SX-50™ PABX

Application Guide
for
The Lodging
Industry

MITEL®

COMMUNICATIONS ANSWERS
THAT WORK...FOR YOU.

$SX\text{-}50^{TM}$ $PABX$

$HOTEL/MOTEL$

$APPLICATION$ $GUIDE$

NOTICE

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*W*elcome to the SX-50 Hotel/Motel Application Guide...

The Hotel/Motel is a unique environment, with its own set of problems and requirements. This guide has been written to provide valuable tips and real solutions to these problems. It does not describe all of the features of the SX-50 PABX. However, it does present some interesting ideas and shows how easily the system can increase staff efficiency and guest satisfaction.

The guide describes a selection of applications which may be used in the Hotel/Motel environment. Each application, with the exception of the ARS application, is presented on a 2-page spread. Text describing the problem, the solution and the benefits is on the left-hand page. The description is enhanced by illustrations found on the right-hand page.

The information is presented in the form of a scenario which considers a typical Hotel/Motel environment. The hotel is named the Deb-On-Ayre Inn. It's owned by two people you will come to know and love, John and Debbie Ayre.

Let's introduce John and Deb:

John Ayre

Age: 35

Education: BA Business Studies

Traits: Pleasant disposition

Good business sense

Tight with money

Knows what he wants

Deborah Ayre

Age: Undisclosed

Education: B.A. Psychology

Traits: Good people person

Well organized, efficient

Makes Customer Service her top priority

The story goes ... For some years John and Deb had owned the JD Gas Bar when, one day the Shady Rest Motor Hotel on the opposite side of the road was put on the market. The hotel had:

- 84 guest rooms
- 5 executive suites
- 2 conference rooms
- Restaurant
- Laundry
- Workshop
- Convenience store
- Outdoor pool and adjoining spa.

John had always thought the Shady Rest had great potential, but he knew it had a reputation for poor service. Seizing the opportunity, John and Deb purchased the hotel, renamed it the Deb-On-Ayre Inn and set about refurbishing it. Knowing the value of customer service, John and Deb looked at the areas of the hotel's operation which could be improved. One glaring problem was that the existing key system lacked essential features and was overloaded. John and Deb soon realised that, as the hub of the hotel's operations, the telephone system must be reliable, and must provide certain essential features. Features which provide 'value added' convenience to guests, and which assist management to control billing and administration. After extensive research, John and Deb chose to replace the existing key system with a MITEL SX-50 PABX.

The SX-50 PABX was chosen because it was feature rich and it was able to meet John and Deb's minimum requirements (and more). They were:

- Standard telephones in each of 84 guest rooms spread over 3 floors (Application #12)
- Telephones in 5 executive suites located approximately 5,500 feet from the hotel (Application #11).
- Fully featured attendant console in the Main Reception area.
- Auxiliary attendant position provided by a SUPERSET 4 set (Application #15).
- Full control of the long distance calls made by guests and staff (Application #1).
- Comprehensive telephone billing reports (Station Message Detail Recording, SMDR) with optional accounting add-on (Application #4).
- Dedicated trunks for incoming and outgoing calls at the Convenience store and the Restaurant (Application #5).
- Security point at the Swimming pool (Application #8).
- A telephone line to John and Deb's home (located approximately 5 miles from the hotel). This provides John and Deb with access to all of the features and facilities of the SX-50 PABX (Application #11).
- A telephone line to John's gas bar (Application #11).

The following two pages list the Trunk Plan and Numbering Plan at the Deb-On-Ayre Inn. A diagram of the SX-50 Configuration is provided in Figure 1.

The fifteen applications for the Deb-On-Ayre Inn are grouped, categorized and numbered in Figure 2. The application number also appears in the title of each 2-page spread; this provides you with a means of quick reference to the pertinent information.

TRUNK PLAN AT THE DEB-ON-AYRE INN:

Trunk Group 1 -	Local Calls
Trunk Group 2 -	HOBIC for Long Distance
Trunk Group 3 -	Convenience Store
Trunk Group 4 -	Restaurant
Trunk Group 5 -	HOBIC Trunk with Message Registration

PAN-HL-00

NUMBERING PLAN AT THE DEB-ON-AYRE INN:

Reception

0 - Auxiliary Attendant

1 - Front Desk

Facilities

2 - Laundry (Housephone)

3 - Restaurant

4 - Kitchen & Room Service

Guest Rooms:

7100 - 7127	Guest rooms on the 1st floor
7200 - 7227	Guest rooms on the 2nd floor
7300 - 7327	Guest rooms on the 3rd floor
7403 - 7407	Executive suites

Miscellaneous:

7128 - Housephone in the Elevator

7129 - Portable telephone

7130 - Conference Room 1

7131 - Conference Room 2

7400 - Administration Office

7401 - John and Deb's home

7402 - The JD Gas Bar

7408 - Workshop

7409 - Convenience Store

7132 - Contact Loop 1

7228 - Contact Loop 2

7328 - Contact Loop 3

7498 - RMATS

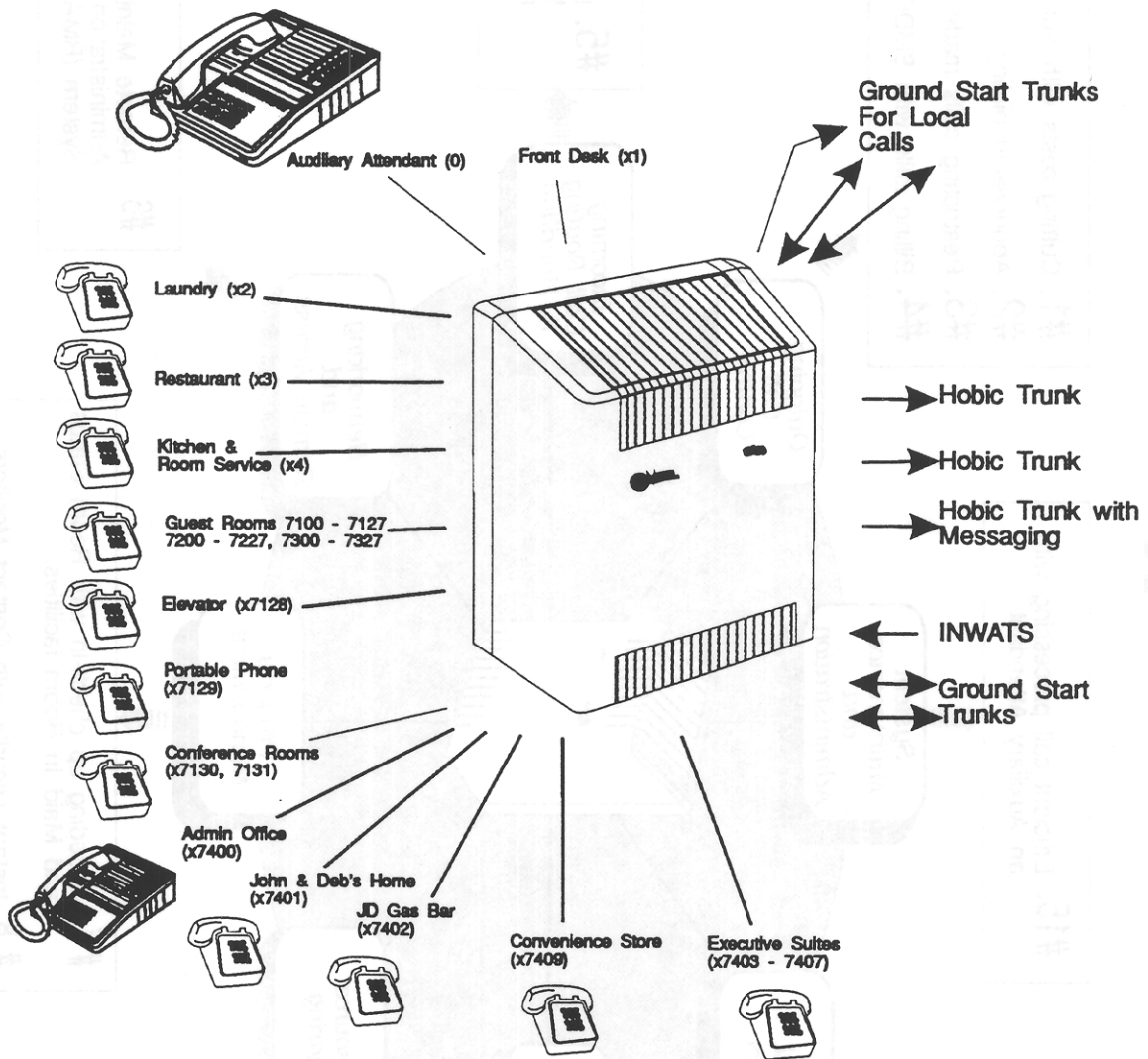## Published Numbers:

(205) 223-5111	Main Reception - LDN1
(205) 223-5112	Dedicated Trunk to Restaurant - DIL
(205) 223-5113	Dedicated Trunk to Convenience Store - DIL
1-800-223-5122	INWATS (Reservations) - DIL

Figure 1. SX-50 Configuration

Auxiliary Attendant (0)

Front Desk (x1)

Ground Start Trunks
For Local
Calls

Laundry (x2)

Restaurant (x3)

Kitchen &
Room Service (x4)

Guest Rooms 7100 - 7127
7200 - 7227, 7300 - 7327

Elevator (x7128)

Portable Phone
(x7129)

Conference Rooms
(x7130, 7131)

Admin Office
(x7400)

John & Deb's Home
(x7401)

JD Gas Bar
(x7402)

Convenience Store
(x7409)

Executive Suites
(x7403 - 7407)

Hobic Trunk

Hobic Trunk

Hobic Trunk with
Messaging

INWATS

Ground Start
Trunks

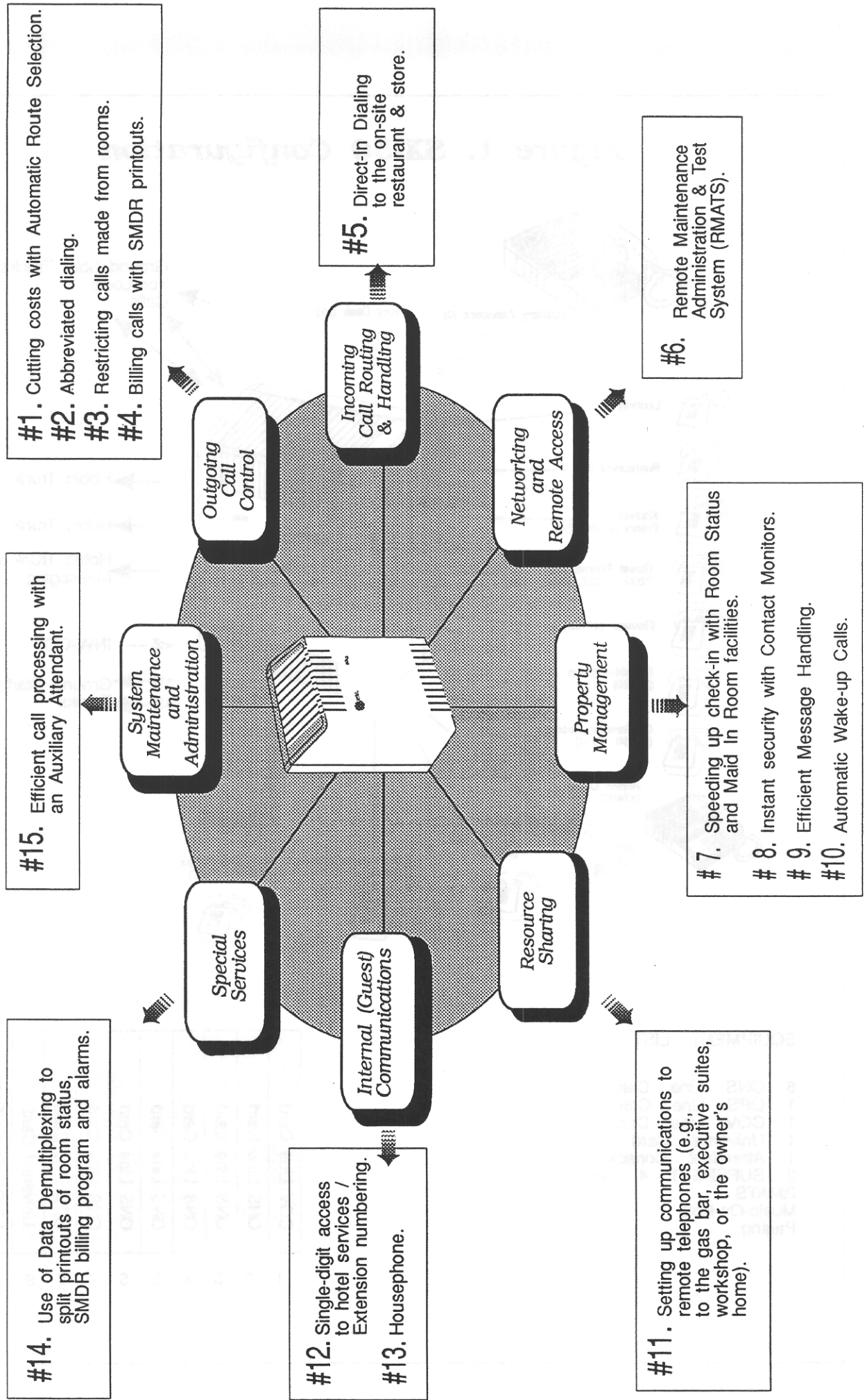## EQUIPMENT LIST

6 ONS Line Cards
1 OPS Line Card
1 COV Line Card
1 Universal Card
1 Attendant Console
2 SUPERSET 4 Sets
RMATS
Music-On-Hold
Paging

COV Line Card	ONS Line Card	ONS Line Card	ONS Line Card	ONS Line Card	ONS Line Card	ONS Line Card	OPS Line Card	Universal Card	LS/GS Trunk Card
1	2	3	4	5	6	7	8	9	10

Figure 2
Hotel/Motel Market Applications

Outgoing Call Control

Incoming Call Routing & Handling

Networking and Remote Access

System Maintenance and Administration

Property Management

Special Services

Internal (Guest) Communications

Resource Sharing

#1. Cutting costs with Automatic Route Selection.
#2. Abbreviated dialing.
#3. Restricting calls made from rooms.
#4. Billing calls with SMDR printouts.

#5. Direct-In Dialing to the on-site restaurant & store.

#6. Remote Maintenance Administration & Test System (RMATS).

#7. Speeding up check-in with Room Status and Maid In Room facilities.
#8. Instant security with Contact Monitors.
#9. Efficient Message Handling.
#10. Automatic Wake-up Calls.

#11. Setting up communications to remote telephones (e.g., to the gas bar, executive suites, workshop, or the owner's home).

#12. Single-digit access to hotel services / Extension numbering.
#13. Housephone.

#14. Use of Data Demultiplexing to split printouts of room status, SMDR billing program and alarms.

#15. Efficient call processing with an Auxiliary Attendant.

Hotel/Motel Applications

Problem

The Ayre's want to control the telephones in the Deb-On-Ayre Inn so that:

(1)   Guests can place either local or long distance calls, employees can place local calls only, and management have no call restrictions.

(2)   Calls are placed using the correct route: local calls on Trunk Group 1 (non-chargeable calls); long distance calls, operator-assisted or credit card calls on Trunk Group 2 (HOBIC Trunks with call billing capability).

(3)   Emergency 911 calls can be placed at all times.

(4)   Employees in the convenience store must use Trunk Group 3 (and are the only extensions with access to this Trunk Group) and employees in the restaurant must use Trunk Group 4 (and are the only extensions with access to this Trunk Group).

(5)   A surcharge is added to each 976 call made from the hotel.

(6)   Guests can use the digit 8 or the digit 9 to gain access to an outside line.

Solution

Set up an ARS plan for the Inn that includes guests, employees and management, as follows:

- All employees, including those of the gasbar and workshop are placed in Routing Class of Service 1 (RCS1).

- Guest and Conference Rooms are placed in Routing Class of Service 2 (RCS2).

- Management is placed in Routing Class of Service 3 (RCS3).

- The convenience store and restaurant have Routing Class of Service 0 (ARS does not Apply). Employees of the store and restaurant are restricted from Trunk Group 1, Trunk Group 2 and Trunk Group 5 by their COS.

ARS ALLOW/DENY TABLE

	RCS1	RCS2	RCS3
Local Calls	Allow	Allow	Allow
Long Distance	Deny	Allow	Allow
Credit Cards	Deny	Allow	Allow
900 Service	Deny	Allow	Allow
Operator-Assisted	Deny	Allow	Allow
800 Service	Allow	Allow	Allow
91 (or 81) + own area code	Reroute	Reroute	Reroute
78, 79	Deny	Deny	Deny
911	Allow	Allow	Allow
9911, 8911	Allow	Allow	Allow
976 Calls	Deny	Allow	Allow

THE FOLLOWING TYPES OF CALLS ARE HANDLED IN THE AUTOMATIC ROUTE SELECTION PLAN:

Note: The ARS plan accepts Trunk Access Code 8 or 9. This solves the Ayre's sixth problem.

Local Calls and 800 Service - 9, 8, 91800, 81800

- These calls can be made via CO Trunks in Trunk Group 1.

- All three RCS groups are allowed to use this trunk group at any time of the day.

- The convenience store and restaurant are restricted from this trunk group (and must use their own trunks to place local or 800 calls).

- ARS instructs the system to drop the first digit.

Note: It is important to include 91800 and 81800 calls in the ARS plan; otherwise they will be routed over the HOBIC trunk as long distance, chargeable calls.

Long Distance, Credit Card, Operator-Assisted, 900 Service - 91, 81, 80, 90

- Employees in RCS1 cannot make these calls.

- Guests (RCS2) can place these calls at any time of the day, but they must use the HOBIC Trunk (for call costing purposes). If this trunk is busy, a guest must try their call at another time.

- Management (RCS3) can also place these calls at any time of the day using the HOBIC line, but if the HOBIC line is busy, ARS will allow the call to be placed using the Local CO Trunks. If the Local CO Trunk is used, expensive route warning tone will be heard.

- ARS instructs the system to drop the first digit from these calls.

Emergency Calls Using the Correct First Digit - 8911, 9911

- All three RCS groups are allowed to place these calls at any time of the day.

- ARS instructs the system to drop the first digit of the call. The system will then try Trunk Group 1, Trunk Group 4, Trunk Group 3 and finally Trunk Group 2 in that order, to outpulse the 911 digits.

- This solves the Ayre's third problem.
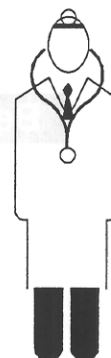
Emergency Calls Without the Correct Trunk Access Code - 911

This satisfies a case where the person is flustered during an emergency and forgets to dial the trunk access code before dialing 911.

- All three RCS groups are allowed to place these calls at any time of the day.

- ARS follows the same routing as described above, but in this case, the first digit is not dropped.

Local Call Dialed as Long Distance - 91+ Own Area Code , 81+ Own Area Code

Often in the Hotel/Motel environment, a guest will dial long distance for a call that is really local (in the local billing zone). ARS does not need to handle this type of call, but it is easy to program into the ARS plan, and provides excellent customer service.

- All three RCS groups are allowed to place these calls at any time of the day.

- ARS instructs the system to drop the first five digits and then route the call out on Trunk Group 1.

Restricted Trunk Access Codes - 78, 79

- 78 is the Trunk Access Code for Trunk Group 3. All three RCS groups are denied access to this group, except for 911 calls. Since telephones in the convenience store are not in the ARS plan, they are allowed to use this Trunk Group.

- 79 is the Trunk Access Code for Trunk Group 4. All three RCS groups are denied access to this group, except for 911 calls. Since telephones in the restaurant are not in the ARS plan, they are allowed to use this Trunk Group.

- This solves the Ayre's fourth problem and provides a method to keep the hotel, store and restaurant businesses separate.
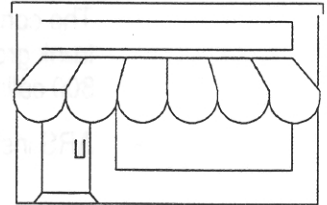
976 Dial-In Services - 81+ Area Code +976, 91+ Area Code +976, 91976, 81976, 9976, 8976

- RCS1 is denied from making these types of calls.

- RCS2 and RCS3 are allowed to make 976 calls but they must be made using Trunk Group 5 (a HOBIC trunk which includes Message Registration). If Trunk Group 5 is busy, the call must be re-tried later. If the trunk is not busy, the system drops the first digit from the call before routing it out on Trunk Group 5.

- Through Message Registration, Trunk Group 5 adds a surcharge to each 976 call, thus solving John and Deb's fifth problem.

Benefits

○ **The ARS plan as described, addresses the requirements of John and Deb:**

- All users can place Local and 800 calls on CO Trunks without charge.

- Long Distance, Credit Card, Operator-Assisted and 900 Service calls are allowed by guests but they must be routed on the HOBIC trunk so that call billing can be performed. Employees are not allowed to place these calls; abbreviated dial numbers are set up to satisfy their long distance needs (see Application #2).

- There should not be a problem accessing a free trunk during an emergency. Even when the person forgets to dial the correct trunk access code, the system will recognize a 911 call and route it as soon as possible. In the unlikely event that all trunk groups are busy, the caller must wait for a free trunk.

- Trunk Groups 3 and 4 are reserved for extensions in the convenience store and restaurant, respectively. ARS ensures that these businesses will be able to maintain their independence.

- Guests can place 976 calls but ARS routes each call over the HOBIC trunk with Message Registration. This will add a surcharge to each call, allowing the hotel to make a profit from the service.

- Guests who dial long distance for a call in the local billing zone will be rerouted through the local trunk. John and Deb did not state this as a problem, but it is easily accomplished by ARS, and is the type of hassle-free, efficient customer service which reflects well on the Deb-On-Ayre Inn.

o **Flexible, Day/Night Programming.** Although John and Deb did not require different ARS plans for Day and Night Service, ARS can easily accommodate such needs. For example, a Hotel may require that outgoing calls cannot be placed from employee's telephones after hours.

PAN-HL-01

COMMAND 700 – ARS DIGIT COMPARISON TABLE

Entry# 001 -800 a b c	TOD# 01-45 d e	f	Dialed Digits String 0-9, #, *; maximum of 36 digits g --->	m
0 0 1	0 1	[	9	]
0 0 2	0 1	[	8	]
0 0 3	0 1	[	9 1 8 0 0	]
0 0 4	0 1	[	8 1 8 0 0	]
0 0 5	0 2	[	9 1	]
0 0 6	0 2	[	8 1	]
0 0 7	0 2	[	9 0	]
0 0 8	0 2	[	8 0	]
0 0 9	0 3	[	9 9 1 1	]
0 1 0	0 3	[	8 9 1 1	]
0 1 1	0 4	[	9 1 1	]
0 1 2	0 5	[	9 1 2 0 5	]
0 1 3	0 5	[	8 1 2 0 5	]
0 1 4	0 6	[	9 1 9 7 6	]
0 1 5	0 6	[	8 1 9 7 6	]
0 1 6	0 6	[	9 9 7 6	]
0 1 7	0 6	[	8 9 7 6	]
0 1 8	0 6	[	9 1 2 0 1 9 7 6	]
.		[	.	]
.		[	.	]
.			.	
1 6 1	0 6	[	9 1 9 1 9 9 7 6	]
1 6 2	0 6	[	8 1 2 0 1 9 7 6	]
.		[	.	]
.			.	
3 0 5	0 6	[	8 1 9 1 9 9 7 6	]
3 0 6	4 5	[	7 8	]
3 0 7	4 5	[	7 9	]
.				
.				
.				
.				
8 0 0				

COMMAND 7_01_ ARS TIME-OF-DAY

	Per # 00 -23 Hr	Start 00 -59 Min	701 --> 745 Route List for RCS1	RCS2	RCS3
a b c	d e	f g h	i j k	l m o
1	0 0	0 0	0 0 1	0 0 1	0 0 1

COMMAND 7_02_ ARS TIME-OF-DAY

a b c	d e	f g h	i j k	l m o
1	0 0	0 0	0 0 0	0 0 2	0 0 3

COMMAND 7_03_ ARS TIME-OF-DAY

a b c	d e	f g h	i j k	l m o
1	0 0	0 0	0 0 4	0 0 4	0 0 4

COMMAND 7_04_ ARS TIME-OF-DAY

a b c	d e	f g h	i j k	l m o
1	0 0	0 0	0 0 5	0 0 5	0 0 5

COMMAND 7_05_ ARS TIME-OF-DAY

a b c	d e	f g h	i j k	l m o
1	0 0	0 0	0 0 6	0 0 6	0 0 6

COMMAND 7_06_ ARS TIME-OF-DAY

a b c	d e	f g h	i j k	l m o
1	0 0	0 0	0 0 0	0 1 0	0 1 0

COMMAND 7_45_ ARS TIME-OF-DAY

a b c	d e	f g h	i j k	l m o
1	0 0	0 0	0 0 0	0 0 0	0 0 0

COMMAND 750 – ARS ROUTE LIST TABLE   COMMAND 751 ROUTE TABLE   COMMAND 752 – DIGIT MOD TABLE

Route List # 001-200			Route 1st			Number 2nd			For 3rd			Choice 4th		
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
0	0	1	0	0	1									
0	0	2	0	0	2									
0	0	3	0	0	2	0	0	0	0	0	0	0	0	1
0	0	4	0	0	1	0	0	3	0	0	4	0	0	2
0	0	5	0	0	5	0	0	6	0	0	7	0	0	9
0	0	6	0	0	8									
0	0	7												
0	0	8												
0	0	9												
0	1	0	0	1	0									
2	0	0												

Route # 001-200			Trk Grp 1-6	Digit Mod # 001-100		
a	b	c	d	e	f	g
0	0	1	1	0	0	1
0	0	2	2	0	0	1
0	0	3	3	0	0	1
0	0	4	4	0	0	1
0	0	5	1	0	0	3
0	0	6	3	0	0	3
0	0	7	4	0	0	3
0	0	8	1	0	0	2
0	0	9	2	0	0	3
0	1	0	5	0	0	1
2	0	0				

Digit Mod'n # 001-100			Quantity Digits to Delete 00-26		Digits to Insert max. 26			
a	b	c	d	e	f	g · · · · l	m
0	0	1	0	1	[		]
0	0	2	0	5	[		]
0	0	3	0	0	[		]
1	0	0			[		]

Refer to Section
MITL9104-091-220-NA,
Automatic Route Selection
for full details.

Problem

When employees or hotel guests dial long strings of digits to reach frequently-called destinations this wastes time, introduces the possibility of error, and - despite the frequency with which the telephone number is dialed - is hard to remember.

Solution

Make use of the ABBREVIATED DIAL feature on the SX-50 PABX. This substitutes a short, easy-to-remember 2- or 3-digit Index number for the full-length number to be dialed. With 2-digit Index numbers, up to 90 entries are available; with 3-digit Index numbers, 900 entries are available.

The SX-50 PABX can store frequently-used numbers of up to 32 digits (including special function codes such as 'Pauses', 'Wait for Dial Tone' and 'Wait for Manually Dialed Digits') for access via Abbreviated Dial numbers. Each Abbreviated Dial number consists of the Abbreviated Dial Access Code (default = 55) and the Index Number (10 to 99 or 100 to 999, depending on programming - *Command 100, Features Selection 1, bit h*).

The Abbreviated Dial Numbers can be arranged into nine groups, with each group containing 10 (or 100) telephone numbers. Access to each group of numbers is controlled by the user's Class of Service (COS) group. *See Commands 121 - 129, Register 5.* By default, every COS has access to all Abbreviated Dial Numbers. Refer to Section MITL9104-091-105-NA, Abbreviated Dialing for further details.

In MS51-MR2, Abbreviated Dial numbers can be programmed to bypass ARS, using *Command 100, Register 13, bit J* (0=Disable ARS Bypass ; 1=Enable ARS Bypass).

Benefits

o **Profit from the SX-50 PABX.** Set up abbreviated dial numbers from guest rooms or the hotel lobby to local businesses such as taxis, airports, pizza parlors or tour operators. This provides a valuable time-saving service for guests, the businesses benefit and the Hotel/Motel can charge a fee to the businesses for the referral service.

o **Quick, cost-efficient access to suppliers.** Employees can dial frequently-used suppliers using abbreviated dial numbers. If the Abbreviated Dial number's output digit string appears in the Automatic Route Selection (ARS) Digit Comparison Table, the calling set's Routing Class of Service determines the cheapest route for the call. Also, Abbreviated Dialing is very flexible; some blocks of Abbreviated Dial Numbers can be programmed to be accessed by all users (e.g., a common Abbreviated Dial Number to head office), whereas other blocks of Abbreviated Dial Numbers can be programmed to be accessed by certain users only (e.g., employees in the convenience store or restaurant can have quick access to their own suppliers).

o **Limiting telephone abuse.** Many Hotels/Motels have a number of employees whose duties involve frequent telephone contact with distant vendors or out-of-state customers. In such situations, the chance for telephone abuse is greater than normal. Abbreviated dialing allows management to control this abuse by assigning individual speed call codes to regular long distance contacts, and restricting other long distance calls in an employee's RCS (i.e., Toll Control on a station-by-station basis).

An example of Abbreviated Dial Programming at the Deb-On-Ayre Inn:

At the Deb-On-Ayre Inn, the hotel uses 2-digit Abbreviated Dial numbers 10-49, for frequently-used suppliers and for guest conveniences such as abbreviated dial access to Bob's Taxi Service (226-TAXI). Bob's telephone number is programmed as Abbreviated Dial Number 15 (programming shown on the right) and Bob is charged a fee for the referral service.

Abbreviated Dial numbers 50-69 are allocated to the Convenience Store and Abbreviated Dial numbers 70-99 are allocated to the Restaurant. This allows these businesses to quickly dial their own suppliers.

```
15  9  *1  226  8294
```

Index Number
Trunk Group Access Code
5 Second Pause
Office Code
Subscriber Code
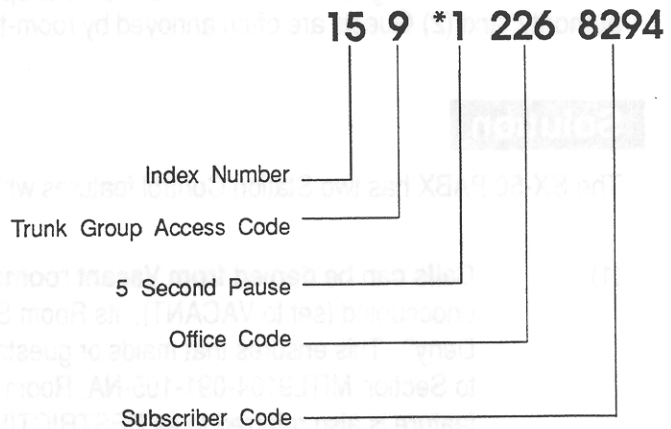
How Guests can use Abbreviated Dial numbers:

Bob's Taxi Service can be reached by dialing the Abbreviated Dial Access code (default = 55), followed by the 2-digit Index number 15.

This information is written on each hotel room telephone overlay for the guest's convenience.

For:	Dial:
Taxi	5515

PAN-HL-02
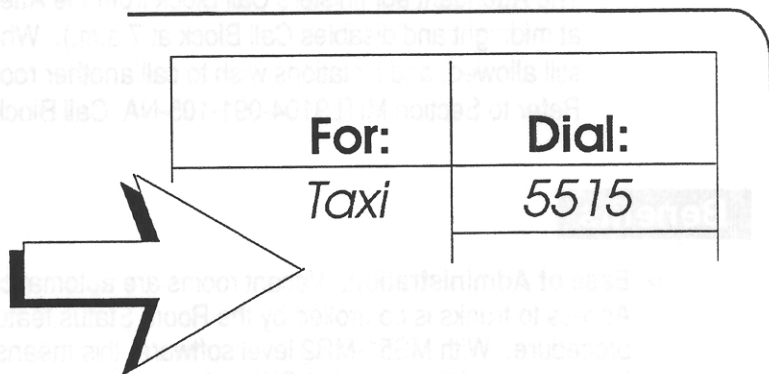
Problem

The Deb-On-Ayre Inn has two problems in the area of unauthorized telephone usage: (1) When the conference room or guest rooms are vacant, the telephones in these rooms can be used without proper authority; and (2) Guests are often annoyed by room-to-room calls.

Solution

The SX-50 PABX has two Station Control features which can help to solve these problems:

(1)   **Calls can be denied from Vacant rooms using the ROOM STATUS feature.** When a room is unoccupied (set to VACANT), its Room Status code changes automatically to "Trunk Access Deny". This ensures that maids or guests cannot use the telephone to place outside calls. Refer to Section MITL9104-091-105-NA, Room Status, or refer to Application # 7 for more details. This feature is also referred to as RESTRICTIVE STATION CONTROL.

(2)   **Calls between guest rooms can be denied after hours using the CALL BLOCK feature.** This feature inhibits calls between telephones which have Call Block enabled in their COS. Any attempt to place a call between two telephones with this restriction, results in the caller receiving reorder tone. If, for example, COS 1 (all guest rooms) has Call Block enabled, and COS 2 (various hotel services and the attendants) has Call Block disabled, then a telephone in COS 1 CANNOT call another telephone within COS 1 (another room), but CAN call telephones in COS 2.

The Attendant administers Call Block from the Attendant Console (e.g., enables Call Block at midnight and disables Call Block at 7 a.m.). When Call Block is enabled, access to trunks is still allowed, and if stations wish to call another room, the Attendant can set up the call. Refer to Section MITL9104-091-105-NA, Call Block, for more details.

Benefits

o   **Ease of Administration.** Vacant rooms are automatically prohibited from making trunk calls. Access to trunks is controlled by the Room Status feature as part of the check-in/check-out procedure. With MS51-MR2 level software, this means that when a guest checks in, trunk access is set to one of the three ALLOW options, and when the guest checks out, trunk access is automatically set to DENY (when the room is VACANT). No further action is required, making the feature very easy to administer.

o   **Flexible Control.** Each extension user is allowed to place their outside calls using Routing Class of Service 1, Routing Class of Service 2, Routing Class of Service 3, or denied. This ensures that the call goes out on the correct trunk, as specified in the ARS plan. The choice of Routing Class of Service can be dependant on the customer's method of payment; e.g., guests paying by cash = Deny or Allow1, guests paying by credit card = Allow2 or Allow3, guests requiring special services = Allow3.

Denying Calls from Vacant Rooms:

When Room 210 is Vacant, calls are denied from Ext. 7210. This means that employees and guests cannot use Ext. 7210 to place outside calls.

The Vacant status appears on the Attendant Console display, as shown in the top diagram.

A guest paying by credit card checks into Room 210. As shown in the second diagram, the Attendant changes the Room Status from Vacant to Occupied, and toggles the TRK-BAR softkey to Allow2. The guest can now place any calls which are allowed for Routing Class of Service 2.

```
┌─────────────────────────────────────────┐
│  EXT - 7210          VACANT/CLEAN/DENY   │
│                                          │
│  OCCUP  NOT-CLN  OUT-SERV       NEW-EXT  │
└─────────────────────────────────────────┘
    ▭       ▭        ▭        ▭       ▭
```

```
┌─────────────────────────────────────────┐
│  EXT - 7210         OCCUP/NOT-CLN/ALLOW2 │
│                                          │
│  VACANT   CLEAN  OUT-SERV  TRK-BAR  NEW-EXT │
└─────────────────────────────────────────┘
    ▭       ▭        ▭        ▭       ▭
```
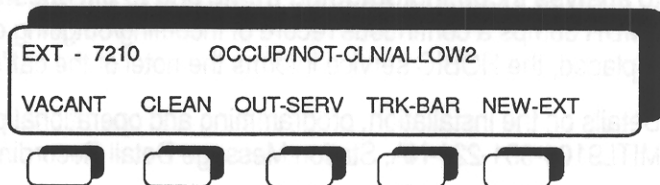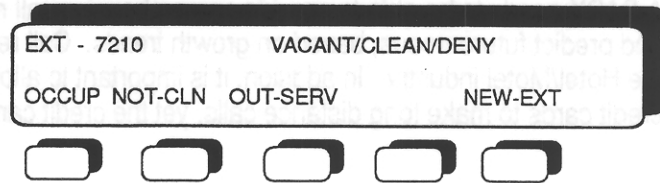
Blocking Room-to-Room Calls:

All rooms at the Deb-On-Ayre Inn have Call Block enabled in their COS, and all guest rooms are placed in the same COS group. Each day, the SX-50 system is programmed to block room-to-room calls between 1 a.m. and 6 a.m.
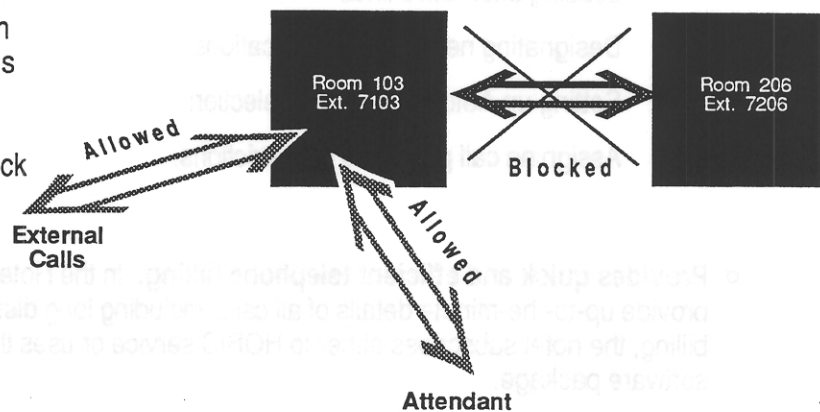
This means that at 2 a.m., Jerry Juvenile in Room 103 cannot disturb Mrs. Jones in Room 206 with the familiar words *"Is your fridge running?"*

Calls to/from the Attendant and external trunk calls are allowed, and will progress as usual. This ensures that the Attendant can contact Jerry, should there be an emergency situation during the night.

PAN-HL-03

Problem

A PABX needs to be able to provide comprehensive call reports to analyse and resolve traffic bottlenecks and predict future needs, based on growth trends. Call reports are also required for call billing purposes in the Hotel/Motel industry. In addition, it is important to allow certain guests to use their personal telephone credit cards to make long distance calls, yet the credit card number must be kept confidential.

Solution

Use the SX-50 STATION MESSAGE DETAIL RECORDING feature in combination with HOBIC service to analyse incoming/outgoing traffic and to bill guests for chargeable calls placed from the hotel. SMDR dumps a continuous record of incoming/outgoing calls to a printer or PC. After each chargeable call is placed, the HOBIC service informs the hotel of the call's cost. This cost is added to the guest's account.

Details on the installation, programming and operational parameters of SMDR are provided in Section MITL9104-091-221-NA, Station Message Detail Recording.

Benefits

o **Helps to cut costs.** The SMDR data can be used to make informed decisions on:

- Purchasing more trunks or equipment
- Leasing alternative lines
- Designating new speed call locations
- Setting up Automatic Route Selection
- Assigning call privileges or restrictions.

o **Provides quick and efficient telephone billing.** In the Hotel/Motel industry, printed call records provide up-to-the-minute details of all calls, including long distance. For accurate call costing and billing, the hotel subscribes either to HOBIC service or uses their own auxiliary call costing software package.

o **SMDR Credit Card security (For 0+ dialing).** To ensure that guests' personal telephone credit card numbers are kept confidential, the system SMDR Credit Card option is enabled *(Commands 151-156, Register 4)*. This feature suppresses the credit card number from the SMDR printout. **Note:** Limit the number of credit card calls to be allowed at the same time, as each call ties up two of the five available DTMF receivers. Refer to Section MITL9104-091-105-NA, SMDR - Credit Card Calling for more details.

Credit Card Calling:

At the Deb-On-Ayre Inn, the SMDR Credit Card option is enabled on the SX-50 PABX. This allows guests to use their personal credit cards to place telephone calls. For security purposes, credit card numbers do not appear on the SMDR printout.

John Doe
|..|..........|...|

RS-232
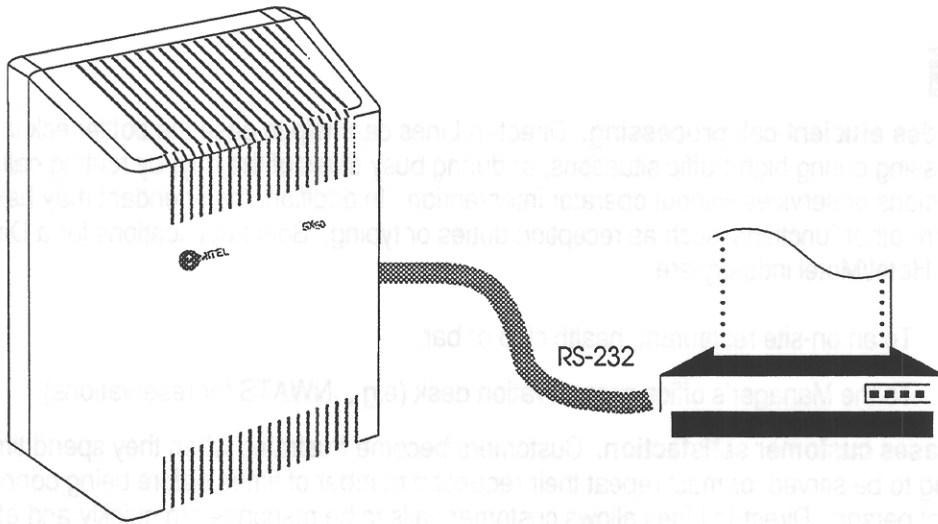
Sample SMDR Data at the Deb-On-Ayre Inn:

```
0         1         2         3         4         5         6         7         8
1234567890123456789012345678901234567890123456789012345678901234567890123456789 0
```

Example 1 - 2-Party Outgoing Call
-06/03 11:42   00:08:30   7400 9   16035912120   T002

On June 3rd at 11:42 AM, station 7400 dialed 9, accessed CO Trunk number 2,
and dialed 1-603-591-2120.
The conversation lasted 8 minutes, 30 seconds. Note the -Long Call Indicator at the start of the line.

Example 2 - 2-Party Incoming Call
-06/14 03:27P 00:03:55   T003   *009   7122

On June 14th at 3:27 PM, trunk 3 rang the console and asked to speak with station 7122. The Attendant took 9 seconds to answer the call. The conversation lasted 3 minutes, 55 seconds.

PAN-HL-04

Problem

The Main Attendant at the Front Desk routes a large percentage of calls to the on-site restaurant, for people wishing to make dinner reservations. This detracts from the Attendant's main functions of processing guest calls and handling the reception area. In the highly competitive Hotel/Motel environment, delaying customer service can mean lost business.

Solution

Assign DIRECT-IN LINE capability to the restaurant's extension by following the instructions given in Section MITL9104-091-105-NA, Direct-In Lines.

Benefits

- **Provides efficient call processing.** Direct-In Lines can help to ease the bottleneck in call processing during high-traffic situations, or during busy times of the day, by routing calls to specific extensions or services without operator intervention. In addition, the attendant may have time to perform other functions, such as reception duties or typing. Some applications for a Direct-In Line in the Hotel/Motel industry are:

  - To an on-site restaurant, health club or bar.

  - To the Manager's office or reservation desk (e.g., INWATS for reservations).

- **Increases customer satisfaction.** Customers become frustrated when they spend time on hold waiting to be served, or must repeat their request a number of times before being connected to the correct person. Direct-In Lines allows customer calls to be responded to quickly and efficiently.

- **Night Direct-In Lines.** At night (when the PABX is switched to Night Service), an alternate answer point can be defined, such as a security station or ring group. At the Deb-On-Ayre Inn, the Night Answer Point is the security desk, with a line appearance on the office manager's SUPERSET 4™ set.

Direct-In Lines at the Deb-On-Ayre Inn:

INWATS
1-800-223-5122

TO

AUXILIARY

ATTENDANT

Direct-In Line
(205) 223-5112
(TG4)

TO/FROM

RESTAURANT

Direct-In Line
(205) 223-5113
(TG3)

TO/FROM

CONVENIENCE

STORE
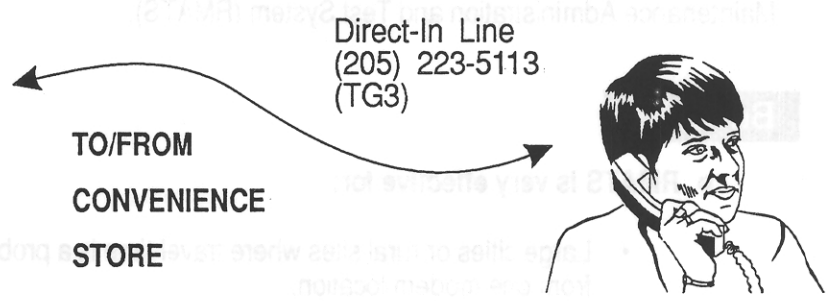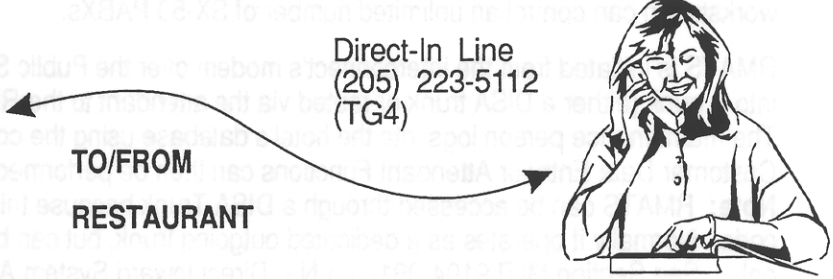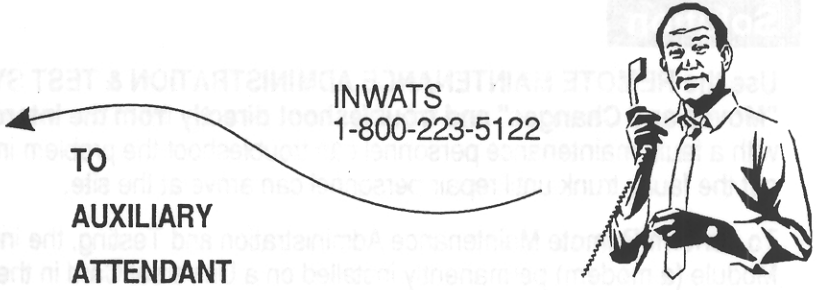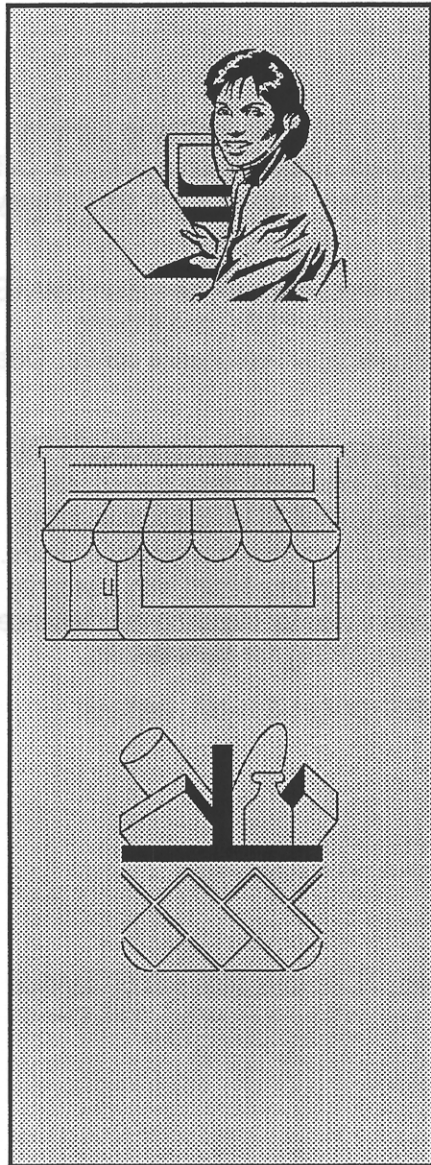
PAN-HL-05

Problem

The interconnect company often wastes time travelling to and from sites for "Moves and Changes" and system testing. John and Deb are unhappy about the length of time it takes to get service at the Deb-On-Ayre Inn for simple Class of Service changes, or extension renumbering.

Solution

Use the REMOTE MAINTENANCE ADMINISTRATION & TEST SYSTEM (RMATS) facility to perform "Moves and Changes" and troubleshoot directly from the interconnect office. When a customer calls with a fault, maintenance personnel can troubleshoot the problem immediately, stop an alarm, and/or busy out the faulty trunk until repair personnel can arrive at the site.

To perform Remote Maintenance Administration and Testing, the interconnect company needs an RMATS Module (a modem) permanently installed on a Universal Card in the customer's PABX, and a dumb terminal (a Personal Computer with VT100 emulator) and modem in the remote maintenance centre. One workstation can control an unlimited number of SX-50 PABXs.

RMATS is initiated from the interconnect's modem over the Public Switching Telephone Network (PSTN) into a trunk (either a DISA trunk or routed via the attendant to the RMATS extension; default = ext. 498). The maintenance person logs into the hotel's database using the correct 10-digit RMATS security code. Customer Data Entry or Attendant Functions can then be performed from the remote maintenance centre. **Note:** RMATS can be accessed through a DISA Trunk because this trunk is programmed with a security code. Normally it operates as a dedicated outgoing trunk, but can be accessed for incoming maintenance only. See Section MITL9104-091-105-NA, Direct Inward System Access (DISA), for more details.

Full installation and programming details are described in Section MITL9104-091-301-NA, Remote Maintenance Administration and Test System (RMATS).

Benefits

- o **RMATS is very effective for:**

  - Large cities or rural sites where travel time is a problem. Numerous sites can be handled from one modem location.

  - Emergency busy-outs of faulty equipment.

  - Routine Moves and Changes.

- o **Increase Profits.** Interconnects depend on ongoing customer service requirements as a source of revenue. Maintenance and administration can often be performed without having to go to the site, making the service more cost-effective. When travelling time is eliminated, more service jobs can be completed in a shorter time. Even when on-site repairs are required, RMATS helps to ensure that personnel take the equipment and parts needed to fix a customer's specific problem; this can save wasted trips.

- o **Increased customer satisfaction.** Down-time is frustrating and costly for hotel owners and staff. RMATS can help to solve customer problems quickly and efficiently.

Using RMATS to perform Routine Maintenance at the Deb-On-Ayre Inn:

RS-232

Modem

PC or
Dumb Terminal

NETWORK

RMATS
Ext. 7498

Trunk
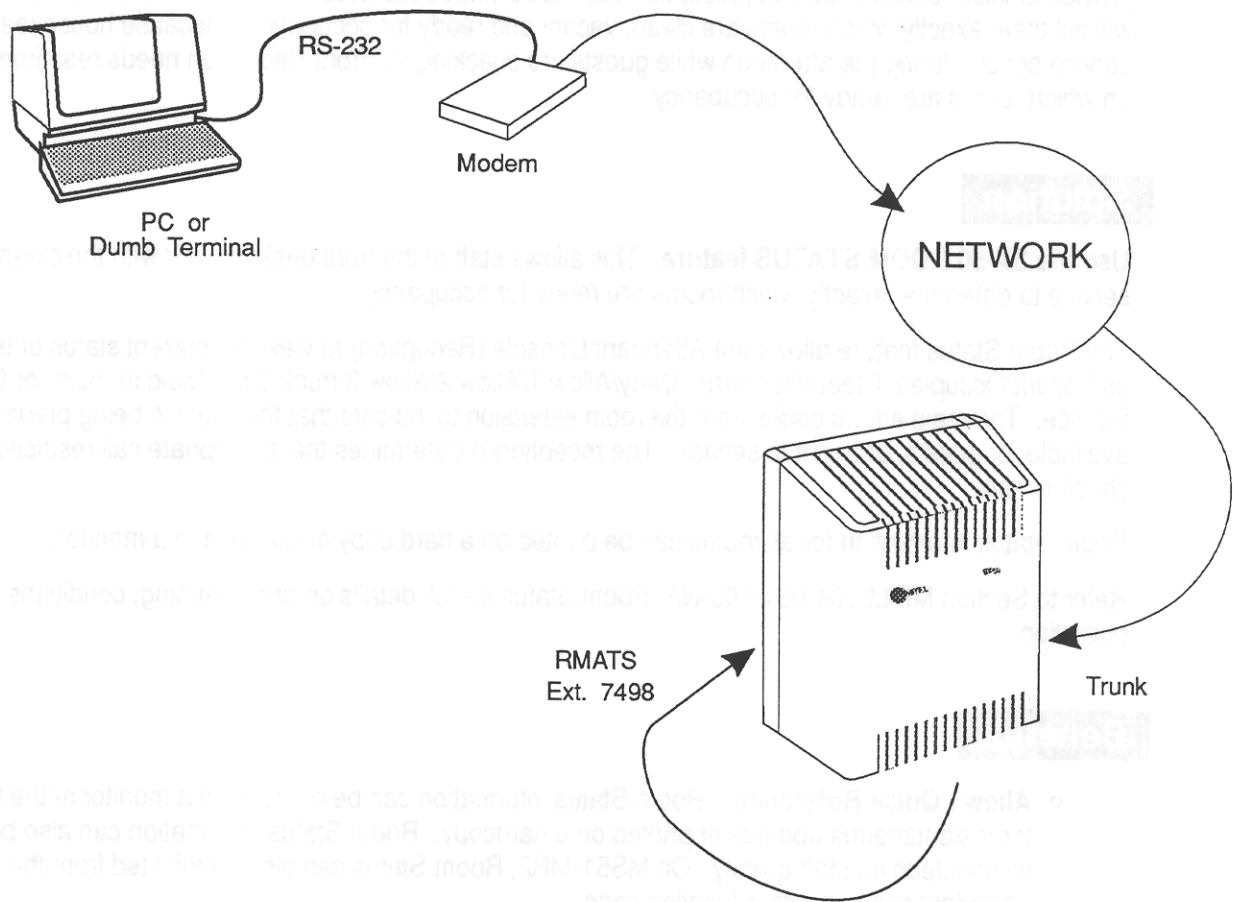
Connection to the Sx-50 PABX at the Deb-On-Ayre Inn is set up through the network in the normal manner. The Attendant switches the call to the RMATS extension. After a valid security code is entered, the maintenance person can perform maintenance functions from the maintenance terminal.

PAN-HL-06

Problem

The Ayres know that speedy check-in service can leave a lasting impression with guests. But in order to provide efficient check-in service, reception staff need immediate access to room status information, which will tell them exactly which rooms are clean, vacant and ready for occupancy. Because housekeeping service occurs during the afternoon while guests are checking in, Front Reception needs real-time updates on which rooms are ready for occupancy.

Solution

Use the SX-50 ROOM STATUS feature. This allows staff at the front desk to work with the cleaning service to determine exactly which rooms are ready for occupancy.

The Room Status feature allows the Attendant Console (Reception) to view the current status of each room as Vacant/Occupied, Clean/Not clean, Deny/Allow 1/Allow 2/Allow 3 trunk calls, Maid in room, or Out of Service. The maid enters codes from the room extension to indicate that the room is being prepared, is available for guests, or is out of service. The receptionist determines the appropriate call restrictions at check-in time.

Room Status information for all rooms can be printed on a hard copy or dumped to a monitor.

Refer to Section MITL9104-091-105-NA, Room Status for full details on programming, conditions and operation.

Benefits

o **Allows Quick Reference.** Room Status information can be dumped to a monitor at the front desk for instantaneous updates or printed on a hardcopy. Room Status information can also be used to locate cleaning staff quickly. On MS51-MR2, Room Status can also be initiated from the Auxiliary Attendant position with a function code.

o **Can select outgoing call options on a room-by-room basis.** The Attendant can use the Room Status feature to deny certain rooms from making outside calls. For example:

  - During the visit of an athletic team or school group.

  - Families with children in adjoining rooms may request this for their children's rooms.

  - Hotel guests that pay by cash.

o **Staff Efficiency.** At midnight, each occupied room's status is automatically changed to NOT CLEAN. When the cleaning staff arrive in the morning, the hotel manager can print out the Room Status to assign cleaning duties.

Room Status Display:

As shown on the diagrams to the right, Room Status is displayed on the Attendant Console at Front Reception.

Staff responsible for checking guests in and out of the Deb-On-Ayre Inn can view the status of a room and change it as required. For example, when a guest checks into Room 210, the Room Status is changed from Vacant/Clean/Deny to Occupied/Not Clean/Allow2.

```
EXT - 7210              VACANT/CLEAN/DENY

OCCUP  NOT-CLN   OUT-SERV           NEW-EXT
```

```
EXT - 7210        OCCUP/NOT-CLN/ALLOW2

VACANT    CLEAN  OUT-SERV  TRK-BAR  NEW-EXT
```
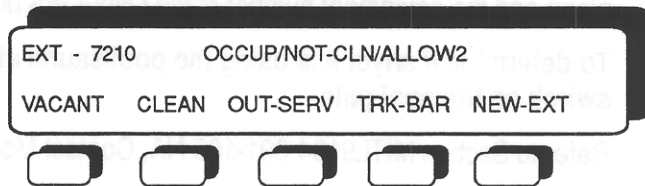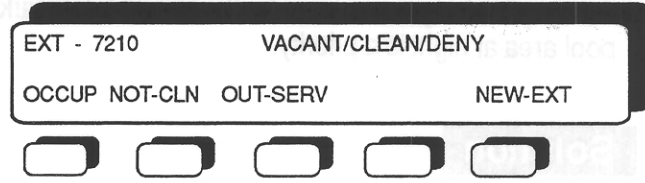
Room Status Printout:

Current Room Status can be displayed on a monitor or printed out on hard-copy. The sample printout on the right shows the morning Room Status of guest rooms on the first floor (Exts. 7100-7127). *Note: This printout is intended as a sample only; it is not possible to print out the status of one floor of guest rooms. An actual printout would show all guest rooms in the hotel that have the same status.*

This information can be used to assign daily cleaning duties. For example, maids will be assigned to those rooms in the Vacant/Not Clean and Occupied/Not Clean categories.

This information can also be used to locate cleaning staff. For example, when a maid begins cleaning Room 7109, the status updates to 7109-MAID.

```
20/04/89  07:00  ROOM - STATUS
VACANT/CLEAN
7100-DENY   7101-DENY  7102-DENY  7104-DENY
7105-DENY   7107-DENY  7108-DENY  7110-DENY
VACANT/NOT CLEAN
7103-DENY  7106-DENY   7109-DENY   7127-DENY
OCCUPIED/CLEAN
7111    7112    7113  7114  7119
OCCUPIED/NOT CLEAN
7115    7116   7117  7118
7120   7123   7124   7125
7126
OUT OF SERVICE
7121-DENY    7122-DENY
```
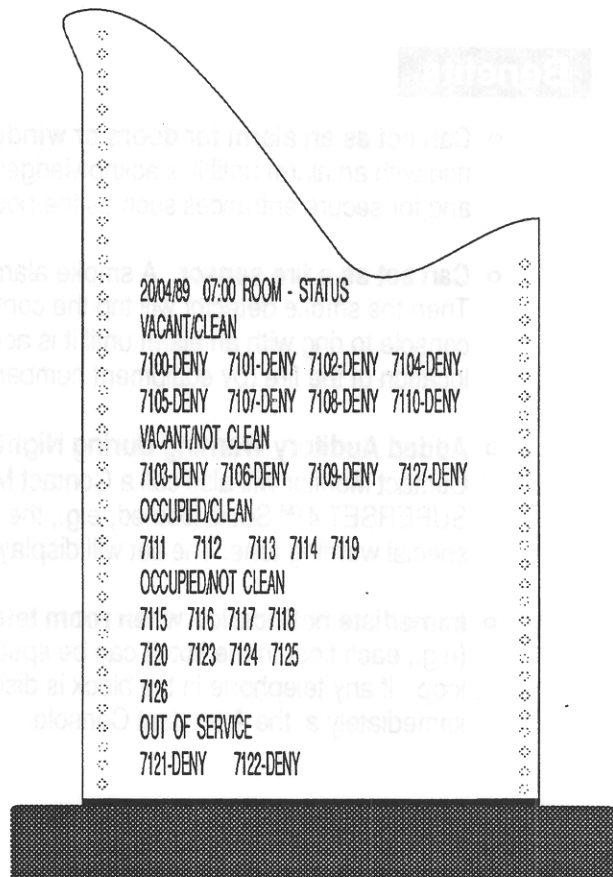
PAN-HL-07

Problem

Security is always a concern for the Hotel/Motel market. At the Deb-On-Ayre Inn, secure access to the pool area at night is a priority.

Solution

Configure unused ONS/OPS Line circuits into a basic security package by configuring a telephone as a CONTACT MONITOR point. This causes the SX-50 PABX to monitor switch contact closures so that when a switch is closed (off-hook) across Tip and Ring, the PABX rings the Attendant console with an alarm and the equipment number of the ONS/OPS port.

To determine if anyone is using the pool/sauna after hours, an OPS circuit is wired to a contact switch on the pool gate.

Refer to Section MITL9104-091-105-NA, Contact Monitor for full details on programming and operation.

Note: A circuit programmed as a Contact Monitor cannot be used for an extension.

Benefits

o **Can act as an alarm for doors or windows.** Any momentary contact will cause the console to ring with an alarm until it is acknowledged by the attendant. This is useful for doors and windows, and for secure entrances such as the pool/sauna door.

o **Can act as a fire sensor.** A smoke alarm with a relay may be connected in the restaurant kitchen. Then the smoke detector will trip the contact monitor when sounding. This causes the Attendant console to ring with an alarm until it is acknowledged by the attendant, and tells the Attendant the location of the fire (by equipment number).

o **Added Auditory Warning During Night Service.** During Night Service, if programmed, the Contact Monitor will also call a Contact Monitor Night Answer point (another location where a SUPERSET 4™ Set is located; e.g., the Auxiliary Attendant or Administration office) and deliver a special warning tone. The set will display the alarm and equipment number.

o **Immediate notification when room telephones are removed.** Room telephones within a block (e.g., each floor in the hotel) can be specially wired to loop all black/yellow pairs and form a contact loop. If any telephone in the block is disconnected, the loop is broken and an alarm is raised immediately at the Attendant Console.

Using the Contact Monitor as a Door Alarm:

The pool gate at the Deb-On-Ayre Inn is one area where Contact Monitors are used for security purposes.

An OPS circuit is wired to the contact switch on the gate. During Night Service, the SX-50 PABX monitors switch contact closures so that when the switch is closed (off-hook), the PABX rings the Attendant console with an alarm and displays the equipment number of Ext. 7129.

This immediately alerts security staff that someone is trying to enter the pool area after hours.

Contact Monitor on Patio Gate

Pool
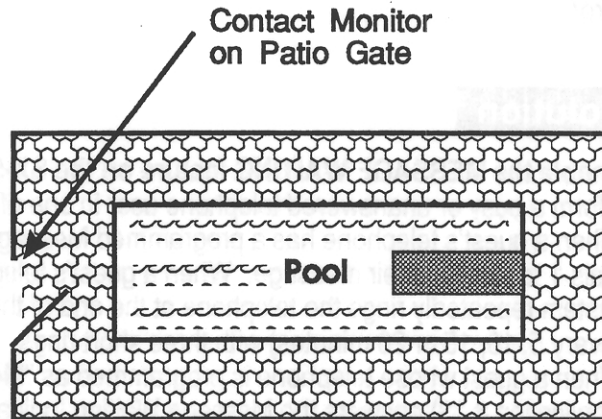
Creating a Contact Loop:

All guest room telephones on each floor of the Deb-On-Ayre Inn have been specially wired to loop the black/yellow pairs.

The loops are as follows:

Loop 1 - Ext. 7132 (1st floor)
Loop 2 - Ext. 7228 (2nd floor)
Loop 3 - Ext. 7328 (3rd floor).

A battery and relay is placed in each circuit. When all telephones in the loop are plugged in, the battery energizes the relay. This keeps the contacts open. If a telephone is removed, the circuit is broken, the relay collapses and this shorts the Contact Monitor.

Bk   Yl   Bk   Yl   Bk   Yl

Bk   Yl   Bk   Yl

Battery

To Tip/Ring of Contact Monitor
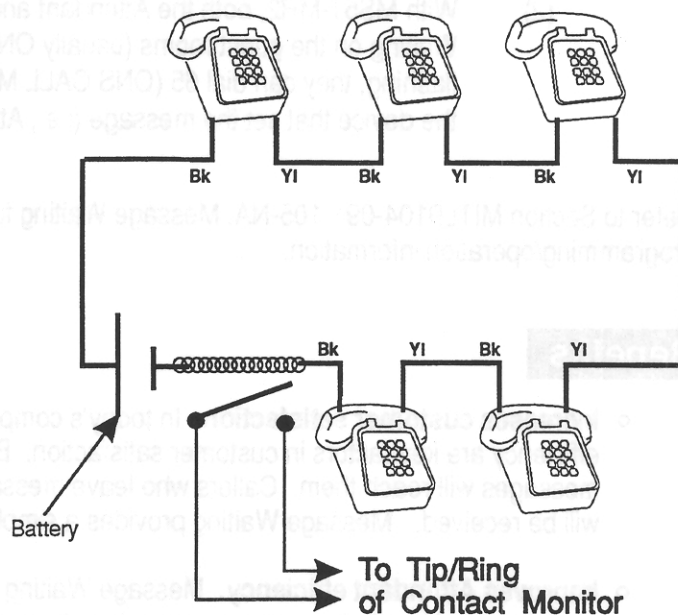
An alarm is then raised at the Attendant Console and the loop's equipment number is displayed. Although the exact room cannot be determined, hotel staff can tell on which floor the problem occurred.

PAN-HL-08

Problem

Accurate and efficient messaging is a vital link in business communications. Unfortunately the task of taking messages and delivering them to the appropriate guest is extremely time-consuming and prone to error.

Solution

Enable the MESSAGE WAITING feature on the SX-50 PABX. This feature permits the Attendant to inform a busy or unanswered telephone user in one of two ways that there is a message waiting for them. When a guest's telephone has a programmed Message Waiting Lamp, the lamp flashes until the guest dials 1 to retrieve their message. When a guest's telephone does not have a Message Waiting Lamp, the system repeatedly rings the telephone at the end of the programmed Message Waiting Indication interval (every 5, 10, 15 or 20 minutes) with three short rings. This option is called "Message Waiting With Bells". When a guest whose telephone is programmed as "Message Waiting and 30 sec Housephone" (see Application # 13) answers the Message Waiting Indication within 30 seconds, the telephone automatically calls the Attendant.

Notes: (1)   If Message Waiting is enabled with "Bells", Message Waiting Indication should be set to "During Day Service Only", so guests will not be disturbed with ringing during the night.

(2)   With MS51-MR2, both the Attendant and Auxiliary Attendant can set/cancel Message Waiting on the guest rooms (usually ONS). When guests see their MSG Waiting lamp flashing, they can dial 65 (ONS CALL Message Waiting Device). This automatically calls the device that set the message (i.e., Attendant Console or Auxiliary Attendant).

Refer to Section MITL9104-091-105-NA, Message Waiting for further conditions and programming/operation information.

Benefits

o **Increases customer satisfaction.** In today's competitive Hotel/Motel market, reliability and efficiency are key factors in customer satisfaction. Business guests want to feel confident that all messages will reach them. Callers who leave messages want to feel confident that their messages will be received. Message Waiting provides a simple-to-use, cost-effective solution.

o **Improves Attendant efficiency.** Message Waiting reduces the time spent delivering messages as guests retrieve their own messages when they return to their rooms. Message waiting indications (flashing lamp) ensure that guests will not forget to check for messages.

Message Handling at the Deb-On-Ayre Inn:

The Attendant takes a message for Mr. Smith in Room 321 and sets Message Waiting.
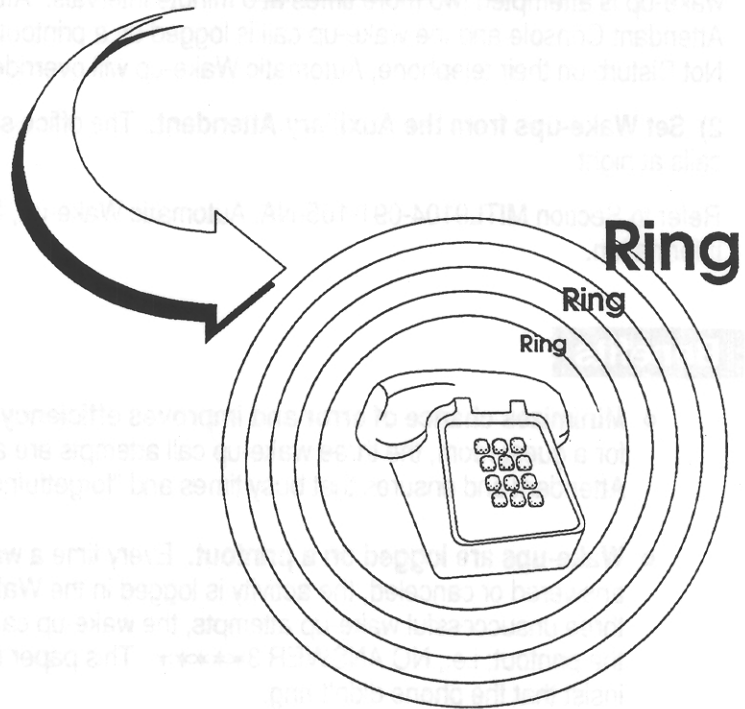
Ring

Ring

Ring

When Mr. Smith returns to his room, his telephone rings to notify him that a message is waiting. Mr. Smith dials "1" to retrieve his message.

PAN-HL-09

Problem

Wake-up calls are an essential service of any Hotel/Motel. At the Deb-On-Ayre Inn, this service is provided manually by the Attendant. This method is susceptible to error because calls are required when the Attendant/Receptionist is busy with guest check-out. Sometimes the Attendant forgets, or is too busy to re-try a room not answering on the first attempt. Guests regularly complain that they do not receive their wake-up calls at the requested time.

Solution

1) Set up the AUTOMATIC WAKE-UP feature on the SX-50 PABX. This provides automatic wake-up service on a room-by-room basis. When a wake-up call is answered, the guest receives either a special tone or music (if Music On Hold is enabled, and a music source is connected).

If the wake-up attempt is unsuccessful because the guest's telephone is busy or not answered, the wake-up is attempted two more times at 5 minute intervals. After three attempts an alarm is raised at the Attendant Console and the wake-up call is logged on a printout and abandoned. If a guest has placed Do Not Disturb on their telephone, Automatic Wake-up will override it.

2) Set Wake-ups from the Auxiliary Attendant. The office staff/Night Answer Point can set wake-up calls at night.

Refer to Section MITL9104-091-105-NA, Automatic Wake-up, for full programming and operation information.

Benefits

- **Minimizes chance of error and improves efficiency.** Once a wake-up request is programmed for a guest room, the three wake-up call attempts are automatic. This reduces the workload for the Attendant and ensures that busy times and "forgetfulness" do not degrade the wake-up service.

- **Wake-ups are logged on a printout.** Every time a wake-up call is set up, changed, rung, answered or canceled, the activity is logged in the Wake-up printout, if printing is enabled. After three unsuccessful wake-up attempts, the wake-up call is abandoned and marked with five *'s on the printout; i.e., NO ANSWER 3*****. This paper record can help to calm irate guests who insist that the phone didn't ring.

- **Unanswered Wake-ups raise an Alarm at the Console.** If a wake-up call is not answered after the third attempt, the Alarm LED on the Attendant Console flashes, the extension number is displayed and the console bell sounds. This immediately alerts staff to a possible emergency situation.

Sample Automatic Wake-up Printout:

It can be seen from the sample printout on the right, that the guest at Ext. 7100 answered their wake-up call at 7:30 a.m. on November 20th.

At 7:45 a.m., a wake-up call was placed to Ext. 7104, but the guest did not answer. The wake-up was attempted twice more at 7:50 a.m. and 7:55 a.m. When the guest had not answered after the third attempt, the wake-up was abandoned (shown as five asterisks on the printout).

In addition, an alarm was raised at the Attendant Console as described below.

```
7100 11/20 07:30 WU 07:30 ANSWER
7104 11/20 07:45 WU 07:45 NO ANSWER 1
7104 11/20 07:50 WU 07:45 NO ANSWER 2
7104 11/20 07:55 WU 07:45 NO ANSWER 3 ****
```
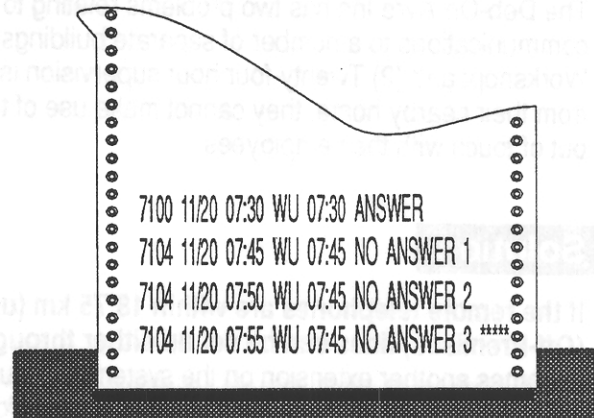
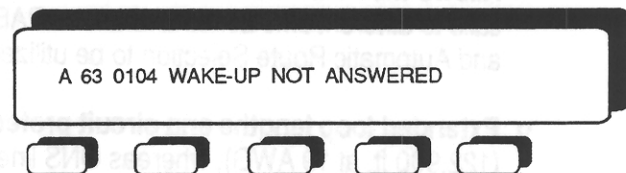# Automatic Wake-up Alarm Raised:

When the guest at Ext. 7104 did not answer after the third attempt, an alarm was raised at the Attendant Console.

The LCD Display on the right shows:

A 63   Alarm Code

0104   Room/Equipment number

WAKE-UP NOT ANSWERED   Message.

```
A 63 0104 WAKE-UP NOT ANSWERED
```

This alarm notifies hotel staff of a possible emergency situation in Room 104.

PAN-HL-10

Problem

The Deb-On-Ayre Inn has two problems relating to remote telephones: (1) They require telephone communications to a number of separate buildings - the Gas Bar, the five Executive Suites and the Workshop; and (2) Twenty-four hour supervision is required at the Inn, but when John and Debbie work from their nearby home, they cannot make use of the SX-50 system's features for business calls, and are out of touch with their employees.

Solution

If the remote telephones are within 18.75 km (using 19 AWG cable) of the SX-50 PABX, OPS (Off-Premises) lines can be set up either through leased lines or private wires. Each telephone then becomes another extension on the system, with full access to the PABX's functionality. Refer to Section MITL9104-091-105-NA, Off-Premises Extension for details.

Notes:

    (1)   An OPS Line Card must be installed.

    (2)   Refer to Section MITL9104-091-180-NA, Engineering Information for valid Loop Length limits.

Benefits

- **Immediate, 24-hour contact with employees.** As well as allowing John and Debbie to keep in touch with employees, the OPS line to their home allows the Ayre's to be reached *BY* employees 24 hours a day; they can choose to answer the telephone at home, or have an answering machine or Voice Mail facility take messages.

- **Allows the PABX features to be accessed during business calls.** This capability is ideal for calls to different time zones and allows PABX features such as account codes, speed call numbers and Automatic Route Selection to be utilized.

- **Extended loop lengths and circuit protection.** OPS lines have a station loop length of 37.5 km (122,900 ft. at 19 AWG), whereas ONS lines have a station loop length of only 9,163 m (30,000 ft. at 19 AWG). In addition, OPS lines provide circuit protection, a valuable investment for telephones which are located in remote buildings requiring exposed wiring.

Setting Up Telephone Communication to Remote Sites:

C.O. Lines

Debbie and John live 5 miles from the Inn. They have set up an OPS line to their home as Ext. 7401. This allows them to make calls to long-distance suppliers using the PABX's Automatic Route Selection Plan and speed call features. It also provides immediate 24-hour communication with on-duty staff. If there are any problems at the Inn while they are at home, the staff can call Ext. 7401 to contact them.

OPS Lines are also set up to the five executive suites (Exts. 7403 - 7407), the workshop (Ext. 7408), and the gas bar (Ext. 7402).

Although the outbuildings are close enough to the SX-50 PABX to use regular ONS or COV lines, the OPS lines provide circuit protection, a valuable investment for telephones which have exposed wiring.

OPS Line (5 miles)

Ext. 7401
Ayre's Home

OPS Lines (5500 ft.)

Exts. 7403-7407
Executive Suites

OPS Line (3000 ft.)

Ext. 7408
Workshop

OPS Line (1500 ft.)

Ext. 7402
Gas Bar
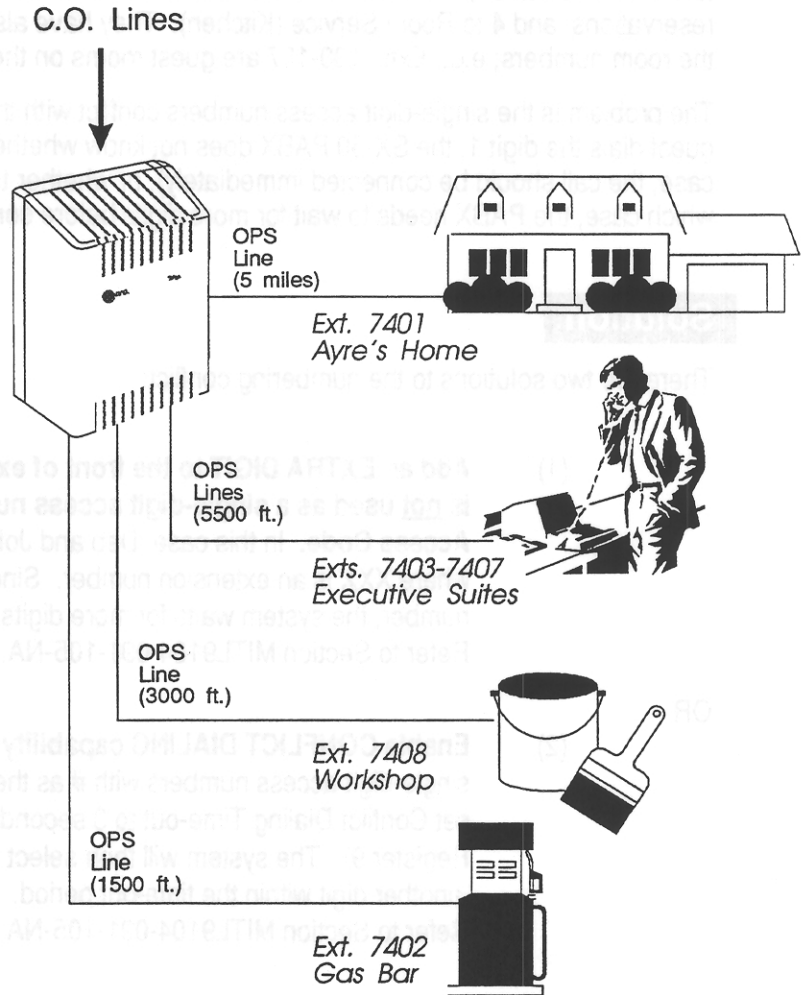
PAN-HL-11

Problem

Deb and John have set up five internal numbers to provide their guests with quick, single-digit access to hotel facilities: **0** to the Auxiliary Attendant for housekeeping needs, security concerns, Wake-up Requests and Do Not Disturbs; **1** to the Front Desk and for retrieval of Messages; **2** to Laundry; **3** to make Restaurant reservations; and **4** to Room Service (Kitchen). They have also set up their extension numbers to match the room numbers; e.g., Exts. 100-127 are guest rooms on the 1st Floor.

The problem is the single-digit access numbers conflict with the extension numbers. For example: When a guest dials the digit 1, the SX-50 PABX does not know whether the user is dialing the Front Desk (in which case, the call should be connected immediately), or whether the user is dialing a room on the 1st floor (in which case, the PABX needs to wait for more digits before connecting the call).

Solution

There are two solutions to the numbering conflict:

(1) **Add an EXTRA DIGIT to the front of extension numbers. Select a digit which is <u>not</u> used as a single-digit access number, an ARS digit string or a Feature Access Code.** In this case, Deb and John select the digit **7**. Now, a user dials 7XXX, where XXX is an extension number. Since the digit 7 is not used as a single-digit access number, the system waits for more digits before routing the call to the appropriate room. Refer to Section MITL9104-091-105-NA, Flexible Numbering Plan for more details.

OR

(2) **Enable CONFLICT DIALING capability for the single-digit access numbers.** Program single-digit access numbers with # as the last digit in CDE *(Commands 301-310)* and set Conflict Dialing Time-out to 3 seconds, 5 seconds or 7 seconds *(Command 100, Register 9)*. The system will then select the shorter number when the user does not dial another digit within the time-out period.
Refer to Section MITL9104-091-105-NA, Conflict Dialing for more details.

Benefits

o **Offers greater flexibility in numbering.** The system's numbering plan allows any combination of 1-, 2-, 3- or 4-digit numbers for Feature Access codes, Trunk Group Access codes and extension numbers.

o **Increases customer satisfaction.** These solutions provide guests with quick access to hotel facilities and the extension numbering is logical and easy-to-understand. This demonstrates the hotel's organization and efficiency and leaves guests with a favorable impression. The extension numbering plan described in Solution #1 is common in North America, so frequent travellers will feel right at home.

Extension Numbering at the Deb-On-Ayre Inn:

NUMBERING PLAN AT THE DEB-ON-AYRE INN:

Reception

0 - Auxiliary Attendant

1 - Front Desk

Facilities

2 - Laundry (Housephone)

3 - Restaurant

4 - Kitchen & Room Service

Guest Rooms:

7100 - 7127	Guest rooms on the 1st floor
7200 - 7227	Guest rooms on the 2nd floor
7300 - 7327	Guest rooms on the 3rd floor
7403 - 7407	Executive suites

Miscellaneous:

7128 - Housephone in the Elevator

7129 - Portable telephone

7130 - Conference Room 1

7131 - Conference Room 2

7400 - Administration Office

7401 - John and Deb's home

7402 - The JD Gas Bar

7408 - Workshop

7409 - Convenience Store

7132 - Contact Loop 1

7228 - Contact Loop 2

7328 - Contact Loop 3

7498 - RMATS

PAN-HL-12

Problem

1) Guests expecting important calls are often frustrated that they must stay close to a telephone for long periods of time.

2) If the lobby elevator in the Deb-On-Ayre Inn malfunctions, persons trapped in the elevator cannot obtain assistance.

3) Although the Ayre's like to keep a telephone in the Laundry Room, this telephone is often used to place long distance calls which cannot be billed back to the caller.

Solution

1. **Give guests the freedom to enjoy indoor and outdoor facilities while waiting for an expected call, through free access to a CORDLESS TELEPHONE connected to the SX-50 PABX.** The cordless telephone's base is located at the Front Desk and the extension is programmed as a MANUAL LINE. The guest can take the handset outside while awaiting their call. The Attendant can transfer calls to this extension and can place outgoing calls for the user. The portable telephone can also be used to receive or place internal calls through the Attendant or Auxiliary Attendant (using the 'DIAL 0' key). For external calls, the call charge can be manually applied to the guest's room.

2. **Connect a telephone inside the elevator and program it as a MANUAL LINE.** An extension with this option in its COS automatically calls the Attendant when the user goes off-hook. Dial tone is not provided. The extension can receive calls normally.

3. **Program the Laundry Room telephone as a MANUAL LINE.** The Attendant will place all outgoing calls for this extension and the call can be charged to the guest's account. The extension can receive calls normally.

Refer to Section MITL9104-091-105-NA, Manual Line for programming details.

Benefit

○ **Provides instant communication with the Attendant.** A manual line is typically used as a security phone, information phone or lobby housephone, but it can also be useful for emergency or security locations.

○ **Customer Service.** Of course, the ultimate benefit of the cordless phone application is allowing guests the freedom to enjoy the hotel's facilities without the worry of being away from the telephone. At the same time, it is a worry-free service for the hotel since use of the telephone is monitored from the front desk. The cordless telephone is booked out to a guest's room; this acts as a deterrent to theft, and allows outgoing calls to be billed to the specific guest's account.

Direct Access to the Main Attendant:

Going off-hook at the Housephone provides automatic connection to the Main Attendant.

This is useful in emergency situations (e.g., in the Deb-On-Ayre elevator).

PAN-HL-13

Use of the Data Demultiplexer   # 14
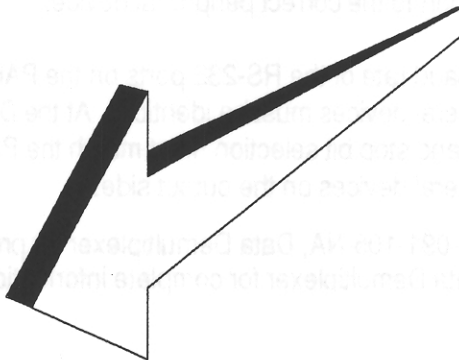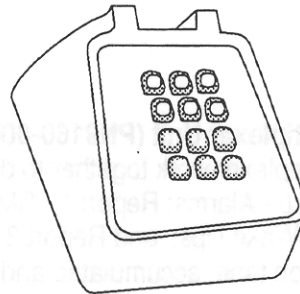
Problem

The data (Alarms, SMDR, Message Registration, Room Status, Wake ups, Data Dump) from the SX-50 PABX's RS-232 port supplies John and Deb with information required to run the Deb-On-Ayre Inn smoothly. But these reports must be gathered and sent to different locations - to the Front Desk, Auxiliary Attendant and Maintenance.

Solution

Add a MITEL Data Demultiplexer Unit (PN9160-000-001-NA) to the single RS-232 port. The SX-50 PABX and the Data Demultiplexer work together to direct four output reports to four separate peripheral devices, as follows: Report 0 - Alarms; Report 1 - SMDR Billing program, Report 2 - Room Status, Message Registration and Wake Ups; and Report 3 - Database Backup. The reports can be recorded on a paper printout, recorded on tape, accumulated and processed by a local computer, or transmitted, via a modem to a remote computer for processing and storage.
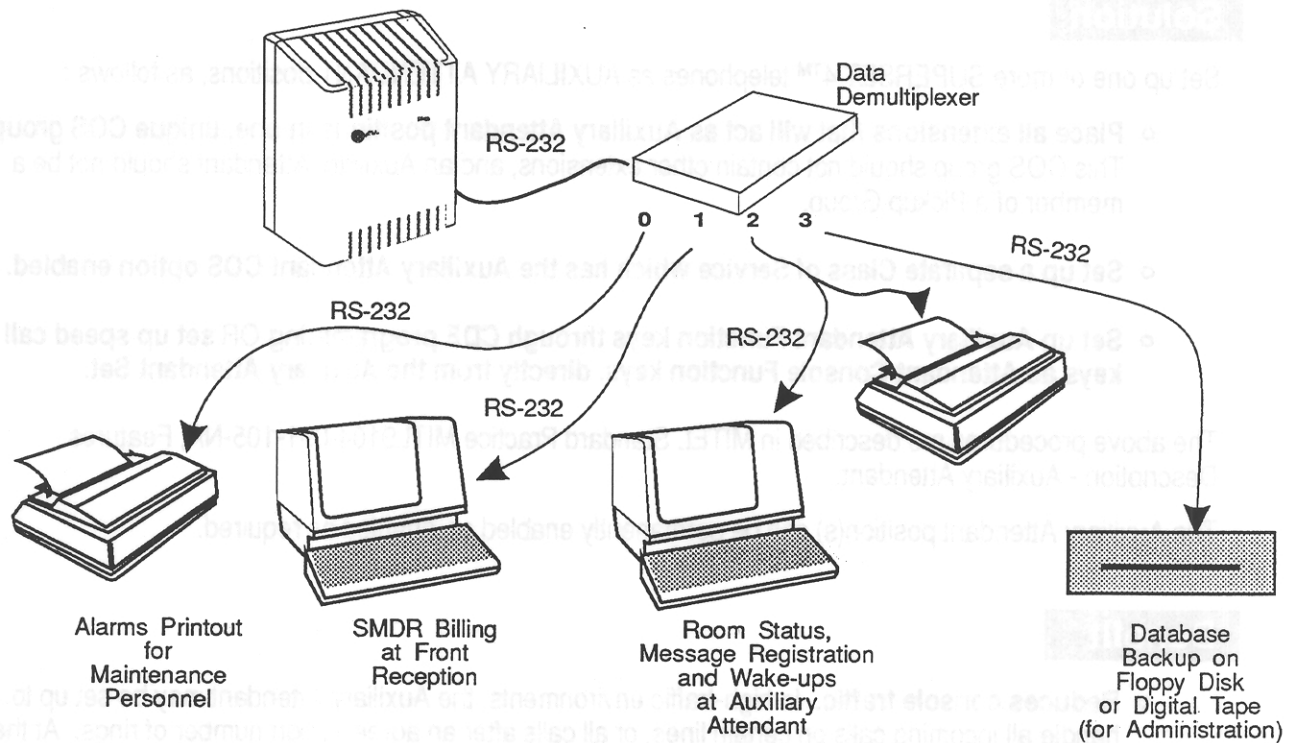
Notes: (1) **Enable the Data Demultiplexer system option**. This allocates a code to the various reports before they are sent to the Data Demultiplexer. The code is used by the Data Demultiplexer to identify the report type being received, to switch the report to the correct peripheral device.

(2) The baud rate of the RS-232 ports on the PABX, the Data Demultiplexer, and the peripheral devices must be identical. At the Data Demultiplexer, the character length, parity and stop bit selection must match the PABX on the input side, and the individual peripheral devices on the output side.

Refer to Section MITL9104-091-105-NA, Data Demultiplexer for programming information and Section MITL9160-080-300-NA, Data Demultiplexer for complete information.

Benefits

o **Allows full use of the system.** Why limit use of the SX-50 PABX to one output (e.g., SMDR), when all reports are available?

- Send alarms to a printer (located near the PABX cabinet) for maintenance personnel.

- Send SMDR billing program to a terminal at the front desk for quick and accurate guest checkout.

- Backup the database by dumping data to tape or floppy disk. Used by maintenance personnel only.

Separating Reports at the Deb-On-Ayre Inn:

Data Demultiplexer

RS-232

0   1   2   3

RS-232

RS-232

RS-232

RS-232

Alarms Printout for Maintenance Personnel

SMDR Billing at Front Reception

Room Status, Message Registration and Wake-ups at Auxiliary Attendant

Database Backup on Floppy Disk or Digital Tape (for Administration)

- Send Hotel/Motel reports such as Message Registration, Wake-ups and Room Status to a monitor and to a printer. Room Status information can be displayed on a monitor at the front desk to assist with room assignments, and printed in order to schedule housekeeping duties. Wake-ups can be logged on a printout to quickly settle disputes with guests who insist that they did not get their wake-up call.

  o **Sends the selected report to the desired location.** Without Data Demultiplexing, all printers receive every report that the system is programmed to produce. This method of receiving data is inconvenient and requires interpretation.

  o **Allows the same report to be sent to more than one location.** It may be necessary to provide more than one employee with the same report, even when they are located throughout the hotel. For example, the SMDR printout may be sent to the office manager/accountant, as well as front reception.

PAN-HL-14

Problem

At the Deb-On-Ayre Inn, the Attendant at Front Reception must handle room reservations made over the telephone, internal guest requests such as wake-ups, incoming telephone calls for guests, as well as checking guests in and out. This can lead to unnecessary frustration for a caller who spends time on hold waiting to be served.

Solution

Set up one or more SUPERSET 4™ telephones as AUXILIARY ATTENDANT positions, as follows :

o **Place all extensions that will act as Auxiliary Attendant positions in one, unique COS group.** This COS group should not contain other extensions, and an Auxiliary Attendant should not be a member of a Pickup Group.

o **Set up a separate Class of Service which has the Auxiliary Attendant COS option enabled.**

o **Set up Auxiliary Attendant Function keys through CDE programming** OR **set up speed call keys as Attendant Console Function keys, directly from the Auxiliary Attendant Set.**

The above procedures are described in MITEL Standard Practice MITL9104-091-105-NA, Features Description - Auxiliary Attendant.

The Auxiliary Attendant position(s) can be permanently enabled or, enabled as required.

Benefit

o **Reduces console traffic.** In high-traffic environments, the Auxiliary Attendant may be set up to handle all incoming calls on certain lines, or all calls after an agreed-upon number of rings. At the Deb-On-Ayre Inn, the Auxiliary Attendant handles reservations on a Direct-In Line INWATS (see Application # 5).

o **Provides efficient call processing.** In situations where a specific department is large enough to warrant its own attendant, the Auxiliary Attendant configuration allows calls to be distributed directly to the correct department, without operator intervention.

o **Improves productivity.** In applications where an Auxiliary Attendant may only be needed during certain periods of the day (e.g., to cover incoming calls during the Main Attendant's lunch hour), the Auxiliary Attendant (with MS51-MR2) can activate "Immediate" ring at their set, answer all incoming calls, and then switch their SUPERSET 4™ telephone to "No Ring" when they resume their regular duties. *Note: "No Ring" only applies to the Dial '0' and LDN keys. The extension number will still ring normally.*

C.O. Trunks
(205) 223-5111

IN-WATS
1-800-223-5122

LDN1

Attendant
Console - Ext. 1

Auxiliary
Attendant - Ext. 0
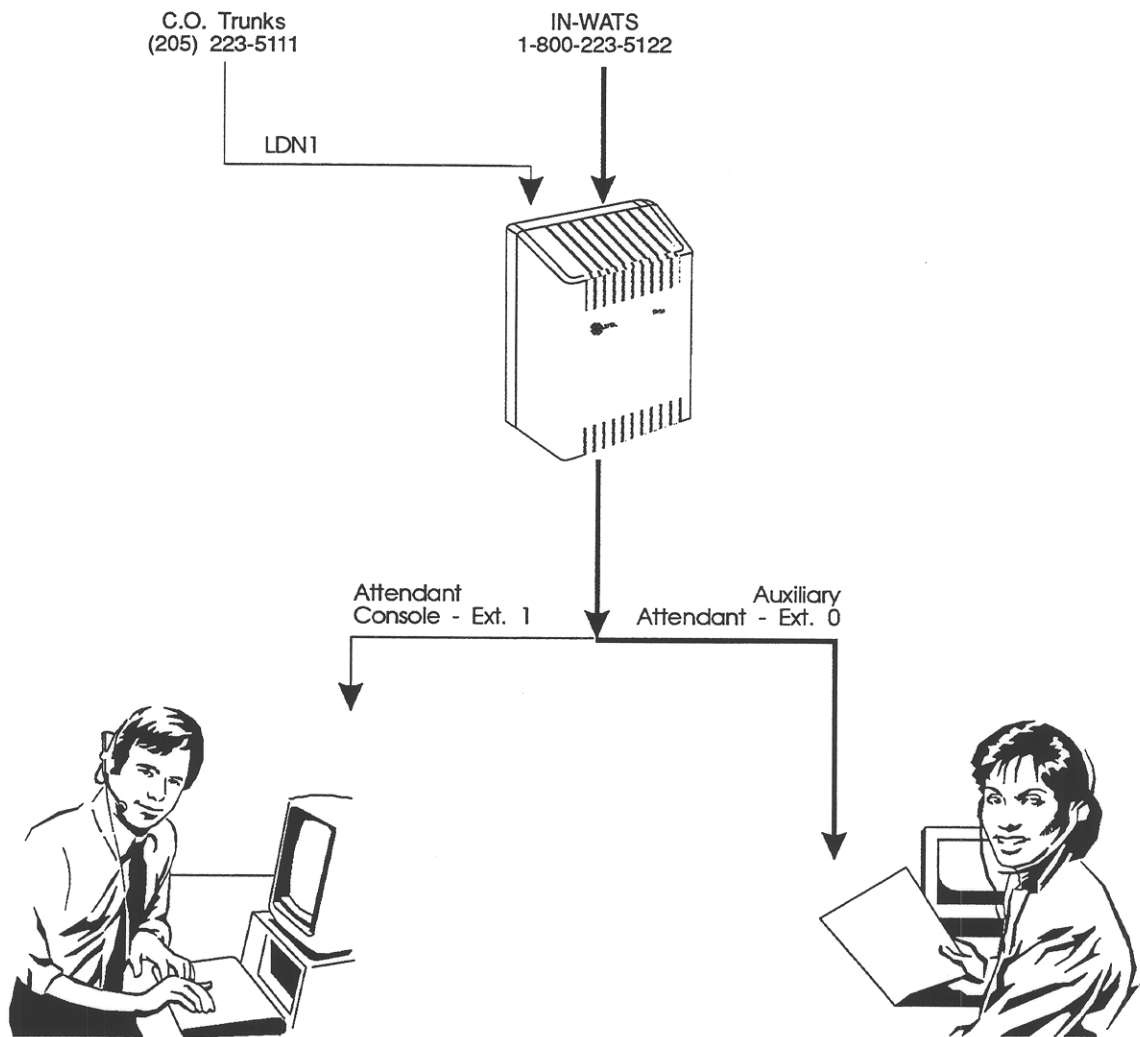
Setting Up an Auxiliary Attendant:

At the Deb-On-Ayre Inn, front reception (Attendant Console at Ext. 1) acts as the centre for communications and registration of guests. Whenever large numbers of guests arrive or check out, the receptionist is overloaded and is unable to answer incoming calls. To relieve the receptionist, extension 0 (a SUPERSET 4 Set) has been programmed as an Auxiliary Attendant.

Duties are divided as follows:

The Main Attendant handles incoming calls for guests, updates room status, takes guest messages, and handles check-in and check-out of guests (including call billing). The Main Attendant answers calls on LDN1.

The Auxiliary Attendant takes reservations over the INWATS line, handles internal "Dial 0" Calls, sets Do Not Disturb and handles Wake-ups. The Auxiliary Attendant has line appearances of LDN1, and can also pick up these lines during periods of high traffic.

If hotel reservation requests come in on LDN1, the Main Attendant transfers the call to Ext. 0.

PAN-HL-15