

## Computer And Network Specialist, Senior

### Definition

To plan, design, implement and operate computing networking systems including hardware and software, stand-alone, peer-to-peer and client/server operating systems in a major organizational unit at a college, satellite location or the District Office; to plan, organize and monitor district wide network, servers and telecommunication operations; and to develop and perform system procedures.

### Distinguishing Characteristics

**Computer and Network Technician** – This is the journey-level classification in the Computer and Network Specialist series. This classification requires basic knowledge and experience to provide technical assistance to the District.

**Computer and Network Specialist** - This classification requires more specialized knowledge and experience to provide technical assistance to other staff.

**Computer and Network Specialist, Senior** - This is the most advanced level classification in the Computer and Network Specialist series. Incumbents at this level work relatively independently and act as a lead on troubleshooting servers and networks that often impact multiple locations.

### Supervision Received and Exercised

- Receives supervision from a departmental supervisor or manager.
- May receive technical or functional supervision from higher-level departmental personnel.
- May provide training and direction to student assistants or other assigned staff.

### Examples Of Duties

Duties may include, but are not limited to, the following:

- Designs, installs, maintains, and administers server clusters, virtual environments, and connections to Local Area Network (LAN)/ Wide Area Network (WAN).
- Interfaces with user community to determine and document technical requirements for computer and network solutions.
- Creates and manages project plans.
- Provides leadership for dealing with change and ambiguous situations.
- Provides high-level follow-through and problem solving for completing projects.
- Designs and documents network architectures that are efficient, scalable and secure.
- Provides high-level computer and network troubleshooting and solutions.
- Plans, designs, implements and operates network telecommunication hardware, software and cabling.
- Plans, designs, implements and administers user and group accounts, network printing services, Internet connectivity, network security, and network software applications.

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- Provides consultation, training and problem-solving support for client/server computer systems, network systems and applications.
- Communicates with vendors and users to obtain information, resolve problems, arrange and conduct demonstrations.
- Implements, and monitors security standards for all client/server platforms on student networks.
- Implements, and monitors disaster-recovery standards, including audit requirements, legal requirements, risk analysis, recovery strategies, setup, maintenance of fault-tolerant hardware and data backup systems.
- Participates in testing hardware and software products and makes recommendations on usage.
- Participates in long-range planning efforts; serves in an advisory capacity to determine appropriate hardware and software needs for computing and networking.
- Implements technical procedures (in person or remote) on hardware such as diagnostics, prefailure checks, upgrades, and interoperability.
- Maintains data conversions, databases, and other applications to support computer operations; generates and writes reports and documentation.
- May provide direction to technicians, student assistants, staff, and others who provide computer systems support.
- Maintains records of activities; develops and maintains system documentation.
- Obtains ongoing training and information to keep skills and knowledge current.
- Coordinates, conducts and participates in end-user and peer training.
- Communicates with faculty, staff and students via written, verbal and non-verbal methods in order to effectively provide technical services and instruction. Performs related duties as assigned.

### Minimum Qualifications

Knowledge of:

- Principles, theories, methods, materials, and equipment used in the design, installation, operation, and maintenance of telecommunications, LAN, and WAN technologies including the operating systems, applications, protocols and topologies.
- Installation, application, maintenance and repair of telecommunications cabling.
- Installation, maintenance, and support of network management software packages.
- Principles and theory of disaster-recovery design and planning including audit requirements, legal requirements, risk analysis, and recovery strategies.
- Concepts and principles of security equipment (firewalls, Access Control Lists, Intrusion Detection Systems, etc.), threat vectors to information systems, Cloud computing, IP phone architecture, network storage and routers.
- Principles, theories, methods, materials, and equipment used in the design, installation, operation, and maintenance of telecommunications, and network technologies including

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**EEO Category:** *Technical/Paraprofessional*

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**Effective Date:** 02/09/22

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peer-to-peer, client server, and stand-alone operating systems, peripherals, applications, connectivity, protocols and topologies.

- Safety procedures when working with electrical and electronic systems.
- Principles of supervision and training.

### Skill/Ability to:

- Plan, design, implement, monitor, troubleshoot and operate LAN, WAN, telecommunication hardware and software, fiber and copper media. • Provide technical advice and assistance on matters relating to the installation and operation of LAN and WAN and telecommunication systems.
- Provide technical advice and assistance on matters relating to the installation, operation, and support of computer systems including multiple networks, peripherals, telecommunications, and Internet.
- Plan, design, implement and operate personal computers, network servers, multiple networks, network peripherals, virtual environments, storage area networks, telecommunications software and hardware, and fiber and copper media.
- Supervise the work of others.
- Exercise high level problem solving/troubleshooting skills and follow-through.
- Coordinate, conduct and participate in end-user or peer training.
- Use electronic test equipment and common small hand tools.
- Execute and communicate oral and written instructions.
- Understand technical manuals and instructions.
- Work independently and effectively under pressure, adapting to changing demands.
- Establish and maintain cooperative work relationships with those contacted in the performance of required duties.
- Demonstrate understanding of, sensitivity to, and respect for the diverse academic, socioeconomic, race, ethnicity, gender identity, sexual orientation, age, mental or physical disability, and religious background of all students, faculty, and staff, and with all individuals encountered in the performance of required duties.

### Education/Experience

- Possession of a bachelor's degree is highly desirable OR equivalent to the completion of an associate degree in computer science or related field. (Experience may be substituted for education on a year-for-year basis).
- Five (5) years of experience in planning, installing, operating, and maintaining local and wide area networks, computers and servers.
- At least two (2) years' experience in managing network systems.
- Demonstrated project management experience.

Adopted: 07/01/17

Revised: 06/08/22

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