**DEPARTMENT:** **NIAGARA COUNTY INFORMATION TECHNOLOGY**
**CLASSIFICATION:** **COMPETITIVE**
**APPROVED:** **DECEMBER 5, 2024**

## COMMUNICATIONS TECHNICIAN / COMPUTER PROGRAMMER

**DISTINGUISHING FEATURES OF THE CLASS:** The work involves responsibility for supporting unified communications voice systems and related equipment/software. The incumbent plans, tests, implements, configures, maintains and documents the system as necessary. The incumbent will troubleshoot reported issues, provide the best tested solutions, interact with internal and external resources, and meet the standards and requirements of the agency in a timely manner. The programming work involves responsibility for creating and/or modifying computer programs. The incumbent analyzes business processes and projects proposed for computerization, and designs, modifies, tests, implements, maintains and documents appropriate software applications. The incumbent researches reported problems, plans and proposes a solution, coordinates the problem solving process, selects the best solution, tests the proposed solution, and meets the agency's standards and requirements. The incumbent must ensure programs and systems are developed and maintained to modern security standards. The incumbent may work with more than one modern operating system and with more than one modern programming language including object-oriented/event-driven programming languages. The role may require the incumbent to develop, implement, and conduct ongoing training. The work is performed under the direct supervision of a higher-level administrator with considerable leeway allowed for the use of independent judgment in carrying out the details of the work. Does related work as required.

**TYPICAL WORK ACTIVITIES:**
1.    Upgrades and/or patches communication system and coordinates with peers, agencies, and vendors to ensure maximum uptime;
2.    Monitors unified communication systems for proper functionality and troubleshoots as necessary;
3.    Completes Add/Move/Change requests in a timely manner from agencies related to the communication system. This includes but is not limited to user setup/configuration and the delivery/setup of various phone types and analog devices;
4.    Modifies training documentation as needed and trains or assists end users on the use of the system and devices;
5.    Analyzes and reports system state, capacity, traffic, inventory, licenses, logs, call detail records, and related information;
6.    Determines opportunities for improvement, tests, obtains approval, and implements;
7.    Meets with employees and department heads and analyzes business processes and projects proposed for computerization, defines end user requirements, develops process logic and flowcharts, and determines the appropriate programming solution;
8.    Develops the logic of a computer program based on program specifications, flowcharts and other documentation;
9.    Writes program instructions (code) in a specific programming language and creates documentation for various stakeholders;
10.   Tests the program within the overall system with sample and actual data and makes modifications and revisions to software programs to ensure accuracy and compliance with end-user needs;
11.   Develops software that operates on multiple platforms (servers, PCs, web, mobile devices, etc.) as needed;
12.   Builds dashboards, reports, prepares data for export, and establishes procedures for importing of data;
13.   Diagnoses and resolves software application problems and interacts with vendors as needed;
14.   Operates a micro-computer and peripheral equipment for production work;
15.   Trains others on the use of new and/or revised programs, customizations, software;
16.   Prepares, revises, modifies and updates existing software systems according to agency needs and security requirements;
17.   Reviews and maintains developed programs including applying security updates, patches, and software upgrades;
18.   Creates and assists end-users with the creation of functional procedure manuals and writes process documentation for system customizations as applicable.

**FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**
Thorough knowledge of unified voice communication systems, standards, and protocols; thorough knowledge of security standards, practices, and protocols; thorough knowledge of hardware systems including servers, gateways, handsets, conference, and related devices; thorough knowledge of modern programming languages including object-oriented/event-driven languages; thorough knowledge of the principles and practices of analyzing business processes and designing and developing computer programs; good knowledge of computer software related to storing, manipulating and reporting on accounting and statistical data; good knowledge of personal computer hardware, software and peripheral equipment; ability to maintain and support voice systems; ability to troubleshoot voice systems and interfacing systems (LAN, WAN, gateway, PSTN); ability to utilize system analysis tools for continuous improvement and reporting; ability to adapt quickly to change; ability to create and modify computer programs; ability to perform business process analysis and design and develop object-oriented computer programs; ability to train others in the use of computer software; ability to understand and interpret complex oral instructions and written directions; ability to establish and maintain effective working relationships with others; ability to perform close, detail work involving considerable visual effort and concentration; ability to communicate effectively both orally and in writing; sound judgment; integrity; tact; courtesy; physical condition commensurate with the demands of the position.

**MINIMUM QUALIFICATIONS:**

**SUGGESTED PROMOTIONAL QUALIFICATIONS:**
Two (2) years of permanent competitive status as a Computer Technician I or a Computer Technician II in the Niagara County Department of Information Technology immediately preceding the date of the written test and must meet the open competitive qualifications.

**MINIMUM QUALIFICATIONS:**

**OPEN-COMPETITIVE:**
Graduation from a high school or possession of an equivalency diploma **AND** one of the following:

1.  Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a Bachelor's degree in computer programming, computer science, computer information services, or closely related field **and** two (2) years of full-time paid experience which involved demonstrated responsibility for the design and development of computer programs in a 4GL programming language (object-oriented/event-driven language), business process analysis, technical documentation creation, and voice communications systems administration / support; **OR**

2.  Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with an Associate's degree in computer programming, computer science, computer information services, or closely related field **and** four (4) years of full-time paid experience which involved demonstrated responsibility for the design and development of computer programs in a 4GL programming language (ex. PL/SQL, SQR, Visual Basic or other object-oriented/event-driven language), business process analysis, technical documentation creation, and voice communications systems administration / support.