

NETWORK SUPERVISOR—NETWORK CONTROL (EADAS N/M)

Personnel assigned as Network Supervisor—Network Control EADAS N/M will be responsible for surveillance and control of network performance in the offices within the EADAS/NM area of responsibility. This includes the monitoring and analysis of network design data and exception indications during abnormal load periods and facility failures. Also, the Network Supervisor—Network Control investigates abnormal conditions and initiates appropriate corrective action and/or controls in accordance with established principles of network management.

Additionally, this position is responsible for creation of contingency preplans involving trunk rerouting, trunk augments and/or alternate routing to be used during periods of focused overloads, loss of facilities, or on peak days. Following application of controls or preplans, the Network Supervisor coordinates critiques of these actions and recommends corrective measures to solve identified problems.

The amount of time devoted to the various control, preplanning and administrative functions will vary by the concentration of the assigned cluster. Due to the integrated nature of network management activities, it is suggested that each function be assigned to one or more individuals in rotation. In addition, one Network Supervisor—Network Control will be assigned to supervise up to five vocational personnel who provide clerical support to the network management center.

DUTIES AND RESPONSIBILITIES	PERCENT OF TOTAL TIME
A. Network Surveillance and Control	50
B. Preplanning	30
C. Administrative and Reporting Activities	10
D. Miscellaneous	10

Note: Any reference to the Bell System TNDS or EADAS configuration may be substituted by outside vendor names, if applicable. All recommendations should apply with minimal modification when utilizing other vendor products.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

JOB TITLE: NETWORK SUPERVISOR—NETWORK CONTROL

DEPARTMENT: NETWORK

SUPERVISOR: NETWORK MANAGER—NETWORK CONTROL

JOB SUMMARY

This position is responsible for surveillance and control of network performance in the offices within the EADAS/NM cluster. Network data, discrete information and computed exception indicators, as processed by the EADAS/NM minicomputer, are monitored and analyzed to detect abnormal conditions. These data are further analyzed to determine the extent of the problem and the best means to correct and/or control such trouble indications as sender delay, no circuit conditions or ineffective machine attempts. The Network Supervisor—Network Control coordinates the application and removal of expansive and/or restrictive control actions and critiques the results for the effect on the network and necessary changes in the future.

Additional functions assigned to the Network Supervisor—Network Control involves the preparation of contingency and peak days preplans, reroutes and trunk augments as well as the direction of extensive administrative and reporting activities. The percentage of time devoted to the three major network management fields of control, planning and administration will vary for each Network Supervisor depending on the extent of the EADAS/NM cluster, the number of supervisors, and the assigned area of primary concentration.

The nature of the surveillance/control responsibility dictates the need for a substantial amount of coordination. This coordination is required with the Network Supervisor—EADAS/NM Data; Maintenance Managers; Toll and Tandem/End Office Network Supervisors; and Managers—Operator Services. Activities of all of these groups must be coordinated if the overall responsibilities related to network management are to be discharged effectively.

DUTIES AND RESPONSIBILITIES

50% A. Monitors and controls traffic in the network to maximize the number of completed messages and inhibit switching congestion.

- (1) Maintains a thorough knowledge of switching machine (including control capabilities) and trunking patterns within assigned area of responsibility.
- (2) Determines specific layout of EADAS Display Board.
- (3) Establishes, adjusts, and updates threshold values for exception reporting of critical switching machine data for peak and average busy days. The following items of switching machine data are included for 4A card translator, 4A ETS-PBC, crossbar tandem and selected local offices:

- sender attachment delay (SADR)
- marker peg count
- ineffective machine attempts (IMA)
- percent no circuit intertoll (NCIT)
- percent no circuit toll connecting (NCTC)
- speed of dial tone

- incoming matching loss
- (4) Establishes, adjusts, and updates threshold values for exception reporting of critical trunk group data as follows:
- peg count
 - overflow
 - attempts per circuit per hour (ACH)
 - connections per circuit per hour (CCH)
 - percent overflow
 - percent occupancy
- (5) Monitors network performance, utilizing exception indicators displayed on the exception display board and associated receive-only printers. Uses cathode-ray tube terminals (CRTs) to interrogate the EADAS/NM minicomputer for additional exception details and supporting information concerning equipment, trunks and/or facilities.
- (6) Analyzes machine and trunk data to determine validity. Reviews valid data to detect abnormal conditions and refers problems concerning invalid data to the appropriate Network Supervisor—EADAS/NM Data and/or Network Administrator.
- (7) Coordinates the investigation of abnormal conditions with other network management personnel, with toll/tandem and local machine administrators and/or maintenance managers as required.
- (8) Through CRT, accesses EADAS/NM data base for available corrective action measures and/or controls to be selected from such possibilities as:
- Traffic Overload Reroute Control (TORC)
 - Planned or Unplanned Emergency Reroutes
 - Directional Reservation Equipment (DRE)
 - Selective Cancellation
 - Code Blocking
 - Dynamic Overload Control (DOC)
- (9) Determines which corrective measures to use, the degree of application, and the location(s) for application. Establishes priorities for invoking control measures.
- (10) Directs the application of controls by use of the CRT to access control pages in EADAS/NM. Communicates requests for manual controls to the maintenance or operating forces.
- (11) Monitors data to evaluate efficiency of corrective control efforts. Analyzes available indicators and exceptions to determine when to deactivate control measures. Releases controls as soon as data indicates that the situation requiring control application has been alleviated.

DIVISION A, SECTION 3
Appendix 14

- (12) Coordinates network surveillance efforts by supplying data available at the home EADAS/NM Center to other Network Control organizations and the interregional center.
- (13) Notifies concerned personnel in subtending offices when restrictive or expansive controls are initiated or released.
- (14) Analyzes weak spots in the network cluster and coordinates remedial action.

30% B. Administers and coordinates all activities related to preplanning for peak traffic periods, focused overloads, facility failures and/or failures of major switching machines.

- (1) Utilizes available network management history, records and data; plans reroutes and trunk augments for periods of abnormal traffic, peak holidays or major facility failures.
- (2) Coordinates use of alternate facilities or reroutes during periods of known focused overloads such as mass and volume calling, INWATS peaking, election services and telethons.
- (3) Coordinates establishment of contingency plans for use during failures of major switching machines.
- (4) Coordinates the introduction of preplans into switchers via recent change.
- (5) Following use of preplans, reviews data and adjusts plans as required.
- (6) Coordinates network management planning for machine cutovers, rehomeing arrangements or office reclassifications with toll/tandem supervisors, maintenance supervisors, trunk engineers and/or independent company representatives.
- (7) Analyzes subtending office preplans to assure timeliness and accuracy and integrates with other machines in the EADAS/NM cluster.
- (8) Originates procedures for use of various network management communication systems and associated equipment, including private lines, teletypewriters, telemetry circuits, etc.

10% C. Supervises the following administrative and reporting activities:

- (1) Maintains trunk and routing records, generic program documentation (display page practices), and system and company administrative practices.
- (2) Prepares company and system reports on network management results.
- (3) Coordinates critiques following major network management actions to assess effects of controls or rerouting and determine required changes.
- (4) Analyzes statistical data to evaluate network performance.
- (5) Maintains emergency call-out lists for key personnel at EADAS/NM center, cluster and subtending offices.
- (6) Develops and implements reporting procedures to be used by offices contained in the EADAS/NM cluster.
- (7) Supervises maintenance of equipment in EADAS/NM center, including trouble clearance and preventive maintenance. This includes NM devices, CRTs, teletypewriters etc, and communications systems and associated equipment.

- (8) Maintains liaison with network administration forces to detect and resolve problems related to network management.
- (9) Maintains liaison with routing personnel to detect and correct problems associated with network management.
- (10) Analyzes messages for National Operating Center (NOC) to determine impact of routing changes. Advises Network Supervisor—EADAS/NM of potential data base changes.

10% D. Miscellaneous

- (1) Represents the EADAS/NM center on cutover, transition management and service review committees.
- (2) Plans and conducts tours of EADAS/NM center for personnel from regulatory authorities, other departments and/or companies as required.
- (3) Administers personnel-related activities for reporting clerical force (Company policy and objectives, training, safety, absence, etc).
- (4) Schedules personnel to meet requirements for average busy day and peak day network surveillance work loads.
- (5) Develops and administers local training program for non-management personnel.
- (6) Maintains positive relationships with the vocational representative groups.
- (7) Maintains positive intercompany and interdepartmental working relationships.

SCOPE AND NATURE OF SUPERVISION

- (1) This position reports to the Network Manager—Network Control, along with one Network Supervisor—EADAS/NM Data and two to three Network Supervisors—Network Control. Due to the integrated nature of Network Management activities, a great deal of coordination is required with other Network Supervisors—Network Control, with the Network Supervisor—EADAS/NM Data, with maintenance personnel, with Toll/Tandem and local machine administrators, with facilities management people, and with personnel related to the provisioning process of both switches and circuits. Because of the scope of many network management clusters, these coordinating relationships will cross numerous departmental boundaries and may cross area and company organizational structures. Reporting to one Network Supervisor—Network Control are up to five clerical non-management employees.
- (2) Immediate supervisor is involved in the setting of the overall goals and policies of the EADAS/NM cluster. However, most of the surveillance/control activities of this position are not subject to supervisory review and require **both technical background and decision-making skills.**
- (3) Guides for this position include DFMPs, BSPs, TFPs, planning letters, union contracts, and mutual agreements. In addition, a specialized EADAS/NM training course administered by Long Lines is suggested. It will also be necessary to develop local procedures and practices which are adapted to the requirements of each individual EADAS/NM Center.