



**AUTHORIZED FEDERAL SUPPLY SERVICE
INFORMATION TECHNOLOGY SCHEDULE PRICELIST
GENERAL PURPOSE COMMERCIAL INFORMATION TECHNOLOGY
EQUIPMENT, SOFTWARE AND SERVICES**

Contractor has been awarded the following SIN under the cooperative purchasing program:

SIN 132-51 - INFORMATION TECHNOLOGY (IT) PROFESSIONAL SERVICES

FPDS Code D301	IT Facility Operation and Maintenance
FPDS Code D302	IT Systems Development Services
FPDS Code D306	IT Systems Analysis Services
FPDS Code D307	Automated Information Systems Design and Integration Services
FPDS Code D308	Programming Services
FPDS Code D310	IT Backup and Security Services
FPDS Code D311	IT Data Conversion Services
FPDS Code D316	IT Network Management Services
FPDS Code D399	Other Information Technology Services, Not Elsewhere Classified

Note 1: All non-professional labor categories must be incidental to and used solely to support hardware, software and/or professional services, and cannot be purchased separately.

Note 2: Offerors and ordering activities are advised that the Group 70 – Information Technology Schedule is not to be used as a means to procure services which properly fall under the Brooks Act. These services include, but are not limited to, architectural, engineering, mapping, cartographic production, remote sensing, geographic information systems, and related services. FAR 36.6 distinguishes between mapping services of an A/E nature and mapping services which are not connected nor incidental to the traditionally accepted A/E Services.

Note 3: This solicitation is not intended to solicit for the reselling of IT Professional Services, except for the provision of implementation, maintenance, integration, or training services in direct support of a product. Under such circumstances the services must be performance by the publisher or manufacturer or one of their authorized agents.

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Contract Number: GS-35F-0339J

Period Covered by Contract: March 31, 1999 – March 30, 2009

General Services Administration
Federal Supply Service

Pricelist current through Modification #PO0018, dated September 26, 2007

Products and ordering information in this Authorized FSS Information Technology Schedule Pricelist are also available on the GSA Advantage! System. Agencies can browse GSA Advantage! by accessing the Federal Supply Service's Home Page via the Internet at <http://www.fss.gsa.gov/>

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**INFORMATION FOR ORDERING ACTIVITIES
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 micropurchase threshold, FAR 8.404 requires agencies to consider the catalogs/pricelists of at least three schedule contractors or consider reasonably available information by using the GSA Advantage!™ 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 micropurchase threshold, customers are to give preference to small business concerns when two or more items at the same delivered price will satisfy their requirement.

1. GEOGRAPHIC SCOPE OF CONTRACT

The geographic scope of this Contract is Domestic Delivery.

Domestic delivery is delivery within the 48 contiguous states, Alaska, Hawaii, Puerto Rico, Washington, DC, and U.S. Territories. Domestic delivery also includes a port or consolidation point, within the aforementioned areas, for orders received from overseas activities.

2. CONTRACTOR'S ORDERING ADDRESS AND PAYMENT INFORMATION

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

Ordering and Payment Address

3H Technology, L.L.C.
1767 Business Center Drive
Suite 100
Reston, VA 20190

The following telephone number can be used by ordering activities to obtain technical and/or ordering assistance:

(703) 521-5200

3. LIABILITY FOR INJURY OR DAMAGE

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

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

Block 9: G. Order/Modification Under Federal Schedule

Block 16: Data Universal Numbering System (DUNS) Number: 96-943-0164

Block 30: Type of Contractor - B. Other Small Business

Block 31: Woman-Owned Small Business - NO

Block 36: Contractor's Taxpayer Identification Number (TIN): 52-2027044

4a. CAGE Code: 1F2K5

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

5. FOB DESTINATION

6. DELIVERY SCHEDULE

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

SPECIAL ITEM NUMBER	DELIVERY TIME (Days ARO)
132-51	As negotiated between Offeror and Ordering Activity

b. URGENT REQUIREMENTS: When the Federal Supply Schedule contract delivery period does not meet the bona fide urgent delivery requirements of an ordering activity, ordering activities are encouraged, if time permits, to contact the Contractor for the purpose of obtaining accelerated delivery. The Contractor shall reply to the inquiry within 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 activity, 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: 1% -10 days; Net 30 days from receipt of invoice or date of acceptance, whichever is later.
- b. Quantity - None
- c. Dollar Volume - None
- d. Government Educational Institutions - 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

Not applicable

10. SMALL REQUIREMENTS

The minimum dollar value of orders to be issued is \$2,500.

11. MAXIMUM ORDER (ALL DOLLAR AMOUNTS ARE EXCLUSIVE OF ANY DISCOUNT FOR PROMPT PAYMENT.)

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

Special Item Number 132-51 - Information Technology (IT) Professional Services

12. ORDERING PROCEDURES FOR FEDERAL SUPPLY SCHEDULE CONTRACTS

Ordering activities shall use the ordering procedures of Federal Acquisition Regulation (FAR) 8.405 when placing an order or establishing a BPA for supplies or services. These procedures apply to all schedules.

- a. FAR 8.405-1 Ordering procedures for supplies, and services not requiring a statement of work.
- b. FAR 8.405-2 Ordering procedures for services requiring a statement of work.

13. FEDERAL INFORMATION TECHNOLOGY/TELECOMMUNICATION STANDARDS REQUIREMENTS

Ordering activities 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 activities, shall be responded to promptly by the Contractor.

13.1 FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATIONS (FIPS PUBS)

Information Technology products under this Schedule that do not conform to Federal Information Processing Standards (FIPS) should not be acquired unless a waiver has been granted in accordance with the applicable "FIPS Publication." Federal Information Processing Standards Publications (FIPS PUBS) are issued by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST), pursuant to National Security Act. Information concerning their availability and applicability should be obtained from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. FIPS PUBS include voluntary standards when these are adopted for Federal use. Individual orders for FIPS PUBS should be referred to the NTIS Sales Office, and orders for subscription service should be referred to the NTIS Subscription Officer, both at the above address, or telephone number (703) 487-4650.

13.2 FEDERAL TELECOMMUNICATION STANDARDS (FED-STDS)

Telecommunication products under this Schedule that do not conform to Federal Telecommunication Standards (FED-STDS) should not be acquired unless a waiver has been granted in accordance with the applicable "FED-STD." Federal Telecommunication Standards are issued by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST), pursuant to National Security Act. Ordering information and information concerning the availability of FED-STDS should be obtained from the GSA, Federal Supply Service, Specification Section, 470 East L'Enfant Plaza, Suite 8100, SW, Washington, DC 20407, telephone number (202)619-8925. Please include a self-addressed mailing label when requesting information by mail. Information concerning their applicability can be obtained by writing or calling the U.S. Department of Commerce, National Institute of Standards and Technology, Gaithersburg, MD 20899, telephone number (301)975-2833.

14. CONTRACTOR TASKS / SPECIAL REQUIREMENTS (C-FSS-370) (NOV 2001)

- (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. The Industrial Funding Fee does NOT apply to travel and per diem charges. (NOTE: Refer to FAR Part 31.205-46 Travel Costs, for allowable costs that pertain to official company business travel in regards to this contract.)

- (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.

15. CONTRACT ADMINISTRATION FOR ORDERING ACTIVITIES

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 C.1.)

16. GSA Advantage!

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

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

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

17. PURCHASE OF OPEN MARKET ITEMS

NOTE: Open Market Items are also known as incidental items, noncontract items, non-Schedule items, and items not on a Federal Supply Schedule contract. ODCs (Other Direct Costs) are not part of this contract and should be treated as open market purchases. Ordering Activities procuring open market items must follow FAR 8.402(f).

For administrative convenience, an ordering activity 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 activity contracting officer has determined the price for the items not on the Federal Supply Schedule is fair and reasonable;
- (3) The items are clearly labeled on the order as items not on the Federal Supply Schedule; and
- (4) All clauses applicable to items not on the Federal Supply Schedule are included in the order.

18. CONTRACTOR COMMITMENTS, WARRANTIES AND REPRESENTATIONS

a. For the purpose of this contract, commitments, warranties and representations include, in addition to those agreed to for the entire schedule contract:

- (1) Time of delivery/installation quotations for individual orders;
- (2) Technical representations and/or warranties of products concerning performance, total system performance and/or configuration, physical, design and/or functional characteristics and capabilities of a product/equipment/ service/software package submitted in response to requirements which result in orders under this schedule contract.
- (3) Any representations and/or warranties concerning the products made in any literature, description, drawings and/or specifications furnished by the Contractor.

b. The above is not intended to encompass items not currently covered by the GSA Schedule contract.

19. OVERSEAS ACTIVITIES

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

None

Upon request of the Contractor, the ordering activity may provide the Contractor with logistics support, as available, in accordance with all applicable ordering activity regulations. Such ordering activity 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, Industrial Funding Fee and Sales Reporting, 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 received 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 applies.

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

23. SECTION 508 COMPLIANCE

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

The EIT standard can be found at: www.Section508.gov/.

24. PRIME CONTRACTOR ORDERING FROM FEDERAL SUPPLY SCHEDULES

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

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

25. INSURANCE—WORK ON A GOVERNMENT INSTALLATION (JAN 1997)(FAR 52.228-5)

- (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.

26. 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>.

27. 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)

**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 apply exclusively to IT Services within the scope of this Information Technology Schedule.
- b. The Contractor shall provide services at the Contractor's facility and/or at the ordering activity location, as agreed to by the Contractor and the ordering activity.

2. PERFORMANCE INCENTIVES

- a. Performance incentives may be agreed upon between the Contractor and the ordering activity on individual fixed price orders or Blanket Purchase Agreements under this contract in accordance with this clause.
- b. The ordering activity must establish a maximum performance incentive price for these services and/or total solutions on individual orders or Blanket Purchase Agreements.
- c. Incentives should be designed to relate results achieved by the contractor to specified targets. To the maximum extent practicable, ordering activities shall consider establishing incentives where performance is critical to the ordering activity's mission and incentives are likely to motivate the contractor. Incentives shall be based on objectively measurable tasks.

3. 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 (Deviation – May 2003) 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.

4. PERFORMANCE OF SERVICES

- a. The Contractor shall commence performance of services on the date agreed to by the Contractor and the ordering activity.
- b. The Contractor agrees to render services only during normal working hours, unless otherwise agreed to by the Contractor and the ordering activity.
- c. The ordering activity 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 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.

5. STOP-WORK ORDER (FAR 52.242-15) (AUG 1989)

- (a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either-
 - (1) Cancel the stop-work order; or
 - (2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.
- (b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if-
 - (1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
 - (2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.
- (c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- (d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

6. INSPECTION OF SERVICES

The Inspection of Services–Fixed Price (AUG 1996) (Deviation – May 2003) 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) (Deviation – May 2003) 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 (Deviation – May 2003) Rights in Data – General, may apply.

8. RESPONSIBILITIES OF THE ORDERING ACTIVITY

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

9. INDEPENDENT CONTRACTOR

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

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 ordering activity contract, without some restriction on ordering 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 ordering activity, ordering activities may place restrictions on the Contractors, its affiliates, chief executives, directors, subsidiaries and subcontractors at any tier when placing orders against schedule contracts. Such restrictions shall be consistent with FAR 9.505 and shall be designed to avoid, neutralize, or mitigate organizational conflicts of interest that might otherwise exist in situations related to individual orders placed against the schedule contract. Examples of situations, which may require restrictions, are provided at FAR 9.508.

11. INVOICES

The Contractor, upon completion of the work ordered, shall submit invoices for IT services. Progress payments may be authorized by the ordering activity 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 ordering activity 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 at FAR 52.232-7 (DEC 2002), (Alternate II – Feb 2002) (Deviation – May 2003) applies to time-and-materials orders placed under this contract. For labor-hour orders, the Payment under Time-and-Materials and Labor-Hour Contracts at FAR 52.232-7 (DEC 2002), (Alternate II – Feb 2002) (Deviation – May 2003)) applies to labor-hour orders placed under this contract.

13. RESUMES

Resumes shall be provided to the GSA Contracting Officer or the user ordering activity 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 activity 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

Please refer to the labor category descriptions and pricing incorporated into this GSA Pricelist.

**USA COMMITMENT TO PROMOTE
SMALL BUSINESS PARTICIPATION
PROCUREMENT PROGRAMS**

PREAMBLE

3H Technology, LLC provides commercial products and services to ordering activities. We are committed to promoting participation of small, small disadvantaged and women-owned small businesses in our contracts. We pledge to provide opportunities to the small business community through reselling opportunities, mentor-protégé programs, joint ventures, teaming arrangements, and subcontracting.

COMMITMENT

To actively seek and partner with small businesses.

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

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

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

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

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

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

We signify our commitment to work in partnership with small, small disadvantaged and women-owned small businesses to promote and increase their participation in ordering activity contracts. To accelerate potential opportunities please contact

Houssam Sam Haidar
3H Technology, L.L.C.
P: (703) 521-5200
F: (703) 757-0729
shaidar@3ht.com

***THE FOLLOWING IS A SUGGESTED
BLANKET PURCHASE AGREEMENT (BPA) FORMAT***

**BEST VALUE
BLANKET PURCHASE AGREEMENT
FEDERAL SUPPLY SCHEDULE**

(Insert Customer Name)

In the spirit of the Federal Acquisition Streamlining Act (Ordering Activity) and (Contractor) enter into a cooperative agreement to further reduce the administrative costs of acquiring commercial items from the General Services Administration (GSA) Federal Supply Schedule Contract(s) _____.

Federal Supply Schedule contract BPAs eliminate contracting and open market costs such as: search for sources; the development of technical documents, solicitations and the evaluation of offers. Teaming Arrangements are permitted with Federal Supply Schedule Contractors in accordance with Federal Acquisition Regulation (FAR) 9.6.

This BPA will further decrease costs, reduce paperwork, and save time by eliminating the need for repetitive, individual purchases from the schedule contract. The end result is to create a purchasing mechanism for the ordering activity that works better and costs less.

Signatures

Ordering Activity

Date

Contractor

Date

BPA NUMBER _____

**(CUSTOMER NAME)
BLANKET PURCHASE AGREEMENT**

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

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

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

- (2) Delivery:

DESTINATION	DELIVERY SCHEDULES / DATES
_____	_____
_____	_____
_____	_____

- (3) The ordering activity estimates, but does not guarantee, that the volume of purchases through this agreement will be _____.

- (4) This BPA does not obligate any funds.

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

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

OFFICE	POINT OF CONTACT
_____	_____
_____	_____
_____	_____

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

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

- (a) Name of Contractor;
- (b) Contract Number;
- (c) BPA Number;
- (d) Model Number or National Stock Number (NSN);
- (e) Purchase Order Number;
- (f) Date of Purchase;

- (g) Quantity, Unit Price, and Extension of Each Item (unit prices and extensions need not be shown when incompatible with the use of automated systems; provided, that the invoice is itemized to show the information); and
 - (h) Date of Shipment.
- (9) The requirements of a proper invoice are specified in the Federal Supply Schedule contract. Invoices will be submitted to the address specified within the purchase order transmission issued against this BPA.
- (10) The terms and conditions included in this BPA apply to all purchases made pursuant to it. In the event of an inconsistency between the provisions of this BPA and the Contractor's invoice, the provisions of this BPA will take precedence.

**BASIC GUIDELINES FOR USING
“CONTRACTOR TEAM ARRANGEMENTS”**

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

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

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

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

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

Here is a general outline on how it works:

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

***3H TECHNOLOGY'S
INFORMATION TECHNOLOGY
LABOR CATEGORY DESCRIPTIONS & RATES***

Commercial Job Title: **Senior Software Engineer**

GSA Rate: \$147.52

Minimum/General Experience: Ten or more years of progressive, directly related experience that includes the design, development and implementation of business computer systems and programs, at least four of the required years should have been in a supervisory capacity.

Functional Responsibility: Requires specialized subject matter expertise in the principles and techniques of systems design, programming, and project management as well as extensive, directly related and progressive experience. Knowledge is applied to research and evaluation involving innovative solutions and alternatives. Make decisions of critical consequence impacting administration and management of major, broad organizational services and long range goals. Has first level supervisory responsibility for managing several project teams/units with subordinate professional supervisors. Most frequently meets with administrators, directors and administrative staff or functional and programmatic subject area specialist to plan and direct activities, implement decisions, justify or defend decisions and negotiate or settle significant and/or controversial issues.

Example of Duties: Analyze and evaluate information processing problems, plans, procedures and requirements of organizations. Formulate and express ideas on difficult and complex concepts in a clear and effectively presented manner, both orally and in writing. Prepare work plans, and time and cost estimates for projects and proposed systems. Direct and coordinate assigned project teams through subordinate supervisors. Read, interpret, and apply the information contained in complex technical publications, manuals, and other documents. Apply new developments in the field of data processing and related equipment and technology. Plan, prepare and conduct training classes for data processing personnel. Develop long- and short-range plans for systems development and the utilization of resources.

Possible Job Titles: Senior Programmer, Senior Systems Analyst, Senior Technical Advisor, Senior Programmer/Analyst, Senior Systems Developer, Senior Web Developer, Senior Project Manager.

Minimum Education: Advanced degree in related subject area or Bachelor's degree and six years practical experience or equivalent.

Minimum/General Experience: Eight years experience with at least three years of full time experience in the design, development, integration, implementation and /or maintenance of multi-protocol local and/ or wide area networks, and telecommunications system. Function as technical consultant to the business units

Functional Responsibility: Management level personnel provide general direction. Responsibilities include functional or technical supervision of lower level professional, technical or clerical positions. Positions in this class are distinguished from other related classes in that they require specialized subject matter expertise in the design/operation of network systems including LANs and WANs; knowledge is applied to research and evaluation involving innovative solutions and alternatives. Positions in this class are distinguished from those in the Network Engineer class by: the advance level of technical expertise, experience and ability to evaluate solutions for networking requirements; making recommendations which have significant impact or consequences including the development of new policies, procedures and service.

Examples of Duties: Identifies, isolates, trouble-shoots and resolves operational problems related to local and wide area network systems (LAN/WAN); tests hardware and transmission media; communicates with users regarding network failures and malfunctions; determines whether problems are due to hardware, software, cabling system, or operator error; operates a variety of diagnostic and test equipment; provides technical expertise to personnel, administrators, and users concerning LAN/WAN concepts, operations and problems including a variety of platforms; communicates with internal staff regarding equipment, circuit failures, parts and network operations; researches and analyzes problems and equipment; answers calls for installations of printers, software; responds to Help Desk tickets and call tickets; utilizes portable test equipment to identify and resolve problems on-site; maintains records related to network installation and trouble calls; confers with users regarding basic and prospective needs for network requirements and services; assists other technical support staff and engineers to assure optimum system availability; follows department established standards to ensure network system security; monitors systems to support and control network traffic; follows back-up, restart and recovery procedures for network applications; reads literature, attends classes, confers with colleagues, etc. to maintain and develop knowledge of industry trends, innovations, new designs; evaluates security needs in order to establish system configurations and operating procedures; evaluates and recommends network methods, upgrades, components and applications for a wide variety of systems to achieve optimal efficiency; consults with technical and managerial personnel to recommend solutions to identified problems affecting network applications and systems; conducts on-site surveys to analyze and recommend network plans; formulates operational designs of a creative and innovative nature for the development and maintenance of LANs and WANs including connections to a large mainframes; prepares technical specifications to be used in requests for proposals or quotations for hardware and software applications; develops procedures manuals, updating operational procedures and notification/training of users relevant to LANs/WANs; evaluates and recommends viable system alternatives, products, and services to existing network configurations; trains employees on systems and procedures, sets priorities, reviews their work and provides input on evaluations; resolves difficult or complex network problems through on-site analysis at different locations, , and also through the vendors; devises and implements strategies for connection of independent networks.

Possible Job Titles: Principal Engineer, Senior Communications Engineer, Senior LAN Engineer, Senior Computer Specialist, Senior Training Specialist.

Minimum Education: An advanced degree preferred or a Bachelor's degree in computer science, engineering, mathematics, or related field, with 3 years practical experience, or equivalent.

Commercial Job Title: **Project Manager Level I**
\$76.83

GSA Rate:

Minimum/General Experience: Four years experience in the design, development, and implementation of business or computer systems and programs. At least two years working in a multi-task program environment. Knowledge of the Federal contract and procurement regulations.

Functional Responsibility: Assisting management with major programs, following work plans, schedules, evaluation criteria, and assist in utilizing resources in the most effective and efficient manner; confer with personnel in feasibility studies, systems, planning equipment scheduling, and activities as assigned. Enforce established applications programming, and documentation; plan and create work items for future Budget Years and participate in the preparation of current budget; plan and develop, review, and enforce policies, practices and standards, including programming and documentation standards; manage current projects through contract process and construction, continually keeping program data up to date for current year; work with government personnel and coordinate efforts to populate and maintain work items in database; support development of work items and assist with execution; maintain liaison with management and government personnel; communicate, coordinate, and cooperate with staff members to assure that the Network and Information Services is operating at maximum efficiency; supervise and participate in the selection, training, and evaluation of staff members; perform related duties as assigned.

Examples of Duties: Duties may include, but are not limited to the following: Plan, organize and administer program activities and services; serve as resource to staff; advise and provide technical recommendations to delegated building program managers; assist with identifying specific data as it relates to government or client responsibility; provide data analysis for FY budget submissions; advise and provide technical recommendations to Asset Managers, Portfolio Development, Special Services and many other parts of the government organization as needed; make presentations to groups and clients; identify funding sources and work with accounting personnel to ensure that accounts follow funding source regulations and requirements; make financial projections which may combine funding from different sources; assist in the development and implementation of project or program policy guidelines and procedures; make suggested revisions and implement changes; prepare specialized reports, surveys and other program descriptive information and materials; monitor program data and information collection methods and techniques, provide estimating and scheduling services, meet with customers, interact with various government personnel; support management staff at meetings and perform related duties as assigned.

Possible Job Titles: Software Quality Assurance Manager, Software Manager, Field Manager, Engineer, Planner, Technician.

Minimum Education: Associates Degree or greater required plus 2 years practical experience, or equivalent.

Minimum/General Experience: Six years experience in the design, development, and implementation of business or computer systems and programs. At least two years acting in a management role of a large multi-task program. Knowledge of the Federal contract and procurement regulations.

Functional Responsibility: Develop overall work plans, schedules, evaluation criteria, and assist in utilizing resources in the most effective and efficient manner; confer with personnel in feasibility studies, systems, planning equipment scheduling, and activities as assigned. Enforce established applications programming, and documentation; review the work effectiveness, task effectiveness and compatibility with other projects in related areas; supervise the preparation and administration of the budget for assigned areas of responsibility; participate in the preparation of the budget; develop, review, and enforce policies, practices and standards, including programming and documentation standards; review technical training needs for subordinate staff, plan activities implement training courses as appropriate and assure attendance by appropriate staff as required; maintain liaison with management and government personnel; communicate, coordinate, and cooperate with staff members to assure that the Network and Information Services is operating at maximum efficiency; supervise and participate in the selection, training, and evaluation of staff members; perform related duties as assigned.

Examples of Duties: Duties may include, but are not limited to the following: Plan, organize and administer program activities and services; select, train, supervise and evaluate the performance of staff; serve as resource to staff; prepare and implement a marketing strategy to promote the program services; make presentations to groups and clients; develop budgets and oversee administration of program budget components; identify funding sources and work with accounting personnel to ensure that accounts follow funding source regulations and requirements; make financial projections which may combine funding from different sources; prepare and negotiate contracts for the delivery of program services, negotiate contracts for services performed for the program by individual consultants; assist in the development and implementation of project or program policy guidelines and procedures; make suggested revisions and implement changes; developments and strategies affecting program objectives and results; prepare specialized reports, surveys and other program descriptive information and materials; monitor program data and information collection methods and techniques, perform related duties as assigned.

Possible Job Titles: Software Quality Assurance Manager, Software Manager, Field Manager.

Minimum Education: Bachelor's degree in computer science, engineering, mathematics, business, plus 2 years practical experience, or equivalent.

Minimum/General Experience: Eight years experience in the design, development, and implementation of business or computer systems and programs. At least three years acting in a management role of a large multi-task program. Knowledge of the Federal contract and procurement regulations.

Functional Responsibility: Develop overall work plans, schedules, evaluation criteria, and assist in utilizing resources in the most effective and efficient manner; confer with personnel in feasibility studies, systems, planning equipment scheduling, and activities as assigned. Enforce established applications programming, and documentation; review the work effectiveness, task effectiveness and compatibility with other projects in related areas; supervise the preparation and administration of the budget for assigned areas of responsibility; participate in the preparation of the budget; develop, review, and enforce policies, practices and standards, including programming and documentation standards; review technical training needs for subordinate staff, plan activities implement training courses as appropriate and assure attendance by appropriate staff as required; maintain liaison with management and government personnel; communicate, coordinate, and cooperate with staff members to assure that the Network and Information Services is operating at maximum efficiency; supervise and participate in the selection, training, and evaluation of staff members; perform related duties as assigned.

Examples of Duties: Duties may include, but are not limited to the following: Plan, organize and administer program activities and services; select, train, supervise and evaluate the performance of staff; serve as resource to staff; prepare and implement a marketing strategy to promote the program services; make presentations to groups and clients; develop budgets and oversee administration of program budget components; identify funding sources and work with accounting personnel to ensure that accounts follow funding source regulations and requirements; make financial projections which may combine funding from different sources; prepare and negotiate contracts for the delivery of program services, negotiate contracts for services performed for the program by individual consultants; assist in the development and implementation of project or program policy guidelines and procedures; make suggested revisions and implement changes; developments and strategies affecting program objectives and results; prepare specialized reports, surveys and other program descriptive information and materials; monitor program data and information collection methods and techniques, perform related duties as assigned.

Possible Job Titles: Software Quality Assurance Manager, Software Manager.

Minimum Education: Bachelor's degree in computer science, engineering, mathematics, business, plus 4 years practical experience, or equivalent.

Commercial Job Title: **Project Manager Level IV**
\$101.21

GSA Rate:

Minimum/General Experience: Ten years experience in the design, development, and implementation of business or computer systems and programs. At least six years acting in a management role of a large multi-task program. Knowledge of the Federal contract and procurement regulations.

Functional Responsibility: Develop overall work plans, schedules, evaluation criteria, and assist in utilizing resources in the most effective and efficient manner; confer with personnel in feasibility studies, systems, planning equipment scheduling, and activities as assigned. Enforce established applications programming, and documentation; review the work effectiveness, task effectiveness and compatibility with other projects in related areas; supervise the preparation and administration of the budget for assigned areas of responsibility; participate in the preparation of the budget; develop, review, and enforce policies, practices and standards, including programming and documentation standards; review technical training needs for subordinate staff, plan activities implement training courses as appropriate and assure attendance by appropriate staff as required; maintain liaison with management and government personnel; communicate, coordinate, and cooperate with staff members to assure that the Network and Information Services is operating at maximum efficiency; supervise and participate in the selection, training, and evaluation of staff members; perform related duties as assigned.

Examples of Duties: Duties may include, but are not limited to the following: Plan, organize and administer program activities and services; select, train, supervise and evaluate the performance of staff; serve as resource to staff; prepare and implement a marketing strategy to promote the program services; make presentations to groups and clients; develop budgets and oversee administration of program budget components; identify funding sources and work with accounting personnel to ensure that accounts follow funding source regulations and requirements; make financial projections which may combine funding from different sources; prepare and negotiate contracts for the delivery of program services, negotiate contracts for services performed for the program by individual consultants; assist in the development and implementation of project or program policy guidelines and procedures; make suggested revisions and implement changes; developments and strategies affecting program objectives and results; prepare specialized reports, surveys and other program descriptive information and materials; monitor program data and information collection methods and techniques, perform related duties as assigned.

Possible Job Titles: Lead Quality Assurance Manager, Software Manager.

Minimum Education: Bachelor's degree in computer science, engineering, mathematics, business, plus 6 years practical experience, or equivalent.

Minimum/General Experience: Four years of directly related experience in the design, development and implementation of systems software and/or business application systems for computer system using advanced programming languages.

Functional Responsibility: Requires specialized subject matter expertise in operating systems and related system software for computers in a large multi-user environment; The characteristics, capabilities, and uses of operating system components and related vendor supplies and software packages; Software systems including coding and assembly level, procedural and non procedural, and job control languages; Operating systems and database systems, and teleprocessing systems; As well as extensive directly related and progressive experience; Knowledge is applied to research and evaluation significant impact or consequence involving highly specialized and technical areas impacting recommendations and development of new policies, procedures and services.

Example of Duties: Duties may include, but are not limited to the following: Design, code, implement, maintain, and evaluate computer operating software; Analyze existing hardware products and related commercial software packages to determine the feasibility of using existing products in place of developing new software in-house; Prepare technical specifications to be used in requests for proposals or quotations; Evaluate the impact of new applicants to determine their impact on existing operations and system software and system performance; Consult with technical and managerial personnel, and recommend solutions to identify problems affecting operating systems performance; Recommend technical standards and policies; Perform operating system generations; Analyze and coordinate with vendors for new versions of operating systems; Develop and implement procedures for back-up, restart, and recovery of all software components and major files; Coordinate with technical personnel of vendors for troubleshooting, maintaining, and implementing new software and hardware components to operating systems; Analyze computer performance statistics and make changes to the appropriate software components to attain maximum system performance; Coordinate with and assist staff members in implementing, maintaining, and troubleshooting teleprocessing, database, and other system software; Prepare and conduct training sessions for operations and programming personnel regarding programming and operation techniques and software concepts; Coordinate with application systems and programming personnel, and assist and advise them in the diagnosis and correction of software and hardware problems associated with application programs; May develop, program, and implement data center support systems; perform related duties as assigned.

Possible Job Titles: Web Developer, Graphic Designer, Multimedia Designer, Webmaster, Document Imaging/Management programmer, Database Administrator, Help-Desk Manager, Senior Test Specialist, Tester, LAN/WAN Specialist, Documentation Specialist and Scriptor.

Minimum Education: A Bachelor's degree with major coursework in computer science, engineering, mathematics, or equivalent.

Commercial Job Title: **Systems Software Analyst Level II**
\$81.78

GSA Rate:

Minimum/General Experience: Five years experience in the design, development and implementation of systems software and/or business application systems for computer system using advanced programming languages.

Functional Responsibility: Requires specialized subject matter expertise in operating systems and related system software for computers in a large multi-user environment; The characteristics, capabilities, and uses of operating system components and related vendor supplies and software packages; Software systems including coding and assembly level, procedural and non procedural, and job control languages; Operating systems and database systems, and teleprocessing systems; As well as extensive directly related and progressive experience; Knowledge is applied to research and evaluation significant impact or consequence involving highly specialized and technical areas impacting recommendations and development of new policies, procedures and services; Most frequently meets with administrative staff.

Example of Duties: Duties may include, but are not limited to the following: Design, code, implement, maintain, and evaluate computer operating software; Analyze existing hardware products and related commercial software packages to determine the feasibility of using existing products in place of developing new software in-house; Prepare technical specifications to be used in requests for proposals or quotations; Evaluate the impact of new applicants to determine their impact on existing operations and system software and system performance; Consult with technical and managerial personnel, and recommend solutions to identify problems affecting operating systems performance; Recommend technical standards and policies; Perform operating system generations; Analyze and coordinate with vendors for new versions of operating systems; Develop and implement procedures for back-up, restart, and recovery of all software components and major files; Coordinate with technical personnel of vendors for troubleshooting, maintaining, and implementing new software and hardware components to operating systems; Analyze computer performance statistics and make changes to the appropriate software components to attain maximum system performance; Coordinate with and assist staff members in implementing, maintaining, and troubleshooting teleprocessing, database, and other system software; Prepare and conduct training sessions for operations and programming personnel regarding programming and operation techniques and software concepts; Coordinate with application systems and programming personnel, and assist and advise them in the diagnosis and correction of software and hardware problems associated with application programs; May develop, program, and implement data center support systems; perform related duties as assigned.

Possible Job Titles: Web Developer, Sr. Graphic Designer, Multimedia Designer, Document Imaging/Management programmer, Database Administrator, Help-Desk Manager, Senior Test Specialist, LAN/WAN Specialist, Documentation Specialist, Webmaster and Scriptor, CAD Operator, Senior Customer Support Specialist.

Minimum Education: A Bachelor's degree with major coursework in computer science, engineering, mathematics, or related field, with 1-year practical experience, or equivalent.

Commercial Job Title: Systems Software Analyst Level III/Multimedia Specialist Level II GSA Rate: \$92.21

Minimum/General Experience: Six years of directly related experience in the design, development and implementation of systems software and/or business application systems for computer system using advanced programming languages.

Functional Responsibility: Requires specialized subject matter expertise in operating systems and related system software for computers in a large multi-user environment; The characteristics, capabilities, and uses of operating system components and related vendor supplies and software packages; Software systems including coding and assembly level, procedural and non procedural, and job control languages; Operating systems and database systems, and teleprocessing systems; As well as extensive directly related and progressive experience; Knowledge is applied to research and evaluation significant impact or consequence involving highly specialized and technical areas impacting recommendations and development of new policies, procedures and services; Has functional or technical supervision over lower level positions of Systems Software Analyst I & II; Most frequently meets with administrative, management, and professional staff, as well as functional and/or programmatic subject matter specialists to influence, motivate and to act as a liaison for a program or department.

Example of Duties: Duties may include, but are not limited to the following: Design, code, implement, maintain, and evaluate computer operating software; Analyze existing hardware products and related commercial software packages to determine the feasibility of using existing products in place of developing new software in-house; Prepare technical specifications to be used in requests for proposals or quotations; Evaluate the impact of new applicants to determine their impact on existing operations and system software and system performance; Consult with technical and managerial personnel, and recommend solutions to identify problems affecting operating systems performance; Recommend technical standards and policies; Perform operating system generations; Analyze and coordinate with vendors for new versions of operating systems; Develop and implement procedures for back-up, restart, and recovery of all software components and major files; Coordinate with technical personnel of vendors for troubleshooting, maintaining, and implementing new software and hardware components to operating systems; Analyze computer performance statistics and make changes to the appropriate software components to attain maximum system performance; Coordinate with and assist staff members in implementing, maintaining, and troubleshooting teleprocessing, database, and other system software; Prepare and conduct training sessions for operations and programming personnel regarding programming and operation techniques and software concepts; Coordinate with application systems and programming personnel, and assist and advise them in the diagnosis and correction of software and hardware problems associated with application programs; May develop, program, and implement data center support systems; perform related duties as assigned.

Possible Job Titles: Web Developer, Sr. Graphic Designer, Multimedia Designer/Specialist, Document Imaging/Management programmer, Database Administrator, Help-Desk Manager, Senior Test Specialist, LAN/WAN Specialist, Documentation Specialist and Scriptor.

Minimum Education: A Bachelor's degree with major coursework in computer science, engineering, mathematics, or related field, with 2 years practical experience, or equivalent.

Commercial Job Title: **Systems Software Analyst Level IV**
\$100.03

GSA Rate:

Minimum/General Experience: Eight years of directly related experience in the design, development and implementation of systems software and/or business application systems for computer system using advanced programming languages.

Functional Responsibility: Requires specialized subject matter expertise in operating systems and related system software for computers in a large multi-user environment; The characteristics, capabilities, and uses of operating system components and related vendor supplies and software packages; Software systems including coding and assembly level, procedural and non procedural, and job control languages; Operating systems and database systems, and teleprocessing systems; As well as extensive directly related and progressive experience; Knowledge is applied to research and evaluation significant impact or consequence involving highly specialized and technical areas impacting recommendations and development of new policies, procedures and services; Has functional or technical supervision over lower level positions of Systems Software Analyst I,II & III; Most frequently meets with administrative, management, and professional staff, as well as functional and/or programmatic subject matter specialists to influence, motivate and to act as a liaison for a program or department.

Example of Duties: Duties may include, but are not limited to the following: Design, code, implement, maintain, and evaluate computer operating software; Analyze existing hardware products and related commercial software packages to determine the feasibility of using existing products in place of developing new software in-house; Prepare technical specifications to be used in requests for proposals or quotations; Evaluate the impact of new applicants to determine their impact on existing operations and system software and system performance; Consult with technical and managerial personnel, and recommend solutions to identify problems affecting operating systems performance; Recommend technical standards and policies; Perform operating system generations; Analyze and coordinate with vendors for new versions of operating systems; Develop and implement procedures for back-up, restart, and recovery of all software components and major files; Coordinate with technical personnel of vendors for troubleshooting, maintaining, and implementing new software and hardware components to operating systems; Analyze computer performance statistics and make changes to the appropriate software components to attain maximum system performance; Coordinate with and assist staff members in implementing, maintaining, and troubleshooting teleprocessing, database, and other system software; Prepare and conduct training sessions for operations and programming personnel regarding programming and operation techniques and software concepts; Coordinate with application systems and programming personnel, and assist and advise them in the diagnosis and correction of software and hardware problems associated with application programs; May develop, program, and implement data center support systems; perform related duties as assigned.

Possible Job Titles: Web Developer, Sr. Graphic Designer, Multimedia Designer/Specialist, Document Imaging/Management programmer, Database Administrator, Help-Desk Manager, Senior Test Specialist, LAN/WAN Specialist, Documentation Specialist

Minimum Education: A Bachelor's degree with major coursework in computer science, engineering, mathematics, or related field, with 4 years practical experience, or equivalent.

Commercial Job Title: Systems Software Analyst Level V/ Principal Technical Advisor GSA Rate: \$116.80

Minimum/General Experience: Ten years of directly related experience in the design, development and implementation of systems software and/or business application systems for computer system using advanced programming languages.

Functional Responsibility: Requires specialized subject matter expertise in operating systems and related system software for computers in a large multi-user environment; The characteristics, capabilities, and uses of operating system components and related vendor supplies and software packages; Software systems including coding and assembly level, procedural and non procedural, and job control languages; Operating systems and database systems, and teleprocessing systems; As well as extensive directly related and progressive experience; Knowledge is applied to research and evaluation significant impact or consequence involving highly specialized and technical areas impacting recommendations and development of new policies, procedures and services; Has functional or technical supervision over lower level positions of Systems Software Analyst I, II, III & IV; Most frequently meets with administrative, management, and professional staff, as well as functional and/or programmatic subject matter specialists to influence, motivate and to act as a liaison for a program or department.

Example of Duties: Duties may include, but are not limited to the following: Design, code, implement, maintain, and evaluate computer operating software; Analyze existing hardware products and related commercial software packages to determine the feasibility of using existing products in place of developing new software in-house; Prepare technical specifications to be used in requests for proposals or quotations; Evaluate the impact of new applicants to determine their impact on existing operations and system software and system performance; Consult with technical and managerial personnel, and recommend solutions to identify problems affecting operating systems performance; Recommend technical standards and policies; Perform operating system generations; Analyze and coordinate with vendors for new versions of operating systems; Develop and implement procedures for back-up, restart, and recovery of all software components and major files; Coordinate with technical personnel of vendors for troubleshooting, maintaining, and implementing new software and hardware components to operating systems; Analyze computer performance statistics and make changes to the appropriate software components to attain maximum system performance; Coordinate with and assist staff members in implementing, maintaining, and troubleshooting teleprocessing, database, and other system software; Prepare and conduct training sessions for operations and programming personnel regarding programming and operation techniques and software concepts; Coordinate with application systems and programming personnel, and assist and advise them in the diagnosis and correction of software and hardware problems associated with application programs; May develop, program, and implement data center support systems; perform related duties as assigned.

Possible Job Titles: Web Developer, Sr. Graphic Designer, Multimedia Designer/Specialist, Document Imaging/Management programmer, Database Administrator, Help-Desk Manager, Principal Technical Advisor, Senior Test Specialist, LAN/WAN Specialist, Documentation Specialist.

Minimum Education: A Bachelor's degree with major coursework in computer science, engineering, mathematics, or related field, with 6 years practical experience, or equivalent.

Commercial Job Title: **Systems Engineer**

GSA Rate: \$78.68

Minimum/General Experience: Six years of progressive experience in the design, analysis, programming and implementation of system designs and operation systems.

Functional Responsibility: Contributes to the development and implementation of systems methods, procedures, and standards necessary to maintain the integrity, reliability, and maintainability of systems. Apply structured methodology to the planning, oversight, and status communication of a project with an understanding of object-oriented technologies for project management. Proficient with the principles of risk assessment and requirements specification. Understanding of requirements from clients and how to identify project risks. Familiarity with techniques used in each stage of development and understanding how decision made at each stage affect the life cycle of the project. Perform quality assurance function. Assists other staff members in the development of project plans, specifications and in the monitoring of progress. Works with minimal management supervision. Must possess the following skill:

- Minimum of three years experience
- Project life-cycle methodology
- Project management tools (Project)
- Configuration management tools (PVCS, SCCS)
- Testing tools
- CASE design tools (Rose, ERwin)

Possible Job Titles: Telecommunications Analyst, Senior Database Analyst, Information Engineer, Customer Support Specialist.

Minimum Education: A Bachelor's degree in computer science, engineering, mathematics, or related field, with 2 years practical experience, or equivalent.

Minimum/General Experience: Four years experience with at least one-year of full-time experience directly related in the implementation and maintenance of local and wide area network application systems; or completion of a job training program in networks or data communications certified by Novell, Microsoft.

Functional Responsibility: Positions in this class require specialized subject matter expertise in the operation of network systems including LANs and WANs. A Senior Network Engineer and/or Network Manager provide general direction. Responsibilities do not include direct supervision of other positions but may serve as lead workers. Positions in this class are distinguished from the Senior Network Engineer class in that the Senior: has a broader scope of analytical tasks; designs and implements network systems; has a greater responsibility for presentation and support of recommendations to decision-making levels; makes recommendations which have significant impact or consequences including the development of new policies, procedures and service; and may supervise administrative, professional or technical personnel.

Examples of Duties: Identifies, isolates, trouble-shoots and resolves operational problems related to local and wide area network systems (LAN/WAN); tests hardware and transmission media including micro-computers, hubs, network adapter cards, network software, cables and connectors; communicates with users regarding network failures and malfunctions; determines whether problems are due to hardware, software, cabling system, or operator error; operates a variety of diagnostic and test equipment as well as micro-computers, hubs, patch panels and cables involved in network access; provides technical expertise to personnel, administrators, and users concerning LAN/WAN concepts, operations and problems including a variety of platforms such as Novell, and Windows NT; communicates with internal staff regarding equipment, circuit failures, parts and network operations; researches and analyzes problems and equipment as assigned; responds to Help Desk tickets and some trouble tickets; installs and replaces network equipment and software at various user locations; utilizes portable test equipment to identify and resolve problems on-site; maintains records related to network installation and trouble calls; confers with users regarding basic and prospective needs for network requirements and services; assists other technical support staff and engineers to assure optimum system availability to users; follows department standards to ensure network system security; monitors systems to support and control network traffic; follows back-up, restart and recovery procedures for network applications including the proper rotation and labeling of tapes; learns and understands new LAN and WAN concepts, protocols; reads literature, attends classes, confers with colleagues to maintain and develop knowledge of industry trends, innovations, new designs; assists in evaluating and recommending network methods, upgrades, components and applications; evaluates security needs in order to establish system configurations; may consult with technical and managerial personnel to recommend solutions to identified problems affecting network applications and systems; assists in conducting on-site surveys to analyze and recommend network plans; assists in designing and developing network systems; assists in the preparation of technical specifications to be used in requests for proposals or quotations; assists in the development of procedures manuals, updating operational procedures and notification/training of users relevant to LANs/WANs; assists in evaluating new applications to determine their effect on existing applications and systems; trains clerical, technical and professional employees on systems and operations, reviews their work and provides input on evaluations and competency; evaluates and recommends viable system alternatives, products , and services to existing network configurations; performs other related duties as assigned.

Possible Job Title: Communications Engineer, LAN Engineer, and Training Specialist

Minimum Education: A Bachelor's degree in computer science, engineering, mathematics, or related field, with 1 year experience, or equivalent.

Minimum/General Experience: Six years experience with at least two-year of full-time experience directly related in the implementation and maintenance of local and wide area network application systems; or completion of a job training program in networks or data communications certified by Novell, Microsoft.

Functional Responsibility: Positions in this class require specialized subject matter expertise in the operation of network systems including LANs and WANs. A Senior Network Engineer and/or Network Manager provide general direction. Responsibilities do not include direct supervision of other positions but may serve as lead workers. Positions in this class are distinguished from the Senior Network Engineer class in that the Senior: has a broader scope of analytical tasks; designs and implements network systems; has a greater responsibility for presentation and support of recommendations to decision-making levels; makes recommendations which have significant impact or consequences including the development of new policies, procedures and service; and may supervise administrative, professional or technical personnel.

Examples of Duties: Identifies, isolates, trouble-shoots and resolves operational problems related to local and wide area network systems (LAN/WAN); tests hardware and transmission media including micro-computers, hubs, network adapter cards, network software, cables and connectors; communicates with users regarding network failures and malfunctions; determines whether problems are due to hardware, software, cabling system, or operator error; operates a variety of diagnostic and test equipment as well as micro-computers, hubs, patch panels and cables involved in network access; provides technical expertise to personnel, administrators, and users concerning LAN/WAN concepts, operations and problems including a variety of platforms such as Novell, and Windows NT; communicates with internal staff regarding equipment, circuit failures, parts and network operations; researches and analyzes problems and equipment as assigned; responds to Help Desk tickets and some trouble tickets; installs and replaces network equipment and software at various user locations; utilizes portable test equipment to identify and resolve problems on-site; maintains records related to network installation and trouble calls; confers with users regarding basic and prospective needs for network requirements and services; assists other technical support staff and engineers to assure optimum system availability to users; follows department standards to ensure network system security; monitors systems to support and control network traffic; follows back-up, restart and recovery procedures for network applications including the proper rotation and labeling of tapes; learns and understands new LAN and WAN concepts, protocols; reads literature, attends classes, confers with colleagues to maintain and develop knowledge of industry trends, innovations, new designs; assists in evaluating and recommending network methods, upgrades, components and applications; evaluates security needs in order to establish system configurations; may consult with technical and managerial personnel to recommend solutions to identified problems affecting network applications and systems; assists in conducting on-site surveys to analyze and recommend network plans; assists in designing and developing network systems; assists in the preparation of technical specifications to be used in requests for proposals or quotations; assists in the development of procedures manuals, updating operational procedures and notification/training of users relevant to LANs/WANs; assists in evaluating new applications to determine their effect on existing applications and systems; trains clerical, technical and professional employees on systems and operations, reviews their work and provides input on evaluations and competency; evaluates and recommends viable system alternatives, products , and services to existing network configurations; performs other related duties as assigned.

Possible Job Title: Communications Engineer, LAN Engineer, and Training Specialist

Minimum Education: A Bachelor's degree in computer science, engineering, mathematics, or related field, with 2 years experience, or equivalent.

Minimum/General Experience: Eight years experience with at least three years of full time experience in the design, development, integration, implementation and /or maintenance of multi-protocol local and/ or wide area networks, and telecommunications system. Function as technical consultant to the business units

Functional Responsibility: Management level personnel provide general direction. Responsibilities include functional or technical supervision of lower level professional, technical or clerical positions. Positions in this class are distinguished from other related classes in that they require specialized subject matter expertise in the design/operation of network systems including LANs and WANs; knowledge is applied to research and evaluation involving innovative solutions and alternatives. Positions in this class are distinguished from those in the Network Engineer II class by: the advance level of technical expertise, experience and ability to evaluate solutions for networking requirements; making recommendations which have significant impact or consequences including the development of new policies, procedures and service.

Examples of Duties: Identifies, isolates, trouble-shoots and resolves operational problems related to local and wide area network systems (LAN/WAN); tests hardware and transmission media; communicates with users regarding network failures and malfunctions; determines whether problems are due to hardware, software, cabling system, or operator error; operates a variety of diagnostic and test equipment; provides technical expertise to personnel, administrators, and users concerning LAN/WAN concepts, operations and problems including a variety of platforms; communicates with internal staff regarding equipment, circuit failures, parts and network operations; researches and analyzes problems and equipment; answers calls for installations of printers, software; responds to Help Desk tickets and call tickets; utilizes portable test equipment to identify and resolve problems on-site; maintains records related to network installation and trouble calls; confers with users regarding basic and prospective needs for network requirements and services; assists other technical support staff and engineers to assure optimum system availability; follows department established standards to ensure network system security; monitors systems to support and control network traffic; follows back-up, restart and recovery procedures for network applications; reads literature, attends classes, confers with colleagues, etc. to maintain and develop knowledge of industry trends, innovations, new designs; evaluates security needs in order to establish system configurations and operating procedures; evaluates and recommends network methods, upgrades, components and applications for a wide variety of systems to achieve optimal efficiency; consults with technical and managerial personnel to recommend solutions to identified problems affecting network applications and systems; conducts on-site surveys to analyze and recommend network plans; formulates operational designs of a creative and innovative nature for the development and maintenance of LANs and WANs including connections to a large mainframes; prepares technical specifications to be used in requests for proposals or quotations for hardware and software applications; develops procedures manuals, updating operational procedures and notification/training of users relevant to LANs/WANs; evaluates and recommends viable system alternatives, products, and services to existing network configurations; trains employees on systems and procedures, sets priorities, reviews their work and provides input on evaluations; resolves difficult or complex network problems through on-site analysis at different locations, , and also through the vendors; devises and implements strategies for connection of independent networks.

Possible Job Titles: Principal Engineer, Senior Communications Engineer, Senior LAN Engineer, Senior Computer Specialist, and Senior Training Specialist.

Minimum Education: An advanced degree preferred or a Bachelor's degree in computer science, engineering, mathematics, or related field, with 3 years practical experience, or equivalent.

Minimum/General Experience: Eight years experience with at least four years of full time experience in the design, development, integration, implementation and /or maintenance of multi-protocol local and/ or wide area networks, and telecommunications system. Function as technical consultant to the business units.

Functional Responsibility: Positions in this class are distinguished from Network Engineer Level IV in that they require specialized subject matter expertise in the design, setup and configuration of catalysts, switches and routers; knowledge is applied to research and evaluation involving innovative solutions and alternatives. Positions in this class are distinguished from those in the Network Engineer Level III class by the advance level of technical expertise in providing advanced support and maintenance for enterprise wide Network.

Examples of Duties: Provide enterprise deployment by setting up and supporting cluster servers for high availability server systems. Implement web server farm through Windows Load Balancing Systems (WLBS). Develop and maintain enterprise systems management and disaster recovery procedures by establishing system configurations and operating procedures for Compaq Insight Manager, Cisco Works 2000 and Microsoft System Management Server (SMS). Provide enterprise Backup System through Arcserve and enterprise virus protection with Netshield and Virusscan. Evaluate and recommend viable system alternatives, products, and services to existing network configurations; resolve difficult or complex network problems through on-site analysis at different locations, and also through the vendors; devise and implement strategies for connection of independent networks.

Possible Job Titles: Principal Engineer, Senior Communications Engineer, Senior LAN Engineer, Senior Computer Specialist, Senior Training Specialist.

Minimum Education: An advanced degree preferred or a Bachelor's degree in computer science, engineering, mathematics, or related field, with 4 years practical experience, or equivalent.

Minimum/General Experience: Nine years experience with at least five years of full time experience in the design, development, integration, implementation and /or maintenance of multi-protocol local and/ or wide area networks, and telecommunications system. Function as technical consultant to the business units.

Functional Responsibility: Positions in this class are distinguished from Network Engineer Level IV in that they require specialized subject matter expertise in the design, setup and configuration of catalysts, switches and routers; knowledge is applied to research and evaluation involving innovative solutions and alternatives. Positions in this class are distinguished from those in the Network Engineer Level IV class by the advance level of technical expertise in providing campus type network system design.

Examples of Duties: Design, setup, operate and maintain catalyst, switches and routers in an enterprise wide network. Provide enterprise deployment by setting up and supporting cluster servers for high availability server systems. Implement web server farm through Windows Load Balancing Systems (WLBS). Develop and maintain enterprise systems management and disaster recovery procedures by establishing system configurations and operating procedures for Compaq Insight Manager, Cisco Works 2000 and Microsoft System Management Server (SMS). Provide enterprise Backup System through Arcserve and enterprise virus protection with Netshield and Virusscan. Identify, isolate, trouble-shoots and resolve operational problems related to local and wide area network systems (LAN/WAN). Develop procedure manuals, updating operational procedures and notification/training of users relevant to LANs/WANs; evaluate and recommend viable system alternatives, products, and services to existing network configurations; resolve difficult or complex network problems through on-site analysis at different locations, and also through the vendors; devise and implement strategies for connection of independent networks.

Possible Job Titles: Principal Engineer, Senior Communications Engineer, Senior LAN Engineer, Senior Computer Specialist, Senior Training Specialist.

Minimum Education: An advanced degree preferred or a Bachelor's degree in computer science, engineering, mathematics, or related field, with 5 years practical experience, or equivalent.

Commercial Job Title: System Administrator
\$56.54

GSA Rate:

Minimum/General Experience: Four or more years of directly related experience involving system service applications and functions, in a large multi-faceted system domain.

Functional Responsibility: Requires specialized subject matter expertise in one or more computer systems utilized for business applications; interface between system software and other systems used; spreadsheet, database and word processing applications; hardware operating systems, computer hardware, mainframe access basics, and networks. Knowledge is applied to system administration and support activities. The Systems Administrator is distinguished from the Principal Systems Analyst class which performs duties independently and requires a greater degree of knowledge and experience, and the Principal Systems Specialist which receives closer supervision and has less responsibility for system administration.

Example of Duties: Maintains system availability to users through daily monitoring; provides technical, functional and operational support to users in the implementation and use of software applications; provide application guidance, parameters and specifications to consultants in developing customized reports necessary to meet business needs including identifying data sources and structures; develops and provides set-up specifications and parameters in the development of interfaces and other automated processes; develops specifications for system modifications, corrections and testing of these system changes prior to implementation; coordinates the installation of new modules, tools, etc.; provides training to new users as well as follow-up training and assistance; confers with users regarding current and prospective system changes and future needs; plans, organizes, controls, and maintains the scheduling of reports, interfaces, project logs and records, problem logs, and progress of projects in relations to established time schedules and work outlines; attends and conducts system planning, status, and functional meetings; writes SQL programs to extract data for ad hoc and scheduled reports; serves as technical liaison with outside consultants and technical support staff; performs system and database administration including backup and restore procedures; analyzes and corrects database growth and performance issues; works with NOS to complete required tasks for maintaining related computer hardware and software; provides security administration in adding and removing users, resolving access problems and determining level of system access; performs related duties as assigned.

Possible Job Title: Quality Assurance Specialist, Test Specialist, Computer Specialist, LAN Specialist, and Administrative Specialist.

Minimum Education: A Bachelor's degree with major coursework in microcomputer software applications and/or computer science, business administration or a closely related field.

Commercial Job Title: **Help-Desk Administrator**
\$49.07

GSA Rate:

Minimum/General Experience: Three years of progressive experience in providing help-desk support and administration with at least two years experience in supporting and troubleshooting COTS software, Operating Systems and hardware malfunction.

Functional Responsibility: Under the supervision of a Task Manager or Project Manager provide help desk activity for purposes of resolving end-users hardware and software problem through telephone assistance for installation and configuration of personal computer hardware and peripherals, network client software and application software.

Example of Duties: Log trouble call and resolution into the helpdesk database (including problem and solution). Unresolved calls should be escalated to onsite technicians for resolution. Trouble call will be closed out when resolution is recorded. Track all incoming calls, scheduling appointments, ensuring call follow-up and maintain the Help-Desk data base tracking system. Provide technical assistance to end-users aimed at helping them develop their own applications using COTS software such as Excel, Word, Lotus Notes, Access, PowerPoint, etc. Provide assistance on the selection of appropriate hardware/software before the initiation of a project. Coordinate all applications development efforts with the assigned personnel, identify, analyze, and effect resolution in properly identifying and isolating the source of hardware and software problems. Provide end-users with practical, how-to advice, primarily focused on product functionality, configuration and documented features. Track problems in database to determine software and hardware “lemons” or common problems that must be addressed on a higher level. Assist in identifying peripheral hardware supplies in support of information processing activities, such as toner cartridges and ink cartridges; but not including parts covered under other maintenance contracts. Maintain maintenance records on equipment. Contract warranty and maintenance agreement vendors for remedial and emergency repairs when hardware malfunctions occur. Develop operations, administrative, and quality assurance back up plans, as well as procedural documentation. Recognizing and taking appropriate action(s) with regard to equipment and/or software problems and notifying appropriate personnel of systems degradations. Complete incident reports for all critical or unusual occurrences, (i.e., workstation or server failures). Provide beginning-to-end problem management for critical or difficult-to-resolve problems; coordinate with other responsible personnel to ensure problem resolution. Develop and maintain the ability to address simple business line application issues, as well as direct more complex problems, perform other duties as assigned.

Possible Job Titles: Application Specialist, Customer Support Specialist, Junior LAN/WAN Specialist.

Minimum Education: Minimum High-School Diploma, or Microsoft Certified Product Specialist (MCP) Certification or equivalent.

Minimum/General Experience: Four years of directly related experience in the design, development and implementation of systems software and/or business application systems for computer system using advanced programming languages.

Functional Responsibility: Requires specialized subject matter expertise in video and audio techniques, multimedia file formats, as well as in streaming technologies and protocols; possesses a background in movie/video making, sound recording, storyboarding and site mock-up, operating systems and related system software for computers in a large multi-user environment; The characteristics, capabilities, and uses of operating system components and related vendor supplies and software packages; Software systems including coding and assembly level, procedural and non procedural, and job control languages; Operating systems and database systems, and teleprocessing systems; As well as extensive directly related and progressive experience; Knowledge is applied to research and evaluation significant impact or consequence involving highly specialized and technical areas impacting recommendations and development of new policies, procedures and services.

Example of Duties: Duties may include, but are not limited to the following: Design, code, implement, maintain, and evaluate computer operating software; Analyze existing hardware products and related commercial software packages to determine the feasibility of using existing products in place of developing new software in-house; Prepare technical specifications to be used in requests for proposals or quotations; Evaluate the impact of new applicants to determine their impact on existing operations and system software and system performance; Consult with technical and managerial personnel, and recommend solutions to identify problems affecting operating systems performance; Recommend technical standards and policies; Perform operating system generations; Analyze and coordinate with vendors for new versions of operating systems; Develop and implement procedures for back-up, restart, and recovery of all software components and major files; Coordinate with technical personnel of vendors for troubleshooting, maintaining, and implementing new software and hardware components to operating systems; Analyze computer performance statistics and make changes to the appropriate software components to attain maximum system performance; Coordinate with and assist staff members in implementing, maintaining, and troubleshooting teleprocessing, database, and other system software; Prepare and conduct training sessions for operations and programming personnel regarding programming and operation techniques and software concepts; Coordinate with application systems and programming personnel, and assist and advise them in the diagnosis and correction of software and hardware problems associated with application programs; May develop, program, and implement data center support systems; perform related duties as assigned.

Possible Job Titles: Web Developer, Graphic Designer, Multimedia Designer, Webmaster, Document Imaging/Management programmer, Database Administrator, Help-Desk Manager, Senior Test Specialist, LAN/WAN Specialist, Documentation Specialist and Scriptor.

Minimum Education: A Bachelor's degree with major coursework in computer science, engineering, mathematics, with 1-year practical experience, or equivalent.

Commercial Job Title: **Information Architect**
\$166.15

GSA Rate:

Minimum/General Experience: Under the supervision of the Senior Information Architect develop applications architectures for Government solutions. Possesses the capability to design or develop architectures for applications, implementation or software development plans, or integration plans based on different software and web environments. Has the ability to use experience and technical judgment to reach conclusions in the face of limited and/or uncertain data. Supervises or manages the application architecture and is considered a subject matter expert in the field. Capable of interfacing with teams of specialty Engineers working on complex software development projects.

Functional Responsibilities:

- Provides lead analysis for translating customer needs into the design of applications.
- Provides leadership or direction on innovative research associated with the development of application architectures.
- Performs management responsibilities for a program or staff for software architecture projects.
- May perform other duties as required

Example of Duties: Provide architecture for application and systems geared for enterprise deployment. Develop and design enterprise systems management and infrastructure topology for region-wide applications. Evaluate and recommend viable design alternatives, products, and services to existing network and applications configurations and deployment. Assess and provide feedback on complex designs and architectural modules through on-site analysis at different locations, and also through the vendors; devise and implement strategies for potential software and hardware solutions. Work with Senior Architect and provide assistants, feedback and input.

Possible Job Titles: Principal Engineer, Senior Communications Engineer, Engineer, Senior Computer Specialist.

Minimum Education: An advanced degree preferred or a Bachelor's degree in computer science, engineering, mathematics, or related field, with 5 years practical experience, or equivalent.

Commercial Job Title: Program Manager

GSA Rate: \$237.34

Minimum/General Experience: Practical experience in defining, developing, and managing government and private programs in accord with project management processes and procedures. Having previous experience in a multi-disciplinary methodological and technical environment. Excellent client interface, coordination and verbal/written communications skills. Experience in the structured software development environment. Must have the ability to work independently, proactively and with sensitivity to Government/Federal cultural, political, and organizational considerations.

Functional Responsibilities: The Program Management Analyst servers as the Project Manager on multi-contractor Project Management engagements developing, implementing and operating project and program management functions as outlined by PMI.

1. The Program Manager will lead the establishment of a common framework, processes, procedures, tools, measurement and reporting of project operations consistent with the governing lifecycle methodologies.
2. During operational cycles, you will be responsible for proactive data collection, data analyses, tracking, monitoring and control, reporting, action item/issue coordination and execution of concurrent projects.
3. These activities will include the following management disciplines:
 - Risk & Issue Management
 - Quality Assurance
 - Stakeholder Management
 - Requirements development (business, systems, and training)
 - Business analysis
 - Functional design, testing, implementation and on-going support for new systems needs

Example of Duties: Duties may include, but are not limited to the following: Plan, organize and administer program activities and services; select, train, supervise and evaluate the performance of staff; serve as resource to staff; prepare and implement a marketing strategy to promote the program services; make presentations to groups and clients; develop budgets and oversee administration of program budget components; identify funding sources and work with accounting personnel to ensure that accounts follow funding source regulations and requirements; make financial projections which may combine funding from different sources; prepare and negotiate contracts for the delivery of program services, negotiate contracts for services performed for the program by individual consultants; assist in the development and implementation of project or program policy guidelines and procedures; make suggested revisions and implement changes; developments and strategies affecting program objectives and results; prepare specialized reports, surveys and other program descriptive information and materials; monitor program data and information collection methods and techniques, perform related duties as assigned.

Possible Job Titles: Technical Account Manager, Technical Consultant, Engagement Manager.

Minimum Education: An MBA degree and Bachelor's degree with major coursework in computer science, engineering, mathematics, or equivalent.

Commercial Job Title: Senior Information Architect

GSA Rate: \$189.86

Minimum/General Experience: Has broad, high-level knowledge of applications architectures for Government solutions. Possesses the capability to direct, design, or develop architectures for applications, implementation or software development plans, or integration plans based on different software and web environments. Has the ability to use experience and technical judgment to reach conclusions in the face of limited and/or uncertain data. Able to develop application architecture Requests for Proposals (RFPs) and to evaluate responses to RFPs. Supervises or manages the application architecture and is considered a leading expert in the field. Capable of supervising multiple teams of specialty Engineers working on highly complex software development projects. Plan, organize and administer activities and services; select, train, supervise and evaluate the performance of staff.

Functional Responsibilities:

- Provides lead analysis for translating customer needs into the design of applications.
- Provides leadership or direction on innovative research associated with the development of application architectures.
- Performs management responsibilities for a program or staff for software architecture projects.
- May perform other duties as required

Example of Duties: Provide architecture for application and systems geared for enterprise deployment. Develop and design enterprise systems management and infrastructure topology for region-wide applications. Evaluate and recommend viable design alternatives, products, and services to existing network and applications configurations and deployment. Assess and provide feedback on complex designs and architectural modules through on-site analysis at different locations, and also through the vendors; devise and implement strategies for potential software and hardware solutions.

Possible Job Titles: Principal Engineer, Senior Communications Engineer, Engineer, Senior Computer Specialist.

Minimum Education: An advanced degree preferred or a Bachelor's degree in computer science, engineering, mathematics, or related field, with 5 years practical experience, or equivalent.

Commercial Job Title: **Technical Writer**

GSA Rate: \$118.66

Minimum/General Experience: Assists in collecting and organizing information required for preparation of user's manuals, training materials, installation guides, proposals, reports, and other systems/applications documentations.

Functional Responsibilities: Develop, write, edits functional descriptions, system specifications, user's manuals, special reports, or any other customer deliverables and documents.

Example of Duties: Writes, in clear and concise language, such technical documents as procedure manuals, service manuals, and related technical publications concerned with installation, operation, and maintenance of information technology systems and other related network, software and hardware equipment. Includes writing such technical documentation as operational specifications, bulletins, articles, service manuals, and marketing publications. Acquires or verifies knowledge of subject by interviewing workers engaged in developing new products and services or in making improvements, observing performance of experiments and methods of production, referring to specification and design proto-types, engineering drawings and notes, trade and engineering journals, rewrites of articles, bulletins, manuals, or similar publications.

Possible Job Titles: Technical Documentation Specialist.

Minimum Education: An advanced degree preferred or a Bachelor's degree in computer science, engineering, mathematics, or related field, with 5 years practical experience, or equivalent.