The purpose of the Infrastructure classification is to deliver, implement and support a variety of software applications and/or hardware platforms.

**Job duty, knowledge, skill, and ability statements at a lower-level are understood to be able to be performed at any higher level.**

**CLASS TITLE**
Infrastructure Specialist 1

**CLASS NUMBER**
69931

**PAY RANGE**
33

**EFFECTIVE**
12/23/2018

**CLASS CONCEPT**
The first level specialist possesses a working technical knowledge of software applications and hardware environments and receives general supervision in order to independently install, monitor/maintain, configure, upgrade, and/or administer/operate an assigned single technology domain.

**CLASS TITLE**
Infrastructure Specialist 2

**CLASS NUMBER**
69932

**PAY RANGE**
34

**EFFECTIVE**
12/23/2018

**CLASS CONCEPT**
The second level specialist possesses considerable technical knowledge of software applications and hardware environments and receives direction in order to independently install, monitor/maintain, configure, upgrade, and/or administer/operate assigned multiple technology domains.

**CLASS TITLE**
Infrastructure Specialist 3

**CLASS NUMBER**
69933

**PAY RANGE**
35

**EFFECTIVE**
12/23/2018

**CLASS CONCEPT**
The advanced level specialist requires a thorough working technical knowledge of infrastructure operations and maintenance and receives general direction in order to evaluate effectiveness and risk of IT processes, recommend changes in IT procedures to meet customer needs, and evaluate and/or research hardware and/or software solutions and provide feedback to project team or higher-level staff.

**CLASS TITLE**
Infrastructure Specialist 4

**CLASS NUMBER**
69934

**PAY RANGE**
36

**EFFECTIVE**
12/23/2018

**CLASS CONCEPT**
The expert level specialist requires extensive working technical knowledge of infrastructure operations and maintenance and receives general direction in order to evaluate current IT policies, procedures, and practices, recommend and/or lead IT driven change efforts, participates in and/or leads activities to achieve project tasks/meet deadlines, and perform solutions design.

**Glossary:** The terms listed below are to be interpreted to mean the following whenever they appear in the classification specification.

**Technology Domain:** an assigned area where technical work requires specific knowledge to evaluate, select, adapt & modify standard procedures in the resolution of assigned tasks. Employees devise new approaches to problems encountered. The following are illustrative of a technology domain:

- Workstation support
- Network Administration
- Server Administration
- Business Continuity
- Information Security
- Telecommunications and Network Connectivity
- SAN Administration
JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

1. Installs, maintains, configures, upgrades and/or administers hardware and/or software independently in assigned single technology domain. (See glossary for technology domain definition).
2. Utilizes vendor supplied and 3rd party utilities for monitoring.
3. Diagnoses, analyzes and resolves issues for customer(s) in assigned single technology domain.
4. Provides Tier II-III level customer support.
5. Conducts performance tuning for hardware and/or software.
6. Develops and maintains documentation.
7. Promotes system security and awareness by adhering to the Agency’s and/or State’s IT security policy(s) and standards.
8. Develops and maintains ad-hoc utilities or reports to automate processes.
9. Stays current regarding new technologies, standards and techniques.
10. Receives orientation related to mentorship and applies as necessary (e.g., definition, purpose, strategies, and evaluation techniques).

MAJOR WORKER CHARACTERISTICS
Knowledge of: oral and written communication tools and techniques, customer support and personal service technical writing and documentation practices, state and agency policy, procedures and applicable laws*, vision, mission and goals of agency*, mathematic principles relative to assigned area in IT, telecommunications, capabilities and applications of network equipment including hubs, routers, switches, bridges, servers, and related hardware, IT principles, methods and practices in assigned specialty area, software distribution and configuration management tools and mechanisms, organizations operation environment, topology, and protocols, local area and wide area networking principles and concepts, back-up and recovery techniques, performance monitoring methods, basic internet server maintenance techniques, installation and configuration procedures, internet clients, such as browsers and streaming video, system administration methods and procedures.

Skill for: reading comprehension, speaking, service orientation, installation, troubleshooting, critical thinking, operation monitoring, judgment and decision making, systems analysis, systems evaluations, operation analysis, identifying and specifying business requirements, and using data recovery tools and techniques.

Ability to: prepare meaningful, accurate and concise reports, and stay abreast of current technologies in area of IT assigned.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT
Completion of undergraduate core program in computer science or information systems; 12 mos. combined work experience in any combination of the following: installing, monitoring/maintaining, configuring, upgrading, &/or administering/operating a single technology domain including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or completion of associate core program in computer science or information systems; 18 mos. combined work experience in any combination of the following: installing, monitoring/maintaining, configuring, upgrading, &/or administering/operating a single technology domain including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or 36 mos. combined work experience in any combination of the following: installing, monitoring/maintaining, configuring, upgrading, &/or administering/operating a single technology domain including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or equivalent of minimum class qualifications for employment noted above.

Note: The official position description on file with the designated agency is to reflect the required, primary technology directly relating to the duties of the position. Only those applicants possessing the experience in the required, primary technology listed in the position description & job posting are to be considered for any vacancies posted. The job posting must list the required technology commensurate with the position in question.
TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT
N/A

UNUSUAL WORKING CONDITIONS
N/A
JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

1. Installs, maintains, configures, upgrades and/or administers hardware and/or software in assigned multiple technology domains. (See glossary for technology domain definition).
2. Diagnoses, analyzes and resolves issues for customer(s) across assigned multiple technology domains.
3. Creates, organizes, files and maintains documentation.
4. Reviews and monitors enterprise security systems; takes appropriate action and responds to alarms/alerts per agency policy and procedure (e.g., anti-virus, spam).
5. Interfaces with other platforms from a hardware and/or software perspective.
6. Answers questions and presents informal mentorship opportunities to peers and/or lower-level staff via conversation, observation or technical documentation.

MAJOR WORKER CHARACTERISTICS
Knowledge of: oral and written communication tools and techniques, customer support and personal service technical writing and documentation practices, state and agency policy, procedures and applicable laws*, vision, mission and goals of agency*, mathematic principles relative to assigned area in IT, telecommunications, capabilities and applications of network equipment including hubs, routers, switches, bridges, servers, and related hardware, IT principles, methods and practices in assigned specialty area, software distribution tools and configuration management and mechanisms, organizations operation environment, topology, and protocols, local area and wide area networking principles and concepts, back-up and recovery techniques, performance monitoring methods, basic internet server maintenance techniques, installation and configuration procedures, internet clients, such as browsers and streaming video, system administration methods and procedures, operating systems installation and configuration procedures, technology design.

Skill for: reading comprehension, speaking, service orientation, installation, troubleshooting, critical thinking, operation monitoring, judgment and decision making, systems analysis, systems evaluations, operation analysis, identifying and specifying business requirements, using data recovery tools and techniques and systems evaluation, and complex problem solving.

Ability to: prepare meaningful, accurate and concise reports, stay abreast of current technologies in area of IT assigned, and define problems, collect data, establish facts and draw valid conclusions.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT
Completion of undergraduate core program in computer science or information systems; 24 mos. combined work experience in any combination of the following: installing, monitoring/maintaining, configuring, upgrading, &/or administering/operating multiple technology domains including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or completion of associate core program in computer science or information systems; 30 mos. combined work experience in any combination of the following: installing, monitoring/maintaining, configuring, upgrading, &/or administering/operating multiple technology domains including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or 48 mos. combined work experience in any combination of the following: installing, monitoring/maintaining, configuring, upgrading, &/or administering/operating multiple technology domains including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or equivalent of minimum class qualifications for employment noted above.

Note: The official position description on file with the designated agency is to reflect the required, primary technology directly relating to the duties of the position. Only those applicants possessing the experience in the required, primary technology listed in the position description & job posting are to be considered for any vacancies posted. The job posting must list the required technology commensurate with the position in question.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT
N/A
UNUSUAL WORKING CONDITIONS
N/A
JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

1. Evaluates effectiveness and risk of IT processes.
2. Recommends changes in IT procedures to meet customer needs.
3. Evaluates and/or researches hardware and/or software solutions and provides feedback to project team or higher-level staff.
4. Interfaces and/or performs work with other applications or platforms.
5. Assists in providing IT consultation and recommendations for implementation, ensuring services are not compromised.
6. Provides technical IT leadership for integration of various related systems.
7. Participates in and/or provides technical IT assistance to achieve project tasks/meet deadlines.

MAJOR WORKER CHARACTERISTICS
Knowledge of: oral and written communication tools and techniques, customer support and personal service technical writing and documentation practices, state and agency policy, procedures and applicable laws*, vision, mission and goals of agency*, mathematic principles relative to assigned area in IT, telecommunications, capabilities and applications of network equipment including hubs, routers, switches, bridges, servers, and related hardware, IT principles, methods and practices in assigned specialty area, software distribution and configuration management tools and mechanisms, organizations operation environment, topology, and protocols, local area and wide area networking principles and concepts, back-up and recovery techniques, performance monitoring methods, basic internet server maintenance techniques, installation and configuration procedures, internet clients, such as browsers and streaming video, system administration methods and procedures, operating systems installation and configuration procedures, technology design, technology design techniques, structured analysis principles.

Skill for: reading comprehension, speaking, service orientation, installation, troubleshooting, critical thinking, operation monitoring, judgment and decision making, systems analysis, systems evaluations, operation analysis, identifying and specifying business requirements, using data recovery tools and techniques and systems evaluation, complex problem solving, and assuring quality.

Ability to: prepare meaningful, accurate and concise reports, stay abreast of current technologies in area of IT assigned, define problems, collect data, establish facts and draw valid conclusions, provide expert technical advice, guidance, and recommendations to management and other technical specialists on critical IT issues.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT
Completion of undergraduate core program in computer science or information systems; 36 mos. combined work experience in any combination of the following: evaluating effectiveness and risk of IT processes, recommending changes in IT procedures to meet customer needs, and evaluating and/or researching hardware and/or software solutions and providing feedback to project team or higher-level staff including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or completion of associate core program in computer science or information systems; 42 mos. combined work experience in any combination of the following: evaluating effectiveness and risk of IT processes, recommending changes in IT procedures to meet customer needs, and evaluating and/or researching hardware and/or software solutions and providing feedback to project team or higher-level staff including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or 60 mos. combined work experience in any combination of the following: evaluating effectiveness and risk of IT processes, recommending changes in IT procedures to meet customer needs, and evaluating and/or researching hardware and/or software solutions and providing feedback to project team or higher-level staff including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or equivalent of minimum class qualifications for employment noted above.

Note: The official position description on file with the designated agency is to reflect the required, primary technology directly relating to the duties of the position. Only those applicants possessing the experience in the required, primary
technology listed in the position description & job posting are to be considered for any vacancies posted. The job posting must list the required technology commensurate with the position in question.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT**
N/A

**UNUSUAL WORKING CONDITIONS**
N/A
JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

1. Evaluates current IT policies, procedures, and practices and recommends.
2. Leads IT driven change effort.
3. Participates in and/or leads activities to achieve project tasks/meet deadlines.
4. Solutions Design.
   a. Works with IT Architect staff, CIO or IT Managers to design solutions that meet the agency's requirements.
   b. Assists analysis of the solution design's business case.
   c. Authors portions of the solution business case.
5. Works with vendors, other specialists and/or agencies to solve integration problems.
6. Plans and conducts formal mentorship activities for peers and/or lower-level staff via verbal instruction or technical documentation.

MAJOR WORKER CHARACTERISTICS
Knowledge of: oral and written communication tools and techniques, customer support and personal service technical writing and documentation practices, state and agency policy, procedures and applicable laws*, vision, mission and goals of agency*, mathematical principles relative to assigned area in IT, telecommunications, capabilities and applications of network equipment including hubs, routers, switches, bridges, servers, and related hardware, IT principles, methods and practices in assigned specialty area, software distribution and configuration management tools and mechanisms, organizations operation environment, topology, and protocols, local area and wide area networking principles and concepts, back-up and recovery techniques, performance monitoring methods, basic internet server maintenance techniques, installation and configuration procedures, internet clients, such as browsers and streaming video, system administration methods and procedures, operating systems installation and configuration procedures, technology design, technology design techniques, structured analysis principles, cost-benefit analysis methods, inter-relationships of multiple IT specialties.

Skill for: reading comprehension, speaking, service orientation, installation, troubleshooting, critical thinking, operation monitoring, judgment and decision making, systems analysis, systems evaluations, operation analysis, identifying and specifying business requirements, using data recovery tools and techniques and systems evaluation, complex problem solving, assuring quality and lead work.

Ability to: prepare meaningful, accurate and concise reports, stay abreast of current technologies in area of IT assigned, define problems, collect data, establish facts and draw valid conclusions, provide expert technical advice, guidance, and recommendations to management and other technical specialists on critical IT issues.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT
Completion of undergraduate core program in computer science or information systems; 36 mos. combined work experience in any combination of the following: evaluating current IT policies, procedures and practices, recommending and/or leading IT driven change efforts, participating and/or leading activities to achieve project tasks/meet deadlines, and performing solutions design including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or completion of associate core program in computer science or information systems; 42 mos. combined work experience in any combination of the following: evaluating current IT policies, procedures and practices, recommending and/or leading IT driven change efforts, participating and/or leading activities to achieve project tasks/meet deadlines, and performing solutions design including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or 60 mos. combined work experience in any combination of the following: evaluating current IT policies, procedures and practices, recommending and/or leading IT driven change efforts, participating and/or leading activities to achieve project tasks/meet deadlines, and performing solutions design including 12 mos. work experience in the primary technology specified by the agency in the position description & job posting.

-Or equivalent of minimum class qualifications for employment noted above.
Note: The official position description on file with the designated agency is to reflect the required, primary technology directly relating to the duties of the position. Only those applicants possessing the experience in the required, primary technology listed in the position description & job posting are to be considered for any vacancies posted. The job posting must list the required technology commensurate with the position in question.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT**
N/A

**UNUSUAL WORKING CONDITIONS**
N/A