

## **COMPUTER NETWORK SPECIALIST**

**DISTINGUISHING FEATURES OF THE CLASS:** This is technical work involving the planning, implementation and maintenance of local and wide area digital networks. In addition, the work involves making certain that end users have competence and confidence in using their systems. Also the individual will be required to keep both hardware and software "state-of-the-art" through systematic upgrades. General supervision will be received from a technical or administrative supervisor. Does related work as required.

### **TYPICAL WORK ACTIVITIES:**

Plans, implements and maintains local and wide area digital networks;  
Reviews end user technology and ascertains needs;  
Evaluates end users' present technology and makes recommendations on appropriate network solutions;  
Assists agency personnel with the preparation and use of local and wide area digital networks;  
Monitors existing network systems and corrects and modifies topology and protocols to optimize performance;  
Trains end users so as to maximize their system's performance;  
Analyzes organizational network needs and implements the appropriate solution to those needs;  
Connects, configures, and maintains modems, routers and bridges for Local Area Network (LAN) and Wide Area Network (WAN) systems;  
Unpacks hardware and software; loads new software and network interface cards, installs CD Rom's as well as local applications; and sets up same for new users;  
Connects, configures, and maintains new as well as existing ethernet, starlan, and token ring topologies;  
Configures and upgrades software to optimize performance in network environments;  
Prepares written and oral reports of findings and recommendations.

### **FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

Thorough knowledge of the design of logical digital networks; thorough knowledge of the properties of transmission mediums; thorough knowledge of the principles of network analysis; thorough knowledge of microprocessor architecture, operation, software and hardware/software compatibility; ability to analyze user needs and integrate existing technology into new and updated topologies; ability to formulate, communicate, and/or carry out complex oral and written instructions; ability to reason logically; ability to present ideas clearly and logically, both orally and in writing; ability to train equipment users.

### **MINIMUM QUALIFICATIONS:**

1. A Bachelor's degree or higher in Computer Science, Management Information Systems, or related field, or any other Bachelor or higher degree that included a specialization\* in computer science; and three (3) years of paid work experience developing and maintaining computer networks, two (2) years of which were spent developing and maintaining local and wide area digital networks, **or**
2. A Bachelor's degree or higher and four (4) years of paid work experience developing and maintaining computer networks, two (2) years of which were spent developing and maintaining local and wide area digital networks.

**NOTE:** Three (3) additional years of the required "general" experience may be substituted for the general Bachelor's or higher degree in #2 above.

\*At least fifteen (15) credit hours are required to be considered a specialization.