

**Attachment C Incumbent Current GSA L.C. & DESCRIPTIONS**

**Job Title: Program Manager – Level 3**

*Education and General Experience:* A Master's degree in Computer Science, Information Systems Engineering, Business, Physical Science, or other technically related discipline. This position requires fifteen years experience with five years specialized experience. Specialized experience includes: project development from inception to deployment, expertise in the management and control of funds and resources using complex reporting mechanisms, demonstrated capability in managing multi-task contracts and/or subcontracts of various types and complexity. General experience includes increasing responsibilities in information systems design and/or management.

*Functional Responsibility:* Serves as the contractor's single contract manager, and shall be the contractor's authorized interface with the Government Contracting Officer (CO), the contract level Contracting Officer's Representative (COR), government management personnel and customer agency representatives. Responsible for formulating and enforcing work standards, assigning contractor schedules, reviewing work discrepancies, supervising contractor personnel and communicating policies, purposes, and goals of the organization to subordinates. Shall be responsible for the overall contract performance and shall not serve in any other capacity under this contract.

**Application Programmer – Level 1**

*Education and General Experience:* Currently enrolled as a full-time student at a University or college and majoring in Computer Science, Information Systems, Engineering, Business, Physical Science, or other technically related discipline.

*Functional Responsibility:* Assists with the analysis of information requirements. Aids in the evaluation of problems with workflow, organization, and planning and helps develop appropriate corrective action.

**Application Programmer- Level 2**

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

*Functional Responsibility:* Participates in the design of software tools and subsystems to support reuse and domain analysis. Assists Applications Engineer and Applications Programmer to interpret software requirements and design specifications to code, and integrate and test software components.

### **Applications Programmer - Level 3**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of six years experience, of which at least three years must be specialized. Specialized experience include: experience as an applications programmer on large-scale database management systems, knowledge of computer equipment and ability to develop complex software to satisfy design objectives. Demonstrated ability to work independently or under only general direction.

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

### **Business Analyst**

*Education and General Experience:* Bachelor degree in Business or other related discipline. This position requires a minimum of four years of general business experience.

*Functional Responsibilities:* Assists in the formulation and definition of systems scopes and objectives, and business processes through research and fact-finding combined with an understanding of applicable business systems, processes and industry requirements. Develops or modifies moderately complex business systems. Assists in performing analysis of business and user needs, documents requirements, and revising existing systems as necessary.

### **Computer Security Systems Specialist – Level 1**

*Education and General Experience:* A Bachelor's degree in Electrical Engineering, Information Science, Information Systems, Computer Science, Physics, Math, or other related discipline. This position requires a minimum of six years experience, of which at least four years must be specialized experience in defining computer security requirements for high level applications, evaluation of approved security product capabilities, and developing solutions to problems.

*Functional Responsibility:* Analyzes and defines security requirements. Designs, develops, engineers, and implements solutions. Gathers and organizes technical information about an organization's mission goals and needs, existing security products, and ongoing programs. Performs risk analyses which also includes risk assessment.

**Consultant – Level 1**

*Education and General Experience:* A Bachelor's degree with six years within the last seven years of intensive and progressive experience in the individual's field of study and specialization.

*Functional Responsibility:* Provide consulting to managers, supervisors and workforce in area of expertise.

**Consultant – Level 2**

*Education and General Experience:* A Bachelor's degree with eight years within the last twelve years of intensive and progressive experience in the individual's field of study and specialization.

*Functional Responsibility:* Provide consulting to managers, supervisors and workforce in area of expertise. Develop, lead, and conduct work flow..

**Consultant – Level 3**

*Education and General Experience:* A Bachelor's degree with ten years within the last fifteen years of intensive and progressive experience in the individual's field of study and specialization.

*Functional Responsibility:* Provide consulting to managers, supervisors and workforce in area of expertise. Develop, lead, and conduct work flow.

**Consultant – Level 4**

*Education and General Experience:* A Bachelor's degree with eleven years within the last fifteen years of intensive and progressive experience in the individual's field of study and specialization.

*Functional Responsibility:* Provide consulting to managers, supervisors and workforce in area of expertise. Develop, lead, and conduct work flow. Manages a project team.

**Data Entry Clerk**

*Education and General Experience:* A high school diploma and one year experience in data entry and verification. Typically required to work under close supervision and direction.

*Functional Responsibility:* Performs data entry via on-line data terminal, key-to-tape, key-to disk, or similar device. Verifies data entered, where applicable.

### **Data Validation/Standardization Specialist**

*Education and General Experience:* An Associate's degree in Computer Science, Information Systems, Engineering, Business, Physical Science, or other technically related discipline is required. This position required a minimum of three years experience, of which at least two years must be specialized. Specialized experience includes: building and/or maintaining data/information repositories for organizations that use information engineering concepts and enterprise, data and process modeling in the identification and development of standardized objects. General experience includes technical writing in enterprise, process, and/or data modeling. Demonstrated ability to work independently or under only general direction.

*Functional Responsibility:* Provides technical support in the evaluation of prime objectives names, data elements, and other objects. Evaluated proposed objects and their attributes. Ensures that proposed object definitions are clear, concise, technically correct, and that they represent singular concepts. Ensures that the values of object attributes and domains are accurate and correct. Ensures that the proposed objects are consistent with data and process models.

### **Database Management Specialist – Level 2**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum eight years experience, of which at least six years must be specialized. Specialized experience includes: demonstrated experience with DBMS design and system analysis, current operating systems software internals and data manipulation languages. General experience includes increasing responsibilities in the development and maintenance of data base systems.

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

### **Database Management Specialist – Level 3**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum ten years experience, of which at least five years must be specialized. Specialized experience includes: demonstrated experience with DBMS design and system analysis, current operating systems software internals and data manipulation languages. General experience includes increasing responsibilities in the development and maintenance of data base systems.

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

## **Documentation Specialist**

*Education and General Experience:* An Associate's degree is required. This position requires a minimum of three years experience, of which at least two years must be specialized. Specialized experience includes: preparing technical documentation, which is to include researching for applicable Government and industry documentation standards. Demonstrated ability to work independently or under only general direction.

*Functional Responsibility:* Gathers, analyzes, and composes technical information. Conducts research and ensures the use of proper technical terminology. Translates technical information into clear, readable documents to be used by technical and non-technical personnel.

## **Engineer – Level 1**

*Education and General Experience:* A Bachelor's degree in an Engineering, Scientific or other technical discipline and four years experience (or an equivalent combination of training and professional work experience).

*Functional Responsibility:* Performs complex analysis and design tasks. Prepares specifications and design, and implements solutions. May design subsystems; assists in developing standards. May work as part of a project team.

## **Engineer – Level 2**

*Education and General Experience:* A Bachelor's degree in an Engineering, Scientific or Technical discipline and six years experience (or an equivalent combination of training and professional work experience).

*Functional Responsibility:* Implements principles, techniques and processes. Decides appropriate tests to evaluate, debug and check systems. Documents the result of complex analysis and design tasks. May design moderately complex systems; assists in developing standards and techniques. May act in a lead role of a project team.

## **Engineer – Level 3**

*Education and General Experience:* A Bachelor's degree in an Engineering, Scientific or Technical discipline and seven years experience (or an equivalent combination of training and professional work experience).

*Functional Responsibility:* Implements principles, techniques and processes. Decides appropriate tests to evaluate, debug and check systems. Documents the result of complex analysis and design tasks. May design moderately complex systems; assists in developing standards and techniques. May act in a lead role of a project team.

**Functional Analyst – Level 1**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of six years experience, of which at least three years must be specialized. Must demonstrate the ability to work independently or under only general direction.

*Functional Responsibility:* Analyze user needs to determine functional and cross-functional requirements. Performs functional allocation to identify required tasks and their interrelationships. Identifies resources required for each task.

**Functional Analyst – Level 2**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of eight years experience, of which at least six years must be specialized. Specialized experience includes: systems requirements or developing functional requirements for complex integrated information systems business processes and/or programs. Must demonstrate the ability to work independently.

*Functional Responsibility:* Analyze user needs to determine functional and cross-functional requirements. Performs functional allocation to identify required tasks and their interrelationships. Identifies resources required for each task. Provides daily supervision and direction to support staff.

**Hardware/Network Installation Technician – Level 1**

*Education and General Experience:* A high school diploma is the minimum requirements. This position requires a minimum of one year general experience. Specialized experience includes: analysis and installation of workstations, peripherals and local area networks; fiber optic cable installation; specialized interconnect cable design and fabrication; and analysis and installation of communications systems.

*Functional Responsibility:* Conducts sites surveys; assesses and documents current site network configuration and user requirements. Analyzes existing requirements and prepares specifications for hardware acquisitions. Prepares engineering plans and site installation Technical Design Packages. Develops hardware installation schedules. Prepares drawings documenting configuration changes at each site. Prepares site installation and test reports. Configures computers, communications devices, and peripheral equipment. Installs network hardware. Trains site personnel in proper use of hardware. Builds specialized interconnecting cables.

## **Hardware/Network Installation Technician – Level 2**

*Education and General Experience:* Minimum education requirement is a high school diploma and technical training/certification desired. This position requires a minimum of four years experience of which at least two years must be specialized. Specialized experience includes: supervision of installation technicians, analysis, design, and installation of computer based systems; analysis, and installation of local area networks; and analysis and installation of communication systems. General experience includes increasing responsibilities in technical management. Proven ability to work independently or under only general direction.

*Functional Responsibility:* Organizes and directs hardware installations on site surveys. Assesses and documents current site network configuration and user requirements. Analyzes and develops new hardware requirements and prepares specifications for hardware acquisitions. Coordinates post installation operations and maintenance support.

## **Hardware/Network Specialist – Level 1**

*Education and General Experience:* A High School diploma and technical certification. This position requires a minimum of four years general experience and two years must be specialized. Specialized experience includes: system analysis and evaluation of hardware and network capabilities and configurations. Must demonstrate the ability to work independently or under only general direction.

*Functional Responsibility:* Reviews computer systems in terms of machine capabilities and man-machine interface. Prepares reports and studies concerning hardware. Prepares functional requirements and specifications for hardware acquisitions. Ensures that problems have been properly identified and solutions will satisfy the user's requirements. Designs and optimizes network topologies. Directs and leads preparation of engineering plans and site installation Technical Design Packages. Develops hardware installation schedules. Directs and leads preparation of drawings documenting configuration changes at each site. Prepares site installation and test reports.

## **Hardware/Network Specialist – Level 2**

*Education and General Experience:* An Associate diploma and/or technical certification. This position requires a minimum of four years general experience and two years must be specialized. Specialized experience includes: system analysis and evaluation of hardware and network capabilities and configurations. Must demonstrate the ability to work independently or under only general direction.

*Functional Responsibility:* Reviews computer systems in terms of machine capabilities and man-machine interface. Prepares reports and studies concerning hardware. Prepares functional requirements and specifications for hardware acquisitions. Ensures that problems have been properly identified and solutions will satisfy the user's requirements. Designs and optimizes network topologies. Directs and leads preparation of engineering plans and site installation Technical Design Packages. Develops hardware installation schedules. Directs and leads preparation of drawings documenting configuration changes at each site. Prepares site installation and test reports.

## **Information Engineer – Level 1**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Science or other technically related discipline. This position requires a minimum of ten years experience, of which at least eight years must be specialized. Specialized experience, in information systems development, functional and data requirements analysis, systems analysis and design programming, program design and documentation preparation. The following experience is also required: demonstrated experience in the implementation of information engineering projects; systems analysis, design and programming. Must demonstrate the ability to work independently or under only general direction.

*Functional Responsibility:* Applies business process improvement practices to re-engineer methodologies/principles and business process modernization projects. Applies, as appropriate, activity and data modeling, transaction flow analysis, internal control and risk analysis and modern business methods and performance measurement techniques. Assists in establishing standards for information systems procedures. Develops and applies organization-wide information models for use in designing and building integrated, shared software and database management systems. Constructs sound, logical business improvement opportunities consistent with corporate Information Management guiding principles, cost savings, and open systems architecture objectives. Provides daily supervision and direction to staff.

## **Info Engineer Level 2**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Science or other technically related discipline. This position requires a minimum of eleven years experience, of which at least eight years must be specialized. Specialized experience, in information systems development, functional and data requirements analysis, systems analysis and design programming, program design and documentation preparation. The following experience is also required: demonstrated experience in the implementation of information engineering projects; systems analysis, design and programming. Must demonstrate the ability to work independently or under only general

direction.

*Functional Responsibility:* Applies business process improvement practices to re-engineer methodologies/principles and business process modernization projects. Applies, as appropriate, activity and data modeling, transaction flow analysis, internal control and risk analysis and modern business methods and performance measurement techniques. Assists in establishing standards for information systems procedures. Develops and applies organization-wide information models for use in designing and building integrated, shared software and database management systems. Constructs sound, logical business improvement opportunities consistent with corporate Information Management guiding principles, cost savings, and open systems architecture objectives. Provides daily supervision and direction to staff.

### **Program Administration Specialist – Level 2**

*Education and General Experience:* An Associate degree with a minimum of four years experience, of which at least two years must be specialized. Specialized experience in general contract administration. Works with limited supervision and direction. Required to use judgment and initiative in problem solving.

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

### **Project Control Specialist – Level 1**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business or other related discipline. This position requires a minimum of eight years experience, of which five must be specialized. Must demonstrate the ability to work independently or under only general direction.

*Functional Responsibility:* Directs all financial management and administrative activities, such as budgeting, manpower and resource planning, and financial reporting. Performs complex evaluations of existing procedures, processes, techniques, models, and/or systems related to management problems or contractual issues, which would require a report and recommend solutions. Develops work breakdown structures, prepare charts, tables, graphs, and diagrams to assist in analyzing problems. Provides daily supervision and direction to staff.

#### **54. Job Title : Software Engineer – Level 2**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of five years experience, of which at least three years must be specialized. Analyzes and develops computer software possessing a wide range of capabilities, including numerous engineering, business, and records management functions. Develops plans for automated information systems from project inception to conclusion. Analyzes user interfaces, maintains hardware and software performance tuning, analyzes workload and computer usage, maintains interfaces with outside systems, analyzes down times, analyzes proposed system modifications, upgrades and new COTS. Analyzes the problem and the information to be processed. Defines the problem, and develops system requirements and program specifications, from which programmers prepare detailed flow charts, programs, and tests. Coordinates closely with programmers to ensure proper implementation of program and system specifications. Develops, in conjunction with functional users, system alternative solutions.

*Functional Responsibility:* Specialized experience includes: analysis and design of business applications on complex systems for large scale computers, including three years experience in data base management concepts, use of programming languages. Knowledge of current storage and retrieval methods, one year of systems analysis experience designing technical applications on computer systems and demonstrated ability to formulate specifications for computer programmers to use in coding, testing, and debugging of computer programs. General experience includes increasing responsibilities in information systems design and management. Must demonstrate the ability to work independently or under only general direction on requirements that are moderately complex to analyze, plan, program, and implement.

#### **Software Engineer – Level 3**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of eight years experience, of which at least six years must be specialized. Specialized experience includes: analysis and design of business applications on complex systems for large scale computers, data base management, use of programming languages. Knowledge of current storage and retrieval methods and demonstrated ability to formulate specifications for computer programmers to use in coding, testing, and debugging of computer programs. General experience includes increasing responsibilities in assignments of a technical nature. Proven ability to work independently or under only general direction on complex application problems involving all phases of systems analysis is required.

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

## **Subject Matter Expert – Level 1**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Science or other technically related discipline. Eight years within the last twelve years of intensive and progressive experience in the individual's field of study and specialization. This experience is expected to include a broad spectrum of expertise in a variety of aspects of the field. Four years of specialized experience within the last six calendar years of intensive and progressive experience in functional and information technology analysis/programming of subject matter closely related to the work to be automated.

*Functional Responsibility:* May augment or direct project teams. Provides high level functional and FIP systems analysis, design integration, documentation, and implementation advice on exceptionally complex studies, which require an expert knowledge of the subject matter for effective problem solution. Participates in all phases of study development with emphasis on the planning, analysis, documentation, and presentation phases. Applies higher level mathematical principles and methods to engineering and other physical sciences to arrive at automated solutions. Oversees the design and preparation of technical reports and related documentation. Prepares and delivers senior management presentations and briefings as required by the task order. May serve as a Task Leader, responsible for ensuring the quality and timeliness of services delivered.

## **Subject Matter Expert – Level 2**

*Education and General Experience:* A Bachelor's degree in Computer Science, information Systems, Engineering, Business, Science or other technically related discipline. Ten years within the last fifteen years of intensive and progressive experience in the individual's field of study and specialization. This experience is expected to include a broad spectrum of expertise in a variety of aspects of the field of expertise. Five (5) years of specialized in functional and Information Technology analysis/programming of subject matter closely related to the work to be automated.

*Functional Responsibility:* As an expert in the subject matter field, may augment or direct project teams. Provides high level functional and FIP systems analysis, design, integration, documentation, and implementation advice on exceptionally complex studies which require an expert knowledge of the subject matter for effective problem solution. Participates in all phases of study development with emphasis on the planning, analysis, documentation, and presentation phases. Applies higher level mathematical principles and methods to exceptionally difficult and narrowly defined technical problems in engineering and other physical sciences to arrive at automated solutions. Reviews and approves the design and preparation of technical documentation and reports. Prepares and delivers senior management presentations and briefings as required by the task order. May serve as a Task Leader, responsible for ensuring the quality and timeliness of services delivered.

### **Subject Matter Expert – Level 3**

*Education and General Experience:* A Bachelor's degree in Computer Science, information Systems, Engineering, Business, Science or other technically related discipline. Eleven years within the last fifteen years of intensive and progressive experience in the individual's field of study and specialization. This experience is expected to include a broad spectrum of expertise in a variety of aspects of the field of expertise. Five (5) years of specialized in functional and Information Technology analysis/programming of subject matter closely related to the work to be automated.

*Functional Responsibility:* As an expert in the subject matter field, may augment or direct project teams. Provides high level functional and FIP systems analysis, design, integration, documentation, and implementation advice on exceptionally complex studies which require an expert knowledge of the subject matter for effective problem solution. Participates in all phases of study development with emphasis on the planning, analysis, documentation, and presentation phases. Applies higher level mathematical principles and methods to exceptionally difficult and narrowly defined technical problems in engineering and other physical sciences to arrive at automated solutions. Reviews and approves the design and preparation of technical documentation and reports. Prepares and delivers senior management presentations and briefings as required by the task order. May serve as a Task Leader, responsible for ensuring the quality and timeliness of services delivered.

### **Subject Matter Expert – Level 4**

*Education and General Experience:* A Bachelor's degree in Computer Science, information Systems, Engineering, Business, Science or other technically related discipline. Twelve years within the last fifteen years of intensive and progressive experience in the individual's field of study and specialization. This experience is expected to include a broad spectrum of expertise in a variety of aspects of the field of expertise. Five (5) years of specialized in functional and Information Technology analysis/programming of subject matter closely related to the work to be automated.

*Functional Responsibility:* As an expert in the subject matter field, may augment or direct project teams. Provides high level functional and FIP systems analysis, design, integration, documentation, and implementation advice on exceptionally complex studies which require an expert knowledge of the subject matter for effective problem solution. Participates in all phases of study development with emphasis on the planning, analysis, documentation, and presentation phases. Applies higher level mathematical principles and methods to exceptionally difficult and narrowly defined technical problems in engineering and other physical sciences to arrive at automated solutions. Reviews and approves the design and preparation of technical documentation and reports. Prepares and delivers senior management presentations and briefings as required by the task order. May serve as a Task Leader, responsible for ensuring the quality and timeliness of services delivered.

### **System Administrator**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, Physical Science, or other technically related discipline. This position requires a minimum of four years experience, of which at least three years must be specialized experience in administrating UNIX, Windows NT, Banyan Vines or Novell systems or open systems and/or legacy systems. General experience includes operations experience on a large-scale computer system or a multi-server local area network.

*Functional Responsibility:* Supervises and manages the daily activities of configuration and operation of business systems which may be mainframe, mini, or client/server based. Optimizes system operation and resource utilization, and performs system capacity analysis and planning. Provides assistance to users in accessing and using business systems.

## **System Operator**

*Education and General Experience:* An Associate's degree in Computer Science, Information Systems, Engineering, Business, Physical Science, or other technically related discipline is required. This position requires a minimum of three years experience, of which at least two years must be specialized experience operating a large-scale computer system or multi-server local area network. Must demonstrate sufficient knowledge of programming to understand how programs use computer hardware.

*Functional Responsibility:* Monitors and supports computer processing. Coordinates input, output, and file media. Distributes output and controls computer operation which may be main frame, mini, or client/server based.

## **Systems Engineer – Level 1**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of four years experience, of which at least two years must be specialized. Specialized experience includes: supervision of system engineers, familiar with a network topologies and configurations, X.25, TCP/IP, IPX, Frame Relay, ATM, bridges, routers, hubs and experience with the logical and physical functional, operational, and technical architecture of large and complex information systems. At least one certification in network operating systems is required.

*Functional Responsibility:* Establishes system information requirements using analysis of the information engineer(s) in the development of enterprise-wide or large scale information systems. Designs architecture to include the software, hardware, and communications to support the total requirements as well as provide for present and future cross functional requirements and interfaces. Evaluates analytical and systematical problems of work corrective action.

## **Systems Engineer – Level 2**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of eight years experience, of which at least five years must be specialized. Specialized experience includes: supervision of system engineers, familiar with a network topologies and configurations, X.25, TCP/IP, IPX, Frame Relay, ATM, bridges, routers, hubs and experience with the logical and physical functional, operational, and technical architecture of large and complex information systems. Requires at least 2 certifications in network operating systems. General experience includes increasing responsibilities in systems engineering.

*Functional Responsibility:* Establishes system information requirements using analysis of the information engineer(s) in the development of enterprise-wide or large scale information systems. Designs architecture to include the software, hardware, and communications to support the total requirements as well as provide for present and future cross functional requirements and interfaces. Evaluates analytical and systematical problems of work flows, organization, and planning and develops appropriate corrective action. Provides daily supervision and direction to staff.

## **Systems Engineer – Level 3**

*Education and General Experience:* A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related discipline. This position requires a minimum of nine years experience, of which at least five years must be specialized. Specialized experience includes: supervision of system engineers, familiar with a network topologies and configurations, X.25, TCP/IP, IPX, Frame Relay, ATM, bridges, routers, hubs and experience with the logical and physical functional, operational, and technical architecture of large and complex information systems. Requires at least 2 certifications in network operating systems. General experience includes increasing responsibilities in systems engineering.

*Functional Responsibility:* Establishes system information requirements using analysis of the information engineer(s) in the development of enterprise-wide or large scale information systems. Designs architecture to include the software, hardware, and communications to support the total requirements as well as provide for present and future cross functional requirements and interfaces. Evaluates analytical and systematical problems of work flows, organization, and planning and develops appropriate corrective action. Provides daily supervision and direction to staff.

**Training Specialist – Level 1**

*Education and General Experience:* A Bachelor's degree in any field. This position requires a minimum of three years experience, of which at least two years must be specialized. Specialized experience includes: experience in developing and providing technical and end-user training on computer hardware and application software. General experience includes information systems development, training, or related fields. Demonstrated ability to communicate orally and in writing.

*Functional Responsibility:* Conducts the research necessary to develop and revise training courses. Develops and revises these courses and prepares appropriate training catalogs. Prepares instructor materials (course outline, background material, and training aids). Prepares student materials course manuals, workbooks, handouts, completion certificates, and course critique forms). Trains personnel by conducting formal classroom courses, workshops, and seminars.

**Training Specialist – Level 2**

*Education and General Experience:* A Bachelor's degree in any field. This position requires a minimum of six years experience, of which at least four years must be specialized. Specialized experience includes: experience in developing and providing technical and end-user training on computer hardware and application software. Demonstrated ability to work independently or under only general direction.

*Functional Responsibility:* Conducts the research necessary to develop and revise training courses and prepares appropriate training catalogs. Develops all instructor materials (course outline, background material, and training aids). Develops all student materials (course manuals, workbooks, handouts, completion certificates, and course critique forms). Trains personnel by conducting formal classroom courses, workshop, seminars, and/or computer based/computer aided training. Provides daily supervision and directions to staff.