

INFORMATION TECHNOLOGY AIDE

Duties and Responsibilities

This class of positions encompasses the operation of computer consoles, networks, computer peripheral devices, providing users with service desk and/or desk top support, and supervisory activities in those areas. There are two Assignment Levels within this class of positions. All Information Technology Computer Aides perform related work.

Assignment Level I

Under supervision, with some latitude for independent initiative and judgment, performs the Information Technology functions and/or may supervise personnel performing routine functions in the areas described under Examples of Typical Tasks below.

Assignment Level II

Under supervision, with considerable latitude for independent initiative and judgment, supervises a group of subordinate employees performing one or more of the functions in the areas described under Examples of Typical Tasks below and/or performs more complex assignments in those areas:

Examples of Typical Tasks

Operates an electronic computer.

Operates the peripheral equipment attached or communicating with an electronic computer.

INFORMATION TECHNOLOGY AIDE (continued)

Examples of Typical Tasks(continued)

Observes and controls the operation of computer equipment, including computer output microfilm equipment, checks indicators and determines proper functioning of equipment.

Maintains logs of computer use and produces reports on production and machine utilization.

Performs related functions required for the continued and efficient operation of a computer.

Qualification Requirements

1. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization; and **(a)** six months of full-time mainframe, mini-computer or LAN/WAN computer operations experience or service desk/desk top support experience acquired in the past year and three months; or **(b)** graduation from an approved technical school (approximately 675 hours) with a specialization in mainframe/mini-computer operations and/or technical support acquired in the past five years and three months; or **(c)** currently valid A+ or Network+ certification; or
2. An associate degree or 60 semester credits from an accredited college including or supplemented by 12 semester credits in computer technology; or
3. Education and/or experience equivalent to "1" or "2" above. Undergraduate college credit can be substituted for experience on the basis of 30 semester credits, from an accredited college, including or supplemented by six semester credits in computer technology for three months of experience. However, all candidates must have a four-year high school diploma.

INFORMATION TECHNOLOGY AIDE (continued)

NOTE:

Probationary Period

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class

INFORMATION TECHNOLOGY PROGRAMMER ANALYST

Duties and Responsibilities

This class of positions encompasses supervisory work at various levels of responsibility and performing profession information technology work at various levels of complexity in the programming, design, development, implementation, maintenance, and enhancement of information technology, including computer applications, database management systems, operating systems, and data communication systems. There are three assignment levels in this title. Incumbents perform related work and may perform the duties and responsibilities of lower Assignment Levels. Following are typical assignments within this class of positions.

Assignment Level I (See Note on Maturation below)

Under direct or immediate supervision, with little latitude for independent or unreviewed action or decision, is trained in and performs beginning level professional work for the purpose of acquiring knowledge, skill and competence in the programming, analysis, design, development, implementation, maintenance, and enhancement of information technology applications and systems. This is a trainee level with a maximum tenure of eighteen months. Performs tasks such as the following:

Examples of Typical Tasks:

Receives a course of training in, performs entry level work in and assists in the review and analysis of detailed computer specifications, preparation of program instructions, preparation of block diagrams, preparing test data and testing and debugging programs, preparation of the documentation of the program for the computer operators and set-up staff, and codes program instructions.

INFORMATION TECHNOLOGY PROGRAMMER ANALYST (continued)

Assignment Level II

Under general supervision with some latitude for independent or unreviewed action or decision, performs and may supervise work of ordinary difficulty and responsibility in the programming, design, development, implementation, maintenance, and enhancement of information technology applications and systems. Performs tasks such as the following:

Example of Typical Tasks:

Codes program instructions; assists in surveys and feasibility studies; documents computer systems and programs; assists in writing procedure manuals; meets with users of computer services, explaining the procedures and standards required; assists in the preparation, review, and analysis of detailed computer systems specifications; modifies existing programs to accommodate changing needs.

Assists in supervising a unit or group of subordinate employees engaged in the above tasks.

Assignment Level III

Under general direction and with wide latitude for the exercise of independent initiative and judgment, performs the tasks of Assignment Level II at a more complex and responsible level in the programming, design, development, implementation, maintenance, and enhancement of information technology applications and systems.

Supervises an assigned unit or group engaged in the above tasks.

INFORMATION TECHNOLOGY PROGRAMMER ANALYST (continued)

Qualification Requirements

For Assignment Level I

1. An associate degree or completion of 60 credits at an accredited college including at least 12 credits in computer science and/or data processing; or
2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and 6 months (approximately 650 hours) of computer training at an accredited private trade or technical school; or
3. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and one year of full-time experience of which at least 6 months shall be in computer programming.
4. A satisfactory combination of education and experience equivalent to "1", "2" or "3" above. However, all candidates must have at least the four-year high school diploma.

Requirements to be Appointed Directly to Assignment Level II or III

1. A baccalaureate degree from an accredited college, including or supplemented by twenty-four (24) semester credits in computer science or a related computer field; or
2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and three years of satisfactory full-time computer programming experience; or

3. A satisfactory combination of education and experience equivalent to "1" or "2" above. College education may be substituted for up to two years of the required experience in "2" above on the basis that sixty (60) semester credits from an accredited college is equated to one year of experience. In addition, twenty-four (24) credits from an accredited college or graduate school in computer science or a related computer field, or a certificate of at least 625 hours in computer programming from an accredited technical school (post high school), may be substituted for one year of experience. However, all candidates must have at least the four-year high school diploma.

NOTES:

I. Maturation

After the satisfactory completion of one year of training and service at Assignment Level I, incumbents will mature to Information Technology Programmer Analyst, Assignment Level II.

II. Probationary Period

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

COMPUTER TECHNICAL SUPPORT ASSOCIATE

Duties and Responsibilities

This class of positions encompasses work, at various levels of responsibility in information technology (IT) support work of various levels of complexity, in the direction of technical support activities for legacy and current IT environments in the areas of Data Entry, Production Control and Tape Library and/or in being responsible for and performing difficult and complex technical support activities. There are three Assignment Levels within this class of positions. Computer Technical Support Associates perform related work and, when necessary, perform the duties of lower titles and Assignment Levels.

Assignment Level I

Under general supervision, with very considerable latitude for independent initiative and judgment, directs and supervises subordinate employees in any of the areas of Data Entry, Production Control, and Tape Library or performs difficult technical support activities such as the following:

Examples of Typical Tasks

Performs document control; corrects error transactions; prepares error reports for keying into batch transaction; checks reports for system and substantial errors, and interfaces with users regarding transaction processing.

Plans, implements and monitors the computer process to ensure that user personnel obtain feedback regarding errors and error correction; suggests improvements.

Analyzes operational documentation to ensure that all required resources are available, so that specific jobs and job streams can be run successfully.

COMPUTER TECHNICAL SUPPORT ASSOCIATE (continued)

Assignment Level I (continued)

Examples of Typical Tasks (continued)

Sets up jobs to be executed; diagnoses abnormally ending jobs; corrects and re-submits jobs or consults with programmers and/or users.

Monitors and modifies computer control language and corrects errors.

Verifies output for quality, quantity and distribution.

Maintains logs; prepares reports documenting jobs run, system/paper use, outputs and tracking of problems.

Pulls tapes and/or cartridges for production jobs; maintains tape management system.

In the temporary absence of the supervisor, may perform the duties of that position.

Assignment Level II

Under direction, with great latitude for independent initiative and judgment, directs and supervises the activities of a unit or group of subordinate employees in any of the areas of Data Entry, Production Control, and Tape Library or performs more difficult and complex technical support activities than those described in Assignment Level I above.

COMPUTER TECHNICAL SUPPORT ASSOCIATE (continued)

Assignment Level III

Under general direction, with very great latitude for independent initiative and judgment, directs and supervises more than one unit or group of subordinate employees, or is responsible for and performs technical support work of extraordinary difficulty and complexity in the area of Data Entry, Production Control, and Tape Library. In the temporary absence of the supervisor, may perform the duties of that position.

Qualification Requirements

1. A baccalaureate degree from an accredited college and two years of satisfactory full-time experience, acquired since April 7, 1997, in mainframe computer, mid-range computer and/or LAN/WAN computer environments in the areas of data entry, production control or tape library; or
2. An associate degree from an accredited college, or completion of 60 semester credits from an accredited college, and three years of satisfactory full-time experience, as described in "1" above; or
3. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and four years of satisfactory full-time experience, as described in "1" above; or

COMPUTER TECHNICAL SUPPORT ASSOCIATE (continued)

Qualification Requirements (continued)

4. A satisfactory combination of education and/or experience equivalent to "1", "2", or "3" above. Undergraduate college credit can be substituted for experience on the basis that 30 semester credits from an accredited college is equivalent to 6 months of experience. However, all candidates must have a four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization **and at least** two years of satisfactory full-time mainframe computer, mid-range computer, and/or LAN/WAN computer experience, acquired since April 7, 1997, in the areas of Data Entry, Production Control or Tape Library.

NOTE:

Probationary Period

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

COMPUTER OPERATIONS ASSOCIATE

Duties and Responsibilities

This class of positions encompasses supervisory work at various levels of responsibility and performing profession information technology operations work at various levels of complexity. Supervises units of personnel operating computer consoles and computer peripheral devices and/or serves as a technical resource person in the monitoring, troubleshooting, diagnosis, and problem resolution of mainframe computer operations or data communication. There are three Assignment Levels within this class of positions. The following are typical assignments within this class of positions. Computer Operations Associates perform related work.

Assignment Level I

Under general supervision, with considerable latitude for independent initiative and judgment: supervises the activities of subordinates in one or more computer operations unit of considerable size; serves as a technical resource person in the performance of mainframe computer operations and/or in the diagnosis of and, when feasible, the correction of telecommunications hardware problems in order to maintain efficient functioning of telecommunication operations and to minimize downtime in the case of system failure.

Assignment Level II

Under direction, in addition to performing the duties described above with great latitude for independent initiative and judgment: supervises a large mainframe computer operations environment; is responsible for performing very difficult and complex console and peripheral equipment operations; and/or serves as a technical resource person in a complex mainframe computer operations environment which may include multiple mainframes and a large data communications network or in a complex computer environment which includes a large communications network. In addition, performs tasks such as the following:

COMPUTER OPERATIONS ASSOCIATE (continued)

Assignment Level II (continued)

Examples of Typical Tasks

Schedules production and assists in the solution of operational and scheduling problems.

Establishes and ensures adherence to uniform performance standards and efficient methods of work.

Trains, instructs, and schedules computer operations personnel.

Assignment Level III

Under general direction, in addition to performing the duties described above with very great latitude for independent initiative and judgment: supervises a large and complex mainframe computer operations environment; is responsible for performing extremely difficult and complex console and peripheral equipment operations; and/or serves as a technical resource person in a highly complex computer operations environment which typically includes multiple mainframe computers and a large data communications network, or in a highly complex computer environment which includes a large communications network. In addition, performs tasks such as the following:

Examples of Typical Tasks

Performs functions required for the continued effective operation of the computer.

Performs administrative work related to the operation of the mainframe installation.

Plans, assigns, and reviews the work of subordinates and is generally responsible for the satisfactory completion of the work performed.

COMPUTER OPERATIONS ASSOCIATE (continued)

Qualification Requirements

1. A certificate from an accredited technical school (approximately 675 hours) with a specialization in computer operations, and two years of satisfactory full-time experience, acquired within the last eight years, working on large-scale mainframe computer operations or mainframe data communication networks;
or
2. A baccalaureate degree from an accredited college and three years of satisfactory full-time experience, acquired within the last eight years, as described in "1" above; or
3. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and four years of satisfactory full-time experience, acquired within the last eight years, as described in "1" above; or
4. A satisfactory combination of education and/or experience equivalent to "1", "2", or "3" above. However, all candidates must have at least the high school diploma and two years of full-time experience, acquired within the last eight years, as described in "1" above.

NOTE: Probationary Period

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

COMPUTER OPERATIONS SPECIALIST

General Statement of Duties and Responsibilities

Under supervision, with considerable latitude for independent action and the exercise of independent judgment, is responsible for providing management with state-of-the art technical assistance in all aspects of Information Technology (IT) operations. Provides supervision of and/or senior staff support to computer operations for a large-scale, multi-programmed mainframe computer environment, or in the conduct of similar duties for a large network of distributed minicomputer and microcomputer systems. When necessary, performs the work of subordinates. In the temporary absence of the supervisor, performs the work of that position. Performs related work.

Examples of Typical Tasks

Researches, tests and recommends the purchase of computer equipment and associated requisite software products necessary to maintain or enhance the data center's operations environment.

Provides management with data processing hardware technical expertise in the planning of modifications to the existing facility and identification of new or back-up sites.

Coordinates high-level technical responses to difficult operational issues to resolve user-related problems.

Coordinates production and solves operational and schedules problems.

Provides diagnosis and remedies to complex problems involving systems, operations and data telecommunications equipment and/or software.

Supervises staff that operate computer consoles in a multiple mainframe or large mini- and/or microcomputer environment.

COMPUTER OPERATIONS SPECIALIST (continued)

Examples of Typical Tasks (continued)

Establishes and maintains uniform performance standards and efficient methods of work.

Trains, instructs, and schedules senior computer operations personnel.

Conducts cost-benefit and other analyses to quantify recommendations to management.

Maintains a data security and internal control environment adequate to protect agency assets and records.

Plans, assigns, and reviews the work of senior operations staff and assumes general responsibility for the satisfactory completion of work performed.

In a large data processing facility, supervises one or more groups or project teams engaged in the installation, maintenance or enhancement of data processing equipment and software.

Conducts complex internal consultancy projects requiring an in-depth knowledge of computer equipment, operating systems, and job control languages.

Qualification Requirements

1. A baccalaureate degree from an accredited college and four years of satisfactory, full-time large-scale mainframe computer operations or four years of satisfactory data communications network experience in a mainframe environment, gained since June 1966, one year of which must have been in a project leader capacity or as a major contributor on a complex project; or

COMPUTER OPERATIONS SPECIALIST (continued)

Qualification Requirements (continued)

2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and five years of satisfactory, full-time experience as described in "1" above, one year of which must have been in a project leader capacity or as a major contributor on a complex project; or
3. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization plus a certificate from an accredited technical school (approximately 675 hours) with a specialization in computer operations and three years of satisfactory, full-time experience as described in "1" above, one year of which must have been in a project leader capacity or as a major contributor on a complex project; or
4. A satisfactory combination of education and/or its educational equivalent to "1", "2", or "3" above. However, all candidates must have at least a four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and three years of satisfactory, full-time large-scale mainframe computer operations or three years of satisfactory data communications network experience in a mainframe environment, gained since June 1966, one year of which must have been in a project leader capacity or as a major contributor on a complex project.

NOTE:

Probationary Period: Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

INFORMATION TECHNOLOGY SOFTWARE ASSOCIATE

Duties and Responsibilities

This class of positions encompasses technical or supervisory responsibilities, performed at varying levels of difficulty and with varying degrees of latitude for independent initiative and judgment, in the programming, design, development, testing, implementation, maintenance and enhancement of database management systems, operating systems, data communications and/or computer applications through product lifecycles. Supervises work in the development of computer programs. All Information Technology Software Associates perform related work. There are three Assignment Levels within this class of positions differing according to the complexity and sophistication of the hardware and software systems and the amount of supervision required. The following are typical assignments within this class of positions.

Assignment Level I

Under direct supervision, with moderate latitude for independent action or the exercise of independent initiative and judgment, is responsible for the design, implementation, enhancement and maintenance of either Database Management Systems, Operating Systems, Data Communications Systems, Applications, and/or related software functions and/or supervises staff performing these functions.

Assignment Level II

Under general supervision, with considerable latitude for independent initiative and judgment, may supervise a unit or group of subordinate employees engaged in the design, implementation, enhancement and maintenance of either Database Management Systems, Operating Systems, Data Communications Systems, Applications and/or related software functions and/or performs work of complex, technical difficulty as an individual contributor on a major information technology project.

INFORMATION TECHNOLOGY SOFTWARE ASSOCIATE (continued)

Assignment Level III

Under direction, with broad scope for independent initiative and judgment, supervises a large unit, group or division of staff engaged in the design, implementation, enhancement and maintenance of Database Management Systems, Operating Systems, Data Communications Systems, Applications and/or related software functions and/or performs highly complex difficult technical work as an individual contributor on a major information technology project.

Qualification Requirements

1. A baccalaureate degree from an accredited college including or supplemented by 24 semester credits in computer science or a related computer field and one year of satisfactory full-time computer software experience in computer systems development and analysis, applications programming, database administration, systems programming or data communications; or
2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and five years of satisfactory full-time computer software experience as described in "1" above; or

INFORMATION TECHNOLOGY SOFTWARE ASSOCIATE (continued)

Qualification Requirements (continued)

3. A satisfactory combination of education and experience that is equivalent to "1" or "2" above. College education may be substituted for up to two years of the required experience in "2" above on the basis that 60 semester credits from an accredited college is equated to one year of experience. In addition, 24 semester credits from an accredited college or graduate school in computer science or a related field, or a certificate of at least 625 hours in computer programming from an accredited technical school (post high school), may be substituted for one year of experience. However, all candidates who qualify under option "3" must have at least a four-year high school diploma or its educational equivalent and at least two years of satisfactory full-time computer software experience as described in "1" above.

NOTE:

Probationary Period:

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

INFORMATION TECHNOLOGY SOFTWARE SPECIALIST

Duties and Responsibilities

This class of positions encompasses highly complex, technical or supervisory responsibilities in the maintenance, design, implementation and enhancement of database management systems, cooperating systems, data communications systems, applications, and analysis of software systems performed under varying degrees of supervision or direction, with varying degrees of latitude for independent initiative and judgment. There are four Assignment Levels within this class of positions differing according to the complexity and sophistication of the hardware and software systems and the amount of supervision required. The following are typical assignments within this class of positions. All Information Technology Software Specialists perform related work and when necessary, perform the duties of lower titles and Assignment Levels.

Assignment Level I

Under supervision, with considerable latitude for independent action or the exercise of independent judgment, is responsible for the design, implementation, enhancement and maintenance of Database Management Systems, Operating Systems, Data Communications Systems, Applications, and/or related software functions. Supervises a unit engaged in work related to the above areas or independently performs related information technology work of a highly complex, technical nature. In the temporary absence of the supervisor, may perform the duties of that position.

INFORMATION TECHNOLOGY SOFTWARE SPECIALIST (continued)

Assignment Level II

Under general supervision, with wide latitude for the exercise of independent initiative and judgment, supervises a unit engaged in systems development work of great difficulty and/or is responsible for the design, implementation, enhancement, and maintenance of Database Management Systems, Operating Systems, Data Communications Systems, Applications and/or related software functions. In a multi-programming computer system, serves as project leader performing complex staff work and the full range of computer systems analysis functions utilizing general software and software systems analysis in highly complex systems development projects, and/or supervises the activities of a number of applications programming units engaged in work of more than ordinary difficulty, complexity and responsibility in a multi-programming electronic computer installation. In the temporary absence of the supervisor, may perform the duties of that position.

Assignment Level III

Under general supervision, with broad scope for the exercise of independent initiative and judgment, is responsible for the design, implementation, enhancement, and maintenance of Database Management Systems, Operating Systems, Data Communications Systems, Applications and/or related software functions. Supervises the units responsible for systems development and applications programming, instructing, directing and checking the work of subordinates, and/or is routinely responsible for the coordination and direction of data processing projects organized to plan and implement complex integrated software development projects in a multi-programming computer system operating in an on-line mode in a communications environment. In the temporary absence of the supervisor, may perform the duties of that position.

INFORMATION TECHNOLOGY SOFTWARE SPECIALIST (continued)

Assignment Level IV (See **Special Note Under Qualification Requirements**)

Under minimum direction, with the broadest scope for the exercise of independent initiative and judgment, holds senior-level technical responsibility for extremely complex and ongoing software functions related to Systems Analysis, Data Administration, Database Management Systems, Operating Systems, Data Communications Systems, On-Line Applications Programming contingency planning, evaluation and selection of telecommunications, local area networks, computer hardware and software products, and quality assurance functions. Routinely serves as in-house expert and authority in the aforementioned extremely complex and highly specialized areas. Coordinates multiple ongoing projects of extraordinary technical complexity, encompassing multiple areas of information processing technology. Directs major undertakings that run in a large multi-mainframe data center, and/or an environment of distributed processing systems combining numerous types of hardware and software. Supervises a unit or units engaged in work related to the aforementioned complex software functions. In the temporary absence of the supervisor, may perform the duties of that position.

Qualification Requirements

1. A baccalaureate degree from an accredited college, including or supplemented by twenty-four (24) semester credits in computer science or a related computer field and two (2) years of satisfactory full-time software experience in designing, programming, debugging, maintaining, implementing, and enhancing computer software applications, systems programming, systems analysis and design, data communications software, or database design and programming, including one year in a project leader capacity or as a major contributor on a complex project; or

INFORMATION TECHNOLOGY SOFTWARE SPECIALIST (continued)

Qualification Requirements (continued)

2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and six (6) years of full-time satisfactory software experience as described in "1" above, including one year in a project leader capacity or as a major contributor on a complex project; or
3. A satisfactory combination of education and experience that is equivalent to "1" or "2" above. College education may be substituted for up to two years of the required experience in "2" above on the basis that sixty (60) semester credits from an accredited college is equated to one year of experience. A master's degree in computer science or a related computer field may be substituted for one year of the required experience in "1" or "2" above. However, all candidates must have a four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization, plus at least one year of satisfactory full-time software experience in a project leader capacity or as a major contributor on a complex project.

For Appointment to Assignment Level IV

To be eligible for placement in Assignment Level IV, in addition to the Qualification Requirements stated above, individuals must have one year of satisfactory experience in a project leader capacity or as a major contributor on a complex project in data administration, database management systems, operating systems, data communications systems, capacity planning, and/or on-line applications programming.

INFORMATION TECHNOLOGY SOFTWARE SPECIALIST (continued)

Note:

Probationary Period

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

INFORMATION TECHNOLOGY OPERATIONS MANAGER

Duties and Responsibilities

This is a management class of positions consisting of assignments under various levels of managerial or executive direction, with varying degrees of latitude for independent initiative, judgment and decision-making. Performs complex and responsible managerial work managing and directing information technology (IT) work, the operation and maintenance of computer or related data/telecommunications equipment and/or an IT unit within a large agency. In the absence of the supervisor, performs the duties of the supervisor. All personnel perform related work. The following are typical assignments within this class of positions:

Examples of Typical Assignments

Under general supervision, manages the operation and maintenance of computer or related data/telecommunications equipment in an IT unit, utilizing in-depth knowledge of computer or telecommunications equipment, operating systems, job control language; may perform supervisory duties, including scheduling of work and personnel, training and instructing subordinates, reviewing and auditing computer output accuracy. Coordinates unit activities with other agency units.

Under administrative direction, plans, organizes and controls the operation of complex IT units, utilizing managerial techniques and state-of-the-art knowledge of Information Technology and telecommunications equipment and services; performs managerial duties, including making hardware acquisition recommendations, setting standards, establishing procedures, overseeing the acquisition of supplies and equipment, scheduling installation and deinstallation of computer hardware, establishing security systems, overseeing the acquisition and maintenance of support equipment, contracting for and administration of equipment and software contracts; is responsible for and supplies technical support with the hardware and operating and systems software required by a major IT operation.

Under executive direction, plans, organizes and controls the operation of a medium size data/telecommunications installation; or in an agency having an installation or network of sufficient size, complexity and/or volume, serves as principal assistant or deputy to the IT Manager or Director.

INFORMATION TECHNOLOGY OPERATIONS MANAGER (continued)

Duties and Responsibilities (continued)

Under executive direction, plans, organizes and controls the operation of a medium size data/telecommunications installation; or in an agency having an installation or network of sufficient size, complexity and/or volume, serves as principal assistant or deputy to the IT Manager or Director.

Under executive direction, as the IT Manager or Director for an agency, plans, organizes, controls, and formulates overall policy for a large size data processing activity; supervises subordinates responsible for IT operations; handles major personnel, administrative and IT problems.

Qualification Requirements

1. Six years of progressively responsible full-time paid experience supervising or administering IT operations involving a large-scale third generation computer at least 18 months of which shall have been in an administrative or managerial capacity.
2. A baccalaureate degree from an accredited college, may be substituted for the general experience described above (but not for the 18 months of managerial experience described above) at the rate of one year of college for 6 months of experience up to a maximum of 4 years college for 2 years of experience. In addition, a Master of Business Administration, Master of Public Administration or any other Master's Degree in Management or Administration may be substituted for an additional year of general work experience. However, all candidates must possess the 18 months of administrative or managerial experience described above.

NOTE: Probationary Period: Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

INFORMATION TECHNOLOGY SYSTEMS MANAGER

Duties and Responsibilities

This is a management class of positions consisting of assignments under various levels of managerial or executive direction, with varying degrees of latitude for independent initiative, judgment and decision-making. These positions have a high degree of administrative responsibility over all or a significant portion of an agency's Information Technology (IT) program and significant policy input and program impact at an agency-wide level. Has direct control over the resources necessary to manage an IT program using information technology in computer applications programming, systems programming, computer systems development, data telecommunications, data base administration, planning of data/information processing, user services, or area networks, including responsibility for staff, budgeting, and procurement. May be responsible for the development of complex computer systems. Assumes the duties of the supervisor in his/her absence. All Information Technology Systems Managers perform related work. The following are typical assignments within this class of positions.

Examples of Typical Assignments

Under varying levels of managerial or executive direction, with varying degrees of latitude for independent initiative, judgment and decision, performs difficult and responsible professional managerial work in the planning, organizing and controlling of the overall activities of a major IT facility/activity.

In an agency having IT activity of sufficient size, complexity, and/or volume, serves as principal assistant to the IT manager. Manages the day-to-day activities of a large computer operation, serving as head of IT or as head of a unit responsible for one or more major operating functions.

INFORMATION TECHNOLOGY SYSTEMS MANAGER (continued)

Examples of Typical Assignments (continued)

Serves as immediate deputy to the head of a very large IT operation. Heads the entire operation of a very large IT program overseeing all components of the program.

Qualification Requirements

1. A master's degree in computer science from an accredited college and three years of progressively more responsible, full-time, satisfactory experience using information technology in computer applications programming, systems programming, computer systems development, data telecommunications, database administration, planning of data/information processing, user services, or area networks at least 18 months of this experience must have been in an administrative, managerial or executive capacity in the areas of computer applications programming, systems programming, computer systems development, data telecommunications, data base administration, or planning of data processing or in the supervision of staff performing these duties; or
2. A baccalaureate degree from an accredited college and four years of experience as described in "1" above; or
3. A four-year high school diploma or its educational equivalent approved by a state's department of education or recognized accrediting organization and six years of experience as described in "1" above; or
4. A satisfactory combination of education and experience equivalent to "1", "2" or "3" above. However, all candidates must have at least a four-year high school diploma or its educational equivalent approved by a state's department of education or recognized accrediting organization and must possess at least three years of experience as described in "1" above, including the 18 months of administrative, managerial, executive or supervisory experience as described in "1" above.

INFORMATION TECHNOLOGY SYSTEMS MANAGER (continued)

NOTES:

1. The following types of experience are not acceptable: superficial use of preprogrammed software without complex programming, design, implementation or management of the product; use of word processing packages; use of a hand held calculator; primarily the entering or updating of data in a system; the operation of data processing hardware or consoles.

2. **Probationary Period**

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

SERVICE TECHNICIAN - COMPUTERS

General Statement of Duties and Responsibilities

This class of positions encompasses the performance of routine service functions in maintaining, troubleshooting, and repairing computers, computer peripheral equipment and/or networking technology equipment (including computer terminal consoles, minicomputer and microcomputer systems, central processing units, monitors, disk drives, remote video display terminals, line printers, etc.); as well as supervising personnel performing routine repair/maintenance functions in order to maintain efficient functioning of computer operations and minimize down-time in the case of system failure; operates a motor vehicle in the performance of these functions in field locations. In the temporary absence of the supervisor, may perform the duties of that position. Performs related work. There are two Assignment Levels within this class of positions.

Assignment Level I

Under supervision, with some latitude for independent initiative and judgment, performs routine service functions in maintaining, troubleshooting, repairing or replacing computer component parts in central offices, shops and field locations; assists in complex troubleshooting and repair activities. Performs tasks such as the following:

Examples of Typical Tasks

Determines causes of computer malfunctions by observation and by use of diagnostic diskettes. Replaces faulty computer equipment and/or component parts, such as, adaptor cards, system boards and other printed circuit boards; repairs mechanical and electro-mechanical components, such as, printed circuit boards, switches, speed of disk drives, etc. Uses state-of-the-art test instruments and equipment.

Prepares and completes service repair forms at field locations recording work done and parts replaced or repaired.

SERVICE TECHNICIAN - COMPUTERS (continued)

Assignment Level II

Under supervision, with latitude for independent initiative and judgment, performs complex service functions in maintaining, troubleshooting, repairing or replacing computer components. In addition to performing the work of Assignment Level I, performs tasks such as the following:

Examples of Typical Tasks

Troubleshoots, repairs and/or replaces: solid state devices, including equivalent substitutions of semiconductor components; DC power switching supplies; video monitors and associated circuitry; servo motors and feedback loops; electromechanical devices; printed circuit boards, including IC circuits of all types; floppy disk drives; serial and parallel printers; and central processing units.

Performs preventive maintenance on computer systems, including remote mainframe terminal equipment and line printers, in central shop or remote locations; transports and installs computer systems and local area network components.

Uses all types of state-of-the-art test instruments normally associate with the equipment or components listed above including emulation equipment, oscilloscopes, and metering equipment.

Differentiates between hardware and software problems and makes recommendations for appropriate software corrections.

Requisitions spare parts; maintains inventory and repair records.

Trains and may supervise Assignment Level I technicians performing routine service functions.

SERVICE TECHNICIAN - COMPUTERS (continued)

Qualification Requirements

1. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and one year of satisfactory, full-time experience in computer maintenance and repair; or
2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and graduation from a certified technical training program in computer maintenance and repair; or
3. A satisfactory combination of education, training, and/or experience equivalent to "1" or "2" above. Experience of the type described in "1" above may be substituted for high school on the basis of one year of experience for each year of high school. However, all candidates must have either one year of the type of experience described in "1" above, or graduation from a certified technical training program as described in "2" above.

License Requirement

A Motor Vehicle Driver License valid in the State of New York. Employees must maintain the license for the duration of their employment. This requirement may be waived by the agency for certain assignments.

NOTE: Probationary Period: Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

SUPERVISING SERVICE TECHNICIAN - COMPUTERS

General Statement Duties and Responsibilities

Under general supervision, with very considerable latitude for independent initiative and judgment, supervises a computer repair center staffed with Service Technicians - Computers and other support staff and containing equipment, materials, technical data, etc., necessary to maintain, troubleshoot, repair and replace computer and peripheral components and associated software in central offices and field locations and in the computer repair center and/or serves as technical resource person in the diagnosis and correction of computer and peripheral hardware and associated software problems in order to maintain efficient function of minicomputer and microcomputer operations and to minimize downtime in the case of system failure. May drive a motor vehicle in the normal course of daily assignments. Performs related work.

Examples of Typical Tasks

Supervises Service Technicians - Computers responsible for maintaining, troubleshooting, replacing and repairing computer parts and components in field locations and in a computer repair center; plans and assigns work; tests and examines completed work to ensure satisfactory work output.

Provides technical supervision and serves as technical resource person in the diagnosis and correction of computer and peripheral hardware problems, including failure analysis in a complex computer environment which may include mainframes and a large communications network or local area network.

Performs administrative work relative to the operation of the computer repair center in such activities as computer maintenance and service records, inventory control, purchasing and ordering supplies, budget preparation and control, etc.

SUPERVISING SERVICE TECHNICIAN - COMPUTERS (continued)

Examples of Typical Tasks (continued)

Trains and instructs computer service technicians to upgrade skills, improve work performance and methods, and update technical knowledge.

In the temporary absence of the supervisor, may perform the duties of that position.

Qualification Requirements

1. A four-year high school diploma or its educational equivalent approved a state's department of education or a recognized accrediting organization and either two years of City service as a Service Technician – Computers or four years of satisfactory, full-time experience in computer maintenance and repair, one year of which must have been in the supervision of staff performing computer maintenance and repair; or
2. Education and/or experience equivalent to "1" above. However, all candidates must have the one year of supervisory experience as described in "1" above. Graduation from a certified technical training program in computer maintenance and repair may be substituted for one year of the general experience.

License Requirement

A Motor Vehicle Driver License valid in the State of New York. This requirement can be waived by the agency for certain assignments

NOTE: Probationary Period: Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

COMPUTER ENVIRONMENT MAINTAINER

Duties and Responsibilities

Under general supervision, oversees the maintenance and operation of the environmental control system and physical plant for a computer facility; performs related work.

Examples of Typical Tasks

Installs, inspects, tests, adjusts, repairs and maintains equipment for heating, ventilating, air conditioning (HVAC), fire detection and protection systems.

Supervises HVAC maintenance contractors and staff.

Reviews plans for computer center and may suggest changes in physical layout.

Oversees construction of major projects.

Keeps records, writes reports and requisitions, prepares procurement documents.

Reads blueprints, wiring diagrams and technical manuals.

Qualification Requirements

1. Four (4) years of full-time paid experience at the mechanic level working from blueprints, schematics and technical drawings, performing installation, inspection, troubleshooting, testing, overhaul, repair and maintenance of commercial heating, ventilating and air conditioning systems with a minimum aggregate of 100 tons of refrigeration, within the last ten years; or
2. Not less than three (3) years of experience as described in "1" above, plus training of a relevant nature acquired in an approved trade or vocational high school or community college or Manpower Development and Training Act (MDTA) supported training program to make up the equivalent of four years of acceptable experience. Six months of acceptable experience will be credited for each year of approved trade or vocational school or community college or M.D.T.A. supported training.

COMPUTER ENVIRONMENT MAINTAINER (continued)

Qualification Requirements (continued)

2. Not less than three years of experience as described in "1" above, plus training of a relevant nature acquired in an approved trade or vocational high school or community college or Manpower Development and Training Act (MDTA) supported training program to make up the equivalent of four years of acceptable experience. Six months of acceptable experience will be credited for each year of approved trade or vocational school or community college or M.D.T.A. supported training.

NOTE:

Probationary Period

Appointments to this position are subject to a minimum probationary period of one year.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class

LAN ADMINISTRATOR - CERTIFIED

Duties and Responsibilities

This class of positions encompasses highly technical and supervisory responsibilities performed at varying levels of difficulty and with varying degrees of latitude for independent initiative and judgment, in the management and administration of complex and secure Local Area Networks (LANs), including planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices. Performs related work, including end user support, disaster recovery and Wide Area Network support. When necessary, performs the duties of related lower titles and Assignment Levels. In the temporary absence of the supervisor, may perform the duties of that position. There are four Assignment Levels within this class of positions, differing according to the complexity and sophistication of the network and the amount of supervision required. Following are typical assignments within this class of positions.

Assignment Level I

Under supervision, with latitude for independent action and the exercise of independent judgment, performs assignments such as the following:

Examples of Typical Assignments

Is responsible for planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices.

Supervises a small unit engaged in the above work; serves as the project leader of small network projects; and/or independently performs LAN work of a highly technical nature.

LAN ADMINISTRATOR - CERTIFIED (continued)

Assignment Level II

Under general supervision, with wide latitude for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Supervises a unit engaged in planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices.

Serves as the project leader for complex network projects.

Assignment Level III

Under general direction, with broad scope for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Supervises several LAN units or projects responsible for planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices.

Supervises unit supervisors, project leaders and their subordinates, planning, instructing, directing and checking their work.

LAN ADMINISTRATOR - CERTIFIED (continued)

Assignment Level IV

Under managerial direction, with the broadest scope for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Holds senior-level technical responsibility for an extremely complex or several large and complex LANs.

Routinely serves as in-house expert and authority regarding extremely complex and highly specialized LANs and connectivity issues.

Coordinates multiple projects of highly technical complexity.

Supervise a unit or units engaged in work related to complex LANs.

Qualification Requirements

Professional/vendor certification(s) in local area network administration that is required for the position to be filled [see **APPENDIX** for list of acceptable certificates]. In addition, all candidates must have the following:

1. A baccalaureate degree from an accredited college, and two years of satisfactory full-time (not classroom based) experience in local area network planning, design, configuration, installation, troubleshooting, integration, performance monitoring, maintenance, enhancement, and security management; or

LAN ADMINISTRATOR - CERTIFIED (continued)

Qualification Requirements (continued)

2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and six years of satisfactory full-time (not classroom based) information technology experience of which at least 2 years must have been as described in "1" above;
or
3. A master's degree in computer science or a related field from an accredited college may substitute for one year of experience. However, all candidates must have at least one year of satisfactory (not classroom based) full-time information technology experience as described in "1" above.

Notes:

1. In addition to meeting the minimum Qualification Requirements:
Incumbents may be required to update existing and/or obtain additional professional industry-standard certification(s) for current and future technical environment(s) in which they may be assigned to work, as determined by the employing agency.
2. **Probationary Period:**
Appointments to this position are subject to a minimum probationary period of one year.

Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

LAN ADMINISTRATOR - CERTIFIED (continued)

APPENDIX:

NYC ACCEPTABLE VENDOR/PROFESSIONAL CERTIFICATES

for LAN Administrator – Certified, Title Code # xxxxx

To Qualify for Appointments and Assignments after November 27, 2007:

1. Blue Coat Certified Proxy Administrator (BCCPA)
2. Blue Coat Certified Proxy Professional (BCCPP)
3. Brocade Certified Fabric Professional
4. Brocade Certified SAN Manager (BCSM) (upgraded from V.3)
5. Certified Platespin Analyst (CPSA)
6. Citrix Certified Administrator (CCA)
7. Citrix Certified Enterprise Administrator (CCEA)
8. Citrix Certified Integration Architect (CCIA)
9. CompTIA Security+
10. EMC² Proven Expert Professional Storage Administrator - Networked Storage - SAN Specialty
11. EMC² Proven Expert Professional Storage Administrator - Networked Storage - Storage Management Specialty
12. EMC² Proven Specialist Professional Storage Administrator - Networked Storage - SAN Specialty
13. EMC² Proven Specialist Professional Storage Administrator - Networked Storage - Storage Management Specialty
14. GIAC Certified Incident Handler (GCIH)
15. GIAC Certified Intrusion Analyst (GCIA)
16. GIAC Certified Security Leadership (GSLC)
17. GIAC Certified Windows Security Administrator (GCWN)
18. GIAC Certified UNIX Security Administrator (GCUX)
19. GIAC Security Expert (GSE)
20. GIAC Systems and Network Auditor (GSNA)

LAN ADMINISTRATOR - CERTIFIED (continued)

APPENDIX: (continued)

21. HP-UX Certified System Administrator (CSA) Certification
22. HP-UX Certified System Engineer (CSE) Certification
23. IBM Certified Advanced Deployment Professional - Tivoli Netcool Core v. 2.0
24. IBM Certified Associate System Administrator - Lotus Notes and Domino 6
25. IBM Certified Lotus Notes R5 System Administration
26. IBM Certified Specialist - pSeries AIX System Administration
27. Linux Professional Institute (LPI) Intermediate Level Administration (LPIC2)
28. Linux Professional Institute (LPI) Senior Level Administration (LPIC3)
29. Microsoft Certified Desktop Support Technician (MCDST)
30. Microsoft Certified Systems Administrator (MCSA) Windows 2000
31. Microsoft Certified Systems Administrator (MCSA) Windows 2000 w/Security Specialization
32. Microsoft Certified Systems Administrator (MCSA) Windows 2000 w/Messaging on Windows 2000 Specialization
33. Microsoft Certified Systems Administrator (MCSA) Windows 2003
34. Microsoft Certified Systems Administrator (MCSA) Windows 2003 w/Security Specialization
35. Microsoft Certified Systems Administrator (MCSA) Windows 2003 w/Messaging on Windows 2003 Specialization
36. Microsoft Certified Systems Engineer (MCSE) Windows 2000
37. Microsoft Certified Systems Engineer (MCSE) Windows 2000 w/Security Specialization
38. Microsoft Certified Systems Engineer (MCSE) Windows 2000 w/Messaging on Windows 2000 Specialization
39. Microsoft Certified Systems Engineer (MCSE) Windows 2003
40. Microsoft Certified Systems Engineer (MCSE) Windows 2003 w/Security Specialization
41. Microsoft Certified Systems Engineer (MCSE) Windows 2003 w/Messaging on Windows 2003 Specialization

LAN ADMINISTRATOR - CERTIFIED (continued)

APPENDIX: (continued)

42. Microsoft Certified Technology Specialist: BizTalk Server 2006
43. NetApp Certified Expert (NACE)
44. NetApp Certified Solution Architect (NCSA-SAN)
45. NetApp Certified Storage Associate (NACA)
46. NetApp Certified Storage Professional (NACSP)
47. Novell Certified Linux Engineer (CLE)
48. Novell Certified Network Administrator (CNA) 5.0
49. Novell Certified Network Administrator (CNA) 6.0
50. Novell Certified Network Engineer (CNE) 5.0
51. Novell Certified Network Engineer (CNE) 6.0
52. Red Hat Certified Engineer (RHCE)
53. Red Hat Certified Technician (RHCT)
54. Remedy Skilled Professional (RSP)
55. Sun Certified Backup and Recovery Engineer (Emphasis on Veritas NETBackup)
56. Sun Certified Backup and Recovery Engineer (Emphasis on Solstice Backup)
57. Sun Certified Data Management Engineer (Emphasis on Veritas Volume Manager)
58. Sun Certified Data Management Engineer (Emphasis on Solstice DiskSuite Software)
59. Sun Certified Storage Architect
60. Sun Certified Security Administrator for the Solaris 9 Operating Systems
61. Sun Certified Network Administrator 8.0
62. Sun Certified Network Administrator 9.0
63. Sun Certified Network Administrator for the Solaris 10 Operating System
64. Sun Certified System Administrator for Solaris 8 Operating System
65. Sun Certified System Administrator for Solaris 9 Operating System
66. Sun Certified System Administrator for the Solaris 10 Operating System

LAN ADMINISTRATOR - CERTIFIED (continued)

APPENDIX: (continued)

67. SUSE Certified Linux Expert (SCLE) v.9, 10
68. Veritas Certified Professional - Unix/Linux - NBU v. 4.5
69. VMware Certified Professional (VCP)

Removed Certificates That May Not Be Used to Qualify for New Appointments:

1. * IBM Certified Advanced Technical Expert - pSeries and AIX 5L
[removed 2/28/2007]
 2. * Netcool Certified Consultant Accreditation (NCCA)
[merged 2/19/2007 into IBM Certified Deployment Professional - Tivoli Netcool Core v. 1.0, upgraded to v. 2.0 on 12/31/2007]
 3. * Novell Master Certified Network Engineer (CNE) 5.0 [removed 1/1/2007]
 4. * Novell Master Certified Network Engineer (CNE) 6.0 [removed 1/1/2007]
- * This certificate has been earmarked and removed from the acceptable certificate list for this title for applicants hired after the indicated removal date.

WAN ADMINISTRATOR - CERTIFIED

Duties and Responsibilities

This class of positions encompasses highly technical and supervisory responsibilities performed at varying levels of difficulty and with varying degrees of latitude for independent initiative and judgment, in the management and administration of complex and secure Wide Area Networks (WANs) and Metropolitan Area Networks (MANs), including planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices. The following are typical assignments within this class of positions. Performs related work, including end user support and disaster recovery. When necessary, perform the duties of related lower titles and Assignment Levels. In the temporary absence of the supervisor, may perform the duties of that position. There are four Assignment Levels within this class of positions, differing according to the complexity and sophistication of the network and the amount of supervision required. Following are typical assignments within this class of positions.

Assignment Level I

Under supervision, with latitude for independent action and the exercise of independent judgment, performs assignments such as the following:

Examples of Typical Assignments

Is responsible for planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices.

WAN ADMINISTRATOR - CERTIFIED (continued)

Assignment Level I (continued)

Examples of Typical Assignments (continued)

Supervises a small unit engaged in this work; serves as the project leader of small network projects; independently performs WAN and MAN work of a highly technical nature.

Assignment Level II

Under general supervision, with wide latitude for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Supervises a unit engaged in planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices.

Serves as the project leader for complex network projects.

Assignment Level III

Under general direction, with broad scope for the exercise of independent initiative and judgment, performs assignments such as the following:

WAN ADMINISTRATOR - CERTIFIED (continued)

Examples of Typical Assignments

Supervises several WAN and MAN units or projects involving planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of network operating systems, computer software, hardware and associated devices.

Supervises unit supervisors, project leaders and their subordinates, instructing, directing and checking their work.

Assignment Level IV

Under managerial direction, with the broadest scope for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Holds senior-level technical responsibility for an extremely complex or several large and complex WANs and MANs.

Routinely serves as in-house expert and authority regarding extremely complex and highly specialized WANs and MANs and connectivity issues.

Coordinates multiple projects of highly technical complexity.

Supervises a unit or units engaged in work related to complex WANs and MANs.

Qualification Requirements

Professional/vendor certification(s) in wide area network administration that is required for the position to be filled [see **APPENDIX** for list of acceptable certificates]. In addition, all candidates must have the following:

WAN ADMINISTRATOR - CERTIFIED (continued)

Qualification Requirements (continued)

1. A baccalaureate degree from an accredited college, and two years of satisfactory full-time (not classroom based) experience in wide area network planning, design, configuration, installation, troubleshooting, integration, performance monitoring, maintenance, enhancement, and security management; or
2. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and six years of satisfactory full-time (not classroom based) information technology experience of which at least 2 years must have been as described in "1" above; or
3. A master's degree in computer science or a related field from an accredited college may substitute for one year of experience. However, all candidates must have at least one year of satisfactory (not classroom based) full-time information technology experience as described in "1" above.

Notes:

1. In addition to meeting the minimum Qualification Requirements:
Incumbents may be required to update existing and/or obtain additional professional industry-standard certification(s) for current and future technical environment(s) in which they may be assigned to work, as determined by the employing agency.
2. **Probationary Period:** Appointments to this position are subject to a minimum probationary period of one year.

Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

WAN ADMINISTRATOR - CERTIFIED (continued)

APPENDIX:

NYC ACCEPTABLE VENDOR/PROFESSIONAL CERTIFICATES

for WAN Administrator – Certified, Title Code # xxxxx:

To Qualify for Appointments and Assignments after November 27, 2007:

1. Blue Coat Certified Proxy Administrator (BCCPA)
2. Blue Coat Certified Proxy Professional (BCCPP)
3. Brocade Certified Fabric Professional (BCFP) V2.6/3.1/4.1
4. Brocade Certified Manager (BCSM) V3.0
5. Brocade Certified SAN Designer (BCSD) V2.6-4.2
6. Brocade Certified SAN Manager (BCSM) (upgraded from V.3)
7. Certified Platespin Analyst (CPSA)
8. Check Point Certified Managed Security Expert (CCMSE)
9. Check Point Certified Managed Security Expert Plus VSX - CCMSE Plus VSX
10. Check Point Certified Security Expert (CCSE)
11. Check Point Certified Security Expert Plus: Enterprise Integration and Troubleshooting (CCSE Plus)
12. Cisco Certified Design Professional (CCDP)
13. Cisco Certified Internetwork Expert (CCIE) Security
14. Cisco Certified Internetwork Expert (CCIE) Routing & Switching
15. Cisco Certified Internetwork Expert (CCIE) Service Provider
16. Cisco Certified Internetwork Professional (CCIP)
17. Cisco Certified Network Professional (CCNP)
18. Cisco Certified Security Professional (CCSP)
19. CompTIA Security+
20. EMC² Proven Expert Professional Storage Administrator - Networked Storage - SAN Specialty
21. EMC² Proven Expert Professional Storage Administrator - Networked Storage - Storage Management Specialty

ALL CITY AGENCIES (999)

WAN ADMINISTRATOR - CERTIFIED (continued)APPENDIX: (continued)

22. EMC² Proven Specialist Professional Storage Administrator - Networked Storage - SAN Specialty
23. EMC² Proven Specialist Professional Storage Administrator - Networked Storage - Storage Management Specialty
24. Enterasys Certified Internetworking Engineer (ECIE)
25. Enterasys Security Specialist Engineer (ESSE)
26. Enterasys Systems Engineer (ESE)
27. Foundry Networks Certified Network Engineer (FNCNE)
28. Foundry Networks Certified Network Professional (FNCNP)
29. GIAC Certified Incident Handler (GCIH)
30. GIAC Certified Intrusion Analyst (GCIA)
31. GIAC Certified ISO-17799 Specialist (G7799)
32. GIAC Certified Firewall Analyst (GCFW)
33. GIAC Certified Forensic Analyst (GCFA)
34. GIAC Certified Security Leadership (GSLC)
35. GIAC Certified UNIX Security Administrator (GCUX)
36. GIAC Certified Windows Security Administrator (GCWN)
37. GIAC IT Security Audit Essentials (GSAE)
38. GIAC Security Essentials Certification (GSEC)
39. GIAC Security Expert (GSE)
40. GIAC Solaris Gold Standard Certificate (GHSC)
41. GIAC Systems and Network Auditor (GSNA)
42. HP-UX Certified System Administrator (CSA) Certification
43. HP-UX Certified System Engineer (CSE) Certification
44. IBM Certified Advanced Deployment Professional - Tivoli Netcool Core v. 2.0
45. IBM Certified Specialist - pSeries AIX System Administration
46. International Info Systems Security Certification Consortium Inc. Certified Info Systems Security Prof (CISSP)

WAN ADMINISTRATOR - CERTIFIED (continued)

APPENDIX: (continued)

47. International Info Systems Security Certification Consortium Inc. Systems Security Certified Practitioner (SSCP)
48. Information Systems Audit and Control Association (ISACA) Certified Information Security Manager (CISM)
49. Information Systems Audit and Control Association (ISACA) Certified Information Systems Auditor (CISA)
50. Linux Professional Institute (LPI) Intermediate Level Administration (LPIC2)
51. Linux Professional Institute (LPI) Senior Level Administration (LPIC3)
52. Microsoft Certified Systems Administrator (MCSA) Windows 2000
53. Microsoft Certified Technology Specialist: BizTalk Server 2006
54. NetApp Certified Expert (NACE)
55. NetApp Certified Solution Architect (NCSA-SAN)
56. NetApp Certified Storage Associate (NACA)
57. NetApp Certified Storage Professional (NACSP)
58. Network Associates (NAI) Sniffer Certified Expert (SCE)
59. Network Associates (NAI) Sniffer Certified Master (SCM)
60. Nortel Networks Certified Architect (NNCA)
61. Nortel Networks Certified Design Expert (NNCDE) - Alteon Security
62. Nortel Networks Certified Design Expert (NNCDE) - Contivity Security
63. Nortel Networks Certified Design Expert (NNCDE) - Convergence Succession 1000/1000M Release 3.0
64. Nortel Networks Certified Design Expert (NNCDE) - IP Convergence Meridian 1 IP Enabled 25.40
65. Nortel Networks Certified Support Expert (NNCSE) - Alteon Security
66. Nortel Networks Certified Support Expert (NNCSE) - Contact Center
67. Nortel Networks Certified Support Expert (NNCSE) - Contivity Security
68. Nortel Networks Certified Support Expert (NNCSE) - IP Convergence CallPilot 2.0 Unified Messaging Solutions

WAN ADMINISTRATOR - CERTIFIED (continued)

APPENDIX: (continued)

69. Nortel Networks Certified Support Expert (NNCSE) - IP Convergence Meridian 1 IP Enabled 25.40
70. Red Hat Certified Engineer (RHCE)
71. Red Hat Certified Technician (RHCT)
72. Remedy Skilled Professional (RSP)
73. Sun Certified Network Administrator 8.0
74. Sun Certified Network Administrator 9.0
75. Sun Certified Network Administrator for the Solaris 10 Operating System
76. Sun Certified Security Administrator for the Solaris 9 Operating System
77. Sun Certified System Administrator for Solaris 8 Operating System
78. Sun Certified System Administrator for Solaris 9 Operating System
79. Sun Certified System Administrator for the Solaris 10 Operating System
80. SUSE Certified Linux Expert (SCLE) v.9, v. 10
81. VMware Certified Professional (VCP)

Removed Certificates That May Not Be Used to Qualify for New Appointments:

1. * GIAC Windows 2000 Gold Standard Certificate (CGSC-0100) [*removed 1/1/2007*]
 2. * IBM Certified Advanced Technical Expert - pSeries and AIX 5L
[*removed 2/28/2007*]
 3. * Netcool Certified Consultant Accreditation (NCCA)
[*merged 2/19/2007 into IBM Certified Deployment Professional - Tivoli Netcool Core v.1.0, upgraded to v. 2.0 on 12/31/2007*]
- * This certificate has been earmarked and removed from the acceptable certificate list for this title for applicants hired after the indicated removal date.

APPLICATIONS DEVELOPER - CERTIFIED

Duties and Responsibilities

This class of positions encompasses highly technical and supervisory responsibilities performed at varying levels of difficulty and with varying degrees of latitude for independent initiative and judgment, in applications development, including planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of complex computer applications programs. Performs related work, including end user support and disaster recovery and, when necessary, performs the duties of related or lower titles and Assignment Levels. In the temporary absence of the supervisor, performs the duties of that position. There are four Assignment Levels within this class of positions differing according to the complexity and sophistication of the application(s) and the amount of supervision required. Following are typical assignments within this class of positions.

Assignment Level I

Under supervision, with latitude for independent action and the exercise of independent judgment, performs assignments such as the following:

Examples of Typical Assignments

Is responsible for planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of computer applications programs and related functions.

Supervises a small unit engaged in the above duties; serves as the project leader of projects involving computer applications programs; independently performs development, testing and/or maintenance work of a highly technical nature

APPLICATIONS DEVELOPER - CERTIFIED (continued)

Assignment Level II

Under general supervision, with wide latitude for the exercise of independent initiative and judgment, performs assignments such as the following;

Examples of Typical Assignments

Supervises a unit engaged in planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of computer applications programs.

Serves as the project leader for complex projects involving computer application programs.

Assignment Level III

Under general direction, with broad scope for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Supervises more than one unit or projects involving planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of complex computer applications programs.

Supervises unit supervisors, project leaders and their subordinates, instructing, directing and checking their work.

APPLICATIONS DEVELOPER - CERTIFIED (continued)

Assignment Level IV

Under managerial direction, with the broadest scope for the exercise of independent initiative and judgment, performs assignment such as the following:

Examples of Typical Assignments

Holds senior-level technical responsibility for an extremely complex or several large and complex computer applications programs.

Routinely serves as in-house expert and authority regarding computer applications programs of extreme complexity and high specialization.

Coordinates multiple projects of highly technical complexity.

Supervises a unit or units engaged in complex work involving computer applications programming.

Qualification Requirements

Professional/vendor certification(s) in computer applications programming that is required for the position to be filled [see **APPENDIX** for list of acceptable certificates]. In addition, all candidates must have the following:

1. A master's degree in computer science or a related field from an accredited college and 12 months of satisfactory full-time (not classroom based) specialized experience in computer applications development planning, design, configuration, installation, troubleshooting, integration, performance monitoring, maintenance, enhancement, and security management; or

APPLICATIONS DEVELOPER - CERTIFIED (continued)

Qualification Requirements (continued)

2. A baccalaureate degree from an accredited college, and 24 months years of satisfactory full-time (not classroom based) specialized experience as described in "1" above; or
3. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and 24 months of satisfactory full-time (not classroom based) specialized experience as described in "1" above plus 48 months of information technology experience; or
4. A satisfactory combination of education and experience which is equivalent to "3" above. Education may be substituted for the information technology experience on the basis of 30 semester credits from an accredited college is equivalent to 12 months of experience, up to a maximum of 48 months. However, if you qualify under options "2", "3", or "4", you must have at least a four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and at least 24 months of satisfactory full-time (not classroom based) specialized information technology experience as described in "1" above.

Notes:

1. In addition to meeting the minimum Qualification Requirements:
Incumbents may be required to update existing and/or obtain additional professional industry-standard certification(s) for current and future technical environment(s) in which they may be assigned to work, as determined by the employing agency.
2. **Probationary Period:** Appointments to this position are subject to a minimum probationary period of one year.

Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

APPLICATIONS DEVELOPER - CERTIFIED (continued)

APPENDIX:

NYC ACCEPTABLE VENDOR/PROFESSIONAL CERTIFICATES

for Applications Developer – Certified, Title Code # xxxxx

To Qualify for Appointments and Assignments after November 27, 2007:

1. Actuate Certified Professional Developer (Version 7)
2. BEA 8.1 Certified Administrator - System Administration
3. BEA 8.1 Certified Architect - Enterprise Architect
4. BEA 8.1 Certified Developer - Build Solutions
5. BEA 8.1 Certified Developer - Portal Solutions
6. BEA 8.1 Certified Developer - Integration Solutions
7. Certified ColdFusion MX Developer
8. Cognos Access Manager
9. Cognos Consolidation Product Professional
10. Cognos DecisionStream
11. Cognos Impromptu Product Professional
12. Cognos Metrics Manager Product Professional
13. Cognos PowerPlay Product Professional
14. Cognos Planning Analyst Product Professional
15. Cognos Planning Contributor Product Professional
16. Cognos ReportNet Product Professional - Administration Track
17. Cognos ReportNet Product Professional - Modeling Track
18. Cognos ReportNet Product Professional - Reporting Track
19. Cognos Upfront Product Professional
20. Cognos Visualizer Product Professional
21. Curam Certified Professional
22. FileNet P8 Certified Administrator: Business Process Manager Suite
23. FileNet P8 Certified Administrator: Content Manager Suite

APPLICATIONS DEVELOPER - CERTIFIED (continued)

APPENDIX: (continued)

24. FileNet P8 Certified Administrator: Image Manager Suite
25. FileNet P8 Certified Administrator: Records Manager Suite
26. FileNet P8 Certified Administrator: Web Content Manager Suite
27. FileNet P8 Certified Developer: Business Process Manager Suite
28. FileNet P8 Certified Developer: Content Manager Suite
29. FileNet P8 Certified Developer: Image Manager Suite
30. FileNet P8 Certified Developer: Records Manager Suite
31. FileNet P8 Certified Developer: Web Content Manager Suite
32. FileNet P8 Certified Technical Support: Business Process Manager Suite
33. FileNet P8 Certified Technical Support: Content Manager Suite
34. FileNet P8 Certified Technical Support: Image Manager Suite (CS)
35. FileNet P8 Certified Technical Support: Image Manager Suite (IS)
36. FileNet P8 Certified Technical Support: Records Manager Suite
37. FileNet P8 Certified Technical Support: Web Content Manager Suite
38. IBM Certified Advanced Deployment Professional - Tivoli Netcool Core v. 2.0
39. IBM Certified Advanced Deployment Professional - Tivoli Security Management Solutions 2006
40. IBM Certified Advanced Deployment Professional - Tivoli Storage Management Solutions 2006
41. IBM Certified Advanced Deployment Professional - Tivoli Storage Manager v. 5.3
42. IBM Certified Advanced Deployment Professional - Tivoli Workforce Scheduler v. 8.3
43. IBM Certified Advanced System Administrator - WebSphere Application Server for V5.0
44. IBM Certified Advanced System Administrator - WebSphere Application Server for Z/OS, V5.0

APPLICATIONS DEVELOPER - CERTIFIED (continued)

APPENDIX: (continued)

45. IBM Certified Application Developer - DB2 Universal Database v8.1 Family
46. IBM Certified Associate Developer - Lotus Notes and Domino 6
47. IBM Certified DB2 Database Administrator - DB2 Universal Db for z/OS v. 8.1
48. IBM Certified Lotus Notes R5 Application Developer
49. IBM Certified Solution Developer - Web Services Development with WebSphere Studio V5.1
50. IBM Certified Solutions Expert - DB2 UDB v7.1 Family Application Development
51. IBM Certified Specialist - System z Technical Support v.2
52. IBM Certified Specialist - WebSphere MQ Integrator
53. IBM Certified System Administrator - WebSphere MQ V5.3
54. Interwoven Certification
55. Master Certified Internet Web (CIW) Designer v. 5
56. Microsoft Certified Applications Developer for .Net (MCAD)
57. Microsoft Certified Professional Developer: Web Developer
58. Microsoft Certified Professional Developer: Windows Developer
59. Microsoft Certified Professional Developer: Enterprise Applications Developer
60. Microsoft Certified Solutions Developer for .Net (MCSD)
61. Microsoft Certified Solutions Developer for Visual Studio 6.0 (MCSD)
62. Microsoft Certified Technology Specialist: Biz Talk Server 2006
63. Microsoft Certified Technology Specialist: .NET Framework 2.0 Web Applications
64. Microsoft Certified Technology Specialist: .NET Framework 2.0 Distributed Applications
65. Oracle9i Forms Developer Certified Professional
66. Oracle Application Server 10g Administrator: Certified Professional
67. Oracle Internet Application Developer Rel. 6i Certified Professional

APPLICATIONS DEVELOPER - CERTIFIED (continued)

APPENDIX: (continued)

68. PeopleSoft Certified Developer
69. Remedy Skilled Professional (RSP)
70. Siebel 7.7 Certified Application Developer
71. Siebel 7.7 Certified Business Analyst
72. Siebel 7.7 Certified Data Warehouse Developer
73. Siebel 7.7 Certified Server Architect
74. Siebel Certified CRM OnDemand Consultant
75. Siebel Certified Application Developer
76. Siebel Certified Business Analyst
77. Siebel Certified Consultant / Siebel Certified Instructor
78. Siebel Certified Data Warehouse Developer
79. Siebel Certified Master Analytics Consultant
80. Siebel Certified Server Architect
81. Sun Certified Business Component Developer for Java 2 Platform, Enterprise Edition 1.3
82. Sun Certified Developer for Java 2 Platform
83. Sun Certified Developer for Java Web Services
84. Sun Certified Enterprise Architect for J2EE (Enterprise Edition) Technology
85. Sun Certified Mobile Applications Developer for the Java 2 Platform Micro Edition
86. Sun Certified Web Component Developer for J2EE (Enterprise Edition) Platform
87. Sybase Powerbuilder v8 Associate
88. Sybase PowerBuilder v7 Professional
89. Sybase PowerBuilder v9 Professional

APPLICATIONS DEVELOPER - CERTIFIED (continued)

APPENDIX: (continued)

Removed Certificates That May Not Be Used to Qualify for New Appointments:

1. * IBM Certified Enterprise Developer - WebSphere Studio V5.0 [*removed 6/30/2007*]
 2. * IBM Certified Solutions Designer - WebSphere MQ V5.3 [*removed 1/1/2007*]
 3. * IBM Certified Solutions Developer - WebSphere MQ V5.3 [*removed 1/1/2007*]
 4. * IBM Certified Solution Developer - WebSphere Studio V5.0 [*removed 1/1/2007*]
 5. * IBM Certified System Administrator - WebSphere Application Server V5.0 [*removed 1/1/2007*]
 6. * Netcool Certified Consultant Accreditation (NCCA)
[*merged 2/19/2007 into IBM Certified Deployment Professional - Tivoli Netcool Core v.1.0, upgraded to v. 2.0 on 12/31/2007*]
- * This certificate has been earmarked and removed from the acceptable certificate list for this title for applicants hired after the indicated removal date.

DATABASE ADMINISTRATOR - CERTIFIED

Duties and Responsibilities

This class of positions encompasses highly technical and supervisory responsibilities performed at varying levels of difficulty and with varying degrees of latitude for independent initiative and judgment, in database administration and development, including Database Administration, Data Modeling and Database Design, Testing, Technical Writing, Version Control, and related functions. Supervises a unit engaged in the above duties; serves as the project leader of projects involving database administration; independently administers database software of a highly technical nature. Performs related work, including end user support and disaster recovery support. When necessary, performs the duties of related or lower titles and Assignment Levels. In the temporary absence of the supervisor, performs the duties of that position. There are four Assignment Levels within this class of positions, differing according to the complexity and sophistication of the database systems and the amount of supervision required. Following are typical assignments within this class of positions.

Assignment Level I

Under supervision, with latitude for independent action and the exercise of independent judgment, performs assignments such as the following:

Examples of Typical Assignments

Is responsible for database administration and development, including Database Administration, Data Modeling and Database Design, Testing, Technical Writing, Version Control, and related functions (planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of database systems and related functions).

DATABASE ADMINISTRATOR - CERTIFIED (continued)

Assignment Level I (continued)

Examples of Typical Assignments (continued)

Supervises a small unit engaged in the above duties; serves as the project leader of projects involving database administration; independently administers database software of a highly technical nature.

Assignment Level II

Under general supervision, with wide latitude for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Supervises a unit engaged in Database Administration, Data Modeling and Database Design, Testing, Technical Writing, Version Control, and related functions (planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of database systems and performs related functions).

Serves as the project leader for complex projects involving database systems.

Assignment Level III

Under general direction, with broad scope for the exercise of independent initiative and judgment, performs assignments such as the following:

DATABASE ADMINISTRATOR - CERTIFIED (continued)

Assignment Level III (continued)

Examples of Typical Assignments (continued)

Supervises more than one unit or projects involving Database Administration, Data Modeling and Database Design, Testing, Technical Writing, Version Control, and related functions (planning, designing, configuring, installing, testing, troubleshooting, integrating, performance monitoring, maintaining, enhancing, security management, and support of complex data base systems).

Supervises unit supervisors, project leaders and their subordinates, planning, instructing, directing and checking their work.

Assignment Level IV

Under managerial direction, with the broadest scope for the exercise of independent initiative and judgment, performs assignments such as the following:

Examples of Typical Assignments

Holds senior-level technical responsibility for an extremely complex or several large and complex database systems.

Routinely serves as in-house expert and authority regarding database administration work of extreme complexity and high specialization.

Coordinates multiple projects of highly technical complexity.

Supervises a unit or units engaged in complex work involving database systems.

DATABASE ADMINISTRATOR - CERTIFIED (continued)

Qualification Requirements

Professional/vendor certification(s) in database administration that is required for the position to be filled [see **APPENDIX** for list of acceptable certificates]. In addition, all candidates must have the following:

1. A master's degree in computer science or a related field from an accredited college and 12 months of satisfactory full-time (not classroom based) specialized database administration and development experience, including Database Administration, Data Modeling and Database Design, Testing, Technical Writing, and Version control; or
2. A baccalaureate degree from an accredited college and 24 months of satisfactory full-time (not classroom based) specialized experience as described in "1" above; or
3. A four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and 24 months of satisfactory full-time (not classroom based) specialized experience as described in "1" above; plus 48 months of more general information technology experience or
4. A satisfactory combination of education and experience which is equivalent to "3" above. Education may be substituted for the information technology experience on the basis of 30 semester credits from an accredited college is equivalent to 12 months of experience, up to 48 months, however all candidates must have at least a four-year high school diploma or its educational equivalent approved by a state's department of education or a recognized accrediting organization and at least 24 months of satisfactory full-time (not classroom based) specialized information technology experience as described in "1" above.

DATABASE ADMINISTRATOR - CERTIFIED (continued)

Qualification Requirements (continued)

Notes:

1. In addition to meeting the minimum Qualification Requirements:
Incumbents may be required to update existing and/or obtain additional professional industry-standard certification(s) for current and future technical environment(s) in which they may be assigned to work, as determined by the employing agency.
2. **Probationary Period:** Appointments to this position are subject to a minimum probationary period of one year.

Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

DATABASE ADMINISTRATOR - CERTIFIED (continued)

APPENDIX:

NYC ACCEPTABLE VENDOR/PROFESSIONAL CERTIFICATES

for Database Administrator – Certified, Title Code # XXXXX:

To Qualify for Appointments and Assignments after November 27, 2007:

1. IBM Certified Advanced Database Administrator - DB2 Universal Database v. 8.1 for Linux, Unix, and Windows
2. IBM Certified Advanced Database Administrator - DB2 9 DBA for Linux, Unix, and Windows v. 9 (version upgrade from 8.1)
3. IBM Certified Advanced Deployment Professional - Tivoli Security Management Solutions 2006
4. IBM Certified Advanced Deployment Professional - Tivoli Storage Management Solutions 2006
5. IBM Certified Advanced Deployment Professional - Tivoli Storage Manager v. 5.3
6. IBM Certified Advanced Deployment Professional - Tivoli Workforce Scheduler v. 8.3
7. IBM Certified Database Administrator - DB2 UDB (Universal Database) v. 8.1 for Linux, Unix, and Windows
8. IBM Certified Database Administrator - DB2 9 DBA for Linux, Unix, and Windows v. 9 (version upgrade from 8.1)
9. IBM Certified DB2 Database Administrator - DB2 Universal DB for z/OS v. 8.1
10. IBM Certified Solutions Designer - DB2 Business Intelligence V8
11. IBM Certified Solutions Expert - DB2 Content Manager OnDemand iSeries
12. IBM Certified Solutions Expert - DB2 Content Manager OnDemand Multiplatform
13. IBM Certified Solutions Expert DB2 UDB (Universal Database) V7.1 Database Administration for OS/390 or Z/OS

DATABASE ADMINISTRATOR - CERTIFIED (continued)

APPENDIX: (continued)

14. IBM Certified Solutions Expert DB2 UDB (Universal Database) V7.1 Database Administration for Unix, Windows, and OS/2
15. IBM Certified Solutions Expert - Informix Dynamic Server v. 7 System Administrator
16. IBM Certified Solutions Expert - Informix Dynamic Server v. 9 System Administrator
17. IBM Certified Specialist - System z Technical Support v. 2
18. Microsoft Certified Database Administrator (MCDBA)
19. Microsoft Certified Technology Specialist: SQL Server 2005
20. Oracle 9i DBA Oracle Certified Professional (OCP)
21. Oracle 9i Database Administrator Special Accreditation: Managing Oracle 9i on Linux
22. Oracle 9i Database Administrator Certified Master
23. Oracle Database 10g Administrator Certified Master
24. Oracle Database 10g Administrator Certified Professional
25. Oracle Database 10g Administrator Certified Professional w/Special Accreditation
26. VMware Certified Professional (VCP)

Removed Certificates That May Not Be Used to Qualify for New Appointments:

1. * Oracle 8i Certified Professional Database Administrator [*removed 4/30/2007*]

* This certificate has been earmarked and removed from the acceptable certificate list for this title for applicants hired after the indicated removal date.