GENERAL SERVICES ADMINISTRATION  
FEDERAL ACQUISITION SERVICE  
AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST  

Schedule Name:  
Multiple Award Schedule (MAS)  
Category 54151S  

General Purpose Commercial Information Technology Equipment, Software and Services  

MAS Schedule Number  
GS-35F-271CA  
Contract Base Period: March 27, 2015 – March 26, 2020  
Option Period Exercised: March 27, 2020 – March 26, 2025  

For more information on ordering from Federal Supply Schedules click on FSS Schedules button at gsa.gov/fas.  

Koniag Information Security Services LLC  
4100 Lafayette Center Drive, Suite 303  
Chantilly, VA 20151  

Contract Administrator:  
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www.koniag-gs.com  

Small, SBA Certified 8(a) Program Participant, Minority Owned Business  

Pricelist current through Modification PS-A826 MAS Refresh 5, effective November 18, 2020  

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSAAdvantage®, @  
http://www.GSAAdvantage.gov or www.gsa.gov
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INFORMATION FOR ORDERING ACTIVITIES

1a. Table of awarded special item number(s) with appropriate cross-reference to item descriptions and awarded price(s).
   SIN 54151S – Information Technology Professional Services

1b. Identification of the lowest priced model number and lowest unit price for that model for each special item number awarded in the contract. This price is the Government price based on a unit of one, exclusive of any quantity/dollar volume, prompt payment, or any other concession affecting price. Those contracts that have unit prices based on the geographic location of the customer, should show the range of the lowest price, and cite the areas to which the prices apply.
   See Attached Pricelist

1c. If the Contractor is proposing hourly rates, a description of all corresponding commercial job titles, experience, functional responsibility and education for those types of employees or subcontractors who will perform services shall be provided. If hourly rates are not applicable, indicate “Not applicable” for this item.
   See Attached Pricelist

2. Maximum order.
   $500,000

3. Minimum order.
   $100

4. Geographic coverage (delivery area).
   Domestic delivery

5. Point(s) of production (city, county, and State or foreign country).
   United States

6. Discount from list prices or statement of net price.
   Government prices are net

7. Quantity discounts.
   None

8. Prompt payment terms.
   0%, net 30 days

9a. Notification that Government purchase cards are accepted at or below the micro-purchase threshold.
    Government purchase cards are accepted at or below the micro-purchase threshold.

9b. Notification whether Government purchase cards are accepted or not accepted above the micro-purchase threshold.
    Government purchase cards are accepted above the micro-purchase threshold.

10. Foreign items (list items by country of origin).
    None
11a. Time of delivery. (Contractor inserts number of days.)
As agreed upon between agency and contractor

11b. Expedited Delivery.
Contact Contractor

11c. Overnight and 2-day delivery.
Contact Contractor

11d. Urgent Requirements.
Contact Contractor

12. F.O.B. point(s).
FOB Destination

13a. Ordering address(es).
Koniag Information Security Services LLC
4100 Lafayette Center Drive
Chantilly, VA 20151
POC: Steven Kutscher
Email: skutscher@koniag-gs.com

13b. Ordering procedures: For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA’s) are found in Federal Acquisition Regulation (FAR) 8.405-3.

14. Payment address(es).
Koniag Information Security Services LLC
4100 Lafayette Center Drive
Chantilly, VA 20151

15. Warranty provision.
Not applicable

16. Export packing charges, if applicable.
Export packing is available outside the scope of this contract

17. Terms and conditions of Government purchase card acceptance (any thresholds above the micro-purchase level).
None

18. Terms and conditions of rental, maintenance, and repair (if applicable).
Not applicable

19. Terms and conditions of installation (if applicable).
Not applicable

20. Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices (if applicable).
Not applicable

20a. Terms and conditions for any other services (if applicable).
Not applicable
21. List of service and distribution points (if applicable).
   Not applicable

22. List of participating dealers (if applicable).
   Not applicable

23. Preventive maintenance (if applicable).
   Not applicable

24a. Special attributes such as environmental attributes (e.g., recycled content, energy efficiency, and/or reduced pollutants).
   None

24b. If applicable, indicate that Section 508 compliance information is available on Electronic and Information Technology (EIT) supplies and services and show where full details can be found www.koniagss.com. The EIT standards can be found at: www.Section508.gov/.

25. Data Universal Number System (DUNS) number.
   079290695

26. Notification regarding registration in SAM.gov (formerly the Central Contractor Registration) database.
   Koniag Information Security Services LLC has registered in the System for Award Management (SAM) database. The CAGE code is 795P7
GSA Labor Categories

Substitution Policy

Education Substitutions
Associate’s Degree = 2 years of experience
Bachelor’s Degree = 4 years of experience
Master’s Degree = 6 years of experience
PhD = 12 years of experience

Experience Substitutions
2 years of experience = Associate’s Degree
4 years of experience = Bachelor’s Degree
6 years of experience = Master’s Degree
12 years of experience = PhD

Business System Analyst – Sr.
Minimum Education: Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.
Minimum Experience: Fifteen (15) years or equivalent substitution.
Functional Responsibilities: Reviews, analyzes, and evaluates business systems and user needs. Documents requirements, defines scope and objectives, and formulates systems to parallel overall business strategies. Familiar with relational database concepts, and client-server concepts. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Lead and direct the work of others.

Business System Analyst - Mid
Minimum Education: Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.
Minimum Experience: Ten (10) years or equivalent substitution.
Functional Responsibilities: Reviews, analyzes, and evaluates business systems and user needs. Documents requirements, defines scope and objectives, and formulates systems to parallel overall business strategies. Familiar with relational database concepts, and client-server concepts. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Lead and direct the work of others.

Senior ERP Expert
Minimum Education: Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.
Minimum Experience: Fifteen (15) years or equivalent substitution.
Functional Responsibilities: Reengineer and apply E2E processes to improve business operations and support audit readiness
• Serve as the primary DCMO liaison with Principal Staff Assistants and COCOMs
• Facilitate BEA content integration through E2Es
• Improve business value of ERPs through enterprise collaboration
• Support the Improvement of interoperability through E2E enterprise data standards
• Facilitate and oversee the appropriate E2E governance model(s) and forum(s)
• Document the target systems environment for business systems aligned to the E2Es
• Refine business processes to ensure alignment to expeditionary requirements
• Provide prior knowledge and expertise serving in a lead position in the following:
  • End-to-End (E2E) Integration/Business Process Re-engineering (BPR)
  • Enterprise Data Standards Development
• ERP/Business System expertise

• Provide expertise with ERP Systems within OSD’s Deputy Chief Management Office (DCMO) Enterprise Business Integration (EBI) Directorate and knowledge of their ERP implementation within the following areas:
  • Procure to Pay
  • Plan to Stock
  • Cost Management
  • Prospect to Order
  • Deployment to Retrograde/Redeployment

• Prior ERP work experience and knowledge within the former DoD Business Transformation Agency (BTA) is desirable.

• Provide guidance and advice to ERP and business analysts using their prior knowledge and expertise with Oracle and/or SAP ERP within the DoD environment.

• Provide on-site program management oversight to a team of 12 and build and maintain strong client relationship

• Provide functional and administrative guidance to the staff

• Provide techno-functional expertise on using COTS products to solve DoD business problems in support of Audit Readiness

• Maximize ERP/Business System processes

• Provide subject matter expertise in reducing RICE objects

• Provide technical and programmatic implementation advice to IRB/JIPT teams

Program Administration Specialist

Minimum Education: Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.

Minimum Experience: Eight (8) years or equivalent substitution.

Functional Responsibilities: Improves business processes and supports critical business strategies by managing the development, implementation, and maintenance of business applications systems. Leads multiple projects and oversees developers to ensure that specifications are met. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. Leads and directs the work of others. A wide degree of creativity and latitude is expected. Typically reports to top management.

Test Program Engineer

Minimum Education: Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.

Minimum Experience: Four (4) years or equivalent substitution.

Functional Responsibilities: Interacts with other engineering groups to define, document, analyze, perform, and interpret tests for products, systems, components, or modifications. Identifies functional problems and suggests resolutions. Assists in the definition of internal quality control standards and the maintenance of reliability programs. Analyzes test cases and provides regular progress reports. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected.

Web Content Specialist

Minimum Education: Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.

Minimum Experience: Four (4) years or equivalent substitution.

Functional Responsibilities: Maintains hardware and software critical to the functionality of the organization's
website. Monitors usage and performance, creates and maintains backups, and troubleshoots and resolves issues as they arise. Familiar with standard concepts, practices, and procedures within a particular field. Relies on experience and judgment to plan and accomplish goals. Performs a variety of tasks. A certain degree of creativity and latitude is required.

**Engineering & Technology Acquisition Specialist I**  
**Minimum Education:** Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Provide expert assistance to the Acquisition Directorate for the refinement and implementation of program processes and will continue enhancing the overall Acquisition Directorate mission with subject matter expertise in the areas they are assigned including, Information Technology, Telecommunications Technology, Mobile/Fixed Systems Technology, Advanced Network Systems, and RF Technology. Their expertise and knowledge allow them a keen sense of situational awareness when analyzing alternatives and comparing Commercial Off the Shelf (COTS) systems with emergent technologies.

**Supervisory Program Manager**  
**Minimum Education:** Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.  
**Minimum Experience:** Ten (10) years or equivalent substitution.  
**Functional Responsibilities:** Proven supervisory and management skills. Progressive project related experience is required. Specialized experience required includes: complete engineering project development from inception to deployment, demonstrated ability to provide guidance and direction in multiple tasks across several functional areas including the use of different technologies. Proven expertise in understanding program requirements of the types of tasks to be performed, ability to review and evaluate all work performed, management and control of funds and resources, and provide direction to ensure compliance with all management policies. Provides technical management and direction for problem definition, analysis and requirements development and implementation for complex systems in the subject matter area. Provides recommendations and advice on system improvements, optimization and maintenance.

**Project Manager III**  
**Minimum Education:** Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Progressive project related experience is required. Specialized experience required includes: complete engineering project development from inception to deployment, demonstrated capability in the management and control of funds and resources and the ability to manage multi-task contracts. Provides technical management and direction for problem definition, analysis and requirements development and implementation for complex systems in the subject matter area. Provides recommendations and advice on system improvements, optimization and maintenance.

**Customer Support Liaison**  
**Minimum Education:** Bachelor’s degree in Business or related field  
**Minimum Experience:** Three (3) years of equivalent work experience  
**Functional Responsibilities:** Under limited supervision, Customer Support Liaisons will apply comprehensive program knowledge and program advisory support in the preparation of financial and deliverable-related correspondence and documentation for the Program Office and Sponsor. These financial analysis documents will include, but not be limited to, budget analysis, revenue recognition/verification, forecasting, programmatic reconciliation, and project setup support. By applying “Best Practice” models and processes, Customer Support...
Liaisons will be able to demonstrate the experience and knowledge base required to support these areas with limited oversight. Additionally, they possess the ability to provide recommendations, which maximize the ability to execute Sponsor requirements within budgetary constraints and be familiar with a variety of Best Practice concepts and procedures. Relying on directly relevant experience and judgment to plan and accomplish goals, Customer Support Liaisons will perform a variety of tasks in a fast-paced and challenging environment with a wide degree of creativity. Customer Support Liaisons will also provide a wide range of logistical support to the Program Office and the Sponsor. Essential to their logistical responsibilities is the accurate accountability of equipment. Our Customer Support Liaisons have extensive experience in establishing and maintaining property accountability records. They will ensure that all actions affecting the disposition of equipment, transfers, deactivations, repairs and disposal, are accurately recorded, tracked and managed. Additionally, the Customer Support Liaisons will accurately reconcile equipment inventories with financial records and verify the delivery and receipt of equipment transferred to the end user. Any identified discrepancies will be quickly corrected.

**Subject Matter Expert (SME) III/Technical Program Manager III**

**Minimum Education:** Bachelor’s Degree in Engineering, Computer Science, Information Systems, or other related scientific or technical discipline.

**Minimum Experience:** Ten (10) years or equivalent experience.

**Functional Responsibilities:** The level III Subject Matter Expert has progressive project-related experience, with specialized experience in complete engineering project development from inception to deployment. Has a demonstrated ability to provide guidance and direction in multiple tasks across several functional areas including the use of different technologies. Proven expertise in understanding program requirements of the types of tasks to be performed, ability to review and evaluate all work performed, management and control of funds and resources, and provide direction to ensure compliance with all management policies. Provides technical management and direction for problem definition, analysis and requirements development and implementation for complex systems in the subject matter area. Provides recommendations and advice on system improvements, optimization and maintenance.

**Senior Subject Matter Expert IV/ Senior Technical Program Manager IV**

**Minimum Education:** Bachelor’s Degree in Engineering, Computer Science, Information Systems, or other related scientific or technical discipline.

**Minimum Experience:** Fifteen (15) years or equivalent experience.

**Functional Responsibilities:** Proven supervisory and management skills. Progressive project related experience is required. Specialized experience required includes: complete engineering project development from inception to deployment, demonstrated ability to provide guidance and direction in multiple tasks across several functional areas including the use of different technologies. Proven expertise in understanding program requirements of the types of tasks to be performed, ability to review and evaluate all work performed, management and control of funds and resources, and provide direction to ensure compliance with all management policies. Provides technical management and direction for problem definition, analysis and requirements development and implementation for complex systems in the subject matter area. Provides recommendations and advice on system improvements, optimization and maintenance. Must have 15 years of experience in the subject area. At least ten of those years must be directly related to required area of expertise. Bachelor’s Degree or the equivalent years in experience.

**Senior Technical Consultant III**

**Minimum Education:** Bachelor’s Degree in Engineering, Computer Science, Information Systems, or other related scientific or technical discipline.

**Minimum Experience:** Nine (9) years or equivalent experience.

**Functional Responsibilities:** Proven project related experience is required plus recognized expertise in technical area or field through the publishing of papers, advanced degrees or technically unique project work.
Demonstrated expertise and ability in solving complex problems in an efficient and unique manner. Specialized experience required includes: complete engineering project development from inception to deployment, demonstrated ability to provide guidance and direction in multiple tasks across several functional areas including the use of different technologies. Proven expertise in understanding program requirements of the types of tasks to be performed, ability to review and evaluate all work performed, management and control of funds and resources, and provide direction to ensure compliance with all management policies.

**Technical Consultant II:**
**Education Requirement:** Bachelor’s Degree in Engineering, Computer Science, Information Systems, or other related scientific or technical discipline.
**Minimum Experience:** Six (6) years or equivalent experience.
**Functional Responsibilities:** Proven project related experience is required plus recognized expertise in technical area or field through the publishing of papers, or technically unique project work. Demonstrated expertise and ability in solving complex problems in an efficient and unique manner. Specialized experience required includes: complete engineering project development from inception to deployment, demonstrated ability to provide guidance and direction in multiple tasks across several functional areas including the use of different technologies. Proven expertise in understanding program requirements of the types of tasks to be performed, ability to review and evaluate all work performed, management and control of funds and resources, and provide direction to ensure compliance with all management policies.

**Program Manager**
**Minimum Education:** Bachelor’s Degree in Engineering, Computer Information Systems, Business, or related discipline.
**Minimum Experience:** Ten (10) years or equivalent substitution.
**Functional Responsibilities:** Progressive project related experience is required. Specialized experience required includes: complete engineering project development from inception to deployment, demonstrated ability to provide guidance and direction in multiple tasks across several functional areas including the use of different technologies. Proven expertise in understanding program requirements of the types of tasks to be performed, ability to review and evaluate all work performed, management and control of funds and resources, and provide direction to ensure compliance with all management policies. Provides technical management and direction for problem definition, analysis and requirements development and implementation for complex systems in the subject matter area. Provides recommendations and advice on system improvements, optimization and maintenance.

**Business Process Consultant**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Five (5) years or equivalent substitution.
**Functional Responsibilities:** Reviews, analyzes, and evaluates business systems and user needs. Documents requirements, defines scope and objectives, and formulates systems to parallel overall business strategies. Familiar with relational database concepts, and client-server concepts. Relies on experience and judgment to plan and accomplish goals. Performs a variety of complicated tasks. Lead and direct the work of others.

**Sr. Data Analyst**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Ten (10) years or equivalent substitution.
**Functional Responsibilities:** Supervisory role for analysts on IT projects. Prepares and conducts business analyses and studies, needs assessments, requirements analysis/definition and cost/benefit analyses to align business systems, solutions and initiatives. Prepares forecasts and analyzes trends, reporting regulations and business conditions. Develops and analyzes metrics, performance measurements, requirements, reports and
recommendations related to management, organizational structure, policy/procedures and business systems. Identifies potential business risks. Reviews more junior analysis concerns in areas of data analysis.

**Applications Programmer:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** One (1) years or equivalent substitution.  
**Functional Responsibilities:** Devises or modifies procedures to solve complex problems considering computer equipment capacity and limitations, operating time, and form of desired results. Designs, codes, tests, debugs, and documents.

**Applications Systems Analyst/Programmer - Intermediate:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** 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:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Ten (10) years or equivalent substitution.  
**Functional Responsibilities:** 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.

**Business Consultant:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** 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 Subject Matter Specialist:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Provides technical knowledge and analysis of highly specialized applications and operational environments, high-level functional systems analysis, design, integration, documentation and implementation advice on exceptionally complex problems that need extensive knowledge of the subject matter for effective implementation. Participates as needed in all phases of software development with emphasis on the
planning, analysis, testing, integration, documentation, and presentation phases.

**Business Systems Analyst - Intermediate:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** 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 Specialist:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Ten (10) years or equivalent substitution.  
**Functional Responsibilities:** 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.

**Client/Server Database Manager:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Projects long-range requirements for client/server 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 client/server database management section.

**Client/Server Network Architect:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Ten (10) years or equivalent substitution.  
**Functional Responsibilities:** 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.

**Client/Server Support Analyst:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** 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.

**Communications Analyst - Intermediate:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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. Frequently reports to Data/Voice Communications Management or Internal Communications Systems Consultant.

**Communications Analyst – Senior:**

**Minimum Education:** Bachelor’s Degree or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) Years  
**Functional Responsibilities:** 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. Frequently reports to a Data/Voice Communications Manager or Internal Communications Systems Consultant.

**Communications Facility Engineer:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Ten (10) years or equivalent substitution.  
**Functional Responsibilities:** Provides technical direction and engineering knowledge for communications systems infrastructure activities, including planning, designing, and implementing communications infrastructure requirements for buildings and systems. Ensures that adequate and appropriate planning is provided to direct building architects and planners in building communications spaces and media pathways meet industry standards.

**Communications Installer:**

**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Assists in the planning, design, and implementation of communications networks. Responsible for providing assistance and technical support for network design activities. Performs feasibility studies for small projects. Frequently reports to Data/Voice Communications Manager or Internal Communications Systems Consultant.

**Communications Transmission Engineer:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Provides technical direction and engineering knowledge for communications activities including planning, designing, installing and maintaining large communications networks. Develops,
operates, and maintains voice, wireless, video, and data communications systems. Provides complex engineering or analytical tasks and activities associated with one or more technical areas within the communications function.

**Computer Operations Manager:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** 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.

**Data Architect:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Designs and builds relational databases. Develops strategies for data acquisitions, archive recovery, and implementation of a database. 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. Develops data warehousing blueprints, evaluating hardware and software platforms, and integrating systems. Evaluates reusability of current data for additional analyses. Reviews object and data models and the metadata repository to structure the data for better management and quicker access.

**Data Communications Manager – Planning & Implementation:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Eight (8) Years  
**Functional Responsibilities:** 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. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.

**Data Entry Supervisor:**
**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Two (2) years or equivalent substitution.  
**Functional Responsibilities:** 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 Security Administration Manager:**
**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** 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:**

**Minimum Education:** High School Diploma or equivalent

**Minimum Experience:** Two (2) years or equivalent substitution.

**Functional Responsibilities:** 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 procedures to maintain security. Conducts accurate evaluation of the level of security required. Provides management with status reports. Frequently reports to a Data Security Administration Manager.

**Data Security Analyst - Senior:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Ten (10) years or equivalent substitution.

**Functional Responsibilities:** 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.

**Data Warehousing Administrator:**

**Minimum Education:** High School Diploma or equivalent

**Minimum Experience:** Three (3) Years

**Functional Responsibilities:** 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. Establishes and enforces processes to ensure a consistent, well-managed and well-integrated data warehouse infrastructure. Expands and improves data warehouse to includes data from all functions of the organization using data manipulation, transformation and cleansing tools.

**Data Warehousing Analyst:**

**Minimum Education:** High School Diploma or equivalent

**Minimum Experience:** Two (2) Years

**Functional Responsibilities:** 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.
**Data Warehousing Programmer:**

**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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.

**Data Warehousing Project Manager:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years  
**Functional Responsibilities:** 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.

**Data/Configuration Management Specialist:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years  
**Functional Responsibilities:** Provides configuration management planning. Describes provisions for configuration identification, change control, configuration status accounting, and configuration audits. Regulates the change process so that only approved and validated changes are incorporated into product documents and related software.

**Database Administrator:**

**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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 Analyst/Programmer – Intermediate:**

**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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.

**Database Analyst/Programmer – Senior:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) Years
Functional Responsibilities: 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.

Database Manager:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) Years
Functional Responsibilities: 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.

Disaster Recovery Administrator:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) Years
Functional Responsibilities: 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.

Disaster Recovery Analyst:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) Years
Functional Responsibilities: 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.

Documentation Specialist - Intermediate:
Minimum Education: High School Diploma or equivalent
Minimum Experience:
Functional Responsibilities: 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:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.

Functional Responsibilities: 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.

E-Business Manager:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.

Functional Responsibilities: Sets direction and guides action plans and priorities of electronic commerce, marketing and communications. Develops and facilitates organizational models and structure changes needed to meet the evolving electronic business strategies. Establishes and implements enterprise-wide business systems.

Electronic Data Interchange (EDI) Manager:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.

Functional Responsibilities: 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:
Minimum Education: High School Diploma or equivalent
Minimum Experience: Two (2) years or equivalent substitution.

Functional Responsibilities: 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.

Electronic Mail Coordinator:
Minimum Education: High School Diploma or equivalent
Minimum Experience: None

Functional Responsibilities: Creates user accounts and maintains security levels on databases. Provides first-level telephone support and troubleshoots. Monitors existing messaging infrastructure and server usage, ensuring proper working order.

Engineering Subject Matter Specialist:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.

Functional Responsibilities: Provides technical knowledge and analysis of highly specialized applications and operational environment, high-level functional systems analysis, design, integration, documentation, and implementation advice on exceptionally complex problems that necessitate high-level knowledge of the subject
matter for effective implementation. Participates as needed in all phases of software development with emphasis on the planning, analysis, modeling, simulation, testing, integration, documentation and presentation phases.

**ERP Business/Architectural Specialist:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Adapts functional business requirements and processes to technical solutions based upon comprehensive enterprise application solution sets. Enterprise resource planning and management processes, including but not limited to: knowledge management, investment analysis, data warehousing, e-commerce, return on investment analysis, human resource analysis, material management and logistics, supply chain management, procurement, ordering, manufacturing, decision support, and information dissemination.

**ERP Business Analyst - Intermediate:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** 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:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Ten (10) years or equivalent substitution.  
**Functional Responsibilities:** 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:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Under general supervision, works primarily in ERP client/server 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. Troubleshoots and resolves testing issues. Responsible for technical documentation.

**Graphics Specialist:**
**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Two (2) years or equivalent substitution.  
**Functional Responsibilities:** 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.
Groupware Specialist:
**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** 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.

Help Desk Coordinator - Intermediate:
**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** One (1) year or equivalent substitution.  
**Functional Responsibilities:** 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.

Help Desk Coordinator - Senior:
**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** 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:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) Years  
**Functional Responsibilities:** 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.

Help Desk Specialist:
**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** None  
**Functional Responsibilities:** Identifies, researches, and resolves technical problems. Responds to telephone calls, email and personnel requests for technical support. Documents, tracks, and monitors the problem to ensure a timely resolution.

Help Desk Support Services Specialist - Intermediate:
**Minimum Education:** High School Diploma or equivalent
Minimum Experience: Two (2) years or equivalent substitution.

Functional Responsibilities: 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:
Minimum Education: High School Diploma or equivalent
Minimum Experience: Three (3) years or equivalent substitution.
Functional Responsibilities: 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.

Information Assurance Development Engineer:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.
Functional Responsibilities: Analyzes and defines security requirement for computer systems which may include mainframes, workstations, and personal computers. Designs, develops, engineers, and implements solutions that meet security requirements. Provides integration and implementation of the computer system security solution.

Information Assurance Engineer:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.
Functional Responsibilities: Establishes and satisfies complex system-wide information security requirements based upon the analysis of user, policy, regulatory, and resource demands. Supports customers at the highest levels in the development and implementation of doctrine and policies. Applies know-how to government and commercial common user systems, as well as to dedicated special purpose systems requiring specialized security features and procedures.

Information Assurance Network Specialist:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.
Functional Responsibilities: Analyzes general information assurance-related technical problems and provides basic engineering and technical support in solving these problems. Designs, develops, engineers, and implements solutions that meet network security requirements. Performs vulnerability/risk analyses of computer systems and applications during all phases of the system development life cycle.

Information Assurance Systems/Network Specialist:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Three (3) years or equivalent substitution.
Functional Responsibilities: Installs, configures and maintains organization's operating systems. Analyzes and resolves problems associated with server hardware, NT, applications software. Detects, diagnoses, and reports
NT related problems on both NT server and NT desktop systems. Performs a wide variety of tasks in software/hardware maintenance and operational support of NT Server systems.

**Information Center Consultant:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** 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 system’s 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 hardware and software for user groups. Frequently reports to an Information Center Manager.

**Information Center Specialist:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Seven (7) years or equivalent substitution.  
**Functional Responsibilities:** 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 Security Business Analyst:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Determines enterprise information security standards. Develops and implements information security standards and procedures. Ensures that all information systems are functional and secure.

**Information Services Consultant:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Seven (7) years or equivalent substitution.  
**Functional Responsibilities:** 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 system’s 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:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** 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:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.
Functional Responsibilities: 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 compliance with corporate standards. Competent to work at the highest level of all phases of information systems auditing.

Information Systems Training Specialist - Intermediate:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Three (3) years or equivalent substitution.
Functional Responsibilities: 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:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution.
Functional Responsibilities: 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.

Internal Communications Systems Consultant:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Seven (7) years or equivalent substitution.
Functional Responsibilities: 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.

IT Subject Matter Specialist:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Ten (10) years or equivalent substitution.
Functional Responsibilities: Provides extremely high-level subject matter proficiency for work described in the task. Provides advanced technical knowledge and analysis of highly specialized applications and operational environment, high-level functional systems analysis, design, integration, documentation, training, and implementation advice on complex problems that require doctorate level knowledge of the subject matter for effective implementation.

LAN Administrator - Intermediate:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Three (3) years or equivalent substitution.
Functional Responsibilities: 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.

**LAN Administrator - Senior:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) Years  
**Functional Responsibilities:** 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 PC/LAN team, vendors and internal support group as needed.

**LAN Support Technician - Intermediate:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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.

**LAN Support Technician - Senior:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Four (4) Years  
**Functional Responsibilities:** 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.

**LAN/WAN Administrator:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Monitors LAN, WAN, and servers. Provides batch monitoring, tape back-up, and restoration. 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.
LAN/WAN Integrator:

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Five (5) years or equivalent substitution.

**Functional Responsibilities:** 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 Voce and/or Data Communications Analysts.

LAN/WAN/MAN Administrator:

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Five (5) years or equivalent substitution.

**Functional Responsibilities:** Monitors LAN, WAN, MAN, and servers. Provides batch monitoring, tape backup, and restoration. 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 Control Technician:

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Five (5) years or equivalent substitution.

**Functional Responsibilities:** Tests and analyzes all elements of complex network facilities (including power, software, communications devices, lines, modems, and terminals). Monitors and controls the performance and status of the network resources. Utilizes software and hardware tools and identifies and diagnoses complex problems and factors affecting network performance.

Network Engineer - Intermediate:

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Two (2) Years

**Functional Responsibilities:** 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 systems projects through vendor comparison and cost studies. Requires thorough knowledge of LAN/WAN systems, networks, and applications.

Network Engineer - Senior:

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Five (5) Years

**Functional Responsibilities:** 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.
Network Operations Supervisor:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Five (5) years or equivalent substitution.
**Functional Responsibilities:** 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.

Network Planning Analyst – Intermediate:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Four (4) Years
**Functional Responsibilities:** 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. Frequently reports to a higher Network Planning position or a Telecommunications Department Director/Manager.

Network Planning Analyst – Senior:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Six (6) Years
**Functional Responsibilities:** Under general direction, plans and evaluates complex existing network systems and makes recommendations for resources required to maintain and/or expand 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. Frequently reports to a Telecommunications Department Director/Manager or a higher Network Planning position.

Network Planning Manager:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Six (6) Years
**Functional Responsibilities:** 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. Frequently reports to a Telecommunications Department Director/Manager or Planning and Engineering Manager.

Network Systems Administrator:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Five (5) years or equivalent substitution.
**Functional Responsibilities:** Provides system administration of Network, Web, and/or communication systems, including Local Area Network (LAN) and Wide Area Network (WAN) systems, involving network security. Prepares technical implementation plans that provide integrated solutions including actions,
milestones, timelines and critical paths required for complete solutions.

**Network Systems Manager:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Seven (7) years or equivalent substitution.  
**Functional Responsibilities:** Supervises all personnel engaged in the operation and support of network facilities, including all communications equipment in large scale or multi-shift operations. Supervises complex operations that involve two or more additional functions such as, but not limited to, network operations, systems security, systems software support, and production support activities.

**Network/Hardware Support Technician:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) years or equivalent substitution.  
**Functional Responsibilities:** Monitors and responds to hardware, software, and network problems. Provides the routine testing and analysis of all elements of the network facilities (including power, software, communications machinery, lines, modems, and terminals). Monitors and controls the performance and status of the network resources.

**Operations Manager - Data Communications:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Manages all aspects of the daily operation for data network(s) in either a standalone data network environment in a voice and data separated network environment. Develops project plans for the implementation of new telecommunications technology and systems. Directs technical analysis of complex software, hardware, and transmission systems. Coordinates with vendors involved in providing communication activities.

**Operations Manager - Voice Communications:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Manages all aspects of the daily operation for voice network(s) in either a standalone voice network OR in a voice and data separated network environment. Develops project plans for the implementation of new telecommunications technology and systems. Directs technical analysis of complex software, hardware, and transmission systems.

**Operations Systems Manager:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution.  
**Functional Responsibilities:** Provides assistance and oversight for all information systems operations activities, including computer and telecommunications/communications operations, data entry, data control, operations support, operating systems programming, system security policy procedures, and/or web strategy and operations. Provides input to policy level discussions regarding standards and budget constraints.

**Operations/Network LAN Administrator:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Three (3) years or equivalent substitution.  
**Functional Responsibilities:** Supports, monitors, tests, and troubleshoots hardware and software problems
Operations/Technical Support Analyst:
Minimum Education: High School Diploma or equivalent
Minimum Experience: Three (3) years or equivalent substitution.
Functional Responsibilities: Provides technical guidance for directing and monitoring information systems operations. Implements machine modifications to increase the capacity of the system. Directs compilation of records and reports concerning production, machine malfunctioning and maintenance.

Operations/Technical Support Manager:
Minimum Education: High School Diploma or equivalent
Minimum Experience: Five (5) years or equivalent substitution.
Functional Responsibilities: 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.

PC Products Analyst:
Minimum Education: High School Diploma or equivalent
Minimum Experience: Two years
Functional Responsibilities: Under general supervision, analyzes and evaluates microcomputer products and systems available in the marketplace. Analyzes such products for compatibility, expandability, and ease of use and support. Recommends to management the support or nonsupport of evaluated products. Participates in the development and customization of products. Designs application options/screens compatible with mainframe applications. Prepares product development documentation regarding use of product. Frequently reports to a PC Support Manager.

PC Systems Specialist:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Four years
Functional Responsibilities: 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.

PC/LAN Management Analyst - Intermediate:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Three years
Functional Responsibilities: 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:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Five (5) years or equivalent substitution.

**Functional Responsibilities:** 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.

**Project Engineer:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Five (5) years or equivalent substitution.

**Functional Responsibilities:** Manages long-term IT engineering projects. Performs engineering design evaluations and works to complete projects within budget and scheduling restraints. Develops, implements, and monitors information systems policies and controls to ensure data accuracy, security, and regulatory compliance. Reviews reports of computer and peripheral equipment production, malfunction, and maintenance to determine and address problems.

**Project Manager – Senior:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Seven (7) years or equivalent substitution.

**Functional Responsibilities:** 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.

**Quality Assurance Analyst - Intermediate:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree

**Minimum Experience:** Three (3) years or equivalent substitution.

**Functional Responsibilities:** Under general supervision, carries out procedures to ensure that all information systems, products and services meet minimum organization standards and end-user 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.

**Quality Assurance Analyst - Senior:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution

Functional Responsibilities: 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.

Quality Assurance Specialist:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution
Functional Responsibilities: Provides development of project Software Quality Assurance Plan and the implementation of procedures that conforms to the requirements of the contract. Provides an independent assessment of how the project's software development process is being implemented relative to the defined process and recommends methods to optimize the organization's process.

Site Manager:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Ten (10) years or equivalent substitution
Functional Responsibilities: Provides applications systems analysis and programming activities for a Government site, facility or multiple locations. Prepares long and short-range plans for application selection, systems development, systems maintenance, and production activities and for necessary support resources.

Software Architect:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Seven (7) years or equivalent substitution
Functional Responsibilities: 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:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Two (2) Years
Functional Responsibilities: 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.

Software Developer - Senior:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) Years
Functional Responsibilities: Under general direction, participates as high-level technical expert in design development, coding, testing, and debugging new software or significant enhancements to existing 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.

**Software Systems Engineer - Intermediate:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two years  
**Functional Responsibilities:** 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:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years or equivalent substitution  
**Functional Responsibilities:** 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.

**Strategic Planner:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Seven (7) years or equivalent substitution  
**Functional Responsibilities:** Provides strategic planning of large projects or a significant segment of a strategic planning portion of a large complex project. Provides the overall approach to clarify mission statements so they can be used as springboards in envisioning their desired future. Assists in developing mission and vision statements, subsequent goal delineation, provides guidance for building operational plans and specifying measurable outcomes to include capital outlay planning efforts in a consolidated strategic planning process and prioritizes those initiatives.

**Systems Administrator - Intermediate:**

**Minimum Education:** High School Diploma or equivalent  
**Minimum Experience:** Three (3) years or equivalent substitution  
**Functional Responsibilities:** Under general supervision, responsible for installing, configuring, and maintaining operating system workstations and servers, including web servers, in support of business processing requirements. Performs software installations and upgrades to operating systems and layered software packages. Schedules installations and upgrades and maintains them in accordance with established IT policies and procedures. Monitors and tunes the system to achieve optimum performance levels. Ensures workstation/server data integrity by evaluating, implementing, and managing appropriate software and hardware solutions. Ensures data/media recoverability by implementing a schedule of system backups and database archive operations. Supports media management through internal methods and procedures or through offsite storage and retrieval services. Develops and promotes standard operating procedures. Conducts routine hardware and software audits of workstations and servers to ensure compliance with established standards,
policies, and configuration guidelines. Develops and maintains a comprehensive operating system hardware and
software configuration database/library of all supporting documentation.

**Systems Administrator - Senior:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Five (5) years or equivalent substitution
**Functional Responsibilities:** 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.

**Systems Management Technologist:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Five (5) years or equivalent substitution
**Functional Responsibilities:** Analyzes, develops, operates, and maintains software libraries and catalogs. Provides support and direction for user groups in the use of the software/hardware systems and programs to support an integrated system.

**Technical Editor:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Three (3) years or equivalent substitution
**Functional Responsibilities:** 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.

**Technical Writer:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Two (2) year
**Functional Responsibilities:** Writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. Coordinates the display of graphics and the production of the document.

**Telecommunications Analyst/Technician:**
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree
**Minimum Experience:** Two (2) years
**Functional Responsibilities:** Provides maintenance of the switching equipment. Performs more complex activities for routine maintenance on switch. Reads and interprets circuit diagrams and electrical schematics.

**Telecommunications Engineer/Analyst – Intermediate:**
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Two (2) Years
Functional Responsibilities: 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).

Telecommunications Engineer/Analyst - Senior:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Six (6) Years
Functional Responsibilities: 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.

Telecommunications Manager - Multiple Incumbents:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Five (5) years or equivalent substitution
Functional Responsibilities: 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 “customer” 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 communications in a separated network environment. Manages/coordinates day-to-day planning, design, operations, maintenance, and resource allocation including client server 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 Manager - Single Incumbent:
Minimum Education: Bachelor’s Degree, or 4 years’ experience in lieu of degree
Minimum Experience: Three (3) years or equivalent substitution
Functional Responsibilities: 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.

Telecommunications Network Help Desk:
Minimum Education: High School Diploma or Equivalent
Minimum Experience: None
Functional Responsibilities: Responds to user complaints to research complex problems associated with the organization's telecommunications networks (voice and/or data). Diagnoses problem source through discussions with users. Coordinates with internal company support and operations groups and/or with vendors to resolve problems. Follows up with users to ensure problem has been resolved. Develops supporting documentation of all activities.
Telecommunications Programmer/Systems Analyst - Intermediate:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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”.

Telecommunications Programmer/Systems Analyst - Senior:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Four (4) Years  
**Functional Responsibilities:** 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”.

Telecommunications Technician:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** One (1) year  
**Functional Responsibilities:** Installs, troubleshoots, repairs and maintains telecommunications equipment. Provides reports, completes requests for new service, determines methodology for installing telephone service, determines appropriateness of moderate equipment changes or modifications, call switches, test trunks, test links and installs communication circuits.

Telecommunications/Communications Integration Engineer:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Four (4) years or equivalent substitution  
**Functional Responsibilities:** Provides technical direction and analysis for telecommunication activities, including planning, designing, integrating, installing and maintaining large-scale telecommunications/communications networks and services with computer systems. Applies telecommunications/communications engineering principles and theory to propose design and configuration alternatives. Analyzes network performance, usage and traffic flows, accesses and interfaces, transmission techniques, and protocols to interface with computer systems.

UNIX Systems Administrator:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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.

Voice Communications Administrator:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Eight (8) Years  
**Functional Responsibilities:** 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.

**Voice Communications Technician:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** Monitors and responds to complex technical control facility hardware and software problems. Interfaces with vendor support service groups to ensure proper escalation during outages or periods of degraded system performance. Maintains PBX/systems and associated hardware.

**Web Content Administrator:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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.

**Web Content Analyst:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** One (1) Year  
**Functional Responsibilities:** Provides for development and 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. Provides managing/performing website editorial activities including gathering and researching information that enhances the value of the site.

**Web Designer:**

**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** One (1) Year  
**Functional Responsibilities:** 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:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) Years  
**Functional Responsibilities:** 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.

**Web Operations Manager:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Four (4) years  
**Functional Responsibilities:** 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:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Five (5) years  
**Functional Responsibilities:** 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:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Four (4) years  
**Functional Responsibilities:** 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 Security Analyst:**  
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) years  
**Functional Responsibilities:** Performs all procedures necessary to ensure the safety of the organization's website and transactions across the Internet/intranet. Applies Internet firewall technologies to maintain security. Ensures that the user community understands and adheres to necessary procedures to maintain security. Updates and deletes users, monitors and performs follow-up on compliance violations, and develops security policies, practices, and guidelines.
Web Software Developer:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** One (1) Year  
**Functional Responsibilities:** 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.

Web Technical Administrator:
**Minimum Education:** Bachelor’s Degree, or 4 years’ experience in lieu of degree  
**Minimum Experience:** Two (2) years  
**Functional Responsibilities:** 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.

### GSA Schedule Pricing SIN 54151S

<table>
<thead>
<tr>
<th>LABOR CATEGORY</th>
<th>CUSTOMER SITE</th>
<th>KSS SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Support Liaison</td>
<td>$84.61</td>
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</tr>
<tr>
<td>Technical Consultant II</td>
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<tr>
<td>Subject Matter Expert III/ Technical Program Manager III</td>
<td>$134.36</td>
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<tr>
<td>Senior SME IV/ Senior Technical Program Manager IV</td>
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<tr>
<td>Senior Technical Consultant III</td>
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<tr>
<td>Program Manager</td>
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<tr>
<td>Business System Analyst - Sr</td>
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<tr>
<td>Business System Analyst - Mid</td>
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<td>Senior ERP Expert</td>
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<td>Program Administration Specialist</td>
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<td>Test Program Engineer</td>
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<td>Web Content Specialist</td>
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<td>Engineering &amp; Technology Acquisition Specialist I</td>
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<td>Supervisory Program Manager</td>
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<td>Business Process Consultant</td>
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<td>Sr. Data Analyst</td>
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<td>Applications Programmer</td>
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<td>LABOR CATEGORY</td>
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<td>KSS SITE</td>
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<td>Applications Systems Analyst/Programmer - Intermediate</td>
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<td>Business Consultant</td>
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<td>Business Subject Matter Specialist</td>
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<td>Business Systems Analyst - Intermediate</td>
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<td>Client/Server Database Manager</td>
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<td>Client/Server Network Architect</td>
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<td>Client/Server Support Analyst</td>
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<td>Communications Transmission Engineer</td>
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