Position Classification Standard for Telecommunications Processing Series, GS-0390

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SERIES DEFINITION

This series includes one grade interval work that involves performing or supervising the operation of equipment in transmitting, receiving, and relaying messages. The work requires knowledge of message-handling procedures and use of computer hardware and software or other equipment to send messages to their proper destinations.

This standard supersedes the standards for the Teletypist Series, GS-0385, issued in April 1964; the Cryptographic Equipment Operation Series, GS-0388, issued in August 1962; the Radio Operating Series, GS-0389, issued in October 1961; and the Communications Relay Operation Series, GS-0390, issued in June 1969.

This series covers many telecommunications equipment operator positions formerly classified in the General Telecommunications Series, GS-0392.

EXCLUSIONS

1.   Classify positions that involve performing technical and analytical work pertaining to the planning, development, integration, utilization, or modification of telecommunications systems, facilities, and procedures, or managerial and staff work in connection with such systems, in the Telecommunications Series, GS-0391.

2.   Classify positions that primarily involve operating computers, including those used for message handling, but do not require telecommunications knowledge, in the Computer Operation Series, GS-0332.

3.   Classify positions that primarily involve performing clerical support work, such as compiling and typing message traffic reports or maintaining records, and that require familiarity with telecommunications technology but do not require knowledge of the principles and techniques of telecommunications, in the Communications Clerical Series, GS-0394.

4.   Classify positions that primarily involve operating facsimile, copying, or other such equipment commonly found in a telecommunications environment, but that do not require telecommunications knowledge, in the Equipment Operator Series, GS-0350.

5.   Classify positions that require knowledge of telecommunications principles or techniques to facilitate the flow of messages, but that primarily involve miscellaneous duties requiring knowledge and skills not provided for in this or other series, in the General Telecommunications Series, GS-0392.

OCCUPATIONAL INFORMATION

Most positions in this occupation are in major relay centers, in intermediate relay centers linked to major relay centers, and in telecommunications centers serving an installation or base and satellite subscribers. The basic purpose of the work is to use a computer system dedicated to telecommunications to get messages promptly and smoothly to their proper destinations, using knowledge of computer operating and message processing procedures.

A few positions involve operating other types of equipment, such as teletype machines for sending and receiving messages; cryptographic equipment for encoding and decoding, or enciphering and deciphering, messages; or radio equipment for sending and receiving messages by voice, cipher, or code.

Operators in telecommunications and relay centers--

- send messages in the proper formats, make necessary corrections if possible, or return the messages to the originators if necessary;

- route messages by referring to manuals when the messages are not directed to addresses that are routed automatically;

- distribute incoming messages to the proper addressees;

- request retransmission of garbled or incomplete messages from other centers and provide retransmissions to them as needed; and

- advise customers of proper telecommunications procedures.

They also use knowledge of computer operation to--

- monitor the flow of message traffic;

- identify and correct systems problems;

- start and restart the system;

- load programs; and

- operate peripheral devices through the console.

In addition, operators in relay centers advise on the resolution of systems problems. Operators in major relay centers are often involved in testing new software and hardware.

TITLES

Telecommunications Equipment Operator is the title for nonsupervisory positions in this series.

Lead Telecommunications Equipment Operator is the title for positions that meet the criteria in the General Schedule Leader Grade Evaluation Guide.

Supervisory Telecommunications Equipment Operator is the title for positions that meet the criteria in the appropriate supervisory evaluation guide.

Agencies may select and add parenthetical titles (e.g. *teletype, cryptographic equipment, or radio*) to the above titles when further distinctions in the work are necessary for recruitment and other purposes. See the Introduction to the Position Classification Standards for more information on titling positions.

GRADING POSITIONS

This standard reflects the most common full-performance levels of covered positions. Most of these positions are classified at the GS-5 level or above. Evaluate full performance level positions on a factor-by-factor basis using the factor level descriptions provided in this standard. Factor levels not described may be used if warranted. Establish trainee and developmental positions using the grade level criteria in the FES Primary Standard and in standards for related kinds of work. The full range of factor levels is found in the FES Primary Standard. More complete instructions for evaluating FES positions are found The Classifier's Handbook.

Evaluate supervisory positions using criteria in the appropriate supervisory evaluation guide.

Evaluate lead positions using criteria in the General Schedule Leader Grade Evaluation Guide.

GRADE CONVERSION TABLE

Grade	Range
5	855-1100
6	1105-1350
7	1355-1600
8	1605-1850

FACTOR LEVEL DESCRIPTIONS

FACTOR 1, KNOWLEDGE REQUIRED BY THE POSITION

Level 1-3 -- 350 Points

The work requires knowledge of message processing and other related clerical duties and tasks. The work often involves knowledge of a large body of standardized security regulations and procedures. In addition, the work requires skill in using computer terminals and peripheral equipment, such as optical character readers, disk drives, magnetic tape units, keyboards, printers, and other comparable equipment. Employees use this knowledge and skill to examine, correct, and transmit messages through a computerized telecommunications system, and to deliver incoming messages to the proper destinations.

Illustration:

In a computerized telecommunications center serving an agency regional office and possibly a few other organizations in the geographical area, employees--

- maintain distribution lists and directories for incoming messages, sort incoming messages by priority levels, and place incoming messages in slot boxes for delivery to the proper organizations;

- call addressees for immediate pickup of high priority messages;

- perform minor equipment maintenance tasks like putting paper and ribbons in printers and mounting magnetic tapes;

- verify the authority of messengers to deliver and receive messages at the telecommunications center;

- examine outgoing messages for format and correct address codes using manuals and routing guides;

- correct messages when possible and return them to the originators when necessary; and

- proofread to make sure that optical character readers or computer terminals are picking up messages accurately, make any necessary corrections, and transmit the messages to their proper destinations.

Level 1-4 -- 550 Points

The work requires knowledge of an extensive body of telecommunications and computer operating procedures to isolate and solve a wide range of recurring problems that affect prompt and accurate delivery of messages. Employees use this knowledge to correct problems in messages that prevent transmission or proper routing, or to request corrections of messages received from other telecommunications centers. Employees use knowledge of computer hardware and program capabilities to prevent loss of messages when the equipment malfunctions, there are errors in the programs, or there are unusual message traffic loads.

Illustration:

As shift leaders or console operators in a computerized telecommunications center serving a military installation, or as console operators in an intermediate relay center linking a group of telecommunications centers to a worldwide system, employees--

- correct problems in messages in response to requests from receiving telecommunications centers;

- request corrections from sending telecommunications centers when messages are incomplete or garbled in transmission;

- provide training to system users and inform them of the proper procedures when they make errors;

- assist connected telecommunications centers in solving unusual problems;

- operate the console of a computerized system for sending and receiving or relaying messages;

- use computer commands to restart or reload the system after scheduled or unscheduled outages, to hold low priority message traffic in off-line memory to prevent system overloads, to switch to alternative equipment when a peripheral device breaks down, and to respond to error messages appearing on the console screen or on printouts; and

- recognize software problems and circumvent them when possible, or switch to a previous version to continue message flow, and report software problems to the programmers as necessary.

Level 1-5--750 Points

The work requires an in-depth knowledge of computer operating systems, procedures, and diagnostic or troubleshooting techniques, and knowledge of precedent situations to isolate and solve unusual and difficult problems. Employees use skill in computer operation to maintain the flow of messages through a computerized telecommunications relay system, find alternative

solutions when common solutions fail, and use nonstandard controls when standardized operator controls and procedures do not isolate and solve problems.

Illustration:

In a relay center that connects many telecommunications centers and intermediate relay centers with a worldwide system, employees--

- assess conflicting problem indicators;

- use multiple combinations of commands to restore system operation;

- use knowledge of the system configuration sufficient to bypass failed peripheral equipment and circuits;

- operate the system by binary commands or other codes when the main console fails;

- advise connected centers on solving complex hardware and software problems that do not respond to standard solutions;

- adjust priorities depending on traffic load, establish alternative routes, and intercept messages to prevent system overload;

- recover messages that have not been processed completely or correctly;

- extract statistical data from the system for reports; and

- test new equipment and programs prior to implementation.

FACTOR 2, SUPERVISORY CONTROLS

Level 2-2--125 Points

The supervisor provides general instructions concerning established practices and policies, and provides instructions on special circumstances and changes in priorities. The supervisor provides training classes on new procedures.

Employees work independently within established procedures and make minor deviations based on experience. They consult the supervisor when normal approaches and procedures do not solve problems.

The supervisor occasionally spot-checks work for quality and checks logs for quantity of messages processed.

Level 2-3--275 Points

The supervisor provides general instructions to cover anticipated problems. The supervisor assists employees with high priority, unusually complex problems, such as system outages that do not respond to standard or other precedented combinations of computer commands.

Employees identify problems, make decisions under pressure to restore system operation promptly, and take corrective action. This sometimes requires adapting and modifying operating procedures.

The supervisor reviews completed work for adequacy of technical decisions and timeliness of actions taken.

FACTOR 3, GUIDELINES

Level 3-2--125 Points

Employees use established procedures, manuals for the operation of the telecommunications system, and routing guides that show the proper address codes for organizations. The guidelines are numerous but are specific and detailed on how to solve common problems.

Employees must choose the appropriate manual or guide and may make minor adaptations of established procedures. Employees recognize and refer to the supervisor unusual problems not covered specifically by the guidelines, such as conflicting computer error messages that do not respond to corrective actions.

Level 3-3--275 Points

Manuals, guidelines, and procedures are available and cover recurring work. For example, the guides cover normal equipment problems and provide corrective operator commands and procedures. They list the usual error codes that appear on the screen or on printouts and show the appropriate remedial actions to keep messages flowing smoothly through the switching or relay center. The guidelines do not apply completely to unusual problems. They provide only general guidance for situations not previously encountered.

Employees must use judgment in adapting or deviating from operating manuals and established procedures and in finding related precedents to solve unusual problems, such as conflicting error messages or program deficiencies.

FACTOR 4, COMPLEXITY

Level 4-2--75 Points

Employees operate a computer system dedicated to telecommunications in a telecommunications center or in an intermediate relay center connecting several telecommunications centers to a worldwide system. Employees examine, correct, and transmit messages or relay messages of various precedence and security levels using related sets of procedures. This includes identifying and correcting a variety of software and hardware problems that respond to standard or precedented alternative approaches.

Employees must choose the proper routing for messages in accordance with manuals and directories that provide address codes, and with precedence and security levels that may require special procedures. They implement the proper solutions to computer system error messages in accordance with operating manuals and precedents.

Decisions depend on such things as the destinations and priority levels of messages, security levels, and system or program capabilities.

Level 4-3--150 Points

Employees operate a computer system dedicated to relaying messages. The work involves solving operating problems that do not respond to standard computer console command combinations and procedures. These may include problems referred by subscribing telecommunications centers.

Employees use diagnostic test programs to isolate the causes of problems, choose a course of action likely to succeed from among several alternatives, and adapt it as necessary to the specific conditions.

Decisions require assessment of conflicting problem indicators; consideration of any alternative routes or equipment configurations that have already been employed to solve previous problems; and adjustment for message load, precedence, and security levels.

FACTOR 5, SCOPE AND EFFECT

Level 5-2--75 Points

The purpose of the work is to operate a computerized telecommunications system to send or receive messages in accordance with established procedures.

The work affects the accurate and reliable transmission of national defense, medical, or other important messages.

Level 5-3--150 Points

The purpose of the work is to keep message traffic flowing to a worldwide system by promptly diagnosing, solving, or circumventing hardware and software problems in accordance with established policies and tight deadlines.

The work affects the flow of message traffic worldwide and can affect the timely delivery of a large volume of national defense, medical, or other vital information to and from several telecommunications centers.

FACTOR 6, PERSONAL CONTACTS
AND
FACTOR 7, PURPOSE OF CONTACTS

Match the level of regular and recurring personal contacts with the purpose of the contacts, and credit the appropriate point value using the chart below.

Persons Contacted

1.   Contacts are with other employees in the telecommunications center and with messengers who deliver and pick up messages.

2.   Contacts are with users of the telecommunications system, with programmers, and with employees in other telecommunications centers, switching centers, and relay centers. Some of the contacts occur regularly and others only as problems occur, such as failure of messages to go through the system.

Purpose of Contacts

a.   The purpose of the contacts is to provide and obtain information necessary to complete message transactions.

b.   The purpose of the contacts is to work with others in solving problems, such as outages that employees in connected telecommunications centers cannot solve for themselves or software problems that require interaction with programmers.

P U R P O S E

C O N T A C T S		a	b
	1	30	60
	2	45	75

FACTOR 8, PHYSICAL DEMANDS

Level 8-1--5 Points

The work is usually sedentary but may involve some standing and walking. Some employees may occasionally lift heavy items, such as boxes of paper weighing about thirty pounds, when performing minor maintenance of peripheral equipment.

FACTOR 9, WORK ENVIRONMENT

Level 9-1--5 Points

The work is normally performed in a well-lighted and temperature controlled room. There is a fairly high noise level, but normal safety precautions are sufficient.