

## 17. DESCRIPTION OF IT SERVICES AND PRICING

Computer Integration & Programming Solutions Corp. (CIPS) provides Information Technology Services across the full system development lifecycle. These services include, but are not limited to, the following:

• Project and Program Management/Control	• Test and Evaluation Design and Support
• EVMS Cost Analysis and Estimating	• Independent Verification and Validation
• Software and Systems Engineering	• Systems Integration
• Database Planning and Design	• Visualization Technology Services
• Requirements and Systems Analysis	• Total Computer and Network Service Solutions
• Web Technology Services	• System Prototyping
• Business Process Re-engineering	• Geographical Information Systems
• Conversion and Implementation Support	• Resources and Systems Management
• Client/Server Migration	• Modeling and Simulation Support
• Automated Information Management Systems	• IT Studies and Analysis

***CIPS LABOR CATEGORY PRICING***

Information Technology Services Offered  
Government Site

<b>C I P S Government Site Labor Rates</b>			
DESCRIPTION	U/M	10/22/07 -10/21/08 LOADED LABOR RATE (W/IFF .75%)	10/22/08 -10/21/09 LOADED LABOR RATE (W/IFF .75%)
Project/Task Manager	HR	\$119.05	\$122.25
Systems Architect	HR	107.40	110.40
Business/Function Analyst	HR	64.50	66.30
Systems Analyst	HR	82.35	84.60
Web Developer I	HR	67.40	69.25
Web Developer II	HR	97.30	99.95
Programmer Analyst	HR	83.70	86.00
Web Data Reporting/DW Analyst	HR	81.30	83.60
Business Process/Information Engineer	HR	86.30	88.70
ERP/COTS Specialist	HR	119.30	122.60
Database Analyst/ Administrator I	HR	83.70	86.00
Database Analyst/ Administrator II	HR	96.90	99.50
Database Analyst/ Administrator III	HR	112.50	115.55
Quality Assurance Analyst	HR	66.80	68.60
Information Assurance & Security Specialist	HR	79.80	82.00
Network/Communications Engineer	HR	83.75	86.00
Systems Engineer I	HR	95.90	98.60
Systems Engineer	HR	116.65	119.80
Systems Administrator	HR	60.70	62.40
System/Network Administrator	HR	76.95	79.05
System/Network Administrator II	HR	85.00	87.30
Help Desk User Desktop Administrator	HR	42.10	43.30
Help Desk Coordinator	HR	67.10	69.00
Help Desk Specialist	HR	74.90	77.00
Network Operations Supervisor	HR	79.80	82.00
Networks & Systems Operations Manager	HR	90.80	93.20
Technical Writer	HR	67.00	68.90
Subject Matter Expert	HR	136.60	140.30
Research Support	HR	58.05	59.65
Computational Research Scientist	HR	77.40	79.50
Information Technology Student Intern	HR	25.90	26.60

Information Technology Services Offered  
Contractor Site

<b>C I P S Contractor Site Labor Rates</b>			
DESCRIPTION	U/M	10/22/07 -10/21/08	10/22/08 -10/21/09
		LOADED LABOR RATE (W/IFF .75%)	LOADED LABOR RATE (W/IFF .75%)
Project/Task Manager	HR	\$132.80	\$137.45
Systems Architect	HR	115.50	118.70
Business/Function Analyst	HR	69.40	71.30
Systems Analyst	HR	91.80	95.00
Web Developer I	HR	75.15	77.80
Web Developer II	HR	108.60	112.40
Programmer Analyst	HR	93.40	96.65
Web Data Reporting/DW Analyst	HR	87.40	89.80
Business Process/Information Engineer	HR	92.80	95.40
ERP/COTS Specialist	HR	128.20	131.80
Database Analyst/ Administrator I	HR	93.40	96.65
Database Analyst/ Administrator II	HR	108.05	111.80
Database Analyst/ Administrator III	HR	125.45	129.85
Quality Assurance Analyst	HR	71.80	73.80
Information Assurance & Security Specialist	HR	85.80	88.20
Network/Communications Engineer	HR	93.40	96.70
Systems Engineer I	HR	103.10	106.00
Systems Engineer	HR	130.10	134.65
Systems Administrator	HR	65.30	67.10
System/Network Administrator	HR	85.80	88.80
System/Network Administrator II	HR	91.40	93.90
Help Desk User Desktop Administrator	HR	45.30	46.60
Help Desk Coordinator	HR	72.20	74.20
Help Desk Specialist	HR	80.50	82.80
Network Operations Supervisor	HR	85.80	88.20
Networks & Systems Operations Manager	HR	97.60	100.20
Technical Writer	HR	72.10	74.00
Subject Matter Expert	HR	146.80	150.90
Research Support	HR	64.70	66.95
Computational Research Scientist	HR	83.20	86.60
Information Technology Student Intern	HR	27.80	29.00

## CIPS LABOR CATEGORY DESCRIPTIONS

### PROJECT/TASK MANAGER

#### **GENERAL SUMMARY**

Serves as the project manager for a project or task order (or a group of task orders affecting the same common/standard/migration system) and assists the Program Manager, Contracting Officer (CO), the Contracting Officer's Representative (COR), the task order-level COR, government management personnel and customer agency representatives. Under their guidance, responsible for the overall management of the specific task order(s) and ensuring that the technical solutions and schedules in the task order are implemented in a timely manner.

#### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Responsible for project development from inception to deployment. This includes project identification, design, development, IT support and delivery.
2. May provide technical support for an area of expertise like systems analysis, business process reengineering (BPR), systems engineering, integration, network services, configuration management etc.
3. Performs complex evaluations of existing administrative operating procedures, processes, techniques, models, and/or systems related to management problems or contractual issues that would require a report and recommend solutions.
4. Establishes costs and determines resource requirements. Responsible for the administrative, contractual, financial and quality assurance aspects of the project using reporting mechanisms. Demonstrated capability in managing multi-task projects of various types and complexity.
5. Accountable for the quality and timely delivery of all contractual items.
6. Operates within client guidance, contractual limitations, and Company business and policy directives. Serves as focal point of contact with client regarding project activities.
7. Ensures that all required resources including manpower, production standards, computer time, and facilities are available for project implementation.
8. Confers with project staff to provide technical advice and problem resolution.
9. May perform other duties.

#### **JOB SPECIFICATIONS**

Project/Task Manager: Bachelor's Degree or equivalent and 14 yrs of related experience in systems engineering, information systems, business, technology or related discipline. Must possess supervisory experience in leading/managing technically oriented large efforts as well as multiple concurrent efforts with increasing responsibilities in information systems design and/or management. Should have knowledge of federal contract and procurement regulations. Or  
Master's Degree and 12 yrs of related experience Or  
High School Diploma and 18 yrs of related experience

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

## SYSTEMS ARCHITECT

### **GENERAL SUMMARY**

System Architect is responsible for the overall system design and implementation of major enterprise systems development and integration including hardware platform, software, support facilities including communication systems and application interfaces required to meet user requirements.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Plans and performs systems information requirements for specific areas of design and networking and supervises team of Sr. Systems Engineers and Network Engineers through the project completion. Analyzes software characteristics and recommends software procurement, communication support and modifications to support the total requirements.
2. Is a lead technical authority on the project, Ensures that systems are compatible and in compliance with open systems architecture and reference models.
3. Evaluates analytically and systematically problems of system workflows, and leads organization project personnel to plan and develop appropriate corrective action for large-scale implementation of information systems.
4. Translates business needs into long-term architecture solutions that include data design, database architecture, metadata and repository creation.
5. May perform other duties or be assigned other job titles.

### **JOB SPECIFICATIONS**

Systems Architect – Master’s Degree or equivalent and 10 yrs of related experience in independently performing a variety of systems design and engineering tasks which are broad in nature and are concerned with design and implementation of major enterprise systems development and integration. Should have led the team of system and network engineers Or

Bachelor’s Degree and 12 yrs of related experience Or

Ph. D and 8 years of related experience

#### Note

Two (2) years of experience + Bachelor’s Degree is equivalent to a Master’s Degree

Two (2) years of experience + Associate Degree is equivalent to a Bachelor’s Degree.

## BUSINESS/FUNCTION ANALYST

### **GENERAL SUMMARY**

Undertakes analysis within hardware, software and/or communications programs, business processes, and/or functional process. Defines, designs, and recommends processes and procedures supporting the implementation of information technology, business or other functional processes. Develops documentation supporting analysis and makes recommendations on design and implementation of complex information technology systems. Typically reports to Project Manager or Subject Matter Expert.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Analyze user needs to determine functional and cross-functional requirements or performs specific tasks, often of an emergent nature involving functional knowledge to support the client's program/project goals.
2. Performs functional allocation to identify required tasks and their interrelationships.
3. Identifies resources required for each task.
4. Analyzes business or operating procedures to devise the most efficient method of accomplishing the work.
5. Tracks administrative management of contracts, personnel, and costs.
6. Plans study of work problems and procedures; gathers and analyzes data; organizes and documents findings of studies and prepares recommendations for implementing new systems, procedures, or organizational changes.
7. May perform other duties.

### **JOB SPECIFICATIONS**

Functional Analyst – Bachelor's Degree in Computer Science, Information Systems, Engineering, Business, or other related scientific, functional or technical discipline with 5 years related experience. Related experience includes: developing functional requirements for complex integrated systems. Must demonstrate the ability to work independently or under only general direction. With a Master's Degree, three years of related experience is required. With nine years of experience, a degree is not required.

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree

Two (2) years of experience + Associate Degree is equivalent to a Bachelor's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

## SYSTEMS ANALYST

### **GENERAL SUMMARY**

Defines the problem, details system requirements and develops program specifications from which programmers develop detailed flow charts, programs and tests. Coordinates to ensure proper implementation of the specifications. Is accountable for analysis, maintenance and operating efficiency of a major subsystem, such as the teleprocessing network, batch and on-line applications, and/or database management systems, etc. Analyzes user interfaces, evaluates performance, workloads and computer usage, maintains interfaces with outside systems, analyzes down times, proposed system modifications, upgrades and new COTS.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Creates design documents, verifies flow charts as necessary for system design for on-line and/or batch applications.
2. Designs, implements, and coordinates with programmers to ensure proper implementation of the specifications by systems software programs.
3. Identifies, evaluates, customizes and implements vendor-supplied software packages.
4. Checks the quality of software written by conducting tests and evaluating performance of software applications to identify and correct bugs, problems which impact operation efficiency and work quality.
5. Analyzes user interfaces, evaluates performance, analyzes workload and computer usage, maintains interfaces with outside systems, analyzes down times, proposed system modifications, upgrades and new COTS.
6. Recommends and approves changes in peripheral configuration.
7. Trains users personnel in the use of application software and related hardware.
8. May perform other duties.

### **JOB SPECIFICATIONS**

Systems Analyst – Bachelor's Degree or equivalent and 9 yrs of related experience in creating documentation supporting analysis and design activities, Working knowledge of relational database environments, structured analysis, data modeling, or information engineering. Must be able to specify the inputs to be accessed by the system, design the processing steps, and format the output to meet the users' needs. Knowledge of cost-benefit and return-on-investment analyses is helpful. Should have excellent verbal and written communications skills  
Or

Master's Degree and 7 yrs of related experience Or  
High School Diploma and 13 yrs of related experience

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

## WEB DEVELOPER I

### **GENERAL SUMMARY**

Web Developer is responsible for development of Web based applications such as supply management, on line customer services or web enabling government agency services. A high level developer may be responsible for management of the web project and or design support for upgrades, maintenance, and content for agency's Website.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Establishes system information requirements using analysis of the information exchange technologies in development of the enterprise wide or large-scale information systems.
2. Designs architecture to include software, hardware and communications to support the total requirements as well as provide for present and future cross-functional requirements and interfaces. Ensures that these systems are compatible and in compliance with the standards for open systems architectures.
3. Develops site concept, interface design, and architecture of the web site.
4. Supports implementation of interfaces to applications.
5. Performs numerous engineering, business and network traffic management functions
6. Provides maintenance support on consistent basis.
7. Coordinates with the web site hosting team responsible for content.
8. Interfaces with all levels of management and technical personnel.
9. May perform other duties.

### **JOB SPECIFICATIONS**

Web Developer I – Bachelor's Degree or equivalent and 4 yrs of related experience in HTML, HTTPS, XML, EDI or Java is required. Knowledge of several of the following namely Jbuilder, Websphere, Active Server Pages (ASP), JavaScript, applets, servlets, JavaScript, and DBMS's is desirable Or Master's Degree and 2 yrs of related experience Or High School Diploma and 8 yrs of related experience

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree.

Two (2) years of experience + Associate Degree is equivalent to a Bachelor's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

**WEB DEVELOPER II****GENERAL SUMMARY**

Web Developer II is responsible for development of Web based applications such as supply management, on line customer services or e-government agency services. This high level developer would provide programming effort and have knowledge Section 508 regulation. Responsibilities could include design support for upgrades, maintenance, content, streaming media for agency's Website and/or management of a web task

**PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Establishes system information requirements using analysis of the information exchange technologies in development of the enterprise wide or large-scale information systems.
2. Designs architecture to include software, hardware and communications to support the total requirements as well as provide for present and future cross-functional requirements and interfaces. Ensures that these systems are compatible and in compliance with the standards for open systems architectures.
3. Designs, documents, codes, implements, and maintains appropriate application, or systems software programs.
4. Identifies, evaluates, customizes and implements vendor-supplied software packages.
5. Checks the quality of software written by conducting tests and evaluating performance of software applications to identify and correct bugs, problems which impact operational efficiency and work quality.
6. Develops site concept, interface design, and architecture of the web site. Performs numerous engineering, business and network traffic management functions
7. Coordinates with the web site hosting team responsible for content. Interfaces with all levels of management and technical personnel.
8. May perform other duties.

**JOB SPECIFICATIONS**

Web Developer II – Bachelor's Degree or equivalent and 11 yrs of related experience in HTML, HTTPS, XML, EDI or Java is required. Knowledge of several of the following namely Jbuilder, Websphere, Active Server Pages (ASP), JavaScript, applets, servlets, JavaScript, Streaming Media, Section 508 regulation and DBMS's is desirable Or

Master's Degree and 9 yrs of related experience Or  
High School Diploma and 15 yrs of related experience

**Note**

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree.

Two (2) years of experience + Associate Degree is equivalent to a Bachelor's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

## PROGRAMMER ANALYST

### **GENERAL SUMMARY**

Provides programming effort on the project/task order. Assists in definition of program requirements, creates supporting documentation and applies specialized technical and analytical skills and techniques in implementing requirements for tasks as programming steps, processes and procedures. Is accountable for development, maintenance and/or operating efficiency of a major subsystem, such as the teleprocessing network, application, and/or database management systems, etc. and/or customization and implementation effort of a vendor supplied software package. Develops methodology, alternatives, provides technical support and training.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Designs, documents, codes, implements, and maintains appropriate application, or systems software programs.
2. Identifies, evaluates, customizes and implements vendor-supplied software packages.
3. Checks the quality of software written by conducting tests and evaluating performance of software applications to identify and correct bugs, problems which impact operational efficiency and work quality.
4. Gathers data and analyzes performance based on transaction response time and number of programs being run to ensure run time efficiency.
5. Recommends and approves changes in peripheral configuration.
6. Trains users in applications programming and other user personnel in the use of application software and related hardware.
7. May perform other duties.

### **JOB SPECIFICATIONS**

Programmer Analyst – Bachelor's Degree or equivalent and 8 yrs of related experience Or  
Master's Degree and 6 yrs of related experience Or  
High School Diploma and 12 yrs of related experience

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

## WEB DATA REPORTING/ DATAWAREHOUSING (DW) ANALYST

### **GENERAL SUMMARY**

Coordinates the data administration technical function for both data reporting and/or data warehouse development and maintenance. Establishes and enforces processes to ensure a consistent, well-managed and well-integrated data warehouse infrastructure. Expands and improves data warehouse to include data from all functions of the organization using data manipulation, transformation and cleansing tools.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

1. Reviews data loaded into the data warehouse for accuracy.
2. Responsible for the development, maintenance and support of an enterprise data warehouse system and corresponding data marts.
3. Responsible for ensuring the timely process throughout the data loading process and resolves data problems.
4. Works towards metadata and repository creation.
5. Troubleshoots and tunes existing data warehouse applications.
6. Loads and manipulates data following database architecture, table standardization and common analysis routines.
7. Maintains stored procedures, reviews key procedures for improvement in speed and readability.
8. Writes functions for calling and manipulating data sets and single record processing
9. Conducts research into new data warehouse applications and determines viability for adoption.
10. Creates data warehousing and database web reports from request receipt, to assignment, coding, testing and completion.
11. Assists in establishing development standards. Evaluates existing subject areas stored in the data warehouse. Incorporates existing subject areas into an enterprise model.
12. Creates new or enhanced components of the data warehouse.
13. Creates reports for web distribution using data ware or data joining stored procedures

### **JOB SPECIFICATIONS**

Bachelor's Degree in Computer Science, Information Systems, Engineering, Business, or other related scientific, functional or technical discipline. This position requires eight years of related experience that includes Oracle, Sybase, or MS SQL Server. Be able to write embedded stored procedures (as callable objects), dynamic SQL, and functions that generate new tables, views, and reports (including cursors, While Loops, and database transactions). Experienced in both batch loading and Data Transformation Services (DTS) to bring in outside datasets. Experienced with Reporting tools such as Crystal Reports. With a Master's Degree, 6 years of related experience is required. With twelve years of related experience, a degree is not required.

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree

## BUSINESS PROCESS/INFORMATION ENGINEER

### **GENERAL SUMMARY**

Applies process improvement and reengineering methodologies and principles to conduct process modernization projects. Responsible for effective transitioning of existing project teams, and the facilitation of project teams in the accomplishment of project activities and objectives. Responsible for application of enterprise-wide set of disciplines for the systems planning, business information planning, and business analysis. Requires highest-level understanding of organization's business systems and industry requirements for implementation of information engineering projects; and construction of information systems across a major sector of the enterprise.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

1. Provides group facilitation, interviewing, training, and provides additional forms of knowledge transfer.
2. Focuses on process analysis and re-engineering, with an understanding of technical problems and solutions as they relate to the current and future business environment.
3. 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.
4. May lead re-engineering team and act as project manager in some cases or as key coordinator between multiple project teams to ensure enterprise-wide integration of reengineering efforts.
5. Provides technical guidance in software engineering techniques and automated support tools.
6. Develops analytical and computational techniques and methodology for problem solutions.
7. Performs enterprise wide strategic systems planning, business information planning, business and analysis.
8. Performs process and data modeling in support of the planning and analysis efforts using both manual and automated tools; such as Integrated Computer-Aided Software Engineering (I-CASE) tools.
9. Applies reverse engineering and re-engineering disciplines to develop migration strategic and planning documents.
10. Develop information systems; functional and data requirements analysis, systems analysis, design, programming, program design and documentation preparation.

### **JOB SPECIFICATIONS**

A Bachelor's degree in Computer Science, Information Systems, Engineering, Business, or other related scientific or technical discipline. This position requires eight years of related experience. Experience with such methodologies as IDEF 0 process modeling and IDEF 1X data modeling is a plus. Or With Master's Degree (in the fields described above) six years related experience is required or With twelve years of related experience, a degree is not required.

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree

## ERP/COTS SPECIALIST

### **GENERAL SUMMARY**

This individual is responsible for supporting the delivery of technical and business solutions based upon Commercial Off the Shelf (COTS) and Enterprise Application Solutions (such as Enterprise Resource Planning (ERP) tools. Works independently to develop enterprise-based programs of medium to high complexity. Keeps abreast of new ways and developments affecting the organization. Must be able to plan, manage and execute complex tasks and lead subordinate level positions during implementation.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Responsibilities include the development, integration and deployment of enterprise solutions
2. Support COTS or ERP Analysts, Designers, Business Specialist and Architectural Experts with enterprise applications programming, workshops, documentation, training and user support.
3. Contribute to efforts to produce business solution models, technical work products, unit-test code, data structures, and prepare user interfaces
4. Reviews all implementation and support activities and provides technical direction to the programming functions.
5. Prepare data for migration in the target database environment
6. Document and enhance logical processes that effectively utilize COTS or enterprise applications.
7. Support technical design reviews, enterprise approach validations, and work product assessments.
8. Provide work direction and guidance to other personnel
9. Ensure accuracy of the work of other personnel
10. Operate under deadlines, able to work on multiple tasks

### **JOB SPECIFICATIONS**

ERP/COTS Specialist – BS in Computer Science, Information Systems, Engineering, Business, or other related scientific or functional discipline plus six years of related experience with four years in Enterprise Resource Applications or COTS software products. With MS in above disciplines, four years of related experience with 2 years in Enterprise Resource Applications or COTS products is required.

#### Note

TWO (2) YEARS OF EXPERIENCE + BACHELORS DEGREE IS EQUIVALENT TO A MASTER'S DEGREE

## DATABASE ANALYST/ADMINISTRATOR I

### **GENERAL SUMMARY**

Accountable for the design, enhancements, implementation, administration, maintenance or operating efficiency of multi-user databases or data warehouses

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Under general direction, designs, implements, and maintains complex databases with respect to the operating system, and access methods.
2. Collects information from interviews, reports, literature and other sources for requirements and problem definition and makes recommendations for optimum approaches for ultimate design. Apply analytical and evaluative techniques to processes and problems.
3. Maintains database dictionaries, repository tools; Follows naming convention standards and procedures, and integrates systems through database or data warehouse design.
4. Monitors database access times, device allocation, validation checks, and organization.
5. Implements security roles, contributes to backup and recovery efforts, prepares documents, and guidelines.
6. Monitors database-tuning effort.
7. Responsible for interacting with users and developers for change management.
8. Helps migrate legacy data to client server or for web platform.
9. May perform other duties.

### **JOB SPECIFICATIONS**

Database Analyst/Administrator I –Bachelor’s Degree or equivalent and 7 yrs of related experience Or Master’s Degree and 5 yrs of related experience Or High School Diploma and 11 yrs of related experience

#### Note

Two (2) years of experience + Bachelor’s Degree is equivalent to a Master’s Degree

Four (4) years of experience + High School is considered equivalent to a Bachelor’s Degree

## DATABASE ANALYST/ADMINISTRATOR II

### **GENERAL SUMMARY**

Accountable for the design, enhancements, implementation, administration, maintenance or operating efficiency of multi-user databases or data warehouses. May be responsible for completion of database task.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Designs implements, and maintains complex databases with respect to the operating system, access methods, global view and/or controlled access of databases.
2. Collects information from interviews, reports, literature and other sources for requirements and problem definition and makes recommendations for optimum approaches for ultimate design. Applies analytical and evaluative techniques to processes and problems.
3. Maintains database dictionaries, repository tools; Creates and/or follows naming convention standards and procedures, and integrates systems through database or data warehouse design.
4. Monitors database access times, device allocation, validation checks, and organization. When necessary, reallocates resources to maximize throughput and performance.
5. Implements security roles, creates backup and recovery, prepares documents, and guidelines.
6. Develops system needs assessments, recommends database management systems and tools and performs feasibility studies and cost benefit analyses.
7. Responsible for interacting with users and developers for change management.
8. Migrates legacy data to client server or for web platform.
9. May perform other duties.

### **JOB SPECIFICATIONS**

Database Analyst/Administrator II – Bachelor's Degree or equivalent and 10 yrs of related experience with data base management systems or data warehousing tools. Should be able to determine requirements based on communications with users and developers. Should have undertaken significant analyses within the technical area. Excellent writing/presentation skills Or  
Master's Degree and 8 yrs of related experience Or  
High School Diploma and 14 yrs of related experience

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree

**DATABASE ANALYST/ADMINISTRATOR III****GENERAL SUMMARY**

May be responsible for completion of a phase of a project. Provides guidance and training to less experienced analyst/administrators. Accountable for the design, enhancements, implementation, administration, maintenance or operating efficiency of multi-user databases or data warehouses.

**PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Designs implements, and maintains complex databases with respect to the operating system, access methods, global view and/or controlled access of databases.
2. Collects information from interviews, reports, literature and other sources for requirements and problem definition and makes recommendations for optimum approaches for ultimate design. Applies analytical and evaluative techniques to processes and problems. Carries out statistical analysis of data base records.
3. Maintains database dictionaries, repository tools; Creates and/or follows naming convention standards and procedures, and integrates systems through database or data warehouse design.
4. Monitors database access times, device allocation, validation checks, and organization. When necessary, reallocates resources to maximize throughput. Lead database-tuning effort to improve end user response times.
5. Implements security roles, creates backup and recovery, prepares documents, and guidelines.
6. Develops white papers, system needs assessments, recommends database management systems and tools and performs feasibility studies and cost benefit analyses.
7. Responsible for interacting with users and developers for change management.
8. Migrates legacy data to client server or for web platform.
9. May perform other duties.

**JOB SPECIFICATIONS**

Database Analyst/Administrator III – Bachelor’s Degree or equivalent and 13 yrs of related experience with data base management systems or data warehousing tools. Should be able to determine requirements based on communications with users and developers. Should have undertaken significant analyses within the technical area. Excellent writing/presentation skills Or

Master’s Degree and 11 yrs of related experience Or  
High School Diploma and 17 yrs of related experience

**Note**

Two (2) years of experience + Bachelor’s Degree is equivalent to a Master’s Degree  
FOUR (4) YEARS OF EXPERIENCE + HIGH SCHOOL IS CONSIDERED EQUIVALENT TO A BACHELOR’S DEGREE

## QUALITY ASSURANCE ANALYST

### GENERAL SUMMARY

Establishes and maintains a process for evaluating systems and associated documentation. Determines the resources required for quality control and or configuration management. Maintains the level of quality throughout the software life cycle and reports to the Project Manager.

### PRINCIPAL DUTIES AND RESPONSIBILITIES

1. Develops and implements quality control methodologies to ensure compliance with quality assurance standards, guidelines, and procedures in a large computer-based organization
2. Conducts formal and informal reviews at pre-determined points throughout the development life cycle.
3. Develops and defines major and minor characteristics of quality including metrics and scoring parameters and determines requisite quality control resources for an actual implementation.
4. Provides technical and administrative direction for personnel performing systems development tasks, including the review of work products for correctness, adherence to the design concept and to user standards.
5. Reviews program documentation to assure government standards/requirements are adhered to, and measures progress in accordance with schedules.
6. Optionally, for Configuration Management (CM), records changes made to the hardware, software, firmware, and documentation throughout the system lifecycle in accordance with the procedures documented in the project's CM Plan. Develops and update of the project's CM Plan and coordinates with the Government's CM representatives.
7. Coordinates with the Project Manager to ensure problem resolution and user satisfaction.
8. Makes recommendations, if needed, for approval of major systems installations.
9. Prepares milestone status reports and deliveries/presentations on the system concept to colleagues, subordinates, and end user representatives.

### JOB SPECIFICATIONS

BACHELOR'S DEGREE OR EQUIVALENT AND 6 YRS OF RELATED EXPERIENCE IN DESIGN, SPECIFICATIONS, CODING, DOCUMENTATION, TOOLS, PLANNING, OR MANAGEMENT OF PROCESSES & PROCEDURES SUPPORTING MULTI-USER INFORMATION SYSTEMS QUALITY ASSURANCE, TESTING OR CONFIGURATION MANAGEMENT

Master's Degree and 4 yrs of related experience Or  
High School Diploma and 10 yrs of related experience

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree.

Two (2) years of experience + Associate Degree is equivalent to a Bachelor's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

## INFORMATION ASSURANCE & SECURITY SPECIALIST

### **GENERAL SUMMARY**

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. Provides support plan, to coordinate, and implement the organization's information assurance and systems security. Facilitates customer to define their security requirements, identify current security infrastructure and plan systems security in future programs, designs, and implementations

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

1. Gathers and organizes information about an organization's security mission, goals and needs, and existing security products, and ongoing programs.
2. Analyzes general information assurance-related technical problems and provides basic engineering and technical support in solving these problems.
3. Designs, develops, engineers, and implements solutions that meet customer security requirements. Performs vulnerability/risk analyses of computer systems and applications during all phases of the system development life cycle.
4. Performs risk analysis, verifies firewalls, data intrusion vulnerabilities and designs security risk mitigation plans related to systems, networks, e-mails, and Internet/Electronic Commerce.
5. Configures, installs and maintains operating systems and security monitoring tools and hardware/software firewalls.
6. Optionally, familiar with different communication protocols; encryption techniques/tools; and commercial products (ex. - DNS, RSA, Smartcard, Cyberguard, BBN, TimeStep).
7. May perform other duties or be assigned other job titles.

### **JOB SPECIFICATIONS**

Information Assurance & Security Specialist: Bachelor's Degree or equivalent and 6 yrs of related experience and highly qualified at defining specialized requirements in computer and data security. Understanding of business security practices, procedures and knowledge of current security tools available is required Or Master's Degree and 4 yrs of related experience Or Associate Degree and 8 yrs of related experience Or

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree  
Two (2) years of experience + Associate Degree is equivalent to a Bachelor's Degree.

NETWORK/COMMUNICATION ENGINEER**GENERAL SUMMARY**

Evaluates communication hardware and software; troubleshoots LAN/MAN/WAN and other network related problems; and provides technical expertise for performance and configuration of networks. Analyzes network and computer communications software characteristics and recommends hardware/software procurement, removals, and modifications. Adds, deletes, and modifies, as required, host, terminal, and network devices in light of discerned software needs/problems.

**PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Performs general LAN/MAN/WAN administration and provides technical leadership in the integration and test of complex large-scale computer integrated networks.
2. Schedules conversions and cutovers.
3. Provides services for network operations, installations, maintenance and upgrades and oversees network control center.
4. Analyzes network characteristics (e.g., traffic, connect time, transmission speeds, packet sizes, and throughput) and recommends procurement, removals, and modifications to network components.
5. Supervises maintenance of systems and coordinates with all responsible users and sites.
6. Provide support for the escalation and communication of status to agency management and internal customers.
7. May perform other duties.

**JOB SPECIFICATIONS**

Network/Communication Engineer – Bachelor's Degree or equivalent and 6 yrs related experience. A working knowledge is desirable in several of the following software systems and architectures: Unix, Windows, Novell, HP Open view like tools, OSI 7 Layer Model, IP Addressing, Systems Network Architecture, Telco Hierarchical Multiplexing. A working knowledge is desirable of the following protocols: IP, IPX, TCP, SNMP/MIB/MIB Ethernet, Token Ring, PPP, Frame Relay, ATM & SDLC. A working knowledge is desirable in several of the following hardware devices: Cisco Routers, 3 Com, hubs, switches, SNA, Frame Relay, DSU/CSU, T-1/T-3 Or

Master's Degree and 4 yrs of related experience Or  
High School Diploma and 10 yrs of related experience

Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree.

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree.

## SYSTEMS ENGINEER I

### **GENERAL SUMMARY**

Under general supervision, defines and executes systems engineering activities within a project. These activities may consist of systems planning, performance management, capacity planning, testing and validation, benchmarking, information engineering, and development and staffing of a systems engineering management plan.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Performs systems engineering planning, performance management, capacity planning, testing and validation, benchmarking, information engineering.
2. Development and staffing of a systems engineering management plan.
3. Supports a Sr. Systems Engineer, as required.
4. Analyzes and develops technical documentation detailing the integration and system performance.
5. Coordinates the activities of Systems Engineers and Jr. Systems Engineers assigned to specific systems engineering projects.
6. May perform other duties as assigned.

### **JOB SPECIFICATIONS**

Systems Engineer I – Bachelor's Degree or equivalent in Computer Science, Engineering, or equivalent experience and eight years of related experience in development of complex applications, their measurements and experience with systems planning, performance management, capacity planning, testing and validation of systems, benchmarking, or information engineering. General knowledge of telecommunications, computer languages, operating systems, database management systems and applications and familiarity with SEI/CMM, SDLC and/or ISO 9001 environment is a plus. Or  
Master's Degree and 6 yrs of related experience Or  
Associate Degree and 10 yrs of related experience

#### Note

Two (2) years of experience + Bachelor's Degree is equivalent to a Master's Degree

Four (4) years of experience + High School is considered equivalent to a Bachelor's Degree

## SYSTEM ENGINEER

### **GENERAL SUMMARY**

Under general supervision, defines and executes systems engineering activities within a project. These activities include systems planning, performance management, capacity planning, testing and validation of systems, benchmarking, information engineering and staffing of a systems engineering management plan. Relate design requirements to COTS products and in making sound recommendations. Participates in new construction of next generation IT applications. Well versed with realities of commercially available IT hardware and software and in creating system requirements for custom development or COTS implementation of complex or mission critical systems.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Performs systems planning, performance management, capacity planning, testing and validation, benchmarking, or information engineering.
2. Develops and or assists in planning for staff for systems engineering management plan.
3. Analyzes and develops technical documentation detailing the systems integration or performance.
4. Coordinates the activities assigned to specific systems engineering projects such as systems service level agreement etc.
5. May perform other duties.

### **JOB SPECIFICATION**

Systems Engineer – Bachelor’s Degree or equivalent in Computer Science, Engineering, or equivalent experience and 11 yrs of related experience in development of complex applications, their measurements and experience with systems planning, performance management, capacity planning, testing and validation of systems, benchmarking, or information engineering. Solid background with focus on software and systems, general knowledge of telecommunications, computer languages, operating systems, database management systems and applications. Familiarity with SEI/CMM, SDLC and/or ISO 9001 environment Or Master’s Degree and 9 yrs of related experience Or Associate Degree and 13 yrs of related experience

#### Note

Two (2) years of experience + Bachelor’s Degree is equivalent to a Master’s Degree.

Two (2) years of experience + Associate Degree is equivalent to a Bachelor’s Degree.

## SYSTEMS ADMINISTRATOR

### **GENERAL SUMMARY**

Systems Administrator is responsible for maintenance of client/server operating systems, communications software, database packages, utility programs, drivers, and mid-tier software. Work includes modifying existing software as well as configuring special-purpose software to ensure security, efficiency and integrity between systems and applications.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

1. Installs and patches client /server platforms or networked systems.
2. Tests and maintains applications, e-mail, internet, and configures security program products
3. Provides support in maintaining hardware, network and software, analyzing problems, and monitoring the systems and network to ensure availability to system users.
4. Provides recommendations in optimization of system operation, resource utilization, and performance management or system capacity analysis.
5. Ensures system availability and functionality. Performs user account management, security management, system back-ups and restores in accordance with established procedures.
6. Troubleshoots all system problems and provides assistance to users in business systems access.
7. Participates in systems migrations and upgrades.
8. May perform other duties or be assigned other job titles.

### **JOB SPECIFICATIONS**

Systems Administrator – Bachelor’s Degree or equivalent and 4 yrs of experience in related systems environment with the capability to supporting daily operational activities of today’s common platforms such as Unix, Linux, Novell, Windows, and Network Protocol Analyzers. Experience maintaining program products including evaluation, testing and implementation is required. Or  
Master’s Degree and 2 yrs of related experience Or  
High School Diploma and 8 yrs of related experience

#### Note

Two (2) years of experience + Bachelor’s Degree is equivalent to a Master’s Degree

Four (4) years of experience + High School is considered equivalent to a Bachelor’s Degree

## SYSTEM/NETWORK ADMINISTRATOR

### **GENERAL SUMMARY**

System/Network Administrator is responsible for maintenance of client/server operating systems, communications software, database packages, compilers, assemblers, utility programs, drivers, and mid-tier software. Work includes modifying existing software as well as creating special-purpose software to ensure efficiency and integrity between systems and applications.

### **PRINCIPAL DUTIES AND RESPONSIBILITIES**

Typical duties and responsibilities include, but are not limited to:

9. Maintains program products, including evaluation, testing and implementation on an agency's mainframe operating systems, subsystems, minis, client /server platforms or networked systems.
10. Provides support in maintaining hardware, network and software, analyzing problems, and monitoring the systems and network to ensure availability to system users.
11. Provides recommendations in optimization of system operation, resource utilization, and performance management or system capacity analysis.
12. Ensures system availability and functionality. Performs user account management, security management, system back-ups and restores in accordance with established procedures.
13. Troubleshoots all system problems and provides assistance to users in business systems access.
14. Participates in systems migrations and upgrades.
15. May perform other duties.

### **JOB SPECIFICATIONS**

System/Network Administrator – Bachelor's Degree or equivalent and 6 yrs of related experience in systems/network programming environment with the capability to develop specifications for complex systems/networks activities or supporting daily operational activities of today's common platforms such as Mainframe, Unix, Linux, Novell, Windows NT, Network Protocol Analyzers. Experience maintaining program