

SERIES DESCRIPTION

The INFORMATION SYSTEMS SPECIALIST (ISS) classification series has eight levels that describe technical and professional non-supervisory positions working in Information Systems. The work in this series includes responsibility for planning, coordination, analysis and technical support functions. Positions solve problems and accomplish work processes through information systems and technology.

When deciding whether a position is properly allocated to the ISS series, the paramount considerations are the primary purpose for the position and the recruitment criteria. The knowledge of computers and information systems is an increasingly important part of many occupational fields. In most instances, the computer knowledge is secondary to the knowledge and skills associated with the occupational field. The computer is a tool to facilitate accomplishing the work. In this case, the position does not belong in the ISS Series.

There are three components to these Class Specifications: **Infrastructure Functions, Organizational Functions, and Complexity Levels.**

1. Infrastructure Functions

Software includes both applications and operating software;

Hardware refers to the physical components (PCs, servers, mainframes, peripherals, etc.);

Communications provides the connections that link systems and includes data, voice, image and video;

Data is concerned with data bases and associated master files.

A position is either a Specialist or a Generalist, depending on how many of these Infrastructure Functions are covered by the job. A Specialist typically spends 70% or more of work time on one or two of the infrastructure functions. The Generalist divides work time more or less evenly among three or four infrastructure functions. The series describes both Specialists and Generalists at most levels.

2. Organizational Functions

Customer Assistance (CA) is user assistance, systems maintenance and fixing problems of all sizes;

Operations (OP) is the day to day functions and includes such things as installation, performance monitoring, access, daily security, back-up, scheduling, inventory management and processing orders;

Construction (CO) refers to new systems and features and covers major remodels and enhancements as well as new systems; and

Planning (PL) is strategic, long term planning. This is not the regular, on-going planning required in many jobs. This is strategic planning as a separate primary job function and addresses issues such as resource utilization, disaster planning, new technologies and acquisition strategies, change control management, system performance, and overall security.

Both Specialists and Generalists work in one or more of these organizational functions.

3. Complexity Levels

There are varying levels of complexity connected with the work in this series. Complexity levels relate to the tasks (the work being done) and are based on the factors that influence those particular tasks. These factors include the size, scope and criticality of the environment, the diversity of systems, degree of independence, available guidelines, etc. Please refer to the allocation guide for more detailed information regarding complexity levels and scope.

GENERAL DESCRIPTION OF CLASS

The ISS 2 supports operations, maintenance, and installation of systems, assists with constructing new and enhancing existing systems and helps staff use the systems. This is the Senior Technical level for the series.

DISTINGUISHING FEATURES

This is the second level in an eight level series. It covers both Specialists and Generalists.

The Specialist at this level differs from the lower level by the regular addition of Construction tasks. This Specialist differs from the higher level by working at complexity level 1 rather than complexity level 2. Complexity level 2 requires more in-depth analysis and independent decision making and involves integrated systems affecting significant numbers of users and requiring greater coordination of activities with others.

The Generalist at this level differs from the lower level Generalist by the addition of Operations and from the next level of Generalist who is working at complexity level 2, which requires more in-depth analysis and independent decision making and involves integrated systems affecting significant numbers of users and requiring greater coordination of activities with others.

RELATIONSHIPS WITH OTHERS

The ISS 2 has daily contact with system users to answer questions, solve problems, and clarify instructions and with other Information Systems support staff for assistance with solving problems and to ensure conformity of methods and practices. The Specialist at this level also has regular contact with users to discuss business needs and system requirements. The ISS 2 contacts vendors to ask questions and get information on existing or new technology.

SUPERVISION RECEIVED

The ISS 2 receives general supervision and seeks guidance for priority issues or on technical procedures. Work assignments are from a regular schedule or as problems come up. Work is reviewed for accuracy and conformance with timelines, production standards and policies and procedures.

Processing standards and procedure manuals provide guidelines to ensure conformity of operations. Technical manuals are used for references and assistance is readily available from other ISS staff or vendors for solving non-routine problems and for clarifying instructions on new procedures or assignments.

GENERAL INFORMATION

Some ISS 2 positions may work evening or night shifts or, on occasion, extended or nonstandard work schedules.

EXAMPLES OF DUTIES AND ACCOUNTABILITIES

The duties and accountabilities listed are not inclusive, but characteristic of the type and level of work associated with this class. Individual positions may be assigned all or some combination of the duties described as well as other related duties.

SPECIALIST: CUSTOMER ASSISTANCE, OPERATIONS AND CONSTRUCTION - COMPLEXITY LEVEL 1

The Specialist at this level works 70% of the time in one or two of the four infrastructure functions (Communications, Software, Hardware or Data) usually providing Customer Assistance, Operations and Construction activities at complexity level 1, as described below.

1. Customer Assistance (help use and fix) - Complexity Level 1

Answers common user questions from internal employees about assigned infrastructure function(s) (Software, Hardware, Communications, or Data). Identifies problem by asking established questions and using basic diagnostics. Provides operational assistance. Follows established processes to fix problems or coordinates solutions with other staff resources. Tracks and reports problems. May test new features. Provides one-on-one operational training for assigned infrastructure(s).

Normally works with higher level staff for Customer Assistance backup and advice and deals with isolated incidents or user specific questions and problems which have minimal affect on others in the work unit. Problems addressed at this level can typically be solved by explaining how to use the system or equipment.

2. Operations (day-to-day) - Complexity Level 1

Tasks in this Organizational Function relate to keeping the operations going on a day-to-day basis. This includes installation, performance monitoring, access, security, back-ups, scheduling, inventory management and processing orders.

Uses precedents and basic troubleshooting techniques and does installations following established instructions. Examples of typical installations at this level include installing established software with limited impact to other software or simple hardware memory upgrades. Monitors daily performance of communications system, software or data base and identifies and reports performance problems and issues.

At this level, the infrastructure environment is well established and standardized. Data base environment is typically a central data base serving internal users with limited access, where security is generally covered by other operational functions (i.e., addressed through software not the data base).

3. Construction (new) - Complexity Level 1

Conducts basic business analysis or research and initial needs assessments. Projects usually don't involve modeling. Makes recommendations and documents construction. Generally works with a single user group requiring minimal coordination. Uses established standards for design and in-house consultants for guidance. Contacts vendors to ask questions.

Completes portions of larger projects or all of smaller or routine construction projects. Examples of construction projects include simple memory upgrades, designing single tables for data bases, or installing new server operating systems as part of a team. The environment is generally well established and construction projects require few version or compatibility considerations.

GENERALIST: CUSTOMER ASSISTANCE, OPERATIONS - COMPLEXITY LEVEL 1

The Generalist at this level works in three or four of the four infrastructure functions (Communications, Software, Hardware or Data) and typically does both Customer Assistance and Operations at complexity level 1, as described below.

1. Customer Assistance (help use and fix) - Complexity Level 1

Answers common user questions from internal employees about assigned infrastructure functions (Software, Hardware, Communications or Data). Identifies problem by asking established questions and using basic diagnostics. Provides operational assistance. Follows established processes to fix problems or coordinates solutions with other staff resources. Tracks and reports problems. May test new features. Provides one-on-one operational training for assigned infrastructures.

Normally works with higher level staff for Customer Assistance backup and advice and deals with isolated incidents or user specific questions and problems which have minimal affect on others in the work unit. Problems addressed at this level can typically be solved by explaining how to use the system or equipment.

The Generalist answers questions and solves problems related to at least three of the four infrastructure functions.

2. Operations (day-to-day) - Complexity Level 1

Tasks in this Organizational Function relate to keeping the operations going on a day-to-day basis. This includes installation, performance monitoring, access, security, back-ups, scheduling, inventory management and processing orders.

Uses precedents and basic troubleshooting techniques and does installations following established instructions. Examples of typical installations at this level include installing established software with limited impact to other software or simple hardware memory upgrades. Monitors daily performance of communications system, software or data base and identifies and reports performance problems and issues.

At this level, the infrastructure environment is well established and standardized. Data base environment is typically a central data base serving internal users with limited access, where security is generally covered by other operational functions (i.e., addressed through software not the data base).

KNOWLEDGE AND SKILLS (KS)

SPECIALIST positions require the following Knowledge and Skills in one or two of the four Infrastructure specialties.

General Knowledge of:

- equipment, terminology, methods, and procedures for infrastructure speciality(ies).
- computer components and capabilities.
- interrelationships between computer systems hardware and software.

Basic Knowledge of:

- performance monitoring techniques.
- software and hardware diagnostic tools.
- troubleshooting techniques.

Skills:

- communicating technical concepts to users.
- installing and modifying software, hardware or data communications equipment.

Depending on the Infrastructure functions, some Specialist positions may also require one or more of the following:

General knowledge of:

- commonly used applications software (e.g., word processing, spread sheets, data bases, graphics)
- data communications hardware, software and equipment components (e.g., modems, multiplexors, lines, etc.)

Basic knowledge of:

- information systems operating software and operating systems language.
- computer programming and documentation principles and procedures.
- data management concepts.

Skill:

- operating a computer system and related peripherals (printers, tape drives, magnetic tape drives, cartridges subsystems, optical character readers, communications controllers and remote job entry terminals).
- preparing documentation, technical reports or instructional manuals.
- instructing users on equipment and system operations.
- installing and modifying software, hardware or data communications equipment.

GENERALIST positions require the following Knowledge and Skills in at least three of the four Infrastructure specialties.

General knowledge of:

- information systems terminology, operations and procedures.

Basic knowledge of:

- computer components and capabilities.

- interrelationships between computer systems hardware and software.

Skill:

- communicating technical concepts to users.
- instructing users on equipment and system operations.
- following detailed and technical instructions.
- researching user and technical manuals to solve problems.

Depending on the Infrastructure functions, some GENERALIST positions may also require one or more of the following:

Basic knowledge of:

- operation of, and interrelationships between, computer system hardware/software and telecommunications systems.
- commonly used applications software (e.g., word processing, spread sheets, data bases, graphics).
- data communications hardware, software and equipment components (e.g., modems, multiplexors, lines, etc.).
- information systems operating software and operating systems language.
- performance monitoring techniques.
- software and hardware diagnostic tools.

Skill:

- operating a computer system and related peripherals (printers, tape drives, magnetic tape drives, cartridges subsystems, optical character readers, communications controllers and remote job entry terminals).
- preparing documentation, technical reports or instructional manuals.

NOTE: The KNOWLEDGE and SKILLS are required for initial consideration. Some duties performed by positions in this class may require different KS's. No attempt is made to describe every KS required for **all** positions in this class. Additional KS requirements will be explained on the recruiting announcement.

Adopted 7/1/97

Revised

STATE OF OREGON
Dept. of Administrative Services
Human Resource Services Division