for network/telecommunications documentation in support of active programs. Provide support to CM boards such as engineering review boards, configuration control boards, and schedule meetings. Must be able to process requests for change (RFC) and interface with engineers and project managers. Must have applied knowledge in the basic principles of CM to include configuration identification, change control, release management, status accounting and reporting, and configuration auditing and process improvement.

(3) Educational and Other Requirements: Bachelors degree. A high school diploma or equivalent and ten (10) years of total experience may be substituted for a Bachelors degree.

H5. UNIX SECURITY ENGINEER

(1) Experience: Twelve (12) years of experience in the design, implementation, and administration of secure local and wide area networks involving the use of firewalls, routers, switches, cryptographic equipment and other components used in secure environments.

(2) Functional Responsibilities: Serves as the network firewall engineer for a large, complex networks The candidate is also responsible for the overall management and administration of the customers UNIX environment and firewall components while ensuring that the engineering solutions and schedules in the task order are technically sound. Candidate also performs enterprise wide horizontal integration planning and interfaces with the customer.

(3) Educational and Other Requirements: Bachelors degree. A high school diploma or equivalent and sixteen (16) years of total experience may be substituted for a Bachelors degree.

I. NETWORK OPERATIONS SERIES (I1)

FNS participates substantially in the performance of classified contracts for the United States Government. Staff cleared to the TS/SCI security clearance level may be proposed by FNS under this Group 70 schedule, contingent on individual solicitation work scope requirements; and personnel availability.

I1. NETWORK OPERATIONS

(1) Experience: Three (3) to five (5) years experience using Network Operation Center components such as trouble-ticket systems e. g. Remedy), client databases, and routing protocols in WAN environment and such as EIGRP, OSPF, RIP, and BGP.

(2) Functional Responsibilities: Duties include: first-level network operations; use of automated network management tools to perform daily monitoring and control of network managed elements in accordance with established procedures; update and close required trouble tickets; perform dial-up testing on network managed elements.

(3) Educational and Other Requirements: Bachelors degree. A high school diploma or equivalent and nine (9) years of total experience may be substituted for a Bachelors degree.
IT SERVICES DESCRIPTIONS

Federal Network Systems LLC

Federal Network Systems LLC (FNS), an operating unit of Jacobs Technology Inc, designs, implements, operates, and maintains mission-critical, wide-area networks for Federal and commercial clients. Members of FNS work within the Jacobs Technology organizations to integrate secure, reliable data services, such as DSL, VPNs, and a host of other access, security, Web, and advanced networking products and services. Our staff works in customer locations around the world, and we have several office locations in the metropolitan Washington DC area.

FNS focuses on several key business areas:

Network Services. FNS designs and implements the full range of access methods to suit different performance and security needs. A team of network professionals helps clients develop Network Operations Center (NOC) requirements, network analysis, engineering, and designs. This includes NOC performance analyses, such as throughput, choke points, metric monitoring, and modeling. The team's network expertise spans local area networks through metropolitan area and wide area networks.

Network Security Services. Our consulting services give clients the benefit of the experience of a seasoned team of widely recognized experts in networking technologies. FNS network consulting services include the following:

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Engineering Services. FNS program managers routinely handle complex programs requiring staffing, execution, monitoring, reporting, and re-engineering customers' processes to ensure that IT network designs meet current and future goals and objectives. At customer facilities, FNS professionals provide site design, configuration management, preparation, and installation of internetworking solutions that will meet customer needs in the new millennium. FNS also offers a suite of back-office services that include network management, invoicing, billing, and operations support.

Support Services. The people who best understand networking provide our substantial support services. We can identify potential issues before they develop, guiding customers' staff through maintenance and operations, and troubleshooting problems quickly and efficiently. FNS offers a comprehensive suite of support services, including the following:

<table>
<thead>
<tr>
<th>Hardware Maintenance and Instruction Support</th>
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<tbody>
<tr>
<td>Network Modeling and Performance Assessment</td>
</tr>
<tr>
<td>End-User Help Desk and Customer Support</td>
</tr>
</tbody>
</table>

Information Management. FNS develops and implements advanced database and information systems to support distributed applications over secure networks. Our extensive experience in all the technologies integral to effective database and information management includes:

<table>
<thead>
<tr>
<th>Database design and implementation</th>
<th>Inter/intranetworking</th>
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</thead>
<tbody>
<tr>
<td>Software architecture and development</td>
<td>Networking security</td>
</tr>
<tr>
<td>Systems implementation and integration</td>
<td></td>
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</tbody>
</table>

Information Security. FNS conducts research and development on high-value or difficult information security problems. We solve complex security problems not yet addressed by the commercial sector. Our research and development efforts encompass many significant security programs and critical research areas, such as Information Assurance, Protocol Design, and Security Policy Specification and Management.

Networking. FNS leading-edge research advances the state of the Internet; our practical solutions enhance the reliability of wide area networks; and our advanced technologies enable information distribution, mobile tactical networking, and communications connectivity network management.
Data Center Installation. FNS uses a staged migration approach by data center and by platform. With this approach, we can migrate one data center at a time and, within that data center, we migrate the mainframe environment first, then the midrange, and finally the other servers. For certain small servers, such as NT servers, we advise working with the customer during due diligence to determine the best approach for the customer’s location and operational management.

To facilitate the migration, FNS can purchase or lease swing equipment. This allows the initial migration of processing, so that the customer’s existing equipment can be relocated to the FNS IT environment. After all migrations are complete, we can dispose of the swing equipment or use it as a replacement for existing equipment. Network monitoring would be migrated during the initial moves.

FNS understands the personal impact to individual employees affected by an outsourcing transition. We also understand how important knowledge retention is with a transition. We make every effort to ensure that customer employees involved in this process are treated honestly and fairly, and that critical operational knowledge is not lost in the transition and migration process.

24/7 Help Desk and Applications - FNS Managed Help Desk Services. Managed Help Desk Services provide customer end users with a single point of contact for computer technical support. The service utilizes highly trained and experienced staff to efficiently support customer end users experiencing problems with their computers. The help desk also assists end users by answering “How To Do” type questions for supported software applications.

FNS provides fast, reliable, and courteous support, meeting today’s demands for efficient computer assistance that increases end user productivity and satisfaction. Our help desks provide solutions for issues that are help desk resolvable, while educating end users in the process. The help desk is staffed to answer every call and provide technical expertise with the initial point of contact, eliminating the need for frustrating voicemails that lead to user dissatisfaction. Our goal is to become a strategic partner with our customers in providing satisfaction to their end users.

FNS also isolates non-help desk resolvable problems, and tracks issues that need to be escalated to customer-defined contacts, such as onsite maintenance personnel. FNS takes ownership of the problem, providing satisfaction in that the customer end user only needs to contact one entity to get assistance.

Customers are provided exceptional web-based reporting for all calls received, including statistics, such as average call answer time, resolution statistics, problems categorized by applications and/or departments, call abandon rates, and a listing of repeat callers.

Managed Help Desk will also receive calls, create tickets, and escalate problems for applications not directly supported. This allows the customer to have one database for all problems; calls the help desk handles and calls the help desk escalates.

FNS provides a financially cost-effective solution for our customers who choose to out-task the responsibilities of provisioning and maintaining computer help desk operations. FNS can leverage the investment in people, processes, and systems currently in place, to run a professional help desk. We maintain a quality help desk to serve end users, so that our customers can focus on their core business. FNS Managed Help Desk Services remove the following customer responsibilities that are associated with provisioning a help desk in-house:

- Staffing agents
- Providing technical training for agents
- Supervising help desk agents and other help desk personnel
- Scaling for growth and unexpected spikes of call volume
- Provisioning and maintaining software, hardware, and work space requirements

Supported Applications. FNS provides end user help desk support for the following desktop applications:

<table>
<thead>
<tr>
<th>Microsoft Operating Systems</th>
<th>Norton Anti-Virus</th>
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<tbody>
<tr>
<td>Microsoft Office</td>
<td>Lotus Notes</td>
</tr>
<tr>
<td>Internet Explorer and Netscape Web Browser Microsoft Outlook/Exchange Support</td>
<td>Microsoft Outlook/Exchange</td>
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</tbody>
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