

8(a) STARS

**GSA Streamlined Technology Acquisition
Resources for Services (STARS)**

Authorized Federal Supply Schedule
Pricelist and Catalog

**General Services Administration
Contract Number: GS-06F-0264Z
June 2004 - June 2011**

FA1 - Custom Computer Programming Services

Contractor:
CentralPoint
2331 Mill Road, Suite 100
Alexandria, VA 22314
703.224.8915

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Point of **Contact Information**



● Point of **Contact Information**

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Contractor Information



Contractor Information

1. GENERAL

The contractor shall furnish a comprehensive solution for client requirements to include, but not limited to, all personnel, materials, services, facilities and management necessary to perform the requirements as set forth in this contract and all orders issued under this contract.

2. CONTRACT TERM

The Contract term will be a base period of three years with two 2-year option periods. The effective date will be the date of contract award.

3. PRICE/COSTS/CEILING RATES

The pricing schedules in Section B, and the associated Microsoft Excel spreadsheet files, shall reflect fully burdened ceiling rates, which represent the maximum, fully-loaded rates. The ceiling rates listed and any lower subsequent rates proposed in response to task order requests, must be fully burdened labor rates inclusive of profit, fringe benefits, salary, indirect rates and the contract access fee (CAF). All orders awarded must include rates, which are equal to or lower than the ceiling rates proposed in response to this solicitation. Each offeror shall propose ceiling prices in the pricing schedules for & labor categories and all contract periods under the Functional Areas for which the offeror is proposing.

FAILURE TO PROPOSE CEILING PRICES FOR ALL LABOR CATEGORIES AND FOR ALL CONTRACT PERIODS UNDER THE FUNCTIONAL AREAS PROPOSED SHALL RESULT IN ELIMINATION FROM CONSIDERATION OF THE OFFER IN THE FUNCTIONAL AREA(S) IN WHICH THE OMISSION OCCURS.

The Government will only be obligated for items and quantities specified in task orders issued under this contract. The actual number of hours and labor categories will be negotiated in individual task orders.

When calculating each unit price, the CAF shall be applied last. Contractors should use their discretion when quoting on orders. Prices submitted for this solicitation are to be ceiling rates and prices quoted under orders must be lower than or equal to those ceiling rates. Actual prices quoted at the time of order issuance will be based upon individual statements of work and definitive requirements at the order level.

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4. SUPPLIES/SERVICES AND PRICES/COSTS

The price schedules contain the loaded hourly rates for work performed at any location within the 50 states of the United States of America, and within the District of Columbia. Any work performed outside the United states shall be negotiated and defined within orders. If work is anticipated outside the 50 states, the offeror shall insert their percentage markup in the pricing schedules for all Functional Areas proposed. If the OCONUS Markup is not filled in by the offeror, work cannot be proposed outside the 50 states in task orders. Orders issued under this contract may be issued as Fixed Price (FP), Labor Hour (LH) and Time and Materials (T&M). All products and services necessary to provide a comprehensive solution at the order level that are within the scope of the Functional Area/NAICS code are available to procure under this contract.

4.1 OTHER DIRECT COSTS (ODCs) AND HANDLING RATES

All products and services necessary to provide solutions that are within the scope of the selected FA/NAICS code description are available to order.

ODC Handling Rate multipliers must be proposed and included at time of contract award. If a handling rate multiplier for ODC's is not incorporated at time of contract award, none or permitted. As determined at time of contract award, the contractor's ODC handling rate multiplier is applied to the ODC'S listed in the order. Contractors may not exceed the ODC Handling Rate established in the contract on individual orders.

Handling rate multipliers are markups applied to the bare cost and serve as a maximum markup to include all indirect charges, overhead, general and administrative expenses, fringe benefits and profit. Unit prices are to be offered in U.S. currency and submitted within 2 digits to the right of the decimal place. Handling rate charges are to be submitted in percentage format within 2 digits to the right of the decimal place. (For example, 2.00 equates to 2% while 0.02 equates to 2 10th's of one (1) percent.) Handling markup on the CAF is not allowable.

If authorized in an Order, the Contractor will be reimbursed the bare cost of travel and ODCs plus the handling amounts, not to exceed the applicable ceiling amounts specified in individual orders. (See Section H.11 for more specifics regarding acceptable travel costs and limitations.) The ceiling handling rates proposed in Section B are caps on the markup allowed for overhead, G&A and profit. Profit shall not be applied to travel costs and is not allowable under these contracts. All line items must stand alone and not be dependent upon the ordering of any other line items.

Contractor Information

Travel will be as specified in individual orders and will be specifically authorized in writing in the Order to be reimbursed. Travel costs shall be reimbursed in accordance with the Federal Travel regulations (FTR) for civilian agency work, and the Joint Travel Regulations (JTR) for military agency work. No fee/profit will be allowed on travel or per diem.

Failure to propose pricing for all periods of the Functional Area being applied for shall result in disqualification of the offeror in the FA(s) in which the omission occurs.

5. APPLICATION OF THE SERVICE CONTRACT ACT (SCA)

The labor categories identified in this solicitation are professional Information Technology (IT) positions and thus are exempt from the SCA. If a non-exempt labor category is added at the Order level, provided they fall within the scope of the contract and associated Functional Area and NAICS code, it will be incumbent upon the parties to include and abide by the applicable SCA wage determinations in accordance with 41 U.S.C. 358.

6. BACKGROUND

The General Services Administration, Federal Supply Service (GSA FSS) Small Business Government Wide Acquisition Contract (GWAC) Center, located in Kansas City, Missouri, has responsibility for awarding and administering contracts with small disadvantaged 8(a) firms.

The resultant contracts provide high-quality information technology (IT) solutions. These contracts will enable the federal marketplace to fulfill IT requirements. These contracts also provide the Small Business GWAC Center the opportunity to offer Federal Agencies innovative solutions that deliver best value to support their missions worldwide.

7. SCOPE - GENERAL

The term of this contract shall be a 3-year base with two, 2-year options for a total contract period of seven years.

The solicitation will result in Multiple Award Indefinite Delivery Indefinite Quantity (MAIDIQ) contracts. Agencies wishing to obtain direct order authority must obtain written authorization from the Small Business GWAC Center prior to the issuance of any orders.

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The Government shall order IT services under this contract by means of task orders with specifically defined requirements, deliverable products, and schedules. The contractor shall perform work under this contract only as directed in orders issued by an authorized Contracting Officer.

8. SCOPE --

For all task orders issued against the contract, the contractor shall provide information technology and network solutions at or below the fully burdened ceiling rates established in Section B under the resultant contract. This procurement will be set-aside for 8(a) businesses with the following North American Industrial Classification System (NAICS) codes, which can also be downloaded from <http://www.census.gov/epcd/naics02/naicod02.htm>

FA 1 : NAICS code 54151 1 - Custom Computer Programming Services

FA 2: NAICS code 541512 - Computer Systems Design Services

FA 3: NAICS code 541 51 3 - Computer Facilities Management Services

FA 4: NAICS code 51 8210 - Data Processing, Hosting and Related Services

FA 5: NAICS code 541 51 9 - Other Computer Related Services

FA 6: NAICS code 5161 10 -Internet Publishing and Broadcasting

FA 7: NAICS code 51 91 90 - All Other Information Services

FA 8: NAICS code 51 71 10 -Wired Telecommunications Carriers

Contractors may bid individually for separate contracts in any of the functional areas.

9. STATEMENT OF WORK

The contractor shall furnish a comprehensive solution for client requirements to include, but are not limited to, all personnel, materials, services, facilities, and management necessary to perform the requirements as set forth in this contract and all orders issued under this contract.

10. DELIVERY INSTRUCTIONS

Additional delivery instructions for hardware/software and services will be specified in individual orders, as necessary.

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11. PERIOD OF PERFORMANCE

The period of performance will be as specified in each individual task order.

12. DELIVERY SCHEDULE

The delivery schedule for individual orders will be as specified in each individual task order.

13. NOTICE REGARDING LATE DELIVERY

In the event the Contractor anticipates that it will not with any delivery, and/or performance requirements identified in individual orders, it shall immediately notify the Contracting Officer, the ITR/ITM and the CR orally and in writing giving pertinent rationale and proposed corrective action(s) and adequate consideration. This data shall not be construed as a waiver by the Government of any of its rights or remedies available under the contract including termination.

14. CONTRACTOR'S CONTACT INFORMATION

For prompt action on matters pertaining to your administration of the contract contact:

General Services Administration, 6FG
Attn: Delta Helm or Howard Innis
1500 E. Bannister Road
Kansas City, MO 64131

15. INVOICE SUBMISSION

The Contractor shall submit invoices in accordance with the schedule specified in each order. Upon delivery of supplies or services to the place designated in the order, the Contractor is authorized to submit a valid invoice for payment to the payment office specified in the order. The Contractor agrees that the submission of an invoice to the Government for payment is a certification that the supplies or services for which the Government is being billed, have been shipped and delivered in accordance with shipping and delivery instructions stated in the order, in the quantities shown on the invoice, and the supplies or services are in the quantity and of the quality designated by the order. Mark Invoice: "Original Invoice".

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NOTE: Invoices marked STATEMENT in lieu of invoice will not be processed. See also Section I.10 for additional invoicing requirements.

16. ORDER PROCEDURES

Any supplies and services to be furnished under this contract will be ordered by issuance of written orders on GSA Form 300, Standard Form 1449 or DD Form, 1155. Oral orders are not authorized. An order specifies and authorizes the work to be performed by the Contractor. The order will include pricing and a statement of work. ALL ORDERS MUST ALSO CITE THE PRIMARY NAICS CODE AND THE APPROPRIATE FUNCTIONAL AREA. Orders may only be issued from date of contract award through contract expiration. The following ordering procedures apply to all orders issued under this contract.

17. SECTION 803 AND HOW IT APPLIES TO 8(A) FAST 2 CONTRACT

The 8(a) FAST 2 contract will be awarded under the provisions of section 8(a) of the Small Business Act (15 U.S.C. 637(a)) and FAR 19.8. For orders at or below the \$3 million competitive threshold, the Contracting Officer may waive the Section 803 competition requirements based on the exception that a statute expressly authorizes that the purchase be made from a specified source. However, the competition requirements of DFARS 216.505-70 are still applicable for orders above the \$3 million competition threshold for 8(a) contracts unless the contracting officer waives this requirement on the basis of a written determination that - (1) one of the exceptions described in FAR 16.505(b)(2)(1) through (iv) applies to the order; or (2) a statute expressly authorizes or requires that the purchase be made from a specified source.

18. GOVERNMENT LIABILITY

The Government shall not be liable for any injury to the Contractor's personnel or damage to the Contractor's property unless such injury or damage is due to negligence on the part of the Government and is recoverable under the Federal Torts Claims Act, or pursuant to another Federal statutory authority.

19. TRAVEL

All travel must be specified in the order issued. The cost of transportation, lodging, subsistence and incidental expenses (per diem) incurred by contractor personnel when requested to travel in the performance of an order shall comply with the limitations as set forth in FAR 31.205-46. Travel costs must be consistent with and limited to the approved

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Government travel regulations (Federal Travel Regulations (FTR) for civilian agency work, Joint Travel Regulations (JTR) for military agency work).

20. SUPERVISION OF EMPLOYEES

The contractor's employees shall remain under the contractor's direct supervision at all times. Although the Government will coordinate directions within the scope of the contract, detailed instruction for the contractor's employees and supervision shall remain the responsibility of the contractor.

21. CANCELLATION OF ORDERS

The contractor shall honor orders for services for the period of time specified or the estimated dollar value, whichever expires first, stated in the order. Services delivered in excess of those authorized by the order may not be paid for by the Government. Where the requirement for services is discontinued, transferred or otherwise changed, or canceled for convenience, the Government may cancel the order prior to expiration of the specified time or estimated dollar value upon thirty (30) days written notice to the contractor. If an order is canceled, the Government shall be liable only for payment of acceptable services rendered before the effective date of the cancellation.

22. SECURITY CLEARANCES

From time to time there may be opportunities for work requiring security clearances. RFQs will contain security clearance requirements, if any, and quoters must meet those requirements by the deadline for receipt of quotations unless a different standard is established in the RFQ, or they will be considered unacceptable. Pricing of obtaining security clearances must be included in the ceiling rates proposed in Section B.

23. INSURANCE

Required insurance in connection with FAR 52.228-5 and GSAR 552.228-70 found in Section I.

1. Workman's compensation insurance required by law of the State where performance is conducted.
2. Comprehensive bodily injury insurance with limits of not less than \$500,000 for each occurrence.

Contractor Information

3. Property Damage liability with ;a limit of not less than \$100,666 for each occurrence.
4. Automotive bodily injury liability insurance with limits of not less than \$200,000 for each person and \$500,000 for each occurrence, and property damage liability insurance with a limit of not less than \$50,000 for each occurrence.

24. INVOICE REQUIREMENTS

- (a) Invoices shall be submitted in an original only, unless otherwise specified, to the designated billing office specified in this contract or purchase/delivery order.
- (b) Invoices must include the Accounting Control Transaction (ACT) number provided below or on the purchase/delivery order.
- (c) In addition to the requirements for a proper invoice specified in the Prompt Payment Clause of this contract or purchase/delivery order, the following information or documentation must be submitted with each invoice:
 - (1) Name of the business concern and invoice date.
 - (2) Contract Number, IT1 Project Number, and Title
 - (3) Delivery order number
 - (4) Item number, national stock number (NSN) or other product identification number, description, price, and quantity of property or services actually delivered or rendered
 - (5) Shipping and payment terms
 - (6) Name, title, phone number, and complete mailing address of responsible official to whom payment is to be sent. The “remit to” address must correspond to the remittance address in the Contract.
 - (7) Information necessary to enable the Government to make payment by wire transfer

Contractor Information

25. PAYMENT BY GOVERNMENT COMMERCIAL PURCHASE CARD

(a) Definitions:

“Governmentwide commercial purchase card” means a uniquely numbered credit card issued by a contractor under GSA’s Governmentwide Contract for Fleet, Travel, and purchase Card Services to named individual Government employees or entities to pay for official Government purchases.”

“Oral order” means an order placed orally either in person or by telephone.

(b) At the option of the Government and if agreeable to the Contractor, payments for orders oral or written orders may be made using the Governmentwide commercial purchase card.

(c) The Contractor shall not process a transaction for payment through the credit card clearinghouse until the purchased supplies have been shipped or services performed. Unless the cardholder requests correction or replacement of a defective or faulty item under other contract requirements, the Contractor must immediately credit a cardholder’s account for items returned as defective or faulty.

(d) Payments made using the Governmentwide commercial purchase card are not eligible for any negotiated prompt payment discount. Payment made using a Government debit card will receive the applicable prompt payment discount.

Why CentralPoint?



Why CentralPoint?

CentralPoint's distinguished reputation for completing complex IT projects with unsurpassed attention to detail makes us a top choice when an agency or prime contractor needs creative and innovative solutions.

But we don't stop there.

In our experience, we've learned that every project requires some measure of performance beyond the contract. So we consistently deliver what is truly needed, going above and beyond the contract requirements to exceed expectations. Our diversified and goal-oriented professionals do what it takes to make your project a success for your agency and the constituents or clients you serve.

CENTRALPOINT AT A GLANCE

CentralPoint offers IT consulting services. We have proven performance in delivering innovative and cost-effective solutions to our customers. Our core competencies include:

COTS Customization

We customize COTS applications to fulfill stated requirements.

Records Management

Categorizing, indexing, and preserving records are just the beginning.

Project Management

Applying knowledge, skills and professionalism is the first step to meeting your requirements.

Data Migration

Accuracy and attention to detail are imperative when translating data from one format to another.

Microfilm/Data Conversion

During conversion, integrity of the images and documents is absolutely critical.

Beyond Core Competencies



● Beyond Core Competencies:

CentralPoint's unique points of difference

CentralPoint is different from other companies that provide IT services for the Federal Government. And we're different in ways that matter to you.

CentralPoint is structured to achieve effective results. Our size and management style make us nimble, allowing our experienced team to perform at record speed, backed by superb troubleshooting. And we are passionate about quality assurance.

We excel at records management, project management, data migration, and microfilm/data conversion. In some of these, your risk of non-compliance and non-adoptability are enormous. CentralPoint delivers new solutions to strengthen your compliance and your team's competency and effectiveness.

Our performance record stands as proof. Time and again, agencies comply and improve, faster than ever, specifically because of CentralPoint's focus on organizing the right data for the right people in the most useful way.

CentralPoint was hired to automate human resource forms and critical HR tasks. The new automated workflow allowed this company to cut its annual review time by two-thirds, streamlining a process that previously took more than three months to just 30 days.

Seeing the **Big Picture**



● Seeing the **Big Picture**

We understand your enterprise architecture requirements, and we apply the right IT tools, enforce stringent quality assurance measures, and implement workflows that match your business processes. We do all we can to help lower your risk and increase your opportunities – and that matters to program management offices, contract officers, and agency executives.

IT must make your agency more effective. Our big-picture approach helps get that done:

- With Secret and Top Secret clearances, CentralPoint has experience in mission-critical projects.
- We can cover your needs at every phase with start-to-finish project oversight and expert staff.
- Our analysts help you identify and specify project elements you may have missed, minimizing project risks.
- Our team has experience in building out systems using best-in-class technologies that can be adopted by any user
- We can build entirely new systems, or preserve information from legacy sources.
- We help streamline agency modernization and data access using our expertise and performance in document archiving and retrieval, data migration and data entry.
- We can manage your new system, from the wires and servers to operations and help desk services.
- CentralPoint also offers disaster recovery and contingency planning to help you anticipate and plan for worst-case scenarios.

During the migration of financial data from legacy systems to the integrated CODB, CentralPoint enabled NCR to migrate over 95% of data on three cycles – a higher percentage than any other region.

CentralPoint and **STARS**



● CentralPoint and **STARS**

FA1 - 541511 CUSTOM COMPUTER PROGRAMMING SERVICES

This U.S. industry comprises establishments primarily engaged in writing, modifying, testing, and supporting software to meet the needs of a particular customer.

Business Categories –

- Applications software programming services
- Computer program or software development
- Computer programming services
- Computer software support services
- Database design/generation
- Legacy interfaces/data migration
- Software analysis and design
- Software programming
- Software testing
- Web design

Labor Rates



Labor Rates

CLIN	TITLE	YEAR 5 (7/2008 - 6/2009)	YEAR 6 (7/2009 - 6/2010)	YEAR 7 (7/2010 - 6/2011)
1	PROJECT MANAGER - SENIOR	\$134.90	\$138.27	\$141.73
2	APPLICATIONS SYSTEMS ANALYST PROGRAMMER - INTERMEDIATE	\$134.90	\$138.27	\$141.73
3	APPLICATIONS SYSTEMS ANALYST PROGRAMMER - SENIOR	\$144.31	\$147.92	\$151.62
4	DATABASE ANALYST/PROGRAMMER INTERMEDIATE	\$101.15	\$103.68	\$106.27
5	DATABASE ANALYST/PROGRAMMER SENIOR	\$117.64	\$120.58	\$123.60
6	DOCUMENTATION SPECIALIST INTERMEDIATE	\$76.06	\$77.96	\$79.91
7	DOCUMENTATION SPECIALIST - SENIOR	\$101.15	\$103.68	\$106.27
8	GRAPHICS SPECIALIST	\$101.15	\$103.68	\$106.27
9	QUALITY ASSURANCE ANALYST INTERMEDIATE	\$117.64	\$120.58	\$123.60
10	QUALITY ASSURANCE ANALYST - SENIOR	\$139.59	\$143.08	\$146.66
11	SOFTWARE ARCHITECT	\$86.25	\$88.41	\$90.62

Labor Rates

CLIN	TITLE	YEAR 5 (7/2008 - 6/2009)	YEAR 6 (7/2009 - 6/2010)	YEAR 7 (7/2010 - 6/2011)
12	SOFTWARE DEVELOPER - INTERMEDIATE	\$133.33	\$136.66	\$140.08
13	SOFTWARE DEVELOPER - SENIOR	\$153.73	\$157.57	\$161.51
14	SOFTWARE SYSTEMS ENGINEER INTERMEDIATE	\$133.33	\$136.66	\$140.08
15	SOFTWARE SYSTEMS ENGINEER SENIOR	\$154.07	\$157.92	\$161.87
16	TECHNICAL EDITOR	\$101.15	\$103.68	\$106.27
17	WEB SOFTWARE DEVELOPER	\$86.25	\$88.41	\$90.62

Labor Category Descriptions



● Labor Category Descriptions

PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.

APPLICATIONS SYSTEMS ANALYST/PROGRAMMER - INTERMEDIATE:

Under general supervision, formulates and defines system scope and objectives through research and fact-finding to develop or modify moderately complex information systems. Prepares detailed specifications from which programs will be written. Designs, codes, tests, debugs, documents, and maintains those programs. Competent to work on most phases of applications systems analysis and programming activities, but requires instruction and guidance in other phases.

APPLICATIONS SYSTEMS ANALYST/PROGRAMMER - SENIOR:

Under general direction, formulates and defines system scope and objectives. Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results. Prepares detailed specifications from which programs will be written. Designs, codes, tests, debugs, and documents those programs. Competent to work at the highest technical level of all phases of applications systems analysis and programming activities. May be responsible for completion of a phase of a project. Regularly provides guidance and training to less-experienced analyst/programmers.

DATABASE ANALYST/PROGRAMMER - INTERMEDIATE:

Under general supervision, designs, implements and maintains moderately complex databases. Maintains database dictionaries and integration of systems through database design. Competent to work on most phases of database administration but may require some instruction and guidance in other phases. Requires two years experience in the field.

● Labor Category Descriptions

DATABASE ANALYST/PROGRAMMER - SENIOR:

Under general direction, designs, implements and maintains complex database with respect to JCL, access methods, access time, device allocation, validation checks, organization, protection and security, documentation and statistical methods. Includes maintenance of database dictionaries, overall monitoring of standards and procedures and integration of systems through database design. Competent to work at the highest level of all phases of database management. Requires three years experience in the field.

DOCUMENTATION SPECIALIST - INTERMEDIATE:

Under general supervision, prepares and/or maintains systems, programming, and operations documentation, including user manuals. Maintains a current internal documentation library. Competent to work on most phases of documentation.

DOCUMENTATION SPECIALIST - SENIOR:

Under general supervision, is responsible for preparing and/or maintaining systems, programming, and operations documentation, procedures, and methods including user manuals and reference manuals. Maintains a current internal documentation library. Provides or coordinates special documentation services as required. Competent to work at the highest level of all phases of documentation. May act as project leader for large positions.

GRAPHICS SPECIALIST:

Responsible for graphics design and use, operation, and setup of computer graphic systems for business communications. Executes graphic projects and assists in coordination of all graphic production scheduling. Coordinates production support with outside vendors, as needed. Ensures that graphic projects are completed on time, within budget, and to user's satisfaction. Interfaces with users to determine scope of project and best graphic medium. Trains other personnel in proper use of computer graphic equipment. Troubleshoots computer equipment problems and performs minor preventive maintenance. Frequently reports to a department manager or information systems management.

QUALIFY ASSURANCE ANALYST - INTERMEDIATE:

Under general supervision, carries out procedures to ensure that all information systems, products and services meet minimum organization standards and enduser requirements.

● Labor Category Descriptions

Thoroughly tests software to ensure proper operation and freedom from defects. Documents and works to resolve all problems. Reports' progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations. Performs workflow analysis and recommends quality improvements. Frequently reports to a Quality Assurance Manager.

QUALITY ASSURANCE ANALYST - SENIOR:

Under general direction, carries out procedures to ensure that all information systems, products and services meet organization standards and end-user requirements. Performs and leads tests of software to ensure proper operation and freedom from defects. May create test data for applications. Documents and works to resolve all complex problems. Reports progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations. Acts as information resource about assigned areas to technical writers and other Quality Assurance Analysts. Performs complex workflow analysis and recommends quality improvements. Frequently reports to a Quality Assurance Manager.

SOFTWARE ARCHITECT:

Works independently designing and developing new software products or major enhancements to existing software. May lead a large development team in the design of highly complex software systems. Acts as highest-level technical expert, addressing problems of systems integration, compatibility, and multiple platforms. Responsible for project completion. Performs feasibility analysis on potential future projects to management.

SOFTWARE DEVELOPER - INTERMEDIATE:

Under general supervision, develops codes, tests, and debugs new software or enhancements to existing software. Has good understanding of business applications. Works with technical staff to understand problems with software and resolve them. Resolves customer complaints with software and responds to suggestions for improvements and enhancements. May assist in development of software user manuals. Requires two years experience in the field.

SOFTWARE DEVELOPER - SENIOR:

Under general direction, participates as high-level technical expert in design development, coding, testing, and debugging new software or significant enhancements to exist-

● Labor Category Descriptions

ting software. Works with technical staff to understand problems with software and develops specifications to resolve them. Resolves customer complaints and responds to suggestions for improvements and enhancements. Participates in the development of software user manuals. May act as team leader on less complex projects. Assists in training less experienced software development staff. Requires five years experience in the field.

SOFTWARE SYSTEMS ENGINEER - INTERMEDIATE:

Under general supervision, works from specifications to develop or modify moderately complex software programming applications. Assists with design, coding, benchmark testing, debugging, and documentation of programs. Applications generally deal with utility programs, position control language, macros, subroutines, and other control modules. Competent to work on most phases of software systems programming applications, but requires instruction and guidance in other phases.

SOFTWARE SYSTEMS ENGINEER - SENIOR:

Under general direction, formulates and defines specifications for complex operating software programming applications or modifies/maintains complex existing applications using engineering releases and utilities from the manufacturer. Designs, codes, tests, debugs, and documents those programs. Responsible for applications dealing with the overall operating system, such as sophisticated file maintenance routines, large telecommunications networks, computer accounting, and advanced mathematical/scientific software packages. Competent to work at this highest technical level on all phases of software systems programming applications. May have responsibility for the evaluation of new and existing software products. May assist other systems programmers to effectively utilize the system's technical software.

TECHNICAL EDITOR:

Responsible for content of technical documentation. Checks author's document for spelling, grammar and content problems (e.g., missing instructions or sections; redundant or unnecessary sections). Accuracy of content may fall under this position or the programmer, depending on the expertise of the editor. Ensures that documents follow the style laid out in the organization's style guide. May also be responsible for maintaining the style guide. Suggests revisions to the style guide as appropriate. Editor is often a technical writer who has moved to this position. Note: This description is for a technical editor in a large software house or an editor in a technical lab, which produces papers for publication. Newsletter, newspaper, or magazine editors should not be matched to this position.

● Labor Category Descriptions

WEB SOFTWARE DEVELOPER:

Designs, develops, troubleshoots, debugs, and implements software code (such as HTML, CGI, and JavaScript) for a component of the website. Works with graphic designers and other members of a project team to develop the site concept, interface design, and architecture of the website. Responsible for interface implementation. Integrates web applications with backend databases. Deploys large web-based transaction systems using application servers. Researches, tests, builds, and coordinates the integration of new products per production and client requirements. Requires strong navigation and site-design instincts.

PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems. (1

CLIENT/SERVER NETWORK ARCHITECT:

Top-level technical expert responsible for design and development of a client/server environment. Develops strategy of client/server system and the design infrastructure necessary to support that strategy. Advises on selection of technological purchases with regards to processing, data storage, data access, and applications development. Sets standards for the client/server relational database structure for the organization (SQL, ORACLE, SYBASE, etc.). Advises of feasibility of potential future projects to management.

Labor Category Descriptions

DATA ARCHITECT:

Under general supervision, works in a data warehouse environment, which includes data design, database architecture, metadata, and repository creation. Translates business needs into long-term architecture solutions. Defines, designs, and builds dimensional databases. Responsible for developing data warehousing blueprints, evaluating hardware and software platforms, and integrating systems. Evaluates reusability of current data for additional analyses. Conducts data cleaning to rid the system of old, unused, or duplicate data. Reviews object and data models and the metadata repository to structure the data for better management and quicker access. Typically requires two to four years of experience.

ERP BUSINESS ANALYST - INTERMEDIATE:

Under general supervision, serves as subject matter expert associated with content, processes, and procedures associated with enterprise applications. Applies functional knowledge to design and customize workflow systems that provide seamless integration for client/server applications. Writes functional requirements, develops test plans, and works with production issues.

ERP BUSINESS ANALYST - SENIOR:

Under general direction, serves as senior subject matter expert associated with content, processes, and procedures associated with ERP. Defines detailed requirements, analyzes business needs, and validates solutions with the client. Details requirements through product development and other functions to support the project team. Monitors other business analysts in software development methods and processes and implementation of those methods. Evaluates development projects and assists in tailoring the development process to meet the project needs.

ERP PROGRAMMER:

Under general supervision, works primarily in ERP clientserver "enterprise application. Designs and develops all aspects of data conversion. Builds application tables, panels, and reports. Codes individual modules and complex functions. Develops application tables, panels, and reports for projects. Responsible for software integration and external interface development.

● Labor Category Descriptions

Troubleshoots and resolves testing issues. Responsible for technical documentation.

INFORMATION SERVICES CONSULTANT:

Top-level technical expert supporting unlimited end user groups. Works with user groups to solve business problems with available technology including hardware, software, databases, and peripherals. Requires high level of diverse technical experience related to studying and analyzing systems needs, systems development, systems process analysis, design, and re-engineering. Has skills and experience related to business management, systems engineering, operations research, and management engineering. Typically requires specialization in particular software or business application utilized in an end user environment. Keeps abreast of technological developments and applications.

INFORMATION SYSTEMS TRAINING SPECIALIST - INTERMEDIATE:

Under general supervision, organizes and conducts moderately complex training and educational programs for information systems or user personnel. Maintains records of training activities, employee progress, and program effectiveness. Competent to work on most phases of information systems training.

INFORMATION SYSTEMS TRAINING SPECIALIST - SENIOR:

Under general direction, organizes, prepares, and conducts complex training and educational programs for information systems or user personnel. May design and develop in-house programs. Maintains records of training activities, employee progress, and program effectiveness. Competent to work at the highest level of all phases of information systems training.

LAN ADMINISTRATOR - INTERMEDIATE:

Under general supervision, responsible for the acquisition, installation, maintenance, and usage of the organization's local area network. Manages LAN performance and maintains LAN security. Ensures that security procedures are implemented and enforced. Installs all network software. Evaluates, develops and maintains telecommunications systems. Troubleshoots LAN problems. Establishes and implements LAN policies, procedures, and standards and ensures their conformance with information systems and organization objectives. Trains users on LAN operation. Typically requires two to four years of experience. Frequently reports to a PC support manager or Senior LAN Administrator.

● Labor Category Descriptions

LAN ADMINISTRATOR - SENIOR:

Under general direction, responsible for administration and day-to-day operation of organization's local area network (LAN). Provides integrated team support and maintenance of LAN hardware and software. Maintains integrity of the LAN hardware and software. Installs LAN software upgrades, including planning and scheduling, testing and coordination. Studies vendor products to determine those which best meet organization needs; assists in presentation of information to management resulting in purchase, and installation of hardware, software, and telecommunications equipment. Performs LAN security procedures, including implementing login requests. Evaluates new products and technologies to determine impact on existing system configurations. Prepares proposals, cost benefit analyses, and feasibility studies. Provides liaison support between the PCILAN team, vendors and internal support group as needed. Typically requires five to seven years of experience. Frequently reports to an information systems executive.

LAN/WAN INTEGRATOR:

Responsible for the overall integration of the enterprise-wide network including the planning, design, installation, maintenance, management, and coordination of the corporate LAN/WAN (may include local, metropolitan, and wide area networks). Has responsibility for technical architecture and recommendations, related to LAN/WAN. Is typically a top-level technical contributor with advanced knowledge and experience in the area of local and wide area networking, communications, and related hardware/software. Maintains high level of technical expertise and studies vendor products to determine those which best meet organization needs. Presents information to management, which may result in the purchase and installation of hardware, software, and telecommunications equipment. Recommends network security procedures and policies. Knowledgeable in a multi-platform operating environment. May work with Voice and/or Data Communications Analysts.

NETWORK ENGINEER - INTERMEDIATE:

Under general supervision, oversees the purchase, installation, and support of network communications, including LAN/WAN systems. Works on problems of diverse scope where analysis of situation requires evaluation and judgment. Responsible for evaluating current systems. Assists in the planning of large scale

● Labor Category Descriptions

systems projects through vendor comparison and cost studies. Requires thorough knowledge of LAN/WAN systems, networks, and applications. Typically requires two to five years of experience.

NETWORK ENGINEER - SENIOR:

Under general direction, manages the purchase, installation, and support of network communications, including LAN/WAN systems. Responsible for evaluating current systems. Works on complex problems where analysis of situation requires in-depth evaluation of various factors. Plans large-scale systems projects through vendor comparison and cost studies. Provides work leadership and training to lower level network engineers. Requires expert knowledge of LAN/WAN systems, networks, and applications. Typically requires at least five years of experience.

PC/LAN MANAGEMENT ANALYST - INTERMEDIATE:

Under general supervision, works closely with business and management and staff on LAN support, network design, and configuration in a multi-server environment. Responsible for the installation/configuration and support of client servers, application support software, and implementation of new business software applications. Participates with client in the installation/configuration of equipment and software. Analyzes and coordinates resolution of network problems. Provides technical support and guidelines to client and systems areas through documentation. Requires experience with Token Ring.

PC/LAN MANAGEMENT ANALYST - SENIOR:

Under general direction, provides consultation to business area management, and staff at the highest technical level for all aspects of PC/LAN design and configuration in a multi-server environment. Plans and coordinates the installation of new or modified Local Area Networks and installs and coordinates the resolution of network problems or malfunctions. Provides technical support and guidelines to client and systems areas through documentation. Requires experience with Token Ring.

SYSTEMS ADMINISTRATOR - INTERMEDIATE:

Under general supervision, responsible for installing, configuring, and maintaining operat

● Labor Category Descriptions

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

SYSTEMS ADMINISTRATOR - SENIOR:

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

UNIX SYSTEMS ADMINISTRATOR:

Responsible for the installation, configuration, and maintenance of UNIX operating systems. Recognizes and troubleshoots problems with server hardware and applications software. Establishes and documents standards and procedures for management review. Requires extensive knowledge of computer operations and familiarity with shell and kernel programming. Typically requires two to four years of experience.

PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables.

● Labor Category Descriptions

Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.

CLIENT/SERVER SUPPORT ANALYST:

Under general supervision, assists with personal computer operating systems software and communication system software. Designs, tests, and maintains personal computer systems. Responsible for analyzing and solving personal computer-related problems. Responsible for security, integrity, and reliability of personal computer systems. Tests and integrates new hardware, systems and modifications to existing equipment and systems. Performs research/investigations, analysis, design, testing, and installation of supported hardware and software. Schedules installation of new hardware and software and modifications to existing systems. Monitors performance of hardware and its capacity in all assigned locations. Recommends and implements enhancements to existing hardware and systems.

COMPUTER OPERATIONS MANAGER:

Responsible for all activities relating to the operation of centralized data processing equipment and peripheral information systems equipment. Establishes detailed schedules for the utilization of all equipment in the computer operations section to obtain maximum utilization. Assigns personnel to various operations and directs their activities. Reviews and evaluates work and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities, and methods. Consults with personnel in other information systems sections to coordinate activities. Prepares activity and progress reports regarding the computer operations section. Frequently reports to a Director of Information Systems Operations.

HELP DESK COORDINATOR - INTERMEDIATE:

Under general supervision, responds to and diagnoses problems through discussions with users. Includes problem recognition, research, isolation, and resolution steps. Typically is able to resolve less complex problems immediately, while more complex problems are assigned to senior level support. May involve use of problem management database and help desk systems.

● Labor Category Descriptions

HELP DESK COORDINATOR - SENIOR:

Under general direction, responsible for ensuring the timely process through which problems are controlled. Includes problem recognition, research, isolation, resolution, and follow-up steps. Requires experience and understanding of MIS environment. Typically involves use of problem management database and help desk system. May provide guidance/training for less-experienced personnel.

HELP DESK MANAGER:

Has overall responsibility for help desk operations associated with the identification, prioritization and resolution of reported problems. Ensures that all phases of help desk support are properly coordinated, monitored, logged, tracked and resolved appropriately. May maintain responsibility for development, maintenance and integrity of help desk software. Requires 3 years experience in the field.

HELP DESK SUPPORT SERVICES SPECIALIST - INTERMEDIATE:

Under general supervision, provides second-tier support to end users for either PC, server, or mainframe applications and hardware. Handles problems that the first-tier of help desk support is unable to resolve. May interact with network services, software systems engineering, and/or applications development to restore service and/or identify and correct core problem. Simulates or recreates user problems to resolve operating difficulties. Recommends systems modifications to reduce user problems. Maintains currency and high level of technical skill in field of expertise. Escalates more complex problems to senior level.

HELP DESK SUPPORT SERVICES SPECIALIST - SENIOR:

Under general direction, provides second-tier support to end users for either PC, server, or mainframe applications and hardware. Handles problems that the first tier of help desk support is unable to resolve. May interact with network services, software systems engineering, and/or applications development to restore service and/or identify and correct core problem. Simulates or recreates user problems to resolve operating difficulties. Recommends systems modifications to reduce user problems. Maintains currency and highest level of technical skill in field of expertise.

● Labor Category Descriptions

LAN/WAN ADMINISTRATOR

Monitors LAN/WAN, and servers. Provides batch monitoring, tape back-up, and restoration. Responsibilities include performing data configuration and installation of routers and firewalls. Administers mail system and implements new database architecture. Monitors and conducts performance evaluation of networks. Supports, installs, maintains, and troubleshoots all local area and wide area networking devices and related software for branch offices and internal and external networks.

NETWORK OPERATIONS SUPERVISOR:

Provides first level guidance/direction (either as a full-time supervisory position or on a project management basis) to network operation and maintenance analysts, technicians, and/or engineers. Performs technical analysis of complex software, hardware, and transmission facility using various diagnostic tools in support of efficient network operations. Provides guidance/direction for engineering efforts and test and evaluation programs. Performs on-site engineering when required. Typically requires five years of experience in operations, maintenance, and sustained engineering of LAN to WAN internetworking. Frequently reports to a Regional Manager or Operations Manager.

OPERATIONS TECHNICAL SUPPORT MANAGER:

Responsible for all activities relating to technical guidance for planning, directing, and monitoring information systems operations. Plans and recommends machine modifications or additional equipment to increase the capacity of the system. Prepares operational cost estimates for current and proposed projects. Evaluates vendor proposals for purchases of hardware. May manage related outsourcing contracts and service levels. Directs compilation of records and reports concerning production, machine malfunctioning, and maintenance. May advise or consult on organizational, procedural, and workflow plans, methods, and procedures analysis. Analyzes the results of workflow plans, monitors the operating system(s) and recommends changes to improve processing and utilization. May have departmental staff responsibility. Frequently reports to an Information Systems Operations Manager or Director of Information Systems Operations.

Labor Category Descriptions

PC SYSTEMS SPECIALIST:

Under general supervision, performs analytical, technical, and administrative work in the planning, design, and installation of new and existing personal computer systems. Works on moderately complex applications. Confers with end users to determine types of hardware and software required. Writes programs to fulfill requirements or selects appropriate off-the-shelf software and modifies to suit. May maintain or utilize telecommunications protocols. Installs new hardware and maintains existing hardware. Trains end users in use of equipment and software. Frequently reports to a PC Support Manager.

PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.

DATA ENTRY SUPERVISOR:

Supervises all data entry activities. Assigns work to personnel and directs activities. Reviews and evaluates work and prepares performance reports. Frequently reports to a Computer Operations Manager or Production Control Supervisor.

DATA WAREHOUSING ADMINISTRATOR:

Coordinates the data administration technical function for both data warehouse development and maintenance. Plans and oversees the technical transitions between development, testing, and production phases of the workplace. Facilitates change control, problem management, and communication among data architects, programmers, analysts and engineers.

● Labor Category Descriptions

Establishes and enforces processes to ensure a consistent, well-managed and well-integrated data, warehouse infrastructure. Expands and improves data warehouse to include data from all functions of the organization using data manipulation, transformation and cleansing tools. Requires three years of experience in the field.

DATA WAREHOUSING ANALYST:

Works in a data warehouse environment, which includes data design, database architecture, metadata and repository creation. Reviews data loaded into the data warehouse for accuracy. Responsible for the development, maintenance and support of an enterprise data warehouse system and corresponding data marts. Troubleshoots and tunes existing data warehouse applications. Conducts research into new data warehouse applications and determines viability for adoption. Assists in establishing development standards. Evaluates existing subject areas stored in the data warehouse. Incorporates existing subject areas into an enterprise model. Creates new or enhanced components of the data warehouse. Requires two years experience in the field.

DATA WAREHOUSING PROGRAMMER:

Responsible for product support and maintenance of the data, warehouse. Performs data warehouse design and construction. Codes and documents scripts and stored procedures. Designs/implements data strategy methods. Develops appropriate programs and systems documentation. Assists with Meta data repository management. Prepares/implements data verification and testing methods for the data warehouse. Creates index and view scripts. Requires two years experience in the field.

DATA WAREHOUSING PROJECT MANAGER:

Works in a data warehouse environment, which includes data design, database architecture, metadata and repository creation. Responsible for leading data warehouse team in development and enhancements of the data warehouse user interface. Establishes user requirements. Creates new standards and procedures related to end user and internal interface development. Works with Data Architect on technical issues and system architecture definition. Translates high-level work plans and converts to detailed assignments for team members. Monitors status of assignments and reviews work for completion and quality. Typically requires more than five years of experience.

● Labor Category Descriptions

DATABASE ADMINISTRATOR:

Participates in the design, creation, and maintenance of computerized databases. Responsible for quality control and auditing of databases to ensure accurate and appropriate use of data. Works with management to develop database strategies to support company needs. Consults with and advises users on access to various databases. Works directly with users to resolve data conflicts and inappropriate data usage. Directs the maintenance and use of the corporate data dictionary. Typically requires two to four years of experience.

DATABASE MANAGER:

Responsible for all activities related to the administration of computerized databases. Assigns personnel to various projects and directs their activities. Reviews and evaluates work and prepares performance reports. Confers with and advises subordinates on administrative policies and procedures, technical problems, priorities, and methods. Consults with and advises users of various databases. Projects long-range requirements for database administration in conjunction with other managers in the information systems function as well as business function managers. Prepares activity and progress reports regarding the database management section. Typically requires five to seven years of experience.

WEB OPERATIONS MANAGER:

Responsible for ongoing oversight of web strategy and operations. Develops business plan and annual budget for website function. Accountable for budget, staff planning, management, and product and service delivery. Oversees operational activities of the website(s) with specific attention aimed at content creation and website maintenance. Typically requires experience with web technologies and web page design.

PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives.

● Labor Category Descriptions

Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.

BUSINESS PROCESS CONSULTANT:

Responsible for most complex systems process analysis, design, and simulation. Requires highest-level understanding of organization's business systems and industry requirements. Focus is on process analysis and re-engineering, with an understanding of technical problems and solutions as they relate to the current and future business environment. Creates process change by integrating new processes with existing ones and communicating these changes to impacted Business Systems teams. Recommends and facilitates quality improvement efforts. May lead re-engineering team and act as project manager in some cases.

BUSINESS SYSTEMS ANALYST - INTERMEDIATE:

Under general supervision, formulates and defines systems scope and objectives through research and fact-finding combined with an understanding of applicable business systems and industry requirements. With this knowledge, develops or modifies moderately complex information systems. Includes analysis of business and user needs, documenting requirements, and revising existing system logic difficulties as necessary. Guides and advises less-experienced Business Systems Analysts. Competent to work in some phases of systems analysis and considers the business implications of the application of technology to the current business environment.

BUSINESS SYSTEMS ANALYST - SENIOR:

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

● Labor Category Descriptions

requirement specifications. Guides and advises less-experienced Business Systems Analysts. Competent to work at the highest technical level of most phases of systems analysis while considering the business implications of the application of technology to the current and future business environment.

BUSINESS SYSTEMS SPECIALIST :

Top-level technical contributor with expertise in particular business processes responsible for formulating systems scope and objectives relative to the organization's business plan and industry requirements. Acts independently or as a member of a project team responsible for providing technical guidance concerning the business implications of the application of various systems. Provides technical consulting on complex projects. Devises and/or modifies procedures to solve the most complex technical problems related to computer equipment capacity and limitations, operating time, and form of desired results.. Creates detailed specifications from which programs will be written. May have ' quality assurance responsibilities.

DATA SECURITY ADMINISTRATION MANAGER:

Directs and implements the necessary controls and procedures to cost-effectively protect information systems assets from intentional or inadvertent modification, disclosure, or destruction. Provides guidance and direction for the physical protection of information systems assets to other functional units. Provides reports to superiors regarding effectiveness of data security and makes recommendations for the adoption of new procedures. Assigns work to subordinates, monitors performance, and conducts performance appraisals. Interviews and makes recommendations for additional staff.

DATA SECURITY ANALYST - INTERMEDIATE :

Under general supervision, performs all procedures necessary to ensure the safety of information systems assets and to protect systems from intentional or inadvertent access or destruction. Interfaces with user community to understand their security needs and implements procedures to accommodate them. Ensures that user community understands and adheres to necessary pr,ocedures to maintain security. Conducts accurate evaluation of the level of securif) required. Provides management with status reports. Frequently reports to a Data Security Administration Manager.

● Labor Category Descriptions

DATA SECURITY ANALYST - SENIOR :

Under general direction, performs all procedures necessary to ensure the safety of information systems and to protect systems from intentional or inadvertent access or destruction. Interfaces with user community to understand their security needs and implements procedures to accommodate them. Ensures that user community understands and adheres to necessary procedures to maintain security. May require familiarity with domain structures, user authentication, and digital signatures. Conducts accurate evaluation of the level of security required. May require understanding of firewall theory and configuration. Must be able to weigh business needs against security concerns and articulate issues to management.

DISASTER RECOVERY ADMINISTRATOR:

Under general supervision, responsible for the overall security and integrity of organizational electronic data, data systems, and data networks. Designs and administers programs to include policies, standards, guidelines, training programs, and a viable quality assurance process for disaster recovery. Oversees and reviews the testing and implementation of software, data systems, and data networks to ensure that the integrity and security of all electronic data and data systems are adequately protected. Oversees and facilitates the preparation of an organization-wide business resumption plan. Responsible for ensuring the business resumption plan adequately addresses the organization's requirements and established time frames. Responsible for day-to-day security administration of the organization's data systems and data networks including systems access administration. Typically requires five or more years of experience in disaster recovery business resumption planning.

DISASTER RECOVERY ANALYST:

Responsible for security and integrity of assigned electronic data, data systems, and data networks. Designs and administers programs to include policies, standards, guidelines, training programs and a viable quality assurance process for disaster recovery. Oversees and reviews the testing and implementation of software, data systems and data networks to insure that the integrity and security of all electronic data and data systems are adequately protected. Oversees and facilitates the preparation of an organization-wide business resumption plan. Responsible for insuring the business resumption plan adequately addresses the organization's requirements and established time frames. Requires five years

Labor Category Descriptions

experience in the field.

GROUPWARE SPECIALIST:

Responsible for the implementation, maintenance, and support of organization messaging system. May work closely with first tier support staff to solve system problems. Ensures smooth integration of all groupware systems in a particular environment. Provides technical support on local groupware replication and client dial-up access issues. Prepares documentation that will assist in the maintenance of the groupware system. May serve as an internal consultant to developers, assisting them in the area of server supports, security, ID files, and other development issues that will aid the process. Requires solid working knowledge of WANs, LANs, and telecommunication concepts as they relate to the groupware system and database replication.

INFORMATION SERVICES CONSULTANT:

Top-level technical expert supporting unlimited end user groups. Works with user groups to solve business problems with available technology including hardware, software, databases, and peripherals. Requires high level of diverse technical experience related to studying and analyzing systems needs, systems development, systems process analysis, design, and re-engineering. Has skills and experience related to business management, systems engineering, operations research, and management engineering. Typically requires specialization in particular software or business application utilized in an end user environment. Keeps abreast of technological developments and applications.

INFORMATION SYSTEMS AUDITOR - INTERMEDIATE :

Under general supervision, audits moderately complex new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that systems and procedures are in compliance with corporate standards. Competent to work on most phases of information systems auditing.

INFORMATION SYSTEMS AUDITOR - SENIOR :

Under general direction, audits the most complex new and existing information systems applications to ensure that appropriate controls exist, that processing is efficient and accurate, and that information systems procedures are in

● Labor Category Descriptions

compliance with corporate standards. Competent to work at the highest level of all phases of information systems auditing.

LAN SUPPORT TECHNICIAN - INTERMEDIATE :

Under general supervision, monitors and responds to technical control facility hardware and software problems utilizing hardware and software testing tools and techniques. May interface with vendor support service groups to ensure proper escalation during outages or periods of degraded system performance. May assist with installation of terminals and associated hardware. May provide LAN server support. Requires strong knowledge of PC/LAN communications hardware/software, in a multi-protocol environment, and network management software. Typically requires two to four years experience in data communications troubleshooting.

LAN SUPPORT TECHNICIAN - SENIOR:

Under general direction, monitors and responds to complex technical control facility hardware and software problems utilizing a variety of hardware and software testing tools and techniques. Provides primary interface with vendor support service groups or provides internal analysis and support to ensure proper escalation during outages or periods of degraded system performance. May provide LAN server support. Requires extensive knowledge of PC/LAN communications hardware/software in a multi-protocol environment and network management software. May function as lead position providing guidance and training for less-experienced technicians. Typically requires at least four years of experience in data communications troubleshooting.

NETWORK PLANNING MANAGER:

Responsible for long-term strategic planning to ensure network capacity meets current and future network requirements including planning for remote hardware and communications facilities, development and implementation of methodologies for system analysis, installation, and support. Defines and develops methodology to ensure compatibility of all software and hardware products at each facility. Provides ongoing coordination in the analysis, acquisition, and installation of remote hardware and software. May supervise Network Planning Analysts. Typically requires six to eight years of experience. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.

● Labor Category Descriptions

PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.

ELECTRONIC DATA INTERCHANGE (EDI) MANAGER:

Responsible for daily electronic data interchange (EDI) operations of an organization. Develops and executes strategies for Internet-based interchange capabilities. Coordinates and implements new EDI methods and systems and enhances and upgrades the existing systems. Finds EDI solutions for business operations. Establishes and maintains communications and trading partner routings, including online orders and fulfillment systems. Audits the quality of data provided, provides security and backup, and ensures system disaster recovery processes are in place. Resolves trading partner's technical problems involving EDI. Develops technical design documentation. Ensures customer/vendor agreements meet legal requirements. Responsible for internal training of EDI and related staff.

ELECTRONIC DATA INTERCHANGE (EDI) SPECIALIST:

Provides support for EDI database analysis, design, and operations. Establishes and maintains communications within organization and with partners. Conducts and manages product evaluations. Provides product installation, configuration, and training. Performs systems maintenance to update records, specifications, and operating procedures of partner systems. Maintains EDI account transaction activities. Frequently reports to an Electronic Data Interchange Manager.

● Labor Category Descriptions

WEB CONTENT ADMINISTRATOR:

Responsible for developing and providing content that will motivate and entertain users so that they regularly access the website and utilize it as a major source for information and decision making. Responsible for managing/performing website editorial activities including gathering and researching information that enhances the value of the site. Locates, negotiates and pursues content. Seeks out customers to gather feedback for website improvement and enhancements. Requires experience in production management, web page design, HTML and web graphics types and standards. Requires two years of experience in this field.

WEB DESIGNER:

Under direct supervision, designs and builds web pages using a variety of graphics software applications, techniques, and tools. Designs and develops user interface features, site animation, and special effects elements. Contributes to the design group's efforts to enhance the appeal of the organization's online offerings. Designs the website to support the organization's strategies and goals relative to external communications. Typically requires one to three years of experience in the area of web design. Requires knowledge of web-based technologies including browsers ASP pages, HTML code, object-oriented technology, and graphics software.

WEB MARKETING MANAGER:

Responsible for developing and implementing the organization's web strategies for promoting products and services through strategic marketing on the website. Responsible for assisting in the creation and implementation of the web marketing plan. Works closely with design and content management team to ensure site meets marketing objectives. Monitors site access patterns to adjust strategies and plans. Requires understanding of web technologies.

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WEB OPERATIONS MANAGER:

Responsible for ongoing oversight of web strategy and operations. Develops business plan and annual budget for website function. Accountable for budget, staff planning, management, and product and service delivery. Oversees operational activities of the website(s) with specific attention aimed at content creation and website maintenance. Requires experience with web technologies and web page design.

WEB PROJECT MANAGER:

Serves as project manager of a development team responsible for planning, developing, and deploying websites including preparation of text, graphics, audio, and video for web pages. Works directly with partners and clients to determine project scope and specifications. Coordinates the work of design and development teams to implement online designs. Reviews progress, manages resources, and ensures overall quality of completed website. Typically requires experience in management and understanding of web technologies.

WEB SECURITY ADMINISTRATOR:

Under general supervision, performs all procedures necessary to ensure the safety of the organization's website and transactions across the Internet including the protection of confidential order information and external business-to-business connections. Applies Internet firewall and encryption technologies to maintain organizational and customer security. Ensures that the user community understands and adheres to established security procedures. Updates and deletes users, monitors and performs follow-up compliance violations, and develops security policies and practices and guidelines. Requires experience in Firewall/DMZ design and implementation.

WEB SOFTWARE DEVELOPER:

Designs, develops, troubleshoots, debugs, and implements software code (such as HTML, CGI, and JavaScript) for a component of the website. Works with graphic designers and other members of a project team to develop the site concept, interface design, and architecture of the website. Responsible for interface implementation. Integrates web applications with backend databases. Deploys large web-based transaction systems using application servers.

● Labor Category Descriptions

Researches, tests, builds, and coordinates the integration of new products per production and client requirements. Requires strong navigation and site-design instincts. Requires development experience in web-based languages.

WEB TECHNICAL ADMINISTRATOR:

Under general supervision, responsible for achieving overall technical integrity of organization's website. Maintains and upgrades hardware and software including website technical architecture related to hardware and telecommunication connectivity. Administers e-mail, chat and FTP services. Communicates router configuration changes and troubleshoots system errors and bugs. Maintains servers, creates monitoring reports and logs, and ensures functionality of links. Creates tools to ease production process. Automates routine procedures. Works on system-level services to ensure proper patch levels on applications and operating systems. Monitors database integrity. Monitors site for acceptable performance and user accessibility. Establishes backups and monitors site security. Typically requires experience in systems technologies.

PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.

DATA COMMUNICATIONS MANAGER - PLANNING & IMPLEMENTATION:

Ensures that adequate and appropriate planning is provided for remote hardware and communications facilities to develop and implement methodologies for analysis, installation, and support of distributed processing client/server systems. Provides coordination in the analysis, acquisition, and installation of hardware,

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software, and facilities. Manages the training and efforts of a staff engaged in system and network planning, analysis and monitoring activities. Typically requires eight to ten years of experience in software/hardware LAN and WAN network design and analysis. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.

ELECTRONIC DATA INTERCHANGE (EDI) MANAGER:

Responsible for daily electronic data interchange (EDI) operations of an organization. Develops and executes strategies for Internet-based interchange capabilities. Coordinates and implements new EDI methods and systems and enhances and upgrades the existing systems. Finds EDI solutions for business operations. Establishes and maintains communications and trading partner routings, including online orders and fulfillment systems. Audits the quality of data provided, provides security and backup, and ensures system disaster recovery processes are in place. Resolves trading partner's technical problems involving EDI. Develops technical design documentation. Ensures customer/vendor agreements meet legal requirements. Responsible for internal training of EDI and related staff.

ELECTRONIC DATA INTERCHANGE (EDI) SPECIALIST:

Provides support for EDI database analysis, design, and operations. Establishes and maintains communications within organization and with partners. Conducts and manages product evaluations. Provides product installation, configuration, and training. Performs systems maintenance to update records, specifications, and operating procedures of partner systems. Maintains EDI account transaction activities. Frequently reports to an Electronic Data Interchange Manager.

INFORMATION CENTER CONSULTANT:

Under general supervision of Information Center Manager, may support: unlimited end user groups. Works with users to solve problems with available technology including hardware, software and peripherals. Studies and analyzes systems needs, trains users on software and hardware, handles troubleshooting, and provides quality assurance review of user systems. Acts as project manager, typically performs time estimates, and regularly reviews status of projects. May have specialization in particular software that would be utilized in an end user environment. Keeps abreast of technological developments and may install new

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environment. Keeps abreast of technological developments and may install new hardware and software for user groups. Frequently reports to an Information Center Manager.

INFORMATION CENTER SPECIALIST:

Under general direction, advises and assists users in problem-solving activities using information center tools. Assists in the selection and installation of information center tools. Evaluates new and existing software products. Competent to work at the highest technical level of all phases of information center activities.

INFORMATION SYSTEMS TRAINING SPECIALIST - LNFERMEDIATE:

Under general supervision, organizes and conducts moderately complex training and educational programs for information systems or user personnel. Maintains records of training activities, employee progress, and program effectiveness. Competent to work on most phases of information systems training.

INFORMATION SYSTEMS TRAINING SPECIALIST - SENIOR:

Under general direction, organizes, prepares, and conducts complex training and educational programs for information systems or user personnel. May design and develop in-house programs. Maintains records of training activities, employee progress, and program effectiveness. Competent to work at the highest level of all phases of information systems training.

QUALITY ASSURANCE ANALYST - INTERMEDIATE:

Under general supervision, carries out procedures to ensure that all information systems, products and services meet minimum organization standards and enduser requirements. Thoroughly tests software to ensure proper operation and freedom from defects. Documents and works to resolve all problems. Reports progress on problem resolution to management. Devises improvements to current procedures and develops models of possible future configurations. Performs workflow analysis and recommends quality improvements. Frequently reports to a Quality Assurance Manager.

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PROJECT MANAGER - SENIOR:

Responsible for all aspects of the development and implementation of assigned projects and provides a single point of contact for those projects. Takes projects from original concept through final implementation. Interfaces with all areas affected by the project including end users, computer services, and client services. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and reviews project deliverables. Manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems.

COMMUNICATIONS ANALYST - INTERMEDIATE:

Under general supervision, assists Senior Level Communications Analyst or Department Manager in the planning, design, and implementation of communications networks. Responsible for providing assistance and technical support for network design activities. Assists in the review/assessment of user needs. May conduct feasibility studies for projects. May assist in the evaluation and selection of equipment. Typically requires two to four years experience in telecommunications with particular emphasis in traffic engineering and network design. Frequently reports to DataVoice Communications Management or Internal Communications Systems Consultant.

COMMUNICATIONS ANALYST - SENIOR:

Under general direction, assists in the planning, design, and implementation of communications networks. Responsible primarily for the assessment and optimization of network design through review and assessment of user needs. Conducts feasibility studies for large projects, develops requests for proposal, evaluates vendor products, and makes recommendations on selection. May function as lead position providing guidance and training to less-experienced analysts. Typically requires at least five years of experience in telecommunications with strong emphasis in network design, traffic engineering, equipment vendors, and carriers. Frequently reports to a DataVoice, Communications Manager or Internal Communications Systems Consultant.

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DATA COMMUNICATIONS MANAGER - PLANNING & IMPLEMENTATION:

Ensures that adequate and appropriate planning is provided for remote hardware and communications facilities to develop and implement methodologies for analysis, installation, and support of distributed processing client/server systems. Provides coordination in the analysis, acquisition, and installation of hardware, software, and facilities. Manages the training and efforts of a staff engaged in system and network planning, analysis, and monitoring activities. Typically requires eight to ten years of experience in software/hardware LAN and WAN network design and analysis. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.

INTERNAL COMMUNICATIONS SYSTEMS CONSULTANT:

Provides systems guidance for current and proposed investments in telecommunications and network facilities and/or services from the development of communications software through financial implementation review. Researches present and future communication technologies. Works closely with system users to provide direction/assistance in identification and resolution of user problems. May supervise a group of planning analysts responsible for research/technical assistance for the user group. Typically requires eight to ten years of experience in telecommunications with emphasis on systems analysis, LAN/WAN telecommunications network design, and traffic engineering.

NETWORK PLANNING ANALYST - INTERMEDIATE:

Under general supervision, plans and evaluates moderately complex existing network systems and makes recommendations for resources required to maintain and/or expand service levels. Provides assistance in network planning, engineering, architecture, and the development of technical standards and interface applications. Evaluates new products as assigned. Provides resolution for network problems. Typically requires four to six years of experience in telecom networks. Frequently reports to a higher Network Planning position or a Telecommunications Department Director/Manager.

NETWORK PLANNING ANALYST - SENIOR:

Under general direction, plans and evaluates complex existing network systems and makes recommendations for resources required to maintain and/or expand

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service levels. Provides highly skilled technical assistance in network planning, engineering, and architecture. Develops technical standards and interface applications, identifies and evaluates new products, and provides resolution for network problems. May interface with vendors to identify and purchase hardware and software. May function as lead position for other Network Planning Analysts. Typically requires six to eight years of experience in telecom networks. Frequently reports to a Telecommunications Department Director/Manager or a higher Network Planning position.

TELECOMMUNICATIONS ENGINEER/ANALYST - INTERMEDIATE:

Under general supervision, responsible for moderately complex engineering and/or analytical activities associated with one or more technical areas within the telecom function (such as, but not limited to, network design, engineering, implementation, or operations/user support). Typically requires two to four years of technical telecom experience.

TELECOMMUNICATIONS ENGINEER/ANALYST SENIOR:

Under general direction, responsible for complex engineering and/or analytical tasks and activities associated with one or more technical areas within the telecom function such as; but not limited to, network design, engineering, implementation, or operations/user support. Typically requires six to eight years of technical telecom experience.

TELECOMMUNICATIONS MANAGER - SINGLE INCUMBENT:

A single incumbent position with broad management responsibility for all areas of the telecommunications function. Manages and coordinates the day-to-day planning, design, operations, and maintenance of the telecommunications voice and/or data networks including client server support consistent with customer needs, organization objectives, and technological resources. Responsible for telecommunications strategic and tactical planning. Coordinates with customers, vendors, and corporate management. Responsible for department resource allocation. May be responsible for billing systems. Interfaces with Senior/Executive Management to coordinate telecommunications plans with organization's business plan.

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TELECOMMUNICATIONS MANAGER - MULTIPLE INCUMBENTS:

A multiple incumbent position with broad management responsibility for all areas of the telecommunications function. Position may be structured to address the needs of individual “custsmer” groups (e.g., organization divisions or business lines) or may reflect total management responsibilities (including planning, engineering, implementation, and operations) for either voice or data csmmunications in a separated network environment. Manages/coordinates day-to-day planning, design, operations, maintenance, and resource allocation including client sewer support and strategic and tactical planning. Coordinates with customers, vendors, and corporate management. May be responsible for billing systems, Interfaces with Senior/Executive Management to coordinate telecommunications plans with overall business plan. Frequently reports to Telecommunications Management or information systems management.

TELECOMMUNICATIONS PROGRAMMER/SYSTEMS ANALYST - INTERMEDIATE:

Under general supervision, develops telecommunications solutions to address user needs. May interface with users to define needs. Assists in the design, development, and testing of communications software interface programs. Usually involved in the implementation and testing of projects. Requires knowledge of communication protocols, hardware, and real-time operating system programming. Requires proficiency in one or more programming languages such as Assembler, FORTRAN, or “C”. Typically requires two to four years of experience in telecommunications programming.

TELECOMMUNICATIONS PROGRAMMER/SYSTEMS ANALYST - SENIOR:

Under general direction, develops telecommunications software solutions to address user needs. Interfaces with users to define needs. Designs, develops, and tests complex communications software interface programs. Primary responsibilities usually include technical feasibility studies and design phases of project. Requires strong knowledge of communication protocols, hardware, and real time operating system programming. May serve as project leader for lower level programmers. Requires high level of proficiency in one or more programming languages such as Assembler, FORTRAN, or “C”. Typically requires four to six years of experience in telecommunications programming.

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VOICE COMMUNICATIONS ADMINISTRATOR:

Monitors and responds to facility hardware and software problems. Assists vendor support service groups to ensure proper escalation during outages or periods of degraded system performance. Makes phone system additions, changes, and installs new station equipment. Requires knowledge of monitoring equipment.

VOICE COMMUNICATIONS MANAGER- PLANNING & IMPLEMENTATION:

Ensures that adequate and appropriate planning is provided for remote hardware and communications facilities to develop and implement methodologies for analysis, installation, and support of voice communications systems. Provides coordination in the analysis, acquisition, and installation of remote hardware and software. Interfaces with internal and external customers and vendors to determine system needs. Manages the training and efforts of a staff responsible for system and network planning and analysis activities. May include billing/chargeback responsibilities. Typically requires at least eight to ten years of experience in software/hardware voice network design and analysis usually in a telephone operating organization. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.