AVAYA communication

DEFINITY® Communications System

Generic 1 and Generic 3
Feature Description
Addendum

555-230-201ADD
Issue 3
July 1992

555-230-201ADD
Issue 3

Notice
While reasonable effort was made to ensure that the information in this document was complete and accurate at the time of printing, Lucent Technologies can assume no responsibility for any errors. Changes and/or corrections to the information contained in this document may be incorporated into future issues.

Your Responsibility for Your System's Security
You are responsible for the security of your system. Lucent Technologies does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. Lucent Technologies will not be responsible for any charges that result from such unauthorized use. Product administration to prevent unauthorized use is your responsibility and your system administrator should read all documents provided with this product to fully understand the features available that may reduce your risk of incurring charges.

Federal Communications Commission Statement
This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at his/her own expense will be required to take whatever measures may be required to correct the interference.

TRADEMARK NOTICE
CALLMASTER, CONVERSANT, and DEFINITY are registered trademarks of Lucent Technologies.
4ESS is a trademark of Lucent Technologies.
Audichron is a registered trademark of the Audichron Company.
MS-DOS is a trademark of Microsoft Corporation.
PagePac is a trademark of the Dracon Division of the Harris Corporation.
ACCUNET, DATAPHONE, DIMENSION, MEGACOM, MULTIQUEST and TELSEER are registered trademarks of AT&T.

ORDERING INFORMATION

Call: Lucent Technologies Publications Center
Voice 1-800-457-1235 Int'l Voice 317-322-6791
Fax 1-800-457-1764 Int'l Fax 317-322-6699

Write: Lucent Technologies Publications Center
P.O. Box 19901
Indianapolis, IN 46219

Order: Document No. 555-230-201ADD

Published by
BCSystems Product Documentation Development Group

Disclaimer

Intellectual property related to this product (including trademarks) and registered to Lucent Technologies Inc., or AT&T Corporation, have been transferred or licensed to Avaya Inc.

Any reference within the text to Lucent Technologies Inc. or Lucent, American Telephone and Telegraph Corporation or AT&T, should be interpreted as references to Avaya Inc. The exception is cross references to books published prior to April 1, 2001, which may retain their original Lucent or AT&T titles.

Avaya Inc. formed as a result of Lucent's planned restructuring, designs builds and delivers voice, converged voice and data, customer relationship management, messaging, multi-service networking and structured cabling products and services. Avaya Labs is the research and development arm for the company.

Contents

Screens

Basic Call Management System (BCMS)

Introduction

This document supplements the *DEFINITY® Communications System Generic 1 and Generic 3 — Feature Description* manual, 555-230-201, and provides updated feature descriptions for the Audio Information Exchange (AUDIX) and Basic Call Management System (BCMS) features:

- The AUDIX feature description is updated to describe the availability of the DEFINITY AUDIX offering, and to reference the DEFINITY AUDIX documentation set for further information.
- The BCMS feature description is updated to present explanations of the G3 BCMS screens and, in particular, explanations of fields impacted by the new personal call tracking feature. The personal call tracking feature allows B/CMS to track all calls to/from an agent, including multiple, simultaneous calls on an agent's phone.

Audio Information Exchange (AUDIX) Interface

Description

AUDIX is a message-handling system for recording and distributing spoken messages or voice mail. The system contains stored voice prompts that guide users when creating, sending, retrieving, answering, saving, and forwarding spoken messages.

NOTE:
Your administrator is urged to consult the *BCSystems Security Handbook*, 555-025-600, for information on measures to help secure this feature from possible toll fraud. Also see the "Security Measures" section later in this description.

The following is a noninclusive list of AUDIX applications. This list depends on the type of AUDIX system you are using:

- Voice Mail – allows users to send and receive messages from and to their voice mailboxes
- Call Answer – provides switch extensions answer coverage via AUDIX
- Automated Attendant – presents callers with a voice menu of options, then routes calls according to the keys the caller presses
- Bulletin Board – (sometimes called Information Service) plays a recorded message to callers
- Broadcast Message – enables an AUDIX administrator to send broadcast messages to all AUDIX users on the system
- Directory Service – provides a directory of subscribers to the caller
- Create Message – Record or modify a new message, address it, schedule it for delivery, and save a copy (optional).

The following activities are available for use by AUDIX subscribers:

- Scan Incoming Mailbox – Review new messages and reply or redirect them with an added comment, and review or delete old saved messages.
- Personal Greeting Administration – Record or modify one or more personal greetings to be played for callers who reach AUDIX through the Call Answer feature, or select the standard AUDIX greeting.
- Scan Outgoing Mailbox – Review, modify, or redirect messages scheduled for delivery; check the status of delivered messages; and review, modify, redirect, or delete messages saved in the file cabinet.
- Password and List Administration – Change user's personal AUDIX password and create, modify, review, or delete mailing lists.
- AUDIX Networking – Send and receive network messages, status information, and administrative update information to and from other members of the AUDIX product family.

NOTE:
Two types of networking are available: Audio Message Interchange Specification (AMIS) analog networking and digital networking. AMIS networking is available with all AUDIX configurations; digital networking is available when AUDIX is configured as a system external to the DEFINITY switch, as discussed below.

Several documents, quick references, and other material that fully describe how to use AUDIX are available through the Customer Information Center.

Two versions of AUDIX are available with G3: the first, referred to as "DEFINITY AUDIX", is a system comprised of circuit packages resident in the switch; the second, referred to as "AUDIX", is a system that is external to the DEFINITY switch and connected to the switch by station lines and data links. Additionally, AUDIX systems can be networked through switches or other AUDIX machines.

The following two sections describe the "DEFINITY AUDIX" and "AUDIX" offerings.

DEFINITY AUDIX

The DEFINITY AUDIX offering is a circuit package "sandwich" assembly that fits inside the DEFINITY system carrier and requires five contiguous slots in the switch carrier. For a full description of DEFINITY AUDIX, see the following DEFINITY AUDIX documents:

- *DEFINITY AUDIX System R1.0 System Description*, 585-300-205
- *DEFINITY AUDIX System R1.0 Feature Description*, 585-300-206
- *DEFINITY AUDIX System R1.0 Documentation Guide*, 585-300-011
- *Planning for DEFINITY AUDIX System R1.0*, 585-300-904
- *DEFINITY AUDIX System R1.0 Installation*, 585-300-111
- *DEFINITY AUDIX System R1.0 Installation Checklist*, 585-300-109
- *Switch Administration for DEFINITY AUDIX System R1.0*, 585-300-509
- *DEFINITY AUDIX System R1.0 Administration*, 585-300-507
- *DEFINITY AUDIX System R1.0 Forms Reference*, 585-300-207
- *AUDIX Administration and Data Acquisition Package R1.6*, 585-302-502
- *AMIS Analog Networking and Message Delivery for DEFINITY AUDIX System R1.0*, 585-300-512
- *A Portable Guide to DEFINITY AUDIX Voice Messaging*, 585-300-701
- *DEFINITY AUDIX Voice Messaging Quick Reference*, 585-300-702
- *DEFINITY AUDIX Voice Messaging Subscriber Documentation Artwork*, 585-300-703
- *DEFINITY AUDIX Voice Messaging Wallet Card*, 585-300-704
- *AUDIX Business Card Sticker*, 585-304-705
- *DEFINITY AUDIX System R1.0 Maintenance*, 585-300-110
- *DEFINITY AUDIX System R1.0 Announcement Customization*, 585-300-516

For details on DEFINITY AUDIX, refer to the above documents.

NOTE:
Unless all users of your DEFINITY system have voice terminals with displays, the DEFINITY system should be configured so that individual users cannot access the Leave Word Calling Activation feature. This prevents the following from occurring:

- If message senders can set Leave Word Calling Activation, then message recipients whose voice terminals do not have a display must check both DEFINITY AUDIX and Voice Synthesized Message Retrieval for their messages.
- If message senders can set Leave Word Calling Activation, and if your system is configured without a TN725 board, then the LWC messages are not retrievable by a nondisplay set.

By not allowing Leave Word Calling Activation, all messages are retrievable through DEFINITY AUDIX.

AUDIX (external to the DEFINITY Switch)

NOTE:
This section describes AUDIX systems external to the DEFINITY switch and connected to the switch by station lines and a data link. Do not refer to this section if AUDIX is configured using circuit packages resident in the DEFINITY switch. For those systems, called DEFINITY AUDIX systems, see the previous section, entitled "DEFINITY AUDIX".

The AUDIX offering is an interface between the DEFINITY system and AUDIX consisting of up to 32 analog (voice) connections for exchange of voice messages, and a data link for status and control information exchange. An AUDIX adjunct is available in both one-cabinet and two-cabinet configurations. The one-cabinet configuration provides up to 16 ports. The two-cabinet configuration provides up to 32 ports. The analog port interface on the switch can be provided by TN742, TN746B, or TN769 circuit packs.

Up to eight AUDIX systems may be connected to a Generic 3r switch, but only one AUDIX system may be directly connected to a Generic 1 or Generic 3i switch. However, Generic 1 and Generic 3i (as well as Generic 3r) allow the use of AUDIX in a DCS arrangement. Each switch can have its own AUDIX which serves only the users connected to that switch; or a single AUDIX connected to the switch may serve other switches in a DCS network.

For a full description of AUDIX, see the following AUDIX documents:

- *AUDIX Administration*, 585-305-501
- *AUDIX Administration and Data Acquisition Package*, 585-302-502
- *AUDIX Call Detail Recording Package*, 585-305-506
- *AUDIX Documentation Guide*, 585-300-010
- *AUDIX Feature Descriptions*, 585-305-203
- *AUDIX Installation*, 585-305-105
- *AUDIX Networking*, 585-300-903
- *AUDIX Planning and Implementation*, 585-300-901
- *AUDIX System Description*, 585-305-201
- *AUDIX Training Tape*, 585-300-050
- *AUDIX Upgrade Instructions*, 585-302-108
- *Switch Administration Guide for AUDIX Voice Messaging*, 585-305-505

Refer to the *AUDIX Documentation Guide*, 585-300-010, for the latest issue numbers and release-specific information.

Security Measures

The following actions help secure your system from unauthorized use.

- For both AUDIX and DEFINITY AUDIX:
  - To help prevent exchange of information through unassigned Voice Mail mailboxes, remove any unused or unassigned mail boxes.
  - Secure the system lines that serve AUDIX and control where calls can be placed. Pay special attention to assigning restrictive COR, COS, and FRL to the station lines and trunks serving AUDIX. Use switch CDR reports to determine if the station lines connected to AUDIX are being used for calls that are normally not within your sphere of business.
  - Change default passwords on voice mailboxes immediately after installation and use random numbers for passwords.
- For AUDIX only:
  - To help prevent having billable calls placed from unauthorized transfers outside of the system, turn on the Enhanced Call Transfer feature (ECT). This feature is available in later AUDIX systems that connect to an AT&T digital switch. ECT performs call transfer over the data link between AUDIX and the DEFINITY switch. (The destination extensions must be administered on the switch dial plan.)
- For DEFINITY AUDIX only:
  - The administrator determines whether to allow transfer only to another AUDIX subscriber or to any extension of the correct extension length (that is, the number of digits for extensions administered through the DEFINITY switch.) For example, you may be configured to support the four-digit plan, the five-digit plan, etc. The most secure approach, which is the default, is to only allow transfers to other AUDIX subscribers. If the administrator decides to allow transfers to any extension, then you should check the COR on the AUDIX ports to prevent toll fraud.

Consult the *BCSystems Security Handbook*, 555-025-600, for additional steps to secure your system and to obtain periodic information about security developments.

Considerations

For DEFINITY AUDIX, you must have five contiguous slots in the switch carrier. DEFINITY AUDIX supports up to eight ports.

G3r, in addition to supporting multiple AUDIX systems, can have multiple hunt groups associated with a single AUDIX system. This allows partitioning of the voice ports into different hunt groups and different coverage paths to cover different voice ports. Thus voice ports can be reserved for particular users or groups of users (for example, those that use the particular coverage path).

The following features do not use coverage paths for G3r:

- Transfer into AUDIX with the feature access code or with the "goto" AUDIX button.
- Return Call doesn't use the coverage path. When a user is in message display mode, and the user is displaying the message that says "Call AUDIX", the "call-disp" button is used.

For a review of considerations related to AUDIX, see the planning documents:

- *AUDIX System Description*, (the external unit), 585-300-905, Issue 1 or later
- *Planning for DEFINITY AUDIX System R1.0*, (the circuit pack system), 585-300-904, Issue 1 or later.

Interactions

The following features interact with the AUDIX Interface feature.

NOTE:
For further details about features that interact with an external AUDIX system, see the *AUDIX Feature Descriptions*, 585-305-203; for further details about features that interact with the DEFINITY AUDIX system, see the *DEFINITY AUDIX System R1.0 Feature Description*, 585-300-206.

- Abbreviated Dialing (for AUDIX only)

  The FAC for Transfer Into AUDIX may be programmed into an abbreviated dialing button.

- Attendant Conference

  An attendant that has split a call can conference the call with AUDIX by dialing the Transfer Into AUDIX access code. The attendant presses [Release] to drop out of the conference call.

- ACD (for external AUDIX only)

  A hunt group can be administered as an AUDIX ACD split. AUDIX traffic measurements are then available utilizing the ACD Call Management System. Login occurs when AUDIX signals the switch to make a voice port available for AUDIX service and logout occurs when AUDIX signals the switch to disable the port.

  The AUDIX and ACD CMS must be connected to the same switch. If the AUDIX in the DCS feature is active, a CMS located on a switch other than the host switch (AUDIX location) does not provide measurements for the AUDIX ports.

  Because AUDIX frequently takes voice ports in and out of service for maintenance testing, high login activity may be seen for the AUDIX split in measurement reports.

  On CMS reports that display an agent's login identifier, AUDIX voice ports always show a login identifier that is the same as the extension, even if login identifiers are not administered on the switch.

- Call Coverage

  When a coverage call successfully completes to AUDIX or is routed from a remote switch to the host switch because of coverage, the principal is dropped from the call (no temporary bridge appearance is maintained).

  Coverage calls from a remote switch that fail to reach AUDIX as a coverage point cannot be returned to the original coverage path on the remote switch.

  Call Transfer Out of Audix interacts with Call Coverage as shown in the following table:

Transfer out of AUDIX (Enhanced) and Coverage Interactions		
Source		**Transfer Destination**
External	Local Station Remote Station (DCS) Remote Station (ISDN)	Internal External Internal
Internal (local)	Local Station Remote Station (DCS) Remote Station (ISDN)	Internal Internal Internal
Internal (remote)	Local Station Remote Station (DCS) Remote Station (ISDN)	Internal Internal Internal

- Call Forwarding

  An AUDIX user can forward calls to a remote AUDIX hunt group or to the host AUDIX hunt group.

  The system administrator must correctly administer the AUDIX destination for the remote AUDIX hunt group.

- Call Transfer

  A call transfer out of AUDIX can be to a UDP extension. If the destination extension is a UDP extension on a remote switch, the call is treated as a direct call.

  Calls may be transferred into AUDIX by users handling redirected calls for principals who are AUDIX subscribers.

- DCS Leave Word Calling (external unit only)

  In a DCS network, the called party may be on a different switch than the calling party. If the DCS link is down, attempts to store LWC messages are denied and intercept tone is returned. Leave Word Cancel requests are always denied for principals with AUDIX LWC; in some instances, the request may appear to be activated when it actually is not (see Leave Word Calling).

- Leave Word Calling (LWC)

  For DEFINITY AUDIX, unless all users have voice terminals with displays, the DEFINITY system should be configured so that individual users cannot access the Leave Word Calling Activation feature. This prevents the following from occurring:

  - If message senders can set Leave Word Calling Activation, then message
    recipients whose voice terminals do not have a display must check both DEFINITY AUDIX and Voice Synthesized Message Retrieval for their messages.
  - If message senders can set Leave Word Calling Activation, and if your system is configured without a TN725 board, then the LWC messages are not retrievable by a nondisplay set.

  By not allowing Leave Word Calling Activation, all messages are retrievable through DEFINITY AUDIX.

For AUDIX, the system administrator has the option of indicating that a principal's LWC messages are kept by AUDIX. This means that an LWC message left for a principal causes the extension of the calling and called parties to be reported to AUDIX. The principal can retrieve the message by calling AUDIX. The principal cannot retrieve the message using other retrieval methods (station display, demand print, Message Center agent, or synthesized voice), but is notified of the existence of AUDIX messages via these methods.

If the administrator assigns a principal's LWC to another messaging service, AUDIX can still report the existence of waiting LWC messages for the principal, but not the message content. This means that an LWC message left for a principal causes an indication of a waiting LWC message to be sent to AUDIX. The principal can retrieve the message using other retrieval methods (station display, demand print, Message Center agent, or synthesized voice). However, the principal is still notified of the existence of AUDIX messages.

If the data link between the system and AUDIX is down, attempts to activate LWC for an AUDIX-covered principal are denied and the reorder tone is returned.

If a caller attempts to cancel a LWC message sent to AUDIX, the caller receives an intercept tone if the called party is on the same switch. If the called party is on another switch in the DCS network, then the caller receives a confirmation tone as long as the DCS data link to the called party's switch is operational, *even though the message is not actually canceled.*

- Message Waiting Lamp (MWL) Activation/Deactivation

  The MWL interactions are the same whether the switch is a host switch or a remote switch. If a message is left for a principal on AUDIX, the switch lights the principal's MWL when AUDIX tells it there is an AUDIX message.

  If the principal retrieves the message, the switch extinguishes the AUDIX MWL only if the combined status of LWC, Message Center Service (MCS), and AUDIX indicate there are no more messages.

- PCOL

  A PCOL may not be covered by AUDIX.

- Ringback Queuing

  On direct calls to the remote AUDIX, where all trunks to the host AUDIX are busy, a busy tone is returned. On coverage calls, if all trunks to the DCS host AUDIX are busy, AUDIX is treated as a busy coverage point. If there are coverage points after AUDIX, then the call terminates there; otherwise, the call remains at the principal. In summary, Ringback Queuing does not apply to AUDIX calls.

- Single-Digit Dialing and Mixed Station Numbering

  AUDIX is designed for use with a Uniform Dial Plan. It supports only one extension number length (three-, four-, or five-digit) that is used by AUDIX subscribers. Single-Digit and Mixed Station Numbering cannot be used. However, nothing prohibits connecting a switch to AUDIX that provides these features, as long as all AUDIX subscribers have the same extension number length.

- Temporary Bridged Appearance

  Stations that normally have a temporary bridged appearance with their coverage point do not if the coverage point is AUDIX.

- UCD (for DEFINITY AUDIX only)

  For DEFINITY AUDIX, a hunt group must be administered using a Uniform Call Distribution (UCD) split.

- Voice (Synthesized) Message Retrieval

  Retrieval of LWC messages via Voice Synthesized Message Retrieval is separate and distinct from AUDIX voice message retrieval. LWC messages left for a principal on AUDIX may not be accessed via Voice Message Synthesized Retrieval; however, the invoker of Voice Message Synthesized Retrieval is told if there are any new messages for the principal on AUDIX:

  — Voice Message Retrieval *voices* that there are message center messages (dialing 8-callout calls AUDIX).

  — The display retrieval displays `Message Center AUDIX Call` .

  If your system has the TN725B Voice Messaging Retrieval board, and if LWC Activation is enabled, then messages are retrieved from two locations:

  — LWC messages sent by pressing the LWC button on a voice terminal are retrieved via Voice Message Synthesized Retrieval.

  — All other messages are retrieved via AUDIX.

  If your system does not have a TN725B Voice Messaging Retrieval board, and if LWC Activation is enabled, then LWC messages sent by pressing the LWC button on a voice terminal are not retrievable by a nondisplay set.

Administration

The AUDIX Switch Interface is administered by the System Manager. This section describes AUDIX switch administration when AUDIX is configured external to the switch. For further details on AUDIX switch administration when AUDIX is configured external to the switch, see *Switch Administration Guide for AUDIX Voice Messaging*, 585-305-505.

NOTE:
For DEFINITY AUDIX, see the following documents: *Switch Administration for DEFINITY AUDIX System R1.0*, 585-300-509, and *DEFINITY AUDIX System R1.0 Administration*, 585-300-507.

Also note that if the DEFINITY switch has DEFINITY AUDIX, then all DEFINITY switch users must be administered with a unique "name." For example, if two users are named Adrian Doe, then you can administer one as "doe,adrian" and the other as "Doe,adrian".

For G3r, see the "DEFINITY Communication System Generic 3r – Implementation" manual.

For G1 and G3i, the following forms require administration; specific inputs shown here are unique to AUDIX; where AUDIX is not specified, the inputs are determined by the particular system arrangement:

- Processor Data Module (for SCI)
  - — Assign Data Module (Processor Interface) when SCI is provided by TN765 circuit pack.
- Interface Link
  - — Assign link extension number for Processor Interface.
  - — Assign Destination Number = extension number of MPDM assigned to AUDIX (when MPDM is used).
  - — Assign Destination Number = eia, when PI jack is used for AUDIX.
  - — Assign DTE/DCE = DTE (for AUDIX).
  - — Assign Identification = AUDIX if desired (this field may be left blank).
- Modular Processor Data Module
  - — Assign MPDM (when provided).
- Modular Trunk Data Module
  - — Assign MTDM (when provided).
- Processor Channel
  - — Use Proc Chan 59 for AUDIX
  - — Assign Interface Link (1-4 – G1.1, and G3i with single-carrier cabinets; 1-8 – G1.1 or G3i with multi-carrier cabinet).

- — Assign Interface Chan (1-64).
- — Assign Priority = h (for AUDIX).
- — Assign Remote Proc Channel (1-64).
- — Assign Appl. = audix.
- — Assign PBX-ID (1-64). This is the PBX-ID number associated with the PBX.

- Voice Terminal 7405D (Station Form) — for AUDIX analog port assignment
  - — Assign extension number = Any unused number that agrees with the dial plan (for AUDIX analog ports).
  - — Assign Type = audix.
  - — Assign Port = Port number of AUDIX analog port.
  - — Assign Name = audix.
  - — Assign COR = Same as COR of AUDIX hunt group.
- Hunt Group — Host (When this switch *is not part* of a *DCS* AUDIX configuration or when this switch is the *Host Switch* in a DCS AUDIX configuration).
  - — Assign Group Number (Identifies hunt group to system software).
  - — Assign Group Extension Number.
  - — Assign Group Type = ucd.
  - — Assign Group Name = for example, audix.
  - — Assign COR (0-63 — identifies class of restriction of hunt group and hunt group members).
  - — Assign Message Center = audix.
  - — Assign ACD = y, if AUDIX is an ACD split; = n, if it is not.
  - — Assign Queue = y.
  - — Assign Queue Length (typically queue length equals the number of audix ports assigned). This number should be large enough so that all callers during peak time are queued and not given busy treatment.
  - — Assign Measured By MIS = y, if hunt group traffic data is to be measured by CMS and ACD is assigned; otherwise, = n.
  - — Assign Hunt Group Members (extension numbers assigned to AUDIX analog ports).

- Hunt Group — Remote (When this switch is a *Remote Switch* in a DCS AUDIX configuration).
  - — Assign Group Number (Identifies hunt group to system software).
  - — Assign Group Extension Number.
  - — Assign Group Type = ucd.
  - — Assign Group Name = for example, AUDIX hu gp.
  - — Assign COR = Same as COR of Host Switch AUDIX hunt group.
  - — Assign Message Center = rem-audix.
  - — Assign ACD = n.
  - — Assign Queue = n.
  - — Assign Audix Extension = Host Switch AUDIX Hunt Group extension number.
- Coverage Path
  - — Assign AUDIX Hunt Group extension number to Point 1, Point 2, or Point 3 as required (it is recommended that AUDIX be placed at the end of the coverage path; however, this is not a requirement).
- Hop Channel on Host Switch (for each Remote Switch, when remote AUDIX is provided).
  - — Assign Link (two fields) 1–4.
  - — Assign Chan (two fields) 1–64.
  - — Assign Priority = h (for AUDIX).
- Class of Service
  - — Select or Administer a Class-of-Service code (to be assigned to AUDIX user's voice terminals) that allows Call Forwarding All Calls.
- Feature Access Code (FAC)
  - — Assign Transfer into AUDIX = Any unused one-, two-, or three-digit feature access code that agrees with the dial plan. However, the Transfer into AUDIX feature access code should not be administered to have the same first digit as another feature access code with a longer length.

- Voice Terminal (AUDIX User)
  - — Assign COS = COS code previously assigned on Class-of-Service form that allows Call Forwarding All Calls, if desired.
  - — Assign Coverage Path = Coverage Path number associated with AUDIX hunt group.
  - — Assign LWC Reception = "audix" if LWC messages are to be stored on AUDIX. "ap-spe" may be entered if voice message retrieval or display message retrieval is to be used.
  - — Assign LWC Activation = y.
  - — Assign Redirect Notification = y.
- Voice Terminal (AUDIX User Button Assignment)
  - — Assign Call Forwarding = call-fwd (optional).
  - — Assign Call Coverage — Go To Cover = goto-cover (optional).
  - — Assign Call Coverage — Send All Calls = send-calls (optional).
  - — Assign Leave Word Calling — LWC = lwc-store (optional).
  - — Assign Abbreviated Dialing — AD = abrv-dial ("List:" and "DC:" as assigned on the Feature Access Code (FAC) form).
- Dial Plan
  - — The host switch PBX ID must be the same as the host switch PBX ID administered on the AUDIX.

Hardware and Software Requirements

For DEFINITY AUDIX, you must have five contiguous slots in the switch carrier. DEFINITY AUDIX supports up to eight ports. See the DEFINITY AUDIX documentation for further details.

The data link for the external AUDIX (either the one- or two-cabinet configuration) varies depending on the type of switch.

- An AUDIX system connected to a DEFINITY Generic 3r switch uses the TN577 Packet Gateway (PGATE) circuit pack. This board provides X.25 connectivity to support external adjuncts such as AUDIX and DCS nodes.
- An AUDIX system connected to a Generic 1 switch or Generic 3i switch uses the TN765 Processor Interface (PI) circuit pack. This board has one Electronics Industries Association (EIA) port which allows direct access to one of its four data links. The EIA port is the recommended interface for the system.

Refer to the *AUDIX System Description* manual, 585-305-201, for more information on AUDIX hardware and software requirements.

For DCS AUDIX, DCS software is required.

Basic Call Management System (BCMS)

Description

Provides real-time and historical reports to assist customers in managing individual agents, ACD splits (hunt groups), and trunk groups. These reports are a subset of those available on the CMS adjunct. BCMS reports can be accessed and displayed on the Manager I terminal (G1), G3 Management Terminal or printed on demand on the printer associated with the Manager I terminal or G# Management Terminal. In addition, the historical reports can be scheduled to print on the system printer.

The BCMS report feature collects and displays information pertaining to individual agents (based on the agent's extension), ACD splits, and trunk groups. Data is stored by hour or half hour for 25 time intervals (includes current time interval). Daily summary data are also calculated and stored for seven days.

The following reports are available with the BCMS:

- Real Time Reports
  - — Split Status
  - — System Status
- Historical Reports
  - — Agent
  - — Split

— System

— Trunk

— VDN

The reports can be displayed and/or printed both locally and remotely. Locally, the reports can be accessed by the ACD administrator from the Manager I terminal (G1) or the G3 Management Terminal. Customers with multiple premises may wish to centralize the measurements data evaluation and access the switch data remotely. Reports can also be scheduled to print on the Report Scheduler System Printer.

An example of each BCMS report follows, along with a brief description of the data in the report. More detailed information on these reports can be found in *DEFINITY Communications System Generic 1 and Generic 3 – Basic Call Management System (BCMS) Operations*, 555-230-703.

NOTE:
The screens and calculations for some of the field values differ between G1 and G3i. The example screens and explanations shown in this section are for Generic 3i; for exact Generic 1 screens, see the *DEFINITY Communications System Generic 1 and Generic 3 – Basic Call Management System (BCMS) Operations* manual. For further details and additional screens for either Generic 1 or Generic 3i, you should also see the *DEFINITY Communications System Generic 1 and Generic 3 – Basic Call Management System (BCMS) Operations* manual.

BCMS Split Status Report

The BCMS Split Status Report provides the current (real-time) status and cumulative measurement data for those agents assigned to the split you specify. This report is reset at the beginning of the time interval (for example), hour or half-hour). The following screen shows the BCMS Split Status Report.

```
monitor bcms split 1                                          Page 1 of 1


                        BCMS SPLIT (AGENT) STATUS

          Split: ##
     Split Name: xxxxxxxxxxxxxxx              Date: 12:59 pm THU APR 12, 1990
Calls Waiting:  xxx
  Oldest Call: x:xx

  7=Staffed   1=Avail   1=ACD   1=ACW   1=AUX   2=Extn   1=Other

AGENT                EXT      STATE      TIME      ACD      EXT IN   EXT OUT
                                                   CALLS    CALLS    CALLS
xxxxxxxxxxxxxxx      xxxxx    xxxxxxx    xx:xx     xxx      xxx      xxx
Agent1               12345      Avail    12:00       0        0        0
Agent2               12346        ACD    12:04       1        0        0
Agent3               12347        ACW    12:12       3        0        0
Agent4               12348        AUX    11:30       0        0        0
Agent5               12349     ExtnIn    12:08       1        2        0
Agent6               12350    ExtnOut    12:10       0        0        1
Agent7               12351      Other    11:58       0        0        0
Agent8               12352       INIT    00:00       0        0        0


       Note - Xs are used to show field length and are not displayed.
              The asterisk preceding the Calls Waiting field will
              appear if any of the calls are direct agent calls.
```

Screen 1. BCMS Split Status Report Screen

The BCMS Split Status Report fields are described below:

- **Split** — the split number specified with the command line.
- **Split Name** — the administered name of the split. This name usually describes the purpose or service of the split (for example, sales, customer service, and reservations). If no name exists, the split extension (for example, EXT 65222) is displayed.
- **Calls Waiting** — the number of calls currently queued and calls ringing at an agent's phone. If any of the calls in the queue are Direct Agent calls, an asterisk appears before the value in this field.
- **Oldest Call** — the number of minutes and seconds that the oldest call in queue has been waiting to be answered. This includes calls ringing at an agent's phone.
- **Staffed** — the number of agents currently logged into the split.

- **Avail** — the number of agents in this split currently available to receive an ACD call. In order to be counted as being available, agents must either be in the Auto-In or Manual-In work mode. If the agent is on another split's call or is performing After Call Work for another split, the agent is not considered available and is not recorded here.
- **ACD** — the number of agents who are currently on an ACD call for this split. This value also includes direct agent calls and those agents who are currently on ACD calls that flowed in from another split. If an agent puts an ACD call on hold, but does not enter another state, the agent remains in the ACD state.
- **ACW** — the number of agents in this split who are currently in ACW mode for this split. If an agent is in ACW mode for another split, the agent is included in the "Other" state count for this split. Also, if an agent is on a call while in ACW mode, the agent appears in the Extn Calls state count, and not in the ACW state count.
- **AUX** — the number of agents in this split who are currently in the AUX work mode for this split. If an agent is answering a call from another split or is in ACW work mode for another split, that agent is not considered in AUX work mode for this split and is not included in this number. The agent is included in the Other state count.
- **Extn** — the number of agents in this split who are currently on non-ACD calls. These non-ACD calls may be either incoming (direct to the extension) or outgoing (direct from the extension). Those agents receiving or making extension calls while in Avail, ACW, or AUX work mode are recorded as being on extension calls.
- **Other** — the number of agents in this split who are performing any of the following activities:
  - On a call for another split
  - In ACW work mode for another split
  - Have placed a call on HOLD and made no other state selections
  - Have a call ringing at their voice terminals

- **AGENT** — the name of the agent. Generally, this is the agent's first or last name. However, if no name is administered on the station form, this field is left blank. When the field is blank, the data can be identified by the extension.
- **EXT** — the 2-, 3-, 4-, or 5-digit extension number for the agent.
- **STATE** — the current work state for the agent. Possible work states are Staffed, Avail, ACD, ACW, AUX, Extn, and Other. Unstaffed agents do not appear on the report. When the system time is changed, agents are in the INIT state. The agent remains in the INIT state until each agent takes a call or pushes a work button.
- **TIME** — the 24-hour clock time that the agent entered this work state.
- **ACD CALLS** — the number of ACD calls that the agent has completed since the beginning of the current interval. This value includes any calls that flowed in from other splits. (Calls in progress are counted until they are completed.)
- **EXT IN CALLS** — the number of non-ACD calls that the agent has received (incoming) since the beginning of the current interval. (Calls in progress are not counted until they are completed.)
- **EXT OUT CALLS** — the number of non-ACD calls that the agent has made (outgoing) since the beginning of the current interval. (Calls in progress are not counted until they are completed.)

BCMS System Status Report

The BCMS System Status Report provides current (real-time) status information for either all BCMS splits or selected BCMS splits. This report is reset at the beginning of the time interval (for example, hour or half-hour). The following screen shows the BCMS System Status Report. A completed call may span more than one time interval. ACD calls that are in-process (have not terminated) are counted in the time interval in which they terminate. For example, if an ACD call begins in the 10:00 to 11:00 time interval, but terminates in the 11:00 to 12:00 time interval, the data for this call is counted in the 11:00 to 12:00 time interval.

```
monitor bcms system                                                  Page 1 or 1

                                    BCMS SYSTEM STATUS
                                             Date:    1:00 pm SUN APR 8 1990


                                    AVG                          AVG                    AVG
                         CALLS  OLDEST  ANSW   AVAIL    #     ABAND    #     AVG     AFTER
SPLIT                    WAIT   CALL    SPEED  AGENT  ABAND   TIME    ACD    TALK    CALL

xxxxxxxxxxxxxxx           xxx  xxx:xx  xxx:xx  xxxx   xxxx   xxx:xx  xxxx   xxx:xx  xxx:xx
Services                    3    1:03    0:45     0      3     0:30    20     2:30    1:25
Sales                       5    0:33    0:15     0     11     0:45    36     1:32    0:35


      Note - Xs are used to show field length and are not displayed.
```

Screen 2. BCMS System Status Report Screen

The BCMS System Status Report fields are described below:

- **SPLIT** — the name of the split (for example, sales, service, and help line). If no name exists, the split extension (for example, EXT 12345) is displayed.
- **CALLS WAIT** — the number of calls that are either in the split's queue waiting to be answered or are ringing at an agent's phone. If any of the calls in the queue are Direct Agent Calls, an asterisk appears before this field.
- **OLDEST CALL** — the number of minutes and seconds the oldest call has been waiting to be answered. This includes calls in the queue and calls ringing at an agent's phone.
- **AVG ANSW SPEED** — the average amount of time it takes before calls are answered. This value includes time waiting in the queue and time ringing at the agent's voice terminal.
- **AVAIL AGENT** — the number of agents in this split who are currently available to receive an ACD call directed to this split.
- **# ABAND** — the total number of ACD calls that have hung up while waiting to be answered. This includes those calls that have abandoned while in queue or while ringing. Calls that are not queued (for example, because the queue is full, the caller receives a forced first announcement and abandons during the announcement, or no agents are staffed) are not counted as abandoned.
- **AVG ABAND TIME** — the average time before an ACD call abandons. This does not include any time spent in another split's queue before

intraflowing to this split. This value does not include time spent listening to a forced first announcement.

- **# ACD** – the number of ACD calls completed during the current interval. This number also includes those calls that flow in from other splits.
- **AVG TALK TIME** – the average duration of ACD calls for each split. This value does not include the amount of time the agent was holding an ACD call or the ring time at the agent's voice terminal
- **AVG AFTER CALL** – the average ACW time for call-related ACW time completed by agents in this split during this time interval. Call-related ACW is the time that occurs immediately after an ACD call (that is, when an agent was in Manual mode and an ACD call ended, or when the agent presses the ACW button during an ACD call). AVG AFTER CALL does not include time spent on direct incoming or outgoing calls while in ACW, or time that immediately follows an EXTN call.

  NOTE:
  The average is for ACW sessions, which may not correspond to the number of ACD calls either because some ACD calls did not have ACW time or because some calls were recorded in another interval.

BCMS Agent Report

The BCMS Agent Report provides traffic information for the specified agent. Depending on specifics from the command line, the information may be displayed as either a time interval or a daily summary. The following screens show the BCMS Agent Time Interval Report and the BCMS Agent Daily Summary Report.

```
list bcms agent 34 time 08:00 14:00                                    Page 1

                          BCMS AGENT REPORT

Agent: 34                                   Date 6:05 pm SUN APR 8, 1990

                #      AVG    TOTAL    TOTAL    TOTAL    #      AVG    TOTAL    TOTAL
              ACD     TALK   AFTER    AVAIL    AUX     EXTN   EXTN    TIME     HOLD
TIME         CALLS    TIME   CALL     TIME     TIME    CALLS  TIME   STAFFED   TIME
xx:xx-xx:xx  xxxxx  xxx:xx xxxx:xx  xxxx:xx  xxxx:xx  xxxxx  xxx:xx xxxx:xx xxxx:xx
 8:00- 9:00     10    1:15    0:45    25:00    10:40      1    4:00    60:00    0:15
 9:00-10:00     18    1:40    1:00     4:20     0:00      2    3:20    60:00    0:14
10:00-11:00     10    1:20    0:50    16:10     0:00      0    0:00    38:00    0:00
-----------  -----  ------ -------  -------  -------  -----  ------ -------  -------
SUMMARY         38    1:28    2:35    45:30    10:40      3    3:33   158:00    0:29


       Note - Xs are used to show field length and are not displayed.
```

Screen 3. BCMS Agent Time Interval Report Screen

```
list bcms agent 1 day 09/11 09/15                                      Page 1

                          BCMS AGENT REPORT

                                          Date 6:05 pm FRI SEP 15, 1989

Agent: ACD-1

                #      AVG    TOTAL    TOTAL    TOTAL    #      AVG    TOTAL    TOTAL
              ACD     TALK   AFTER    AVAIL    AUX     EXTN   EXTN    TIME     HOLD
DAY          CALLS    TIME   CALL     TIME     TIME    CALLS  TIME   STAFFED   TIME
xx/xx/xx     xxxxx  xxx:xx xxxx:xx  xxxx:xx  xxxx:xx  xxxxx  xxx:xx xxxx:xx xxxx:xx
10/16/88       200    1:30    0:30    35:00    80:00     10    2:00   540:00   20:13
10/17/88        38    1:28    0:54    45:30    10:40      3    3:33   158:00   10:00
-----------  -----  ------ -------  -------  -------  -----  ------ -------  -------
SUMMARY        238    1:30    1:24    80:30    90:40     13    2:22   698:00   30:13


       Note - Xs are used to show field length and are not displayed.
```

Screen 4. BCMS Agent Daily Summary Report Screen

The BCMS Agent Report fields are described below:

- **AGENT** — the name of the agent. If no name is administered, the agent's extension is displayed in the form "EXT 65432."
- **TIME/DAY** — the time or day interval specified in the command line.
- **# ACD CALLS** — the number of ACD calls answered by this agent for all splits during the reporting interval. This value includes calls that flowed in from other splits.
- **AVG TALK TIME** — the average duration of ACD calls for all splits that the agent was logged into. This value does not include the amount of time that the agent was holding an ACD call or the ring time at the agent's voice terminal.
- **TOTAL AFTER CALL** — the total amount of time per ACD call that the agent spent in the ACW work state for all splits during the reporting interval. This does not include time spent on ExtnIn or ExtnOut calls while in ACW.
- **TOTAL AVAIL TIME** — the sum of the time that the agent:
  - — was in Auto-In or Manual-In work modes for at least one split
  - — was not in ACW in any split
  - — was not on any call
  - — did not have ringing calls
- **TOTAL AUX TIME** — the sum of the time that the agent has the AUX button pressed and is not doing anything for any of the other splits (that is, the sum of the time that the agent is in AUX work mode for all splits). This value does not include time the agent spent on a direct call or in Manual-In, Auto-In, or ACW mode for another split.
- **# EXTN CALLS** — the total number of non-ACD incoming and outgoing calls for this agent during the reporting interval. Only those non-ACD calls that are originated/received while the agent is logged into at least one split are counted.
- **AVG EXTN TIME** — the average amount of time that the agent spent on non-ACD calls while logged into at least one split during the reporting interval.
- **TOTAL TIME STAFFED** — the total time that the agent spent logged into at least one split during the reporting interval. Staff time is clocked for an agent who is in multiple splits as long as the agent is logged into any split. Concurrent times for each split are not summed.
- **TOTAL HOLD TIME** — the total time that the agent placed ACD calls on hold. This time is the "caller's hold time" and is independent of the agent's state. TOTAL HOLD TIME does not include the hold time for non-ACD calls.

- **SUMMARY** — the total of each of the columns that do not contain averages. Columns that do contain averages are the total time divided by the number of calls.

BCMS Split Report

The BCMS Split Report provides traffic information for the specified split number. Depending on specifics from the command line, the information may be displayed as either a time interval or a daily summary. The following screens show the BCMS Split Time Interval Report and the BCMS Split Daily Summary Report.

```
list bcms split 1 time 08:00 10:00                                  Page 1

                              BCMS SPLIT REPORT

     Split: 01
Split Name: services                          Date 11:00 am FRI APR 13, 1990

                    AVG          AVG  AVG   TOTAL   #     #    TOTAL        TOTAL
                 #  ANSW    #    ABAND TALK  AFTER  FLOW  FLOW  AUX   AVG   HOLD
TIME             ACD SPEED ABAND TIME  TIME  CALL    IN    OUT  TIME  STAFF TIME
xx:xx-xx:xx xxxxx xx:xx xxxx xx:xx xx:xx xxxx:xx xxxx xxxx xxxx:xx xxx.x xxxx:xx
 8:00- 9:00    32  0:25    4  0:32  5:15    0:30    3     5    3:30   4.0    0:15
 9:00-10:00     8  0:07    1  0:03  3:20    4:00    0     0    9:30   2.2    0:14
----------- ----- ----- ---- ----- ----- ------- ---- ---- ------- ----- -------
SUMMARY        40  0:21    5  0:26  4:52    4:30    3     5   13:00   3.1    0:29

       Note - Xs are used to show field size and are not displayed.
```

Screen 5. BCMS Split Time Interval Report Screen

```
list bcms split 1 day 04/12 04/12                                  Page 1

                              BCMS SPLIT REPORT

     Split: 01
Split Name: services                          Date 11:00 am FRI APR 13, 1990

                  AVG          AVG  AVG   TOTAL   #     #     TOTAL        TOTAL
               #  ANSW    #    ABAND TALK  AFTER  FLOW  FLOW  AUX   AVG    HOLD
DAY            ACD SPEED  ABAND TIME  TIME  CALL   IN    OUT   TIME  STAFF  TIME
xx/xx/xx     xxxxx xx:xx xxxx xx:xx xx:xx xxxx:xx xxxx xxxx xxxx:xx xxx.x xxxx:xx
1/10/90         40  0:21    5  0:26  4:52    0:26    3     5   13:00   3.1   42:01
-----------  ----- ----- ---- ----- ----- ------- ---- ---- ------- ----- -------
SUMMARY         40  0:21    5  0:26  4:52    0:26    3     5   13:00   3.1   42:01

       Note - Xs are used to show field length and are not displayed.
```

Screen 6. BCMS Split Daily Summary Report Screen

The BCMS Split Report fields are described below:

- **SPLIT** — the split number specified with the command line.
- **SPLIT NAME** — the name that is administered for this split number. If no name exists, then the split extension (for example, EXT 65432) is displayed.
- **TIME/DAY** — the time or day interval specified in the command line.
- **# ACD** — the number of ACD calls completed for this split during the current interval. This number also includes calls that flowed in from other splits.
- **AVG ANSWER SPEED** — the average amount of time ACD calls spent in queue and ringing at an agent's station before being answered during the reporting interval. Calls that flowed in do not have queue time from the previous split included in this average. This value does not include time listening to a forced first announcement.
- **# ABAND** — the total number of ACD calls that have hung up while waiting to be answered. This value includes those calls that have abandoned while in queue or while ringing. Calls that are not queued (because the queue is full, the caller receives a forced first announcement and abandons during the announcement, or no agents are staffed) are not counted as abandoned.
- **AVG ABAND TIME** — the average time before an ACD call abandons. This value does not include any time spent in another split's queue before flowing in to this split. This value does not include time listening to a forced first announcement.

- **AVG TALK TIME** — the average duration of ACD calls for each split. This value does not include the amount of time that the agent was holding an ACD call or the ring time at the agent's voice terminal.
- **TOTAL AFTER CALL** — the total amount of time that the agents in this split spent in ACW mode during the reporting interval. The calculation includes time spent on Ext In or Ext Out calls while in ACW.
- **# FLOW IN** — the total number of calls that this split received as a coverage point (intraflowed) from another BCMS-measured split, or are call forwarded (interflowed) to this split during the reporting interval. This total does not include calls which are interflowed from a remote switch by means of the Look Ahead Interflow feature.
- **# FLOW OUT** — the total number of calls queued to this split that were:
  - successfully sent to the split's coverage point
  - forwarded-out via Call Forwarding
  - answered via the Call Pickup feature
  - forwarded-out via Look Ahead Interflow
- **TOTAL AUX TIME** — the total time that logged-in agents in this split were unavailable to receive calls during the reporting interval. This value includes time spent on ExtnIN and ExtnOut calls while in AUX or AVAIL mode.
- **AVG STAFF** — the average number of agents who were logged into this split (staffed) during the reporting interval.
- **TOTAL HOLD TIME** — the total time that ACD calls in this split were on hold at an agent's set. This value does not include hold time for non-ACD calls.
- **SUMMARY** — for those columns that specify averages, the summary is also an average for the entire reporting interval. For the # ACD, # ABAND, FLOW IN, FLOW OUT, and AUX TIME columns, the summary is the sum of individual time intervals or specified days.

BCMS System Report

The BCMS System Report provides traffic measurement information for all of the BCMS splits. Depending on specifics from the command line, the information may be displayed as either a time interval or daily summary. The following screens show the BCMS System Time Interval Report and the BCMS Daily System Report.

```
list bcms system time 9:00                                                    Page 1

                                   BCMS SYSTEM REPORT

Time: 9:00-10:00                                    Date 10:03 am THU APR 12, 1990

                    AVG        AVG   AVG   TOTAL    #     #     TOTAL        TOTAL
               #    ANSW   #   ABAND TALK  AFTER   FLOW  FLOW   AUX    AVG   HOLD
SPLIT         ACD  SPEED ABAND TIME  TIME  CALL    IN    OUT    TIME   STAFF TIME
xxxxxxxxxxx xxxxx xx:xx xxxx xx:xx xx:xx xxxx:xx xxxx xxxx xxxx:xx xxx.x xxxx:xx
Sales          32  0:25    4  0:32  5:15    0:30    3     5    3:30   4.0    1:25
Service         8  0:07    1  0:03  3:20    0:00    0     0    9:30   2.2    3:30
----------- ----- ----- ---- ----- ----- ------- ---- ---- ------- ----- -------
SUMMARY        40  0:21    5  0:26  4:52    0:26    3     5   13:00   3.1    4:55

      Note - Xs are used to show field length and are not displayed.
```

Screen 7. BCMS System Time Interval Report Screen

NOTE:
Because of space limitations, the calculation for AVAIL TIME is not included on either the Split Report or the System Report. However, AVAIL TIME is displayed on the Agent Report.

```
list bcms system day 04/12/90                                    Page 1

                          BCMS SYSTEM REPORT

Day:  4/12/90                                Date 12:55 pm THU APR 12, 1990

                  AVG          AVG  AVG   TOTAL   #     #     TOTAL        TOTAL
               #  ANSW    #    ABAND TALK  AFTER  FLOW  FLOW  AUX   AVG    HOLD
SPLIT          ACD SPEED ABAND TIME  TIME  CALL    IN    OUT   TIME  STAFF  TIME
xxxxxxxxxxx xxxxx xx:xx xxxx xx:xx xx:xx xxxx:xx xxxx xxxx xxxx:xx xxx.x xxxx:xx
Sales          32  0:25    4  0:32  5:15    0:30    3     5    3:30   4.0   30:00
Service         8  0:07    1  0:03  3:20    0:00    0     0    9:30   2.2   20:00
---------- ----- ----- ---- ----- ----- ------- ---- ---- ------- ----- -------
SUMMARY        40  0:21    5  0:26  4:52    0:26    3     5   13:00   3.1   50:00


       Note - Xs are used to show field length and are not displayed.
```

Screen 8. BCMS Daily System Report Screen

The BCMS System Report fields are described below:

- **TIME/DAY** — the time or day qualifier, which is entered on the command line and indicates the type of report.
- **SPLIT** — the name of the split (for example, sales, customer service, or reservations). If no name exists, the split extension (such as EXT 12345) is displayed.
- **# ACD** — the number of ACD calls (inbound and outbound) that ended in each split during the reporting interval.
- **AVG ANSWER SPEED** — the average amount of time ACD calls spent in queue and ringing at an agent's station before being answered during the reporting interval. This value includes time in queue and time ringing at an agent's station. Calls that flowed in do not have queue time from the previous split included in this average. This value does not include time spent listening to a forced first announcement.
- **# ABAND** — the total number of ACD calls that have hung up while waiting to be answered. This value includes those calls that have abandoned while in queue or while ringing. Calls that are not queued (for example, because the queue is full, the caller receives a forced first announcement and abandons during the announcement, or no agents are staffed) are not counted as abandoned.
- **AVG ABAND TIME** — the average time before an ACD call abandoned. This value does not include any time spent in another split's queue before flowing into this split. This value does not include time spent listening to a forced first announcement.

- **AVG TALK TIME** — the average duration of ACD calls for each split. This value does not include the amount of time that the agent was holding an ACD call or the ring time at the agent's voice terminal.
- **TOTAL AFTER CALL** — the total amount of time that the agents spent in ACW during the reporting interval. The calculation includes time spent on ExtnIn or ExtnOut calls while in ACW.
- **# FLOW IN** — the total number of calls that this split received as a coverage point (intraflowed) from another BCMS-measured split, or were call forwarded (interflowed) to this split during the reporting interval. This total does not include calls that were interflowed from a remote switch by means of the Look Ahead Interflow feature.
- **# FLOW OUT** — the total number of calls queued to this split that were
  - — successfully sent to its own coverage point
  - — forwarded-out via Call Forwarding
  - — answered via the Call Pickup feature
  - — forwarded-out via Look Ahead Interflow
- **TOTAL AUX TIME** — the total amount of time that the agents within this split spent in AUX work state during the reporting interval. This value includes time spent on ExtnIN or ExtnOut calls while in AUX or AVAIL mode.
- **AVG STAFF** — the average number of agents who were logged in (staffed) for this split during the reporting interval.
- **TOTAL HOLD TIME** — the total time that ACD calls in this split were on hold at an agent's set. This value does not include hold time for non-ACD calls.
- **SUMMARY** — the sum of the total columns (# ACD, # ABAND, AUX TIME, # FLOW IN, and # FLOW OUT) and average for the columns that are averages (ANSW SPEED, TALK TIME, AFTER CALL, ABAND TIME, and AVG STAFF).

BCMS Trunk Group Report

The BCMS Trunk Group Report gives statistical information for all BCMS trunk groups. The BCMS Trunk Group Report may be used by the ACD administrator/manager to monitor use of the trunk group and to determine the optimal number of trunks for the trunk group. Depending on specifics from the command line, the information may be displayed as either a time interval or a daily summary. The following screens show the BCMS Trunk Group Time Interval Report and the BCMS Trunk Group Daily Report.

```
list bcms trunk 1 time 10:00 10:30                                    Page 1

                          BCMS TRUNK GROUP REPORT

     Trunk Group: 1
Trunk Group Name: xxxxxxxxxxxxxxx
Number of Trunks: xx                          Date: 12:59 pm THU APR 12, 1990

                    INCOMING            |          OUTGOING           |% ALL % TIME
TIME          CALLS ABAND   TIME     CCS| CALLS  COMP   TIME     CCS| BUSY  MAINT

xx:xx-xx:xx   xxxxx  xxxx xxx:xx xxxx.xx  xxxxx  xxxx xxx:xx xxxx.xx   xx      xx
 8:00- 9:00      23     2   2:15   31.02      1     1   1:36     .96    0       0
 9:00-10:00      35     2   1:48   35.74      4     4   1:42    4.08    0       0
10:00-11:00      24     1   1:40   22.93      0     0    :00     .00    0       0
-----------   -----  ---- ------ -------  -----  ---- ------ -------  ---     ---
SUMMARY          82     5   1:54   29.89      5     5   1:39    2.52    0       0

       Note - Xs are used to show field length and are not displayed.
```

Screen 9. BCMS Trunk Group Time Interval Report

```
list bcms trunk 1 day 4/11 4/12                                       Page 1

                          BCMS TRUNK GROUP REPORT

     Trunk Group: 1
Trunk Group Name: xxxxxxxxxxxxxxx
Number of Trunks: xx                          Date: 12:59 pm THU APR 12, 1990

                    INCOMING            |          OUTGOING           |% ALL % TIME
DAY           CALLS ABAND   TIME     CCS| CALLS  COMP   TIME     CCS| BUSY  MAINT

xx/xx/xx      xxxxx  xxxx xxx:xx xxxx.xx  xxxxx  xxxx xxx:xx xxxx.xx   xx      xx
04/11/90         82     5   1:54   29.89      5     5   1:39    2.52    0       0
-------------------------------------------------------------------------------
SUMMARY          82     5   1:54   29.89      5     5   1:39    2.52    0       0


       Note - Xs are used to show field length and are not displayed.
```

Screen 10. BCMS Trunk Group Daily Report

The BCMS Trunk Group Report fields are described below:

- **Trunk Group** — the trunk group number specified with the command line.
- **Trunk Group Name** — the name that is administered for this trunk group. If no name is administered, then this field is displayed as blank.
- **Number of Trunks** — the number of individual trunks in the trunk group at the end of the first interval being reported.
- **TIME/DAY** — the time or day interval specified in the command line.
- **INCOMING CALLS** — the total number of incoming calls carried by this trunk group.
- **INCOMING ABAND** — the number of incoming calls that queued to ACD splits, then abandoned (without being answered by a staffed agent within this split) during the reporting interval. Calls that cannot queue (for example, queue full, or calls that receive a busy signal from the CO because there are no available trunks) are not included in the INCOMING ABAND number. Also included are unanswered calls directed to staffed ACD agents.
- **INCOMING TIME** — the average holding time for incoming calls to this trunk group during the specified reporting interval. Holding time is defined as the length of time in minutes and seconds that a facility is used during a call.
- **INCOMING CCS** — the total holding time (usage) for incoming calls to the trunk group during the specified reporting interval. The units are expressed in hundred call seconds (CCS).
- **OUTGOING CALLS** — the total number of outgoing calls for this trunk group during the specified reporting interval.
- **OUTGOING COMP** — the total number of outgoing calls that were placed over this trunk group and answered during the specified reporting interval. Completion is determined by either return of network answer supervision, or a call that lasts longer than the answer supervision time-out parameter; whichever occurs first.
- **OUTGOING TIME** — the average holding time for outgoing calls during the specified reporting interval.
- **OUTGOING CCS** — the total holding time for outgoing calls from this trunk group. The units are expressed in hundred call seconds (CCS).
- **% ALL BUSY** — the percentage of time that all the trunks in this trunk group were busy.
- **% TIME MAINT** — the percentage of time that one or more trunks were busied-out for maintenance purposes.

BCMS VDN Report

The BCMS VDN Report provides statistical information for the specified VDN. Depending on specifics from the command line, the information may be displayed as either a time interval or a daily summary. The following screens show the VDN Time Interval Report and the VDN Daily Summary Report.

```
list bcms vdn 12345 time 08:00 9:00                                     Page 1

                        VECTOR DIRECTORY NUMBER REPORT

   VDN Ext: 12345
  VDN Name: xxxxxxxxxxxxxxx                       Date 10:00 am FRI APR 13, 1990

                                 AVG              AVG    AVG
                 CALLS    NUM    TIME TO   NUM    ABAND  TALK/HOLD  FLOW   OTHER
TIME             OFFERED  ANS    CONNECT   ABAND  TIME   TIME       OUT    CALLS
xx:xx-xx:xx      xxxx     xxxx   xx:xx     xxxx   xx:xx  xx:xx      xxxx   xxxx
08:00-09:00        79       50     0:39       5   0:45    2:30         0     24
-----------      ----     ----   -----     ----   -----  -----      ----   ----
SUMMARY            79       50     0:39       5   0:45    2:30         0     24

       Note - Xs are used to show field length and are not displayed.
```

Screen 11. BCMS VDN Time Interval Report Screen

```
list bcms vdn 12345 day 4/13                                            Page 1

                        VECTOR DIRECTORY NUMBER REPORT

   VDN Ext: 12345
  VDN Name: xxxxxxxxxxxxxxx                       Date 11:00 am FRI APR 13, 1990

                                 AVG              AVG    AVG
                 CALLS    NUM    TIME TO   NUM    ABAND  TALK/HOLD  FLOW   OTHER
DAY              OFFERED  ANS    CONNECT   ABAND  TIME   TIME       OUT    CALLS
xx/xx/xx         xxxx     xxxx   xx:xx     xxxx   xx:xx  xx:xx      xxxx   xxxx
 7/02/89           79       50     0:39       5   0:45    2:30         0     24
-----------      ----     ----   -----     ----   -----  -----      ----   ----
SUMMARY            79       50     0:39       5   0:45    2:30         0     24

       Note - Xs are used to show field length and are not displayed.
```

Screen 12. BCMS VDN Daily Summary Report Screen

The BCMS VDN Report fields are described below:

- **VDN EXT** — the VDN specified with the command line.
- **VDN NAME** — the name that is administered for this VDN. If no name exists, then the VDN extension (for example, EXT 64532) is displayed.
- **TIME/DAY** — the time or day interval specified in the command line.
- **CALLS OFFERED** — the total number of completed calls that used the VDN during the current interval.
- **NUM ANS** — the total number of calls to the VDN that ended in the specified interval and were answered as a result of a queue to main or check backup split step.
- **AVG TIME TO CONNECT** — the average time that calls spend in a vector before being connected as an ACD call to an agent (for example, via a queue to main split or check backup step) during the current interval. This includes queue time and time ringing at an agent's station.
- **NUM ABAND** — the total number of calls that have abandoned from the VDN before being answered or outflowed to another position during the current interval. This value includes calls that abandoned while in vector processing or while ringing an agent. Calls that abandoned immediately after the agent answered are recorded as NUM ANS.
- **AVG ABAND TIME** — the average time calls spent waiting in this VDN before being abandoned by the caller during the current interval.
- **AVG TALK/HOLD TIME** — the average duration of calls (from answer to disconnect) for this VDN during the current interval. This includes time spent talking and on hold. The calculation does not include ring time at an agent's voice terminal.
- **FLOW OUT** — the total number of calls that were advanced to another position via a successful route-to or messaging split command. This includes the following:
  - — adjunct routing
  - — calls routed to another VDN
  - — calls answered via the Call Pickup feature
  - — calls answered by an attendant (through a route-to command)

  FLOW OUT does not include calls that encounter a **goto vector** command.

  Once a call outflows, the system does not take further measurements on the call for this VDN. As a result, if an outflowed call later abandons, it is not recorded in NUM ABAND for this VDN.
- **OTHER CALLS** — the total number of calls that were forced busy or forced disconnect during the current interval. This value does not include abandoned calls.

- **SUMMARY** — for those columns that specify averages, the summary is also an average for the entire reporting interval; for columns that do not contain averages, the summary contains the total.

Commands

The following list shows the commands that may be used at the Manager I terminal (G1) or the G3 Management Terminal to generate BCMS reports:

- monitor bcms split
- monitor bcms system
- list bcms agent
- list bcms split
- list bcms system
- list bcms trunk
- list bcms vdn

The **monitor** commands display real-time status reports for agents and splits on the Manager I terminal (G1) or the G# Management Terminal. When a status report is displayed on the Manager I terminal (G1) or the G3 Management Terminal, it is automatically updated about every 30 seconds. An UPDATE key is also provided for updates on demand.

The **list** commands display historical information for agents, splits, trunk groups, and VDNs.

Report Scheduler and System Printer

The report scheduler allows the System Administrator to use the Manager I terminal (G1) or the G3 Management Terminal to schedule BCMS reports as well as other reports, lists, and so on, to be printed at specific times by an asynchronous printer. Reports are scheduled at 15-minute intervals for any combination of days of the week. Details on the report scheduler can be found in the Report Scheduler and system printer feature description elsewhere in this chapter and in *DEFINITY® Communications System Generic 1 and Generic 3 — System Management,* 555-230-500 and *DEFINITY Communications System Generic 1 and Generic 3i — System Reports,* 555-230-510.

Considerations

BCMS provides a set of internal switch measurement reports for telemarketing centers or customer service centers. These reports can help in managing ACD splits (hunt groups) without the need for an adjunct CMS.

The maximum number of measured agents for the BCMS feature is limited to 30 (G1.1) or 200 (G3i). An agent can be a member of up to three splits, but is treated as a single agent.

The maximum number of CMS measured agents (both basic and adjunct) is restricted to 400.

The maximum number of internally measured trunk groups is limited to 30 (G1.1) or 32 (G3i).

The maximum number of internally measured splits is limited to 30 (G1.1) or 99 (G3i). If a split is assigned more than 30 agents in G1.1, it cannot be measured internally. If a split is assigned more than 200 agents in G3i, it cannot be measured internally.

A maximum of 25 time intervals are allocated for storing data. A time interval can be either a one-hour or a one-half hour interval.

A maximum of seven summary days is stored for each historical report.

The maximum number of internally measured trunk group members is limited to 400.

The addition of an EPN can affect the operation of the measurements only when the EPN is unavailable. Any resource that resides in the EPN cabinet is not available for use or for measurement data. If a remote Manager I terminal (G1) or G3 Management Terminal is connected to the EPN and the fiber link goes down, the Manager I terminal (G1) or G3 Management Terminal session is dropped and the login prompt appears.

Interactions

The following features interact with the Basic Call Management System feature.

- Call Coverage

  Calls extended to a BCMS measured split as a coverage point are treated like new incoming calls to that split. These calls increment the FLOW IN field on the BCMS Split report, provided they were covered from the queue of another BCMS measured split. Calls successfully going to a coverage point from a BCMS measured split are included in the FLOW OUT field on the BCMS Split report. Again, those calls must have first been in queue for the split. Calls that cover due to the split queue being full do not cause the FLOW OUT field to be incremented.

- Call Forwarding

  Calls forwarded to a BCMS measured split from an extension are treated like new incoming calls to that split. INFLOW and OUTFLOW counts are not affected.

  If a split's calls are forwarded, inflow and outflow apply. An agent's call forwarding does not forward ACD calls.

- Call Pickup

  Calls answered using the call pickup feature are treated as non-ACD calls

(EXTN IN) for the agent picking up the call. ACD calls that are picked up for a BCMS measured agent are included in the FLOW OUT column on the BCMS Split report.

- Call Vectoring (G3i)

  With Call Vectoring, calls can be queued to up to three splits. ACD call count are pegged to the answering split. Abandoned calls, outflows, and disconnects are credited to the first (primary) split. If a call that is queued for three splits is answered by the second or third split, BCMS records an outflow for the primary split, both an answer and inflow for the answering split, and nothing for the other split (the split that is neither the answering split nor the primary split).

- Conference/Transfer

  When an agent conferences or transfers an ACD call, the agent is credited with an ACD call and an ExtnOut call.

- Hunt Groups

  The BCMS measurements are not determined in the same way as hunt group measurements although some of the information is similar. Therefore, the two reports may represent the data differently.

- Move Agents From CMS

  If agents are moved from one split to another split by the CMS adjunct, measurements are stopped for the agent's "from" split and started for the agent's "to" split. The adjunct CMS denies agent move requests when agents are logged in (staffed). This denial is important since it eliminates measurement complications associated with move requests when the agent is on an ACD call. Move requests are also denied if the agent is being moved into an unmeasured split.

  If the adjunct CMS attempts to move an agent that is not being measured by BCMS into a split that is being measured by BCMS, and the move would exceed the maximum of 30 measured agents, the switch rejects the move. Otherwise, internal BCMS measurements are started for the agent. If the adjunct CMS moves an agent from a split that is measured by BCMS to a split that is not BCMS measured, internal measurements for the agent are stopped.

- Night Service

  When night service is activated for a split, new calls go to an alternate destination. The split in night service does not consider these calls to be OUTFLOW. The calls are treated as new incoming calls if the destination is a measured split (that is, they are not considered INFLOW).

- System Measurements

  A DEFINITY Communications System Generic 1 and Generic 3i can have BCMS reports, adjunct CMS reports, and switch traffic measurements simultaneously.

  The BCMS measurements are not determined in the same way as trunk group measurements although some of the information is similar. Therefore, the two reports may represent the data differently.

Administration

The Basic Call Management System is administered by the System Administrator. The following items require administration.

Communication Interfaces

If the link to the adjunct CMS has been administered, CMS measurements must be busied-out (**busyout sp-link** command) in order to add/remove adjunct CMS and BCMS measured agents or trunks at the switch. When the "busyout" has been released, adjunct CMS checks for translation changes and, if they exist, the current database is updated and measurements are restarted.

If the link has not been administered (BCMS measurements only), the **busyout sp-link** command is not required to change translation data.

Hunt Group and Trunk Group

The Measured field on the Hunt Group and Trunk Group forms should be administered as one of the following:

- internal - measured by BCMS only
- external - measured by CMS adjunct only
- both - measured by both BCMS and adjunct CMS
- none - not measured (default)

If BCMS has not been administered in customer options, neither "internal" nor "both" is allowed. If the split or trunk group is measured by BCMS only, the **busyout sp-link** command is not required to make changes. Measurements can be turned off for a split while agents are logged in, but agents must be logged off to start measurements.

System Administration

The BCMS field must be set to `y` by an authorized AT&T employee.

System-Parameters

The following items require administration:

- Measurement Interval — Specifies what time interval is used for polling and reporting measurement data. The time can be specified by hour or half-hour intervals with "hour" as the default. There is a maximum of 25 time slots available for measurement intervals. If hourly is specified, an entire day of traffic information is available for history reports; otherwise, only half a day is available. This does not affect daily summaries as they always reflect traffic information for the entire day. The interval may be changed at any time, but does not go into effect until the top of the hour.
- Printer Information for the system printer — This includes the printer extension, EIA device bit rate, and lines per page.

Hardware and Software Requirements

No additional hardware is required to support the BCMS feature. However, a customer may decide to use an asynchronous system printer to obtain hard copies of BCMS history reports. The system printer can be interfaced to the switch through the EIA port on the processor board or through any of the alternate data interfaces, such as PDMs connected to a digital port, or ADUs connected to a data line circuit port.

BCMS software is required.

Index

A

B

I

R