

## NETWORK SUPERVISOR—CCU

Personnel assigned as Network Supervisor—CCU will generally be responsible for overall operation and maintenance of the EADAS central control unit (CCU) and data collection apparatus. This includes supervising and coordinating maintenance of the CCU computer and computer operations. Also included are the overseeing of real-time data generation and processing of data on magnetic tape for downstream processing.

Additionally, this position is responsible for administering the EADAS system definition data base and individual circuit usage recording (ICUR) transactions.

This position supervises five non-management computer attendants (or both attendants and clerks where required). This force operates the computer, administers magnetic tape processing, maintains the system definition data base and processes ICUR changes. One central control unit (CCU) mini-computer and associated apparatus comprise the usual area of responsibility for this position.

The nature of the accountability for this position dictates need for a substantial amount of coordination. This coordination is required with the Network Supervisor—TNDS, the Network Supervisor(s)—Data and a minimum of 16 local network supervisors. Activities of these positions must be coordinated if the overall responsibilities related to data administration are to be effectively discharged.

DUTIES AND RESPONSIBILITIES	PERCENT OF TOTAL TIME
A. CCU Operation	30
B. CCU Maintenance	25
C. Input for Real Time Reports	15
D. Records Administration	10
E. Network Design Order Coordination	10
F. Miscellaneous	10

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

### NOTICE

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**JOB TITLE: NETWORK SUPERVISOR—CCU**

**DEPARTMENT: NETWORK**

**SUPERVISOR: NETWORK MANAGER—STAFF**

### **JOB SUMMARY**

This position is responsible for overall operation and maintenance of the EADAS central control unit (CCU) and data collection apparatus. This responsibility includes the generation of meaningful real-time data for local network supervisors, and the accumulation (on magnetic tape) of all network data required to satisfy users' demands for data processing through various downstream programs.

The CCU is built around a DEC\* PDP 11/40 minicomputer supplemented by peripheral equipment (ie, disc and core memory, magnetic tape units, special test and interface units, teletypewriter and a high speed line printer).

\*Registered trademark of Digital Equipment Corporation

The area of responsibility for this position would usually include one complete CCU which has the capacity to serve 100 channels or 100 measurement entities (approximately 65 central office entities). One CCU can serve up to 16 network administration groups via teletype. Data accumulated by the CCU can be accepted from a variety of sources such as EADAS traffic data converters (ETDC), pollable data terminals (PDT) for use in small offices, existing TDRS traffic data converters (PCC and TDC), internal electronic switching system storage, and outside supplier terminals which satisfy the required interface.

**Note:** It is possible that another similar EADAS CCU could be colocated. Computer attendant efficiency and overlapping functions may dictate special force arrangements where this is the case.

### **DUTIES AND RESPONSIBILITIES**

**30% A. Supervises operation of the EADAS central control unit (CCU) in generating data, for both near real-time surveillance and downstream processing.**

- (1) Acts as the technical expert for final CCU input which will satisfy network supervisors' needs.
- (2) Analyzes ICUR reports and EADAS system messages; assures appropriate action is taken with Network Supervisor(s)—Data.
- (3) Analyzes individually, and investigates with the Network Supervisor—Data or other network supervisors any situation where a problem (or potential problem) exists in the generation of near real-time or magnetic tape stored data.
- (4) Originates and oversees adherence to daily schedule used by attendants for mounting and dismounting magnetic tapes.
- (5) Coordinates integration of a new generic program into a working system.
- (6) Supervises attendants in verification of system definitions.
- (7) Directs attendants in the entering of initial system definitions and circuit grouping maps into the system.

- (8) Receives modifications to system definitions (relating to schedules, channel, entity, report format or parameter definition) from Network Supervisor(s)—Data (or other network supervisors). Analyzes modifications and insures validity of changes. Advises Network Supervisor(s)—Data (or other network supervisors) as required regarding modifications.
- (9) Oversees processing of individual circuit usage recording (ICUR) map updates.
- (10) Supervises attendants in modification of existing system definitions.
- (11) Supervises generation of EADAS generic backup after substantial number of changes have been made to system definitions.
- (12) Oversees maintenance of all documentation required for EADAS and EADAS/ICUR data generation.
- (13) Oversees the preparation of magnetic tapes for downstream processing.

**25% B. Administers the testing and maintenance of CCU, data links and associated central office data acquisition equipment. (Assumes outside maintenance contracts for non-Bell System manufactured components of the CCU).**

- (1) Responsible for the maintenance of all documentation required for an ongoing maintenance plan for the various components of EADAS.
- (2) Originates (or endorses existing) maintenance plan for CCU, data links and associated central office data acquisition equipment. (*Note:* Organizational delineation of responsibility between the CCU and field maintenance groups for central office equipment must be accomplished prior to using this plan.) Coordinates plan with local maintenance supervisor, data test center, and maintenance vendor, if any. Coordinates remote CCU alarm locations with local technical assistance centers (TAC) or switching control centers (SCC).
- (3) Directs the analysis of referred data problems to determine probable cause and recommends specific corrective action to local maintenance force(s) for the resolution of hardware type troubles.
- (4) Supervises diagnostic testing of CCU and remote testing of EADAS traffic data converters (ETDC) from the CCU. Provides guidance to the local maintenance supervisor or Network Supervisor—Data in problem cause detection and implementation of corrective action.
- (5) Coordinates with and provides guidance to the local maintenance supervisor and Network Supervisor(s)—Data (or other network supervisors) on routine maintenance of non-ETDC data collection apparatus.
- (6) Originates (or endorses existing) plan for maintenance of CCU equipment items (e.g., data sets and facilities, autocal if pollable data terminal is utilized, CCU teletype, power and room environment).
- (7) Supervises and coordinates with Network Supervisor(s)—Data TUR verification checks on at least an annual basis in an ICUR environment.
- (8) Oversees monitoring and analysis of trouble indications (from system messages, audible or visual alarms, exception or hourly reports, demand reports or other sources). Cooperates with and provides guidance to CCU maintenance group (vendor or Telco) in detecting and correcting any CCU hardware (equipment) problems. Controls and coordinates all action taken to restore alarms and remove alarm-causing conditions with CCU maintenance group, local maintenance supervisor, network supervisor, or other concerned individual.

**DIVISION A, SECTION 3**  
**Appendix 7**

- (9) Cooperates with other CCU management personnel in pooling EADAS-related troubles to further enhance maintenance experience.
- (10) Supervises recovery of system in event of power failure or other processing failure.
- (11) Arranges for the provisioning of spare parts, supplies and test equipment, for both CCU and field data collection apparatus, as required.
- (12) Reviews preventive maintenance plan status to insure that the plan's provisions are executed as scheduled.
- (13) Establishes procedures for, oversees, and maintains overall CCU environmental conditions to include computer room cleanliness, support systems (lighting, air conditioning, temperature, humidity, etc), and supply reorder activities (for data tape, teletype and printer paper, and teletype printer ribbons).

**15% C. Controls and directs preparation of all inputs necessary to insure meaningful and valid real-time data.**

- (1) Cooperates with network supervisors in defining hourly report format and any changes made to the format.
- (2) Cooperates with network supervisors in determining meaningful threshold levels for calculated results.
- (3) Assembles and analyzes all system definitions and calculations to determine if EADAS capacity is being utilized prudently. If required, modify calculation algorithms (with network supervisor) to be consistent with EADAS limits.
- (4) Oversees clerical preparation of changes in any of the system definitions, calculations or threshold levels.

**10% D. Supervises the maintenance of administrative records related to CCU operation, specifically:**

(1) System Definition Input Records

- System Parameters
- Schedules
- Hourly Report Format
- Channel Definition
- Entity Definition
- Calculations Definition
- ICUR circuit grouping map

(2) System Administrative Record

- NA TTY Master Sheet
- Data Channel Master Sheet

- System Schedule Master Sheet
- Weekly Study Schedule
- Weekly Data Tape and Trouble Log
- Data Tape Status and History Log
- Generic/System Backup Tape Log
- System Trouble Log
- Calculation Block Administration Record

(3) Other supplemental records, as required

**10% E. Cooperates with Network Design and provides engineering-related input to the writing of EADAS portion of network design orders (includes both basic and optional equipment related to the CCU).**

**10% F. Miscellaneous**

- (1) Represents the CCU operation at any meetings related to data collection for area and served offices. Participates as CCU representative at implementation and committee meetings.
- (2) Oversees preparation of and receives from attendants all administrative reports related to the operation of the CCU and acquisition of network data.
- (3) Administers personnel-related activities for reporting attendant clerical force (Company policy and objectives, training, safety, absences, etc).
- (4) Develops local procedures to ensure adequacy of work force and organizational efficiency. Oversees nonmanagement training program and personnel development.
- (5) Maintains positive relations with the vocational representative groups.
- (6) Maintains positive interdepartmental working relationships.

#### **SCOPE AND NATURE OF SUPERVISION**

- (1) Incumbent reports to Network Manager—Staff along with the Network Supervisor—TNDS, possibly a Network Supervisor(s)—Data (both of whom require a significant interaction with incumbent) and other network staff supervisors (not directly involved with TNDS). Reporting to this position are a maximum of five computer attendants and one or more maintenance craftsmen. In some instances one or more clerical nonmanagement personnel may be substituted for the attendants as required.
- (2) Incumbent is responsible and accountable for total CCU operation. Immediate supervisor is involved in the setting of the overall goals and policies of the CCU. However, most of the activities of this position are not subject to supervisory review.
- (3) Guides for the job include DFMPs, BSPs, TFPs, planning letters, Company policy, union contracts, and maintenance agreements with vendors. The majority of the practices and documentation are fairly detailed.