PBX Operator Traffic, OP

OPERATIONAL DIRECTIONS

Mitel®

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TRADEMARKS

1 GENERAL

MiVoice MX-ONE preferably uses IP-based attendant applications as PBX operator console. IP-based attendant applications are initiated into the system by assigning a console type, the PBX operator’s directory number, LIM number, and a traffic category. The PBX operator is initiated into the system by assigning a console type, the PBX operator's directory number, an equipment position, and a traffic category. These can be altered from a maintenance terminal.

From the PBX operator console, provided that the relevant function is not locked and that the PBX operator possesses a category that permits programming, the PBX operator can program the following:

- Automatic or manual answer
- Automatic or manual extending
- Continuous tone on call or tone burst call (OPI-II only)
- Tone ringer character (OPI-II only)
- Language, see the operational directions for *CHOICE OF LANGUAGE*, only OPI 3214

The PBX operator can be affiliated to origin groups so that calls with a specific origin be routed to a specific PBX operator or group of PBX operators.

Calls with the same origin, or call type, from the same route or routes and with the same PBX operator call number form an origin type. A unique combination of call type, route numbers (if any), PBX operator call number, and customer number form an origin type. An origin group can comprise several origin types.

If the customer group function is used in the system, it is possible to affiliate the PBX operator to a specific customer. Alteration, initiation, and erasure of the customer affiliation can also be undertaken after initiation of the PBX operator. A common PBX operator call number for the customer group can also be initiated.

In attendant applications the route name and simplified diversion messages are displayed as text strings which may be changed by command.

The PBX operator console status, including the console answer type, extending type, signaling method, and signaling mode, can be printed on command. The status with respect to the entire system can be printed. The printout provides information about which PBX operators are present (on-duty) and whether they are busy. Furthermore, the printout states which PBX operators are affiliated to each origin group.

In a private network it is possible to have a centrally placed PBX operator or operator group, which serves a number of other exchanges in the network. This is called a centralized PBX operator. If the centralized PBX operator function is used, then the served sub-exchanges can be notified of the PBX operator's exchange status, in other words, day or night switched. The exchanges that are to be notified are set and printed from a command from a maintenance terminal.

Note: PBX Operator Traffic can also be configured with the *SERVICE NODE MANAGER (SNM)*.

2 PREREQUISITES

The following data must be initiated in number analysis data:

- Individual PBX operator numbers
- Common PBX operator numbers
- Common direct in-dialing number to PBX operator
- External destination (required only for centralized PBX operator)
- Emergency numbers for PBX operators and in route data
- Route data (required only for origin types).

3 AIDS

An I/O terminal.

4 REFERENCE

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5 PROCEDURE

The following procedure shall be adopted for PBX operators:

1. Initiate the PBX operator.
2. Initiate an origin group.
3. Affiliate the PBX operator to the origin group.
4. If the customer group function is used, initiate a common PBX operator call number for the customer group.
5. Initiate the table stating exchanges that are to be notified of a day/night status change, if the centralized PBX operator function is used.
6. Initiate the server for the attendant application.

6 EXECUTION

6.1 PBX OPERATOR

6.1.1 INITIATE THE PBX OPERATOR

Key the command *OPERI* to initiate the PBX operator.

Key the command *OPDDP* to verify the result.

6.1.2 ERASE THE PBX OPERATOR

Prerequisites

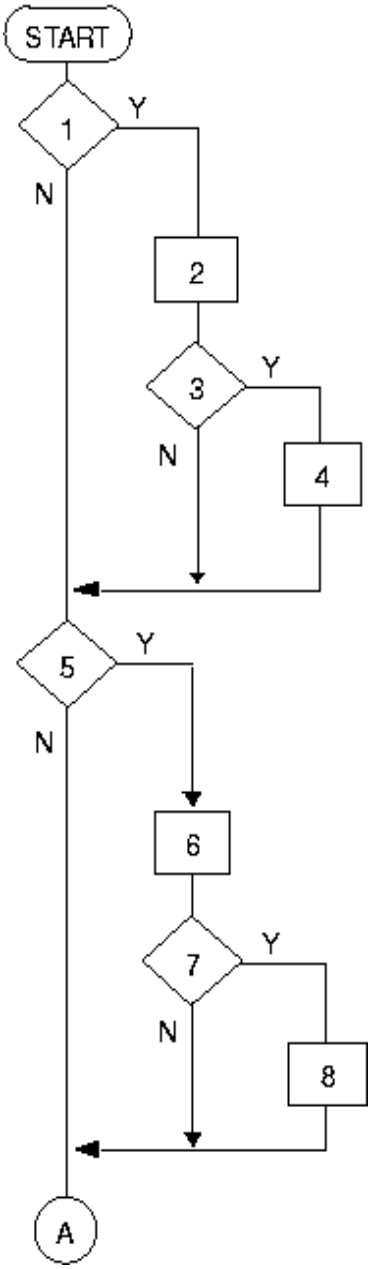
Verify that the PBX operator is free and if the directory number of the PBX operator is used for any of the following facilities:

- Common divertee position
- Individual abbreviated number
- Common abbreviated number
- Day service position for route or external line. Also verify that the PBX operator is not the last PBX operator in any origin group.

If this is the case it must be decided whether these facilities or the origin group with the only PBX operator is to be moved to another PBX operator.

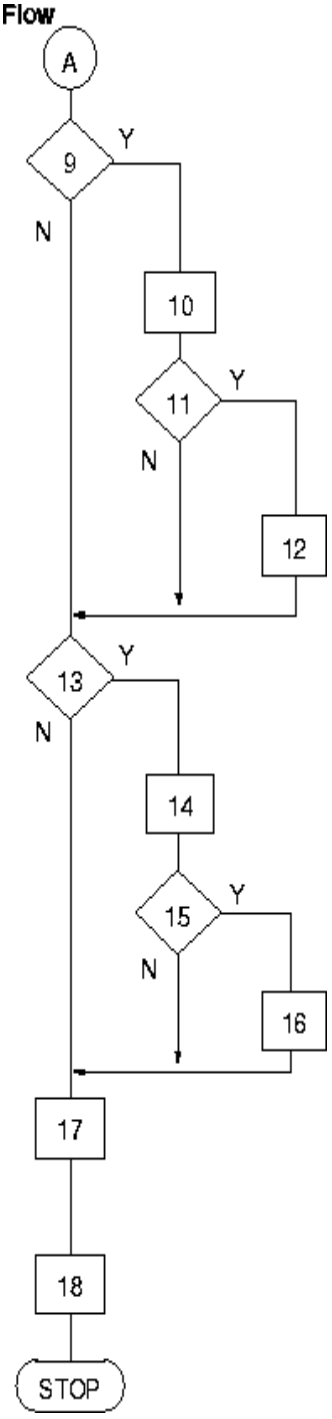
Execution

Flow



	Measure/Question	Observation/ Comment
1	Key the command *RODNP*. Is the PBX operator's directory number a day service position?	See the operational directions for *ROUTE DATA*. If NO, proceed to step 5.
2	Key the command *RODNE* to erase the day service position.	See the operational directions for *ROUTE DATA*.
3	Is a new day service position required?	If NO, proceed to step 5.
4	Key the command *RODNI* to initiate a new day service position.	See the operational directions for *ROUTE DATA*.
5	Key the command *diversion_common -p*. Is the PBX operator's directory number a common divertee position?	See the operational directions for *CALL DIVERSION*. If NO, proceed to step 9.
6	Key the command *diversion_common -e* to erase the common divertee position.	See the operational directions for *CALL DIVERSION*.
7	Is a new divertee position required?	See the operational directions for *CALL DIVERSION*. If NO, proceed to step 9
8	Key the command *diversion_common -i* to initiate a new divertee position.	See the operational directions for *CALL DIVERSION*.

Flow



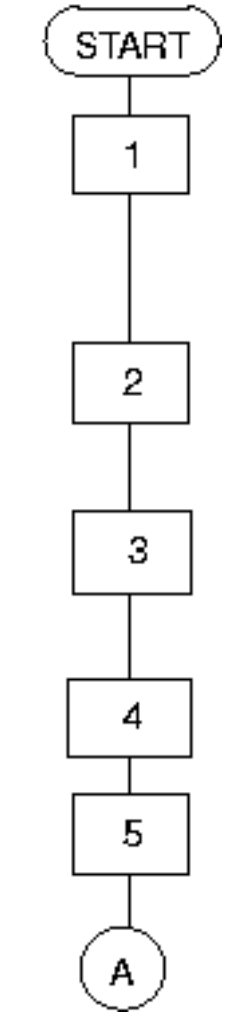
	Measure/Question	Observation/ Comment
9	Key the command *ADCDP*. Is the PBX operator's directory number a complete number of a common abbreviated number?	See the operational directions for *ABBREVIATED DIALLING*. If NO, proceed to step 13.
10	Key the command *ADCOE* to erase the common abbreviated number.	See the operational directions for *ABBREVIATED DIALLING*.
11	Is a new answer position required for the common abbreviated number?	If NO, proceed to step 13.
12	Key the command *ADCOI* to initiate the common abbreviated number.	See the operational directions for *ABBREVIATED DIALLING*.
13	Is the PBX operator affiliated to an origin group?	If NO, proceed to step 17.
14	Key the command *OPCGR* to erase the affiliation.	
15	Shall this origin group be assigned to another PBX operator?	If NO, proceed to step 17.
16	Key the command *OPCGS* to assign this origin group to a new PBX operator.	
17	Key the command *OPERE* to erase the PBX operator directory number.	If traffic occurs the PBX operator can be blocked first.
18	Key the command *OPDDP* to verify the result.	

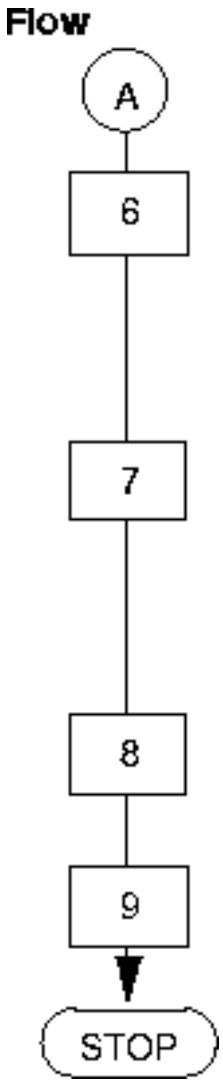
6.1.3 ALTER THE PBX OPERATOR EQUIPMENT POSITION

Prerequisites

Verify that the PBX operator is free and absent marked.

Execution

Flow		Measure/Question	Observation/ Comment
	1	Key the command *OPDDP* to obtain a printout of existing PBX operator directory numbers and appurtenant equipment positions.	
	2	Key the command *OPCAP* to obtain a printout of the PBX operator's categories.	
	3	Key the command *OPCGP* to obtain a printout of the PBX operator origin groups.	
	4	Key the command *resource_status -p* to obtain a printout of free equipment positions.	See the operational directions for *SYSTEM RESOURCE STATUS INFORMATION*.
	5	Key the command *block* to block the PBX operator.	

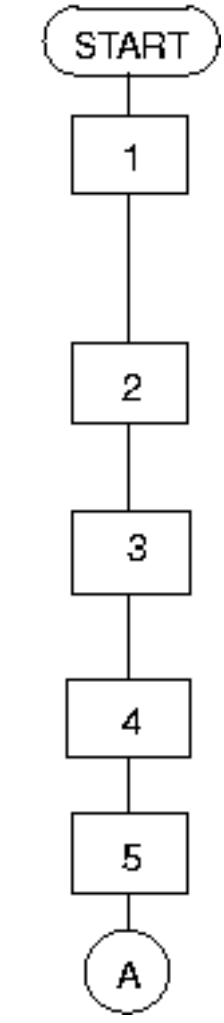
Flow		Measure/Question	Observation/ Comment
	6	On receipt of the printout stating that the PBX operator has been blocked, erase the PBX operator in accordance with 6.1.2 Erase the PBX Operator on page 5.	
	7	Select a new equipment position, and console type. Key the command *OPERI* to initiate the PBX operator into this position but with previous directory number and categories.	
	8	Key the command *OPCGS* to affiliate the PBX operator to the previous origin group.	
	9	Key commands *OPCGP* and *OPDDP* to verify the result.	

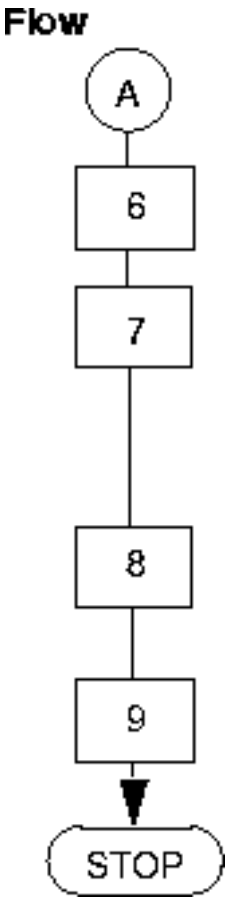
6.1.4 ALTER THE PBX OPERATOR DIRECTORY NUMBER

Prerequisites

Verify that the PBX operator is free and absent marked.

Execution

Flow		Measure/Question	Observation/ Comment
	1	Key the command *OPDDP* to obtain a printout of directory numbers, console type and equipment positions of existing PBX operators.	
	2	Key the command *OPCAP* to obtain a printout of the PBX operator's categories.	
	3	Key the command *OPCGP* to obtain a printout of the PBX operator origin groups.	
	4	Key the command *number_print* to obtain a printout of number series used for PBX operators.	See the operational directions for *NUMBER ANALYSIS*.
	5	Key the command *block* to block the PBX operator.	

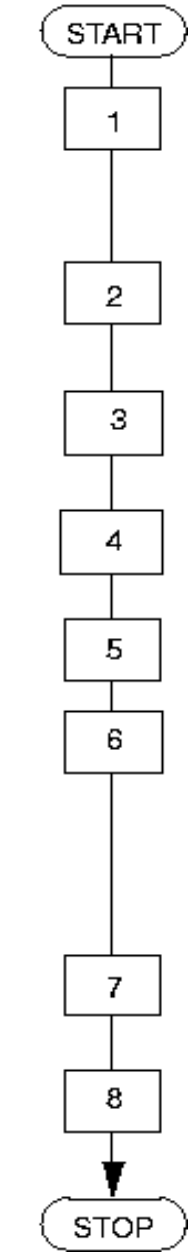
Flow		Measure/Question	Observation /Comment
	6	Erase the PBX operator.	See 6.1.2 Erase the PBX Operator on page 5.
	7	Select a new directory number. Key the command *OPERI* to initiate the PBX operator with this number, with previous categories and equipment position.	See 6.10.1 Select Free Directory Numbers on page 24.
	8	Key the command *OPCGS* to affiliate the PBX operator to the previous origin group.	
	9	Key commands *OPCGP* and *OPDDP* to verify the result.	

6.1.5 ALTER THE PBX OPERATOR CONSOLE TYPE

Prerequisites

Verify that the PBX operator is free and absent marked.

Execution

Flow		Measure/Question	Observation/ Comment
	1	Key the command *OPDDP* to obtain a printout of directory numbers, console type and equipment positions of existing PBX operators.	
	2	Key the command *OPCAP* to obtain a printout of the PBX operator's categories.	
	3	Key the command *OPCGP* to obtain a printout of the PBX operator origin groups.	
	4	Key the command *block* to block the PBX operator.	
	5	Erase the PBX operator.	See 6.1.2 Erase the PBX Operator on page 5.
	6	Determine the new value of console type parameter. Key the command *OPERI* to initiate the PBX operator with this value, with previous directory number, categories and equipment position.	
	7	Key the command *OPCGS* to affiliate the PBX operator to the previous origin group.	
	8	Key commands *OPCGP* and *OPDDP* to verify the result.	

6.1.6 ALTER THE PBX OPERATOR CATEGORIES

Key the command *OPCAP* to print the categories of the PBX operator.
Key the command *OPCAC* to alter the PBX operator categories.
Key the command *OPCAP* to obtain a printout of the PBX operator categories.

6.1.7 PRINT THE PBX OPERATOR DIRECTORY NUMBER DATA

Key the command *OPDDP* to obtain a printout.

6.1.8 PRINT THE PBX OPERATOR CONSOLE TYPE DATA

Key the command *OPDDP* to obtain a printout.

6.1.9 PRINT THE PBX OPERATOR CATEGORY DATA

Key the command *OPCAP* to obtain a printout.

6.1.10 PRINT THE PBX OPERATOR ASSISTANT DATA

Key the command *OPIDP* to obtain a printout.

6.2 ORIGIN GROUP

6.2.1 INITIATE THE ORIGIN GROUP

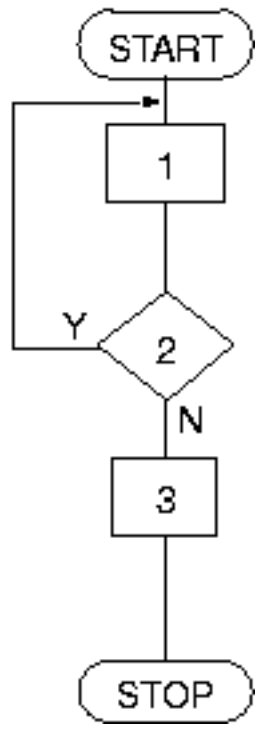
General

An origin group can consist of one or more origin types. A combination of call type, route number, PBX operator call number, and customer number forms an origin type. When an origin group consists of several origin types, the initiation for each origin type is done separately. The origin group is the same in all initiation commands.

Prerequisites

Route data must be initiated. See the operational directions for *ROUTE DATA*.

Execution

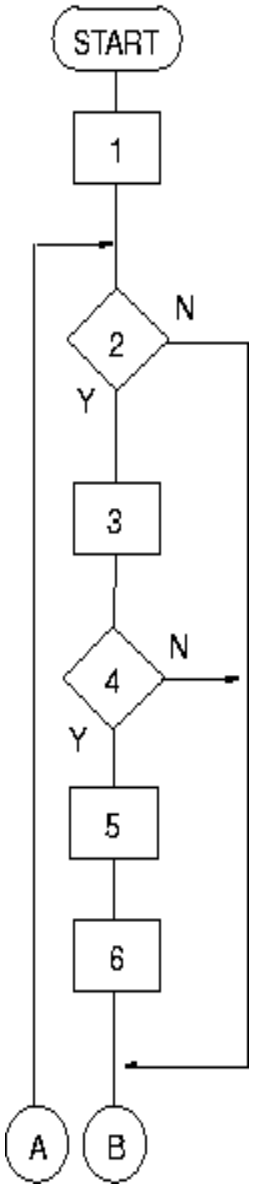
Flow		Measure/Question	Observation/ Comment
	1	Key the command *OPCTS* to initiate origin types.	
	2	Are there more origin types to be initiated?	If YES, return to step 1.
	3	Key the command *OPCTP* to verify the result.	

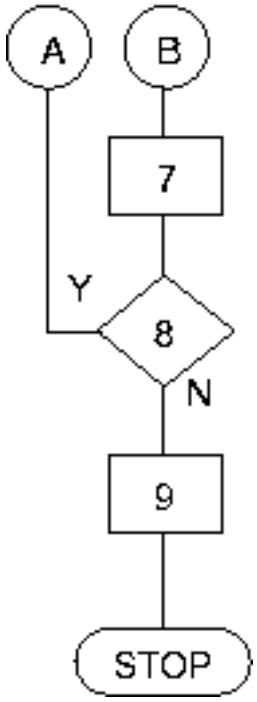
6.2.2 ERASE THE ORIGIN TYPES

General

If several origin types are to be erased the procedure is to be repeated once for each origin type.

Execution

		Measure/Question	Observation/ Comment
Flow 			
	1	Key the command *OPCTP* to order a printout of origin types in origin groups.	
	2	Has the origin group only one origin type?	If NO, proceed to step 7.
	3	Key the command *OPCEP* to check if any central answer position is affiliated to the origin group.	
	4	Is there any central answer position affiliated to the origin group?	If NO, proceed to step 7
	5	Key the command *OPCEE* to erase the central answer position from the origin group.	
	6	Key the command *OPCEP* to verify that the origin group has no central answer position affiliated.	

		Measure/Question	Observation/ Comment
Flow 			
	7	Key the command *OPCTR* to erase an origin type.	
	8	Are there more origin types to be erased?	If YES, return to step 2.
	9	Key the command *OPCTP* to verify the result.	

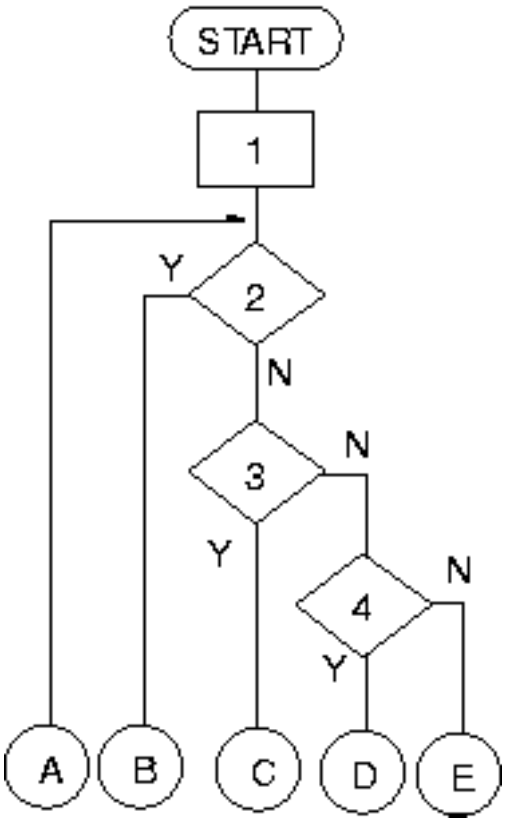
6.2.3 ALTER THE ORIGIN GROUP

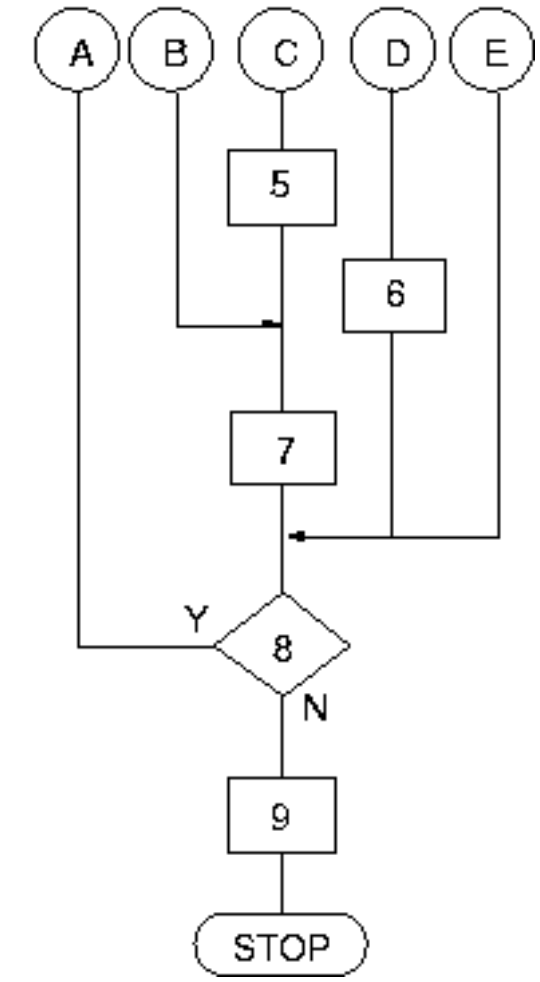
General

It is possible to add, erase, or alter one or more origin types in one or more origin groups.

If several origin groups are to be altered, the entire procedure is repeated.

Execution

		Measure/Question	Observation/ Comment
Flow  			
	1	Key the command *OPCTP* to order a printout of origin types in origin groups.	
	2	Are there any origin types to be added?	If YES, proceed to step 7.
	3	Are there any origin types to be altered?	If YES, proceed to step 5.
	4	Are there any origin types to be erased?	If YES, proceed to step 6. If NO, proceed to step 8.

		Measure/Question	Observation/ Comment
Flow 			
	5	Erase these origin types. See 6.2.2 Erase the Origin Types on page 15.	
	6	Erase these origin types. See 6.2.2 Erase the Origin Types on page 15.	
	7	Key the command *OPCTS* to select a new origin type.	
	8	Are there more origin types to be added, erased or altered?	If YES, return to step 2.
	9	Key the command *OPCTP* to verify the result.	

6.2.4 PRINT THE ORIGIN GROUP

Key the command *OPCTP* to obtain a printout.

6.3 AFFILIATION BETWEEN PBX OPERATOR AND ORIGIN GROUP

6.3.1 ASSIGN AN ORIGIN GROUP TO A PBX OPERATOR

Key the command *OPCTP* to order a printout of existing origin groups.

Key the command *OPCGS* to assign one or more PBX operators to one or more origin groups.

Key the command *OPCGP* to verify the result.

6.3.2 ERASE AN ORIGIN GROUP FROM A PBX OPERATOR

Key the command *OPCGR* to erase the origin group from the PBX operator.

Key the command *OPCGP* to verify the result.

6.3.3 ALTER AN ORIGIN GROUP BELONGING TO A PBX OPERATOR

Key the command *OPCGP* to order a printout of existing affiliations between PBX operator and origin group.

Key the command *OPCGR* to erase non-required origin groups from the PBX operator.

Key the command *OPCGS* to assign new origin groups.

Key the command *OPCGP* to verify the result.

6.3.4 PRINT AN AFFILIATION BETWEEN A PBX OPERATOR AND AN ORIGIN GROUP

Key the command *OPCGP* to obtain a printout.

6.4 CUSTOMER GROUP

General

An ASP113 system can contain only one customer group. This customer group can consists of several thousand customer numbers (see Customer Group Operational Directions and MiVoice MX-ONE Feature Matrix description).

A PBX operator can be affiliated to a customer number so that the customer number's route will be selected for outgoing traffic from the PBX operator.

A common PBX operator call number can be initiated so that the customer affiliation of the calling extension determines which PBX operator is to be selected.

For this facility the exchange shall have one common PBX operator number for the customer group and one PBX operator number for each customer. These numbers shall not be the same.

Customers in a customer group can have their own resources such as routes and PBX operator groups, as well as the possibility to use common resources in the customer group.

The traffic matrix or TCD table can be used in order to prevent traffic between different customers (customer numbers).

Calls to a common PBX operator number are routed to the PBX operator group which serves the call's customer affiliation.

Customer centralized operators can be defined for a PBX operator group. If different customers are served by separate PBX operator groups, it is possible for each customer to have its own centralized operators.

Note: If the customer function is used in the exchange, the customer day and night position shall be given for DID calls and not for the route, that is, use *ROCDI* command instead of *RODNI*.

For detailed descriptions, see the operational directions for *CUSTOMER GROUP*.

6.4.1 ASSIGN A CUSTOMER NUMBER TO A PBX OPERATOR

See 6.2.1 Initiate the Origin Group on page 14

See 6.3.1 Assign an Origin Group to a PBX Operator on page 18

6.4.2 ALTER A CUSTOMER NUMBER FOR A PBX OPERATOR

See 6.2.3 Alter the Origin Group on page 17

See 6.3.3 Alter an Origin Group Belonging to a PBX Operator on page 19

6.4.3 ERASE A CUSTOMER NUMBER FOR A PBX OPERATOR

See 6.2.2 Erase the Origin Types on page 15

See 6.3.2 Erase an Origin Group from a PBX Operator on page 19

6.4.4 ALTER, ASSIGN, AND ERASE CUSTOMER NUMBERS TO PBX OPERATORS FOR OUTGOING TRAFFIC

Key commands *OPCTP* and *OPDDP* to order a printout of existing affiliations between PBX operator and customer.

Key the command *OPCUC* to alter, assign, or erase the customer affiliation of the PBX operator.

Key commands *OPCTP* and *OPDDP* to verify the result.

6.4.5 INITIATE A COMMON PBX OPERATOR CALL NUMBER FOR THE CUSTOMER GROUP

Key the command *OPCTP* to order a printout of existing common PBX operator number.

Key the command *OPCOI* to initiate.

Key the command *OPCTP* to verify the result.

6.4.6 ERASE A COMMON PBX OPERATOR CALL NUMBER FOR THE CUSTOMER GROUP

Key the command *OPCTP* to obtain a printout of an existing common PBX operator number for the customer group.

Key the command *OPCOE* for erasure.

Key the command *OPCTP* to verify the result.

6.4.7 PRINT THE AFFILIATION BETWEEN A PBX OPERATOR AND A CUSTOMER NUMBER

Key commands *OPCTP* and *OPDDP* to obtain a printout.

6.5 ANSWER TYPE

6.5.1 ASSIGN AN ANSWER TYPE FOR A PBX OPERATOR

The PBX operator can be assigned the answer type automatic or manual answer, or a neutral position that enables the PBX operator to determine the answer type.

Execution

Key the command *OPISP* to order a printout of the PBX operator status.

Key the command *OPISS* to assign the required answer type.

Key the command *OPISP* to verify the result.

6.5.2 ALTER AN ANSWER TYPE

The answer type can be altered by command *OPISS* in the following ways:

- From manual to automatic answer
- From manual answer to neutral position
- From automatic to manual answer
- From automatic answer to neutral position
- From neutral position to automatic answer
- From neutral position to manual answer.

6.5.3 PRINT AN ANSWER TYPE

Key the command *OPISP* to obtain a printout.

6.6 CHOICE OF LANGUAGE

See the operational directions for *CHOICE OF LANGUAGE*.

6.7 EXTENDING TYPE

6.7.1 ASSIGN AN EXTENDING TYPE FOR A PBX OPERATOR

General

The PBX operator can be assigned the extending type automatic or manual extending, or a neutral position that enables the PBX operator her/himself to alter the extending type.

Execution

Key the command *OPISP* to order a printout of the PBX operator console status.

Key the command *OPISS* to assign the required extending type.

Key the command *OPISP* to verify the result.

6.7.2 ALTER AN EXTENDING TYPE

The extending type can be altered by command *OPISS* in the following ways:

- From manual to automatic extending
- From manual extending to neutral position
- From automatic to manual extending
- From automatic extending to neutral position
- From neutral position to automatic extending
- From neutral position to manual extending.

6.7.3 PRINT AN EXTENDING TYPE

Key the command *OPISP* to obtain a printout.

6.7.4 AUTOMATIC EXTENDING TO EXTENSION GROUP QUEUES

Calls to busy ACD/CTI or GH groups can be extended automatically if EXTEND is set to A and if group categories permits automatic extending. If EXTEND is set to N, the auto-extend button on the operator console is enabled, and if group categories permits automatic extending, calls to busy ACD/CTI or GH groups can be extended automatically

6.8 SIGNALING METHOD

6.8.1 ASSIGN A SIGNALING METHOD AND TONE BURST VOLUME

General

The PBX operator can be assigned the signaling method continuous call tone, tone burst call tone, or a neutral position that enables the PBX operator her/himself to alter the signaling method.

When manual call selection is used the signaling method will be burst tone as default and cannot be changed.

In Operator Assistant, burst tone is used as the signaling method.

The IP PBX operator can also be assigned different tone indications when an incoming call is queued at the operator. It be can periodic tone burst, single tone burst or no tone burst.

For other type of operators other than IP operator, the call queuing tone will always be a periodic tone burst

Execution

Key the command *OPISP* to order a printout of the PBX operator console status.

Key the command *OPISS* to assign the required signaling method and tone burst volume.

Key the command *OPISP* to verify the result.

6.8.2 ALTER A SIGNALING METHOD

The signaling method can be altered with command *OPISS* in the following ways:

- From continuous to tone burst
- From continuous call tone to neutral position
- From tone burst to continuous call tone
- From tone burst to neutral position
- From neutral position to continuous call tone
- From neutral position to tone burst.

6.8.3 ALTER THE TONE BURST VOLUME

The tone burst volume can be altered with command *OPISS* in the following ways:

- From muted to normal
- From muted to silence
- From normal to muted
- From normal to silence
- From silence to normal
- From silence to muted.

6.8.4 ALTER THE CALL QUEUING TONE

The call queuing tone can be altered with command *OPISS* in the following ways:

- From periodic to silence
- From periodic to single tone burst
- From silence to periodic
- From silence to single tone burst
- From single tone burst to periodic
- From single tone burst to silence

6.8.5 PRINT THE SIGNALING METHOD AND TONE BURST VOLUME

Key the command *OPISP* to obtain a printout.

6.9 SIGNALING MODE

6.9.1 ASSIGN THE MODE FOR THE PBX OPERATOR CONSOLE

General

The PBX operator console can be assigned to receive special audible tone indications, in addition to standard visual indications, to inform of call progress, call origin, and function key states. This feature is intended to facilitate the use of the consoles for visually impaired operators.

For Operator Assistants this signaling mode is applicable if the PBX operator wants to receive audible tone indications in the Operator Media Device (OMD).

When parameter MODE is not assigned, the feature is disabled by default.

Execution

Key the command *OPISP* to order a printout of the PBX operator console status.

Key the command *OPERI* to assign the PBX operator console mode.

Key the command *OPISS* to assign or change (if already assigned) the PBX operator console mode.

Key the command *OPISP* to verify the result.

6.9.2 ALTER THE MODE

The PBX operator console mode can be altered by command *OPISS* in the following ways:

- From standard visual indications only to standard visual indications and special audible tone indications
- From standard visual indications and special audible tone indications to standard visual indications only

6.9.3 PRINT THE SIGNALING MODE

Key the command *OPISP* to obtain a printout.

6.10 SELECTION OF FREE DIRECTORY NUMBERS OR FREE EQUIPMENT POSITIONS

6.10.1 SELECT FREE DIRECTORY NUMBERS

Key the command *number_print* to order a printout of existing PBX operator number series.

Key the command *OPDDP* to order a printout of initiated PBX operators.

Select free directory numbers that are included in the PBX operator number series although not initiated.

Note: For more information about *number_print*, see the operational directions *Number Analysis*.

6.10.2 SELECT FREE EQUIPMENT POSITIONS

Key the command *resource_status -p* to obtain a printout of free equipment positions.

Select one or more free equipment positions.

6.11 STATUS PRINTOUTS

6.11.1 PRINT THE PBX OPERATOR CONSOLE STATUS

General

The command is used to obtain a printout of answer type, extending type, call tone, signaling method, and directory number in respect of one or more stated PBX operators.

Execution

Key the command *OPISP* to obtain a printout.

6.11.2 PRINT THE STATUS OF PBX OPERATORS IN THE SYSTEM

General

A printout states the following:

- The PBX operator’s directory numbers
- Whether the PBX operators are busy or free
- Whether the PBX operators are on or off duty
- How long the oldest call in the common call queue has waited
- Which origin types exist
- How many PBX operators are on duty per origin group
- How many calls are waiting per origin group.

Execution

Key the command *OPTSP* to obtain a printout.

6.12 RELATIONSHIP BETWEEN PBX OPERATOR DIRECTORY NUMBER AND CALL NUMBER

6.12.1 THE PBX OPERATOR DIRECTORY NUMBER (DIR) IS KNOWN AND THE CALL NUMBER IS SOUGHT

- Order a printout with command *OPCGP* using the known directory number as the DIR parameter's value. The printout is a table that shows which origin groups are served by the stated directory number. Select one of the origin types CORG that is affiliated to the known directory number.
- Order a printout with command *OPCTP* in which parameter CORG for the origin group is assigned the value of the origin group from point 1 above. This printout is a table of the origin groups associated to PBX operator call numbers. From the known origin group it is possible to read off the PBX operator call number.

6.12.2 THE PBX OPERATOR CALL NUMBER IS KNOWN AND THE PBX OPERATOR DIRECTORY NUMBER (DIR) IS SOUGHT

- Order a printout with command *OPCTP* in which the parameter for the origin group (CORG) is assigned the value ALL. Those origin groups that are affiliated to the known PBX operator number can be found in the printout table.
- Order a printout with command *OPCGP* in which parameter CORG is assigned the values found in 1) above. The printout table provides an affiliation between DIR and CORG, where the DIRs printed out are the ones sought.

6.13 SELECTION OF FIRST QUEUED CALL, EXCEPTIONS

In certain cases there may be calls waiting in the common operator queues (the Common call queue counter is greater than 0) which are not distributed to any present operator due to the call origin, i.e. the only present operator is not programmed to answer calls to the specified Call Origin Group.

To answer such a queued call, or in order to reduce the incoming traffic load of other operators, an operator can manually request the next call in the queue by pressing an answer key.

However, if an operator console is assigned to a customer group, that operator cannot request calls in the common operator queues. In that case, the request will be ignored.

The availability of this feature is market dependent (MDP).

6.14 PROCESSING OF EXTERNAL CALLS WHEN THE PBX OPERATOR IS OFF-DUTY

6.14.1 ALTER THE EXTERNAL TRAFFIC PROCESSING WHEN THE PBX OPERATOR IS OFF-DUTY

General

If all PBX operators for an origin group are marked off-duty, the external calls will be rerouted to other PBX operators.

This rerouting can be altered so that the external calls for stated origin groups or to a divertee position (stated per origin group) can be routed to the route's or customer's night switching position.

Prerequisites

The origin group must be initiated.

Execution

Key the command *OPADC* to alter the processing of external calls in the event of an off-duty PBX operator for the origin group in question.

Key the command *OPCTP* to verify the result.

6.15 CENTRALIZED PBX OPERATOR

General

For detailed descriptions, see the operational directions for *CENTRALIZED ANSWER POSITION*.

In a network of exchanges, among which the signal system ISDN/H.323/DPNSS is used, there is a possibility to let a central PBX operator (group) serve several exchanges. Some of the network's exchanges, where there is no local PBX operator assigned at all, can still be permitted to have incoming public trunk lines. In order to describe the involved exchanges, they are designated as follows:

Centralized PBX operator exchange

- Where there is a centralized PBX operator (-group)

Terminating exchange

- Where the searched extensions is to be found, and where a rerouting is initiated.

Originating/gateway exchange

- An exchange where signal systems are changed, for example, where a trunk line from a public exchange enters, or if the call originates in the private network, where the A-party is located.

Depending on the traffic case an exchange can be terminating as well as gateway, or centralized PBX operator exchange as well as originating/gateway exchange at the same time.

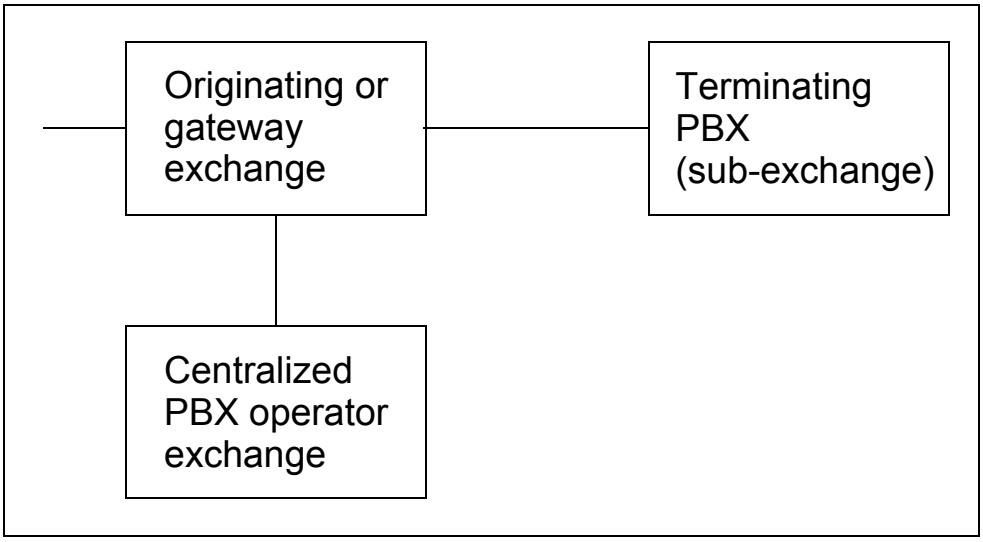


Figure 1: One possible network configuration

The central answer position should be an external destination number to a PBX operator, extension, or internal group hunting group in a centralized PBX operator exchange.

Note: See 6.4 Customer Group on page 19 for interaction between the two functions.

6.15.1 REROUTING IN NETWORK

General

When initiating a route it is possible to set three central answer position addresses (external rerouting numbers) per route, and they are internally arranged according to priorities. In the case of rerouting an internal day number (if any) will be selected in the first place (a prerequisite is that the exchange is connected for day service) and then the first, second, and third central answer position, respectively. Common abbreviated

numbers are used to address a central answer position. The common abbreviated number contains a complete number to a central answer position.

Prerequisites

In the case of rerouting to an external destination (A-party who is not to be found in the same exchange as the originally searched party), the following is applicable:

An external rerouting position can only be initiated per route but not per line.

Day number should not be initiated for the route, if a rerouting to a central answer position is to be done.

Execution

In a terminating exchange

A rerouting number is to be initiated for a particular route. The route is to be initiated. See the operational directions for *ROUTE DATA*.

Internal day/night rerouting numbers (if any) are initiated with *RODNI*. See the operational directions for *ROUTE DATA*.

Initiate external destination numbers using *number_initiate* and common abbreviated numbers, and so on, which compose an address to a central PBX operator or central answer position when they are translated.

External rerouting positions are initiated with the command *RORNI*. A maximum of three numbers per route can be defined.

The external rerouting numbers will be passive and not be selected until a notification from the exchange of the central answer position has been received, stating that the relevant exchange is connected for day service. Initiate an own exchange number with *number_initiate*.

In an originating gateway exchange

No particular measures.

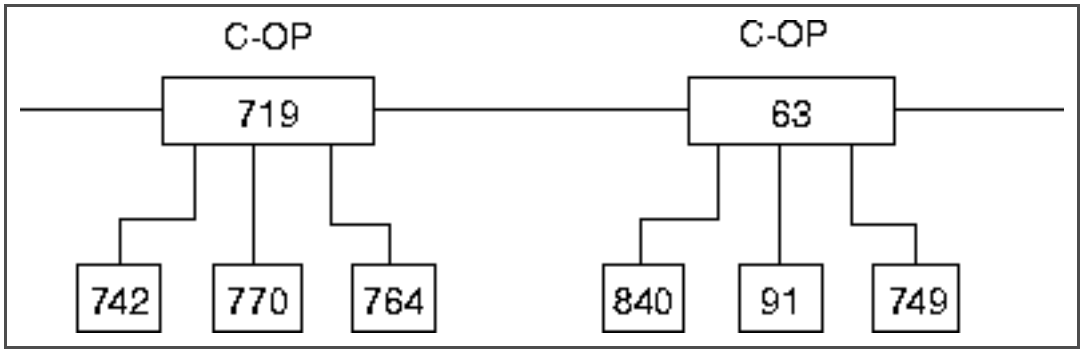
In a centralized PBX operator exchange

Initiate the central answer positions according to existing routines for each type of answer position.

Initiate the own exchange number with *number_initiate*.

6.15.2 DAY/NIGHT STATUS NOTIFICATION BETWEEN EXCHANGES

General



A network can have one or several centralized PBX operators, in the figure abbreviated to C-OP. These centralized PBX operator's exchanges can notify a maximum of 64 different other exchanges in the network of the status for day/night service connection. This is made when the status for day/night service is changed and with a certain time interval.

Prerequisites

ISDN/H.323/DPNSS must be used, and network facilities must be available.

The exchanges, included in the private network, must have their own exchange numbers initiated. See the operational directions for *NUMBER ANALYSIS*.

Execution

In an exchange equipped with a centralized answer position

Initiate the PBX operator(s) according to existing routines. A table stating which other exchanges that are served, and due to this are to be notified of the day/night status of the PBX operator's exchange, is initiated, if a centralized PBX operator is to be used, that is, the PBX operator is to serve several exchanges. An own exchange number must also be set. This is all done with the command *OPNEI*.

In a notified exchange

No particular messages. However, external rerouting positions ought to be initiated for routes in this exchange, according to the section dealing with terminating exchange.

6.15.3 ASSIGN A DESTINATION FOR DAY/NIGHT STATUS NOTIFICATION

Key the command *OPNEP* to order a printout of existing sub-exchange numbers in the table, and of the own exchange number.

Initiate with command *OPNEI*.

Check the result with command *OPNEP*.

6.15.4 REMOVE A DESTINATION FOR DAY/NIGHT STATUS NOTIFICATION

Key the command *OPNEP* to order a printout of existing sub-exchange numbers in the table, and of the own exchange number.

Remove with command *OPNEE*.

Check the result with command *OPNEP*.

6.15.5 PRINT A DESTINATION FOR DAY/NIGHT STATUS NOTIFICATION

Key the command *OPNEP* to obtain a printout.

6.15.6 CENTRAL OPERATOR NUMBER INITIATION FOR INTERNAL COMMON OPERATOR CALLS

General

Calls to a common operator number, originating in a sub-exchange which is night switched, or has no present local operator, that is, calls which are internal in the private network, can be rerouted to a central PBX operator. In addition to the internal day- and night switching destinations, it is possible to initiate up to 3 central external destination numbers, common to the entire PBX on call origin group basis.

The five possible destination numbers have the following order of priority:

- Local common operator number/local day answer position
- Central operator/external answer position 1
- Central operator/external answer position 2

- Central operator/external answer position 3
- Local night answer position

Alternatives 2 - 4 can only be used when the exchange is night switched or lacks local operator.

Prerequisites

Common operator numbers must be initiated. The night service diversion position is accessed from a common abbreviated number. The abbreviated number contains the external number of the central operator. When expanded, the number shall consist of the exchange number of the central operator's PBX, and a DID common operator number in the central operator's PBX.

The exchange numbers of all exchanges in the private network shall have been initiated as external destinations, with command *RODDI*.

6.15.6.1 Initiate a Common Operator Night Service Diversion Numbers to Central Operator Position

In a sub-exchange

ADCOI, the command for a common abbreviated number, must be executed, to initiate the number of the external night service diversion destination. Routes must be initiated, and OPCTS shall have been executed, to define origin groups.

Key the command *OPADC* or *OPCEI* to initiate night answer position and night service diversion position.

Repeat if several external night service diversion numbers of different priority shall exist for the origin group.

Key commands *OPCTP* and *OPCEP* to verify the result.

6.15.6.2 Remove a Common Operator Night Service Diversion Numbers to Central Operator Position

In a sub-exchange

Key the command *OPCEE* to remove night service diversion position.

Repeat if several external night service diversion numbers of different priority shall exist for the origin group.

Key commands *OPCTP* and *OPCEP* to verify the result.

6.16 CUSTOMER CENTRALIZED OPERATOR

General

See the operational directions for *CENTRALIZED ANSWER POSITION* for detailed description.

In an ISDN and H.323 network, calls with customer affiliation to a PBX operator group which does not have present local operators in service, can be redirected to the operator group's customer centralized operator.

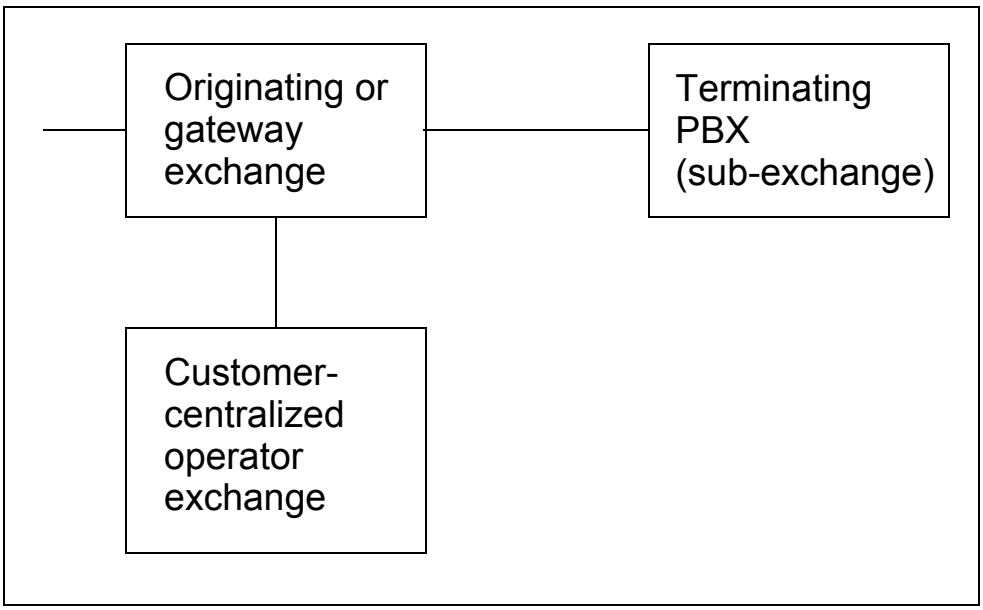


Figure 2: One possible network configuration

Customer-centralized operator exchange is the exchange where the customer centralized operator is located, 6.15 Centralized PBX Operator on page 26 for descriptions of the terminating and originating gateway exchange.

The customer-centralized operator number shall be an external destination number in the terminating exchange to a common PBX operator group in the customer centralized operator exchange.

When the customer function is used, in selecting an answer position for calls to a PBX operator group, the following list is arranged in sequential order according to the priority:

1) Local operator (if present)
2) Customer-centralized operator 1
3) Customer-centralized operator 2 (Note)
4) External answer position 1
5) External answer position 2
6) External answer position 3
7) Local night answer position
8) Night bell

Note: In an ISDN VPN scenario, the number of customer centralized operator supported depends on the number of USER INFO messages that can be sent in Service 2. If two USER INFO messages are allowed in Service 2, then only one customer centralized operator is supported. When more than two USER INFO messages are allowed, both customer centralized operator 1 and 2 are supported. Notice that in an H.323 VPN scenario the USER INFO messages are embedded in H.225 FACILITY messages.

Alternatives 1 to 7 are defined specific to a PBX operator group. The customer centralized operators and external answer positions are located in another PBX within the network.

Day/night status notification function is not used to inform the satellite exchange about customer centralized operator exchange's status. After a call is redirected to a customer centralized operator and finds that there is no present operator in the destination's operator group to serve this call, the call is rejected by the customer centralized operator exchange and the next available alternative in the list is searched to serve this call.

Depending on the type of call to the common operator number, some alternatives are not used in searching for an operator to answer the call.

	Local operator	CCOP	External Answer Position	Local Night Answer Position	Night Bell
Emergency call	Y	N	N	Y	Y
Rerouted call	Y	Y	N	Y	Y
Diverted call	Y	Y	Y	Y	Y
Internal call	Y	Y	Y	Y	Y
Call from DID trunk	Y	Y	Y	Y	Y

6.16.1 INITIATE A CUSTOMER CENTRALIZED OPERATOR

General

See the operational directions for *CENTRALIZED ANSWER POSITION* for detailed description.

Prerequisites

Routes and lines must be initiated. The operator group must be defined, by command *OPCTS*.

The customer centralized operator is accessed from a common abbreviated number whose translated number contains the external number to the customer centralized operator. The abbreviated number must be initiated with command *ADCOI*.

Execution

Key the command *OPCEI* to initiate a customer centralized operator for a PBX operator group. It is possible to initiate two customer centralized operators for a PBX operator group.

Key the command *OPCEP* and *OPCTP* to verify the result.

6.16.2 REMOVE A CUSTOMER CENTRALIZED OPERATOR

Key the command *OPCEE* to remove a customer centralized operator for a PBX operator group.

Key the command *OPCEP* and *OPCTP* to verify the result.

6.16.3 EXECUTION, GRAPHIC SUMMARY

See the operational directions for *CENTRALIZED ANSWER POSITION* and operational directions for *CUSTOMER GROUP*.

6.17 PRINT WHICH PBX OPERATOR IS CONNECTED TO AN EQUIPMENT POSITION

Key the command *resource_status -p* to obtain a printout.

6.18 DAY AND NIGHT STATUS CONTROL

General

The day/night trunk call discrimination is controlled by the data called exchange day/night status. This status can be changed using the following criteria: day/night switch feature code criteria, time of day criteria and PBX operator presence/absence criteria.

6.18.1 DAY/NIGHT SWITCH FEATURE CODE CRITERIA

Key procedure * FC * status # where:

FC =
Feature Code (Market Dependent Parameter)

Status:
0 = change to night 1 = change to day

Key the command *OPDNP* to verify the result.

6.18.2 TIME OF DAY (AUTOMATIC ON TIME) CRITERIA

Key the command *OPDNC* to set up the day time threshold and night time threshold.

Key the command *OPDNP* to verify the result.

6.18.3 PBX OPERATOR PRESENCE/ABSENCE CRITERIA

If the exchange status is not specified by a procedure (Feature Code entered) or automatic on time (the day and night time threshold have not been initiated in the system) has not been set, the PBX operator presence/absence status shall determine the system day/night status.

Depress the appropriate keys from the PBX operator console to change the day (presence)/night (absence) status.

6.19 ALARM PRESENTATION

The Removal of alarm indication makes it possible to choose whether alarm indication shall or shall not be presented on the PBX operator display.

The function is activated with AS parameter (*PARNUM=174*).

6.20 IP OPERATOR

To turn an IP telephone into an IP operator enabled telephone, or to set up IP operators, see the installation instructions for *DBC 425*.

6.21 OPERATOR ASSISTANT SERVER

The PBX Operator Assistants need an Operator Assistant server to be initiated in the system for sending and receiving information. This server and their associated Operator Assistants must be initiated in the same LIM.

6.21.1 INITIATE THE OPERATOR ASSISTANT SERVER

Key the command *OPSAI* to initiate an Operator Assistant server.

Key the command *OPSAP* to verify the result.

6.21.2 ERASE THE OPERATOR ASSISTANT SERVER

Key the command *OPDDP* to obtain a printout of all the PBX operators initiated in the system.

Erase all the PBX operators of type Operator Assistant (6.1.2 Erase the PBX Operator on page 5).

Key the command *OPSAE* to close the Operator Assistant server.

Key the command *OPSAP* to verify the result.

6.21.3 PRINT THE OPERATOR ASSISTANT SERVER DATA

Key the command *OPSAP* to obtain a printout.

6.22 OPERATOR COMMON QUEUE

The LIM where the common queue is located is initialized based on system configuration when system is installed. The location and priority of the common queue LIM can be changed with command *operator_common_queue*.

Key the command ***operator_common_queue -p*** to see the LIM where the common queue will be located.

Key the command ***operator_common_queue -c -l <lim>*** to change the LIM where the common queue will be located.

Key the command ***operator_common_queue -p*** to very the result.

7 TERMINATION

If the PBX operator's call number has been altered or a new one has been initiated the affected parties are to be informed.

If exchange data have been altered then a dump to back-up media should be made.