

ILLINOIS DEPARTMENT OF CENTRAL MANAGEMENT SERVICES  
CLASS SPECIFICATION

INFORMATION SERVICES SERIES

<u>CLASS TITLE</u>	<u>POSITION CODE</u>
INFORMATION SERVICES SPECIALIST I	21161
INFORMATION SERVICES SPECIALIST II	21162
INFORMATION SYSTEMS ANALYST I	21165
INFORMATION SYSTEMS ANALYST II	21166
INFORMATION SYSTEMS ANALYST III	21167

Effective: 07-01-2004

SERIES DISCUSSION:

Positions allocated to the classes in this series perform professional Information Technology functions that require the application of specialized, theoretical and technical knowledge in the field. Information Services series positions engage in work of the class for a majority of work time; such work requires adherence to professional standards of the field, including appropriate documentation to assure continuous and consistent development and maintenance activities. Positions appropriately included are not distinguished by supervisory, managerial, or labor relations confidential responsibilities.

This broad series is designed to outline the essential characteristics of the nature and variety of work included and the associated general requirements for each class level. The series recognizes four principal Information Technology categories: applications services, systems services, client services, and multi/other services. Within each of the four principal categories, positions typically engage in work requiring specialized knowledges pertaining to a given platform, language or environment. Accordingly, specific job requirements within each of these categories vary according to the position's duties and responsibilities as documented and approved by the Director of Central Management Services or his/her designee.

Category Definitions:

Applications Services: Functions in this area pertain primarily to software that supports the administrative and operational functions of the agency. Positions in the Applications Services category specialize in the software and its use; they provide expertise in one or more types or brands of software and their practical utilization. Positions in this category translate agency operational needs into applications program instructions and logic to produce the desired actions or products. Applications Services incumbents analyze specifications, design logic, write code, and test, debug and document applications programs. Other positions in this category may participate in the fact-finding and the analysis phases of the program development design cycle to help establish the feasibility of new or modified applications. Such program development design work involves not only knowledge of applications programming, but also knowledge of the new, existing and current systems, whether manual or automated, to provide for appropriate data flow, actions, and decisions. At the highest levels, this requires strong interpersonal skills to appropriately determine needs and processing functions; a thorough knowledge of both the work of the agency and the specialized Information Technology field are also necessary.

Systems Services: Functions in this area pertain primarily to operating systems, communications or network systems, security systems, and other systems that support the activity of the Information Technology department. In contrast to Applications Services

positions, Systems Services jobs require greater hardware knowledge and are more highly focused on internal programs and routines or technical interface functions. For example, the combination of an operating system and a computer is called a platform. While a program developed by Applications Services staff is designed to meet the needs of the end-user and to run on a specific platform, the Systems Services' operating system is part of the platform itself; it is Systems Services' assembler and compiler programs that enable the translation of higher level languages, such as those used by Applications Services staff, into machine executable language.

Another area of concentration for Systems Services is database management systems. Database management systems can be large and complex, affecting the entire Information Technology department. A database management system is a collection of programs that organizes a collection of data, retrieves and stores the data, and provides security by allowing only approved access to the data. Such work is typically part of the Systems Services area, but may also require the specific skills of Applications Services positions.

Client Services: The primary purpose of the work in this area is providing professional consultation, training, and purchasing functions to users of software and automated equipment. As consultants, Client Services incumbents provide information, training and problem solving; such services typically include developing, providing, implementing and/or coordinating formal training sessions or product demonstrations that require technical knowledge of applications and/or systems. As the preliminary or second level contact between the Information Technology department and users, such incumbents resolve information system related problems, disseminate standards, procedures and policies, and create procedural manuals or informational materials. Services may also involve reviewing requests to purchase equipment or applications software, which requires an evaluation of the feasibility, cost, and degree of compliance with State or agency policies and guidelines. Thus, in contrast to Applications Services, lower level Client Services positions require relatively strong interpersonal or administrative skills; like Applications Services, thorough technical knowledges are required for advancement to the highest levels.

Multi/Other Services: Functions in this area are typically those where job duties and responsibilities regularly entail applying knowledge of two or more of the principal categories defined above: Applications Services, Systems Services, or Client Services, neither of which predominates. Such positions are most commonly located in smaller agencies, where incumbents are routinely required to serve in multiple capacities. These multi-oriented positions require a breadth of knowledge across Information Technology categories equivalent to the knowledges required of those who specialize within a single category but impact a larger agency's services. Other positions included in this category are those where incumbents may be required to possess skills and knowledges that are of such a new and innovative nature that they are not yet considered to be in the mainstream of current computer systems usage. In such instances, functional specialization among the principal categories noted above may not yet have emerged.

Level Differentiation:

As shown in the chart below, within each of these four principal categories are five levels of performance. These levels of performance correspond to class levels within the Information Services series. The classes shown in the chart are listed from highest to lowest. Acronyms are substituted for the full titles within each category: Information Systems Analyst is shortened to ISA; Information Services Specialist is shortened to ISS.

Information Services Series  
Performance Levels within Category

Applications Services	Systems Services	Client Services	Multi/Other Services
ISA III	ISA III	ISA III	ISA III
ISA II	ISA II	ISA II	ISA II
ISA I	ISA I	ISA I	ISA I
ISS II	ISS II	ISS II	ISS II
ISS I	ISS I	ISS I	ISS I

In order to accommodate this rapidly changing field, the allocation of positions to one of the five class levels within any of the four principal categories considers the complexity of the duties and responsibilities assigned and the expertise required and applied for satisfactory performance. To determine the proper level of an individual position, eight allocation factors are considered.

- Nature and Variety of Work
- Nature of Supervision Received
- Nature of Available Guidelines for Performance of Work
- Originality Required
- Purpose and Nature of Person-to-Person Work Relationships
- Nature and Scope of Recommendations, Decisions, Commitments, and Conclusions
- Nature and Extent of Supervision Exercised Over Work of Other Employees
- Qualifications Required

Which of these allocation factors is more significant in making a level determination may vary by principal category. For example, lower level positions in all categories require a certain degree of theoretical and technical competence in the field; advancement to higher levels in all categories is aligned with increasing levels of theoretical and technical competence. However, Client Services positions at lower levels require stronger interpersonal skills than is customarily required for lower level Applications Services or Systems Services positions. Similarly, Applications Services positions at the highest levels require stronger interpersonal skills than may be customarily required for higher-level Systems Services positions. Thus, the allocation of a position to a level within this broad class series requires an understanding of the nature of the work within the principal category and the corresponding complexity of that work as revealed through a thorough examination of its relation to all of the allocation factors and similarly situated positions.

INFORMATION SERVICES SPECIALIST I

POSITION CODE: 21161

DISTINGUISHING FEATURES OF WORK:

Under immediate supervision, assists in performing professional Applications Services, Systems Services, Client Services, or Multi/Other Information Technology Services within an agency; completes professional assignments of limited scope, with completed assignments subject to review by a higher level professional in the assigned area.

Positions allocated to this class are closely supervised, with little or no latitude in the choice of work method; established guidelines, precedents, practices and procedures are followed; there is minimal need for innovation, as methods and procedures are well established and probable errors are readily detected and corrected through standard checks and processes. Information Services Specialists at this level typically have few personal contacts outside the immediate working environment. Positions assisting in training and responding to calls for assistance regularly have personal contacts outside the immediate working environment, but information provided through such contacts is limited in nature, scope and authority; technical questions or problems may readily be referred to a higher level professional.

ILLUSTRATIVE EXAMPLES OF WORK:

1. Performs limited assignments in applications programming, typically restricted to the maintenance or modification of one or more existing programs; codes, tests, debugs, and documents applications developed; receives increasingly difficult applications programming assignments, which may include assisting in the design of logical flows and procedures within the program to accomplish the assignment (i.e., how it will be done, the logic needed, how much and what kind of testing is needed to be performed, user procedures and run requirements, and how best to arrive at the end results specified).
2. Performs limited assignments in systems services, typically restricted to the maintenance or modification of existing, small computer or network systems programs and utilities whose source was either vendor supplied or custom installed; tests and documents system modifications; assists higher level systems services and applications services staff in resolving processing problems; receives increasingly difficult systems services assignments, which may include participating in analyses to determine the most expeditious and effective methods of establishing or revising internal programs and routines of the computer or network system, participating in system installations, backups and recoveries, engaging in diagnosis and repair of service problems, and assisting in system monitoring and tuning to improve performance, assure adequate security, and achieve optimum hardware utilization.
3. Assists in providing professional support to users of packaged applications software and automated equipment; provides information, training and problem solving to enable persons to use packaged or already developed applications software and automated systems as a tool to develop their own computerized applications with databases, spreadsheets, graphics and reports and to obtain maximum benefit from automated systems; responds to calls for assistance, elicits sufficient information to enable higher level professionals to diagnose and resolve more difficult or advanced problems, and maintains records of problems reported and the vendor's or staff actions to resolve them; develops skills to provide enhanced technical and analytical services.

## INFORMATION SERVICES SPECIALIST I (continued)

4. Gains knowledge to evaluate and test software in order to make purchasing and support recommendations; learns how to compare and report findings detailing the relative merits and weaknesses of products and how to report findings to higher level management, both orally and in writing.
5. Assists in providing classroom and one-on-one training to end users on specific products for which responsibility has been assigned; assists higher level professionals in developing training curriculum, lesson plans, syllabus, handouts, and visual aids; assists in scheduling training for assigned system and automated equipment and in coordinating training facilities and resources with other staff; conducts and compiles results of surveys that evaluate services provided; participates in developing and editing manuals and procedures for use by Information Services clients; updates and adds material in accordance with research and evaluation findings.
6. Develops knowledge and familiarity with unit supported products; continues education by attending meetings, training sessions, seminars, and conferences to increase familiarity with and maintain current on Information Technology products, vendors, techniques and procedures applicable to unit activities; attends demonstrations and exhibitions related to assigned operations.
7. Performs other duties as required or assigned which are reasonably within the scope of the duties enumerated above.

### DESIRABLE REQUIREMENTS:

#### Education and Experience

Requires knowledge, skill and mental development equivalent to completion of two years of college with course work in computer science or directly related fields; or satisfactory completion of an agency sponsored training program. Options associated with these positions pertain to the category of assignment. Specific position requirements vary by position within the category of assignment and relate to the position's duties and responsibilities as defined by the agency of employment and as approved by the Director of the Department of Central Management Services or his/her designee.

Application Services Category ONLY - Qualifying state employees in the Upward Mobility Program shall have the stated requirements of this classification waived by successful completion of specific proficiency tests and training programs.

#### Knowledges, Skills and Abilities

Requires elementary knowledge of Information Technology concepts and principles, the theories and functions of computer systems, and the principles and techniques of Information Technology documentation.

Requires elementary knowledge of hardware and software, languages, and procedures to provide assigned technical and analytical support services.

Requires elementary knowledge of accounting and statistical theories, methods and practices.

Requires working knowledge of oral and written communication skills.

Requires ability to effectively participate in and profit from formal and in-service training programs.

Requires ability to analyze data logically.

Requires ability to maintain satisfactory working relationships with others.

INFORMATION SERVICES SPECIALIST II

POSITION CODE: 21162

DISTINGUISHING FEATURES OF WORK:

Under general supervision, performs professional work of an intermediate level of difficulty in Applications Services, Systems Services, Client Services, or Multi/Other Information Technology Services; work is well-defined, involves interrelated processes or steps requiring some judgment among established procedures, but few independent interpretations are required; established policy and accepted or standardized procedures and practices are applied.

Typically, positions allocated to this class are closely supervised on special assignments, follow established guidelines and procedures, and refer questions or problems not defined by standard practice and established procedure to higher level professionals; probable errors may cause inaccuracies or delay progress of projects to a limited extent, but such errors would usually be detected before the result becomes serious. Information Services Specialists at this level may obtain, present, or discuss data pertinent to an immediate and specific assignment in contacts with others beyond immediate associates, but such contacts are generally of a well-defined nature and do not entail approving actions or decisions of others.

ILLUSTRATIVE EXAMPLES OF WORK:

1. Performs applications programming assignments, typically restricted to the maintenance or modification of one or more existing programs and carries out specific technical functions or minor defined studies involving the analysis and evaluation of the standards, techniques and procedures in specific phases of agency operations to document the feasibility of converting to computer-based information systems; assists in the continued revision and installation of new and improved application systems and procedures, including designing, coding, testing and documenting application programs, composing user procedure manuals, and developing run procedure requirements for application programs.
2. Performs minor technical interface functions between systems programs and the data processing hardware to aid in determining the most expeditious and effective methods of establishing or revising internal programs and routines associated with a computer or network system, consulting with higher level professionals on unusual problems or situations; performs system generation or implementation of basic vendor supplied software; assists in installations, backups, and restores; works with program staff to resolve problems that develop in the system software, performs maintenance functions on software whose source was either vendor supplied or custom installed, and designs and implements custom software to fulfill unique agency requirements; performs system tuning and measurement to aid in improving performance of the operating system and other software systems to achieve optimum utilization of computer hardware; prepares comprehensive documentation of system innovations, methods and procedures.

## INFORMATION SERVICES SPECIALIST II (continued)

3. Provides professional information, training and problem solving assistance through telephone support as well as direct contact with users of specific applications software and automated equipment for which responsibility has been assigned; provides an intermediate level of support to clients and becomes expert in several of these products; maintains a log of problems and the vendor's or staff's actions to resolve problems; provides classroom and one-on-one training for assigned products; assists in developing or develops training curriculum, lesson plans and syllabus, handouts, and visual aids; schedules training, coordinates training facilities and resources with other staff, and conducts surveys and evaluations of training courses provided; compiles and edits procedural manuals for supported products, updating and adding material as research and evaluations dictate; tests and evaluates new and updated products, assessing uniformity and connectivity and comparing against current products; reports findings, detailing the product's relative merits and weaknesses in order to make purchase or selection recommendations to management.
4. Keeps abreast of new developments in the Information Technology field; continues education by attending meetings, training sessions, seminars, and conferences to increase familiarity with and maintain current on Information Technology products, vendors, techniques and procedures applicable to unit activities; attends demonstrations and exhibitions related to assigned operations.
5. Performs other duties as required or assigned which are reasonably within the scope of the duties enumerated above.

### DESIRABLE REQUIREMENTS:

#### Education and Experience

Requires knowledge, skill and mental development equivalent to completion of two years of college with course work in computer science or directly related fields supplemented by one year of related Information Technology experience. Options associated with these positions pertain to the category of assignment. Specific position requirements vary by position within the category of assignment and relate to the position's duties and responsibilities as defined by the agency of employment and as approved by the Director of the Department of Central Management Services or his/her designee.

#### Knowledges, Skills and Abilities

Requires working knowledge of Information Technology concepts and principles, the theories and functions of computer systems, and the principles and techniques of Information Technology documentation.

Requires working knowledge of hardware and software, languages, and procedures to provide assigned technical and analytical services.

Requires working knowledge of office practices and procedures.

Requires elementary knowledge of accounting and statistical theories, methods and practices.

Requires ability to effectively participate in and profit from continuing education, both in a formal and in-service training setting.

Requires ability to gain and maintain effective working relationships with associates, vendors, clients, and others.

Requires ability to analyze data logically and exercise sound judgment in defining and evaluating problems of an operational or procedural nature.

Requires developed oral and written communication skills to present technical information to others with clarity and precision.

INFORMATION SYSTEMS ANALYST I

POSITION CODE: 21165

**DISTINGUISHING FEATURES OF WORK:**

Under general direction, performs difficult and specialized professional work in the Information Technology areas of Applications Services, Systems Services, Client Services, or Multi/Other Information Technology Services; work is non-routine in that general policies or procedures must be adapted or applied and new methods devised to meet frequently changing or new situations; interprets data and/or procedural applications to address problems and situations that are not clearly defined.

Typically, the objectives to be achieved are set forth and the results produced are expected to achieve the objectives within the framework of established policies and procedures. Positions allocated to this class work under indirect supervision in the performance of the majority of duties; decisions made are in accordance with general instructions, established methods and clearly defined precedents, with unusual problems referred to higher-level professionals. A characteristic of Information Systems Analyst I positions is frequent personal contact with individuals outside the immediate work environment and difficult planning and/or scheduling activities to accomplish goals and objectives, which may include coordinating the work of other Information Technology professionals.

**ILLUSTRATIVE EXAMPLES OF WORK:**

1. As a lead programmer for a system or subsystem of average complexity, coordinates the analytical and programming functions required to adapt, convert, or develop applications; provides leadership to several assigned applications programmers in difficult, lengthy, or major projects that utilize advanced programming techniques or support a complex, interrelated system that automates major technical operations within an agency; schedules and monitors assignments to meet overall project time frames; coordinates programming activities with systems analysts and other computer operations staff; directs the preparation, review and revision of program procedures, methods and manuals.
2. Performs professional advisory functions in the analysis and evaluation of specific phases of an agency's operational standards, procedures, and techniques to convert or improve existing systems; interviews and consults with clients concerning desirable changes and performs comprehensive studies and analyses of client needs and objectives; develops generalized and detailed systems designs, definitions, flowcharts, and procedures; develops and applies cross-checks and auditing procedures to assure accuracy and reliable practices; determines and corrects deviations from specifications, and proceeds with program coding, testing and implementation after completing the systems and program design specification; may serve as a project leader of programming staff for moderately difficult system and subsystem project assignments and coordinate program changes with users.

INFORMATION SYSTEMS ANALYST I (continued)

3. As a specialist in a single computer or network system or one aspect of a major and complex system, plans and implements difficult technical interface functions between systems programs and the data processing hardware to determine the most expeditious and effective methods of establishing or revising internal programs and routines; provides second level problem diagnosis for client and system related calls, which may be due to such network components as hubs, routers, switches, network interface cards or operating system packages; assists clients with advanced command language and system problems; serves as liaison with the vendor for software and equipment problem resolutions; designs custom systems software to fulfill unique agency requirements; plans and coordinates system and hardware set-ups, installations, removals, modifications, and security according to agency requirements and Information Technology policy; carries out systems tuning and measurement functions of intermediate scope to improve systems and software performance and to optimize hardware utilization; maintains information logs for equipment locations, client access, software use and other system statistics and prepares comprehensive documentation of system innovations, methods and procedures; researches new developments for sophisticated operating systems to facilitate the evolution from existing technology to the next generation.
4. Provides advanced classroom and one-on-one training on specific products for which responsibility has been assigned; resolves client's difficulties by providing narrative and hands-on instruction in the appropriate use of software and hardware or by serving as a liaison between the client, the Information Technology staff and vendors when immediate assistance and/or information is required for the client to complete a project or task and resolve a problem; provides guidance to lower level professionals engaged in Client Services activities, assisting them in determining appropriate Information Technology resources, and in recognizing errors and identifying possible solutions; coordinates or develops training curriculum, lesson plans and syllabus, training and procedural manuals, handouts, and visual aids; coordinates training courses, facilities and resources with other staff; evaluates and tests software in order to make recommendations to management; conducts surveys and evaluations of services provided.
5. Keeps abreast of new developments in the Information Technology field; continues education by attending meetings, training sessions, seminars, and conferences to increase familiarity with and maintain current on Information Technology products, vendors, techniques and procedures applicable to unit activities; attends demonstrations and exhibitions related to assigned operations.
6. Performs other duties as required or assigned which are reasonably within the scope of the duties enumerated above.

## INFORMATION SYSTEMS ANALYST I (continued)

### DESIRABLE REQUIREMENTS:

#### Education and Experience

Requires knowledge, skill and mental development equivalent to four years of college with course work in computer science or directly related fields. Options associated with these positions pertain to the category of assignment. Specific position requirements vary by position within the category of assignment and relate to the position's duties and responsibilities as defined by the agency of employment and as approved by the Director of the Department of Central Management Services or his/her designee.

#### Knowledges, Skills and Abilities

Requires extensive knowledge of Information Technology concepts and principles, the theories and functions of computer systems, and the principles and techniques of Information Technology documentation.

Requires working knowledge of hardware and software, languages, and procedures to provide assigned technical and analytical services.

Requires working knowledge of the methods, procedures and techniques of conducting feasibility studies for system conversions and enhancements.

Requires ability to effectively participate in and profit from continuing education, both in a formal and in-service training setting.

Requires ability to analyze data logically and exercise sound judgment in defining and evaluating problems of an operational or procedural nature.

Requires ability to gain and maintain effective working relationships with associates, vendors, clients, and others.

Requires ability to coordinate the activities of work associates to achieve desired results.

Requires developed oral and written communication skills to present technical information to others with clarity and precision.

INFORMATION SYSTEMS ANALYST II

POSITION CODE: 21166

**DISTINGUISHING FEATURES OF WORK:**

Under administrative direction, performs complex professional and advisory functions in Applications Services, System Services, Client Services, or Multi/Other Information Technology Services, exercising substantial creativity and originality to reach the final objective; may serve in a team leadership capacity, providing advice and guidance to equivalent or lower level professionals to coordinate complex projects.

At this level, work requires substantial knowledge of complete systems and the agency's functions in order to develop techniques, formulate concepts and procedures, and devise solutions to unique issues that will achieve administrative and operational objectives; decision-making authority is within broad limitations of policies and accepted standards. The incumbent assumes direct accountability for work products, establishes procedures and standards of performance for the project, and independently resolves associated problems except where policy interpretation, approval or establishment is required. Positions allocated to this class have extensive personal contacts with individuals outside the immediate work environment; such consultative contacts are frequently with individuals in administrative or executive positions and require judgment and highly developed communication and presentation skills to obtain cooperation or approval of actions to be taken.

**ILLUSTRATIVE EXAMPLES OF WORK:**

1. Conducts and coordinates in-depth studies involving substantial technical research and systems analysis of agency administrative functions; provides agency management with high level technical assistance in the development, analysis, interpretation, evaluation, modification, and installation of comprehensive information systems for several divisions in a large State agency; assists in interfacing management needs with information technology; determines and advises on applicable analysis techniques; devises or directs the development of supporting policies, methods, procedures and forms to implement programs and improve various systems; provides top management with special one time reports and system studies of operations to assist them in making program and policy decisions.
2. Reviews existing systems to evaluate the advantages of new hardware and software technology implementation; develops and recommends new procedures and techniques to improve the effectiveness of applications systems; coordinates the activities of other Information Technology professionals in the development of system and program flow charts, program specifications, audit trails, edits, and control procedures; reviews and participates in the development and coding of applications programs and systems for major and complex projects, including testing and documenting application programs, composing procedure manuals, and developing run procedure requirements for application programs.

## INFORMATION SYSTEMS ANALYST II (continued)

3. Develops and implements complex technical software and hardware interface functions to achieve the most expeditious and effective methods in establishing or revising internal programs and routines associated with a very large and complex computer or network system; performs large scale system generation or implementation of vendor supplied software; designs and implements complex custom software to fulfill unique agency requirements in sophisticated endeavors; performs extensive maintenance of large systems, system tuning and measuring; establishes, installs and/or assists in administering large and complex network systems; assures system connectivity and security; coordinates applied research projects of software development for complex operating systems to facilitate the evolution from existing technology to the next generation of systems; provides software program consultative services; prepares comprehensive documentation of system innovations.
4. Develops and maintains a broad knowledge of all products supported and keeps abreast of new Client Services developments; assists in the planning and execution of training programs and subject matter seminars in professional areas of the information technology field or provides and coordinates advanced training in all products supported by the Client Services unit; provides complex technical and analytical support to clients, such as those developing large scale projects using data base management systems; reviews client requirements, identifies and resolves complex problems or refers requests to the appropriate Information Technology area; evaluates, tests, and authoritatively recommends acquisition or rejection of products, subject to management approval.
5. As a designated team leader, provides work leadership, guidance, training and direction to Information Systems Analyst I and lower level professional staff; assists the supervisor in the control and projected use of resources; makes day-to-day decisions on unit assignments; submits monthly status reports to supervisor.
6. Keeps abreast of new developments in the Information Technology field; continues education by attending meetings, training sessions, seminars, and conferences to increase familiarity with and maintain current on Information Technology products, vendors, techniques and procedures applicable to unit activities; attends demonstrations and exhibitions related to assigned operations.
7. Performs other duties as required or assigned which are reasonably within the scope of the duties enumerated above.

### DESIRABLE REQUIREMENTS:

#### Education and Experience

Requires knowledge, skill and mental development equivalent to four years of college with course work in computer science or directly related fields, supplemented by three years of professional experience in a related Information Technology field. Options associated with these positions pertain to the category of assignment. Specific position requirements vary by position within the category of assignment and relate to the position's duties and responsibilities as defined by the agency of employment and as approved by the Director of the Department of Central Management Services or his/her designee.

INFORMATION SYSTEMS ANALYST II (continued)

Knowledges, Skills and Abilities

Requires extensive knowledge of Information Technology concepts and principles, the theories and functions of computer systems, and the principles and techniques of Information Technology documentation.

Requires extensive knowledge of hardware and software, languages, and procedures to provide assigned technical and analytical services.

Requires extensive knowledge of the methods, procedures and techniques of conducting feasibility studies for system conversions and enhancements.

Requires ability to effectively participate in and profit from continuing education, both in a formal and in-service training setting.

Requires ability to analyze data logically and exercise sound judgment in defining, evaluating, and solving difficult administrative, organizational, technical, or operational problems where solutions may be of a precedent-establishing or research nature.

Requires ability to gain and maintain effective working relationships with agency officials, associates, vendors, clients, and others.

Requires ability to coordinate the activities of work associates to achieve desired results.

Requires ability to plan and recommend training requirements that are necessary for effective performance.

Requires developed oral and written communication skills to present technical information to others with clarity and precision.

INFORMATION SYSTEMS ANALYST III

POSITION CODE: 21167

**DISTINGUISHING FEATURES OF WORK:**

Under administrative direction, performs highly complex professional and advisory functions in Applications Services, System Services, Client Services, or Multi/Other Information Technology Services; serves as a highly advanced specialist in planning, implementing, and coordinating database administration, complex and sophisticated interface functions between systems programs and data processing hardware, and similar functions of major scope and impact; serves as a project leader providing advice and guidance to equivalent or lower level professionals for highly complex assignments; or, may serve as a staff assistant to a principal manager of an agency's Information Technology program; provides advice and guidance in highly complex program aspects that require extensive technical research and systems analysis but do not entail full line supervisory, managerial, or confidential labor relations responsibilities.

At this level, work requires advanced knowledge of complete systems and the agency's functions; decision-making authority is within broad limitations of policies and accepted standards. The incumbent sets up procedures and standards of performance for the work, is free to exercise independent judgment, and thus to determine the best means to employ to accomplish the overall goals of the assignment; substantial creativity and originality are required to reach the final objective. Due to the scope and magnitude of assignments, positions allocated at this level are characteristically located only within the agency's central Information Technology organization.

**ILLUSTRATIVE EXAMPLES OF WORK:**

1. Evaluates new technology to anticipate the probable impact on future plans and current information systems; facilitates the evolution to the next generation of computer systems by coordinating applied research projects of hardware and software developments for use in highly complex and sophisticated operating systems; assures the accuracy, security, and accessibility of the agency's data; provides consultation and technical assistance to agency management regarding information systems plans, disaster recovery procedures, and/or security systems; evaluates complex requests for Information Technology equipment on the basis of completeness, feasibility, cost, and compliance with State policies and procedures; recommends approval or rejection of requests, as appropriate; prepares associated comprehensive documentation.
2. Coordinates in-depth management studies involving extensive technical research and systems analysis of agency administrative functions that are of major scope and impact; provides agency management with highly advanced technical assistance in the development, analysis, interpretation, evaluation, modification, and installation of comprehensive management information systems; assists in interfacing management needs with information technology; determines and advises on applicable management analysis techniques; devises or directs the development of supporting policies, methods, procedures and forms to implement programs and improve various systems; provides top management with special one time reports and system studies of management operations to assist them in making program and policy decisions; participates in coding, testing and debugging applications programs and similar activities as required or assigned.

### INFORMATION SYSTEMS ANALYST III (continued)

3. Provides work leadership, guidance, training and direction to Information Systems Analyst II and lower level professional staff; recommends and coordinates service program and/or systems development schedules and plans; assists the Information Technology manager in the control and projected use of resources; makes day-to-day decisions on program assignments; submits monthly status reports to the manager.
4. Keeps abreast of new developments in the Information Technology field; continues education by attending meetings, training sessions, seminars, and conferences to increase familiarity with and maintain current on Information Technology products, vendors, techniques and procedures applicable to unit activities; attends demonstrations and exhibitions related to assigned operations.
5. Performs other duties as required or assigned which are reasonably within the scope of the duties enumerated above.

### DESIRABLE REQUIREMENTS:

#### Education and Experience

Requires knowledge, skill and mental development equivalent to four years of college with course work in computer science or directly related fields, and five years of professional experience in a related Information Technology field. Options associated with these positions pertain to the category of assignment. Specific position requirements vary by position within the category of assignment and relate to the position's duties and responsibilities as defined by the agency of employment and as approved by the Director of the Department of Central Management Services or his/her designee.

#### Knowledges, Skills and Abilities

Requires thorough knowledge of Information Technology concepts and principles, the theories and functions of computer systems, and the principles and techniques of Information Technology documentation.

Requires thorough knowledge of project management, leadership, coordination, and consultative techniques.

Requires thorough knowledge of hardware and software, languages, and procedures to provide assigned technical and analytical services.

Requires thorough knowledge of the methods, procedures and techniques of conducting feasibility studies for system conversions and enhancements.

Requires ability to effectively participate in and profit from continuing education, both in a formal and in-service training setting.

Requires ability to analyze data logically and exercise sound judgment in defining, evaluating, and solving difficult administrative, organizational, technical, or operational problems where solutions may be of a precedent-establishing or advanced applied research nature.

Requires ability to gain and maintain effective working relationships with agency officials, associates, vendors, clients, and others both within and outside of the agency.

Requires ability to coordinate the activities of work associates to achieve desired results.

Requires ability to plan and recommend training requirements that are necessary for effective performance.

Requires developed oral and written communication skills to present technical information to others with clarity and precision.