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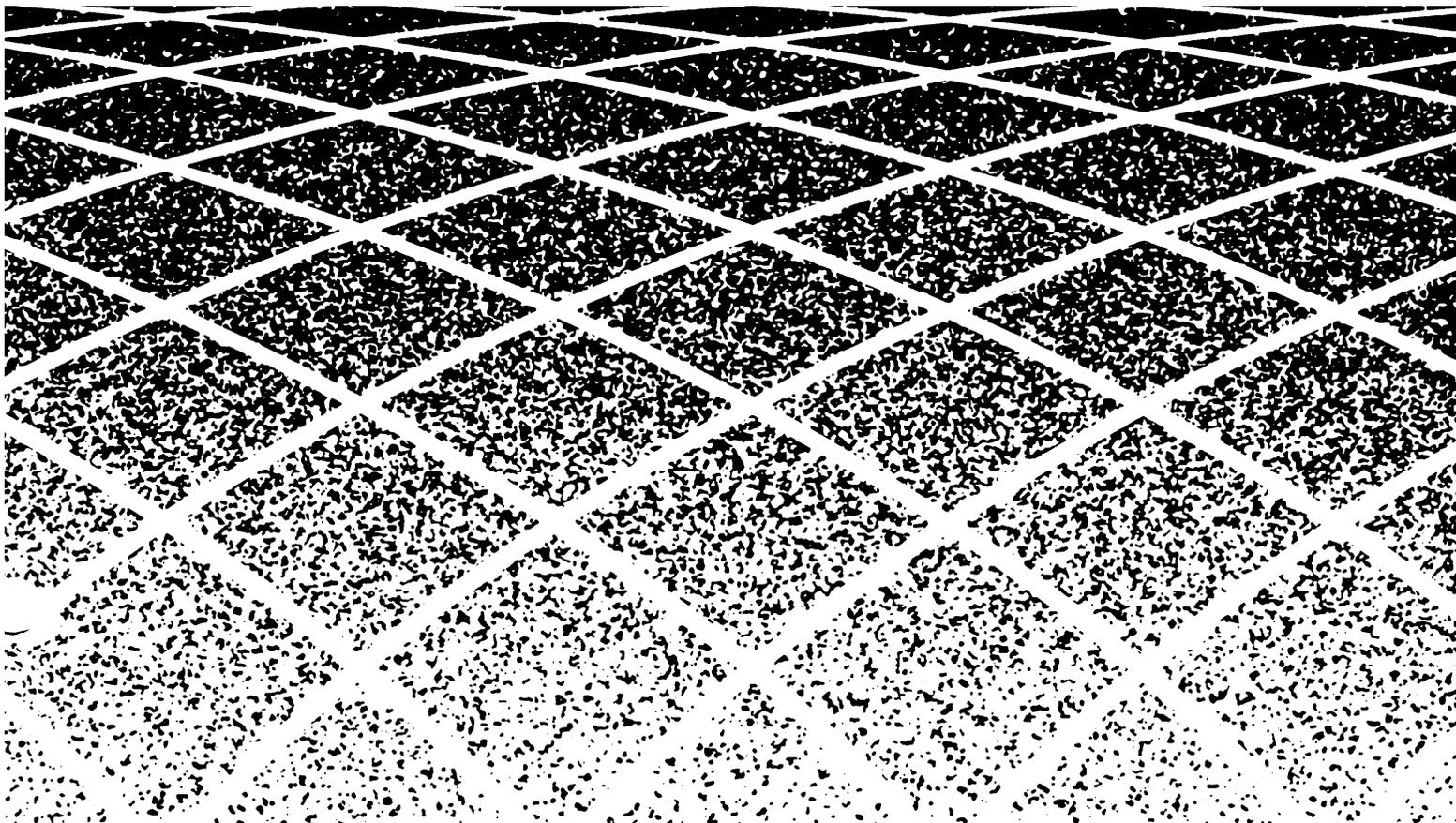
Issue 1

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Call Accounting System (CAS)

Integrated Solution II
Planning Guide and Forms

for the MERLIN LEGEND™ Communications System



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Contents

	About This Document	vii
	■ Purpose	vii
	■ Intended Audiences	vii
	■ How to Use This Document	vii
	■ Related Documentation	viii

1	Completing the Site Information Form	1-1
----------	---	-----

2	Completing the Telephone System Configuration Form	2-1
----------	---	-----

3	Completing the Dialed Digit Processing Form	3-1
----------	--	-----

4	Completing the Call Record Collection Configuration Form	4-1
----------	---	-----

5	Completing the Organization Configuration Form	5-1
----------	---	-----

6	Completing the Report Schedules Form	6-1
----------	---	-----

7	Completing the Cost Adjustments Form	7-1
----------	---	-----

Contents

8	Completing the Account Codes Form	8-1
----------	--	------------

A	Planning Forms	A-1
	■ Site Information	A-2
	■ Telephone System Configuration	A-3
	■ Dialed Digit Processing	A-4
	■ Call Record Collection Configuration	A-6
	■ Organization Configuration	A-7
	■ Report Schedules	A-8
	■ Cost Adjustments	A-9
	■ Account Codes	A-10

About This Document

Purpose

This document is intended to guide AT&T customers and support personnel through the process of collecting information to configure the AT&T Call Accounting System (CAS) for the MERLIN LEGEND™ Integrated Solution II (IS-II). It describes how to prepare the planning forms used in installing a site and preparing the system for immediate use.

Intended Audiences

This document is written for the following audiences:

- AT&T technical support specialists, including those who install CAS
- CAS customers responsible for maintaining the system

How to Use this Document

Each chapter contains instructions to complete a specific form. Blank planning forms appear at the back of the manual.

Complete each form as instructed and leave at the customer site.

The book is organized as follows:

- Chapter 1 describes how to complete the *Site Information Form*.
- Chapter 2 describes how to complete the *Telephone System Configuration Form*.
- Chapter 3 describes how to complete the *Dialed Digit Processing Form*.
- Chapter 4 describes how to complete the *Call Record Collection Configuration Form*.
- Chapter 5 describes how to complete the *Organization Configuration Form*.
- Chapter 6 describes how to complete the *Report Schedules Form*.
- Chapter 7 describes how to complete the *Cost Adjustments Form*.
- Chapter 8 describes how to complete the *Account Codes Form*.
- Appendix A contains blank forms.

Related Documentation

The following documents may provide you with additional information:

- *Call Accounting System (CAS) Integrated Solution II Site Installation and Implementation Guide for the MERLIN LEGEND™ Communications System* (585-247-010) — provides instructions to install CAS and to input the information collected in the CAS planning forms.
- *Call Accounting System (CAS) Integrated Solution II User's Guide for the MERLIN LEGEND™ Communications System* (585-247-070) — provides instructions and detailed information on all CAS features and screens.

Completing the Site Information Form

1

Use this form to identify the site name and other "local" information. Use the completed form for input into the EDIT SITE INFORMATION screen.

SITE INFORMATION			
SITE NAME HEADQUARTERS			
AREA CODE 716	EXCHANGE 385		
ADDRESS 300 MAIN STREET			
CITY EAST ROCHESTER	STATE NY	ZIP 14445	
CONTACT PERSON BRIAN ARMAGNAC			
CONTACT NUMBER 385-6444			

Figure 1-1. Sample of a Completed Form

Copy the *Site Information* form from Appendix A and enter the following information:

- The site name (1 to 15 alphanumeric characters, including spaces) to appear on report headers.
- The area code and exchange at the site.
- The site address, city, state, zip code, contact person and number.
The maximum length of these fields are:
 - address (40 alphanumeric characters)
 - city (30 alphanumeric characters)
 - state (2 letters)
 - zip (5 or 11 digits)
 - contact person (40 alphanumeric characters)
 - contact person's number (10 alphanumeric characters)

Completing the Telephone System Configuration Form

2

Use this form to identify the telephone facilities on site and how calls using those facilities should be costed. Use the completed form for input into the EDIT TELEPHONE SYSTEM CONFIGURATION screen.

TELEPHONE SYSTEM CONFIGURATION								
Trk Gp	Facility Name	# of Trks	Dial Access Code	RATE Tariff (-1) or cents	Type	Carrier	Incom calls	TRUNK or LINE
9999	SEC	1	9999	-1		1	C	9999
1	CO	5	9	-1		0	C	801
								802
								803
								804
								805
2	WATS4	3	890	6	M	0	N	821
								822
								823
3	T-NY	1	891	13	C	0	C	815

Figure 2-1. Sample of a Completed Form

Make as many copies of the Telephone System Configuration form from Appendix A as required, making certain the pages are numbered.

Starting with the Central Office (CO) facility, identify every telephone service used at the site. Use the following sources of information:

- IS-II *System Programming and Maintenance Utility* menus to display facility, access code, and trunk assignments for the switch.
- Monthly invoices of telephone services such as WATS, TIE, and FX lines to compute the average cost of calls using these services.

NOTE:

If the site uses AT&T or MCI as secondary carrier accessed by dialing 10288 or 10222 (as appropriate), enter the following line of information:

9999 (trunk group), **SEC** (facility name), **1** (number of trunks), **9999** (dial access code), **-1** (rate), blank (rate type), **0** (if secondary carrier is AT&T) or **1** (if it is MCI), **N** (incom calls), and **9999** (trunk).

Skip a line to make your entries more readable and proceed to step 1.

1. Fill in a trunk group number — **1** to **9998**.
2. Fill in the facility name. The names of facilities can be 1 to 5 characters. We recommend entering names that are descriptive (for example, **T-NY** to identify a TIE line to New York). CAS uses the following naming conventions:
 - **CO** (Central Office — regular services provided by your local and long distance carriers. If “virtual WATS banding” is a long distance service at the site, identify it as CO)
 - **WATS n** (outbound, band $n = 0$ to 9 WATS, billed by usage)
 - **IWTS n** (inbound, band $n = 0$ to 9 WATS, billed by usage).

NOTE:

The following names are reserved by the system and may not be used: LOCAL, LATA, MTS, IS-IL, IS-OL, OS-IL, OS-OL, IDDD, SPCL, and ZERO+.

3. Fill in the number of trunks in the group (optional; used to report it for informational purposes).
4. Fill in the dial access code. Typically, this is a one to three-digit code used to place an outside call via a trunk in this group. If you do not have this information, fill in the first trunk number for this group when you complete step 8.

5. For the CO trunk group:
 - a. Enter a rate of **-1** to indicate tariff table costing. Leave the rate type field empty.
 - b. If the primary carrier for this site is AT&T, enter **0** under carrier; if MCI (or any other carrier with similar rates), enter **1**.
6. For all other groups — WATS, FX, or TIE:
 - a. Enter the average rate — **0** to **32000** cents — to cost a call, indicating the rate type: **M** = per minute or **C** = per call, computed from one or more past telephone bills for this service.
 - b. Leave the carrier field empty.
7. Indicate if incoming calls should be either discarded (enter **D**), accepted at no cost (enter **N**), or costed at the rates set in 5a or 6a, as appropriate (enter **C**).
8. List all trunks belonging to this group. These numbers correspond to the “line” reported in a MERLIN LEGEND call record.

Consult the *Integrated Solution II System Manager's Guide* to use switch programming screens via IS-II to display this information.

9. If there are more trunk groups to enter, skip a line (or go to another page if this makes it more readable) and repeat steps 1 to 8.

Completing the Dialed Digit Processing Form

3

Use this form to modify the built-in table of special numbers and/or to identify other numbers for special processing. Use the completed form for input into the EDIT DIALED DIGIT PROCESSING screen.

NOTE:

Complete this form if any of the cases below apply:

- The secondary carrier at the site is not MCI.
- The rates listed for 900 numbers, information, or dial-it local services in figure 3-1 are not correct for the site.
- The site will be installing "major metro" (non-custom) rates and its local calling area falls within one of the following metropolitan centers:
 - NYC area codes 212, 718, 516, 914
 - Boston area codes 508, 617
 - Washington DC area codes 202, 301, 703
 - Chicago area codes 312, 708, 815
 - Dallas/Ft Worth area codes 214, 817
 - Los Angeles area codes 213, 310, 818
 - San Francisco area codes 415, 510
- Users at the site place local "voice mail" calls.
- When "speed dialing" a number, the speed dial code appears in the call record instead of the number.
- When using TIE lines, the switch outputs characters in the dialed number field that are not valid phone numbers:
 - RNX codes for on-net calls
 - Access codes in a tandem or remote access call
- Users at the site want to mask sensitive phone numbers.

Completing the Dialed Digit Processing Form

CAS includes a default Dialed Digit Processing table with values similar to the pre-printed form below (also included in Appendix A).

Make as many copies of the Dialed Digit Processing forms from Appendix A as required, making certain the pages are numbered.

DIALED DIGIT PROCESSING							Page 1 of _____	
SEARCH PATTERN		REPLACE PATTERN					Substitute Digits?	
DIALED DIGITS	Trunk Group	Cost Method	RATE (cents)	Trunk Group	Call Type	DIALED DIGITS		
0%		T	0		ZERO+		N	Operator assisted
011????????%		T					N	International, exception to above
102220%		T	0	9999	ZERO+	0%	Y	MCI operator assisted
10222011%		T		9999		011%	Y	MCI int'l, exception to above
10???0%		T	0		ZERO+	0%	Y	IXC operator assisted
10???011%		T				011%	Y	IXC int'l exception to above
1800????????%		C	0		SPCL		N	Toll free number
1900????????%		M	50		SPCL		N	900 service numbers
411		C	43		SPCL		N	Local information
5551212		C	43		SPCL		N	Local information
800????????%		C	0		SPCL		N	Toll free number
900????????%		M	50		SPCL		N	900 service numbers
911		C	0		SPCL		N	Emergency
976????		M	50		SPCL		N	Dial-it local services
?		D						Incompletely dialed call
?11		C	0		SPCL		N	General x11 telephone services
?411		C	43		SPCL		N	Local information
?5551212		C	43		SPCL		N	Local information
? ?		D						Incompletely dialed call
???		D						Incompletely dialed call
???5551212		C	60		SPCL		N	Long distance information
????		D						Incompletely dialed call
???5551212		C	60		SPCL		N	Long distance information
?????		D						Incompletely dialed call
?????		D						Incompletely dialed call

Figure 3-1. Sample of a Completed Form

1. Identify the dialed digits that require additional processing and enter their dialing pattern in the Dialed Digits column, under SEARCH PATTERN. See the indicated procedure (steps 1a. through 1f.) for special cases.

Define dialing patterns using the appropriate sequence of digits (**0 - 9**), letters (**A - Z**), and/or symbols (except ? and %). Use ? and % as wild cards:

? represents any single character in that position. For example, "385?????" is any 7-digit number with 385 as a local exchange.

% represents any number of trailing characters. Use only at the end of the pattern. For example, "0%" is any number starting with 0.

- a. If the secondary carrier at the site is not MCI, look up the entries 102220% and 10222011% in the form with the pre-printed values and replace them by the correct carrier code — for example, 102880% and 10288011% for AT&T. This ends the procedure; you may define another line item.
- b. If the "dial-it" service exchange is not "976," find the "976?????" entry (in the form with the pre-printed default values) and replace it with the proper number. This ends the procedure; you may define another line item.
- c. If users at the site place calls that include dialing a pound (#) or asterisk (*) after the number called, add the line entries in figure 3-2. This ends the procedure; you may define another line item.

SEARCH PATTERN		REPLACE PATTERN					Substitute Digits?
DIALED DIGITS	Trunk Group	Cost Method	RATE (cents)	Trunk Group	Call Type	DIALED DIGITS	
# %		T	0				N
* %		T	0				N
???????#%		T	-1			????????	Y
???????*%		T	-1			????????	Y
???????#%		T	-1			????????	Y
???????*%		T	-1			????????	Y
???????#%		T	-1			????????	Y
???????*%		T	-1			????????	Y
???????#%		T	-1			????????	Y
???????*%		T	-1			????????	Y
???????#%		T	-1			????????	Y
???????*%		T	-1			????????	Y
???????#%		T	-1			????????	Y
???????*%		T	-1			????????	Y

Figure 3-2. Sample Entries for Interpreting # and * in Dialed Pattern

Completing the Dialed Digit Processing Form

- d. If the site uses CAS major metro rates within the listed area code in figure 3-3, add the line entries suggested for those area codes. This ends the procedure; you may define another line item.

	SEARCH PATTERN		REPLACE PATTERN				Substitute Digits?
	DIALED DIGITS	Trunk Group	Cost Method	RATE (cents)	Trunk Group	Call Type	
<i>From NYC area codes 212, 516, 718, or 914 (near NYC only)</i>	1212???????		T	0		LOCAL	
	1516???????		T	0		LOCAL	
	1718???????		T	0		LOCAL	
	1914???????		T	0		LOCAL	
<i>From Boston area codes 508 or 617</i>	1508???????		T	0		LOCAL	
	1617???????		T	0		LOCAL	
<i>From Washington DC area codes 202, 301, or 703</i>	202???????		T	0		LOCAL	
	301???????		T	0		LOCAL	
	703???????		T	0		LOCAL	
<i>From Chicago area codes 312, 708, or 815</i>	1312???????		T	0		LOCAL	
	1708???????		T	0		LOCAL	
	1815???????		T	0		LOCAL	
<i>From Dallas/Ft Worth area codes 214 or 817</i>	214???????		T	0		LOCAL	
	817???????		T	0		LOCAL	
<i>From Los Angeles area codes 213, 310, or 818</i>	1213???????		T	0		LOCAL	
	1310???????		T	0		LOCAL	
	1818???????		T	0		LOCAL	
<i>From San Francisco area codes 415 or 510</i>	1408???????		T	0		LOCAL	
	1415???????		T	0		LOCAL	
	1510???????		T	0		LOCAL	

Figure 3-3. Sample Entries for Major Metro Sites

- e. If users at the site place local "voice mail" or "auto attendant" calls, enter ?1????????% and ?0????????%. Complete step 3b (with cost method = c and rate = 0 cents) and step 4a.
- f. If the switch reports speed dialed codes as part of the dialed number, enter the codes as they appear in the SMDR record followed by % — for example, if "#3" is the speed dial code for a number, enter #3%. Complete steps 3c, 5a, and 6a.

- g. If the site has TIE lines to a remote switch, identify all off-net access codes from the remote switch, then list each entry followed by % — for example, a site can use its TIE line to place “local” calls from the remote switch by accessing the TIE facility, then dialing “9”; in this case, enter **9%**. Complete steps 2, 3c, 5b, and 6a.
 - h. If the site has a private network and uses RNX codes to dial other network subscribers, identify all RNX codes and their destination. Then list every RNX code followed by **????**. Complete steps 2, 3c, 5c, and 6a.
 - i. If users wish to mask sensitive numbers, list the dialed numbers of interest — for example, to mask calls to 385-6440, enter **3856440**. Complete steps 3c, 4b, 5d, and 6a.
2. Fill in the Trunk Group.

This column is typically blank unless you are working with dialed numbers in a TIE or private network context. If so, identify the group associated with the network or TIE line calls and the pattern to be matched. Refer to the *Telephone System Configuration* form for trunk group numbers.

3. Fill in the cost method and a rate or trunk group as follows:
- a. To discard calls with this search pattern, enter cost method **D**. This ends the procedure; you may define another line item.
 - b. To cost per minute, enter cost method **M**, or per call, enter **C**. Then enter the rate in cents. To change the defaults in the form with pre-printed values, simply cross out the printed values and enter the user's choices.
 - c. To indicate costing normally associated with the facility used, enter cost method **T** and leave the trunk group blank.
 - d. To indicate the costing associated with a different facility, enter cost method **T**. Then enter a the trunk group of interest. Refer to the *Telephone System Configuration* form for trunk group numbers.

4. Fill out a call type from the set of existing call type names in your system; leave blank to indicate no change from standard call type processing. See steps 4a. and 4b. for special cases.

The list of built-in names appears in table 3-1; other names come from facility names from the *Telephone System Configuration* table.

- a. To report the voice mail local calls from step 1e, enter **LOCAL**.
- b. To report specially "masked" numbers from step 1i, enter **SPCL**.

Table 3-1. Built-in Call Type Names

Call Type	Description
CCSA	Common Control Switching Arrangement (private network)
DILIT	Dial-it service (weather, time, etc.)
FX	Foreign Exchange call
IDDD	International Direct Distance Dial
IS-IL	In-State, In-LATA (custom rate systems)
IS-OL	In-State, Out-of-LATA (custom rate systems)
IWTS <i>n</i>	Incoming (only), band <i>n</i> WATS call
LATA	Local Access Transport Area (systems with Major Metro rates)
LOCAL	Local (usually, a 7-digit call)
MAT-N	Marine/Aircraft/Train call, originated in North America
MAT-O	Marine/Aircraft/Train call, originated overseas
MOB-N	Mobile phone call, originated in North America
MOB-O	Mobile phone call, originated overseas
MSNGR	Messenger service call
MTS	Message Telephone Service (systems with Major Metro rates)
MTS-I	Measured call, international
MTS-M	Measured call, Marine/Aircraft/Train
MTS-N	Measured call, North America
MTS-O	Measured call, originated overseas
MTS-R	Measured call, radio linked
NDC-N	Non-dial conference call, originated in North America
NDC-O	Non-dial conference call, originated overseas
OS-IL	Out-of-State, in-LATA (custom rate systems)
OS-OL	Out-of-State, Out-of-LATA (custom rate systems)
PICPH	Picture phone call
RADIO	Radio link call
SPCL	Special call (information, 800-, 900- numbers)
SPRAD	Sent paid radio link call
TELGR	Telegram
TIE	Tie line call
VERFY	Verification service call
WATS <i>n</i>	Outgoing (or incoming/outgoing), band <i>n</i> WATS
ZERO+	Operator-assisted call

5. To cost the call and/or report it as some other dialed digits, fill out the dialed digits under REPLACE PATTERN. A blank means no change. See steps 5a. to 5e. for details on special cases.

This pattern is based on your entry in step 1, using a similar format.

- Every digit represented by a ? in the search pattern is matched to a ? in the replace pattern by its position from the left (first, second, etc.). For example, replacing **1716385????** with **385????** results in 1-716-385-6440 reported as (local) 385-6440.
 - Trailing digits represented by a % in the search pattern are matched to a % in the replace pattern (if a % is not present in the replace pattern, the digits are dropped). For example, replacing **10222%** with % results in 10222-1-716-385-6440 (MCI) reported as (AT&T) 1-716-385-6440.
 - If there are less ?s to replace the search pattern, the right-most matches are discarded. For example, replacing **?385????** with **385????** results in 1-385-6440 reported as 385-1644. A way to correct this problem is to search for **?385%** and replace it with **385%**.
- a. To process a telephone number instead of its speed dialed code, enter the telephone number followed by %. For example, if in step 1f you entered **#3%** to identify “#3” as a speed dial code for AT&T’s equal access prefix, enter **10288%** now. Complete step 6a.
- b. To remove an off-net access code from the dialed number of a TIE call, simply enter %. For example, if in step 1g you entered **9%**, enter % now. Complete step 6a.
- c. To report the rate center of a private network call — “RNx????” in step 1h — enter the proper area code and exchange, followed by ?????. For example, if you entered **333????** to identify RNx code 333 and this code reaches the 716/385 area, enter **716385????**. Complete step 6a.
- d. To mask sensitive numbers identified in step 1i, replace the four right-most numbers by **9999**. For example, to mask calls to “3856440,” enter **3859999**. Complete step 6a.
6. If you entered a replace pattern for dialed digits, fill in substitute digits?
- a. Enter **Y** to store the pattern specified in step 5, which will then appear on reports as the dialed number.
 - b. Enter **N** to keep the number received from the switch. CAS will use the pattern in step 5 to process the call, while listing the original number on reports.

Completing the Call Record Collection Configuration Form

4

Use this form to identify the Call Detail Recording (CDR) format from the switch and other local information. Use the completed form for input into the CDR COLLECTION INFORMATION screen.

CALL RECORD COLLECTION INFORMATION	
Collection Device: DIRECT	
Call Record Format	<input checked="" type="checkbox"/> legendbase (MERLIN LEGEND, basic SMDR record) <input type="checkbox"/> legendisdn (MERLIN LEGEND, ISDN format with ANI)
Communication Type: 1	
Time Zone (Hours from Greenwich Mean Time)	<input type="checkbox"/> 4 hours (Atlantic) <input checked="" type="checkbox"/> 5 hours (Eastern) <input type="checkbox"/> 6 hours (Central) <input type="checkbox"/> 7 hours (Mountain) <input type="checkbox"/> 8 hours (Pacific) <input type="checkbox"/> 10 hours (Alaska) <input type="checkbox"/> 11 hours (Hawaii)
Daylight savings time observed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Direct PBX Interface Parameters:	PBX Port Baud Rate: 1200 PBX Port Data Bits: 8 PBX Port Stop Bits: 1 PBX Port Parity: None

Figure 4-1. Sample of a Completed Form

Copy the Call Record Collection Information form from Appendix A.

NOTE:

Shaded areas indicate default entries used for input into the CDR COLLECTION INFORMATION screen. Do not change these values.

Enter the following information:

- The Call Record Format. Select which software feature was programmed for the switch — “legendbase” for basic SMDR format or “legendisdn” for ISDN format. Consult the *Integrated Solution II System Manager's Guide* to use switch programming screens via IS-II to display this information.
- The time zone. Select the zone as a function of hours from Greenwich mean time.
- Whether or not daylight savings time is used at the site.

Completing the Organization Configuration Form

5

Use this form to identify the grouping of telephone extensions and their users within the hierarchy of the company organization.

Use the completed form for input into the EDIT COMPANY ORGANIZATION screen.

ORGANIZATION CONFIGURATION			Page <u>5</u> of <u>24</u>
DEPARTMENT <u>MARKETING</u>		File Name	
COST CENTER	EXT	PERSONNEL INFORMATION (Last Name, First Name)	
PUBLICATIONS	385	DATTA, MARIA	
	386	CAKEWELL, PATTY	
PROD-DOS	390	GORBEL, STEVE	
PROD-UNIX	391	CARDINAL, EVE	
PROD-HDWR	395	NEWHILL, DOUGLAS	
	397	DELIRA, JAMES	
	398	AMES, LINDA	

Figure 5-1. Sample of a Completed Form

CAS structures the company organization as a hierarchy — a "site" branches into "departments" and these, into "cost centers." Cost centers own the telephone "extensions" charged with the calls placed or received by "personnel" (extension users).

Obtain the list of all departments, its associated cost centers, extensions, and personnel. Prepare a separate Organization Configuration form for each department. Make as many copies of the blank form from Appendix A as required, making certain the pages are numbered.

1. Fill in the department name (1 to 15 characters) at the top of this form. We recommend naming departments as single words, using such separators as "-" or "_" if necessary — for example, "NEW-SALES" — because this speeds the sorting process for reports.

2. Fill in the name of a cost center (1 to 15 characters). As in department names, we recommend using single words — for example, "505-SALES."

If a department does not have cost centers, enter the department name under the cost center column.

3. List all extensions (1 to 4 digits in a MERLIN LEGEND switch) associated with this cost center under the column ext .
4. Add the name (0 to 39 characters) of the extension users (optional). We recommend entering users' names in the format *last name, first name* — for example, "DOE, JANE" — because directory listings print alphabetically.

If an extension has multiple users, enter the name that the CAS manager wants to appear in organization detail reports. Then add the names of the other extension users (these names will appear in directory listings, but not in organization reports).

5. Skip a line and repeat steps 2 to 4 until all cost centers, extensions, and personnel associated with the department are identified.

Completing the Report Schedules Form

6

Use this form to identify the run times, frequency, reporting period, and output parameters for up to 150 call accounting reports or system tables.

Use the completed form for input into the SCHEDULE REPORTS screen.

REPORT SCHEDULES		Page <u>1</u> of <u>3</u>								
Report Number	Report Code & Title ODS1 Organization Detail By Site #1									
1	Frequency: <input type="checkbox"/> Yearly <input type="checkbox"/> Bi-weekly <input type="checkbox"/> Hourly <input checked="" type="checkbox"/> Quarterly <input type="checkbox"/> Weekly <input type="checkbox"/> Once <input type="checkbox"/> Monthly <input type="checkbox"/> Daily <input type="checkbox"/> Every _____ days	Next run date: Time Date (HH:MM) (MM/DD/YY) 02:00 6/1/91								
	Output Method & Device: <input checked="" type="checkbox"/> Print compressed: <input type="checkbox"/> Print uncompressed: <input type="checkbox"/> Other (select one):	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">METHOD</th> <th style="width: 50%;">DEVICE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">P</td> <td style="text-align: center;">wide 570 1p</td> </tr> <tr> <td style="text-align: center;">P</td> <td style="text-align: center;">1p</td> </tr> <tr> <td colspan="2">P (pipe), R (redirect), A (append)</td> </tr> </tbody> </table>	METHOD	DEVICE	P	wide 570 1p	P	1p	P (pipe), R (redirect), A (append)	
METHOD	DEVICE									
P	wide 570 1p									
P	1p									
P (pipe), R (redirect), A (append)										
	Reporting Period (from Start of Period <u>5</u> / <u>1</u> / <u>91</u>) <input type="checkbox"/> Year <input type="checkbox"/> Bi-week <input type="checkbox"/> Hour <input checked="" type="checkbox"/> Quarter <input type="checkbox"/> Week <input type="checkbox"/> _____ days <input type="checkbox"/> Month <input type="checkbox"/> Day <input type="checkbox"/> All calls in storage (ignore Start of Period)									
	Increment Period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									

Figure 6-1. Sample of a Completed Form

Make as many copies of the Report Schedules form from Appendix A as required, making certain the pages are numbered.

1. Fill in the report number box, then enter the report code & title from table 6-1.

Table 6-1. Report Codes

Report Title (Call Accounting)	Code	Report Title (System Table)	Code
Abandoned Call Selection Report	A C R	Account Code Table	A C T
Account Code Detail	A C D	All Costing Tables	A L C T
Account Code Summary	A C S	All Directory Tables	A D T
All CDR Analysis Reports	A C D R	All Organization Tables	A O T
All Org. Sum. by Site (n=0 to 9)	O S S n	All System Tables	A S T
All Summary by Site Reports	A S B S	Call Reporting Configuration	C R C
Area Code Sum. Incoming Calls	N P A I	Carrier Information	C D R C
Area Code Sum. Outgoing Calls	N P A O	CDR Collection Information	C A R R
Busy Day Trunk Utilization Report	B D T	CDR Port Information	C P I
Call Type Report	C T Y P	Company Information	C O M P
City/State Rpt. Incoming Calls	C S I	Cost Adjustments	C A D J
City/State Rpt. Outgoing Calls	C S O	Department Directory	D D I R
Cost Ctr. Sum. by Site (n=0 to 9)	C C S n	Dialed Digit Processing Table	D D P
Date Report	D A T E	Extension Directory	E D I R
Dept. Sum. by Site (n=0 to 9)	D S S n	Holiday Table	H O L T
Duration Report	D U R A	Organization Table	O D I R
Extension Directory	E D I R	Personnel Directory	P D I R
Ext. Summary by Site (n=0 to 9)	E S S n	Scheduled Reports	S C H R
Org. Detail by Site (n=0 to 9)	O D S n	Selection Report Criteria	S R
Selection Report (nn=01 to 30)	S R n n	Site Information	S I T E
Site Report	S T R F	Telephone System Configuration	T S C
Time of Day Report	T I M E		
Trunk Group Report	T R N K		
Trunk Group Busy Hour Report	T B H		

2. Choose the frequency of the printouts.
3. Fill in the next run date of the first printout (CAS will maintain future run dates according to the frequency defined in step 2).
 - a. Enter the time in a 24-hour clock format (for example, 23:00). If you will be scheduling several call accounting reports, we recommend staggering the times to 30 minutes apart.
 - b. Enter the date (for example, 12/1/90). If you are scheduling a call accounting report, make certain that this date falls after the dates of the calls you wish to include in the report (see step 5).

4. Select the Output Method & Device. This is how and where to send the report output.
 - a. Users who plan printing on 80-column paper should select “print compressed” (the default setting).
 - b. Users who plan printing on 132-column paper may select “print uncompressed.”
 - c. To use other programming choices, select the appropriate method — pipe, redirect, or append — to the named device. The device is entered as a UNIX path-name, up to 45-characters long, of a dedicated printer port, an existing file or program. The pipe method allows additional pipes (|), redirects (>), and appends (>>) in the device definition.

5. For call accounting reports other than an Abandoned Calls or Selection Report, complete the following:
 - a. Select the reporting period and the start of period. This sets the range of dates to include calls in the report — for example, a month’s period starting 6/1/90 includes calls dated 6/1/90 to 6/30/90.
 - b. Choose whether or not to increment period on every run.
 - Check "yes" to advance the "start of period" automatically on the next run. Call accounting reports with a reporting period other than “all calls in storage” typically require incrementing periods, to include calls from the next period.
 - Check “no,” to use the same reporting period in every run.

Completing the Cost Adjustments Form

7

Use this form to specify how to adjust the cost of calls according to its call type — for example, to add taxes to local and long distance calls, to mark up (or discount) calls in reselling services to clients, or to correct the call duration reported by the switch.

Use the completed form for input into the EDIT COST ADJUSTMENTS screen.

COST ADJUSTMENTS							Page 1 of _____
CALL TYPE	TAX %	MARKUP %	SURCHARGE (CENTS)	MINIMUM CHARGE (CENTS)	MINIMUM DURATION (HH:MM:SS)	NETWORK CORRECTION (HH:MM:SS)	
IDDD	0	0	0	0	0:00:30	0:00:15	
INCOM	0	0	0	0	0:00:00	0:00:00	
IS-IL	0	0	0	0	0:00:30	0:00:15	
IS-OL	0	0	0	0	0:00:30	0:00:15	
IWTS0	0	0	0	0	0:00:30	0:00:15	
IWTS1	0	0	0	0	0:00:30	0:00:15	
IWTS2	0	0	0	0	0:00:30	0:00:15	
IWTS3	0	0	0	0	0:00:30	0:00:15	
IWTS4	0	0	0	0	0:00:30	0:00:15	
IWTS5	0	0	0	0	0:00:30	0:00:15	
IWTS6	0	0	0	0	0:00:30	0:00:15	
LATA	0	0	0	0	0:00:30	0:00:15	
LOCAL	0	0	0	0	0:00:30	0:00:15	
MTS	0	0	0	0	0:00:30	0:00:15	
OS-IL	0	0	0	0	0:00:30	0:00:15	
OS-OL	0	0	0	0	0:00:30	0:00:15	
SPCL	0	0	0	0	0:00:30	0:00:15	

Figure 7-1. Sample of a Completed Form

CAS includes a default Cost Adjustments table with the values shown in page 1 of the form in Appendix A. To change the default list, copy page 1 of the form and cross out the pre-printed value. Follow steps 2 to 4 below to enter the value indicated by the CAS administrator.

If you defined non-tariffed facilities in the *Telephone System Configuration* form, CAS automatically adds the facility name as a new call type with default values that result in neither duration nor cost adjustments. To enter new definitions, copy the blank page of the Cost Adjustment form from Appendix A and follow the instructions below to enter the value indicated by the CAS administrator.

1. Enter the call type. This is the name of a non-tariffed facility from the *Telephone System Configuration* form.
2. Enter values for the following items:
 - Tax (0 to 100 percent)
 - Markup (-100 to 100 percent)
 - Surcharge (-32000 to 32000 cents)
 - Minimum Charge (0 to 32000 cents)

CAS uses these values to compute the reported cost of a call, as the maximum of (a) or (b), below:

- (a) $(1 + \text{tax \%}) \times (\text{call cost} + (\text{call cost} \times \text{markup \%}) + \text{surcharge})$:
- (b) the minimum charge

3. Enter a Minimum Duration, that is, a length of time in hours, minutes, and seconds (0:00:00 to 8:53:20) that defines a valid call. SMDR records with a call duration lower than this value are discarded.
4. Enter a Network Correction, that is, a length of time in hours, minutes, and seconds (0:00:00 to 8:53:20) to subtract from the call duration. This accounts for the non-billable time between dialing a number and having the call answered.

Completing the Account Code Table Form

8

Use this form to identify account code numbers reported by the switch and to associate account names to code numbers.

Use the completed form for input into the EDIT ACCOUNT CODE TABLE screen.

ACCOUNT CODE TABLE				Page <u>1</u>
				of <u>1</u>
ACCOUNT CODE	ACCOUNT NAME	ACCOUNT CODE	ACCOUNT NAME	
10021	ABC TOYS			
10025	SPORTCRAFT			
10030	TRAINS LTD.			
10044	TOYS ETC.			
10052	GIFTS-GO-RND			

Figure 8-1. Sample of a Completed Form

Make as many copies of the Account Code Table form from Appendix A as required, making certain the pages are numbered. Then enter the following information:

- The Account Code — this is the 1- to15-digit code output by the MERLIN LEGEND switch corresponding to the client account, project code, etc. as programmed for the switch. Consult the *Integrated Solution II System Manager's Guide* to use switch programming screens via IS-II to display this information.
- The Account Name — one (1) to 20 alphanumeric characters, including blanks, corresponding to the name associated with the client account or project code.

Planning Forms



This appendix contains perforated, single-sided blank forms, suitable for copying. These are:

- Site Information
- Telephone System Configuration
- Dialed Digit Processing (2-page form)
- Call Record Collection Configuration
- Organization Configuration
- Reports Schedules
- Cost Adjustments (2-page form)
- Account Codes

SITE INFORMATION		
SITE NAME		
AREA CODE	EXCHANGE	
ADDRESS		
CITY	STATE	ZIP
CONTACT PERSON		
CONTACT NUMBER		

DIALED DIGIT PROCESSING							Page 1 of _____
SEARCH PATTERN		REPLACE PATTERN					Substitute Digits?
DIALED DIGITS	Trunk Group	Cost Method	RATE (cents)	Trunk Group	Call Type	DIALED DIGITS	
0%		T	0		ZERO+		N
011??????????%		T					N
102220%		T	0	9999	ZERO+	0%	Y
10222011%		T		9999		011%	Y
10???0%		T	0		ZERO+	0%	Y
10???011%		T				011%	Y
1800??????????%		C	0		SPCL		N
1900??????????%		M	50		SPCL		N
411		C	43		SPCL		N
5551212		C	43		SPCL		N
800??????????%		C	0		SPCL		N
900??????????%		M	50		SPCL		N
911		C	0		SPCL		N
976????		M	50		SPCL		N
?		D					
?11		C	0		SPCL		N
?411		C	43		SPCL		N
?5551212		C	43		SPCL		N
??		D					
???		D					
???5551212		C	60		SPCL		N
????		D					
????5551212		C	60		SPCL		N
?????		D					
??????		D					

CALL RECORD COLLECTION INFORMATION															
Collection Device: DIRECT															
Call Record Format <input type="checkbox"/> legendbase (MERLIN LEGEND, basic SMDR record) <input type="checkbox"/> legendisdn (MERLIN LEGEND, ISDN format with ANI)															
Communication Type: 1															
Time Zone (Hours from Greenwich Mean Time) <table style="margin-left: 20px; border: none;"> <tr><td><input type="checkbox"/></td><td>4 hours (Atlantic)</td></tr> <tr><td><input type="checkbox"/></td><td>5 hours (Eastern)</td></tr> <tr><td><input type="checkbox"/></td><td>6 hours (Central)</td></tr> <tr><td><input type="checkbox"/></td><td>7 hours (Mountain)</td></tr> <tr><td><input type="checkbox"/></td><td>8 hours (Pacific)</td></tr> <tr><td><input type="checkbox"/></td><td>10 hours (Alaska)</td></tr> <tr><td><input type="checkbox"/></td><td>11 hours (Hawaii)</td></tr> </table>	<input type="checkbox"/>	4 hours (Atlantic)	<input type="checkbox"/>	5 hours (Eastern)	<input type="checkbox"/>	6 hours (Central)	<input type="checkbox"/>	7 hours (Mountain)	<input type="checkbox"/>	8 hours (Pacific)	<input type="checkbox"/>	10 hours (Alaska)	<input type="checkbox"/>	11 hours (Hawaii)	Daylight savings time observed? <div style="text-align: center;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </div>
<input type="checkbox"/>	4 hours (Atlantic)														
<input type="checkbox"/>	5 hours (Eastern)														
<input type="checkbox"/>	6 hours (Central)														
<input type="checkbox"/>	7 hours (Mountain)														
<input type="checkbox"/>	8 hours (Pacific)														
<input type="checkbox"/>	10 hours (Alaska)														
<input type="checkbox"/>	11 hours (Hawaii)														
Direct PBX Interface Parameters: <table style="margin-left: 20px; border: none;"> <tr><td>PBX Port Baud Rate:</td><td>1200</td></tr> <tr><td>PBX Port Data Bits:</td><td>8</td></tr> <tr><td>PBX Port Stop Bits:</td><td>1</td></tr> <tr><td>PBX Port Parity:</td><td>None</td></tr> </table>		PBX Port Baud Rate:	1200	PBX Port Data Bits:	8	PBX Port Stop Bits:	1	PBX Port Parity:	None						
PBX Port Baud Rate:	1200														
PBX Port Data Bits:	8														
PBX Port Stop Bits:	1														
PBX Port Parity:	None														

REPORT SCHEDULES		Page _____ of _____												
Report Number <input style="width: 50px; height: 20px;" type="text"/>	Report Code & Title													
	Frequency: <input type="checkbox"/> Yearly <input type="checkbox"/> Bi-weekly <input type="checkbox"/> Hourly <input type="checkbox"/> Quarterly <input type="checkbox"/> Weekly <input type="checkbox"/> Once <input type="checkbox"/> Monthly <input type="checkbox"/> Daily <input type="checkbox"/> Every _____ days	Next run date: Time (HH:MM) Date (MM/DD/YY)												
	Output Method & Device: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">METHOD</th> <th style="width: 25%;">DEVICE</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Print compressed:</td> <td style="text-align: center;">P</td> <td style="text-align: center;">wide 570 1p</td> </tr> <tr> <td><input type="checkbox"/> Print uncompressed:</td> <td style="text-align: center;">P</td> <td style="text-align: center;">1p</td> </tr> <tr> <td><input type="checkbox"/> Other (select one):</td> <td colspan="2">P (pipe), R (redirect), A (append)</td> </tr> </tbody> </table>			METHOD	DEVICE	<input type="checkbox"/> Print compressed:	P	wide 570 1p	<input type="checkbox"/> Print uncompressed:	P	1p	<input type="checkbox"/> Other (select one):	P (pipe), R (redirect), A (append)	
	METHOD	DEVICE												
<input type="checkbox"/> Print compressed:	P	wide 570 1p												
<input type="checkbox"/> Print uncompressed:	P	1p												
<input type="checkbox"/> Other (select one):	P (pipe), R (redirect), A (append)													
	Reporting Period (from Start of Period ____ / ____ / ____) <input type="checkbox"/> Year <input type="checkbox"/> Bi-week <input type="checkbox"/> Hour <input type="checkbox"/> Quarter <input type="checkbox"/> Week <input type="checkbox"/> _____ days <input type="checkbox"/> Month <input type="checkbox"/> Day <input type="checkbox"/> All calls in storage (ignore Start of Period)													
	Increment Period? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Report Number <input style="width: 50px; height: 20px;" type="text"/>	Report Code & Title													
	Frequency: <input type="checkbox"/> Yearly <input type="checkbox"/> Bi-weekly <input type="checkbox"/> Hourly <input type="checkbox"/> Quarterly <input type="checkbox"/> Weekly <input type="checkbox"/> Once <input type="checkbox"/> Monthly <input type="checkbox"/> Daily <input type="checkbox"/> Every _____ days	Next run date: Time (HH:MM) Date (MM/DD/YY)												
	Output Method & Device: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">METHOD</th> <th style="width: 25%;">DEVICE</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Print compressed:</td> <td style="text-align: center;">P</td> <td style="text-align: center;">wide 570 1p</td> </tr> <tr> <td><input type="checkbox"/> Print uncompressed:</td> <td style="text-align: center;">P</td> <td style="text-align: center;">1p</td> </tr> <tr> <td><input type="checkbox"/> Other (select one):</td> <td colspan="2">P (pipe), R (redirect), A (append)</td> </tr> </tbody> </table>			METHOD	DEVICE	<input type="checkbox"/> Print compressed:	P	wide 570 1p	<input type="checkbox"/> Print uncompressed:	P	1p	<input type="checkbox"/> Other (select one):	P (pipe), R (redirect), A (append)	
	METHOD	DEVICE												
<input type="checkbox"/> Print compressed:	P	wide 570 1p												
<input type="checkbox"/> Print uncompressed:	P	1p												
<input type="checkbox"/> Other (select one):	P (pipe), R (redirect), A (append)													
	Reporting Period (from Start of Period ____ / ____ / ____) <input type="checkbox"/> Year <input type="checkbox"/> Bi-week <input type="checkbox"/> Hour <input type="checkbox"/> Quarter <input type="checkbox"/> Week <input type="checkbox"/> _____ days <input type="checkbox"/> Month <input type="checkbox"/> Day <input type="checkbox"/> All calls in storage (ignore Start of Period)													
	Increment Period? <input type="checkbox"/> Yes <input type="checkbox"/> No													

COST ADJUSTMENTS						Page 1 of _____
CALL TYPE	TAX %	MARKUP %	SURCHARGE (CENTS)	MINIMUM CHARGE (CENTS)	MINIMUM DURATION (HH:MM:SS)	NETWORK CORRECTION (HH:MM:SS)
IDDD	0	0	0	0	0:00:30	0:00:15
INCOM	0	0	0	0	0:00:00	0:00:00
IS-IL	0	0	0	0	0:00:30	0:00:15
IS-OL	0	0	0	0	0:00:30	0:00:15
IWTS0	0	0	0	0	0:00:30	0:00:15
IWTS1	0	0	0	0	0:00:30	0:00:15
IWTS2	0	0	0	0	0:00:30	0:00:15
IWTS3	0	0	0	0	0:00:30	0:00:15
IWTS4	0	0	0	0	0:00:30	0:00:15
IWTS5	0	0	0	0	0:00:30	0:00:15
IWTS6	0	0	0	0	0:00:30	0:00:15
LATA	0	0	0	0	0:00:30	0:00:15
LOCAL	0	0	0	0	0:00:30	0:00:15
MTS	0	0	0	0	0:00:30	0:00:15
OS-IL	0	0	0	0	0:00:30	0:00:15
OS-OL	0	0	0	0	0:00:30	0:00:15
SPCL	0	0	0	0	0:00:30	0:00:15
WATS0	0	0	0	0	0:00:30	0:00:15
WATS1	0	0	0	0	0:00:30	0:00:15
WATS2	0	0	0	0	0:00:30	0:00:15
WATS3	0	0	0	0	0:00:30	0:00:15
WATS4	0	0	0	0	0:00:30	0:00:15
WATS5	0	0	0	0	0:00:30	0:00:15
WATS6	0	0	0	0	0:00:30	0:00:15
ZERO+	0	0	0	0	0:00:30	0:00:15

