SERIES PURPOSE:
The purpose of the network administration occupation is to provide local area &/or wide area computer network support services to agency users.

GLOSSARY: The terms listed below, which will appear within the classification specification, are to be interpreted to mean the following:

CNA Network Certification: Designed for persons responsible for day-to-day operations of a network, with the typical tasks of adding/deleting users, backing up the server, loading applications & maintaining security. To earn certification, a candidate must demonstrate proficiency in a selected operating system (e.g., NetWare 2.2, 3.1X or 4.0).

CNE/CBE/MCP Network Certification: Designed for persons to provide quality support for NetWare networks including system design, installation & maintenance. To earn certification, a candidate must demonstrate mastery of networking concepts.

ECNE Network Certification: Designed for persons who have been CNE/CBE/MCP certified & focuses on the support of enterprise-wide networks. To earn certification, a candidate must demonstrate proficiency in specialized networking technology.

Note: Equivalent network certification would be as a result of a candidate attending a training program & demonstrating proficiency in the same/similar subject matter & skills.

Internetworking Services: The services involve the planning & implementation of connecting dissimilar LANs &/or other computer systems (e.g., graphic workstations, minicomputers or mainframe computers) client server & multi-media systems & peer to peer networks which may use communication languages to communicate among the respective networks.

Local Area Network (LAN): A group of computers & other devices that are connected by a communications link (network) which allows any device to interact with another on the network. A Local Area Network generally spans a small geographic area, such as within a single building. For example: A powerful personal computer is used as a network file server with network licensed software stored on it. The file server is connected by an ethernet cabling scheme to many personal computers & a single printer.

Wide Area Network: A network that transmits over a large geographic area using lines provided by a common carrier of private telecommunications facilities and/or provides a link between dispersed local area network segments &/or provides the links from a computer center to remote locations. The Ohio Data Network is an example of a wide area network.
JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Designs, implements & maintains computer network & internetworking services (e.g., sets up hardware; installs network cards, cabling, hubs, concentrators & Token Ring multi-station access units; installs software; configures network server; installs network user software component; maintains physical links; designs, implements & maintains security; designs, implements & maintains global naming conventions among multiple servers; designs disaster recovery implementations to maintain data integrity in distributed processing environment, disk mirroring, disk duplexing, redundant servers & automated tape backup & coordinates work with data archival specialist/team) & installs & monitors uninterruptible power supplies.

Coordinates installation of or installs host connectivity, multi-platform connectivity, remote dial up & multiprotocol implementations (e.g., TCP/IP, NFS, SNA, LAT, X.25, X.400); configures & installs/supports multi-segmented cabling schemes or more than one LAN access types (e.g., Ethernet, Token Ring, Arcnet, FDDI, wireless, dial up); designs & implements client server solutions & cooperative processing solutions.

Monitors packet traffic on one cable segment or across bridges & routers; allocates & monitors server disk storage space for users on network; allocates & monitors server memory usage to insure efficient dynamic memory usage; sets up & monitors network based network aware applications.

Performs protocol analysis; troubleshoots packet transmission problems; monitors line for deficiencies & ethernet & Token Ring segments for loading, collisions & congestion; runs Lanalyzer or Network General Sniffer; installs & maintains LAN Monitoring system (e.g., Cabletron Spectrum; HP Openview using Simple Network Management Protocol or Common Management Information Protocol agents at node); merges node information to global monitoring system (e.g., IBM Netview or DEC EMA).

Confers with training officer in order to produce training materials or evaluate courses for distribution; facilitates network training courses; cooperates with network administrators & host support team for inter-divisional &/or enterprise connectivity solutions; maintains state-of-art awareness of current vendor offerings & standards; attends industry seminars & conferences; reviews/evaluates networking software/hardware; prepares reports for long range plan; assists in preparing implementation budget for network operations; performs upgrades with other network personnel & host support team; acts as liaison to MIS or other departments for linking or sharing computer & communications equipment; participates on project teams; acts as project leader when necessary.

Supervises lower-level network administrator &/or other computer personnel (e.g., programmer/analysts, systems analysts, programmer specialists, telecommunications technicians) engaged in supporting/maintaining/operating/designing computer network.

MAJOR WORKER CHARACTERISTICS:

Knowledge of computer science or related field; computer network hardware, software & operating systems & procedures; network administration; employee training & development; supervisory principles/techniques*; budgeting*. Skill in operation of computer & peripheral equipment & keyboard operations. Ability to comprehend & discuss large number of technical variables & determine course of action; cooperate with co-workers on group projects, resolve complaints from network users & provide friendly atmosphere as supervisor.

(*)Developed after employment.
MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:
Completion of undergraduate core coursework in computer science or related field which included discussion & use of computer software & hardware; 12 mos. as Network Administrator 3, 67133, or performing like duties to include supervising others in networking.

- Or ECNE or equivalent network certification.

- Or two or more of following or like network certifications: CNE, CBE & MCP.

- Or equivalent of Minimum Class Qualifications For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:
Attends training to maintain network certification(s).

UNUSUAL WORKING CONDITIONS:
Not applicable.
JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Is responsible for overall design, maintenance & implementation of computer networks & internetworking services & supervises technical computer network support personnel, reviews network functioning, procedures & documentation, monitors work in progress, orients & trains new staff &/or recommends training seminars/classes for staff, assists staff in resolving difficult networking problems & answers technical questions, establishes & enforces unit policies & procedures, conducts staff meetings, prepares budget & participates in long range planning.

Supports local area networks & wide area networks; responsible for design & setup of local area networks; sets up hardware; installs network cards, cabling, hubs, concentrators & token ring multi-station access units; installs software; configures network server, installs network client software component; maintains physical links; designs, implements & maintains security; designs, implements & maintains global naming conventions among multiple servers; designs disaster recovery implementations to maintain data integrity in distributed processing environment; disk mirroring, disk duplexing, redundant servers & tape backup; coordinates work with data archival specialist/team; installs & monitors uninterruptible power supplies.

Coordinates installation of or installs host connectivity, multi-platform connectivity, remote dial up; installs multiprotocol implementations (e.g., TCP/IP, NFS, SNA, LAT, X.25, X.400); configures & installs/supports multisegmented cabling schemes or more than one LAN access type (e.g., Ethernet, Token Ring, Arcnet, FDDI); designs & implements client server solutions & cooperative processing solutions.

Monitors packet traffic on one cable segment or across bridges & routers; allocates & monitors server disk storage space for users on network; allocates & monitors server memory usage to insure efficient dynamic memory usage; sets up & monitors network based 'network aware' applications.

Performs protocol analysis; troubleshoots packet transmission problems; monitors line for deficiencies; monitors ethernet & token ring segments for loading, collisions & congestion; runs Novell Lanalyzer or Network General Sniffer; installs & maintains LAN Monitoring system (e.g., Cabletron Spectrum; HP Openview using Simple Network Management Protocol or Common Management Information Protocol agents at node); merges node information to global monitoring system (e.g., IBM Netview or DEC EMA).

Confers with training officer to produce training materials or evaluate courses for distribution; facilitates network training courses; cooperates with network administrators & host support team for inter-divisional &/or enterprise connectivity solutions; maintains state-of-art awareness of current vendor offerings & standards; attends industry seminars & conferences; reviews/evaluates networking software/hardware; performs upgrades with other network personnel & host support team; acts as liaison to MIS or other departments for linking or sharing computer & communications equipment.

MAJOR WORKER CHARACTERISTICS:
Knowledge of computer science or related field; computer network hardware, software & operating systems & procedures; network administration; employee training & development; supervisory principles/techniques; budgeting*. Skill in operation of computer & peripheral equipment & keyboard operations. Ability to comprehend & discuss large number of technical variables & determine course of action; cooperate with co-workers on group projects, resolve complaints from network users & establish friendly atmosphere as supervisor.

(*)Developed after employment.
MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:
12 mos. exp. as Network Administration Supervisor, 67135.

-OR 2 YRS. EXP. AS NETWORK ADMINISTRATOR 3, 67133.
-Or ECNE or equivalent network certification; 12 mos. trg. or 12 mos. exp. in supervisory principles & techniques.

-Or two or more of following or like network certifications: CNE, CBE & MCP: 12 mos. trg. or 12 mos. exp. in supervisory principles & techniques.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:
Attends training to maintain network certification(s).

UNUSUAL WORKING CONDITIONS:
Not applicable.