

GBPPR 'Zine



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"I have no purpose to introduce political and social equality between the white and black races. There is a physical difference between the two, which, in my judgment, will probably forever forbid their living together upon the footing of perfect equality; and inasmuch as it becomes a necessity that there must be a difference, I, as well as Judge Douglas, am in the favor of the race to which I belong having the superior position. I have never said anything to the contrary."

--- Quote from Abraham Lincoln, "Lincoln's Reply to Stephen Douglas in Ottawa, Illinois on August 21, 1858," in *Abraham Lincoln: His Speeches and Writings*, by Roy P. Basler.

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4.225 Automatic Identified Outward Dialing Program (AIOD): Used to make an association between a calling PBX station and the trunks being used. This information is then made available to call charging programs.

4.226 Busy Verify-Trunk Test Program (CXBV): Controls specific functions used to test the working condition of a trunk via the centrex attendant console.

4.227 Centrex Tandem Tie Line Program (CXIX): Used in conjunction with other call processing programs to give the ESS switch centrex central office the ability to act as a switching office in a tandem tie line network.

4.228 Centrex Trunk Preemption Program (XTP): Used in conjunction with other call processing programs to complete calls over trunk groups which interface with 4-wire switching offices.

Special Features

4.229 Call Waiting Program (WAIT): Controls specific supervisory and administrative functions relating to the call waiting feature.

4.230 Call Forwarding Program (TXFR): Provides the necessary logic to complete the many path connections available in the call forwarding feature.

4.231 Add-On and Conference Programs (ADxx): Handles all events necessary to complete a call with add-on and conference features. The programs take control after normal call processing programs have recognized a request for adding a third party.

4.232 Customer Changeable Speed Calling Program (CCAD): Recognizes speed calling codes and collects and validates a change in the speed call list. Also the program associates the abbreviated code with the original telephone number.

4.233 Call Forwarding Usage Program (CFUP): Provides the necessary logic to interface with the AMA programs to provide billing information for call forwarding usage.

4.234 Reverting Call Program (RVRT): Handles all call processing duties when a customer wishes to establish a talking path to another

customer with the same line equipment number. This program is used in a 4, 2 and 0 party condition.

MEASUREMENT SOFTWARE

A. Purpose of Measurement Software

Traffic Measurements

4.235 The traffic data measurement program is used to generate, accumulate, collect, and print out ESS switch traffic data. This traffic data consists of peg, usage, and overflow counts generated by call processing and maintenance programs as specific events occur, and by the traffic data measurement program as requested according to a time schedule.

4.236 Peg count is a cumulative count of the number of times a specific event occurs during a fixed time interval; eg, the number of times the system attempts to seize a customer digit receiver for dial tone in 1 hour.

4.237 Overflow is a cumulative count of the number of times an attempt to cause a specific event failed because of the lack of specific facilities (circuits or paths). Overflow counts are accumulated for specific time intervals. A count (or score) on an overflow register does not always indicate that a call has been "lost." It sometimes indicates that a call has been delayed, ie, placed in a queue and held until the desired circuit becomes available.

4.238 Usage is a cumulative count of the number of items found in a busy state during each periodic scan of a particular group of items. The busy conditions found during each scan are totaled for a fixed period (eg, 1 hour) to obtain usage.

4.239 Traffic counts are generated for the following purposes:

- (a) Engineering and administration
- (b) Sampling the level of service being provided
- (c) Measuring the effect of maintenance routines
- (d) Serving as a base for special merchandising or revenue studies
- (e) Billing for specific services.

4.240 The following are descriptions of various types of traffic count output messages.

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- (a) H—HOURLY BUSY HOURS collect items needed during the office busy hours.
- (b) C—HOURLY CONTINUOUS THROUGH DAY collection involves an hourly or half-hourly count for a continuous period of time.
- (c) DA15—SELECTED QUARTER HOUR (Q SCHEDULE) provides traffic data at 15-minute intervals without destroying the validity of the hourly H and C schedules.
- (d) TC15—FIXED QUARTER HOUR is a fixed collection of 15-minute traffic counts on the quarter hour.
- (e) S—SPECIAL STUDIES COLLECTION is a collection of items from the H and C schedules singled out by the office for special studies.
- (f) TC24A—A PORTION OF THE DAILY SCHEDULE contains a 24-hour cumulative total of 27 office counts.

Plant Measurements

4.241 The plant measurement program (PPMP) is designed to provide the management of telephone company plant departments with a quantitative summary of the condition of the central office, and the impact of this condition on customer service. The PPMP is a collection of routines to collect significant data on system performance and to produce this data on demand or on a daily and monthly basis in a readable format.

4.242 There are three plant measurement outputs. These are:

- (a) PM01—daily plant measurement output message
- (b) PM02—monthly plant measurement output message
- (c) PM03—daily or monthly counts per TTY manual request.

B. Functional Description of Measurement Software

4.243 Measurements are accumulated in up-down counters, accumulators, holding registers, and totaling registers as discussed below.

Up-Down Counters

4.244 Up-down counters are provided for all items for which usage is measured. Each time the item is busied, one is added to its corresponding up-down counter. When the item is idled, one is subtracted.

Accumulators

4.245 Accumulators are provided for all items for which peg or overflow counts are maintained. Each time a given event occurs (or in the case of overflow, fails), one is added to the corresponding accumulator. Accumulators are also provided for those items whose usage measurement is to be added, at regular timed intervals, to a cumulative total.

Holding Registers

4.246 Holding registers are provided for all items whose counts are assigned to a collection schedule. At collection time, the program moves the contents of specified accumulators to corresponding holding registers and zeros the accumulators. The counts are subsequently printed out from the holding registers.

Totaling Registers

4.247 Totaling registers are provided for all items whose counts are measured on more than one schedule. Totaling registers receive intermediate totals for the longer measuring intervals; eg, four quarter-hour totals are added in hourly totaling registers.

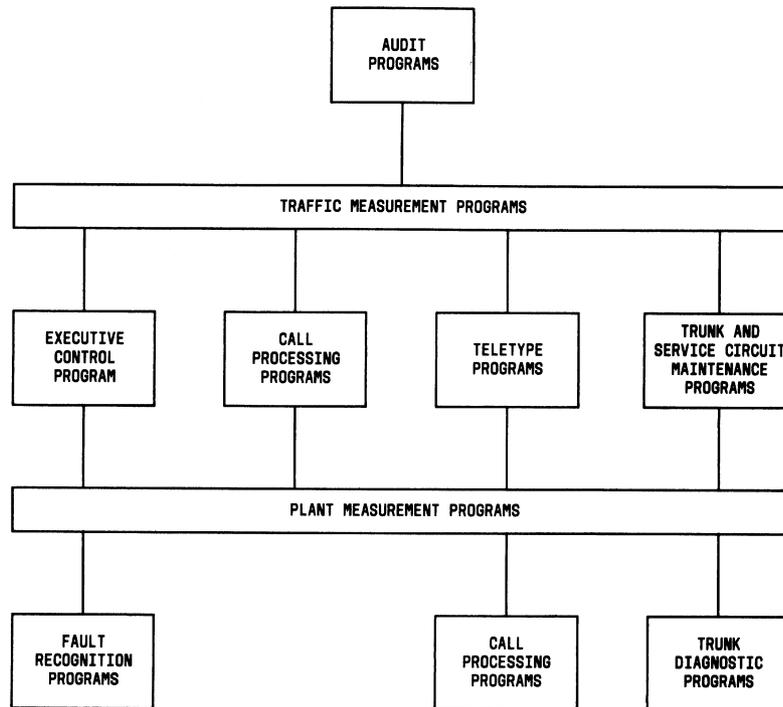
C. Interface With Other Programs

4.248 See Fig. 17 for an interface diagram of the measurement programs.

NETWORK MANAGEMENT SOFTWARE

A. General

4.249 The network management subsystem programs provide various capabilities for administering network traffic controls which are applied during traffic congestion periods for limiting the amount of traffic in congested switching facilities. The controls will permit a maximum number of calls to be completed without allowing the traffic congestion to spread throughout the network. The control capabilities include.



◆ Fig. 17—Measurement Program Interfaces ◆

- (a) Code blocking
- (b) Trunk group controls (TGCs) (manual and automatic via receipt of dynamic overload control [DOC] signals)
- (c) Generation of DOC signals
- (d) Reroutes.

B. System Network Management Control Interface

- 4.250** The interface between the network management programs and other system programs is depicted in Fig. 18.
- 4.251** The audit programs interface the network management programs to perform audits of

the network management indicators and associated scan points.

- 4.252** The master control center programs provide the interface for displaying the status of the network management controls.
- 4.253** The system operational control software provides periodic entries into the network management programs for determining maintenance actions, printing controlled traffic data, and controlling specific network circuitry.
- 4.254** The TTY software provides the input/output interface for the craftsperson to apply manual control parameters to the network maintenance functions.

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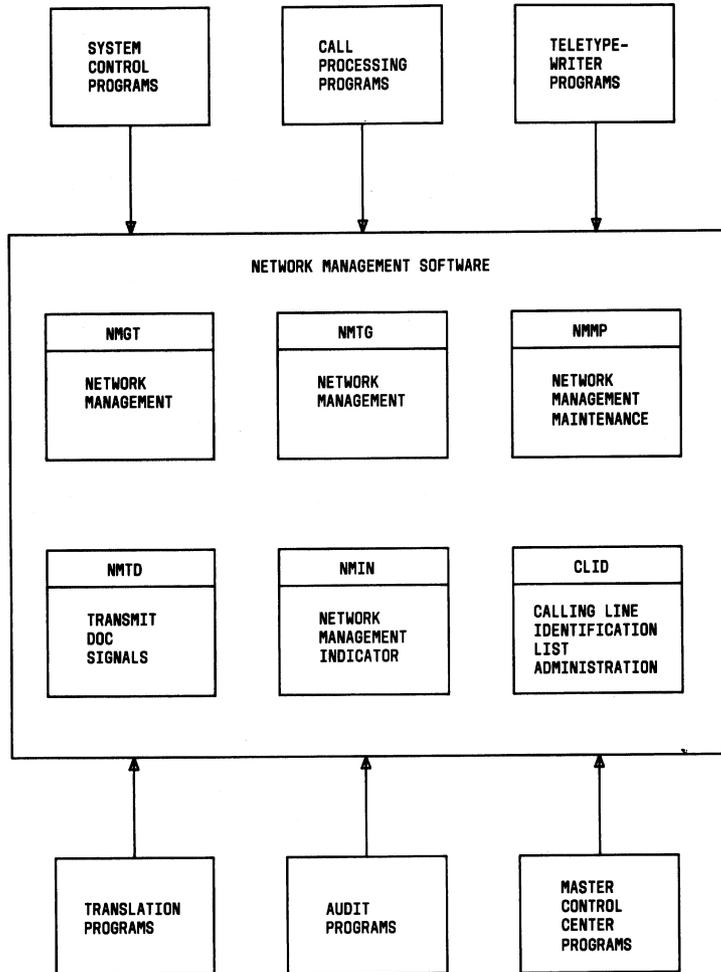


Fig. 18—Network Management Program Interface

4.255 When all the digits have been received on a call and if network management controls have been activated, the call processing programs interface with the network management programs to apply the network control to the call.

4.256 The network management programs are interfaced by the translation software whenever the trunk group control indicator signifies that the controls are activated.

C. Network Management Software Function

Network Management (NMGT) Program

4.257 The NMGT program performs the following functions:

- (a) Activates code blocking controls via TTY input message
- (b) Deactivates code blocking controls via TTY input message
- (c) Clears code blocking entries in memory
- (d) Administers OUTGOING LOAD CONTROL lamp
- (e) Administers DOC signals
- (f) Audits memory associated with DOC scan points
- (g) Updates indicators (real-time breaks, timing, code block status, DOC data, and trunk group number data).

4.258 The DOC signals are administered every 2 seconds. Those, which are to be applied, are determined by comparing the length of the incoming overload control queue to the MC1 and MC2 values for each type of receiver and for real time.

Code Blocking

4.259 Code blocking controls are applied by the ESS switch for limiting outgoing traffic routed to congested traffic areas in order to prevent the congestion from spreading throughout the switching network. The controls are based upon the destination dialed code (area code, office code, 6-digit code, 7-digit code, 10-digit code) as determined by the

office code and numbering plan area code translators. The code blocked calls are routed via one of three fixed route indexes, either to a no-circuit announcement or to one of two emergency announcements. The control for each code is applied as percentage of call attempts. The percentages are 50, 75, 87-1/2, and 100 percent. The code blocking controls are activated and deactivated via TTY input messages. When blocking controls are in effect, the call processing software transfers to the NMGT program to process the control blocking function.

Trunk Group Controls (TGCs)

4.260 The TGCs provide the capabilities to limit traffic to a congested area based on the trunk group over which a call is to be routed. There are two types of trunk group controls: preprogrammed and flexible. Preprogrammed controls are activated on prespecified trunk groups. Flexible controls can be activated on any trunk group in the office. Three control options are available to the flexible control: namely, (1) CANCEL-TO, (2) CANCEL-FROM, and (3) SKIP. The flexible control has a trunk reservation option which is used to limit the number of attempts offered to a trunk group when less than the specified number of trunks remain available. One of two thresholds, protected reservation of equipment (PRE) and directional reservation of equipment (DRE), may be applied to the trunk reservation option. The threshold, PRE, is used in reserving facilities for the first-routed traffic. If the PRE threshold is exceeded, all traffic alternate-routed to this trunk group is inhibited from searching for an idle trunk in any trunk group and is routed to the no-circuit announcement. The threshold, DRE, is used in reserving facilities for incoming traffic. If the DRE threshold is exceeded, all traffic to this trunk group is inhibited from searching for an idle trunk in any trunk group and is routed to the no-circuit announcement.

Dynamic Overload Control (DOC) Signals

4.261 Program NMGT provides the use of DOC signals which are sent from tandem and toll offices to connected ESS switch offices requesting that they limit the amount of traffic being received. The ESS switch offices use the DOC signaling feature when shortages exist in real time, MF receivers, DP receivers, revertive pulse receivers, or other call switching resources. The NMGT program processes two levels of signaling for the shortages of real time

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and receivers. The shortage of real time is determined indirectly from the E-E cycle time through the length of the incoming overload control queue. The shortage of receivers for each receiver type is determined by the length of the queue for that receiver type. The program checks the thresholds for real time and receiver shortage every 2 seconds. When a threshold is exceeded, the sending of DOC signals is initiated. When the shortage drops below the threshold value, the transmission of the DOC signal is stopped. The two levels of signaling for the shortage of real time and receivers are MC1 and MC2. The MC1 level indicates that the machine is sufficiently congested to cause substantial delays in receiver attachment. The MC2 level indicates that the machine is considerably more congested than MC1 level. The MC2 level indicates delays of 40 to 80 percent of the receiver holding time. The MC3 signal is sent when the switching facility is incapable of processing calls. The command source for the MC3 signal is derived from either of two lamp signals on the MCC. They are: (1) emergency action phase in progress and (2) repeated time-out. The transmitted DOC signal is an ON signal interrupted by an OFF signal every 30 seconds. The interruption is provided by a duplicated hardware interrupter. The interrupter is monitored by network management maintenance program (NMMP) which switches the interrupters, sounds a minor alarm, and prints a TTY output message when a fault occurs.

◆ Network Reroute Control (NMRR) Program

4.262 The NMRR program provides network managers the capability to reroute traffic away from congested or trouble switching facilities to other facilities having sufficient switching capacities. The rerouting controls may be applied to both local and tandem calls. An audit of the control data slots in memory is performed and errors are printed via the TTY. The program provides for manual activation and deactivation of the control. Options to the reroute control are trunk hunting, percentage of blocking, type of traffic, and "to trunk group" selection.◆

◆ Network Management Indicator (NMIN) Program

4.263 The NMIN program performs two major functions:

- Updates network management indicators (machine status, network status)
- Provides listing of trunk group no-circuit data.

◆ Status Indicators

4.264 A visual display indicating the current machine and network status is activated via signal distributor points by program NMIN. Every 10 seconds, an entry is made to NMIN from the main program to update the indicators. The display indicates the status of:

- Transmitters (MF, trunk DP, revertive pulse)
- Receivers (TOUCH-TONE service customer DP, trunk DP, trunk revertive pulse, and trunk MF)
- Line load control
- Incoming load control
- Incoming overload queue
- Matching loss
- Machine congestion
- Internal queues.

◆ Network Management Maintenance (NMMP) Program

4.265 The primary purpose of the NMMP program is to perform maintenance on the DOC transmit function and applique circuitry.

◆ Transmit Dynamic Overload Control Signals (NMTD) Program

4.266 The NMTD program administers the transmission of DOC signals which are sent from a tandem or toll office to connected local offices requesting that they limit the amount of traffic in the network.

◆ Network Management (NMTG) Program

4.267 The NMTG program provides the capabilities to apply controls which limit the amount of traffic leaving an office based on the trunk group over which a call is to be routed.

4.268 This program processes four types of trunk group controls:

- CANCEL-TO (controls the number of call attempts offered to a trunk group)

- (b) CANCEL-FROM (controls the number of call attempts overflowing a trunk group)
- (c) SKIP (controls the number of call attempts offered to a trunk group)
- (d) Trunk reservation (allows the selection of a specified number of trunks in a trunk group).

Calling Line Identification List Administration (CLID) Program

4.269 The function of the CLID program is to provide the interface to the TTY programs for maintaining the code blocking controls in the system memory, to provide a listing of the controls upon request, and to provide trace information on calls to selected directory numbers.

FILE STORE ADMINISTRATION SOFTWARE

A. General

4.270 The file store is a bulk storage device that provides the IA processor with disk memory which supports call store and program store. These programs are paged into program store from file store when needed. File store also contains back-up copies of unduplicated call stores.

B. Functional Description

4.271 Many programs require a rapid transfer of data to or from file store/APS. Duplication of routines in all programs desiring file store/APS services is avoided by providing a single program to

process all requests for data transfer. The file store administration program provides an interface between the file store and client programs desiring a transfer of data. This interface, as well as others, is shown in Fig. 19.

4.272 The file store administration program is functionally divided into three parts. They are (1) the file store administration submit program, (2) file store administration answer dispenser program, and (3) file store service routines.

File Store Administration Submit Program (FSSP)

4.273 A client program directly enters FSSP to request a file store service. Initially, a client submits either a READ request (a request to transfer data from disk to main memory) or a WRITE request (a request to transfer data from main memory to disk). In order to avoid erroneous reads or writes and unnecessary fault interruptions, FSSP performs preliminary software checks on client input. If these checks pass, FSSP activates the file store hardware necessary for the file store controller to process the request. Requests may be queued in call store when a request cannot be immediately processed. The FSSP notifies the client via an immediate success return when its request is activated (entered in buffer register or placed on queue) or via one of two other immediate return addresses if circumstances prohibit the request's activation. After FSSP returns to the client, the client can continue other processing while the file store controller performs the file store service requested.

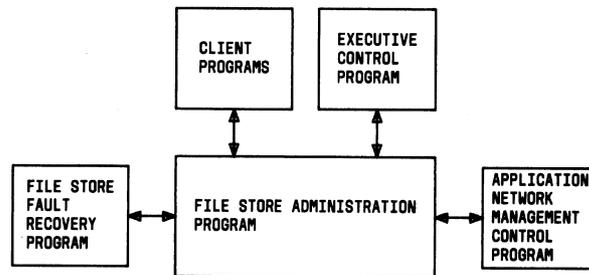


Fig. 19—File Store Administration Program Interfaces

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File Store Administration Answer Dispenser Program (FSAP)

4.274 The executive control main program routinely enters FSAP on base level to:

- (a) Detect completed requests, judge the status of the request, and give the client an appropriate completion return
- (b) Unload queued requests.

4.275 A file store service is completed only after both file store hardware and FSAP software actions are accomplished. The hardware action is complete when the applicable file store controller actions terminate. The software action is complete after FSAP examines the request's status. If error conditions exist, FSAP interfaces the file store fault recovery program to resolve the error.

4.276 When both hardware and software actions are complete, FSAP notifies the client via the appropriate success or fail completion return address. When a failure return is made, the client is given a return code for one of the following types of failures:

- Software error
- Hardware failure
- Maintenance identification tag mismatch
- Failure of a job retried
- Cancellation of job.

File Store Service Routines (FSSR)

4.277 The FSSR is a separate entity of the file store administration program and consists of several routines that are available for use by other programs. In general these services enable a client to:

- (a) Check the status of a file store and a disk file; ie, file store controller and disk file in service or out of service.
- (b) Translate a main memory address to its corresponding disk address, if the data is backed up on disk.
- (c) Verify the consistency of an identification tag and a disk address.

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ATTACHED PROCESSOR SYSTEM

A. General

4.278 The Attached Processor System (APS) is used to replace the 1A processor disk files. The APS (Fig. 20) consists of a duplex 3B processor utilizing a 300-megabyte disk system and an Attached Processor Interface (API).

4.279 The API supports the attached processor communications link (APCL), protocol between the 1A and 3B Processors. The APCL protocol has both efficient block transfer and message-handling capabilities. This is accomplished by having the API interface with direct memory access (DMA) facilities of both processors.

4.280 The APCL protocol also includes a high-priority maintenance message communication capability which is supported by the API. These messages are communicated in a closely coupled, synchronous, high-priority way by using the 3B input/output interrupt and the 1A auxiliary unit bus maintenance interject mechanisms.

B. Attached Processor Message Handler

4.281 At the heart of the APS common software system is the attached processor message handler (APMH) program on the 1A and 3B sides. All interprocessor activity except the command system (message or DMA control) passes through the APMH. The APMH directs asynchronous-queued messages to either its equivalent APMH process on the other processor through the API or to local clients. The APMHs, therefore, impose common message formats also to be interpreted by the API. The APMHs also use a DMA job control buffer to administer the necessary DMA control information. Messages are loaded and unloaded from a pair of circular message buffers.

C. File Manager Interface (FMI)

4.282 The 3B disk cannot DMA directly into the 1A memory, nor is it compatible with the 1A file store access modes. The FMI resolves the 1A and 3B differences by providing these functions:

- 3B disk access of 1A main memory
- Sending 1A messages to Duplex Multi-Environment Real-Time Operating System (DMERT)

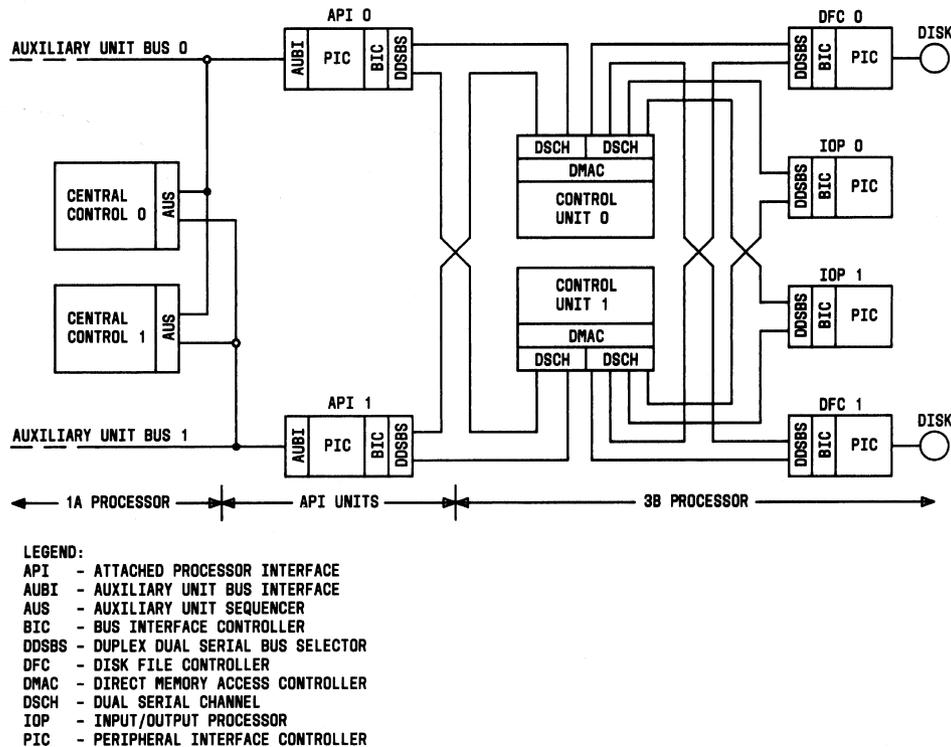


Fig. 20—Attached Processor System Hardware Block Diagram

- Changing 1A disk word flexibility to 512 byte format
- Issuing an OPEN command to DMERT/File Manager (FM) at bootstrap time
- Maintaining “normal” and “update” copies during update procedures.

D. Disk Administration Interface (DKADI) Program

4.283 The DKADI on the 1A side uses the APCL protocol. The purpose of DKADI is to convert the information provided by the disk administration program (DKAD) macros into the equivalent DMERT-like FM calls acceptable to the APS. For

example, a Read_Either macro call is converted into the appropriate FM_READ for the FMI and supplementary information unique to the DKAD macros is saved.

1A PROCESSOR INPUT/OUTPUT SOFTWARE

A. General

4.284 The 1A processor input/output software provides an interface between hardware, used by the processor to communicate with telephone personnel, and the client programs. There are many programs which request some kind of input/output service. Request for input/output service may be automatically initiated or called upon manually from

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the MCC. The input/output software has no knowledge of the request source and there is no fixed association of programs and input/output channels. Many programs may be simultaneously directing output to the same channel. The input/output main control program must interface with several other programs in order to give complete service to any request. This is shown in Fig. 21.

B. Input Message Software

4.285 The input/output handler is run on base level and is scheduled at least every 60 ms by the application executive control program. The input/output handler polls the hardware looking for a service request. Polling is performed by sending a gated control pulse to all input/output unit selectors (IOUSs) via the peripheral control bus. Each IOUS community has a dedicated reply bus bit position to send a reply. The bit position represents the IOUS member number times two plus input/output community. A zero reply indicates some input/output

unit controller (IOUC) in the IOUS has work. A read of the community poll request register indicates which IOUC. If the poll request register is zero, it indicates a maintenance problem and control is passed to the process F-level recovery program for resolution. Otherwise, the reply from the IOUS indicates whether there is one or more IOUCs with a service request and/or maintenance request in the request register waiting to be read. The input/output handler recognizes five types of service requests:

- Input (start of input) request
- Input (unload buffer) request
- Output (load buffer) request
- Idle request
- Break request.

4.286 Each input/output channel has associated with it a character buffer in the hardware.

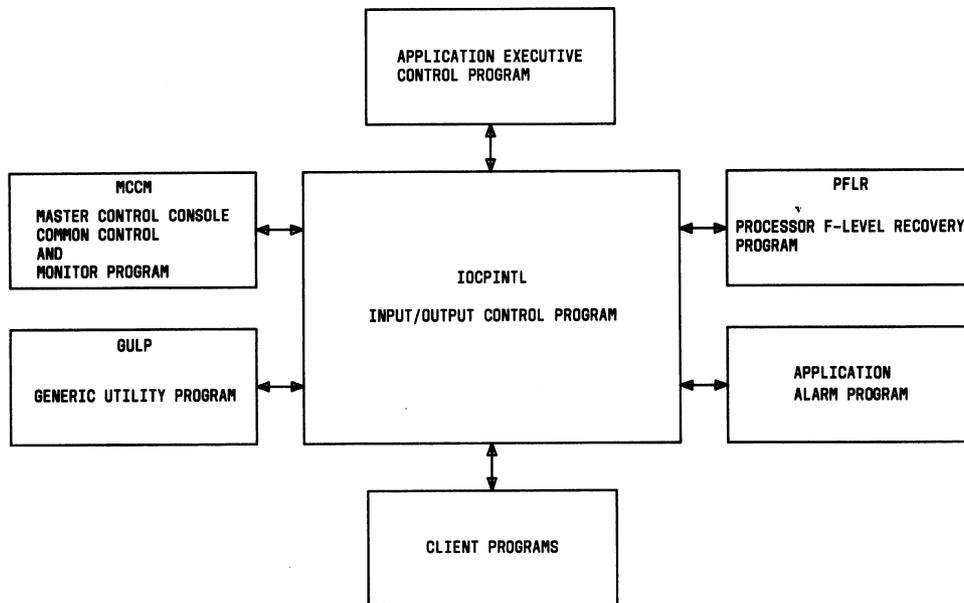


Fig. 21—Input/Output Control Program Interfaces

(The buffer is physically located in the input/output unit.) When an input message comes from the terminal to the buffer, the first character changes the hardware state from idle to input and brings up a service request. When the input/output handler detects a channel with a service request with the hardware state marked as input and the software state marked as idle, it realizes that an input message is beginning. It then changes the software state from idle to input so that the input message will not be interrupted by output messages for that channel. The input/output handler also puts the channel on 2-minute timing to ensure that the channel is not kept in the input state when there is no input being entered.

4.287 The input/output handler stores the characters in a 32-word input character buffer (ICB) contained in the channel memory block (CMB). A CMB is a 44-word block of memory used to hold information about messages going to and coming from a channel. Each channel has a CMB. The 32-word ICB can accommodate input messages of up to 96 characters; however, input messages are limited to a single line on the input device.

4.288 The input/output handler fetches the characters from the hardware buffer and stores them in the ICB until the hardware recognizes the end-of-input message character and brings up a service request. The input/output handler realizes that the hardware has recognized the end-of-input message character and stores the final characters in the ICB. It then sets an input translation request flag for this channel. There is an input translation request flag associated with each channel which is scanned by the input translator. The input/output handler puts the channel on 5-second timing to wait for an acknowledgment. The client program which handles the message is responsible for generating the acknowledgment.

4.289 The input translator is entered during every base level cycle from the application executive control program. It scans the input translation request flags looking for a channel that needs work. When the input translator finds the input translation request flag set for a normal message, it transfers to a translation subroutine which parses the message in the ICB.

4.290 If the message is recognized by the input translator as a valid input message, the input translator transfers to the client. The client program

is passed the address of the input message data area which contains a message and the channel number on which the message was entered. The input message data area contains flags indicating what keywords in the message were entered. The client program then has 3 ms to gather the data about the message, determine whether this is a valid message, and generate an acknowledgment. The client has up to 5 seconds to generate an acknowledgment. Once the client program returns to the input translator, the input translator is free to look for other input messages to translate on its next entry. The input translator only handles one client per entry.

C. Output Message Software

4.291 Output messages may be the result of an input message, an MCC request, or automatically generated by the system. Output data tables (catalogs) are used to convert formats which are easily read by operating personnel.

4.292 To request that an output be sent to a channel, the client program calls the print call handler. In the print call handler, the client program specifies the catalog for the output message and the raw data for the output. The client may also specify the priority of the output message and from one to five channels or message classes. The print call handler has three returns to the client:

- (a) Success: The output message is valid and buffered for output.
- (b) Fail: The output message is valid but there are insufficient resources to buffer the message.
- (c) Checksfail: The request is invalid.

4.293 If the required number of output message registers (OMRs) are available, the print call handler calls a subroutine to move the client's raw data into the OMRs. The print call handler then puts the output message into the output translate list and returns success to the client.

4.294 The output translator is entered during every base level cycle. It scans the translate output link list for the address of a control OMR which needs work. Once it finds work, an initial action is to transfer to an alarm program to determine if an audible alarm is appropriate, and if so, start the alarm.

4.295 From the output message catalog, the output translator gets fixed text for the message

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and information to convert the raw data passed by the client to a string of characters. It then loads these characters into the OMRs that were seized by the print call handler. When translation is completed, all OMRs which were reserved and not used are idled; and, the translated output message is put on the output link list. After the output translator puts the output message on the output link list, it sets a demand flag to request the execution of the output message starter.

4.296 The output message starter checks each one of the specified channels to see if it is idle. When the starter finds an idle destination, the starter places the channel in the output state, sends the first buffer of characters of the message to the hardware, and changes the software state from idle to output.

AUXILIARY DATA SYSTEM SOFTWARE

A. General

4.297 The ADS operational programs are common to systems using the 1A processor. These programs handle the transfer of data between 1A processor memory and ADS magnetic tape storage. Examples of when transfers are made are during:

- Accounting procedures
- Program updating
- System memory dumps
- System reinitialization
- General data handling.

4.298 The ADS is a versatile medium speed, data handling system utilizing magnetic tape storage. The capability exists for adding data links and other data services as these devices become available in the future.

4.299 The ADS is comprised of data unit selectors, data unit controllers, and data units. An ADS community consists of two data unit selectors, up to 16 data unit controllers, and the associated data units. The ADS may be equipped with two communities.

B. ADS Organization and Operation

4.300 Figure 22 shows the organization of the ADS and its interface with central control. The

data unit selectors are provided in pairs and are located on the auxiliary unit bus. Each data unit selector is permanently associated with a particular auxiliary unit bus. Data unit selector 0 is connected to auxiliary unit bus 0 and data unit selector 1 is connected to auxiliary unit bus 1. Data unit selector-to-data unit controller interface is accomplished with duplicated internal buses called data unit bus 0 and data unit bus 1. Each data unit bus is permanently assigned to a data unit selector. However, each data unit selector in the pair is capable of communication with any of the data unit controllers in the community.

4.301 Data transfer functions within the ADS are a composite of hardware, software, and manual functions. These functions include reserving the required units, mounting and demounting of tapes, reserving and initializing tables, etc.

4.302 The data unit controllers are control units which are capable of accessing program store and call store memory with minimal interference from central control actions. After a data unit controller has been properly initiated, a data transfer from program store or call store to magnetic tape or from magnetic tape to call store or program store is completed automatically. Upon conclusion of the data transfer, the data unit controller sends a signal to central control to notify the system software of job completion.

4.303 Programs that use the ADS storage capability are known as client programs. These programs have a wide variety of requirements. Each has its own unique data organization, frequency of use, and data integrity requirements.

4.304 The data unit administration program (DUAD) is the main program which interfaces between these client programs and the hardware subsystem. The DUAD program controls the data transfer functions as required by the client programs. It is responsible for assembling the necessary resources, both physical units and logic, to perform a given data function. Other responsibilities include checking the validity of a request, initializing the ADS hardware, and verifying completion and returning request status to the client.

4.305 The DUAD interfaces with other programs in order to offer a full service to the client programs. This interface is illustrated in Fig. 23.

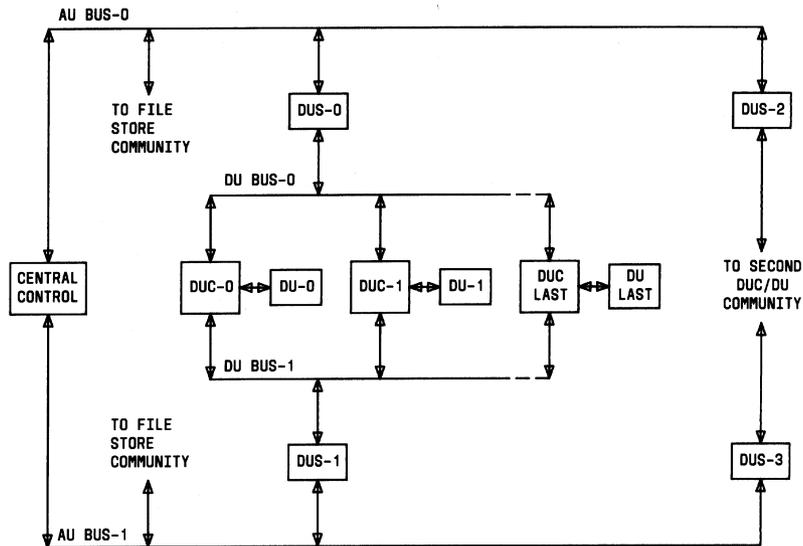


Fig. 22—Auxiliary Data System Interface Diagram

‡ PERIPHERAL UNIT CONTROLLER

A. General

4.306 The peripheral unit controller is a general purpose microprocessor based system which controls the digital carrier trunk (DCT) and data link facilities.

4.307 The PUC, Fig. 24, consists of two duplicated controllers, each consisting of a hardcore, memory, ESS switch-PUC interface, and a PUC-peripheral interface. The controllers are normally operated in the duplex mode, synchronized by means of a clock. They are initially brought into synchronization by a firmware routine coordinated by the two controllers.

4.308 Each hardcore contains two microprocessors, a read only memory (ROM), a random

access memory (RAM) which is a write-read memory, and a maintenance circuit which matches the operations of the two microprocessor complexes of the hardcore (Fig. 25).

4.309 The status and control of the PUC is maintained via bipolar central pulse distributor points, unipolar central pulse distributor points, and ferroids.

B. Peripheral Unit Controller (PUC) Software

4.310 The PUC software subsystem programs provide the capability for the use of a PUC to control the switching process between the central control and the DCT and data link transmission facilities. Figure 26 shows a block diagram depicting the PUC subsystem functional interface between the ESS switch application programs and the PUC.

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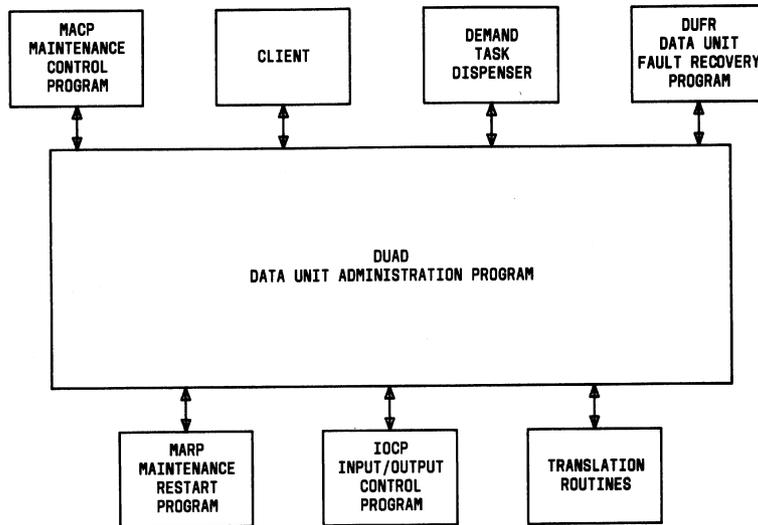


Fig. 23—Data Unit Administration Program Interface

PUC-ESS Switch Communication

4.311 The central control communicates with the PUC via orders. The PUC communicates with the central control via messages loaded in a dedicated area of the PUC memory called the message buffer. The message buffer appears to the central control as a scanner.

4.312 Each PUC contains a duplicated message buffer. Both of the message buffers are normally operated in the duplex mode (both buffers operable, one active and the other on standby.).

4.313 Data is transmitted from the central control to the PUC over the peripheral unit address bus (PUAB) in data blocks (messages). All data sent to the PUC passes through the first in/first out (FIFO) buffer stack.

Buffer Unload

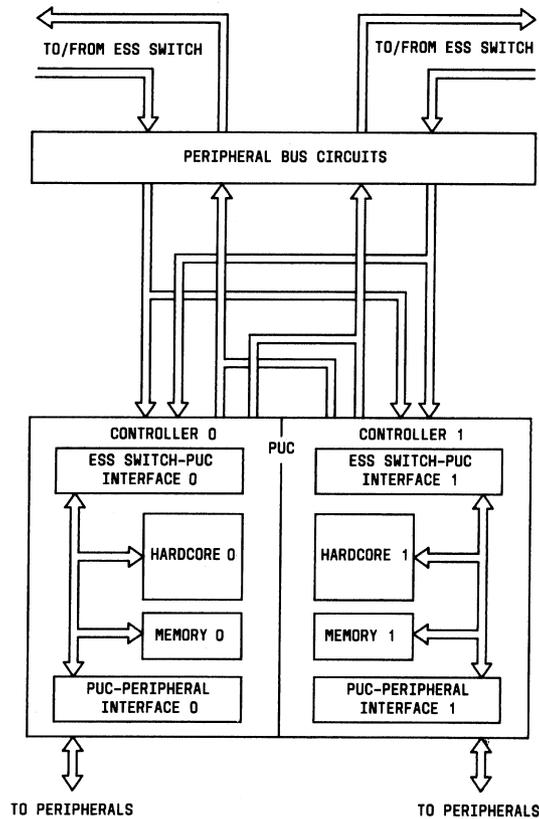
4.314 Message buffers are unloaded during the class C level job schedule. Each time a PUC message buffer is unloaded, a finished unload order

is sent to the PUC from the base level program. This order informs the PUC to update the control word that is used to prevent the unloading program from unloading a message the second time. The message buffer, associated with the master controller, is unloaded in the duplex mode. The inactive buffer is unloaded, when requested by maintenance, in the simplex mode.

C. PUC Maintenance

4.315 Software maintenance is based on:

- (a) The ESS switch has ultimate control of all PUC maintenance states.
- (b) The PUC provides the first level of fault recovery and all internal diagnostic routines.
- (c) The ESS switch controls diagnostics of the PUC-ESS switch interface circuitry.
- (d) The SCAB contains parity.



◆ Fig. 24—PUC Block Diagram ◆

PUC/DATA LINK (DL)

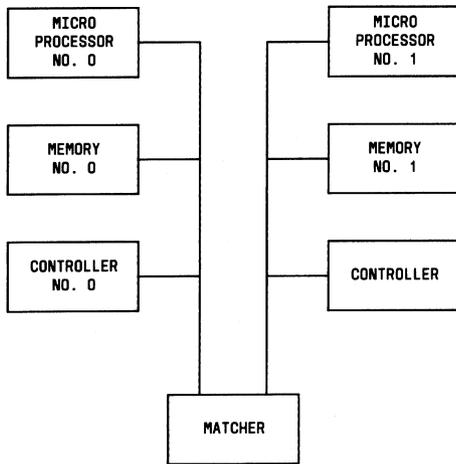
A. General

4.316 The PUC is a self-checking microprocessor controller. The PUC/DL is a particular application of this general purpose microprocessor-based controller. It is designed to serve as a general purpose data link controller for a number of projects requiring a DL from ESS switch central offices. The PUC/DL provides an interface between a No. 1/1A ESS switch central office and up to 16 bidirectional

data links. Provisions are made for connecting multiple links to the same destination giving protection from link failures. The redundant link in use can be changed during communication without loss of data. The PUC/DL applications are as follows:

- (a) Remote Switching System (RSS) feature (Fig. 27)
- (b) Electronic Tandem Switch (ETS) feature (Fig. 28)

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◆ Fig. 25—Block Diagram of Hardware ◆

(c) Local and Toll CCIS feature (Fig. 29).

4.317 The RSS feature serves as a switching entity primarily in the 150 through 1500 line size. The PUC/DL serves as the interface between the data link control function for the RSS remote terminal and the host ESS switch central control. The RSS has applications such as: a replacement for small and slowly growing community dial offices, a new wire center vehicle, and a large pair gain system. The RSS is remotely controlled from a host ESS switch. The RSS remote terminal performs as an extension of the host system and receives command information over a dedicated data link. A single host ESS switch is capable of controlling up to 31 RSSs which may be as far as 75 through 175 miles away. In this application the PUC/DL performs the following functions:

- (a) Receives data from the host ESS switch, buffers and formats the data into the appropriate data link message protocol, and then transmits it serially to the data link
- (b) Responds to data link reconfiguration request from the host central control
- (c) Receives serial data from the RSS, buffers it, and signals the host central control so that the

information received can be read by the host system

- (d) Detects its own PUC faults and reports to the host central control
- (e) Performs diagnostic tests when requested by the host central control or on a timed basis
- (f) Performs audits of its own memory when requested by the host central control
- (g) Reinitializes itself when requested by the host central control.

4.318 The ETS feature provides ETS customers with limited access and control of customer related ESS switch stored data. Customer interface mediums to this ESS switch data include a Customer Administration and Control System (CACCS) or a Local Customer Administration System Terminal (LCAT) which is simply a data terminal. Both interface to the ESS switch by a 300 bps data link terminating in the central office at the PUC/DL. The PUC is connected to the ESS switch via the peripheral unit bus communication structure.

4.319 The Local/Toll CCIS feature provides for exchanging information between processor-equipped switching systems over a network of signaling data links between offices in both the local and toll network. All signaling data, including the supervisory and address signals necessary to control call setup and take down, special service related signals, as well as network management signals, are exchanged by these systems over the signaling links. These signaling links may be provided for the CCIS feature by the PUC/DL.

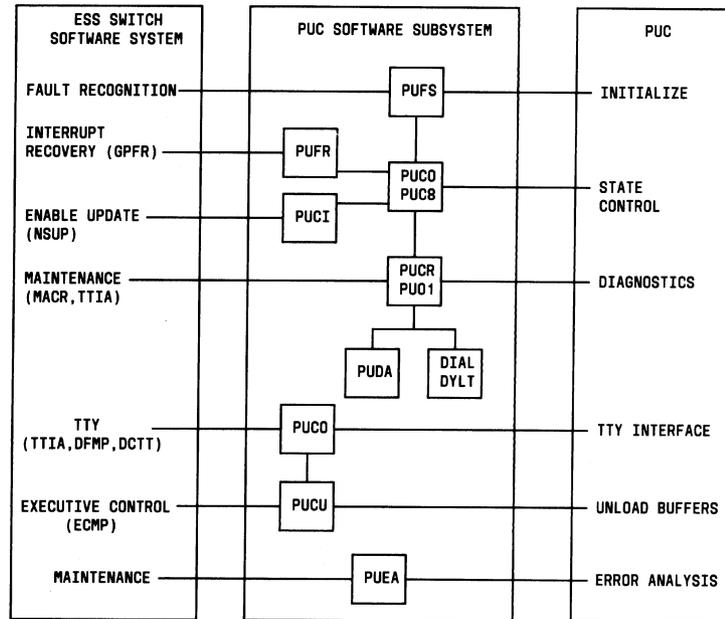
B. Software Interface

PUC/DL Input Data Flow

4.320 The incoming data to the PUC/DL from central control is transmitted over the PUAB and the FIFO buffer. This buffer contains 256 words with each word containing 16 bits of data.

4.321 The transferring of information between the PUC/DL and the ESS switch is accomplished by the PUC/DL application firmware.

4.322 The input data messages are loaded into buffers in the PUC scanner answer memory



† Fig. 26—PUC Software Subsystem Functional Interface †

(SCAM). A total of four out of eight SCAMs having 64 words each are provided for storing the input data. (See Fig. 30).

4.323 The PUC/DL firmware separates each input word into three data fields (high order control plus two data fields). The high order control field is checked for parity. If the parity is incorrect, an error report is returned to the ESS switch. The control field also contains indicators for priority, application, maintenance, and the message type that identifies the order.

4.324 The incoming message words from the ESS switch are separated into three categories:

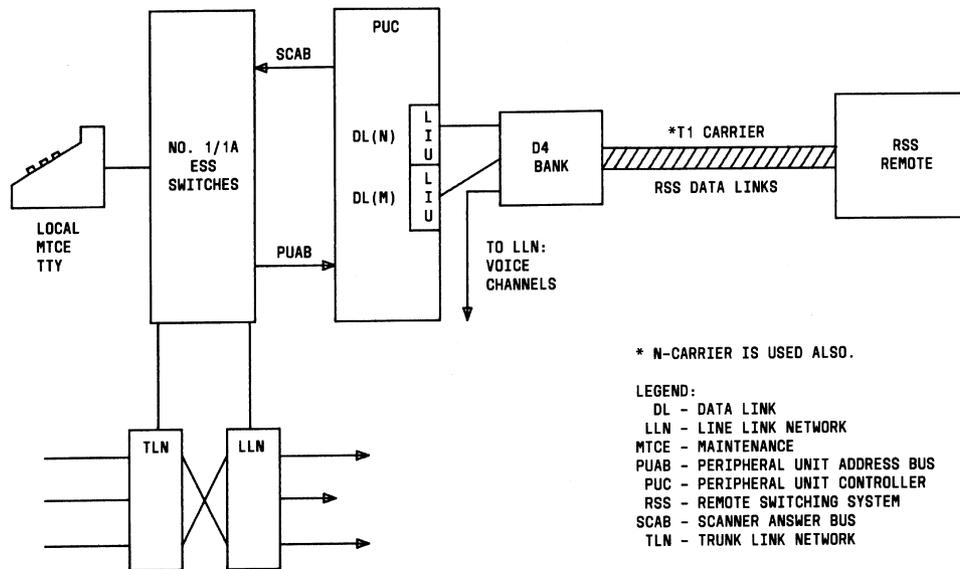
- Data
- Parameter
- Maintenance.

Data Messages

4.325 The data message (Fig. 31) is marked with a destination buffer number specifying a buffer in the PUC/DL read/write memory. The data messages begin with a heading word. The middle field of the heading word contains the destination number. This specifies the transmit buffer where the words which follow the heading word will be stored. The heading word, after being interpreted by the PUC/DL, is discarded. The low-order message field of the heading word contains a word count indicating the number of words to be written in the FIFO buffer. The data words following the heading word are identified by all data bits zero in the high order field.

4.326 When each new data word is stored in the destination buffer (Fig. 32), it is added to the end of the list. If the buffer is full, the present message is discarded and an error is reported. Cumulative counts are kept of all words unloaded from the

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◆ Fig. 27—PUC/DL RSS T1 Carrier Office Configuration ◆

FIFO buffer and the destination buffer. These counts are recorded in the SCAM where they are read and used by the ESS switch to control the input rates and prevent overflow during normal operation.

Parameter Messages

4.327 The parameter messages are used to define the operation of the PUC/DL. Most parameters are sent when the unit is brought on-line. The receipt of a parameter causes a table entry to be initialized or changed and an audit to be generated. Its purpose is to change the internal data structures to agree with the new parameter.

4.328 The parameter messages are also used to specify the number and length of destination buffers; the number, length, and location of data output buffers in the SCAM; and the destination and protocol type of each data link.

Maintenance Messages

4.329 The maintenance messages are processed by the controller maintenance programs. They are used for bringing a data link on-line, clearing an error count, and switching data links.

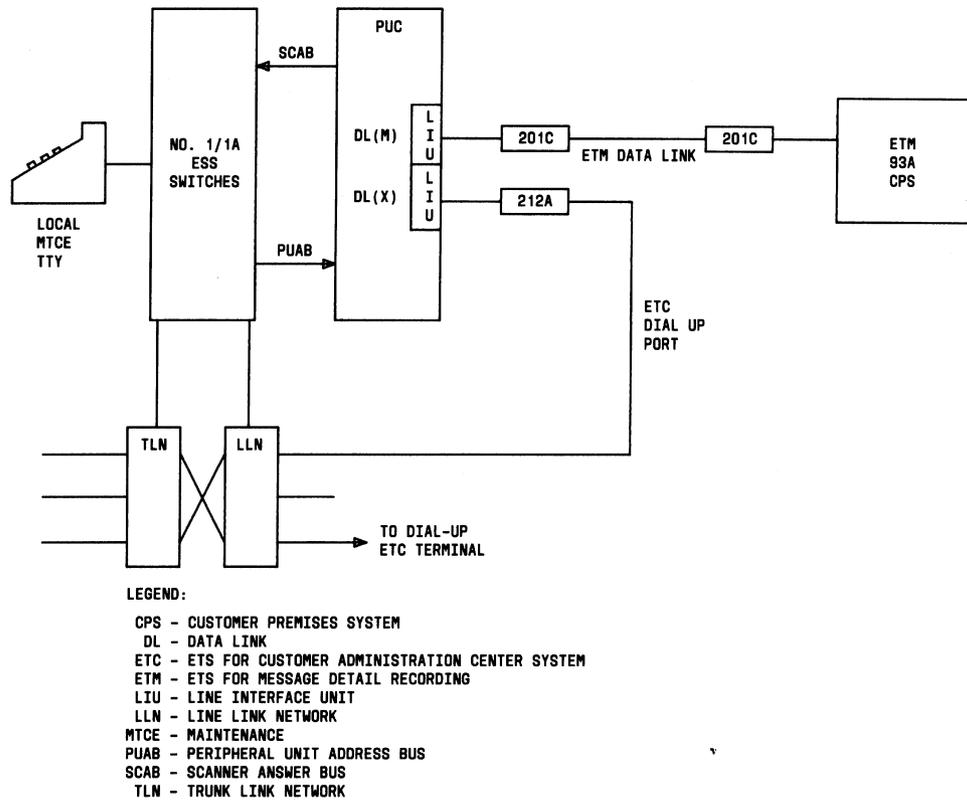
PUC/DL Output Data Flow

4.330 All output data and control information from the PUC/DL to the ESS switch passes via the PUC SCAM. The data is divided into three types:

- Incoming data link messages
- Error and status reports
- Special indicators.

Incoming Data From Data Links

4.331 The incoming data from the data links is deposited in the circular buffers located in the



◆ Fig. 28—PUC/DL ETS Office Configuration ◆

SCAM. The SCAM load pointer is used for loading the data in the SCAM. The unload pointer used for unloading the buffers is located within the ESS switch.

Error and Status Reports

4.332 The maintenance messages contain the error and status reports. These messages are stored in the general reply buffer which is provided with a load and an unload pointer. A maintenance message is sent only when there is available space in the buffer.

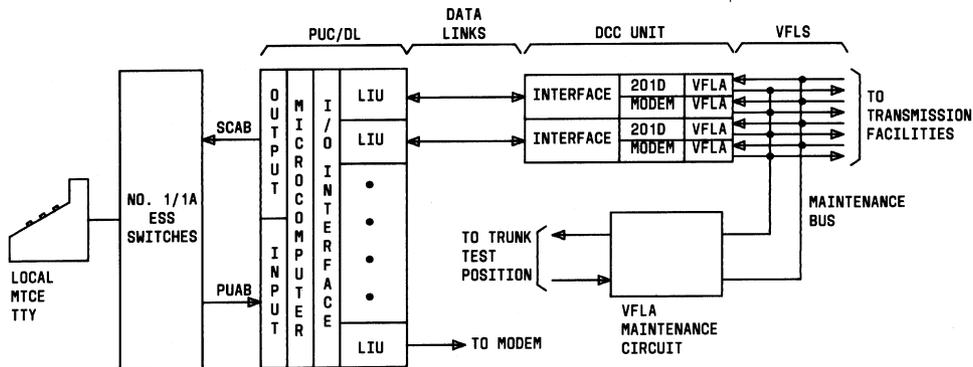
Special Indicators

4.333 The special indicator type includes unload counters and pointers. An indicator is also provided to indicate when a data link switch is in progress.

Parameters

4.334 Parameters are single-word application maintenance messages which contain information used for updating and activating data links. They contain one byte of parameter information and

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◆ Fig. 29—PUC/DL CCIS Office Configuration ◆

two bytes of information that distinguish the parameter message from other types. The four categories of parameters are:

- General
- Destination
- Data link basic
- Data link protocol.

General Parameters

4.335 The general parameters are applicable to the operation of the entire PUC/DL facility.

Destination Parameters

4.336 The destination parameters contain information relating to the input and output buffers. Each set (16 maximum) defines the destination buffer length, scratch block length, and the SCAM buffer length.

Data Link Basic Parameters

4.337 The data link basic parameters are used to specify the information applicable to individual data links. The two categories of data link basic parameters are protocol number and destination number.

Data Link Protocol Parameters

4.338 The data link protocol parameters are associated with the protocol routines and are applicable only to the protocol that is assigned to the data link.

C. MAINTENANCE

PUC/DL Faults

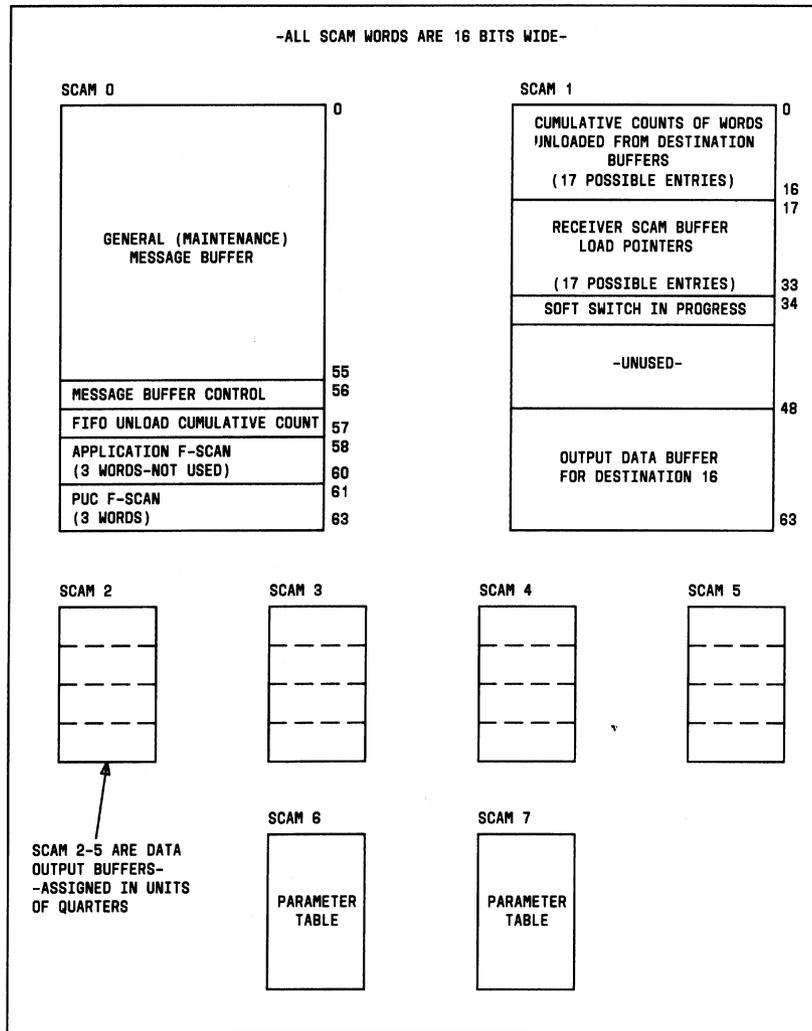
4.339 The PUC/DL faults are reported to maintenance personnel via the input/output terminals. Both the maintenance and the diagnostics on the PUC/DL facility are controlled by the ESS switch software pidents.

Data Link Recovery

4.340 The operational capability of the data links is checked by the PUC. When a trouble (carrier loss, protocol response failure from the remote end, excessive error rates) is detected, the PUC sends the report to the ESS switch. The recovery from a data link fault is handled automatically by the recovery pident PUDR. The recovery action involves establishing a working configuration with the data link, diagnosing the faulty link, and reporting the fault to the maintenance personnel via an output message.

Diagnostics

4.341 The diagnostic function includes the testing of various sections of the data link by looping



LEGEND:
 FIFO - FIRST IN-FIRST OUT
 SCAM - SCANNER ANSWER MEMORY

◆ Fig. 30—PUC SCAM Layout ◆

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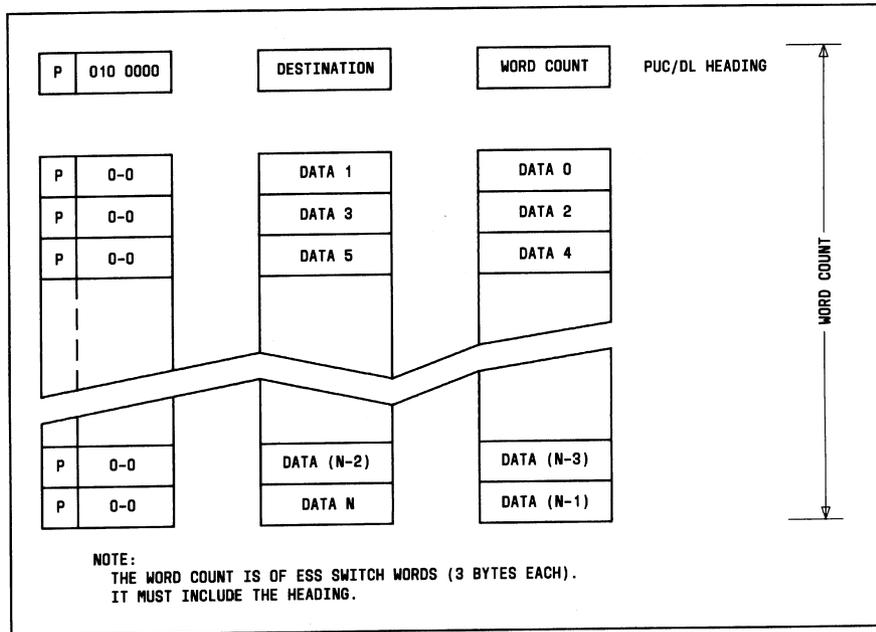


Fig. 31—Input Data Message

signals at different interfaces. The returned signal is compared to the transmitted signal with mismatches indicating a failure.

Maintenance Orders

4.342 The PUC maintenance orders are processed by the controller maintenance programs. They are normally used for bringing a data link on-line, clearing an error count, or switching between redundant data links to the same destination.

Audits

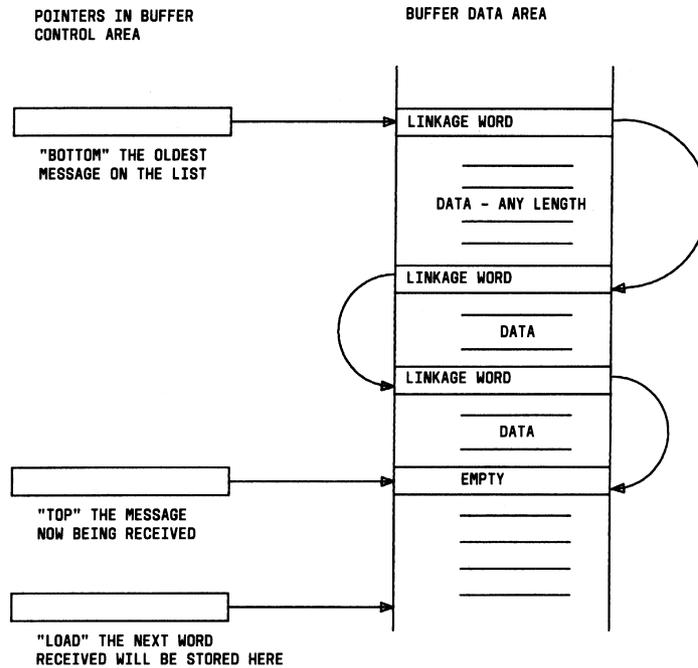
4.343 Audits are performed to build and initialize data structures in the read/write memory. The parameter tables located in SCAM 6 and 7 provide the input data for the audit routines. The audits provide space for the destination buffers and scratch blocks when these areas are requested by the param-

eter inputs. Whenever parameters are changed, the entire sequence of audits are performed.

STATION MESSAGE DETAIL RECORDING (SMDR) AND EXPANDED MESSAGE DETAIL RECORDING (XMDR)

A. General

4.344 The station message detail recording (SMDR) feature records considerable information about calls processed by ETS. This information can be used for accounting or cost control by the customer. The information is sent to the 93A or 94A customer premises system (Fig. 33 and 34) via data link and stored there on 9-track magnetic tape. The customer must have a Local Message Detail Recording System (LMDRS) or a Centralized Message Detail Recording System (CMDRS). The information is also used by the Bell System to assist in network design and maintenance.



◆ Fig. 32—PUC/DL Destination Buffer Structure ◆

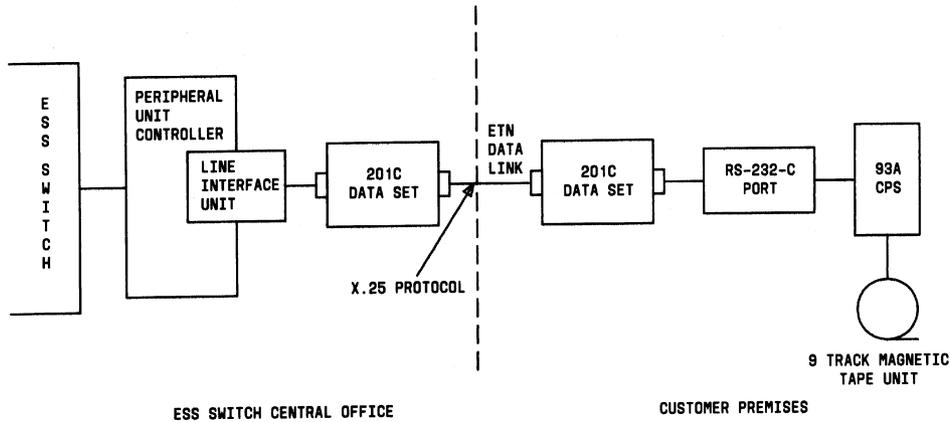
4.345 In 1E6/1AE6, SMDR provides records for originating calls, terminating ETS calls, and ineffective attempts. Calls to collocated stations where only the extension is dialed are not recorded. With 1E7/1AE7, additional information is available with the expanded message detail recording (XMDR) feature. "Dial 9," outgoing wide area telephone service (WATS), noncollocated common control switching arrangement (CCSA), foreign exchange (FX), and tie trunk calls with "1xx" access codes may be included on XMDR records. The SMDR feature only includes originating calls and ineffective attempts. Table B lists the information available on SMDR and XMDR records, along with the number of digits in each record.

4.346 When a call originates from or terminates to an ETS station, the MDRO or MDRI bits in

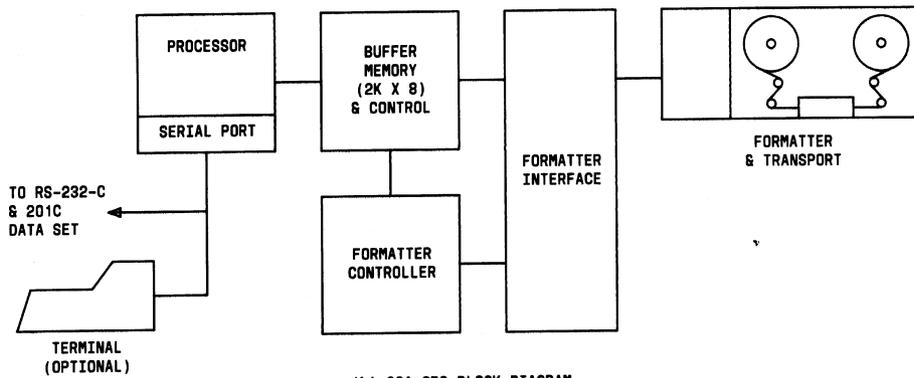
the Centrex Common Block are checked to determine if a record is to be made. For XMDR, an XMDR indicator bit must also be set; and, for "dial 9" calls, the XMDR90 bit must be set. Various hooks are inserted into pidents CX1C, CXOR, ORDL, and ICAL to check the status of these bits.

4.347 If it is determined that a record is to be made, a routine in pident AMAC is called to seize and initialize an appropriate automatic message accounting (AMA) register. Routine AMMD18 is used to seize and initialize an 18-word AMA register for SMDR originating calls. Routine AMMD13 is used to seize and initialize a 13-word AMA register for SMDR terminating calls. Routine AMXMNO is used to seize and initialize an 18-word AMA register for XMDR.

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(a) 93A CPS LMDRS INTERFACE BLOCK DIAGRAM



(b) 93A CPS BLOCK DIAGRAM

◆ Fig. 33—SMDR/XMDR Hardware Configuration for LMDRS ◆

4.348 Hooks are inserted into the main call processing programs to save information at appropriate times in the AMA register, for example, at the end of digit reception, or end of outpulsing.

4.349 Records are formatted and sent to the customer by routines in pident MDRO. There are several different record types. All record types are outputted by routine MDOUTP. If a record can-

not be sent to the PUC immediately, MDOUTP will place it on a queue. The queue will then be unloaded later by MDQSRV. Routine MDQSRV is run as an E-level job and will output a maximum of five message detail records per entry.

4.350 Record type 01 contains SMDR information about an originating call. The information contained in this record type is as listed in Table B.

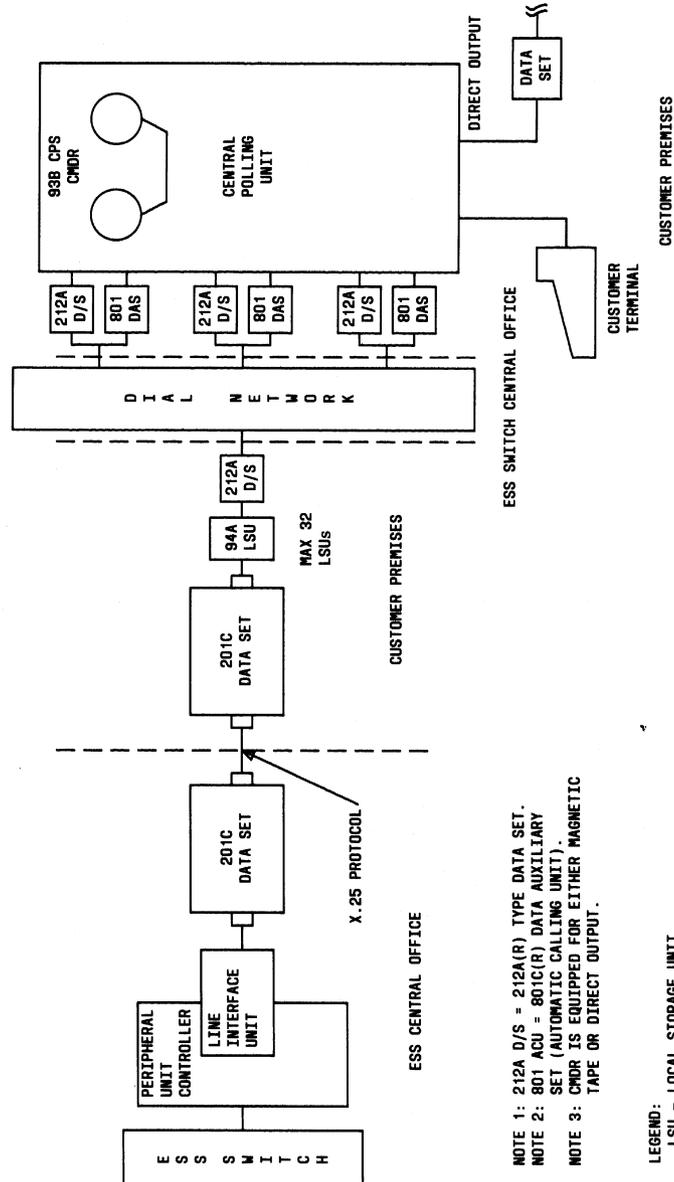


Fig. 34—SMDR/XMDR Hardware Configuration for Centralized Station Message Detail Recording System

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♦TABLE B♦

INFORMATION CONTAINED IN SMDR AND XMDR RECORDS

ITEM	NUMBER OF BCD DIGITS IN SMDR RECORD (TYPE 01)	NUMBER OF BCD DIGITS IN XMDR RECORD (TYPE 05 OR 06)
Call event code	1	1
Service feature	1	1
End of dial time	7	N/A*
Time change	1	1
Answer time	7	7
ARS pattern	1	N/A*
Outgoing trunk ID	6	6
Called number	10	16
Facility restriction level	1	N/A*
Incoming trunk ID	6	6
Calling number	7	7
Authorization code	6	N/A*
Account code	8	8
End of outpulsing time	7	7
Midnights passed	1	1
Disconnect time	7	7
Access code	N/A*	5
Record type	2	2

* Indicates that the item is not included in the specified record type.

4.351 Record type 02 contains SMDR information about a terminating call.

4.352 Record type 03 is a time change record for both SMDR and XMDR. When the ESS switch clock is changed, the old and new clock states are sent to ETS customers by routine MDTCHG.

4.353 Record type 04 is data information for both SMDR and XMDR. It is sent to the customer each midnight by routine MDDATE. This record includes an ESS switch identifier, the time, date, and a count of how many records have been lost either by the ESS switch or 93A CPS.

4.354 Record type 05 contains XMDR information for noncollocated CCSA, WATS, tie trunk, or FX calls. Record type 06 contains XMDR information for "dial 9" calls. Both record types have the same format and contain information as listed in Table B.

B. Account Codes

4.355 The customer may optionally have account codes. An account code is a number dialed before the called number. Optional account codes are recorded on SMDR records. Customer dialed account recording (CDAR) account codes may be included in XMDR records. The account code may be from 3 to 8 digits in length. The first digit of all account codes for a given customer is a unique Lead Account Code digit to indicate that an account code is being dialed. It must be chosen so as not to conflict with any on-network number (no on-network number can start with that digit). All account codes for any one customer must be of the same length. The second digit of the account code must not be 0 or 1, so that it will not conflict with a numbering plan area (NPA) code. This enables the call processing routines to recognize the dialed number as an account code, collect the proper number of digits, and record it. The Lead Account Code digit is not recorded on SMDR.

DMS-100 Table Prompt Tones (TPROMPTS)

Table Name

Table Prompt Tones

Functional Description of Table TPROMPTS

Table TPROMPTS supports a multiple toneset environment. Table TPROMPTS allows service providers the option of datafilling prompt tones based on the service for which the prompt tones are required on a "per toneset" basis. The following services are supported:

- In-Switch Calling-Card Service
- Mid-Call

Datafill Sequence & Size

There is no requirement to enter datafill into other tables before table TPROMPTS. Table size is 0 to 255 tuples.

Datafill

The following table describes datafill for table TPROMPTS:

Table TPROMPTS Field Descriptions

Field	Subfield	Entry	Explanation and Action
TPROMKEY		AUS100, AUS300, AUTMF, AUTMFC, BELMF, BELMFC, BRASMF, BRASMFC, CEP, CEP100, CHINA, CHINA100, CLMDTC, CLMLGC, COSTONES, CWAPCDTC, CWAPCLGC, CWCHIDTC, CWCHILGC, CZECHMF, CZECHMFC, DENMARKMF, DENMARKMFC, DNZLGC, DUTCHMF, DUTCHMFC, EGMF, EGMFC, EVSTONES, FDASRILANKA, FDAUS300, FDMEXMF, FDMXDTC, FDNZDTC, FNZLGC, GERDTC, GERLGC, HONGKONG, HUNDTTC, HUNLGC, INDIA, IRISHMF, ISRL69AD, ISRTONES, ITALYMF, ITALYMFC, JAPAN1, JAPAN3, MCL, MALAYSIA, MALYADSI, MEXDTC, MEXMF, MOROCCO, MXTONLGC, NORTHAA, NORTHAM, NORWMF, NORWMFC, NZDTC, PERUDTC, PERULGC, PHILADSI, PHILTONE, PNGMFC, POLDTC, POLLGC, PORTON, RWNDATON, SAUIDTC, SINGMF, SINGMFC, SPAINMF, SPAINMFC, SRILADSI, SWDDTC, SWDLGC, SWISSMF, SWISSMFC, TLR425, TONFRMF, TONFRMFC, TURKLG, TURKR1R2, UK, UK100, US100, UKADSI, VIETTONE	<i>Prompt Toneset Key</i> Enter the toneset value.

OPTIONS

ACCTREQ, CALLINGCARD, DISA,
DTMFSCRN, MID_CALL, MONA

Services

Enter the service for which prompt tones are required for the particular toneset. For each entry in field TPROMKEY, you can enter from 0 to 5 tone type options.

ACCTREQ,
CALLINGCARD,
DISA,
DTMFSCRN,
MID_CALL,
MONA

AUDRING_TONE, BUSY_TONE,
CARRIER_DIAL_TONE,
CONFIRMATION_TONE,
DIAL_TONE, HI,
HZ2000_M12_TONE,
HZ2400_200_TONE,
HZ2400_M9_TONE,
HZ2600_M9_TONE,
HZ400_5DB, LO,
MF1_TONE, MF2_TONE,
MF3_TONE, MF4_TONE,
MF5_TONE, MF6_TONE,
MF7_TONE, MF8_TONE,
MF9_TONE, MF10_TONE,
MF11_TONE, MF12_TONE,
MF_KP_TONE, MF_KP2_TONE,
MF_ST_TONE, NS SCDT,
NUMBER_UNOBTAINABLE,
PCM_TONE, REORDR_TONE,
SF_FAINT_TONE, SF_LOUD_TONE,
SILENT_TONE, STUTTERDIALTONE,
UNUSED_TONE1, UNUSED_TONE2,
UNUSED_TONE3, UNUSED_TONE8

Tone

For the entries in field OPTIONS, enter a number of tones as follows:

- * ACCTREQ - 1
- * CALLINGCARD - 2
- * DISA - 4
- * DTMFSCRN - 3
- * MID_CALL - 1
- * MONA - 4

-End-

Datavill Example

The following example MAP display shows sample datavill for table TPROMPTS:

TPROMKEY	OPTIONS
UK100	(CALLINGCARD DIAL_TONE CONFIRMATION_TONE) (DTMFSCRN DIAL_TONE DIAL_TONE DIAL_TONE) (DISA DIAL_TONE DIAL_TONE DIAL_TONE CONFIRMATION_TONE) (MONA DIAL_TONE DIAL_TONE DIAL_TONE CONFIRMATION_TONE) (MID_CALL DIAL_TONE) \$

DMS-100 Trunk Options (TRKOPTS)

Table Name

Trunk Options

Functional Description of Table TRKOPTS

Use table TRKOPTS to provision options on trunk groups.

Datafill Sequence & Size

Datafill the following tables before table TRKOPTS:

- CLLI (Common Language Location Identifier)
- ANNS (Announcement)
- TRKGRP (Trunk Group)
- TRKSGRP (Trunk Subgroup)
- LSPINFO (Local Service Provider Information)
- CLICNTL (Calling Line Identity Control)
- CCNTLGRP (Call Control Group) and/or CALLCNTL (Call Control Access)
- POECNM (Path of Entry Characteristic Name)

Note: To use the LSPAO option, enter the name of the local service provider in table LSPINFO.

For correct use of options CGPNBLDR and CLIDLVPI (feature 59040499) the TRKGRP and TRKSGRP tables must be datafilled in the following sequence:

- TRKGRP
- TRKSGRP

Table size is 0 to 131,072 tuples.

Datafill

Table TRKOPTS has two major fields: OPTKEY and OPTINFO. The datafill for the two fields is described separately below. For both OPTKEY datafill and OPTINFO datafill, options are listed in alphabetical order.

Note: A trunk group is defined as a Bearer Independent Call Control (BICC) trunk group when the group is datafilled in table TRKOPTS with ISDN Services User Part Plus (ISUPPLUS) signaling.

OPTKEY Datafill

The following table lists the OPTKEY datafill for table TRKOPTS.

Table TRKOPTS Field Descriptions

Field	Subfield	Entry	Explanation and Action
OPTKEY		See Subfields	<i>Option Key</i> This field consists of subfields CLLI and OPTION.
	CLLI	1 to 16 Alphanumeric Characters	<i>Common Language Location Identifier</i> This subfield indicates the CLLI code of the trunk group to which the option is assigned.
	OPTION	ANI, AOC, BCMAP, BLOCKLNP, BWRLSIND, CALLREF, CCNTLIDX, CFR, CFWOPT, CGNBD_IN, CGPNBLDR, CITYCODE, CLGDMI, CLICNTL, CLIDELV, CLIDLVP, CLIOUPT, CNAMINGN, COS, CPT, CSSCRN, CTC, CUSTOM_CPC, DCF, DEFNUM, DFLTPI, DLYFWDXMT, DYNAMIC, FCI, FGD, FWRLSIND, HPCTQ, HPCNOTQ, ICDS, ICMOG, INTL, INTMTR, ISPARM, ISUPSVC, LDA, LMG, LOOPBACK, LRNOPT, LSPAO, LSPFE, MCIDP, METER, MPM, MWI, NATL_CPC, NETOPTS, NOANSWER, OFFNET_CARRID, OGMOG, OSNC, POECNAME, PRESEL, Q118OPT, RCI, REANSTMR, REQCLI, RINGBACK, RLT, RRID, SCC, SLOWREL, SSUTR2_TAX_GEN, SUBCOM, SUPVOPT, TELETAXE, TELETAXE_NOSIG, TREATONE, TRTORLS, TXICD	Subfield OPTION specifies the name of the option assigned to the CLLI specified in subfield CLLI. Enter "ANI" to specify the name of the option assigned to the CLLI specified in subfield CLLI. Enter "AOC" for Advice of Charge during a call or at the end of a call. Enter "BCMAP" to set the connection type (Bearer Capability) for outgoing setup messages over BTUP, DASS2, and ETSI ISUP. The BCMAP option only applies to BTUP, DASS2, and ETSI ISUP trunk groups. Enter "BLOCKLNP" to block calls where the previous switch did not perform a necessary LNP query. Activate option BLOCKLNP in table LNPOPTS before you add option BLOCKLNP in table TRKOPTS. When you datafill table TRKOPTS first, switch does not use the BLOCKLNP information in table TRKOPTS. Enter "BWRLSIND" for the release indication to be applied to the incoming Channel-Associated Signaling (CAS) trunk with a backward release. This option is only valid on FDCP trunks. Enter "CALLREF" on an incoming trunk to indicate that the trunk can expect to receive a Call Reference parameter in the IAM message. The parameter could either be transitted unchanged or modified depending on the value in CALL_REF. For an outgoing trunk this works in conjunction with the CALL_REF value of DELETE. Enter "CCNTLIDX" to allow control of call processing functionality by the operator. Only SCRIN_INDX keys that already exist in table CALLCNTL or table CCNTLGRP can be datafilled in TRKOPTS, and this enables a SCRIN_INDX index to be associated with an incoming trunk group.

Enter "CFR" to activate/deactivate the restrictions on forwarded calls coming from ETSI ISUP or IBN7 ISUP trunk.

Enter "CFWOPT" to make the system substitute the original calling number with the DN that activates the Call Forward feature.

Enter "CGNBD_IN" to control whether to do PI mapping on an incoming agent which is set with IN trigger. It provides the index to the screening tables. The datafill of option CGNBD_IN is restricted to GSP CR11 and CR12 trunks.

Enter "CGPNBLDR" to index table CGPNBLDR.

Enter the two-digit "CITYCODE" to prefix the outgoing calling-number for Brazilian calls with a subscriber incoming Nature-of-Address (NOA).

Enter "CLGDMI" to allow manipulation of the Calling Line Identity (CLI) over the terminating trunk. This option has one parameter which is an index to table DIGMAN.

Enter "CLICNTL" to allow control over the address which is screened, billed, and outpulsed.

Enter "CLIDELV" to control delivery of the CLI over the terminating trunk.

Enter "CLIDLVP" to enable the CLI delivery enhancement. The datafill of this option is restricted to GSP ISUP trunks.

Enter "CLIOUTP" to provide control over the selection of the address that is sent as CLI over the terminating trunk.

Enter "CNAMINGN" to allow the switch to send the calling party name in the GN parameter of ISUP IAM.

Enter "COS" to enable the operator to associate a Class of Service (COS) value with a trunk group so that trunk-to-trunk calls can be restricted by using COS screening. The switch operator is allowed to assign this COS to a trunk during the call control operation. The operator may override either the COS Group, or COS Index, or both of them.

Enter "CPT" to assign the Call Progress Tone feature to the trunk CLLI specified in subfield CLLI.

Enter "CSSCRN" to assign Carrier Selection Screening to the trunk CLLI specified in subfield CLLI.

Enter "CTC" to assign the trigger value sent in the "Info_Analyse" message when TRIGGER_INDEX=Y.

Enter "Australia" in CUSTOM_CPC on the outgoing trunk to execute the mapping of the CPC parameters INHIBIT_CALL_DIVERSION (239) and MOBILE_CUSTOMER (247) on the ETSI ISUP V2.

Enter "DCF" to permit the trunk to reject call-forwarded calls. This option applies to calls that have been forwarded to a PRI line.

Enter "DEFNUM" to trigger Calling Line Identity (CLI) default number functionality. The DEFNUM option, if datafilled on an incoming trunk, provides the ability to pick-up the default CLI, Charge Number or Contractor Number on the outgoing trunk.

Enter "DFLTPI" to specify a default presentation indicator for an incoming CAS-PBX trunk.

Enter "DLYFWDXMT" to select option Delay Forward Transmission. Option DLYFWDXMT blocks the forward speech path of an outgoing or 2-way trunk until answer supervision is received or a specified time-out value is exceeded.

Enter "DYNAMIC" to specify a dynamic trunking application.

Enter "FCI" to indicate that the National/International call indicator in the outgoing FCI (in IAM message) is to be set according to this datafill. First, the outgoing trunk is checked, and if the datafill is present, it is used. Otherwise, the incoming trunk is checked.

Enter "FGD" to indicate that the protocol of the trunk is ISUP FGD.

Enter "FWRLSIND" for the release indication to be applied to the outgoing CAS trunk with a forward release. For Italy CAS, this indication is a congestion tone. This option is only valid on FDCP FST trunks.

Enter "HPCTQ" to enable GETS HPC trunk queuing, or enter HPCNOTQ to deny HPC trunk queuing on specific egress trunk groups when the HPC egress queuing feature is enabled on an office-wide basis through office parameter HPC_EGRESS_QUEUING.

Enter "ICDS" for the Inter-Network Call Diversion feature.

Enter "ICMOG" to request metering for an incoming trunk agent. Then enter data in the OPTINFO field.

Enter "INTL" to indicate that the CLLI is for international calls.

Enter "INTMTR" to send a BCM message during an outbound call setup. The INTMTR trunk option may be defined only for ISUP trunks.

Enter "ISPARM" to enable specified ISUP IAM parameters to be handled in different ways.

Enter "ISUPSVC" to hold a character string that indicates ISUP services defined by table ISUPSVC.

Enter "LDA" to define the trunk as a dedicated toll trunk. All calls over this trunk are treated as toll calls. This option is limited to incoming IBN toll trunks.

Enter "LMG" to assign a Logical Meter Group (LMG) for PRI trunk group billing. Then enter data in the OPTINFO field.

Enter "LOOPBACK" to enable operators to prevent trunk-to-trunk calls from being routed back by using trunk loop prevention.

Enter "LRNOPT" to derive the Routing Number for PBX ported-in number originated calls.

Enter "LSPAO" to indicate that the traffic on a trunk is dedicated to a specific Local Service Provider Account Owner and context. Context refers to the leasing arrangement between the account owner and switch owner.

Enter "LSPFE" to identify the switch owner on the far end of the trunk. Provision LSPFE when the far-end switch has a different Switch Owner (SO) value from the switch you are provisioning. A different SO indicates that the switch is from another network.

Enter "MCID" to register an outgoing access trunk for Malicious Call Identification procedures. This option allows a terminating user to request a log of the CLI for received calls from the network. This option is currently supported for FDCP trunks.

Enter "METER" to indicate that the trunk is the Poland R2 metering variant. This option supports incoming and 2-way FDCP trunks.

Enter "MPM" for incoming or 2-way CTUP trunks to allow that trunk to generate MPM messages. MPM is a China specific metering message.

Enter "MWI" to register specified PRI trunks for Message Waiting Indication as controlling and/or receiving users.

Enter "NATL_CPC" to use Saudi national CPC values on a Saudi trunk. If the OPTION subfield is not datafilled, "NIL" is displayed. Saudi trunks use international values if NIL is displayed.

Enter "NETOPTS" to assign the network options. Operating company personnel can enter all options on a trunk group. A trunk group can have a maximum of four suboptions. The same tuple cannot have the same suboption more than one time.

Enter "NOANSWER" to be made available against a particular trunk for one or more of the following services - MONA, DISA, RSA, CALLING_CARD.

Enter "OFFNET_CARRID" to assign the Carrier ID of the connected network.

Enter "OGMOG" to request metering for an outgoing trunk agent. Then enter data in the OPTINFO field.

Enter "OSNC" to allow OSNC type calls.

Enter "POECNAME" to enable the user to set the path of entry for trunk-originated calls.

Enter "PRESEL" to assign the Preselected Carrier ID to the trunk CLLI specified in subfield CLLI.

Enter "Q118OPT" for outgoing U.S. CAS trunks.

Enter "RCI" to specify the NO_RCI/ALTRTE option for incoming, outgoing, and 2-way U.K. ISUP trunks.

Enter "REANSTMR" to provide a datafillable reanswer timer for Korea R2 to ANSI ISUP calls. The value can be datafilled from 0 up to 255. This timer is datafilled against the outgoing ANSI ISUP trunk.

Enter "REQCLI" to trigger a Calling Line Identity (CLI) request on the R2 trunk. Option REQCLI is available for the following outgoing trunk types: IBN two way, outgoing, and Primary Rate Access (PRA) trunks.

Enter "RINGBACK" for the ringing tone to be fed upstream (incoming trunk), by the DMS-100 switch upon receipt of a progress message from an outgoing trunk. This option is only valid on FDCP trunks.

Enter "RLT" to assign the Release Link Trunk option to Integrated Services Digital Network User Part (ISUP) Intertoll (IT) trunks only. The Equal-Access End Office (EAEO) receives an ISUP REL message with a Service Parameter (SAP) of RLT_REQUEST_MSG. If an ISUP IT trunk without option RLT receives the RLT request, the call routes to Feature Not Allowed (FNAL). The EAEO's host computer generates log report DFIL324. If the ISUP IT trunks have option RLT, then the routed RLT call uses reverse translations simplification (RLT2DIAL) to derive the dialing number.

Enter "RINGBACK" for the ringing tone to be fed upstream (incoming trunk), by the DMS-100 switch upon receipt of a progress message from an outgoing trunk. This option is only valid on FDCP trunks.

Enter "RLT" to assign the Release Link Trunk option to ISUP intertoll trunks only. The Equal-access End Office (EAEO) receives an ISUP REL message with a Service Parameter (SAP) of RLT_REQUEST_MSG. If an ISUP IT trunk without option RLT receives the RLT request, the call routes to Feature Not Allowed (FNAL). The EAEO's host computer generates log report DFIL324. If the ISUP IT trunks have option RLT, then the routed RLT call uses reverse translations simplification (RLT2DIAL) to derive the dialing number.

Enter "SCC" to allow the DMS-MMP to convert the incoming Calling Party Number (CPN) into the international format by prefixing it with Serving Country Code (SCC) when a call is between subscribers in two different countries (international call).

Enter "SLOWREL" to ensure the CAS trunk is not deallocated before RLG is received.

Enter "SLOWREL" for trunks that take more than 1.5s to release. This is the time between the sending of CLF and receipt of RLG. This option is only valid on IBN 2-way (IBNT2) and IBN outgoing (IBNTO), FDCP protocol, FST trunks.

Enter "SSUTR2_TAX_GEN" to send a TAX message backward on the incoming SSUTR2 trunk just before the ACF. The TAX message is sent only if the Nature of Address field in the incoming MIF message indicates "International."

Enter "SUBCOM" to allow the addition of a Sub-Community per CLLI. If the call is a trunk origination call, a prefix is retrieved from table EMSUBCOM and used with the dialled emergency number.

Enter "SUPVOPT" for incoming U.S. CAS trunks.

Enter "TELETAXE" to identify that the trunk can support backward charging information in ITX messages (available on French Telephony User Part trunks). This activity sends charging information during the call to the calling subscriber's switch that performs the billing. This allows the service provider to control the billing of the call.

Enter "TELETAXE_NOSIG" to block backward charging information.

Enter "TREATONE" to feed a Treatment Tone to the calling party after the called party has disconnected first after answer. This tone is datafillable for different patterns for different markets.

Enter "TRTORLS" for backward release signal FRLS to be sent to the incoming CAS trunk after treatment time-out. This option is only valid on FDCP trunks.

Enter "TXICD" for the Transmit Inhibit Call Diversion feature.

-End-

Homebrew CIA OTS Pencil

Overview

"These field mentors also provided valuable unofficial training. Junior techs learned how to economize on space while taking the necessary tools for jobs that were never completely predicatable. One tech always carried four types of tape wrapped around a No. 2 lead pencil. Individual rolls of tape added weight, required space, and contained far more tape than was ever needed on most jobs. Duct tape, double-sided tape, electrical tape, and copper foil tape were standards. Duct tape held devices in place while the epoxy dried, double-sided tape was used to stick components to walls or ceilings in temporary configurations for testing, electrical tape insulated and repaired wiring, and the copper foil tape with sticky backing made good practice or emergency test antennas. There was always room on the pencil to wind several loops of solder wire and utility wire as well."

Excerpt from *Spycraft: The Secret History of the CIA's Spys from Communism to Al-Qaeda* by Robert Wallace and H. Keith Melton. (www.ciaspycraft.com)

The above is a quote from a book which documents the history of what is known today as the CIA's Office of Technical Services (OTS). These are the people who actually create and help deploy the technical devices used to collect foreign intelligence by the CIA. These devices range from very sophisticated induction-based telephone taps to pencils with tape wrapped around them. We'll stick to just making the tape pencils... for now.

This little trick is not just for the amateur intelligence gatherer, it is also a handy addition to one's toolbox. Construction of this device is quite simple and, in fact, you could probably make a tape dispensing pencil like this for free if you really scrounge. The project here will revolve around a "Paper Mate TopNotch Grip" mechanical pencil instead of a normal "number 2" lead pencil. The reason for this is that in certain "situations" you don't want to leave around any shavings if you need to re-sharpen the pencil. Fill the pencil with as many spare leads as it will hold, then epoxy the eraser into place. This will keep the leads from falling out during any rough handling.

You may also wish to pick up a Weller BP645 battery powered soldering iron. Unlike the infamous "ColdHeat" brand, these actually work! While it doesn't have the wattage or battery life to handle heavy soldering jobs, it is perfect for quickly soldering wires in cramped areas. They take less than 30 seconds to heat up and run off three standard "AA" size alkaline batteries. You'll want to avoid using low-cost zinc-carbon batteries, as their high internal resistance will lower the output current, which reduces the soldering iron's tip temperature. Try to use small-diameter rosin-core flux solder with this soldering iron to avoid any unnecessary loading. You should also try to prep the connection beforehand with a flux pen. The pencil's eraser can be used to clean any oxidation off the wires or surface before soldering. Use a piece of tape to clean up any eraser "crumbs," if your job requires stealth.

Construction Notes & Pictures



Overview of the parts needed.

Along the bottom is the Paper Mate TopNotch Grip mechanical pencil and the Weller BP645 battery powered soldering iron.

Above that are samples of different types of tape to use. You can even try "art tape," which comes pre-cut in reduced widths from 1/4 to 1/16 inch and in different colors.

A surplus source of double-sided adhesive mounting tape can be found in window insulation kits.

Adhesive-backed copper foil tape can be found in the glass making section of most big hobby stores. You can solder to this tape, if you are careful. Copper foil tape can also be used to reduce any stray RF leakage in computers or radio equipment by covering cracks or seams. This is sorta like a poor-man's TEMPEST program. Copper foil is also very useful for making fairly "stealthy" mobile dipole antennas by applying it to vehicle windows. Roll the window down for quick concealment.

For the electrical tape, 3M Scotch Super 88 is the best brand to use. The tape will stay stretchy and sticky even in cold weather, it won't breakdown in sunlight (ultraviolet), and it is a little thicker than normal electrical tape. Remember to wrap the tape **up** the connection if it needs to be waterproof. This will help prevent the tape from "wicking" the moisture down into the wrapped connection.



Closeup of the Weller BP645 battery powered soldering iron.

The iron's plastic protection cap has space to hold a little roll of solder and a piece of solder wick. Add a drop of liquid rosin flux to the solder wick if it ever dries out.

Use good alkaline batteries in the soldering iron for maximum performance, not the crappy ones shown above.



Soldering iron cap with the little roll of solder and solder wick.



Completed tape dispensing pen overview.

From bottom to top is the double-sided tape, copper foil tape, electrical tape, and a few wraps of some enameled wire. Peel off a little bit of each tape's adhesive protective backing to help secure them to the pencil.

Enameled wire is easier to carry than regular wire as it doesn't have bulky insulation. It will need to be scraped a little bit before soldering though. A good source of enameled wire is from old telephones with a mechanical ringer.

On this style of Paper Mate pencil, the pocket clip has a little hole in it which the wire can pass through. This helps secure the wire and will prevent it from unraveling.

Bonus

\$2600 Magazine's main cash cow, Kevin Mitnick, often appears on national TV and radio programs claiming that he never "hacked into NORAD." He also accuses *New York Times* writer John Markoff of starting this rumour for his own personal financial gain.

But when Johnny Long's new book entitled *No Tech Hacking* came out, which lists Kevin Mitnick as a "Technical Editor," look what they mentioned in the "About the Author" section on Amazon:

- * The best hackers in the world know that the simplest way to exploit a target is often the best. No-Tech hacking is the epitome of deadly simplicity.
- * Real-world examples including photos, video and stories are presented in Johnny's light, easy-to-read and fun style.
- * This book is designed not only to inform, but to train, and is well suited as both a fun, light read but also as an eye-opening preventative training manual.

About the Author

Johnny Long is a professional hacker and security researcher for Computer Sciences Corporation. Johnny has written or contributed to several books, including *Google Hacking for Penetration Tester* from Syngress Publishing, which has secured rave reviews. Kevin Mitnick (Technical Editor) is the most famous computer hacker in the world. Since his first arrest in 1981, at age 17, he has spent nearly half his adult life either in prison or as a fugitive. He has been the subject of three books and his alleged 1982 hack into NORAD inspired the movie *War Games*. Since his plea-bargain release in 2000, he says he has reformed and is devoting his talents to helping computer security.

Product Details

Paperback: 480 pages

Publisher: Syngress (February 21, 2008)

Language: English

After I grabbed this Amazon webpage screen shot, and quickly tried to make it public, look what happened:

What happens when a kiosk is more than a kiosk? What happens when the kiosk holds airline passenger information? What if the kiosk holds confidential patient information? What if the kiosk holds cash?

. Vehicle Surveillance

Most people don't realize that some of the most thrilling vehicular espionage happens when the cars aren't moving at all!

[See all Editorial Reviews](#)

Product Details

Paperback: 480 pages

Publisher: Syngress (February 21, 2008)

Language: English

ISBN-10: 1597492159

ISBN-13: 978-1597492157

Product Dimensions: 9.1 x 7.5 x 0.9 inches

<http://www.amazon.com/No-Tech-Hacking-Engineering-Dumpster/dp/1597492159>

Get that wallet out, little sheep! We need:

Change!

End of Issue #56



Any Questions?

Editorial and Rants

I don't know whether to laugh or cry...

Socialism

From Wikipedia, the free encyclopedia

This is an **old revision** of this page, as edited by [65.198.151.241 \(Talk\)](#) at 20:24, 9 October 2008. It may differ significantly from the **current revision**.

[\(diff\)](#) [↔](#) [Previous revision](#) | [Current revision \(diff\)](#) | [Newer revision](#) [↻](#) [\(diff\)](#)

IN 2008 THE UNITED STATES BECAME A SOCIALIST NATION THANKS TO GIVING HOUSES TO ANYONE WHO WANTED ONE AND THEN ACTING ALL SHOCKED WHEN THEY COULDN'T AFFORD AND THEN THE CATTLE THAT ARE THE AMERICAN PEOPLE VOTED IN BARACK OBAMA WHO INSTANTLY SET FIRE TO THE CONSTITUION UPON ENTERING OFFCE

Socialism refers to a broad set of economic theories of social organization advocating state or collective ownership and administration of the **means of production** and distribution of goods, and the creation of an **egalitarian** society.^{[1][2]} Modern socialism originated in the late nineteenth-century **working class** political movement. **Karl Marx** posited that socialism would be achieved via **class struggle** and a **proletarian revolution**, it being the *transitional* stage between **capitalism** and **communism**.^{[3][4]}

Part of the **Politics** series

Socialism



Currents

- [African socialism](#)
- [Arab socialism](#)
- [Communism](#)
- [Democratic socialism](#)
- [Eco-socialism](#)

This is the photo which was attached to the November 28, 2008 New York "Wal-Mart stampede death" story by the Associated Press on the ABC News website:



http://a.abcnews.com/images/Business/ap_black_friday_04_081128_ssh.jpg

Note that this picture is **not** from a Wal-Mart, the vast majority of the people are white, and everyone seems to be acting civilized. Now, this is what actually took place outside that Wal-Mart:



The liberal media blamed the death on everything from economic recession, President Bush, 9/11, capitalism, Wal-Mart, etc. Never **once** did they mention it was just a bunch of niggers acting like savages with **your** tax-funded welfare checks.

More photos at:

http://www.nydailynews.com/money/galleries/walmart_stampede_captured_in_pictures/walmart_stampede_captured_in_pictures.html

More dirty spic violence... at a Toys "R" Us!

Witnesses: Fatal Shooting Followed Toy Store Brawl

November 29, 2008 – From: apnews.myway.com

By Gillian Flaccus

PALM DESERT, Calif. (AP) – The shooting occurred in a crowded toy store on the traditional start of the holiday shopping season, but authorities say it wasn't related to the bargain-hunting frenzy. Instead, two men pulled guns and killed each other after the women with them erupted into a bloody brawl, witnesses said.

Authorities released few details about the mayhem that broke out at the Toys "R" Us store around 11:30 a.m. Friday, sending scared shoppers fleeing. Riverside County sheriff's Sgt. Dennis Gutierrez said the fight was not over a toy and that handguns were found by the men's bodies. He refused to say whether the shooting was gang-related.

The victims were identified as Alejandro Moreno, 39, of Desert Hot Springs, and Juan Meza, 28, of Cathedral City. No one else was hurt.

Witnesses Scott and Joan Barrick said they were checking out of the store when the brawl began between two women, each with a man. The women were near the checkout area, but the Barricks did not think the women had purchases.

One woman suddenly started punching the other woman, who fought back as blood flowed from her nose, said Scott Barrick, 41. The man who was with the woman being punched pulled a gun halfway out of his pocket, then shoved it back in, he said.

"He pulled his gun right next to me. I turned to look for my wife, and she was already hiding," Scott Barrick said.

"I was scared," said Joan Barrick, 40. "I didn't want to die today. I really didn't want to die today, and I think that's what we were all thinking."

The other man pulled a gun and pointed it at the first man but forgot to cock it, Scott Barrick said. The first man tried to run but was blocked by the line of people, then ran back toward the store's electronics section as the other man fired his gun, he said.

The first man reached a dead-end in electronics, turned around and ran toward an exit, pulling his gun and firing back, Scott Barrick said.

"He went up to the cash register, he went to put his hand on the thing and he just went phoomp," he said, indicating the man fell.

He said he did not see what happened to the other man.

Palm Desert Councilman Jim Ferguson said police told him two men with handguns shot and killed each other.

"I think the obvious question everyone has is who takes loaded weapons into a Toys "R" Us?" he said. "I doubt it was the casual holiday shopper."

Ray Turner, 20, said he was two aisles away when two women began shouting and screaming at each other and he had a clear view of the fight until a crowd clustered around them. Both women had children, he said.

"We thought it was just a fight and then someone yelled: 'He's got a gun! He's got a gun!' You really couldn't see nothing because there was a crowd," Turner said.

Rafael Gomez, 11, said he and his father had been in the store about 20 minutes before the shooting but were in a nearby Pizza Hut when they saw people pouring out of the store screaming.

"We just saw them running and crying. I was kind of scared," Rafael said. "We got lucky."

Toys "R" Us issued a statement expressing outrage over the violence.

"We are working closely with local law enforcement officials to determine the specific details of what occurred," the statement said. "Our understanding is that this act seems to have been the result of a personal dispute between the individuals involved. Therefore, it would be inaccurate to associate the events of today with Black Friday."

Let me guess... you didn't hear about this one?



<-- Aysha Ring



<-- Nigger

Man Charged in Liquor Store Stabbing

November 25, 2008 – From: www.baltimoresun.com

By Jennifer McMEnamin

Fingerprints left at a Catonsville liquor store where a woman was fatally stabbed Saturday afternoon led police to the nearby home of a 23-year-old man whose only prior criminal conviction was for burglarizing a house with some friends.

David Aaron Briggs was arrested late Monday night and charged with first-degree murder in an attack that appears to have been completely random.

"Right now, we have no motive," Cpl. Mike Hill, a Baltimore County police spokesman, told reporters Tuesday. Our information does suggest that they did not know each other at all."

Aysha D. Ring, 24, was stabbed in the neck and wrist just before 4 p.m. on Saturday while standing in line at Charing Cross Liquors on Baltimore National Pike. Born into a military family, the Hawaii native was studying business at Anne Arundel Community College and working full-time at Cristo Rey Jesuit High School in Baltimore while preparing for a career in the U.S. Navy.

"This is a tragic case that has taken the life of a young woman, an innocent victim in our community," Baltimore County Police Chief James W. Johnson said. "The members of our community are rightfully alarmed and concerned."

Police declined to discuss what led them to Briggs, other than to say it was a combination of "the latest in technology" and old-fashioned police work.

Court documents, however, reveal that latent fingerprints lifted from areas touched by the assailant in the liquor store led investigators to Briggs, who lives with his father less than a mile from the shop. Detectives then compared a photo of Briggs on file to surveillance footage.

"This comparison provided a match in approximate height, weight, stature, hair and facial features," homicide detective John Tollen wrote in charging documents.

Surveillance footage from cameras around the shopping center showed a newer model blue Ford F-150 leaving the parking lot within minutes of the stabbing. Through motor vehicle records, detectives learned that Briggs owns a 2008 Ford F-150 truck registered to an address in the 1100 block of Sedgewood Road, between Catonsville and Woodlawn and just barely within Baltimore County's border.

About 11 o'clock Monday night, detectives searched that home, where they found clothes that matched what the suspect had been wearing when Ring was killed, according to court records.

Briggs, a newspaper carrier for The Washington Post, was arrested and questioned at police headquarters in Towson. He told detectives that he had never been to the liquor store, according to court records.

Reached Tuesday night, the defendant's father, Carlton Briggs, was distraught. "Obviously, he has some mental problems," he said of his son. "I just found out what happened. I'm heartbroken. I'm sad. I can't even think straight right now."

According to court papers filed by the lawyer who represented David Briggs last year in a burglary case, the young man has worked as a newspaper deliveryman for eight years and was taking classes in February at Prince George's County Community College.

Less than three months after Briggs was sentenced in November 2007 to 18 months of probation and 80 hours of community service for the first-degree burglary conviction, he had already completed his service hours, defense attorney Arthur M. Frank wrote at the time in a request for his client's criminal record to be wiped clean with a finding of probation before judgment. That request is still pending.

"He seemed like a good kid," the defense lawyer said Tuesday. "He had no mental problems that I knew of. His father was a concerned parent and took a real interest in his son's well-being."

Briggs also received probation before judgment last year for marijuana possession.

Janice Wooten, who lives next door to the Briggs family, said she did not know the father and son well but described her interactions with them as pleasant.

"I hope he didn't do it," the neighbor said. "They seem like very nice people."

At the high school where Ring has worked since June of last year managing logistics for students in corporate internship programs, staff struggled Tuesday to make sense of her death.

"We have a lot of young staff, and this strikes young people particularly hard," said the school's president, the Rev. John W. Swope. "It's important that [the investigation] didn't drag on." Briggs is being held at the Baltimore County Detention Center on no bail. He will likely have a bail review hearing Wednesday in District Court in Towson.

Section 8 housing. Coming soon to your peaceful neighborhood.

Housing Vouchers Sparking Conflicts

September 12, 2008 – From: news.cincinnati.com

By Gregory Korte

Thousands of poor people have moved out of Cincinnati's inner-city ghettos and settled into homes on middle-class, suburban streets – exactly the result a federal housing program intended.

But that victory comes at a cost: Poor families with government subsidies that help pay the rent are creating new pockets of low-income housing in places like Mount Airy, Westwood, Price Hill, Springfield Township, Colerain Township and Forest Park.

Fair-housing advocates say the rent-voucher program – better known as Section 8 – has created opportunities for jobs and good schools that poor families could only dream of in the projects. But critics in the neighborhoods at the receiving end of this outward migration say the vouchers are lowering property values while increasing blight and crime.

An Enquirer analysis of 15 years of local and federal housing statistics shows the unequal relocation of poor families in Hamilton County, home to 60 percent of all Section 8 housing in Greater Cincinnati and Northern Kentucky.

The migration pattern helps explain an escalating rancor pitting homeowner against renter, city against suburb and East Side against West Side. It also shows why political pressures are pushing another housing shift – moving low-income housing into wealthier neighborhoods that have none.

The number of Section 8 vouchers in Hamilton County has doubled since 1994 to about 11,000 today, costing taxpayers \$62 million last year alone.

But not all neighborhoods have felt the impact equally:

Section 8 renters are clustering in a handful of working – and middle-class neighborhoods, but are being priced out of others. In Springfield Township, South Fairmount and Golf Manor, the government is helping pay the rent for a quarter or more of all rental units. But some communities with hundreds of apartments – such as Mount Lookout, Mount Adams and Mariemont – have no subsidized units because market-rate rents are beyond government pay limits.

About 60 percent of Section 8 units are on the West Side of Hamilton County, which has 51 percent of the region's rental units. That's a 5-percentage-point increase since 2003, when 55 percent of Section 8 units were west of Vine Street.

Although complaints about Section 8 are most vociferous in Westwood and Price Hill, some neighborhoods are seeing even bigger increases. Colerain Township, Columbia Township, Mount Airy, College Hill and Forest Park all have seen triple-digit increases in the number of Section 8 renters in just the past four years.

'Flooding our community'

All this is the result of federal housing policies intended to break up large-scale public housing projects and the high crime, failed schools and desolation often associated with them. Instead, the government gives a low-income family a Section 8 voucher, which it can use wherever a private landlord will take it.

Over the past eight years, 800 low-income residents who used to live in the Lincoln Court and Laurel Homes housing projects of the West End, and in a 700-unit complex in English Woods, have used vouchers to rent new homes on nearly a thousand different streets.

Thousands more poor people received vouchers when smaller subsidized units shut down in Over-the-Rhine.

Conflict has been common.

"A community is only as strong as its weakest link," Colerain Township resident Valerie Heimkreiter protested last month, addressing the Cincinnati Metropolitan Housing Authority, the independent agency responsible for overseeing Section 8 in Hamilton County.

"You're flooding our community with low-income properties. Is it fair to take a middle-class neighborhood and over a short period of time turn it into another English Woods?"

But tenant advocates say Section 8 unfairly gets blamed for neighborhood ills that go far deeper than who pays the rent. Foreclosures and aging housing stock all can contribute to a neighborhood's decline – making it more profitable for Section 8 landlords to move in.

"Critics of Section 8 tend to put the chicken before the egg and incorrectly assume the Section 8 is causing the crime. But a lot of neighborhoods are already in decline for different reasons," says Jessica L. Powell, a lawyer with the Legal Aid Society of Southwest Ohio who often represents public housing residents.

In theory, the government doesn't decide where Section 8 tenants go; the market does. But in practice, government pricing policies stack the deck for or against neighborhoods.

The housing authority, for example, will pay a maximum of \$560 a month for one bedroom. Many apartments in Hyde Park, Mount Adams and Kenwood rent for twice that, effectively pricing voucher holders out.

The housing authority will pay a 10 percent premium in higher-rent neighborhoods, but still not enough for many Section 8 tenants. For years, the federal government also has been pressuring the authority to pay even more toward the rent of single-family homes.

Single-family houses are the most desired of subsidized units – making up about 30 percent of the Section 8 housing stock in Hamilton County. It's in those single-family neighborhoods where Section 8 tenants and homeowners live side-by-side – and where tensions are most pronounced.

Take Colerain Township.

Two or three new Section 8 families move into Colerain Township each week. Last month, a dozen Colerain Township residents and all three township trustees pleaded with the housing authority to freeze any new vouchers.

Colerain's vouchers have increased 20 percent in the past year – and almost tripled since 1994.

The Colerain neighborhood of Compton Estates consists of about 300 small, brick Cape Cod houses built in 1958 and 1959. Thirteen houses have sold this year, at prices of \$40,000 to \$115,000. Four were foreclosure sales.

As of May, there were 13 Section 8 families in the neighborhood.

"Just take a trip to Over-the-Rhine, Evanston – those places – and bring that to your neighborhood. That's what you see," says Dallas Childress, 60, a resident who says the housing authority has offered to buy his house. "They walk in the middle of the street, and if someone blows their horn, they'll get cussed at and stuff.

"And I do have a problem, actually, with the government subsidizing what they're doing. They all have cell phones. They all have satellites."

Neighbor Patricia Allen, 62, tries to see it from the other side.

"What they do to these poor people, in their defense, is they put them in a house where before they were living in Over-the-Rhine, and they don't acclimate them to the community. They just give them the house. This is the saddest situation," she says.

"They also come with their traits and their habits that come with them from where they were, which don't fit the culture and the workings of the community. What it narrows down into is a clash of society. Who's right, who's wrong? I don't know. I just don't know."

Judy Hinterlong, 47, says she started finding baseball bats, golf clubs and other melee weapons stashed in the bushes several yars ago. She heard gunshots at night.

The local elementary school was tagged with gang graffiti. Lawn mowers went missing. One family couldn't afford their Rumpke bill, she says, so they stashed their trash in a shed out back.

"There were kids dressed to the nines with \$180 gym shoes on, but yet they're begging for bus fare and they're hungry," she says. "You couldn't go out to your car without getting panhandled."

Two years ago, Hinterlong made up fliers and posted them all over Colerain Township. Hundreds of residents converged on the Township Hall demanding action.

Officers interviewed residents in 43 Compton Estates households. Two-thirds said speeding and stop-sign running were their biggest concerns.

Police also devoted almost 31 hours to intensive patrols of the neighborhood and wrote 26 tickets – an operation that resulted mostly in traffic citations.

"The overriding theme of the 30.7 hours was that there wasn't as large of a problem as we were led to believe," says Police Chief Dan Meloy, who was a lieutenant at the time. "There's a stigma attached to it, and perception became a reality in a lot of people's minds. In policing, we have to deal with the fear as much as the actual crime."

Meloy says he's willing to canvass the neighborhood again, but won't single out Section 8 families.

"We don't get out our map and say, 'There's four subsidized units on this street, let's find out what they're up to,'" the chief says. "What people are suggesting is profiling. It's not race-based, it's subsidy-based."

Most Section 8 recipients decline to talk on the record, saying they fear a backlash from their neighbors. Some say their friends and neighbors don't know they're on Section 8. One says she lied to neighbors about owning her home.

Shannon Wynn, 32, agreed to talk last week, just moments after police left her home. She had called police over an incident at school involving her child and another child who lives in a Springfield Township subdivision behind her house.

"It's quiet – despite what you see here today," she said. "We've been here two years and haven't had any problems, except for the raccoons."

"I love it. You don't have to be scared to go out at night."

She pays \$581 of her rent; the housing authority pays \$365.

Wynn, a home health-care nurse, also is on the Section 8 Family Self-Sufficiency Program. As her earnings increase, she pays more in rent, but the increase goes into an escrow account that she'll use as a down payment on a house after five years.

Since 1993, 396 families have saved \$2.4 million through the program – an average of \$6,000 each.

Jennifer Jackson is on the program, too. A 26-year-old single mother of two, she makes decent money working at a downtown insurance company, but not enough to rent a house with a yard for her kids and to pay their day care.

She chose to use her voucher in Colerain Township because she'd lived there growing up. Rent for her three-bedroom house is \$800; Section 8 pays \$255 of that.

She's aware of the pushback against Section 8 in Colerain, but is grateful for the suburban option.

"I probably wouldn't have taken the initiative to get the assistance if I had to live in a big complex," she says. "Not with my kids. I probably would've just tried to figure something else out or live with my parents or something."

Jackson assumes her neighbors know she's on assistance because of occasional visits from a Section 8 inspection van.

"Before I moved in, my landlord told me, 'I don't want to see anything in the front yard. I don't want to see your garbage cans on the side of the house. And I understand that.'"

But many find it difficult to move from city apartment to suburban home.

My landlord, when I first moved in here, she didn't tell me a lot of things, says Lynette, 40, a Section 8 tenant in Compton Estates. She spoke on condition that her last name not be used, out of concern for a backlash.

Im not used to mowing the lawn, fixing the sink. I didn't know what an edger was, or about two-cycle oil. She says the housing authority needs to have a program before you get into a home, because I didn't know these things.

Housing commissioner Lamont Taylor says the housing authority has done a poor job preparing people for the responsibilities of suburban life.

They don't understand that when you pull up to someones house, you don't blow the horn you get out and knock on the door. You don't let your dogs roam free in your yard. You don't have your music blaring at night. You don't have your car up on blocks, says Taylor, who himself grew up in a family on Section 8 and who now owns a home in Kennedy Heights.

Thats the fundamental flaw in Section 8, says Don Driehaus, housing authority chairman. Instead of a government-run social program, its now a loosely regulated service provided by more than 3,600 different landlords some good, some bad and some criminal.

Driehaus leads a new, West Side-dominated majority on the housing authority that's seeking to turn back the Section 8 voucher program. Members want more traditional public housing, owned and managed by the housing authority – but smaller than the large-scale projects of the past. And they want more of it in neighborhoods that have little public housing today.

In February, the authority spent \$1.17 million for two apartment buildings at a prominent Hyde Park corner, and will spend another \$360,000 to renovate the 24 apartments as public housing. Hyde Park didn't fight the acquisition.

"We looked at each other and said, 'What can we do?'" says Carl Uebelacker, Hyde Park Neighborhood Council president.

"The only inhibiting factor is property values in the neighborhood. That's going to slow (the housing authority) down. Why buy one unit in Hyde Park, when they can get two or three or four somewhere else in Hamilton County?"

Hyde Park has had a half-dozen Section 8 vouchers for decades, but they're so scattered they've caused few complaints.

"When the numbers are smaller, then the accountability of residents is a lot higher," Uebelacker says.

Housing authority members make no secret that they're seeking similar opportunities in Mount Lookout.

"I don't blame Hyde Park. I don't blame Mount Lookout," Driehaus says. "They didn't design the program. It was flawed from the outset. This program needs to be reformed, or it needs to be ended."

That means taking a closer look at the premise: That deconcentrating poverty will help to eliminate it.

It's not working, some say.

"The whole idea of deconcentrating poverty was supposed to be that you would pick up middle-class values. But all it's doing is urbanizing the suburbs," says Hinterlong, the Colerain activist.

"If this really works, why stop at making them middle class? Move them to Indian Hill and make them doctors and lawyers."



"I ceased to advertise my mother's race at the age of 12 or 13, when I began to suspect that by doing so I was ingratiating myself to whites."

"I found a solace in nursing a pervasive sense of grievance and animosity against my mother's race."

"I never emulate white men and brown men whose fates didn't speak to my own. It was into my father's image, the black man, son of Africa, that I'd packed all the attributes I sought in myself, the attributes of Martin and Malcolm, Dubois and Mandela."

--- Quotes from Barack Hussein Obama in *Dreams of My Father*.

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Ill. governor meeting with Obama today

By Carol Sowers
 Wednesday, November 05, 2008 at 10:39 a.m.

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Illinois law states that the governor chooses that replacement.



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This is from a November 8, 2008 article on the KHQA website. Note that it mentions Obama met with Gov. Blagojevich.

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