Systems Analyst/Technician
Tompkins County

Department: Various Agencies under Tompkins County's Jurisdiction
Classification: Competitive
Labor Grade: 15
Revised: 12/97; 6/01; 8/02; 01/05; 12/17
By: AF, Commissioner of Personnel

MINIMUM QUALIFICATIONS:

(a) Graduation from a regionally accredited or New York State registered four year college or university with a Bachelors Degree in Computer Science, Electrical or Computer Engineering, Communications Technology or a related field **AND** three years of full-time paid (or the equivalent part-time and/or volunteer) experience in systems analysis and the maintenance of electronic data processing equipment and communication systems; **OR**

(b) Graduation from a regionally accredited or New York State registered two year college with an Associates Degree in Computer Science, Electrical or Computer Engineering, Communications Technology or a related field **AND** five years of full-time paid (or the equivalent part-time and/or volunteer) experience in systems analysis and the maintenance of electronic data processing equipment and communication systems; **OR**

(c) Graduation from high school or possession of a high school equivalency diploma **AND** seven years of full-time paid (or the equivalent part-time and/or volunteer) experience in systems analysis and the maintenance of electronic data processing equipment and communication systems; **OR**;

(d) Any equivalent combination of training and experience as described in (a), (b) and (c) above.

 Tompkins County is Committed to Equity and Inclusion. We encourage those with similar values to apply.

NOTE: Degrees in word processing, or spreadsheets does not qualify in (a) and (b).

SPECIAL REQUIREMENTS:

Must possess of a valid New York Sate motor vehicle operators license or otherwise demonstrate the ability to meet the transportation requirements of the job.

DISTINGUISHING FEATURES OF THE CLASS:

This is a technical position responsible for developing, maintaining and recommending work involving telecommunications, networking, system integration and maintenance of related hardware and software   The incumbent is responsible for the adaptation of micro-computers and telecommunications systems to department and user needs. Working with various departments as needed, the incumbent works from problem definition to implementation and support for the system designed. This includes the supervision, coordination, planning, and implementation of work involving telecommunications (including new telephone systems, new phone installation on existing systems, and maintenance of the existing systems). This position works under the general direction of the Network Systems Administrator or Telecommunications Programming Administrator. Considerable leeway is allowed for the exercise of independent judgment when planning and carrying out the work methods and procedures with commensurate responsibility for technical results. This position requires the ability to work with a high degree of autonomy making daily independent judgments in coordinating major projects. The incumbent will be called upon to supervise work projects, work groups, and to provide technical supervision to other County departmental staff.   The incumbent will perform other related duties as required.

TYPICAL WORK ACTIVITIES:

Telecommunications

- Principal County focal point for telecommunications circuit providers, long distance and regional carriers to resolve problems regarding the equipment, lines, service options and maintenance;
- Responsible for the operation of the County's numerous telephone systems;
- Program phone switching equipment for new telephones and features, and for changes of existing telephones and features;
- Insures customer satisfaction, provides feedback to customers on status of requests and follow-up with customers to provide increasing standards of service. Incorporate results into service approach;
- Receive, evaluate, prioritize, schedule work, and take action on customer requests for repair, installation or modification of telephone equipment.
- Maintain telephone systems (including hardware, software, etc.);
- Installs, tests and evaluates delivered telecommunication material Coordinates the operation of telecommunications hardware and software;
- Conduct in-depth research to develop maintenance procedures;
- Maintain the telephone systems with minimal disruption in service;
- Develop tests to assure system reliability, analyzes data, and develops procedures to increase fault tolerance;
- Integrate telephones, computers and networks, i.e.: voice mail, modems, DSU's, CSU's, network based phone & video conferencing, T1's & fractional T1's;
- Coordinate activities with other County Agencies to assure timely project completion;
- Provide help desk support for telecommunications, including responding to emergency calls for hardware and software;
- Identify telecommunications hardware and software to support customer requests;
- Research and develop cost estimates for telecommunications equipment, software and installation for departmental budgetary analysis and training;
- Train customers on telecommunications equipment, including features, usage, and system capabilities;
- Monitor and maintain inventory of spare telephones and related peripheral equipment;
- Research rapidly changing technology using telecommunications trade journals and other forms of media to provide suggestions and input for future needs.
- Determine requirement for tools, spares, support equipment and wire necessary to support telecommunications equipment;
- Prepare technical bid specifications and proposals;
- Analyze and evaluate bid or proposal responses resulting in recommendations for hardware, software, carrier and other services;
- Provide technical assistance with drafting, analyzing and negotiating contracts for equipment, systems and professional services;
- Collect, analyze and distribute costs related to the monthly usage of County telephone systems.

Computer Systems:

- Manage file servers, print servers, network peripherals and server based software to assure system functionality, compatibility, security, integrity and effective resource sharing;
- Install hardware, software & network connections;
- Insures customer satisfaction, provides feedback to customers on status of request and follow-up with customers to provide increasing standards of service and incorporates the results into a service approach;
- Develop, maintain and recommend computer hardware and software systems;
- Debug and assures compliance of all systems with users needs;
- Integrate telephones, computers and network equipment;
- Conduct in-depth research as required to develop and maintain the computer systems with minimal disruption in service;
- Communicate with other County Agencies as part of hardware/software support and coordination;
- Provide help desk support for microcomputer, software, and networking issues;
- Analyze and evaluate bid or proposal responses resulting in recommendations for hardware, software;
- Provide formal and informal customer training on various microcomputer and network hardware and software;
- Determine customer requirement, analyze data, plan, develop, test, and refine custom computer programs as required using diverse programming languages and environments;
- Receive, evaluate, prioritize, schedule work, and take action on customer requests for new computer hardware/ software or changes to existing hardware & software.
- Ensure repairs are completed in a timely manner;
- Manage the installation, testing and evaluation of delivered materials;
- Research rapidly changing technology using computer trade journals and other forms of media to provide suggestions and input for future needs maintain knowledge of current equipment and technology;
- Determine requirements for tools, spares, support equipment and wire necessary to support computer equipment, network and radio systems;

- Assure compatibility and coordinate the operation of microcomputer/network hardware and software;
- Develop appropriate tests to assure system reliability and implement all programs in appropriate test environments for parallel operation with current system;
- Communicate with vendors and other technical support personnel to resolve problems regarding microcomputer/network equipment, maintenance, etc.;
- Respond to emergency calls from customers for malfunctions in computer systems;
- Recommend computer hardware and software to support customer requests;
- Research and develop cost estimates for microcomputer equipment, software, and installation for departmental budgetary analysis and planning;
- Prepare technical bid specifications and proposals;
- Provide technical assistance with drafting and negotiating contracts for equipment, systems, and professional services;
- Install, configure, test and train customers on system software, including Telnet, FTP, WWW browsers, query tools, and other distributed software components;
- Employ Internet based resources including WWW browsers, mail systems, FTP and Telnet software as required to support County computer systems.

KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

- Working technical knowledge of telecommunications including hardware and software;
- Working technical knowledge of microcomputers including hardware and software;
- Working knowledge of programming techniques and concepts including microcomputer software: programming language, database & spreadsheet;
- Working knowledge of the concepts, principles and methodology of systems analysis as applied to computer programming;
- Good knowledge of governmental functions;
- Good knowledge of applicable laws, rules and regulations governing the use of software, as well as the judicial and administrative interpretation related to these;
- Good knowledge of computer network hardware, protocols, drivers, and related software;
- Skill in the operation of computer and communications equipment;
- Ability to learn new technology;
- Ability to understand and develop Entity Relationship Diagrams, Dataflow and code programs from them;
- Ability to establish and maintain working relationships with department heads, computer users, software contractors and members of the public requesting service;
- Good technical ability and knowledge of changing technology;
- Good judgment;
- Ability to train users in the use of hardware, software and telecommunications equipment;
- Ability to establish and maintain effective working relationships;
- Analytical reasoning ability, resourcefulness, dependability;
- Ability to communicate effectively both orally and in writing;
- Ability to write the technical portions of specifications for bid proposals;
- The employee's physical and mental condition shall be commensurate with the demands of the position, either with or without reasonable accommodations.

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