SUPERVISORY COMPUTER SPECIALIST GS-0334-12

INFORMATION SYSTEMS

I. POSITION AND ORGANIZATION INFORMATION

Position:

Supervisory Computer Specialist, GS-0334-12

Purpose of position:

The work of the position involves analytical and evaluative duties related to computer networks and/or telecommunications with primary knowledge requirements of information processing methodology, information technology, computer capabilities, and processing techniques.

Organization:

Information Systems Division

Organization goals:

II. MAJOR DUTIES

A. Duty (Critical):

Manages and coordinates development of information processing standards to be used at a variety of geographically dispersed locations. (10%)

Tasks:

1. Develops guidance and procedures for implementation of mandatory technical standards.

2. Manages the implementation, publication, and dissemination of information processing technical and procedural standards to the user community.

3. Works with functional managers to evaluate the impact of proposed standards and procedures on the accomplishment of agency goals and objectives.

4. Provides for training and implementation assistance; reviews and prepares recommendations concerning waivers of mandatory standards.

5. Evaluates the need for changes in agency policies or procedures.

Selected Staffing KSAs:

A1, A2, A3

B. Duty (Critical):

Applies configuration management disciplines to formally document and control the functional and physical characteristics of a system, network, or product during its life cycle. (10%)

Tasks:

1. Plans, develops, and maintains long-range hardware and software configuration including requirements, design, software, hardware, documentation, and procedures.

2. Provides technical services in cost estimating, technical specifications,

and benchmarking.

3. Formulates, recommends, and implements approved policy and procedures for identification control and status accounting of all processing and associated equipment configurations.

4. Identifies, tracks, and manages the modifications required to enhance and maintain the installed hardware and software configurations of information systems. Ensures that modifications are reported upon implementation.

Selected Staffing KSAs:

A4, A5

C. Duty (Critical):

Provides formal and informal training services to personnel such as functional analysts, programmers, remote processing customers, and configuration management specialists. (5%)

Tasks:

1. Develops curricula and new courses in training ADP professionals in complex functions and disciplines.

2. Researches the specific subject matter areas, plans the development of instructional materials, develops curricula, determines training objectives, plans specific course content, and ensures that individual courses are developed either personally or by lower graded specialists or contractor personnel.

3. Personally develops courses which involve new or anticipated changes in hardware or software or overall theory. Determines the best instruction method what material is appropriate for the audience and course purpose; develops all course materials, such as lesson plans, outlines, visual aids, and reference materials.

4. Conducts special studies, develops new training methods and techniques, recommends policy changes, maintains state-of-the-art knowledges in ADP and system design disciplines, and evaluates contractor-developed and/or instructed courses.

5. Provides technical guidance to lower graded specialists responsible for instructing and modifying courses previously developed by or under the guidance of the incumbent.

Selected Staffing KSAs:

A1, A2, A3

D. Duty (Critical):

Serves as senior technical specialist for all customer service problems. (10%)

Tasks:

1. Responds to customer requests (whether functional users or staff assistance) for all computer-related difficulties, analyzes and evaluates

problems, and provides immediate solutions, whenever possible.

2. Maintains currency in the appropriate developments of customer related information technology and provides recommendations for solving problems.

3. Upon installation, ensures proper functioning of hardware and software and the quality of implementing instructions.

Selected Staffing KSAs:

A1, A2, A3, A4

E. Duty (Critical):

Oversees implementation of new system hardware and software and develops operating procedures. Monitors the ongoing operation of a complex network environment with a large number of users in an installation or command and ensures corrective action to restore operational service is accomplished. (10%)

Tasks:

1. Receives network, communications, and related operating systems from various sources such as design centers and commercial vendors and ensures that an inventory of all network hardware and software is maintained.

2. Oversees configuration and installation of network equipment and changing the components of existing equipment for efficient operation.

3. Develops and maintains procedures for networks, system operations, and product assembly and installation.

4. Leads network operating system and/or application software projects and ensures that current releases of software products are in use.

5. Conducts testing to insure operability, efficiency, and compliance with existing standards.

6. Monitors operation of the network and ensures that hardware and software are functioning properly and that operation standards are met. Reviews, evaluates, and fine tunes components to achieve peak efficiency within the overall network connectivity.

7. Oversees function tests of the hardware/software to resolve technical problems and ensures appropriate on-site repairs.

8. Provides ongoing support, resolution of problems, and recovery of operating malfunctions involving various hardware components and software failures.

9. Develops procedures to ensure expedient restoration of the data base for the respective network equipment.

10. Provides central operational support for all shared computing equipment attached to the network. Develops and maintains connectivity to other systems

to ensure smooth operation and data flow.

11. Develops training for user support personnel to train office personnel and functional end users on a wide variety of subjects related to use of office automation computers, local area networks, and other automated tools.

12. Develops policies and procedures for networks, system operations, and product assembly and installation.

13. Maintains technical proficiency by attending symposia, expositions, and meetings and reviewing current communications and computer literature.

Selected Staffing KSAs:

A2, A3, A6, A7, A8

F. Duty (Critical):

Analyzes equipment and software reliability and utilization reports for large, complex equipment and software systems to identify and correct problem areas and to establish computer and telecommunications performance levels. (10%)

Tasks:

1. Surveys and evaluates network usage, user complaints, traffic interruptions or other communications issues, hardware and software capabilities, and other relevant factors.

2. Identifies adverse trends, ineffective practices or procedures, equipment shortcomings, etc.

3. Recommends methods and procedures and coordinates corrective action to optimize utilization of present equipment.

4. Uses benchmarks and performance measurement and evaluation data, in conjunction with modeling and simulation techniques, in planning for increased capacity and for supporting any additional workloads.

5. Develops proposals involving a variety of highly specialized systems and state-of-the-art enhancements designed to meet unique local requirements and improve operational efficiency.

6. Works with technical support personnel in resolving critical problems.

Selected Staffing KSAs:

A3

G. Duty (Critical):

Performs feasibility studies in order to develop or modify information systems to meet user network and/or telecommunication requirements. Assignments typically are characterized by significant departures from established practice. (10%)

Tasks:

1. Provides technical advice to users.

2. Examines and evaluates alternative means of satisfying user requirements.

3. Suggests technically feasible approaches and makes recommendations to the user regarding the most effective and efficient automation approaches.

Selected Staffing KSAs:

A1, A8

H. Duty (Critical):

Performs in-depth analysis of automated and manual systems related to networks and/or telecommunications to accomplish design assignment. Projects typically involve analyses of large, complex systems. (5%)

Tasks:

1. Determines whether or not existing systems can be used or changed.

2. Prepares programming specifications for implementation by computer programmers. Specifies inputs and outputs, appropriate data structure, module interface plans, detailed layout of files, and test plans.

3. Designs the physical structure of required databases considering factors such as access methods, frequency of access, storage media, data volatility, search strategies to be employed. Designs options for several simultaneous interactive users.
Documents standard data elements.

4. Determines the physical storage requirements based on the volume of data, data relationships, size of records, anticipated growth, access methods, and data compression techniques.

5. Performs consultation and research to determine common and unique requirements, to establish standardized terms and data elements for uniform identification by all users, and to select and develop a system design to service users individually or as a group.

Selected Staffing KSAs:

A1, A2, A3

I. Duty (Critical):

Prepares testing and implementation plans. Establishes test criteria and data for network interoperability to ensure all program modules and outputs for assigned project are tested for completeness and accuracy. Work requires independent performance of complex assignments. (5%)

Tasks:

1. Establishes test criteria to ensure network communications interoperability is tested for completeness and accuracy.

2. Coordinates interface with programmers and functional area specialists and advises on problem resolution.

3. Overseas evaluation of test results and ensures corrective actions are taken.

4. Develops and executes procedures to periodically monitor the logical/physical integrity of data.

Selected Staffing KSAs:

A2

J. Duty (Critical):

Performs supervisory duties. (25%)

Tasks:

1. Ensure that the organization's strategic plan, mission, vision and values are communicated to the team and integrated into the team's strategies, goals, objectives, work plans and work products and services.

2. Articulate and communicate to the team the assignment, project, problem to be solved, actionable events, milestones, and/or program issues under review, and deadlines and time frames for completion.

3. Coach the team in the selection and application of appropriate problem solving methods and techniques, provide advice on work methods, practices and procedures, and assist the team and/or individual members in identifying the parameters of a viable solution.

4. Lead the team in: identifying, distributing and balancing workload and tasks among employees in accordance with established work flow, skill level and/or occupational specialization; making adjustments to accomplish the workload in accordance with established priorities to ensure timely accomplishment of assigned team tasks; and ensuring that each employee has an integral role in developing the final team product.

5. Train or arrange for the training of team members in methods and techniques of team building and working in teams to accomplish tasks or projects, and provide or arrange for specific administrative or technical training necessary for accomplishment of individual and team tasks.

6. Monitor and report on the status and progress of work, checking on work in progress and reviewing completed work to see that the supervisor's instructions on work priorities, methods, deadlines and quality have been met.

7. Serve as coach, facilitator and/or negotiator in coordinating team initiatives and in consensus building activities among team members.

8. Maintain program and administrative reference materials, project files and relevant background documents and make available policies, procedures and written instructions from the supervisor; maintain current knowledge to answer questions from team members on procedures, policies, directives, etc.

9. Prepare reports and maintain records of work accomplishments and administrative information, as required, and coordinate the preparation,

presentation and communication of work-related information to the supervisor.

10. Represent the team in dealings with the supervisor or manager for the purpose of obtaining resources (e.g., computer hardware and software, use of overtime or compensatory time), and securing needed information or decisions from the supervisor on major work problems and issues that arise.

11. Report to the supervisor periodically on team and individual work accomplishments, problems, progress in mastering tasks and work processes, and individual and team training needs.

12. Represent the team consensus and convey the team's findings and recommendations in meetings and dealings with other team leaders, program officials, the public and other customers on issues related to or that have an impact on the team's objectives, work products and/or tasks.

13. Estimate and report to the team on progress in meeting established milestones and deadlines for completion of assignments, projects and tasks, and ensure that all team members are aware of and participate in planning for achievement of team goals and objectives.

14. Research, learn and apply a wide range of qualitative and/or quantitative methods to identify, assess, analyze and improve team effectiveness, efficiency and work products.

15. Lead the team in assessing its strengths and weaknesses and provide leadership to the team in exploring alternatives and determining what improvements can be made (e.g., in work methods, processes and procedures).

16. Approve emergency leave for up to three days; eight hours or less for medical appointments; and/or other types of leave as delegated by management.

17. Resolve simple, informal complaints of employees and refer others, such as formal grievances and appeals, to the supervisor or an appropriate management official.

18. Communicate team consensus and recommendations to the supervisor on actions affecting team and individual awards, rewards and recognition.

19. Inform employees of available employee benefits, services and work related activities.

20. Intercede with the supervisor on behalf of the team to inform the supervisor of performance management issues/problems and to recommend/request related actions, such as: assignments, reassignments, promotions, tour of duty changes, peer reviews and performance appraisals.

21. Assigns work to subordinates based on priorities, the difficulty of the work to be performed, and the capabilities of employees.

22. Finds ways to improve production or increase the quality of the work directed.

23. In addition to developing performance standards for subordinates, assures equity (among units, groups, teams, projects, etc.) of performance standards and rating techniques developed by subordinates, or assures equity by subordinates in assessing the adequacy of contractor work.

24. Evaluates work performance of subordinates.

25. Making or approving selections for subordinate nonsupervisory positions.

26. Identifies developmental and training needs of employees and provides for or arranges needed development and training.

27. Gives advice, counsel or instruction to employees on both work and administrative matters.

28. Hears and resolves complaints from employees, referring group grievances and more serious unresolved complaints to a higher level supervisor or manager.

29. Effects minor disciplinary measures, such as warnings and reprimands, recommending other action in more serious cases.

30. Directs a program or a major program segment with significant resources, such as one at a multimillion dollar level of annual resources.

31. Recommends awards or bonuses for nonsupervisory personnel and changes in position classification, subject to approval by higher level officials, supervisors, or others.

32. Exercises significant responsibilities in dealing with officials of other units or in advising higher level management officials.

33. Plans and schedules ongoing production-oriented work on a quarterly and annual bases, or directs assignments of similar duration. Adjusts staffing levels or work procedures within the unit(s) to accommodate resource allocations decisions made at higher echelons. Justifies the purchase of new equipment. Improves work methods and procedures used to produce work products. Oversees development of technical data, estimates, statistics, and other information useful to higher level managers in determining which goals and objectives to emphasize. Decides the methodologies to use in achieving work goals and objectives, and in determining other management strategies.

34. Plans work to be accomplished by subordinates, sets and adjusts short term priorities, and prepares schedules for completion of work.

35. Delegates or exercises leave authority.

Selected Staffing KSAs:

A9, A10, A11, A12

K. Other Work Requirements

1. The employee must obtain and maintain a Secret clearance.
2. The employee may be recalled to duty.

III. KNOWLEDGES, SKILLS AND ABILITIES (KSAs)

A. Selected Staffing KSAs:

1. Ability to apply a knowledge of systems analysis and design methodologies
2. Knowledge of information processing standards and procedures
3. Ability to apply knowledge of current automation technology and practices
4. Knowledge of computer systems acquisition regulations, practices, and procedures
5. Ability to evaluate computer systems design, prototypes, and computer applications from an operational test and evaluation perspective
6. Knowledge of communications connectivity requirements
7. Knowledge of computer network administration
8. Knowledge of the objectives, overall design, and operating characteristics of related hardware and software
9. Ability to inspire, motivate and guide others toward goal accomplishment. Leadership ability, ioncluding the ability to coach, mentor and challenge subordinates; ability to adapt leadership style to a variety of situations; and ability to model high standards of honesty, integrity, trust, openness, and respect for the individual by applying these values to daily behaviors.
10. Knowledge of and ability to apply procedures, requirements, regulations, and policies related to specialized expertise in the work of the unit (such as engineering, accounting, supply, etc.), including the ability to maintain credibility with others on technical matters.
11. Ability to recognize and analyze problems, conduct research, summarize results, and make appropriate recommendations
12. Skill in interpersonal relations

B. Basic Training Competencies:

1. Ability to apply a knowledge of systems analysis and design methodologies
2. Knowledge of information processing standards and procedures
3. Ability to apply knowledge of current automation technology and practices
4. Ability to give oral presentations
5. Ability to communicate in writing
6. Knowledge of computer systems acquisition regulations, practices, and procedures
7. Ability to evaluate computer systems design, prototypes, and computer applications from an operational test and evaluation perspective
8. Knowledge of configuration management regulations, principles, and techniques
9. Knowledge of communications connectivity requirements
10. Knowledge of computer network administration
11. Knowledge of the objectives, overall design, and operating characteristics of related hardware and software
12. Ability to formulate programming specifications
13. Knowledge of and ability to apply software reuse techniques
14. Ability to apply knowledge of programming languages and techniques
15. Knowledge of data and process modeling methodology
16. Ability to inspire, motivate and guide others toward goal accomplishment.

Leadership ability, ioncluding the ability to coach, mentor and challenge subordinates; ability to adapt leadership style to a variety of situations; and ability to model high standards of honesty, integrity, trust, openness, and respect for the individual by applying these values to daily behaviors.

17. Knowledge of and ability to apply procedures, requirements, regulations, and policies related to specialized expertise in the work of the unit (such as engineering, accounting, supply, etc.), including the ability to maintain credibility with others on technical matters.

18. Ability to recognize and analyze problems, conduct research, summarize results, and make appropriate recommendations

19. Skill in interpersonal relations

IV. CLASSIFICATION FACTORS

Factor 1. Knowledge **Level 1-7 (1250 Points)**

1. - Knowledge of agency information processing standards, policies, and procedures to analyze and advise managers on systems matters and evaluate the need for changes in existing policies and procedures.

2. - Knowledge of equipment characteristics, computer techniques, requirements, methods, and procedures to include familiarity with approaches used by organizations in other agencies and/or the private sector in order to evaluate alternatives and provide advice and assistance to managers.

3. - Knowledge of systems design and development techniques and agency policies and procedures. Skill in relating aspects and parts of a project to the overall needs of the organizations served. Knowledge of new or revised policies, practices, and technical management guidelines to provide advisory services, consultation, technical assistance, and/or training.

4. - Knowledge of configuration management techniques to document and control the functional and physical characteristics of a system, network, or product to include the requirements, design, software, hardware, documentation, and procedures during the system life cycle.

- Ability to develop and execute plans associated with the configuration management of information technology assets.

- Knowledge of the uses of software metrics for status accounting for change management and control.

- Knowledge of system development and integration life cycles in order to control changes made to the operational baseline.

5. - General knowledge of the mission, objectives, terminology, and management practices in the activity, the agency, and the department to recognize probable areas of interaction and overlap between proposed and existing systems.

6. - Ability to identify needed network system modifications and to relate all aspects of the work to the network and user requirements.

7. - Detailed and specific knowledge of the work processes, data models, work rules, file/database designs, and computer and operating procedures applicable to the network operation.

8. - Knowledge of state-of-the-art practices of data automation to advise on alternative approaches in application system development and/or problem resolution related to networks and/or telecommunications.

9. - Knowledge of hardware and software systems network operations function, communication protocols, diagnostic tools to recover data, analyze customer problems, and provide assistance.

- Knowledge of technical microcomputer/mainframe integration and communication and/or distributed processing techniques to resolve questions related to telecommunications equipment and connectivity.

10. - Understanding of the capabilities and limitations of the activity's computer equipment configuration, system software, utility programs and programming aids available in order to carry out network and/or telecommunications programs and projects and coordinate efforts with others affected in the organization.

11. - Knowledge of systems analysis and design techniques including data and process modeling, alternative design approaches, configuration management, and computer equipment requirements related to networks and telecommunications to carry out studies to advise on the merits of proposed applications, designs, and design changes.

12. - Knowledge of department, agency, command, and installation ADP procedures and standards as they relate to limitations on design approaches, coordination requirements, programming specifications, and documentation related to networks.

13. - Skill in adapting proven approaches in the formulation of programming specifications for new systems and major changes to existing systems.

14. - Knowledge of advanced programming techniques and higher level computer languages to complete program development for assigned systems.

Factor 2. Supervisory Controls Level 2-4 (450 Points)

The assignments consist of projects, studies, or evaluations characterized by the need for substantial analysis of problems. Deciding what needs to be done typically involves assessment of situations complicated by conflicting requirements which must be analyzed to determine the applicability of established methods. Consideration must be given to probable areas of future changes in system design, equipment layout, or comparable aspects to facilitate subsequent modifications.

Factor 3. Guidelines Level 3-4 (450 Points)

Guidelines primarily consist of Federal, DOD, component, and local regulations, policies, standards, and precedents that provide general guidance, but do not specify the approach to follow to accomplish the work.

When guidelines are lacking, the employee must generate new or improved methods to be tested which may provide a basis for future guidelines. Considerable judgment is required in relating guidelines to the development of solutions to problems.

Factor 4. Complexity **Level 4-5 (325 Points)**

Project assignments require an unusual depth of analysis, characterized by the need for significant departures from established practices. Problems are of a type that have been resistant to solutions in the past. Deciding what needs to done typically involves assessment of situations complicated by conflicting or insufficient data which must be analyzed to determine the applicability of established methods. Although precedent studies and programs are helpful, they are usually untried at the scale proposed. A number of approaches to accomplish the work are possible and decisions regarding approach are complicated by the extensive coordination required between the various users and other ADP staff. The work requires developing criteria where numerous conditions, options, and conflicting user needs must be considered.

Factor 5. Scope and Effect **Level 5-4 (225 Points)**

The work primarily involves a variety of problems relating to efficiency and/or security of data processing in the assigned area, formulation of revisions to the system, establishment of test plans and specifications, and identification and resolution of issues and problems that affect assigned projects. The employee provides advice, consultation, and guidance concerning program aspects that affect a wide range of agency activities, of non-government organizations, or functions of other agencies.

Factor 6. Personal Contacts **Level 6-3 (60 Points)**

Personal contacts include systems analysts, programmers, and functional area users in other organizations within the activity. In addition, contacts often take place with computer personnel of other agencies, equipment or system software vendors, and contractors.

Factor 7. Purpose of Contacts **Level 7-3 (120 Points)**

Contacts involve influencing others to use particular technical methods and procedures, or to persuade them to cooperate in meeting objectives and deadlines when there are problems in securing cooperation.

Factor 8. Physical Demands **Level 8-1 (5 Points)**

The work is sedentary. No special demands are required to perform the work.

Factor 9. Work Environment **Level 9-1 (5 Points)**

The work is performed in a typical office setting. Special safety precautions are not required.

V. CLASSIFICATION SUMMARY

In this position:

Duty A. 10% GS-0334-12 Computer Specialist
Standards Management and Coordination

Duty B. 10% GS-0334-12 Computer Specialist
Configuration Management

Duty C. 5% GS-0334-12 Computer Specialist
Training Services

Duty D. 10% GS-0334-12 Computer Specialist
Customer Support

Duty E. 10% GS-0334-12 Computer Specialist
Network Operations

Duty F. 10% GS-0334-12 Computer Specialist
Network/Telecommunications Analysis

Duty G. 10% GS-0334-12 Computer Specialist
Feasibility Studies

Duty H. 5% GS-0334-12 Computer Specialist
Systems Analysis and Design

Duty I. 5% GS-0334-12 Computer Specialist
System Performance Evaluation

Duty J. 25% GS-0000- Supervisor (Base level=11)
Supervisory duties.

The classification criteria are contained in the OPM FES Position Classification Standard for the Computer Specialist Series, GS-334 (TS-106, dated July 1991).

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US OPM Classification Guide for General Schedule Supervisory Positions, dated April 1998.

GS-12 Point range: 2755 - 3150
Total Point: 2890
Grade: GS-12