

# MiVoice MX-ONE Technical Reference Guide, MML Commands

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AC - AUTOMATIC CALL DISTRIBUTION

1.1

ACBGE

Automatic Call Distribution Back-up Group End

1.1.1

FORMAT

**Table 1**  
ACBGE:GRP=;

**Table 2**  
**GRP =**    Group number. Directory number of ACD group.

1.1.2

FUNCTION

The command removes the back-up group for an ACD group.

1.1.3

EXAMPLE

Remove the back-up group for the ACD group 8000.

**Table 3**  
ACBGE:GRP=8000;  
EXECUTED

1.1.4

COMMAND CATEGORY

Dangerous = **No**

1.2

ACBGI

Automatic Call Distribution Back-up Group Initiate

1.2.1

FORMAT

**Table 4**  
ACBGI:GRP=,BKG=;

**Table 5**  
**BKG =**    Back-up group number. Directory number of ACD group.  
**GRP =**    Group number. Directory number of ACD group.

1.2.2

FUNCTION

The command initiates a back-up group for an ACD group.

### 1.2.3 EXAMPLE

Initiate the ACD group 8500 as the back-up group for the ACD group 8000.

**Table 6**

ACBGI:GRP=8000,BKG=8500; EXECUTED
--------------------------------------

### 1.2.4 COMMAND CATEGORY

Dangerous = **No**

## 1.3 ACBGP

Automatic Call Distribution Back-up Group Print

### 1.3.1 FORMAT

**Table 7**

ACBGP:GRP=;

**Table 8**

**GRP =** Group number. Directory number of ACD group.  
&, && and ALL are permitted for this parameter.

### 1.3.2 FUNCTION

The command prints the back-up group information for ACD groups.

### 1.3.3 PRINTOUT

**Table 9**

ACD BACK-UP GROUP DATA			
GRP	LIM	BKG	LIM
.	.	.	.
.	.	.	.
.	.	.	.
END			

**Table 10**

**BKG** Back-up group number.

**LIM** LIM number.

### 1.3.4 EXAMPLE

Print the back-up group information for the ACD group 8000.

**Table 11**

ACBGP:GRP=8000;
-----------------

ACD BACK-UP GROUP DATA			
GRP	LIM	BKG	LIM
8000	1	8500	2
END			

The ACD group 8000 in LIM 1 has the ACD group 8500 in LIM 2 as its back-up group.

1.3.5 COMMAND CATEGORY

Dangerous = **No**

1.4 ACCSP

Automatic Call Distribution Current Status Print

1.4.1 FORMAT

**ACCSP:**  $\left[ \begin{array}{l} \text{DIR}=\dots \\ \text{GRP}=\dots \end{array} \right];$

**Figure 1:**  
**Table 12**

- DIR** = Directory number. Directory number of group member or agent position.  
& and && are permitted for this parameter.
- GRP** = Group number. Directory number of ACD group.  
& and && are permitted for this parameter.

1.4.2 FUNCTION

The command gives the current status for ACD groups.

1.4.3 PRINTOUT (GRP)

**Table 13**

ACD GROUP STATUS								
STATUS			BUSY		DELAYED CALLS		STATISTICS	
-----			-----		-----		-----	
GRP	MEMBERS	AVAILABLE	OWN	OTHER	CURRENT	MAXIMUM	AVCT	EWT
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
END								

**Table 14**  
**STATUS**

Common heading for parameters MEMBERS and AVAILABLE.

<b>BUSY</b>	Common heading for parameters OWN and OTHER.
DELAYED CALLS	Common heading for parameters CURRENT and MAXIMUM.
STATISTICS	Common heading for parameters AVCT and EWT.
GRP	Group number. Directory number of ACD group.
MEMBERS	Number of initiated members in an ACD group.
AVAILABLE	Number of available (free or busy) members in an ACD group.
OWN	Number of busy members in an ACD group.
OTHER	Number of multi member busy members in an ACD group (there are other members busy on the same agent position).
CURRENT	Current number of delayed calls towards an ACD group.
MAXIMUM	Maximum number of delayed calls an ACD group can handle.
AVCT	Average conversation time in an ACD group.
EWT	Estimated waiting time in queue in an ACD group.

## 1.4.4

## EXAMPLE (GRP)

Print data for ACD group number 8000.

**Table 15**

ACCSP:GRP=8000; ACD GROUP STATUS								
	STATUS		BUSY		DELAYED CALLS		STATISTICS	
	-----		-----		-----		-----	
GRP	MEMBERS	AVAILABLE	OWN	OTHER	CURRENT	MAXIMUM	AVCT	EWT
8000	20	20	4	3	4	13	120	65
END								

The ACD group's directory number is 8000. There are twenty members initiated in the group. Seven of these members are available (free or busy). Four of the members are busy in this group. Three of the members have other members on the same agent position occupying their ACD groups. There are four delayed calls. Maximum fourteen delayed calls can be handled at the same time. Average conversation time for all agents in the group is 120 seconds. Estimated waiting time in queue is 65 seconds.

## 1.4.5

## COMMAND CATEGORY

Dangerous = **No**

## 1.5

## ACGCC

Automatic Call Distribution Group Category Change

## 1.5.1

## FORMAT

**Table 16**

ACGCC:GRP=[,EGCSP=][,SEL=][,QUE=][,ACTC=];

**Table 17**

<b>ACTC =</b>	Average conversation time constant. If the parameter is omitted ACTC will be set to 180 seconds.
<b>EGCSP =</b>	Extension group common service profile, see command extension_group_profile.
<b>GRP =</b>	Group number. Directory number of ACD group. & and && are permitted for this parameter. No multiple values are to be stated for GRP when the QIC parameter is stated.
<b>QUE =</b>	Queue handling.
<b>SEL =</b>	Selection category.

## 1.5.2

## FUNCTION

The command is used to alter the category characteristics of an ACD group.

The categories to be altered for the entire group are stated for the group:

- the extension group common service profile configured for the group.  
the hunting order for selection of free members.
- the queue handling for the ACD group
- the average conversation time constant

In alteration of previously initiated categories those parameters of EGCSP, SEL, QUE, and ACTC that are to be altered are to be stated. The existing values of non-stated parameters are retained.

At least one of the parameters EGCSP, SEL, QUE, and ACTC must be stated.

## 1.5.3

## EXAMPLE

Alter the category characteristics for the group with directory number 8000 so that extension group common service profile 5 is used. The selection for free members shall use the sequential method. Dynamic queue is used. Minimum number of delayed calls which can be handle are 15. Maximum number of delayed calls which can be handle are 75. Value of the queue constant is 25. Value for the common queue or selection priority is 25.

**Table 18**

ACGCC:GRP=8000,EGCSP=5,SEL=0, QUE=10150752525; EXECUTED
---

## 1.5.4

## COMMAND CATEGORY

Dangerous = **No**

## 1.6

## ACGCP

Automatic Call Distribution Group Category Print

## 1.6.1

## FORMAT

**Table 19**

ACGCP:GRP=;

**Table 20**

**GRP =** Group number. Directory number of ACD group.  
&, && and ALL are permitted for this parameter.

## 1.6.2

## FUNCTION

The command is used to print the category for an ACD group.

## 1.6.3

## PRINTOUT

**Table 21**

ACD GROUP CALL DATA								
GRP	LIM	EGCSP	SEL	QUE	QIC	CUST	SAT	ACTC
.	...	...	...	...	...	...	...	...
.								
.								
END								

**Table 22**

**ACTC** Average conversation time constant.  
**CUST** Customer number.  
**GRP** Group number. Directory number of ACD group.  
**LIM** LIM number. LIM in which the group's data are situated.  
**QIC** Not valid for the MX-ONE.  
**QUE** Queue handling. States maximum number of queuing calls towards the group and type of queuing and calculation of dynamic queue.  
**SAT** Satellite group information. Information if the group is defined as a Satellite group in an ANCD network.  
**SEL** Selection category.

## 1.6.4

## EXAMPLE

Print data for ACD group number 8000.

**Table 23**

ACGCP:GRP=8000;								
ACD GROUP CALL DATA								
GRP	LIM	EGCSP	SEL	QUE	QIC	CUST	SAT	ACTC
8000	1	6	00305	10159752525	-	1	NO	180
.								
.								
END								



The ACD group's directory number is 8000. The group data are placed in LIM 1. The group is assigned extension group common service profile 6.

Free members of the group are hunted in sequential order, that is, in accordance with the order in which they were initiated into the group. Dynamic queue is used. The minimum number of delayed calls which can be handle is 15. The maximum number of delayed calls which can be handle is 75. The value of the queue constant is 25. The value for the common queue or selection priority is 25. The group is affiliated to customer number 1. The group is not defined as a Satellite group. The average conversation time constant ACTC is 180 seconds.

1.6.5
COMMAND CATEGORY

Dangerous = No

1.7
ACGMC

Automatic Call Distribution Group Member Change

1.7.1
FORMAT

$$\text{ACGMC:DIR}=\left[\begin{array}{l} \text{,CLT=} \\ \text{,PRA=} \\ \text{,CLT=, PRI=} \end{array}\right];$$

Figure 2:  
Figure 3:  
Table 24

**CLT** = Clerical time.

**DIR** = Directory number. Directory number of group member.  
& and && are permitted for this parameter.

**PRI** = Individual queue or selection priority for the member.

1.7.2
FUNCTION

The command is used to change clerical time, or individual queue or selection priority, or both, for the ACD members.

1.7.3
EXAMPLE 1

Extensions 4492 to 4496 and 5023 are ACD members. Change the clerical time to 60 seconds for these members.

Table 25

ACGMC:DIR=4492&&4496&5023,CLT=60;
EXECUTED

## 1.7.4

## EXAMPLE 2

Extensions 4492 to 4496 and 5023 are ACD members. Change the individual queue or selection priority to 3 for these members.

**Table 26**

ACGMC:DIR=4492&&4496&5023,PRI=3; EXECUTED
--

## 1.7.5

## EXAMPLE 3

Extension 4492 is ACD member. Change the clerical time to 60 seconds for this member. Also change the queue or selection priority for the member to the common queue or selection priority for the ACD group.

**Table 27**

ACGMC:DIR=4492,CLT=60,PRI=GRP; EXECUTED
--

## 1.7.6

## COMMAND CATEGORY

Dangerous = **No**

## 1.8

## ACGME

Automatic Call Distribution Group Member End

## 1.8.1

## FORMAT

**Table 28**

ACGME:DIR=;

**Table 29**

**DIR =** Directory number. Directory number of group member.  
& and && are permitted for this parameter.

## 1.8.2

## FUNCTION

Remove one or more extensions from a group.

## 1.8.3

## EXAMPLE

Extensions 4492 to 4496 and 5023 shall be removed from the ACD groups they belong to.

**Table 30**

ACGME:DIR=4492&&4496&5023; EXECUTED
--

## 1.8.4 COMMAND CATEGORY

Dangerous = **No**

## 1.9 ACGMI

Automatic Call Distribution Group Member Initiate

### 1.9.1 FORMAT

**Table 31**

ACGMI:GRP=,DIR=[,CLT=][,PRI=];

**Table 32**

**CLT =** Clerical time.  
If the parameter is omitted CLT will be set to 0.

**DIR =** Directory number. Directory number of group member.  
& and && are permitted for this parameter.

**GRP =** Group number. Directory number of ACD group.

**PRI =** Individual queue or selection priority for the member.  
If the parameter is omitted the common queue or selection priority defined for the ACD group will be used.

### 1.9.2 FUNCTION

The command is used to initiate members into an ACD group and to initiate clerical time, or individual queue/selection priority, or both, for the member.

### 1.9.3 EXAMPLE 1

Initiate extensions 4496, 4494, and 4492 as members of ACD group 8000. The order in which the extensions are initiated is important if sequential selection has been selected for the group.

**Table 33**

```
ACGMI:GRP=8000,DIR=4496&4494&4492;
EXECUTED
```

### 1.9.4 EXAMPLE 2

Initiate extensions 5024 and 5023 as members of ACD group 8002. The members shall have the clerical time set to 25 seconds and the individual queue or selection priority set to 3.

**Table 34**

```
ACGMI:GRP=8002,DIR=5024&5023,CLT=25,PRI=3;
EXECUTED
```

## 1.9.5 COMMAND CATEGORY

Dangerous = **No**

## 1.10 ACGMP

Automatic Call Distribution Group Member Print

### 1.10.1 FORMAT

**ACGMP:**  $\left[ \begin{array}{l} \text{DIR}=\dots \\ \text{GRP}=\dots, \text{SORT}=\dots \end{array} \right];$

**Figure 4:**

**Figure 5:**

**Table 35**

**DIR =** Directory number. Directory number of group member or agent position.  
& and && are permitted for this parameter.

**GRP =** Group number. Directory number of ACD group.  
& and && and ALL are permitted for this parameter.

**SORT =** Sorting method.  
If the parameter is omitted the sorting method used will be numerical order.

### 1.10.2 FUNCTION

The command is used to print data for an ACD group, group member, or an agent position.

### 1.10.3 PRINTOUT 1 (GRP)

**Table 36**

ACD GROUP MEMBER DATA			
GRP	DIR	PRI	CLT
.	.	.	.
.	.	.	.
.	.	.	.
END			

### 1.10.4 PRINTOUT 2 (DIR)

**Table 37**

ACD GROUP MEMBER DATA			
DIR	GRP	PRI	CLT
.	.	.	.
.	.	.	.
.	.	.	.

END
-----

**Table 38**

<b>CLT</b>	Clerical time.
<b>DIR</b>	Directory number.
<b>GRP</b>	Group number.
<b>PRI</b>	Individual queue or selection priority for the member. If individual priority is set, the individual value will be printed marked with (I).

## 1.10.5

## EXAMPLE 1 (GRP)

Print data for all ACD groups.

**Table 39**

ACGMP:GRP=ALL;			
ACD GROUP MEMBER DATA			
GRP	DIR	PRI	CLT
8000	4492	25	0
	4494	25	0
	4496	25	0
8002	5023	2	25
	5024	1 (I)	25
8012			
END			

ACD group 8000 consists of three members with directory numbers 4492, 4494, and 4496. The queue or selection priority is 25 (common) for all members and no clerical time is used. ACD group 8002 consists of two members with directory numbers 5023 and 5024. The queue or selection priority is 2 (common) for 5023 and 1 (individual) for 5024 and both members use a clerical time set to 25 sec. ACD group 8012 does not have any members initiated.

## 1.10.6

## EXAMPLE 2 (GRP)

Print data for ACD group 8002 sorted by the initiated order of the members.

**Table 40**

ACGMP:GRP=8002,SORT=1;			
ACD GROUP MEMBER DATA			
GRP	DIR	PRI	CLT
8002	5024	1 (I)	25
	5023	2	25
END			

ACD group 8002 consists of two members initiated in the order 5024 and 5023. The queue or selection priority is 1 (individual) for 5024 and 2 (common) for 5023 and both members use a clerical time set to 25 sec.

## 1.10.7

## EXAMPLE 3 (DIR)

Print data for ACD group members 4492, 4494, 4496, 5023, and 5024.

**Table 41**

ACGMP:DIR=4492&4494&4496&5023&5024;			
ACD GROUP MEMBER DATA			
DIR	GRP	PRI	CLT
4492	8000	25	0
4494	8000	25	0
4496	8000	25	0
5023	8002	2	25
5024	8002	1 (I)	25
END			

The ACD group members 4492, 4494, and 4496 belong to ACD group 8000. The queue or selection priority is 25 (common) for all members and no clerical time is used. ACD group members 5023 and 5024 belong to ACD group 8002. The queue or selection priority is 2 (common) for 5023 and 1 (individual) for 5024 and both members use a clerical time set to 25 sec.

## 1.10.8

## EXAMPLE 4 (DIR)

Print data for the agent position with directory number 4490.

**Table 42**

ACGMP:DIR=4490;			
ACD GROUP MEMBER DATA			
DIR	GRP	PRI	CLT
4490	8000	25	0
	8002	1 (I)	25
	8011	4	30
END			

The agent position with directory number 4490 is assigned in three ACD groups 8000, 8002 and 8011 each with different queue or selection priority. The members in the groups have been given different clerical times.

## 1.10.9

## COMMAND CATEGORY

Dangerous = **No**

## 1.11

## ACGRE

Automatic Call Distribution Group End

## 1.11.1 FORMAT

**Table 43****ACGRE:GRP=;****Table 44**

**GRP =** Group number. Directory number of ACD group.  
& is permitted for this parameter.

## 1.11.2 FUNCTION

The command is used to remove an ACD group.

## 1.11.3 EXAMPLE

ACD groups 8000 and 8003 shall be removed.

**Table 45**

```
ACGRE:GRP=8000&8003;
EXECUTED
```

## 1.11.4 COMMAND CATEGORY

Dangerous = **No**

## 1.12 ACGRI

Automatic Call Distribution Group Initiate

## 1.12.1 FORMAT

**Table 46****ACGRI:GRP=[,LIM=],EGCSP=,SEL=,QUE=[,CUST=][,ACTC=];****Table 47**

**ACTC =** Average conversation time constant.  
If the parameter is omitted ACTC will be set to 180 seconds.

**CUST =** Customer number.  
If the parameter is omitted no customer number will be assigned.

**EGCSP=** Extension group common service profile, see command extension\_group\_profile.

**GRP =** Group number. Directory number of ACD group.

**LIM=** LIM number. Number of the LIM in which the group is to be placed.  
If parameter LIM is omitted the LIM with the least number of ACD groups will be selected.

**QUE =** Queue handling.

**SEL =** Selection category.

## 1.12.2

## FUNCTION

The command is used to initiate an ACD group.

The categories that shall apply for the group, in which LIM the group data shall be placed and which customer number the group shall belong to, are stated:

- the ACD group number
- in which LIM the group's data shall be placed
- the extension group common service profile the group is assigned
- queue handling for the group
- which customer number the group shall belong to
- the average conversation time constant

## 1.12.3

## EXAMPLE 1

Initiate an ACD group with directory number 8000. The group's data is to be placed in LIM number 1. The extension group common service profile used is 8. Free members of the group are hunted in sequential order, that is, in accordance with the order in which they were initiated into the group. Dynamic queue is used. The minimum number of delayed calls which can be handled is 15. The maximum number of delayed calls which can be handled is 75. The value of the queue constant is 25. The value for the common queue or selection priority is 25. The group number shall be affiliated to customer number 1. The average conversation time constant shall be 100 seconds.

**Table 48**

ACGRI:GRP=8000,LIM=1,EGCSP=8,SEL=0, QUE=10150752525,CUST=1,ACTC=100; EXECUTED
---

## 1.12.4

## EXAMPLE 2

Initiate an ACD group with directory number 8002. The group's data is to be placed in LIM number 1. The extension group common service profile used is 7. Searching for a free member shall be according to the even load principle, that is, the member who has been free the longest time will be selected first. Dynamic queue is not used. The minimum number of delayed calls which can be handled is 15. The maximum number of delayed calls which can be handled is 75. The value of the queue constant is 25. The value for the common queue or selection priority is 1. It is not necessary to affiliate the group number to any specific customer.

**Table 49**

ACGRI:GRP=8002,LIM=1,EGCSP=7,SEL=1, QUE=00150752501; EXECUTED
---

## 1.12.5

## COMMAND CATEGORY

Dangerous = **No**



1.13
ACPAC

Automatic Call Distribution Parameter Change

1.13.1
FORMAT

**Table 50**  
**ACPAC:ACDNUM=, ACDVAL=;**

**Table 51**  
**ACDNUM =**      ACD parameter number.  
**ACDVAL =**      ACD parameter value.

1.13.2
FUNCTION

The command is used to change the ACD parameter value.

1.13.3
EXAMPLE

Change ACD parameter value to 0 for ACD parameter number 1.

**Table 52**  
ACPAC:ACDNUM=1,ACDVAL=0;  
WAIT  
EXECUTED

1.13.4
COMMAND CATEGORY

Dangerous = **No**

1.14
ACPAP

Automatic Call Distribution Parameter Print

1.14.1
FORMAT

**Table 53**  
**ACPAP:ACDNUM=;**

**Table 54**  
**ACDNUM =**      ACD parameter number.  
                    &, && and ALL are permitted for this parameter.

1.14.2
FUNCTION

The command is used to print the ACD parameter value for an ACD parameter number.

## 1.14.3

## PRINTOUT

**Table 55**

ACD SYSTEM PARAMETER	
ACDNUM	ACDVAL
.	.
.	.
.	.
END	

**Table 56**

**ACDVAL**      ACD parameter value.

## 1.14.4

## EXAMPLE

Print the ACD parameter value for ACD parameter number 1.

**Table 57**

ACPAP:ACDNUM=1;	
ACD SYSTEM PARAMETER	
ACDNUM	ACDVAL
1	0
END	

The ACD parameter value for ACD parameter number 1 is 0. This means that selection of delayed calls when an agent position becomes free shall be done according to individual selection.

## 1.14.5

## COMMAND CATEGORY

Dangerous = **No**

## 1.15

## ACTNE

Automatic Call Distribution Translation Number End

## 1.15.1

## FORMAT

**ACTNE:DNUM=;**

**Table 58**

**DNUM =**      DNIS number. Directory number of DNIS.  
& is permitted for this parameter.

## 1.15.2

## FUNCTION

The command is used to remove an affiliated service group from a DNIS number.

### 1.15.3

#### EXAMPLE

Remove the affiliation between the service group or groups and the DNIS number 1000 and 1001.

**Table 59**

ACTNE:DNUM=1000&1001; EXECUTED
-----------------------------------

### 1.15.4

#### COMMAND CATEGORY

Dangerous = **No**

## 1.16

### ACTNI

Automatic Call Distribution Translation Number Initiate

### 1.16.1

#### FORMAT

**ACTNI:DNUM=,SGRP=[REP=];**

**Table 60**

<b>DNUM =</b>	DNIS number. Directory number of DNIS. & and && are permitted for this parameter.
<b>REP =</b>	REP = Replace value. REP states whether existing DNIS information (number and name) is replaced with the new DNIS information.
<b>SGRP =</b>	Service group number. Directory number of an ACD or ANCD group.

### 1.16.2

#### FUNCTION

The command is used to initiate service group numbers to DNIS numbers.

### 1.16.3

#### EXAMPLE

Initiate DNIS number 1000 to an ACD group with directory number 6000 and replace the DNIS number if Diversion/Deflection is executed.

**Table 61**

ACTNI:DNUM=1000,SGRP=6000,REP=1; EXECUTED
--

### 1.16.4

#### COMMAND CATEGORY

Dangerous = **No**

## 1.17

### ACTNP

Automatic Call Distribution Translation Number Print

## 1.17.1

## FORMAT

**ACTNP:**  $\left[ \begin{array}{l} \text{DNUM=...} \\ \text{SGRP=...} \end{array} \right];$

**Figure 6:**

**Figure 7:**

**Table 62**

**DNUM =** DNIS number. Directory number of DNIS.  
&, && and ALL are permitted for this parameter.

**SGRP =** Service group number. Directory number of ACD or ANCD group.  
&, && and ALL are permitted for this parameter.

## 1.17.2

## FUNCTION

The command is used to print data stored for DNIS numbers or service group numbers.

## 1.17.3

## PRINTOUT 1 (DNUM)

**Table 63**

DNIS DATA PRINT				
DNIS NO	DNIS NAME	SGRP	STYPE	REP
.	...	...	...	...
.				
.				
END				

## 1.17.4

## PRINTOUT 2 (SGRP)

**Table 64**

DNIS DATA PRINT				
SGRP	STYPE	REP	DNIS NO	DNIS NAME
.	...	...	...	...
.				
.				
END				

**Table 65**

**DNIS NAME** The DNIS numbers alphanumerical identity.

**DNIS NO** DNIS number.

**REP** REP = Replace value. REP states whether existing DNIS information (number and name) is replaced with the new DNIS information.

**STYPE** Service group number type. States the group type in SGRP, that is, ACD or ANCD.

## 1.17.5

## EXAMPLE 1 (DNUM)

Print data for DNIS number 12121.

**Table 66**

ACTNP:DNUM=12121;				
DNIS DATA PRINT				
DNIS NO	DNIS NAME	SGRP	STYPE	REP
12121	SOFTWARE	71000	ANCD	YES
END				

The DNIS number is 12121. The DNIS number's alphanumeric name is SOFTWARE. The service group is an ANCD group and the DNIS information for this DNIS number replaces any existing DNIS when deflect or diversion has been executed.

## 1.17.6

## EXAMPLE 2 (DNUM)

Print data for all DNIS numbers.

**Table 67**

ACTNP:DNUM=ALL;				
DNIS DATA PRINT				
DNIS NO	DNIS NAME	SGRP	STYPE	REP
12121	SOFTWARE	71000	ANCD	YES
12345	VIP CUSTOMERS	68000	ACD	NO
55444	EUROPOLITAN	65000	ACD	YES
90900	TELESTAR	71000	ANCD	YES
END				

Both DNIS number 12121 and 90900 are assigned to the ANCD service group 71000 and the information associated with these DNIS numbers replaces any existing DNIS at deflect or divert to DNIS. The DNIS number 12345 with name VIP CUSTOMERS is assigned to the service group 68000, which is an ACD group and this DNIS number does not replace an existing DNIS when diversion or deflection to the DNIS has been executed. The DNIS number 55444 is assigned to the ACD service group 65000 and this DNIS information replaces an existing DNIS.

## 1.17.7

## EXAMPLE 3 (SGRP)

Print data for service group number 68000 and 71000.

**Table 68**

ACTNP:SGRP=68000&71000;				
DNIS DATA PRINT				
SGRP	STYPE	REP	DNIS NO	DNIS NAME
68000	ACD	YES	12345	VIP CUSTOMERS
71000	ANCD	NO	12121	SOFTWARE
			90900	TELESTAR
END				

The service group with number 68000 is an ACD group which has the DNIS number 12345 assigned and this DNIS information replaces any existing DNIS when diversion or deflect to DNIS is executed. The service group with number 71000 is an ANCD group and both DNIS numbers and 90900 are assigned and this DNIS information does not replace existing DNIS information.

#### 1.17.8

#### COMMAND CATEGORY

Dangerous = **No**

2
AD - ABBREVIATED DIALING

2.1
ADCDP

Abbreviated Dialing Common Number Data Print

2.1.1
FORMAT

**Table 69**  
ADCDP:ABB=[,COUNT=][,CUST=];

**Table 70**  
ABB = Common or individual abbreviated number  
&, &&, and ALL are permitted for this parameter.  
COUNT = Counter. Request for printout that shows the number of times the common  
number has been used.  
If the parameter is omitted, there will be no printout of the counter value.  
CUST = Customer to which the parameters for this common abbreviated number  
belongs. If the parameter is omitted, only abbreviated number for customer 0 is  
printed.  
A single value or ALL are permitted for this parameter

2.1.2
FUNCTION

The command is used to print the complete translated numbers of common abbrevi-  
ated numbers, the number presentation restriction category, and the number of times  
that each number has been used.  
In addition, the counter can be reset in conjunction with read-off.

2.1.3
PRINTOUT

**Table 71**

COMMON ABBREVIATED DIALLING FACILITY DATA				
ABB	TRA	CLASS	COUNT	NPRES
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Table 72**  
CLASS Abbreviated number classes. A user must have one of these classes in order to use  
the abbreviated number.  
NPRES Translated number presentation restriction.  
TRA Complete translated number.

## 2.1.4

## EXAMPLE

Print information for abbreviated numbers 0360 to 0399 and the number of times each abbreviated number has been used.

**Table 73**

ADCDP:ABB=0360&&0399,COUNT=1;				
COMMON ABBREVIATED DIALLING FACILITY DATA				
ABB	TRA	CLASS	COUNT	NPRES
0361	000047C2788060	123	22	0
0397	000061C22904231	0	5	1
0399	0005C11E13D11675	2	3	1
END				

Abbreviated numbers 0361, 0397 and 0399 in abbreviated number series 0360 to 0399 are initiated.

Users that have been assigned any of the abbreviated number traffic classes 1, 2, or 3 may use abbreviated number 0361, which has been translated into route access code 00, international prefix 00, country code 47, for NORWAY, normal PTS is expected, 2788060. The abbreviated number has been used 22 times. The translated number presentation restriction is set to default.

Abbreviated number 0399 has been translated into route access code 00 and destination code 05, after the destination code a normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the external line is disconnected. That PTS is followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time-out DTMF sending of digits is performed. That PTS is followed by the digits 11675. The translated number presentation restriction is set to 1. The abbreviated number may be used by the users possessing abbreviated number traffic class 2. The abbreviated number has been used three times.

## 2.1.5

## COMMAND CATEGORY

Dangerous = **No**

## 2.2

## ADCOE

Abbreviated Dialing Common Number End

## 2.2.1

## FORMAT

**Table 74**

ADCOE: ABB=[,CUST=];

**Table 75**

ABB = Common or individual abbreviated number.  
& and && are permitted for this parameter.

CUST = Customer to which the parameter for this common abbreviated number belongs



2.2.2FUNCTION

The command is used to erase a common abbreviated number and all affiliated information.

2.2.3EXAMPLE

Erase the common abbreviated numbers 0360 to 0380 and 0399.

**Table 76**

ADCOE:ABB=0360&&0380&0399;
EXECUTED

2.2.4COMMAND CATEGORY

Dangerous = No

2.3ADCOI

Abbreviated Dialing Common Number Initiate

2.3.1FORMAT

**Table 77**

ADCOI:ABB=,TRA=,CLASS=[,NPRES=][,CUST=];

**Table 78**

ABB =	Common or individual abbreviated number.
CLASS =	Abbreviated number classes. A user must have one of these classes in order to use the abbreviated number. & and && are permitted for this parameter.
CUST =	Customer to which the parameter for this common abbreviated number belongs.
NPRES =	Translated number presentation restriction. If the parameter is omitted, a default value will be used.
TRA =	Complete translated number.

2.3.2FUNCTION

The command is used to initiate a common abbreviated number, its translated number with or without presentation restriction, and the abbreviated number traffic classes that may use the abbreviated number in question. If a proceed-to-send (PTS) is included in the translated number, the position in the translated number where the PTS shall be obtained is to be stated. Up to six new PTS positions can be stated.

A common abbreviated number can also be used in order to generate a procedure, that is, the digit and character volume that state a procedure for the system.

Each customer may have their own set of parameters for any common abbreviated number. If no customer specific parameters exists, the parameters for customer less (CUST=0) set is used.

## 2.3.3

## EXAMPLE 1

Initiate common abbreviated number 0361 with route access code 00, international prefix 00, country code 47 for Norway, normal PTS is expected, 2788060. The abbreviated number may be used by the users possessing abbreviated number traffic class 1, 2, or 3.

**Table 79**

ADCOI:ABB=0361,TRA=000047C2788060,CLASS=1&&3; EXECUTED
---

## 2.3.4

## EXAMPLE 2

Initiate common abbreviated number 0399, with the route access code 00, destination code 05, normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the trunk line shall be disconnected. That PTS shall be followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time out DTMF sending of digits shall be performed. That PTS shall be followed by the digits 11675. The abbreviated number may be used by the users possessing abbreviated number traffic class 2.

**Table 80**

ADCOI:ABB=0399,TRA=0005C11E13D11675,CLASS=2; EXECUTED
--

## 2.3.5

## EXAMPLE 3

Initiate a common abbreviated number with the translated number presentation restriction on.

**Table 81**

ADCOI:ABB=012,TRA=1239012111, CLASS=3, NPRES=1; EXECUTED
---

## 2.3.6

## COMMAND CATEGORY

Dangerous = **No**

## 2.4

## ADIDP

Abbreviated Dialing Individual Data Print

## 2.4.1

## FORMAT

**Table 82**

ADIDP:DIR=;

**Table 83**

DIR =           Directory number.  
                  &, &&, and ALL are permitted for this parameter.

## 2.4.2 FUNCTION

The command is used to print individual abbreviated numbers with complete translated numbers and the type of individual abbreviated numbers for stated extensions.

## 2.4.3 PRINTOUT

**Table 84**

INDIVIDUAL ABBREVIATED DIALLING FACILITY DATA			
DIR	ABB	TRA	IADTYP
.	.	.	.
.	.	.	.
.	.	.	.
END			

**Table 85**

ABB =	Common or individual abbreviated number.
IADTYP	Type of individual abbreviated number.
LIM	Common or individual abbreviated number. The individual abbreviated number and the complete translated number are stored in the block for individual abbreviated number.
TRA	Complete translated number.

## 2.4.4 EXAMPLE

Print the individual abbreviated numbers initiated by the extensions in the series 4490 to 4498.

**Table 86**

ADIDP:DIR=4490&&4498;			
INDIVIDUAL ABBREVIATED DIALLING FACILITY DATA			
DIR	ABB	TRA	IADTYP
4492			
	1	4457	NORMAL NUMBER
	5	000047C2405060	NORMAL NUMBER
	9	007499230	NORMAL NUMBER
4494			
	1	0005C11E13D11675	NORMAL NUMBER
4495			
4496			
4498			
	1	4492	NORMAL NUMBER
	2	007499752	NORMAL NUMBER
	5	1234567	AUTH CODE
	6	123456789012345	ACCOUNT CODE
	7	12345	REG AUTH CODE
END			

Only the possessors of directory numbers 4492, 4494, and 4498 in the stated series, 4490 to 4498, have programmed individual abbreviated numbers.

Directory number possessors 4495 and 4496 have been given permission to use the facility individual abbreviated dialing, but have not yet programmed any numbers for their own use.

Directory number possessor 4492 has programmed three individual abbreviated numbers 1, 5, and 9. When using individual abbreviated number 5, route access code 00, international prefix 00, country code 47 (Norway), normal PTS is expected and the subscriber digits 2405060 will be generated.

Directory number possessor 4494 has programmed one individual abbreviated number 1. When using individual abbreviated number 1, route access code 00 and the destination code 05, after the destination code a normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the external line is disconnected. That PTS is followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time-out DTMF sending of digits will be performed. That PTS is followed by the digits 11675.

Directory number possessor 4498 has programmed four individual abbreviated numbers 1, 2, 5, and 6. When using individual abbreviated number 5, central authorization code 1234567 will be generated, when using individual abbreviated number 6 account code 123456789012345 will be generated and when using individual abbreviated number 7 regional authorization code 12345 will be generated.

## 2.4.5 COMMAND CATEGORY

Dangerous = **No**

## 2.5 ADINE

Abbreviated Dialing Individual Number End

### 2.5.1 FORMAT

**Table 87**

ADINE:DIR=;

**Table 88**

DIR =        Directory number  
              &, &&, and ALL are permitted for this parameter.

### 2.5.2 FUNCTION

The command is used to remove the possibility for possessors of stated directory numbers to initiate and use individual abbreviated numbers.

### 2.5.3 EXAMPLE

Remove the possibility to initiate and erase individual abbreviated numbers for directory possessors number 4492 up to and including 4495, and 4498.

**Table 89**

ADINE:DIR=4492&&4495&4498; EXECUTED
--

2.5.4 COMMAND CATEGORY

Dangerous = **No**

2.6 ADINI

Abbreviated Dialing Individual Number Initiate

2.6.1 FORMAT

ADINI:  $\left[ \begin{array}{l} \text{DIR=...} \\ \text{DIR=,ABB=,TRA=,IADTYP=} \end{array} \right];$

**Figure 8:**

**Figure 9:**

**Table 90**

ABB =	Common or individual abbreviated number.
DIR =	Directory number. If ABB, TRA, and IADTYP are omitted, & and && are permitted for this parameter.
IADTYP =	Type of individual abbreviated number.
TRA =	Translated number.

2.6.2 FUNCTION

The command is used to permit possessors of stated directory numbers to initiate and use individual abbreviated numbers and for a specified directory number to initiate individual abbreviated numbers from a telephone. Each extension may have a maximum of 10 individual abbreviated numbers. Changing an initiated individual abbreviated number is done by re-initiating it.

If only DIR is given, the user may initiate and use individual abbreviated numbers.

If DIR, ABB, TRA, and IADTYP are given, the user may initiate and use individual abbreviated numbers. This combination is used when assigning an individual abbreviated number a translated number.

2.6.3 EXAMPLE 1

Permit directory number possessors 4492 up to and including 4495, and 4498 to initiate and use individual abbreviated numbers.

**Table 91**

ADINI:DIR=4492&&4495&4498; EXECUTED
--

## 2.6.4

## EXAMPLE 2

Initiate individual abbreviated numbers from the terminal for directory number owner 4500. For individual abbreviated number 1, the translated number shall be 00622135.

**Table 92**

ADINI:DIR=4500, ABB=1, TRA=00622135, IADTYP=NN; EXECUTED
---

## 2.6.5

## EXAMPLE 3

Initiate individual abbreviated number from the terminal for directory number owner 4494. For individual abbreviated number 1 the translated number shall consist of the number for external traffic access code 00, destination code 05, normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the external line shall be disconnected. That PTS shall be followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time-out DTMF sending of digits shall be performed. That PTS shall be followed by the digits 11675.

**Table 93**

ADINI:DIR=4494, ABB=1, TRA=0005C11E13D11675, IADTYP=NN; EXECUTED
---

## 2.6.6

## EXAMPLE 4

Initiate individual abbreviated numbers from the terminal for directory number owner 4498. For individual abbreviated number 5, the translated number shall be central authorization code 1234567, for individual abbreviated number 6 the translated number shall be account code 123456789012345, and for individual abbreviated number 7 the translated number shall be regional authorization code 12345.

**Table 94**

ADINI:DIR=4498, ABB=5, TRA=1234567, IADTYP=AU; EXECUTED
ADINI:DIR=4498, ABB=6, TRA=123456789012345, IADTYP=AO; EXECUTED
ADINI:DIR=4498, ABB=7, TRA=12345, IADTYP=RA; EXECUTED

## 2.6.7

## COMMAND CATEGORY

Dangerous = **No**

## 2.7

## ADIPP

Abbreviated Dialing Individual Possessors Print

2.7.1
FORMAT

ADIPP: [ LIM=...  
DIR=... ];

Figure 10:

Figure 11:

Table 95

DIR = Directory number.  
If ABB,TRA, and IADTYP are omitted, & and && are permitted for this parameter.  
LIM = LIM number.  
& and && are permitted for this parameter.

2.7.2
FUNCTION

The command is used to print directory numbers for possessors of the facility permitted to initiate and use individual abbreviated numbers. Printouts can be done in two different ways:

2.7.3
PRINTOUT 1 (DIR)

With respect to the directory numbers stated in parameter DIR having the facility irrespective of the LIM in which they are situated.

Table 96

INDIVIDUAL ABBREVIATED DIALLING POSSESSORS
DIR
.
.
.
END

2.7.4
PRINTOUT 2 (LIM)

With respect to which directory numbers in the stated LIMs having the facility.

Table 97

INDIVIDUAL ABBREVIATED DIALLING POSSESSORS
LIMNO...
DIR
.
.
.
END

## 2.7.5

## EXAMPLE 1

Print the directory numbers within the series 4400 to 4499 whose possessors have permission to initiate and use individual abbreviated numbers.

**Table 98**

```
ADIPP:DIR=4400&&4499;
INDIVIDUAL ABBREVIATED DIALING POSSESSORS
DIR
4421
4430
4494
4495
END
```

In the series 4400 to 4499, directory number possessors 4421, 4430, 4494 and 4495 are permitted to initiate and use individual abbreviated numbers.

## 2.7.6

## EXAMPLE 2

Print the directory number possessors that in LIM 1 have permission to initiate and use individual abbreviated numbers.

**Table 99**

```
ADIPP:LIM=1;
INDIVIDUAL ABBREVIATED DIALING POSSESSORS
LIMNO 001
DIR
4421
4430
4492
4494
4495
4498
4500
END
```

In LIM 1 only the possessors of directory numbers 4421, 4430, 4492, 4494, 4495, 4498, and 4500 have been given permission to initiate and use individual abbreviated numbers.

## 2.7.7

## COMMON CATEGORY

Dangerous = **No**



### 3 AS - APPLICATION SYSTEM PARAMETERS

#### 3.1 ASPAC

Application system parameters change

##### 3.1.1 FORMAT

**Table 100**

ASPAC:PARNUM=,PARVAL=;

**Table 101**

PARNUM =       Parameter number.  
PARVAL =       Parameter value.

##### 3.1.2 FUNCTION

The command is used to alter the value of the application system parameters (AS parameters) which are changeable for the relevant market.

The AS parameters which can be changed with the command 3.1 ASPAC on page 33 ASPAC are numbered in accordance with the sequence number, corresponding to the parameter description for the application system parameters. This number is given as the parameter value in PARNUM which identifies the relevant AS parameter.

The parameter value in PARVAL identifies the value which the AS parameter will get after the change. An application system parameter can control a function or a time in the system.

##### 3.1.3 EXAMPLE

The time before recall to the PBX operator from a parked party (*PARNUM* = 2) is to be changed to 30 seconds.

**Table 102**

ASPAC: PARNUM2, PARVAL=30;
ASPAC: PARNUM2, PARVAL=30;
SURE? (YES/NO)
YES;
EXECUTED

##### 3.1.4 COMMAND CATEGORY

Dangerous = **Yes**

#### 3.2 ASPAP

Application system parameters print

## 3.2.1

## FORMAT

**Table 103**

ASPAP:PARNUM=;

**Table 104**

PARNUM =           Parameter number.  
&, && and ALL are permitted for this parameter.

## 3.2.2

## FUNCTION

The command is used to print out the value for the changeable application system parameters for the relevant market.

The printout indicates the sequence number and the value of the changeable application system parameters.

For interpretation of the printout consult parameter description for application system parameters.

## 3.2.3

## PRINTOUT

**Table 105**

APPLICATION SYSTEM PARAMETERS	
PARNUM	PARVAL
.	.
.	.
.	.
END	

**Table 106**

PARVAL   Parameter value.

## 3.2.4

## EXAMPLE

Printout the value for the application system parameter which has sequence number 2.

**Table 107**

ASPAP:PARNUM=2;	
APPLICATION SYSTEM PARAMETERS	
PARNUM	PARVAL
2	30
END	

The time before recall from the parked party to the PBX operator is 30 seconds.

## 3.2.5

## COMMAND CATEGORY

Dangerous = **No**

## 3.3

## ASUVP

Application system parameters, unit value validation print

## 3.3.1

## FORMAT

**Table 108**

ASUVP:PARNUM=;

**Table 109**

PARNUM =           Parameter number.  
&, && and ALL are permitted for this parameter.

## 3.3.2

## FUNCTION

The command is used to print out the current, minimum and maximum values for the application system parameters, and which units that store the values.

For parameters that are stored in several units, the printout also indicates if the involved units store different values.

## 3.3.3

## PRINTOUT

**Table 110**

APPLICATION SYSTEM PARAMETER VALUES FOR UNIT						
PARNUM	CHA	PARVAL	MINVAL	MAXVAL	UNIT	REMARK
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
END						

**Table 111**

CHA	Is YES if the PARNUM is changeable for this market. It is NO otherwise.
MAXVAL	Parameter maximum value. A hyphen (-) is printed if no value is fetched.
MINVAL	Parameter minimum value. A hyphen (-) is printed if no value is fetched.
PARVAL	Parameter current value. A hyphen (-) is printed if no value is fetched.
REMARK	A short fault description, if any. One example when remark may be used: for AS parameters that are stored in several units, this field indicates if the involved units store different values, which must be an error.
UNIT	Name of the unit which stores the values.

For the unit column there are some additional notations used:

**Table 112**

unit	The unit name as it is. The unit uses the value.
(unit)	The unit is enclosed by parentheses, means the unit does not use the parameter value.
*unit	The unit is preceded by a star, means the unit is not loaded.

-unit                    The unit is preceded by a hyphen, means the unit does not answer.

3.3.4

EXAMPLE

Printout the value for the application system parameter which has sequence number 2.

**Table 113**

ASUVP:PARNUM=2;						
APPLICATION SYSTEM PARAMETER VALUES FOR UNIT						
PARNUM	CHA	PARVAL	MINVAL	MAXVAL	UNIT	REMARK
2	YES	30	0	32768	CMP	
END						

The time before recall from the parked party to the PBX operator is 30 seconds. The minimum allowed value is 0 and the maximum allowed value is 32768, and the value is stored in unit CMP.

3.3.5

COMMAND CATEGORY

Dangerous = **No**

## 4 CB - COMMON BELL GROUP

### 4.1 CBCAC

Common Bell Category Change

#### 4.1.1 FORMAT

**Table 114**

CBCAC:GRP=[,EGCSP=[,QUE=];

**Table 115**

**GRP =** Group number.  
Directory number of the Common Bell Group.  
& and && are permitted for this parameter.

**EGCSP =** Extension group common service profile, see command extension\_group\_profile.

**QUE =** Queue length.  
States the maximum number of queuing calls towards the group.

#### 4.1.2 FUNCTION

The command is used to alter category characteristics for a Common Bell Group.

A Common Bell Group comprises a number of extensions that have been assigned a common call number. When this number is called the call will be placed in a queue and the signal device of the group will be activated. A member of the group can pick up the first call in the queue by dialing a code on the telephone.

At least one of the category characteristics must be stated in the command.

#### 4.1.3 EXAMPLE

Alter categories for the Common Bell Group with directory number 8000 so that the extension group common service profile used is 10. The maximum number of queuing calls 9.

**Table 116**

CBCAC: GRP=8000,EGCSP=10,QUE=9; EXECUTED
---

#### 4.1.4 COMMAND CATEGORY

Dangerous = **No**

### 4.2 CBDAP

Common Bell Data Print

4.2.1

FORMAT

Table 117

CBDAP:GRP=;

Table 118

**GRP =** Group number.  
Directory number of the Common Bell Group.  
&, &&, and ALL are permitted for this parameter.

4.2.2

FUNCTION

The command is used to print data for a Common Bell Group. A printout is obtained stating which customer the Common Bell Group belongs to, on which position the group signal device is situated, group traffic data, and directory numbers of the group members.

4.2.3

PRINTOUT

Table 119

COMMON BELL DATA					
GRP	EQU	EGCSP	QUE	CUST	DIR
.	...	...	...	...	.
.					.
.					.
END					

Table 120

**CUST** Customer number.

**DIR** Directory number of group member.  
Directory number data is not printed if the group lacks members.

**EGCSP** Extension group common service profile, see command extension\_group\_profile.

**EQU** Equipment number. Equipment position of signal equipment.

**QUE** Queue length. States the maximum number of queuing calls towards the group.

4.2.4

EXAMPLE

Print data for the Common Bell Group with directory number 8000.

Table 121

CBDAP: GRP=8000;					
COMMON BELL DATA					
GRP	EQU	EGCSP	QUE	CUST	DIR
8000	001A-1-10-01	1	10	1	2345
					2346
					2347
END					

The Common Bell Group with directory number 8000 belonging to customer number 1 has its signal equipment on an equipment position in LIM 1, gateway A, magazine = 1, board position 10 with individual number 1. The group is using the extension group common service profile 1. Maximum queue length 10 calls. Extensions 2345 to 2347 are members of the group.

4.2.5
 COMMAND CATEGORY

Dangerous = **No**

4.3
 CBELI

Common Bell Initiate

4.3.1
 FORMAT

**Table 122**  
 CBELI:GRP=,EQU=,EGCSP=,QUE=[,CUST=]

**Table 123**  
**CUST =**     Customer number.  
 EGCSP=     Extension group common service profile, see command extension\_group\_profile.  
**EQU =**     Equipment number. Hardware position of the signal equipment.  
**GRP =**     Group number. Directory number of the Common Bell Group.  
**QUE =**     Queue length. States the maximum number of queuing calls towards the group.

4.3.2
 FUNCTION

The command is used to initiate a Common Bell Group and (if applicable) the customer to whom the Common Bell Group shall belong. The command also assigns an equipment position for the signal equipment, extension group common service profile used by the group and a maximum queue length towards the group.  
  
 A Common Bell Group comprises a number of extensions that have been assigned a common call number. When this number is called the call is placed in a queue and the signal device of the group is activated. A member of the group can pick up the first call in the queue by dialling a code on the telephone.  
  
 If the customer group function is used in the PBX the Common Bell Group should be affiliated to a customer.

4.3.3
 EXAMPLE 1

Initiate a Common Bell Group with directory number 8000 affiliated to customer number 1 on the equipment position in LIM 1, gateway B, magazine = 1, board position 10, individual 1, assigned with extension group common service profile 1, and maximum 10 queuing calls towards the group.

**Table 124**  
 CBELI: GRP=8000,EQU=1B-1-10-1,EGCSP =1,QUE=10,CUST=1;  
 EXECUTED

4.3.4                      EXAMPLE 2

Initiate a Common Bell Group with directory number 8001 on the equipment position in LIM 1, gateway A, in magazine 1, board position 10, assigned with extension group common service profile 1, and maximum 10 calls to the group permitted.

The Common Bell Group does not need to be affiliated to any specific customer.

**Table 125**

CBELI: GRP=8001,EQU=1A-1-10-2,EGCSP =1,QUE=10; EXECUTED
--

4.3.5                      COMMAND CATEGORY

Dangerous = **No**

4.4                        CBGME

Common Bell Group End

4.4.1                      FORMAT

**Table 126**

CBGME:GRP=,DIR=;

**Table 127**

- DIR =**            Directory number of group member.  
                    &, && and ALL are permitted for this parameter. If & or && is used for the parameter GRP only the value ALL will be permitted for DIR.
- GRP =**            Group number.  
                    Directory number of the Common Bell Group. & and && are permitted for this parameter.

4.4.2                      FUNCTION

The command is used to erase Common Bell Groups and group members. When DIR = ALL or if the last member in a Common Bell Group is erased then the group itself will be erased also.

4.4.3                      EXAMPLE 1

Erase extensions 2345 and 2346 from a Common Bell Group with directory number 8000.

**Table 128**

CBGME: GRP=8000,DIR=2345&2346; EXECUTED
--

4.4.4                      EXAMPLE 2

Erase the Common Bell Group with directory number 8000.



**Table 129**

CBGME: GRP=8000,DIR=ALL; EXECUTED
--------------------------------------

All members of the Common Bell Group have now been erased from the group.

4.4.5 COMMAND CATEGORY

Dangerous = **No**

4.5 CBGMI

Common Bell Group Member Initiate

4.5.1 FORMAT

**Table 130**

CBGMI:GRP=,DIR=;

**Table 131**

**DIR =**      Directory number of group member.  
              & and && are permitted for this parameter.  
**GRP =**      Group number.  
              Directory number of a Common Bell Group.

4.5.2 FUNCTION

The command is used to initiate members of a Common Bell Group.

4.5.3 EXAMPLE

Initiate extensions 2345 up to and including 2347 as members of the Common Bell Group with directory number 8000.

**Table 132**

CBGMI: GRP=8000,DIR=2345&&2347; EXECUTED
---

4.5.4 COMMAND CATEGORY

Dangerous = **No**

5 CH - CHARGING

5.1 CHCME

Charging cost model end

5.1.1 FORMAT

**Table 133**  
CHCME:TARIFF=;

**Table 134**  
TARIFF =        A list of telephony charging rates.

5.1.2 FUNCTION

By keying this command the cost per unit pulse value of the given charging tariff model is reset to zero.

5.1.3 EXAMPLE

End the charging tariff model 4.

**Table 135**

CHCME:TARIFF=4; EXECUTED
-----------------------------

Ends the charging tariff model 4, thereby sets the cost per unit pulse value for the charging tariff model 4 to zero.

5.1.4 COMMAND CATEGORY

Dangerous = **No**

5.2 CHCMI

Charging cost model initiate

5.2.1 FORMAT

**Table 136**  
CHCMI:TARIFF= COST=;

**Table 137**  
COST =        Cost per unit pulse.  
                 This cost is associated with the given charging model.  
TARIFF =       A list of telephony charging rates.

## 5.2.2 FUNCTION

The command initiates a charging tariff model and associates it with the cost per unit pulse value.

## 5.2.3 EXAMPLE 1

Associate the charging tariff model 1 with cost per unit pulse value as 4320.

**Table 138**

CHCMI:TARIFF=1,COST=4320; EXECUTED
---------------------------------------

## 5.2.4 EXAMPLE 2

Associate the charging tariff model 5 with cost per unit pulse value as 835.

**Table 139**

CHCMI:TARIFF=5,COST=835; EXECUTED
--------------------------------------

## 5.2.5 COMMAND CATEGORY

Dangerous = **No**

## 5.3 CHCMP

Charging cost model print

### 5.3.1 FORMAT

**Table 140**

CHCMP:TARIFF=;

**Table 141**

TARIFF=      A list of telephony charging rates.  
              ALL is permitted for this parameter.

### 5.3.2 FUNCTION

Using this command a printout of the charging tariff models with its associated cost per unit pulse value is obtained.

### 5.3.3 PRINTOUT

**Table 142**

ASSOCIATED CHARGING MODEL	
TARIFF	COST
.	.

```

.
.
.
END

```

**Table 143**

**COST** Cost per unit pulse.  
This cost is associated with the given charging model.

## 5.3.4

## EXAMPLE 1

Print the cost per unit value associated with charging tariff model 3.

**Table 144**

```

CHCMP:TARIFF=3;
ASSOCIATED CHARGING MODEL
TARIFF          COST
3                5498
END

```

Printout of the cost per unit pulse value associated with charging tariff model 3.

## 5.3.5

## EXAMPLE 2

Print the cost per unit pulse value associated with all the charging models.

**Table 145**

```

CHCMP:TARIFF=ALL;
ASSOCIATED CHARGING MODEL
TARIFF          COST
1                128
2                222
3                8399
4                2209
5                5784
6                7384
7                22
END

```

Printout of all the charging tariff models and its associated cost per unit pulse values.

## 5.3.6

## COMMAND CATEGORY

Dangerous = **No**

## 5.4

## CHGAP

Charging group association print

5.4.1
FORMAT

CHGAP: [ DIR=...  
ROU=... ];

Figure 12:

Figure 13:

Table 146

DIR =       Directory number.  
              Directory number for voice extension or PBX operator.  
              ALL, & and && are permitted for this parameter.  
ROU =       Route number.  
              ALL, & and && are permitted for this parameter.

5.4.2
FUNCTION

By keying this command a printout of the group to which the given extensions, PBX operators, or routes belong, is obtained.  
During a call on a secondary extension, extra or own directory number, the charging is executed on the primary extension or the own directory number respectively.

5.4.3
PRINTOUT 1 (DIR)

Table 147

CHARGING GROUP ASSOCIATION	
DIR	GRP
.	.
.	.
END	

5.4.4
PRINTOUT 2 (ROU)

Table 148

CHARGING GROUP ASSOCIATION	
ROU	GRP
.	.
END	

Table 149

GRP       Charging group number.

5.4.5
EXAMPLE 1

Print the group association for extensions 1261 and 9743.

Table 150

CHGAP:DIR=1261&9743;
----------------------

## CHARGING GROUP ASSOCIATION

DIR	GRP
1261	17
9743	8
END	

Printout of the group association for extensions 1261 and 9743.

Extension 1261 belongs to group 17 and extension 9743 belongs to group 8.

## 5.4.6

## EXAMPLE 2

Print the group association for routes 6 and 17.

**Table 151**

```
CHGAP:ROU=6&17;
CHARGING GROUP ASSOCIATION
ROU      GRP
6        128
17       8
END
```

Printout of the group association for routes 6 and 17. Route 6 belongs to charging group 128 and route 17 belongs to charging group 8.

## 5.4.7

## COMMAND CATEGORY

Dangerous = **No**

## 5.5

## CHGCE

Charging group counters end

## 5.5.1

## FORMAT

**Table 152**

CHGCE:GRP=;

**Table 153**

*GRP* = Charging group number.  
ALL, & and && are permitted for this parameter.

## 5.5.2

## FUNCTION

The command is accompanied by a printout and reset of a group's charging counters.

During a call on a secondary extension or an extra directory number, the charging is executed on the primary extension or own directory number respectively.

5.5.3
PRINTOUT

**Table 154**

hh:mm DDMMYY	
CHARGING GROUP COUNTER	
GRP	COUNTER
.	.
.	.
EXECUTED	

**Table 155**

hh:mm	Time of printout, as hour and minutes
DDMMYY	Date of printout, as day, month, and year
COUNTER	Meter for the number of charging pulses.

5.5.4
EXAMPLE

Reset the counters for charging groups 9, 10 and 12.

**Table 156**

CHGCE:GRP=9&10&12;	
12:30 20DEC02	
CHARGING GROUP COUNTER	
GRP	COUNTER
9	00096743
10	00863461
12	00042632
EXECUTED	

At 12:30 on 20th December 2002 the counters for groups 9, 10 and 12 were reset. Before the counters were reset group 9 registered 96743, group 10 863461 and group 12 42632 charging pulses.

5.5.5
COMMAND CATEGORY

Dangerous = **No**

5.6
CHGCP

Charging group counter print

5.6.1
FORMAT

**Table 157**

CHGCP:GRP=;

**Table 158**

*GRP* = Charging group number.  
ALL, & and && are permitted for this parameter.

## 5.6.2

## FUNCTION

The command is accompanied by a printout of one or more group's charging counters.

During a call on a secondary extension or an extra directory number, charging is executed on the primary extension and the own directory number respectively.

If a group is given and its counter is 0, or if more groups are given and their counters are 0, the printout GROUP COUNTER EMPTY is obtained.

## 5.6.3

## PRINTOUT

**Table 159**

hh:mm DDMMYY	
CHARGING GROUP COUNTER	
GRP	COUNTER
.	.
.	.
.	.
END	

**Table 160**

hh:mm	Time of printout, as hour and minutes
DDMMYY	Date of printout, as day, month, and year
COUNTER	Meter for the number of charging pulses.

## 5.6.4

## EXAMPLE

Print the charging counters for the groups 9 to 12 inclusive, and for group 36.

**Table 161**

CHGCP:GRP=9&&12&36;	
12:30 20DEC92	
CHARGING GROUP COUNTER	
GRP	COUNTER
9	00096743
10	00863461
12	00042632
END	

At 12:30 on 20th December 1992, the group charging counters have registered the following:

**Table 162**

Group	9	96743	charging	pulses
Group	10	863461	charging	pulses



Group1242632chargingpulses

Group 11 has no members and is therefore not printed. Group 36 has no charging pulses and is therefore not printed.

5.6.5COMMAND CATEGORY

Dangerous = No

5.7CHGME

Charging group member end

5.7.1FORMAT

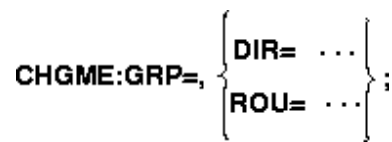


Figure 14:  
Table 163

- DIR = Directory number.  
Directory number for voice extension or PBX operator.  
ALL, & and && are permitted for this parameter.
- GRP = Charging group number.
- ROU = Route number.  
ALL, & and && are permitted for this parameter.

5.7.2FUNCTION

The command initiates the removal of a number of voice extensions, PBX operators, or routes from a given charging group.

5.7.3EXAMPLE 1

Remove route 17 from charging group 8.

Table 164

CHGME:GRP=8,ROU=17; EXECUTED
---------------------------------

5.7.4EXAMPLE 2

Remove all voice extensions and PBX operators in charging group 8. The charging group remains.

Table 165

CHGME:GRP=8,DIR=ALL EXECUTED
---------------------------------

5.7.5 COMMAND CATEGORY

Dangerous = **No**

5.8 CHGMI

Charging group member initiate

5.8.1 FORMAT

$$\text{CHGMI:GRP=}\left\{\begin{matrix} \text{DIR=...} \\ \text{ROU=...} \end{matrix}\right\};$$

**Figure 15:**  
**Table 166**

- DIR* = Directory number.  
Directory number for voice extension or PBX operator.  
& and && are permitted for this parameter.
- GRP* = Charging group number.
- ROU* = Route number.  
& and && are permitted for this parameter.

5.8.2 FUNCTION

The command initiates a number of voice extensions, PBX operators, or routes to form the given charging groups.

A voice extension, PBX operator, or route may not be contained in any other charging group.

Secondary extensions as well as additional directory number are not permitted in this charging group.

The previously metered pulses of the members will not be supplied to the group. Therefore only pulses which the members have received after they have become members are supplied to the charging group.

As it is only the A party who can initiate the charging pulses and thereby be a group member, a charging group can only be composed of the type of routes which contain connection lines.

5.8.3 EXAMPLE 1

Extensions 9743 to 9756 inclusive are to be included in charging group 8.

**Table 167**

CHGMI:GRP=8,DIR=9743&&9756;
EXECUTED

5.8.4                      EXAMPLE 2

Initiate route 17 to charging group 8.

**Table 168**

CHGMI:GRP=8,ROU=17; EXECUTED
---------------------------------

5.8.5                      COMMAND CATEGORY

Dangerous = **No**

5.9                         CHGMP

Charging group member print

5.9.1                      FORMAT

**Table 169**

CHGMP:GRP=;

**Table 170**

GRP =        Charging group number.  
              ALL, & and && are permitted for this parameter.

5.9.2                      FUNCTION

By keying this command a printout of the voice extensions, PBX operators, and routes which are part of the given charging groups, is obtained.

5.9.3                      PRINTOUT

**Table 171**

[WAIT]				
CHARGING GROUP MEMBER INDIVIDUALS				
GRP	ROU	LIM	DIR	EXNT
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Table 172**

ROU        Route number.  
              Route number does not belong to any specific LIM.

LIM        LIM number.

DIR        Directory number.  
              Directory number for voice extension or PBX operator.

- EXNT

Extension type.  
S = Voice extension  
O = PBX operator
- WAIT

Printout by long execution times.  
New time for next time out is set in same sequence.

5.9.4

EXAMPLE

Print the members of charging group 8.

Table 173

CHGMP:GRP=8;				
WAIT				
CHARGIN GROUP MEMBER INDIVIDUALS				
GRP	ROU	LIM	DIR	EXNT
8		2	9743	S
			9756	S
			1000	O
		3	9314	S
		17		
	19			
END				

Voice extensions 9743 and 9756 in LIM 2 are contained in charging group 8. The PBX operator has number 1000. Voice extension 9314 is contained in LIM 3. Routes 17 and 19 are also in the charging group.

5.9.5

COMMAND CATEGORY

Dangerous = **No**

5.10

CHICE

Charging individual counters end

5.10.1

FORMAT

CHICE:  $\left\{ \begin{array}{l} \text{DIR= } \dots \\ \text{ROU= } \dots \end{array} \right\};$

Figure 16:  
Table 174

- DIR =

Directory number.  
Directory number for voice extension or PBX operator.  
ALL, & and && are permitted for this parameter.

ROU =     Route number.  
           ALL, & and && are permitted for this parameter.

5.10.2                      FUNCTION

The command is accompanied by a printout and reset of the individual charging counters.  
  
 During a call on the secondary extension or extra additional directory number, the charging is executed on the primary extension or own directory number respectively.

5.10.3                      PRINTOUT 1 (DIR)

Table 175

hh:mm DDMMYY	
INDIVIDUAL CHARGING COUNTER	
DIR	COUNTER
.	.
.	.
EXECUTED	

5.10.4                      PRINTOUT 2 (ROU)

Table 176

hh:mm DDMMYY	
INDIVIDUAL CHARGING COUNTER	
DIR	COUNTER
.	.
.	.
EXECUTED	

Table 177

hh:mm	Time of printout, as hour and minutes
DDMMYY	Date of printout, as day, month, and year
COUNTER	Counter for the number of charging pulses.

5.10.5                      EXAMPLE 1

Reset the charging counters for routes 15 and 18.

Table 178

CHICE:ROU=15&18;	
12:30 20DEC82	
INDIVIDUAL CHARGING COUNTER	
ROU	COUNTER
15	00061357
18	00004962

EXECUTED

At 12:30 on 20th December 1982, the counters for routes 15 and 18 were reset. Route 15 had previously registered 61357 pulses and route 18 had previously registered 4962 pulses.

## 5.10.6

## EXAMPLE 2

Reset the charging counters for directory number 63643 as well as for 94267 to 94269 inclusive.

**Table 179**

```
CHICE:DIR=63643&94267&&94269;
13:10 20DEC82
INDIVIDUAL CHARGING COUNTER
DIR          COUNTER
63643        00004634
94267        00012110
94268        00000023
94269        00004735
EXECUTED
```

At 13:10 on 20th December 1982, the counters for directory numbers 63643 and 94267 to 94269 inclusive are reset. Before the counters were reset they registered pulses as listed in the table above.

## 5.10.7

## COMMAND CATEGORY

Dangerous = **No**

## 5.11

## CHICP

Charging individual counters print

## 5.11.1

## FORMAT

**CHICP:**  $\left[ \begin{array}{l} \text{DIR}=\dots \\ \text{ROU}=\dots \end{array} \right];$

**Figure 17:**

**Figure 18:**

**Table 180**

**DIR** =      Directory number.  
               Directory number for voice extension or PBX operator.  
               ALL, & and && are permitted for this parameter.

**ROU** =      Route number.  
               ALL, & and && are permitted for this parameter.

5.11.2
FUNCTION

The command is accompanied by a printout of the charging counters for the individual extensions, PBX operators, or routes. During a call on a secondary extension or an extra directory number, the charging is executed on the primary extension and own directory number respectively.

5.11.3
PRINTOUT 1 (DIR)

**Table 181**

hh:mm DDMMYY	
INDIVIDUAL CHARGING COUNTER	
DIR	COUNTER
.	.
.	.
END	

5.11.4
PRINTOUT 2 (ROU)

**Table 182**

hh:mm DDMMYY	
INDIVIDUAL CHARGING COUNTER	
ROU	COUNTER
.	.
.	.
END	

**Table 183**

hh:mm	Time of printout, as hour and minutes
DDMMYY	Date of printout, as day, month, and year
COUNTER	Counter for the number of charging pulses.

5.11.5
EXAMPLE 1

Print the charging counters for the directory numbers 63643 and 94267 to 94270 inclusive.

**Table 184**

CHICP:DIR=63643&94267&&94270;	
14:10 20DEC82	
INDIVIDUAL CHARGING COUNTER	
DIR	COUNTER
63643	00034651
94267	00006475
94268	00411123
94269	00097113
END	

At 14:10 on 20th December 1982 the following was registered:

**Table 185**

Directory	number	63643	34651	charging	pulses.
Directory	number	94267	6475	charging	pulses.
Directory	number	94268	411123	charging	pulses.
Directory	number	94269	971113	charging	pulses.

Directory number 94270 does not exist and is therefore not printed.

### 5.11.6

### EXAMPLE 2

Print the charging counters for routes 15 and 18.

**Table 186**

```
CHICP:ROU=15&18
15:10 10DEC82
INDIVIDUAL CHARGING COUNTER
ROU          COUNTER
15           00061357
18           00004962
END
```

At 15:10 on the 10th of December 1982 the charging counters registered for route 15, 61357 charging pulses, and for route 18, 4962 charging pulses.

If the routes do not exist then they are not printed.

### 5.11.7

### COMMAND CATEGORY

Dangerous = **No**

## 5.12

## CHRCE

Route charging counters end

### 5.12.1

### FORMAT

**Table 187**

CHRCE:ROU= [,TRU=];

**Table 188**

**ROU** = Route number.  
&, && and ALL are permitted for this parameter, if parameter TRU is omitted

**TRU** = Trunk line number.  
LIM and sequence number for external lines. If more than one value has been given for parameter ROU, this parameter must not be given.  
&, && and ALL are permitted for this parameter.



## 5.12.2 FUNCTION

The command is used to print and reset charging counters for outgoing routes and external lines.

## 5.12.3 PRINTOUT 1 (ROU, TRU)

**Table 189**

```
hh:mm DDMMYY
ROUTE CHARGING COUNTER
ROU=...
TRU          COUNTER
.            .
.            .
EXECUTED
```

## 5.12.4 PRINTOUT 2 (ROU)

**Table 190**

```
hh:mm DDMMYY
ROUTE CHARGING COUNTER
ROU          COUNTER
.            .
.            .
EXECUTED
```

**Table 191**

hh:mm	Time of printout, as hour and minutes
DDMMYY	Date of printout, as day, month, and year
COUNTER	Counter for the number of charging pulses for the external line.

## 5.12.5 EXAMPLE 1

The charging counters for the external lines for route 45, that is, line 10 in LIM 1, line 15 in LIM 2 and line 12 in LIM 3 are to be reset.

**Table 192**

```
CHRC:ROU=45,TRU=001-10&002-15&003-12;
13:50 09MAR04
ROUTE CHARGING COUNTER
ROU = 45
TRU          COUNTER
001-10       00001234
002-15       00001425
003-12       00000237
EXECUTED
```

At 13:50 on 9th March 2004, the charging counters in route 45 for the external lines 10 in LIM 1, 15 in LIM 2 and 12 in LIM 3 were reset. Before the charging counters were reset they registered 1234, 1425 and 237 charging pulses for these external lines.

## 5.12.6

## EXAMPLE 2

The charging counters for routes 45, 52 and 99 are to be reset.

**Table 193**

CHRCE:ROU=45&52&99;	
13:50 09MAR84	
ROUTE CHARGING COUNTER	
ROU	COUNTER
45	00002896
52	12346761
99	00000456
EXECUTED	

At 13:50 on 9th March 1984, the charging counters for routes 45, 52 and 99 were reset. Before the counters were reset, they registered 2896, 12346761 and 456 charging pulses.

## 5.12.7

## EXAMPLE 3

The charging counters for the external lines for route 45 are to be reset.

**Table 194**

CHRCE:ROU=45,TRU=ALL;	
13:50 09MAR84	
ROUTE CHARGING COUNTER	
ROU = 45	
TRU	COUNTER
001-10	00001234
002-15	00001425
003-99	00654239
EXECUTED	

At 13:50 on 9th March, the charging counters for external lines 10 in LIM 1, 15 in LIM 2 and 99 in LIM 3 for route 45 were reset.

Before the charging counters were reset they registered 1234, 1425 and 654239 charging pulses for these external lines.

## 5.12.8

## COMMAND CATEGORY

Dangerous = **No**

5.13CHRCP

Route charging counters print

5.13.1FORMAT

**Table 195**  
CHRCP:ROU= [,TRU=];

**Table 196**  
*ROU* =     Route number.  
              &, && and ALL are permitted for this parameter, if parameter TRU is omitted.  
*TRU* =     Trunk line number.  
              LIM and sequence number for external lines. The parameter must be omitted if  
              more than one value have been stated for the parameter ROU.  
              &, && and ALL are permitted for this parameter.

5.13.2FUNCTION

The command is used to obtain a printout of the charging counters for outgoing routes and external lines. The counters stop at the maximum value.

5.13.3PRINTOUT 1 (ROU, TRU)

**Table 197**  
hh:mm DDMMYY  
ROUTE CHARGING COUNTER  
ROU=...  
TRU                   COUNTER  
.                       .  
END

5.13.4PRINTOUT 2 (ROU)

**Table 198**  
hh:mm DDMMYY  
INDIVIDUAL CHARGING COUNTER  
ROU                   COUNTER  
.                       .  
END

**Table 199**  
hh:mm                   Time of printout, as hour and minutes  
DDMMYY                Date of printout, as day, month, and year  
COUNTER                Counter for the number of charging pulses for outgoing external line.

## 5.13.5

## EXAMPLE 1

The charging counters for route 45's external lines, LIM 1, line 10, LIM 2, line 15 and LIM 3, line 12, are to be printed.

**Table 200**

```

CHRCP:ROU=45,TRU=001-10&002-15&003-12;
13:25 09MAR94
ROUTE CHARGING COUNTER
ROU = 45
TRU                COUNTER
001-10             00001234
002-15             00001425
003-12             00000237
END

```

At 13:25 on 9th March 1994, the charging counters registered in route 45, 1234 charging pulses for external line 10 in LIM 1, 1425 charging pulses for external line 15 in LIM 2 and 237 charging pulses for external line 12 in LIM 3.

## 5.13.6

## EXAMPLE 2

Initiate a printout of the charging counters for routes 45, 52 and 99.

**Table 201**

```

CHRCP:ROU=45&52&99;
13:23 09MAR84
ROUTE CHARGING COUNTER
ROU                COUNTER
45                 00002896
52                 12346761
99                 00000456
END

```

At 13:23 on 9th March 1984 the charging counters registered 2896 charging pulses for route 45, 12346761 charging pulses for route 52 and 456 charging pulses for route 99.

## 5.13.7

## EXAMPLE 3

Initiate a printout of the charging counters for route 45's external lines.

**Table 202**

```

CHRCP:ROU=45,TRU=ALL;
13:23 09MAR84
ROUTE CHARGING COUNTER
ROU = 45
TRU                COUNTER
001-10             00001234
002-15             00001425

```

003-99	00076542
END	

At 13:23 on 9th March 1984 the charging counters registered in route 45, 1234 charging pulses for external line 10 in LIM 1, 1425 charging pulses for external line 15 in LIM 2 and 76542 charging pulses for external line 99 in LIM 3.

### 5.13.8

#### COMMAND CATEGORY

Dangerous = **No**

## 6

## EX - ANALOG EXTENSION

### 6.1

### EXADC

Extension Additional Data Change

#### 6.1.1

#### FORMAT

**Table 203 EXADC:ADDNUM=...,DIR=;**

EXADC:ADDNUM=,DIR=;

**Table 204**

**ADDNUM =** Additional number.  
The directory number which is used for presentation on the display of the other party.

**DIR =** Directory number.  
The directory number for primary or secondary extensions.  
& is permitted for this parameter.

#### 6.1.2

#### FUNCTION

The command sets an additional number for an extension that is presented on the display of the other party. The additional number should be a previously assigned directory number which represents a physical extension that can be called.

More than one directory number can have the same additional number. If no additional number is assigned, the directory number will be the default additional number.

#### 6.1.3

#### EXAMPLE 1

Change the additional number for extension 4498 to 4600.

**Table 205**

EXADC:DIR=4498,ADDNUM=4600; EXECUTED
---

#### 6.1.4

#### EXAMPLE 2

Change the additional number for extensions 4401 and 4402 to 4400.

**Table 206**

EXADC:DIR=4401&4402,ADDNUM=4400; EXECUTED
--

#### 6.1.5

#### COMMAND CATEGORY

Dangerous = **No**

6.2EXADP

Extension Additional Data Print

6.2.1FORMAT

**Table 207**  
**EXADP:DIR=;**

**Table 208**

**DIR =**       Directory number. Directory number for primary or secondary extensions.  
&, &&, and ALL are permitted for this parameter.

6.2.2FUNCTION

The command is used to print the additional data for the given extension.

6.2.3PRINTOUT

**Table 209**

EXTENSION ADDITIONAL DATA	
DIR	ADDNUM
.	.
.	.
.	.
END	

**Table 210**

**ADDNUM =**       Additional number.

6.2.4EXAMPLE

Print the additional data for extensions 4491 and 4498.

**Table 211**

EXADP:DIR=4491&4498;	
EXTENSION ADDITIONAL DATA	
DIR	ADDNUM
4491	4600
4498	4610
END	

The additional number for extension 4491 is 4600 and for extension 4498 it is 4610.

6.2.5COMMAND CATEGORY

Dangerous = **No**

## 6.3

## EXCAC

### Extension Category Change

### 6.3.1

## FORMAT

$$\text{EXCAC: DIR} = \left[ \begin{array}{c} \left[ \left[ [ , \text{CSP}= ] [ , \text{TRM}= ] [ , \text{ADC}= ] [ , \text{ICAT}= ] [ , \text{MCOST}= ] [ , \text{BSEC}= ] \right] \right] \end{array} \right]$$

**Figure 19:  
Table 212**

<b>ADC=</b>	Additional category
<b>BSEC=</b>	Boss-secretary category
<b>CSP=</b>	Common service profile, See command extension_profile.
<b>DIR=</b>	Directory number. Directory number for primary or secondary extensions. & and && are permitted for this parameter.
<b>ICAT =</b>	Instrument category
<b>MCOST =</b>	Maximum charging cost
<b>TRM =</b>	Transmission category. Indicates the transmission characteristics (attenuation or amplification) which is to be valid for the extension.

### 6.3.2

## FUNCTION

The command, which changes the categories of one or more extensions, may be used in the following ways:

- To change common service profile for an extension
- To change the transmission, additional, and instrument categories for an extension
- To change, remove, or assign the maximum charging cost (in terms of pulses) associated with an extension

Categories that are not stated will remain unchanged.

The D<sub>5</sub> and D<sub>6</sub> values of ICAT are unique for an EL6 type of extension. The D<sub>7</sub> value of ICAT is unique for an EL6 type of extension that is connected to a ELU34 board.

**Note:** At least one of the category parameters must be stated.

**Note:** If parameter CSP is stated, the only allowed changes of the hospitality classes are the ones from Room vacant to Room occupied and the other way round.

### 6.3.3

### EXAMPLE 1

Extensions 4430 and 4498 are to change to CSP 3, and also to change its maximum charging cost MCOST to 180 (maximum usable pulses).

Table 213

EXCAC:DIR=4430&4498,CSP=3,MCOST=180;  
EXECUTED



6.3.4
EXAMPLE 2

Change the transmission category for extension 4498 to transmission category 1.

**Table 214**

EXCAC:DIR=4498,TRM=1;
EXECUTED

6.3.5
EXAMPLE 3

Alter the common service profile for extension 4498 to CSP 3.

**The additional categories shall be changed to:**

- It is a normal extension so it can only handle the bearer services speech and 3.1-kHz audio.

**Table 215**

EXCAC:DIR=4498,CSP=3,ADC=0;
EXECUTED

6.3.6
COMMAND CATEGORY

Dangerous = **No**

6.4
EXCAP

Extension Category Print

6.4.1
FORMAT

**Table 216**

**EXCAP:DIR=;**

**Table 217**

**DIR =**      Directory number. Directory number for primary or secondary extensions. &, &&, and ALL are permitted for this parameter.

6.4.2
FUNCTION

The command is used to print category information for the given extensions.

6.4.3
PRINTOUT

**Table 218**

EXTENSION CATEGORY FIELDS									
DIR	CSP	TRM	ADC	BSEC					
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.

END
-----

**Table 219**

<b>ADC =</b>	Additional category.
<b>BSEC =</b>	Boss-secretary category.
<b>CSP =</b>	Common service profile, see command extension_profile.
<b>TRM =</b>	Transmission category.

## 6.4.4

## EXAMPLE

Print category information for extension 4498.

**Table 220**

EXCAP:DIR=4498;				
EXTENSION CATEGORY FIELDS				
DIR	CSP	TRM	ADC	BSEC
4498	10	1	0	0
END				

For an interpretation of the values for BSEC, TRM and ADC, see the parameter description for ANALOG EXTENSION.

Description of CSP can be found in help text of command extension\_profile.

## 6.4.5

## COMMAND CATEGORY

Dangerous = **No**

## 6.5

## EXCUC

Extension Customer Number Change.

## 6.5.1

## FORMAT

**Table 221**

**EXCUC:DIR=[,CUST=];**

**Table 222**

<b>CUST =</b>	Customer number. The parameter is not optional in the customary sense. If the parameter is omitted, the customer number for the extension will be removed.
<b>DIR =</b>	Directory number. Directory number for primary or secondary extensions. & and && are permitted for this parameter.

## 6.5.2

## FUNCTION

The command is used to initiate, alter, or remove the extension's customer affiliation.

6.5.3                      **EXAMPLE**

The extension with directory number 4491 shall alter customer number to 12.

**Table 223**

EXCUC:DIR=4491,CUST=12;
EXECUTED

6.5.4                      **COMMAND CATEGORY**

Dangerous = **No**

6.6                        **EXDDP**

Extension Directory Data Print

6.6.1                    **FORMAT**

**Table 224**

**EXDDP:DIR=;**

**Table 225**

**DIR =**        Directory number. Directory number for primary or secondary extensions.  
              &, &&, and ALL are permitted for this parameter.

6.6.2                    **FUNCTION**

The command is used for stated directory numbers to print the equipment position, customer number, common service profile, instrument category, maximum charging cost, and whether the directory number belongs to a primary or secondary extension with respect to stated directory numbers.

6.6.3                    **PRINTOUT**

**Table 226**

EXTENSION DIRECTORY DATA							
DIR	CUST	EQU	CSP	TYPE	ICAT	MCOST	AUX
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
END							

**Table 227**

**AUX =**        Auxiliary number. Secondary directory number.  
              If the extension directory number is stated under DIR but is a secondary extension, this will be indicated with an A under AUX. On the other hand, if the extension stated under DIR has secondary numbers, these will be stated under AUX.

**CSP =**        Common service profile, see command extension\_profile.

<b>CUST =</b>	Customer number.
<b>EQU=</b>	Equipment position.
<b>ICAT =</b>	Instrument category.
<b>MCOST =</b>	Maximum charging cost.
<b>TYPE =</b>	Type of signaling diagram. The function block EL that administers the equipment position.

## 6.6.4

## EXAMPLE

Print directory number data for extensions 4491-4498. The common service profile for extensions 4491 and 4492 is CSP 5. The common service profile of extensions 4495 and 4498 is CSP 7.

**Table 228**

EXDDP: DIR=4491&&4498;							
EXTENSION DIRECTORY DATA							
DIR	CUST	EQU	CSP	TYPE	ICAT	MCOST	AUX
4491	13	001A-0-70-03	5	EL6	0000000	0	
4492	15	001A-0-70-00	5	EL6	0002000	180	
4495	8	001A-0-70-01	7	EL6	0000000		A
4498	9	001A-0-70-02	7	EL6	0000000	9999	4500, 4495
END							

Extensions 4491 and 4492 are ordinary extensions that is, they have no secondary extensions. Extension 4495 is a secondary extension, which is stated with A under AUX.

Extension 4498 has two secondary extensions, 4500 and 4495. Directory numbers 4493, 4494, 4496, and 4497 are not initiated as extensions in the system.

Extension 4491 is affiliated to customer number 13, 4492 to customer number 15, 4495 to customer number 8, and 4498 to customer number 9. (If the system lacks customer numbers, the column CUST in the printout will be blank).

Extension 4492 has ICAT set to 0002000, all others are normal terminals.

The extensions are connected to extension boards through a signal diagram that is administered by function block EL6.

Extensions 4492 and 4498 are assigned with 180 and 9999 pulses respectively. Extension 4491 is assigned with zero pulses and there is no limitation on the duration of the call for extension 4495.

All shown extensions are handled by the same ELU board, which is located in Service Node 1, gateway A, magazine 0, and board position 70.

## 6.6.5

## COMMAND CATEGORY

Dangerous = **No**

## 6.7

## EXTEE

Extension End

6.7.1                      FORMAT

**Table 229**  
**EXTEE:DIR=;**

**Table 230**  
**DIR =**            Directory number.  
                 & and && are permitted for this parameter.

6.7.2                      FUNCTION

The command is used to erase an extension. If the extension to be erased is a primary extension the underlying secondary extension will be pushed upwards and become primary or ordinary Extension and will take over metering data (if any) and individual abbreviated numbers.

6.7.3                      EXAMPLE

Erase extensions 5235 - 5240.

<b>Table 231</b>
EXTEE:DIR=5235&&5240;
EXTEE:DIR=5235&&5240;
SURE?(YES/NO)
YES;
EXECUTED

6.7.4                      COMMAND CATEGORY

Dangerous = **Yes**

6.8                        EXTEI

Extension Initiate

6.8.1                      FORMAT

EXTEI:  $\left[ \begin{array}{l} \text{AUX=} \\ \text{DIR=,TYPE= [,TRM=] [,MCOST=]} \end{array} \right]$ ,EQU =  
                 ,CSP= [,ADC=] [,CUST=] [,ICAT=] [,BSEC=];

**Figure 20:**  
**Table 232**

**ADC =**            Additional category.  
                 If ADC is omitted, the default value (0) is used.

**AUX =**            Auxiliary number. Secondary directory number.

<b>BSEC =</b>	Boss-secretary category. If BSEC is omitted, the default value (0) is used.
<b>CSP =</b>	Common service profile. See command extension_profile.
<b>CUST =</b>	Customer number. If CUST is omitted, the extension will not be given any customer affiliation.
<b>DIR =</b>	Directory number. Primary directory number. & and && are permitted for this parameter.
<b>EQU =</b>	Equipment position.
<b>ICAT =</b>	Instrument category. If ICAT is omitted, the default value is used. The default value is 0020000 for EL6 and 000000 for EL7.
<b>MCOST =</b>	Maximum charging cost. If MCOST is omitted, the default value (FFFF) is used.
<b>TRM =</b>	Transmission category. Indicates the transmission characteristic (attenuation or amplification) which is valid for the extension. If TRM is omitted, short line is assumed to apply.
<b>TYPE =</b>	Type of signaling diagram. A description of the EL function block which handles the given equipment position.

### 6.8.2

### FUNCTION

The command is used to initiate one or more primary or secondary extensions. When many extensions are to be initiated at the same time, then the EQU position is stated for the first extension. The remaining extensions receive the free and correctly equipped equipment positions which follow the given position.

When a secondary extension is initiated to an existing position, then this position must either belong to an ordinary extension, that is, one which has no secondary extension, or a primary extension which may have a further secondary extension attached to it. Up to three secondary extensions may be attached to each equipment position, that is, to each primary extension if no market-dependent limitation has been set.

The system is unable to distinguish between secondary and primary extensions during traffic **from** an extension. The secondary extension, therefore, uses categories of the primary extension.

The categories of the secondary extension are used during traffic **to** a secondary extension.

The equipment position of the primary extension is stated when a secondary extension is initiated. Parameters TYPE, ICAT, and TRM are omitted for the secondary extension as the extension takes the values of the primary extension.

If the customer number feature is to be used in the system, CUST states to which customer the extension shall belong.

An analog extension can be assigned a maximum charging cost (in terms of pulses) using parameter MCOST. An outgoing call made from this directory number will have this MCOST value decremented and then be disconnected once reaching a zero MCOST value. MCOST value specified will be applicable only on per call basis (that is, for the duration of a single call).

Extensions possessing the same customer affiliation should be distributed among several MX-ONE Service Nodes.

In a Hospitality environment, an ordinary analog extension can be given one of three Hospitality classes: Normal extension, Room vacant, or Room occupied.

An outgoing call (to PSTN) can be set to terminate after a predefined time by a forced disconnect.

## 6.8.3

## EXAMPLE 1 (INITIATE A PRIMARY EXTENSION)

Initiate a primary extension with directory number 4498 in board position 70. Use server 1 and gateway A. The extension is to use board individual number 2. The extension must possess the following categories.

**Signal diagram:**

The extension is to be connected to an extension board which is handled by function block EL6.

**Transmission category:**

The extension is to be connected over a short line.

**Instrument category:**

The extension is to be a normal extension.

**Common service profile:**

The common categories for the extension is defined in the common service profile CSP 10.

**Additional categories:**

It is a normal extension so it can only handle the bearer services speech and 3.1-kHz audio.

**Table 233**

```
EXTEI:DIR=4498,TYPE=EL6,TRM=0,EQU=1A-0-70-2,
CSP=10;
EXECUTED
```

## 6.8.4

## EXAMPLE 2 (INITIATE A SECONDARY EXTENSION)

Initiate a secondary extension with directory number 4500 to the same position and with the same category as in example 1. Since this is a secondary extension, the Hospitality class defined in the -ext-serv parameter of the CSP has to be set to the default value Normal extension (zero).

**Table 234**

```
EXTEI:AUX=4500,EQU=1A-0-70-2,CSP=21;
EXECUTED
```

## 6.8.5

## EXAMPLE 3 (INITIATE A PRIMARY EXTENSION)

Initiate a primary extension with directory number 4525 to board position 70. The extension is to use individual number 3 on the board. The extension's categories are to be those stated in the common service profile CSP 4.

The extension is to be connected to an extension board which is handled by function block EL6.

The extension is to be connected over a short line, (default value).

The extension is not to have any special instrument categories.

It is a normal extension so it can only handle the bearer services speech and 3.1-kHz audio.

**Table 235**

```
EXTEI:DIR=4525,CSP=4,TYPE=EL6,EQU=1A-0-70-3,
ADC=0, ICAT=0000000;
```

EXECUTED

## 6.8.6

**EXAMPLE 4 (INITIATE AN EXTENSION WITH CUSTOMER AFFILIATION)**

Initiate a primary extension with directory number 4491 in server 1, gateway C, board position 70, and individual 3.

The extension shall be connected to an extension board administered by function block EL6.

Extension categories shall be those stated in common service profile CSP 5.

The extension is affiliated to customer 13.

For ADC and ICAT, default values are used.

**Table 236**

```
EXTEI:DIR=4491,TYPE=EL6,EQU=1C-0-70-3,CSP=5,CUST=13;
EXECUTED
```

## 6.8.7

**EXAMPLE 5 (INITIATE A SECONDARY EXTENSION)**

Initiate a secondary extension with directory number 4550 to board position 70 on server 1 and gateway C. The extension has to use individual 3 on the board. The extension's categories are to be those given in the common service profile CSP 5.

It is a normal extension, so it can only handle the bearer services speech and 3.1-kHz audio.

As the extension is secondary the primary extension categories will be used. The categories for the secondary extension are first valid after the extension has been promoted to a primary extension.

As the system is unable to distinguish between secondary and primary extension, the category of the primary extension is used during traffic **from** the secondary extension.

The category of the secondary extension is used during traffic **to** the secondary extension.

**Table 237**

```
EXTEI:AUX=4550,EQU=1C-0-70-3,CSP=5,ADC=000000001;
EXECUTED
```

## 6.8.8

**EXAMPLE 6 (INITIATE AN EXTENSION WITH LIMITED CALL COST)**

Initiate a primary extension with directory number 4491 in server 1, gateway A, magazine 0, board position 70, and individual 0.

The extension shall be connected to an extension board administered by function block EL6.

Extension categories shall be those stated in common service profile CSP 5.

The extension is allowed to use only 300 pulses.

For ADC and ICAT, default values are used.

**Table 238**

```
EXTEI:DIR=4491,TYPE=EL6,EQU=1A-0-70-0,CSP=5,MCOST=300;
EXECUTED
```



6.8.9

## COMMAND CATEGORY

Dangerous = **No**

## 7

## IC - INFORMATION SYSTEMS

## 7.1

## ICFUC

Information computer function change.

## 7.1.1

## FORMAT

**Table 239**

ICFUC:[UPDTIM=][,MWF=],IFCIND=[,DFMT=][,ICEXG=][,UPDFCN=][,FILLER=];

**Table 240**

<b>DFMT =</b>	Directory number format. Format (number of digits) of directory number in the signal interface.
<b>FILLER =</b>	Filler character value. States filler character value used to pad directory numbers sent across the interface between the exchange and the information system.
<b>ICEXG =</b>	Information system own exchange ID.
<b>IFCIND =</b>	Information computer individual. Information system serial number.
<b>MWF =</b>	Message waiting function. Scope of initiated message waiting function.
<b>UPDFCN =</b>	Updating function. States whether the information system can supply update information to the exchange.
<b>UPDTIM =</b>	Updating start time. Time for start of the automatic 24-hour update of the exchange message information.

## 7.1.2

## FUNCTION

The command is used to change data as follows:

- Time for start of the automatic 24-hour update of the exchange message information.
- The types of extensions that can receive notifications of message waiting, or if the notification function should be blocked, which means no extensions receive notifications.

The following data may be changed for a specific IFCIND. If the IFCIND has been initiated as generic the format of the directory number and the filler character value are not permitted:

- The format (number of digits) of the directory number in the signal at the interface between the information computer and exchange.
- The information system own exchange ID.
- Whether the information system can supply update information to the exchange.
- Filler character value used to pad directory numbers sent across the interface between the exchange and the information system.

7.1.3

EXAMPLE 1

The start time for the automatic 24-hour update is to be changed to 02:30. All types of extensions are to be capable of receiving message waiting notification.

For the information system with serial number 6, the format of directory number in the interface is to be altered to 10 digits.

The information system shall supply update information.

The filler character value shall be altered to 48 (decimal ASCII value for the zero character).

**Table 241**

ICFUC:UPDTIM=02-30,MWF=ALL,IFCIND=6,DFMT=10, UPDFCN=YES,FILLER=48; EXECUTED
---

7.1.4

EXAMPLE 2

Alter the message waiting function for all connected information systems so that no extensions receive notification of message waiting.

**Table 242**

ICFUC:MWF=NONE; EXECUTED
-----------------------------

7.1.5

EXAMPLE 3

For the information system with serial number 5, alter the exchange ID to 33000 in order to prefix for UNP number.

**Table 243**

ICFUC:IFCIND=5,ICEXG=33000; EXECUTED
---

7.1.6

COMMAND CATEGORY

Dangerous = **No**

7.2

ICFUE

Information computer function end

7.2.1

FORMAT

**Table 244**

**ICFUE:IFCIND=;**

**Table 245**

**IFCIND =** Information computer individual. Information systems serial number.

7.2.2 FUNCTION

This command is used to end the information system function.

7.2.3 EXAMPLE

Erase the information system function with serial number 6.

Table 246

ICFUE:IFCIND=6; EXECUTED
-----------------------------

7.2.4 COMMAND CATEGORY

Dangerous = **No**

7.3 ICFUI

Information computer function initiate

7.3.1 FORMAT

ICFUI:IFCIND=	<div><div>ISTYPE=, INTTYP=, LIM=, RATE=, PARITY=, TXC=, CCHECK=, UPDFCN= [, FILLER]</div><div>ISTYPE=, INTTYP=, IP=, LIM=, RPORT=, DFMT=, UPDFCN= [FILLER=]</div><div>ISTYPE=, INTTYP=, IP=, LIM=, LPORT=</div><div>USER=, LIM=</div></div>
---------------	---

Figure 21:

Figure 22:

Only single values are permitted for all parameters.

Table 247

<b>CCHECK</b> =	Character check. States whether a character check shall be performed in the signal at the interface between the exchange and the information system, regarding parity, character overlay and transmission speed error.
<b>DFMT</b> =	Directory number format. Format (number of digits) for the directory number in the signal at the interface between the information system and the exchange.
<b>FILLER</b> =	Filler character value. States filler character value used to pad directory numbers sent across the interface between the exchange and the information system. If the parameter is omitted, the default value is set to character @.
<b>IFCIND</b> =	Information computer individual. Sequence number for relevant information system.
<b>INTTYP</b> =	Interface type. The parameter states the interface type used to connect the information system.
<b>IP</b> =	IP address. Identifies the IP address of the network interface where it is desired to initiate the remote information computer connection point for the link.

<b>ISTYPE =</b>	Information System type. The parameter states the type of information system.
<b>LIM =</b>	LIM number. LIM where the information computer function is initiated.
<b>LPORT =</b>	Local server port number. Identifies the local port number on which the server will bind.
<b>PARITY =</b>	Parity check. States the form of parity check to be used in the signal interface between the exchange and the information system.
<b>RATE =</b>	Bit rate in bps. Data transfer rate in bps in the signal at the interface between the exchange and the information system.
<b>RPORT =</b>	Remote server port number. Identifies the remote server port where the information computer connection is to be initiated. Only single values are allowed for this parameter.
<b>UPDFCN =</b>	Updating function. States whether the information system can supply updating information to the exchange.
<b>USER =</b>	User name. The parameter states that the information system is generic. No signal interface channel characteristics is defined since they are embedded in call signaling protocols.

**Note:** Default values for data bits (8) and stop-bit (1) is used.

### 7.3.2

## FUNCTION

This command achieves initiation of the information system function and defines:

- The information system serial number.
- The LIM number of the LIM that communicates with an information computer.
- The information system port number.
- The information system IP number.
- The information system format for the directory number, that is, the number of digits sent by the information system and expected as a directory number.
- Whether the information system can supply update information to the exchange.
- Filler character value used to pad directory numbers sent across the interface between the exchange and the information system.
- Whether the information system is generic (IP extension voice mail system).
- The information system service type.
- The interface type used to connect to the information system.
- Data transfer rate in the signal interface between the exchange and information system.
- The type of parity check to be applied in the signal interface.
- Whether transmit control is to be applied in the signal interface.
- Whether a character check is to be applied in the signal interface.

### 7.3.3

## EXAMPLE 1

Initiate the information system function with:

- 6 as serial number for the information system.

- Interception computer as interception service type.
- Ethernet as interface type.
- LIM 1 is used for communication with an information computer.
- Connection to remote server port number 9777.
- Connection to IP address 192.168.2.114.
- 5 digits as format for the directory number in the signal interface between the information system and the exchange.
- Updating function switched on.
- The filler character value shall be 64 (decimal ASCII value for character @).

**Table 248**

ICFUI:IFCIND=6,ISTYPE=1,INTTYP=1,LIM=1,RPORT=9777, IP=192.168.2.114,DFMT=5,UPDFCN=YES,FILLER=64; EXECUTED
---

## 7.3.4

**EXAMPLE 2**

Initiate the information system with:

- 5 as serial number for the information system.
- The main Generic functionality is located in LIM 4.
- Generic user (no signal interface characteristics are set).

**Table 249**

ICFUI:IFCIND=5,ISTYPE=2,INTTYP=1,USER=GENERIC; LIM=4; EXECUTED
---

## 7.3.5

**EXAMPLE 3**

Initiate the information system (ANCD server) with:

- 4 as serial number for the information system.
- ANCD Server as interception service type.
- Ethernet as interface type.
- LIM 1 is where the server will be started.
- Server shall bind to the local port number 9565.
- Connection to IP address 192.168.25.114.

**Table 250**

ICFUI:IFCIND=4,ISTYPE=3,INTTYP=1,LIM=1,LPORT=9565, IP=192.168.25.114; EXECUTED
--

## 7.3.6

**EXAMPLE 4**

Initiate the information system with:

- 7 as serial number for the information system.

- Voice Mail System as interception service type.
- V.24 interface as the interface type.
- LIM 1 is used for communication with an information computer.
- Data speed is 600 bit/s with even parity, transmission control, character check set.
- 5 digits as format for the directory number in the signal interface between the information system and the exchange.
- Updating function switched on.
- The filler character value shall be 64 (decimal ASCII value for character @).

Table 251

ICFUI:IFCIND=7,ISTYPE=2,INTTYP=0,LIM=1,RATE=600, PARITY=EVEN,TXC=YES,CCHECK=YES,DFMT=5,UPDFCN=YES,FILLER=64; EXECUTED
---

7.4 ICFUP

Information computer function print

7.4.1 FORMAT

Table 252  
ICFUP[:IFCIND=];

Table 253  
**IFCIND =** Information computer individual. Individual number for the relevant information system.

7.4.2 FUNCTION

This command is used for printing data on initiated information systems. If the IFCIND parameter is omitted, data is printed for all information systems.

7.4.3 PRINTOUT

Table 254

INFORMATION COMPUTER COMMON FUNCTIONS DATA											
UPDATING START TIME IS...											
MESSAGE WAITING FUNCTIONALITY IS <..., NOT VALID>											
INFORMATION COMPUTER EQUIPMENT DATA											
IFCIND	ISTYPE	INTTYP	LIM	IP:RPORT	IP:LPORT		DFMT	UPDFCN	FILLER	ICEXG	USER
...	...	...	...	...	...		...	...	...	...	...
IFCIND	ISTYPE	INTTYP	LIM	RATE	DFMT	UPDFCN	PARITY	CCHECK	TXC	FILLER	ICEXG
...	...	...	...	...	...	...	...	...	...	...	...
END											

**Table 255**

<b>CCHECK</b>	Character check. States whether a character check shall be performed in the signal at the interface between the exchange and the information system.
<b>DFMT</b>	Directory number format. The format (number of digits) of the directory number in the signal interface between the information system and the exchange.
<b>FILLER</b>	Filler character value. States filler character value used to pad directory numbers sent across the interface between the exchange and the information system.
<b>FUNCTIONALITY IS...</b>	For value, see the parameter <i>MWF</i> in the parameter description for MML parameters.
<b>ICEXG</b>	The information system ID of the own exchange.
<b>INTTYP</b>	Interface type. The parameter states the type of interface used for the information system.
<b>IP</b>	IP address Identifies the IP address of the network interface where it is desired to initiate the remote information computer connection point for the link.
<b>ISTYPE</b>	Information system type. The parameter states the type of information system.
<b>LIM</b>	LIM number. The LIM number of the LIM that resides on the exchange that shall communicate (GICI signalling) with the information computer defined by IP and RPORT.
<b>LPORT</b>	Local server port number identifies the local port where server will bind. Applicable to Information computer individual associated with ANCD only. Only single values are allowed for this parameter.
<b>MESSAGE WAITING</b>	The scope of the initiated message waiting function.
<b>PARITY</b>	Parity check. States the form of parity check to be used in the signal interface between the exchange and the information system.
<b>RATE</b>	Bit rate in bps. Data transfer rate in bps in the signal at the interface between the exchange and the information system.
<b>RPORT</b>	Remote server port number. Identifies the remote server port where the information computer connection is to be initiated. Only single values are allowed for this parameter.
<b>TXC</b>	Transmit control. States whether transmit control is to be applied in the signal interface between the exchange and the information system.
<b>UPDATING START TIME IS...</b>	The time for start of the automatic 24-hour update of the exchange message information. For value, see the parameter <i>UPDTIM</i> in the parameter description for MML parameters.
<b>UPDATING START TIME IS NOT VALID</b>	Printout obtained when a fault occurs in conjunction with a request for time signalling.
<b>UPDFCN</b>	Updating function. States whether the information system can provide update information to the exchange.
<b>USER</b>	User name. States the application name.

## 7.4.4

## EXAMPLE 1

Print data for the information system with serial number 6.



**Table 256**

ICFUP:IFCIND=6;										
INFORMATION COMPUTER COMMON FUNCTIONS DATA										
UPDATING START TIME IS 01:30										
MESSAGE WAITING FUNCTIONALITY IS ALL										
INFORMATION COMPUTER EQUIPMENT DATA										
IFCIND	ISTYPE	INTTYP	LIM	IP:RPORT	IP:LPORT	DFMT	UPDFCN	FILLER	ICEXG	USER
06	1	1	1	153.88.40.85: 900		4	NO	64	700	
END										

The information system with serial number 6 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- Information system type as interception computer.
- Ethernet as type of interface.
- LIM number 1.
- Connection to IP address 153.88.40.85
- Connection to remote server port number 900.
- 4 digits as the format for the directory number in the signal interface between the information system and the exchange.
- Updating function not activated.
- Filler character value set to 64 (decimal ASCII value for character @).
- Information system ID set to 700.

#### 7.4.5

#### EXAMPLE 2

Print data for the information system with serial number 9.

**Table 257**

ICFUP:IFCIND=5;										
INFORMATION COMPUTER COMMON FUNCTIONS DATA										
UPDATING START TIME IS 01:30										
MESSAGE WAITING FUNCTIONALITY IS ALL										
INFORMATION COMPUTER EQUIPMENT DATA										
IFCIND	ISTYPE	INTTYP	LIM	IP:RPORT	IP:LPORT	DFMT	UPDFCN	FILLER	ICEXG	USER
05	-	-	4	-	-	-	-	-	NONE	GENERIC
END										

The information system with serial number 5 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.

- The main Generic functionality will be located in LIM 4.  
It has been initiated as a generic information system.
- No ID has been set in the command 7.1 ICFUC on page 74 ICFUC.

## 7.4.6

## EXAMPLE 3

Print data for the information system with serial number 2.

**Table 258**

```
ICFUP:IFCIND=2;
INFORMATION COMPUTER COMMON FUNCTIONS DATA
    UPDATING START TIME IS 01:30
    MESSAGE WAITING FUNCTIONALITY IS ALL
INFORMATION COMPUTER EQUIPMENT DATA
IFCIND  ISTYPE  INTTYP  LIM   RATE   DFMT   UPDFCN  PARITY  CCHECK  TXC   FILLER  ICEXG
02      2       0       1     600    5      YES     EVEN   YES     YES   64      NONE
END
```

The information system with serial number 2 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.  
It has been initiated as a generic information system in LIM 4.
- Voice Mail as type of information system.
- V.24 interface.
- LIM number 1.
- Data speed is 600 bits/s with even parity, transmission control, character check set.
- 4 digits as the format for the directory number in the signal interface between the information system and the exchange.
- No ID has been set.

## 7.4.7

## EXAMPLE 4

Print data for all the information systems in an exchange.

**Table 259**

```
ICFUP;
INFORMATION COMPUTER COMMON FUNCTIONS DATA
    UPDATING START TIME IS 01:30
    MESSAGE WAITING FUNCTIONALITY IS ALL
INFORMATION COMPUTER EQUIPMENT DATA
IFCIND  ISTYP  INTTYP  LIM   IP:RPORT IP:LPORT  DFMT   UPDFCN  FILLER  ICEXG  USER
05      -     -       4     -        -        -      -       -       NONE   GENERIC
IFCIND  ISTYP  INTTYP  LIM   RATE   DFMT   UPDFCN  PARITY  CCHECK  TXC   FILLER  ICEXG
05      -     -       4     -        -        -      -       -       NONE   GENERIC
```

02	2	0	1	1200	4	YES	EVEN	YES	YES	64	NONE
END											

There are two information systems, with serial number 5 and 2, initiated in the exchange:

The information system with serial number 5 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- Ethernet as type of interface.
- It has been initiated as a generic information system in LIM 4.
- No ID has been set in the command 7.1 ICFUC on page 74 ICFUC.

The information system with serial number 2 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- Voice Mail as type of information system.
- V.24 interface.
- LIM number 1.
- Data speed is 1200 bits/s with even parity, transmission control, character check set.
- 4 digits as the format for the directory number in the signal interface between the information system and the exchange.
- No ID has been set.

7.4.8

COMMAND CATEGORY

Dangerous = **No**

7.5

ICMWC

Information computer message waiting data change

7.5.1

FORMAT

**Table 260**  
**ICMWC:SID=[,DTXT=][,KFCN=][,DIG=];**

<b>Table 261</b>	
<b>DIG =</b>	Digit. Number information.
<b>DTXT =</b>	Display text. Text shown on the IP extension display.
<b>KFCN =</b>	Key function. Message waiting key function.
<b>SID =</b>	Information system identity

7.5.2

FUNCTION

Alteration of data for message waiting. The parameters not required need not be stated.

At least one of the parameters DTXT, KFCN or DIG must be stated in the command. Parameter DIG shall be stated only when the key function is message waiting connection, otherwise it is to be omitted.

What is to be shown on the display of the IP extension and the function of the message waiting key are defined per information system.

A number (DIG) can be affiliated to the message waiting key so that when the key is depressed a call will be initiated to this number. Alternatively the key function can be defined so that on the key a signal will be transmitted from the exchange to the peripheral information system.

7.5.3

EXAMPLE

Display text E\* 1\* has been selected for information system identity 0. S is used to indicate a space. The function of the message waiting key shall be a call to the information system, with directory number 962.

Table 262

ICMWC:SID=0,DTXT=E*S1*,KFCN=MWC,DIG=962; EXECUTED
--

7.5.4

COMMAND CATEGORY

Dangerous = **No**

7.6

ICMWP

Information computer message waiting data print

7.6.1

FORMAT

Table 263

ICMWP:SID=;

Table 264

**SID** = Information system identity.  
&, && and ALL are permitted for this parameter.

7.6.2

FUNCTION

Print display text, message waiting key function, and (if any) the number information for the stated information system.

7.6.3

PRINTOUT

Table 265

INFORMATION COMPUTER MESSAGE WAITING DATA
---

SID	DTXT	KFCN	DIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

**Table 266**

- DIG** Digit. Number information.
- DTXT** Display text. Text shown on display of the IP extension.
- KFCN** Key function. Message waiting key function.

7.6.4

EXAMPLE

Print information in respect of information identity 0.

**Table 267**

ICMWP:SID=0;			
INFORMATION COMPUTER MESSAGE WAITING DATA			
SID	DTXT	KFCN	DIG
0	E*S1*	MWC	962
END			

The display text is E\* 1\*. A space is indicated with S. On depression of the message waiting key a call will be initiated to the information system, with directory number 962.

7.6.5

COMMAND CATEGORY

Dangerous = **No**

7.7

ICUPI

Information computer update initiate.

7.7.1

FORMAT

**Table 268**

**ICUPI[:IFCIND=];**

**ICUPI [:IFCIND=];**

**Table 269**

**IFCIND =** Information computer individual.

7.7.2

FUNCTION

This command achieves an update of the exchange message waiting information system. If the information system is an interception computer set up for message diversion, the message diversion connections will also be updated so that the exchange and the system agree.

Updating is executed from one information system at a time until all information systems have been dealt with.

Parameter IFCIND is used when it is desirable that only one information system shall provide update information.

If parameter IFCIND 16 (virtual information system) is specified, then existing virtual information system data will be erased.

If parameter IFCIND is omitted, then all the information systems, excluding virtual information system will be updated.

### 7.7.3

## PRINTOUT 1

**Table 270**

INFORMATION SYSTEM UPDATING SUCCESSFUL END
---

This printout is obtained when the update of the information systems has been carried out satisfactorily.

### 7.7.4

## PRINTOUT 2

**Table 271**

INFORMATION SYSTEM UPDATING NOT SUCCESSFUL IFCIND CHANNEL ERROR DETECTED IFCIND .. .. .. END
--

This printout is obtained when the communications channel for the information system with serial number is blocked for some reason. For example, if the line between the message system and the exchange is disconnected. This means that the update has not taken place.

If there are more information systems than shown in the printout, updating of these has been performed satisfactorily.

### 7.7.5

## PRINTOUT 3

**Table 272**

INFORMATION SYSTEM UPDATING NOT SUCCESSFUL BLOCKED LIM(S) NOT CLEARED END
---

This printout is obtained when at least one of the exchange LIMs was blocked during the time the update was executed.

This means that there are LIMs in which the message information is not updated.

## 7.7.6 PRINTOUT 4

**Table 273**

```

INFORMATION SYSTEM UPDATING NOT SUCCESSFUL
BLOCKED LIM(S) NOT CLEARED AND CHANNEL ERROR DETECTED
IFCIND
..
..
END
    
```

Simultaneous errors according to printouts 2 and 3.

## 7.7.7 EXAMPLE 1

Update the exchange with information from information systems connected to the exchange.

**Table 274**

```

ICUPI;
ORDERED
INFORMATION SYSTEM UPDATING SUCCESSFUL
END
    
```

Updating has been completed. When ORDERED has been printed there may be some delay before the update is completed, see FUNCTION.

## 7.7.8 EXAMPLE 2

Erasing virtual information in the exchange.

**Table 275**

```

ICUPI:IFCIND=16;
ORDERED
INFORMATION SYSTEM UPDATING SUCCESSFUL
END
    
```

Updating has been completed. All the data with regard to all virtual information systems are erased, see FUNCTION.

## 7.7.9 EXAMPLE 3

**Table 276**

```

ICUPI;
ORDERED
INFORMATION SYSTEM UPDATING NOT SUCCESSFUL
IFCIND CHANNEL ERROR DETECTED
IFCIND
06
END
    
```

Updating cannot be executed because the information system with individual number 06 is blocked for some reason.

If this information system is an interception computer, all message transfers are erased, but update is not completed.

If the system was blocked before the update was started, no update will be executed.

If, on the other hand, the system was blocked during the update, the update will be partially executed.

#### 7.7.10

#### COMMAND CATEGORY

Dangerous = **No**



## 8 IR - ISDN TRUNK PROTOCOL DATA

### 8.1 IRPDP

ISDN trunk protocol data print

#### 8.1.1 FORMAT

**Table 277**

**IRPDP:TYPE=,PROT=,LIM=,ENTRY=[,MSG=][,IE=][,CALLST=]  
[,OFFSET=] ;**

**Table 278**

CALLST =	ISDN call state. Required for certain ENTRY values. ALL is permitted for this parameter.
ENTRY =	Entry. ISDN protocol related parameter.
IE =	ISDN information element identifier. Required for certain ENTRY values. ALL is permitted for this parameter
LIM =	LIM number.
MSG =	ISDN message type. Required for certain ENTRY values. ALL is permitted for this parameter.
OFFSET =	Offset. Required for certain ENTRY values. ALL is permitted for this parameter.
PROT =	Type of ISDN protocol. The type of ISDN protocol that protocol data print out is requested for.
TYPE =	Block type. The block type that handles the type of ISDN protocol that protocol data are requested for. SL60 is the only supported value. SL60 = ISDN protocol data within SL60

#### 8.1.2 FUNCTION

The command is used to print out ISDN protocol related data. Since ISDN protocol related data control the behavior of ISDN protocols this command is especially handy for ISDN fault locating.

The requested ISDN protocol related data are pointed out by the ENTRY parameter. Some ENTRY parameter values also require that one or two of the indexing parameters MSG, IE, CALLST and OFFSET are stated.

When the ISDN protocol related data are dependent on the ISDN message that is received/sent, this ISDN message shall be stated in parameter MSG.

When the ISDN protocol related data are dependent on the ISDN Information Element that is received/sent, this ISDN Information Element shall be stated in parameter IE.

When the ISDN protocol related data are dependent on the current ISDN Call State, this ISDN Call State shall be stated in parameter CALLST.

When the ISDN protocol related data are dependent on some other additional variable, an offset shall be stated in parameter OFFSET.

## 8.1.3

## PRINTOUT

**Table 279**

ISDN TRUNK PROTOCOL DATA PRINT							
TYPE	PROT	ENTRY	MSG	IE	CALLST	OFFSET	DATA
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
END							

**Table 280**

**DATA** The data that are printed out are the value of the requested ISDN protocol related parameter that is pointed out by the stated parameters. The interpretation of the data is different for different ISDN protocol related parameters, see table 1 below. Data are always given in decimal format. Time values are given in seconds, if not stated otherwise.

Data related to 2B+D is not relevant in MX-ONE.

**Table 281 Interpretation of DATA for different ENTRY parameters**

ENTRY	Description of ENTRY value	DATA
ALARMPRIORITY	Alarm handling on A/B level	<b>0</b> = A-level <b>17</b> = B-level
CAUSEBCNOTAUT	Cause Value to send in Cause IE when Bearer capability is not authorized	<b>0-127</b> (Cause number)
CAUSEBCNOTAVAIL	Cause Value to send in Cause IE when Bearer capability is not presently available	<b>0-127</b> (Cause number)
CAUSEBCNOTIMP	Cause Value to send in Cause IE when Bearer capability is not implemented	<b>0-127</b> (Cause number)
CAUSECALREJ	Cause Value to send in Cause IE when Call is rejected	<b>0-127</b> (Cause number)
CAUSECHNLNOTACC	Cause Value to send in Cause IE when Channel is not acceptable	<b>0-127</b> (Cause number)
CAUSECHNLNOTEXIST	Cause Value to send in Cause IE when Identified channel does not exist	<b>0-127</b> (Cause number)
CAUSECHNLORPROTNOTAVAIL	Cause Value to send in Cause IE when Channel or protocol is not available	<b>0-127</b> (Cause number)
CAUSECHNLTYPENOTIMP	Cause Value to send in Cause IE when Channel type is not implemented	<b>0-127</b> (Cause number)

ENTRY	Description of ENTRY value	DATA
CAUSECTRL	Mapping of ITU Cause values to internal codes	<b>0-15</b> (Internal code) <b>0</b> = User busy <b>1</b> = User busy <b>2</b> = Unassigned route <b>3</b> = Facility request rejected <b>4</b> = Incompatible destination <b>5</b> = Destination out of service <b>6</b> = Software equipment congestion <b>7</b> = Normal call clearing <b>8</b> = Requested B-channel not available <b>9</b> = Invalid number format <b>10</b> = No user responding <b>11</b> = Normal call clearing <b>12</b> = Call rejected
CAUSECTRLINT	Mapping of internal codes to ITU Cause values	<b>0-127</b> (Cause number)
CAUSECUGMEMBER	Cause Value to send in Cause IE when Called user is member of CUG	<b>0-127</b> (Cause number)
CAUSECUGNOTEXIST	Cause Value to send in Cause IE when Closed user group does not exist	<b>0-127</b> (Cause number)
CAUSEDESTINCOMP	Cause Value to send in Cause IE when Incompatible destination	<b>0-127</b> (Cause number)
CAUSEDESTOUTOFSERVICE	Cause Value to send in Cause IE when Destination is out of service	<b>0-127</b> (Cause number)
CAUSEFACREQREJ	Cause Value to send in Cause IE when Facility is rejected	<b>0-127</b> (Cause number)
CAUSEICONUM	Cause Value to send in Cause IE when Invalid number format	<b>0-127</b> (Cause number)
CAUSEIENOTEXIST	Cause Value to send in Cause IE when Information element non-existent or is not implemented	<b>0-127</b> (Cause number)
CAUSEINCCALLBARRED	National Cause Value to send in Cause IE Incoming calls barred	<b>0-127</b> (National Cause number)
CAUSEINTERWORKING	Cause Value to send in Cause IE when Interworking, unspecified	<b>0-127</b> (Cause number)
CAUSEINVALIDIE	Cause Value to send in Cause IE when Invalid information element content	<b>0-127</b> (Cause number)

ENTRY	Description of ENTRY value	DATA
CAUSEINVCALLINGPTYNUM	National Cause Value to send in Cause IE Invalid calling party number	<b>0-127</b> (National Cause number)
CAUSEINVCALLREF	Cause Value to send in Cause IE when Invalid call reference	<b>0-127</b> (Cause number)
CAUSEINVTRANSNETSEL	Cause Value to send in Cause IE when Invalid transit network selection	<b>0-127</b> (Cause number)
CAUSEISUPNOTAVAIL	National Cause Value to send in Cause IE ISUP not available	<b>0-127</b> (National Cause number)
CAUSEMANDATIEMISSING	Cause Value to send in Cause IE when Mandatory information element is missing	<b>0-127</b> (Cause number)
CAUSEMESSAGENOTEXIST	Cause Value to send in Cause IE when Message type non-existent or not implemented	<b>0-127</b> (Cause number)
CAUSEMESSINV	Cause Value to send in Cause IE when Invalid message	<b>0-127</b> (Cause number)
CAUSEMESSNOCOMPNOEXIST	Cause Value to send in Cause IE when Message not compatible with call state or message type non-existent or not implemented	<b>0-127</b> (Cause number)
CAUSEMESSNOTCOMP	Cause Value to send in Cause IE when Message not compatible with call state	<b>0-127</b> (Cause number)
CAUSENOANSWER	Cause Value to send in Cause IE when No answer from user	<b>0-127</b> (Cause number)
CAUSENOBCHNL	Cause Value to send in Cause IE when No B-channel available	<b>0-127</b> (Cause number)
CAUSENOCHA	Cause Value to send in Cause IE when Number changed	<b>0-127</b> (Cause number)
CAUSENORESPONSE	Cause Value to send in Cause IE when No user responding	<b>0-127</b> (Cause number)
CAUSENORMALCLEAR	Cause Value to send in Cause IE when Normal call clearing	<b>0-127</b> (Cause number)
CAUSENORMALUNSPEC	Cause Value to send in Cause IE when Normal, unspecified	<b>0-127</b> (Cause number)
CAUSENORROUTE	Cause Value to send in Cause IE when No route to specified transit network	<b>0-127</b> (Cause number)
CAUSENOROUTETODEST	Cause Value to send in Cause IE when No route to destination	<b>0-127</b> (Cause number)
CAUSENOTCUGMEMBER	National Cause Value to send in Cause IE Called user is not member of CUG	<b>0-127</b> (National Cause number)
CAUSENTWOUTOFORDER	Cause Value to send in Cause IE when Network out of order	<b>0-127</b> (Cause number)
CAUSEONLYRESTRBCAVAIL	Cause Value to send in Cause IE when Only restricted digital bearer capability is available	<b>0-127</b> (Cause number)
CAUSEOTGCALLBARRED	National Cause Value to send in Cause IE Incoming calls barred	<b>0-127</b> (National Cause number)
CAUSEPROTERR	Cause Value to send in Cause IE when Protocol error	<b>0-127</b> (Cause number)
CAUSEQUALOFSERVNOTAVAIL	Cause Value to send in Cause IE when Quality of service not available	<b>0-127</b> (Cause number)

ENTRY	Description of ENTRY value	DATA
CAUSERECOVERYTIMEXP	Cause Value to send in Cause IE when Recovery on timer expiry	<b>0-127</b> (Cause number)
CAUSEREQBCHNLNOTFREE	Cause Value to send in Cause IE when Requested B-channel not available	<b>0-127</b> (Cause number)
CAUSEREQFACNOTIMP	Cause Value to send in Cause IE when Requested facility not implemented	<b>0-127</b> (Cause number)
CAUSEREQFACNOTSUB	Cause Value to send in Cause IE when Requested facility not subscribed	<b>0-127</b> (Cause number)
CAUSERESUNAVAILABLE	Cause Value to send in Cause IE when Resources unavailable	<b>0-127</b> (Cause number)
CAUSERESVNOTAVAIL	Cause Value to send in Cause IE when Service not available	<b>0-127</b> (Cause number)
CAUSERESVNOTIMP	Cause Value to send in Cause IE when Service not implemented	<b>0-127</b> (Cause number)
CAUSESTAENQRES	Cause Value to send in Cause IE when Response to Status enquiry message	<b>0-127</b> (Cause number)
CAUSESWIEQUCONG	Cause Value to send in Cause IE when Switching equipment congestion	<b>0-127</b> (Cause number)
CAUSETEMPFAIL	Cause Value to send in Cause IE when Temporary failure	<b>0-127</b> (Cause number)
CAUSEUIDISC	Cause Value to send in Cause IE when Access information discarded	<b>0-127</b> (Cause number)
CAUSEUNASSIGNEDNO	Cause Value to send in Cause IE when Unallocated (unassigned) number	<b>0-127</b> (Cause number)
CAUSEUSERBUSY	Cause Value to send in Cause IE when User busy	<b>0-127</b> (Cause number)
CHANNELNUMB7	Channel number octet in the Channel Identification IE is used	<b>0</b> = No <b>1</b> = Yes
CHARGINFIE	Information Element which contains charging information	<b>8</b> = Display IE <b>20</b> = Charge Advice IE <b>26</b> = Facility IE
CHARGINFRECINCURRENCY	Charging information received in currency.	<b>0</b> = No <b>1</b> = Yes
CHARGINFREQCHARGADV	Charging information request can be sent in Charge Advice IE if charging is used	<b>0</b> = No <b>1</b> = Yes
CHARGINFREQKEYPAD	Charging information request can be sent in Keypad Facility IE if charging is used	<b>0</b> = No <b>1</b> = Yes
CLEARCALL	Disconnect call when receiving Status message with compatible call state and with one of the following Cause values: CAUSEIENOTEXIST, CAUSEINVALIDIE, CAUSEMANDATIEMISSING, CAUSEMESSAGENOTEXIST	<b>0</b> = No <b>1</b> = Yes

ENTRY	Description of ENTRY value	DATA
COMPATCS	Message is compatible/not compatible with call state. If a received message is not compatible with call state the message will be ignored and normally a Status message will be returned. If a message to be sent is not compatible with the call state the message will not be sent.	<b>0</b> = Not Compatible <b>1</b> = Compatible
COMPATCS-NET	Message is compatible/not compatible with call state on DSS1 network side. If a received message is not compatible with call state the message will be ignored and normally a Status message will be returned. If a message to be sent is not compatible with call state the message will not be sent.	<b>0</b> = Not Compatible <b>1</b> = Compatible
COSTPERPULSE	Cost per pulse in units	Cost in units
CRC4MODE	Cyclic Redundancy Checks on TLU-ISDN	<b>1</b> = <i>Automatic CRC-4 mode</i> <b>17</b> = <i>No CRC-4 mode</i> <b>49</b> = <i>Always CRC-4 mode</i>
FACIDCHARG1A	Facility identifier for charging information during call, character 1.	CCITT IA5 (ASCII) character
FACIDCHARG2A	Facility identifier for charging information during call, character 2.	CCITT IA5 (ASCII) character
FACIDCHARG3A	Facility identifier for charging information during call, character 3.	CCITT IA5 (ASCII) character
FACIDCHARG4A	Facility identifier for charging information during call, character 4.	CCITT IA5 (ASCII) character
FACIDCHARG5A	Facility identifier for charging information during call, character 5.	CCITT IA5 (ASCII) character
FACIDCHARG6A	Facility identifier for charging information during call, character 6.	CCITT IA5 (ASCII) character
FACIDCHARG7A	Facility identifier for charging information during call, character 7.	CCITT IA5 (ASCII) character
FACIDCHARG8A	Facility identifier for charging information during call, character 8.	CCITT IA5 (ASCII) character
FACIDCHARG1B	Facility identifier for charging information at the end of call, character 1.	CCITT IA5 (ASCII) character
FACIDCHARG2B	Facility identifier for charging information at the end of call, character 2.	CCITT IA5 (ASCII) character
FACIDCHARG3B	Facility identifier for charging information at the end of call, character 3.	CCITT IA5 (ASCII) character
FACIDCHARG4B	Facility identifier for charging information at the end of call, character 4.	CCITT IA5 (ASCII) character
FACIDCHARG5B	Facility identifier for charging information at the end of call, character 5.	CCITT IA5 (ASCII) character
FACIDCHARG6B	Facility identifier for charging information at the end of call, character 6.	CCITT IA5 (ASCII) character

ENTRY	Description of ENTRY value	DATA
FACIDCHARG7B	Facility identifier for charging information at the end of call, character 7.	CCITT IA5 (ASCII) character
FACIDCHARG8B	Facility identifier for charging information at the end of call, character 8.	CCITT IA5 (ASCII) character
FACIDCHARGCC1	Control code for charging information facility identifier, character 1	CCITT IA5 (ASCII) character
FACIDCHARGCC2	Control code for charging information facility identifier, character 2	CCITT IA5 (ASCII) character
FACIDCHARGNUMA	Number of characters in facility identifier for charging information during call	Number of characters
FACIDCHARGNUMB	Number of characters in facility identifier for charging information at the end of call	Number of characters
FACIDCHARGREQCC1	Control code for charging information request, character 1	CCITT IA5 (ASCII) character
FACIDCHARGREQCC2	Control code for charging information request, character 2	CCITT IA5 (ASCII) character
FACIDCLIR	Facility identifier for Calling Line Identification Restriction	CCITT IA5 (ASCII) character
FACIDCLIRCC	Control code for CLIR facility identifier	CCITT IA5 (ASCII) character
FACIDCLIRNUMCC	Number of characters in calling line identification restriction control code	Number of characters
FACIDCLIRNUMFI	Number of characters in calling line identification restriction string	Number of characters
FACIDCUG1	Facility identifier for Closed User Group, character 1	CCITT IA5 (ASCII) character
FACIDCUG2	Facility identifier for Closed User Group, character 2	CCITT IA5 (ASCII) character
FACIDCUG3	Facility identifier for Closed User Group, character 3	CCITT IA5 (ASCII) character
FACIDCUG4	Facility identifier for Closed User Group, character 4	CCITT IA5 (ASCII) character
FACIDCUGNUM	Number of characters in facility identifier for Closed User Group	Number of characters
FACIDMCT1	Facility identifier for Malicious Call Tracing, character 1	CCITT IA5 (ASCII) character
FACIDMCT2	Facility identifier for Malicious Call Tracing, character 2	CCITT IA5 (ASCII) character
FACIDMCT3	Facility identifier for Malicious Call Tracing, character 3	CCITT IA5 (ASCII) character
FACIDMCT4	Facility identifier for Malicious Call Tracing, character 4	CCITT IA5 (ASCII) character
FACIDMCTCC1	Control code for MCT: MCT request, character 1	CCITT IA5 (ASCII) character
FACIDMCTCC2	Control code for MCT: MCT request, character 2	CCITT IA5 (ASCII) character
FACIDMCTCC3	Control code for MCT: MCT acknowledge, character 1	CCITT IA5 (ASCII) character

ENTRY	Description of ENTRY value	DATA
FACIDMCTCC4	Control code for MCT: MCT acknowledge, character 2	CCITT IA5 (ASCII) character
FACIDMCTCC5	Control code for MCT: MCT rejected, character 1	CCITT IA5 (ASCII) character
FACIDMCTCC6	Control code for MCT: MCT rejected, character 2	CCITT IA5 (ASCII) character
FACIDMCTCC7	Control code for MCT: MCT not available, character 1	CCITT IA5 (ASCII) character
FACIDMCTCC8	Control code for MCT: MCT not available, character 2	CCITT IA5 (ASCII) character
FACIDMCTNUM	Number of characters in facility identifier for Malicious Call Tracing	Number of characters
FACIDREQUI1	Facility identifier for Request of User-User signalling service 2 and 3, character 1	CCITT IA5 (ASCII) character
FACIDREQUI2	Facility identifier for Request of User-User signalling service 2 and 3, character 2	CCITT IA5 (ASCII) character
FACIDREQUI3	Facility identifier for Request of User-User signalling service 2 and 3, character 3	CCITT IA5 (ASCII) character
FACIDREQUI4	Facility identifier for Request of User-User signalling service 2 and 3, character 4	CCITT IA5 (ASCII) character
FACIDREQUINUM	Number of characters in facility identifier for Request User-User signalling	Number of characters
FCTIMSUP	Flow control is supervised using timer T397	<b>0</b> = No <b>1</b> = Yes
IECODESETREC	Codeset to use for received Information Elements	<b>0</b> = Codeset 0 <b>5</b> = Codeset 5 <b>6</b> = Codeset 6
IECODESETSEND	Codeset to use for Information Elements to be sent	<b>0</b> = Locking shift to codeset 0 <b>5</b> = Locking shift to codeset 5 <b>6</b> = Locking shift to codeset 6 <b>16</b> = Non-locking shift to codeset 0 <b>21</b> = Non-locking shift to codeset 5 <b>22</b> = Non-locking shift to codeset 6
IEIDENTIFIER	Mapping of internal codes to Information Element identifiers	<b>0-255</b> (Information Element id)



ENTRY	Description of ENTRY value	DATA
IEINDEX	Mapping of Information Element identifiers to internal codes	<b>0-34</b> (Internal code)
		<b>0</b> = More Data IE
		<b>1</b> = Congestion Level IE
		<b>2</b> = Bearer Capability IE
		<b>3</b> = Cause IE
		<b>4</b> = Call State IE
		<b>5</b> = Channel Identification IE
		<b>6</b> = Progress IE
		<b>7</b> = Notification Indicator IE
		<b>8</b> = Display IE
		<b>9</b> = Keypad Facility IE
		<b>10</b> = Calling Party Number IE
		<b>11</b> = Calling Party Subaddress IE
		<b>12</b> = Called Party Number IE
		<b>13</b> = Called Party Subaddress IE
		<b>14</b> = Transit Network Selection IE
		<b>15</b> = Restart Indicator IE
		<b>16</b> = Low Layer Compatibility IE
		<b>17</b> = High Layer Compatibility IE
		<b>18</b> = User-User Information IE
		<b>19</b> = Teleservice IE
		<b>20</b> = Charge Advice IE
		<b>21</b> = Connected Number IE
		<b>22</b> = Connected Subaddress IE
		<b>23</b> = Redirecting Number IE
		<b>24</b> = Sending Complete IE
		<b>25</b> = Segmented Message IE
		<b>26</b> = Facility IE

ENTRY	Description of ENTRY value	DATA
		<b>27</b> = Network Specific Facility IE <b>28</b> = Date/Time IE <b>30</b> = Originally Called Party Subaddress IE <b>31</b> = Redirection Subaddress IE <b>32</b> = Redirecting Subaddress IE <b>33</b> = Transit Counter IE <b>34</b> = Party Category IE <b>255</b> = No internal coding exists
IEMAXLENGTH	Maximum number of octets after the Information Element length indicator	<b>0-255</b> (Number of octets)
IEMAXLENGTH30B	Maximum number of octets after the Information Element length indicator	<b>0-255</b> (Number of octets)
IEORDER	Order of Information Elements when sending a message	<b>0-34</b> (Order)
INDINTF	Type of B-channel restart. Class octet in Restart Indicator IE	<b>6</b> = Single interface <b>7</b> = All channels belonging to one D-channel
ISDNRATEADAP	Mapping of internal code to standard coding for Rate Adaptation in Bearer Capability IE or Low Layer Compatibility IE octet 5	<b>0-15</b> (Type of Rate adaption)
L1HANDLER	Type of Layer 1 handler	<b>0</b> = Standard ITU <b>1</b> = AI + T0 (bit 4) for remote alarm <b>2</b> = Reserve
MAXDELAYACK-L2	Maximum delay for acknowledge pending	Value x 0.01 seconds
MAXNUMBYTE	Maximum number of data bytes in signals between layer 2 and layer 3 (DATA-LINK-REQUEST-DATA and DATA-LINK-DATA-INDICATION)	Number of bytes
MAXNUMK2B	Maximum number of unacknowledged I-frames on the 2B+D link (Window size)	Number of frames
MAXNUMK30B	Maximum number of unacknowledged I-frames on the 30B+D link (Window size)	Number of frames
MCIDMESSAGE	ISDN message which contains Malicious Call Identification request	<b>16</b> = Information message <b>25</b> = Facility message
MCIDREQIE	Information Elements which contain Malicious Call Identification request	<b>9</b> = Keypad IE <b>26</b> = Facility IE

ENTRY	Description of ENTRY value	DATA
MCTDETACH	Use Detach procedure for MCT	<b>0</b> = No <b>1</b> = Yes
MESS-REC-CTRL-NET	Handling of Information Elements in received ISDN message when MX-ONE is acting as DSS1 network side	<b>0</b> = Information Element not implemented in message <b>1</b> = Discarded if received, codeset 0 <b>2</b> = Optional, codeset 0 <b>5</b> = Discarded if received, codeset 5,6 <b>6</b> = Optional, codeset 5,6 <b>8</b> = Mandatory, codeset 0 <b>11</b> = Conditionally mandatory, codeset 0 <b>12</b> = Mandatory, codeset 5,6 <b>15</b> = Conditionally mandatory, codeset 5,6
MESS-SEN-CTRL-NET	Handling of Information Elements to be sent in ISDN message when MX-ONE is acting as DSS1 network side	<b>0</b> = Information Element not implemented in message <b>2</b> = Optional, codeset 0 <b>6</b> = Optional, codeset 5,6 <b>8</b> = Mandatory, codeset 0 <b>11</b> = Conditionally mandatory, codeset 0 <b>12</b> = Mandatory, codeset 5,6 <b>15</b> = Conditionally mandatory, codeset 5,6

ENTRY	Description of ENTRY value	DATA
MESSAGEERRPROC	Error procedure when Information Element in received message is considered to be faulty.	<b>0</b> = No action <b>1</b> = Send Release message <b>2</b> = Send Release Complete message <b>3</b> = Send Status message <b>4</b> = Continue and send Status message <b>5</b> = Continue <b>6</b> = Ignore the message <b>7</b> = If global call reference ignore the message, otherwise send Status message <b>8</b> = If global call reference ignore the message, otherwise continue and send Status message
MESSAGEERRPROC-NET	Error procedure when Information Element in received message is considered to be faulty when MX-ONE is acting as DSS1 network side	<b>0</b> = No action <b>1</b> = Send Release message <b>2</b> = Send Release Complete message <b>3</b> = Send Status message <b>4</b> = Continue and send Status message <b>5</b> = Continue <b>6</b> = Ignore the message <b>7</b> = If global call reference ignore the message, otherwise send Status message <b>8</b> = If global call reference ignore the message, otherwise continue and send Status message
MESSAGEGROUP	Type of codeset for ISDN message	<b>0</b> = ITU message type <b>1</b> = National message type

ENTRY	Description of ENTRY value	DATA
MESSAGERECCTRL	Handling of Information Elements in received ISDN message	<b>0</b> = Information Element not implemented in message <b>1</b> = Discarded if received, codeset 0 <b>2</b> = Optional, codeset 0 <b>5</b> = Discarded if received, codeset 5,6 <b>6</b> = Optional, codeset 5,6 <b>8</b> = Mandatory, codeset 0 <b>11</b> = Conditionally mandatory, codeset 0 <b>12</b> = Mandatory, codeset 5,6 <b>15</b> = Conditionally mandatory, codeset 5,6
MESSAGESENCTRL	Handling of Information Elements to be sent in ISDN message	<b>0</b> = Information Element not implemented in message <b>2</b> = Optional, codeset 0 <b>6</b> = Optional, codeset 5,6 <b>8</b> = Mandatory, codeset 0 <b>11</b> = Conditionally mandatory, codeset 0 <b>12</b> = Mandatory, codeset 5,6 <b>15</b> = Conditionally mandatory, codeset 5,6
MESSAGETYPE	Mapping of internal codes to ISDN messages	<b>0-127</b> (Message type)
MESSAGEVALIDITY	Validity of received message	<b>0</b> = Valid message <b>3</b> = Not valid message (not allowed for this market)
MINNUMBYTE2B	Minimum number of layer 3 bytes in a 2B+D message	Number of bytes
MINNUMBYTE30B	Minimum number of layer 3 bytes in a 30B+D message	Number of bytes

ENTRY	Description of ENTRY value	DATA
MODEMTYPEINC	Mapping of modem type in Bearer Capability IE or Low Layer Compatibility IE to internal code	<b>0</b> = Unknown modem type <b>1</b> = V.21 <b>2</b> = V.22 <b>3</b> = V.23 bis <b>4</b> = V.23 <b>5</b> = V.26 <b>6</b> = V.26 bis <b>7</b> = V.26 ter <b>8</b> = V.27 <b>9</b> = V.27 bis <b>10</b> = V.27 ter <b>11</b> = V.29 <b>12</b> = V.32 <b>13</b> = V.35 <b>255</b> = No valid information
MODEMTYPEOTG	Mapping of internal code to ISDN modem types to send in Bearer Capability IE or Low Layer Compatibility IE	<b>0</b> = Unknown modem type <b>1-15</b> = User defined modem type <b>255</b> = No valid information

ENTRY	Description of ENTRY value	DATA
MSGINDEX	Mapping of ISDN message to internal code	<b>0-26</b> (Internal code) <b>0</b> = Alerting <b>1</b> = Call Proceeding <b>2</b> = Progress <b>3</b> = Setup <b>4</b> = Connect <b>5</b> = Setup Acknowledge <b>6</b> = Connect Acknowledge <b>7</b> = User Information <b>8</b> = Disconnect <b>9</b> = Restart <b>10</b> = Release <b>11</b> = Restart Acknowledge <b>12</b> = Release Complete <b>13</b> = Notify <b>14</b> = Status Enquiry <b>15</b> = Congestion Control <b>16</b> = Information <b>17</b> = Status <b>18</b> = Reactivate Reject <b>19</b> = Reactivate <b>20</b> = Deactivate <b>21</b> = Reactivate Acknowledge <b>22</b> = Deactivate Acknowledge <b>23</b> = Detach <b>24</b> = Detach Acknowledge <b>25</b> = Facility <b>26</b> = Facility Acknowledge <b>255</b> = No internal coding exist
N200	Maximum number of retransmissions of frames on the data link (Layer 2)	Number of retransmissions
N201	Maximum number of octets in an I-frame (Layer 2)	Number of octets
N202	Maximum number of transmissions of TEI-identity-request message (Layer 2)	Number of transmissions

ENTRY	Description of ENTRY value	DATA
NUMOFBRESTATT	Number of B-channel restart attempts before the data link is restarted (N316)	Number of restart attempts
NUMOFIDENTIFIERSA	Total number of identifiers in AOC string, A=Charge during call	Number of identifiers
NUMOFIDENTIFIERSB	Total number of identifiers in AOC string, B=Charge at the end of call	Number of identifiers
OCT3ETSI	Location to send in Cause/Progress IE (octet 3) for coding standard ETSI	<b>128</b> = Location, User <b>129</b> = Location, Local private network
RECINFORMATION	Information message is received and processed in all call states except 0,1,6,19 and 30	<b>0</b> = No <b>1</b> = Yes
RECRELCOMP	Release Complete message is received and processed in all call states	<b>0</b> = No <b>1</b> = Yes
RECSETUP	Setup message is received and ignored in call states 6 -10	<b>0</b> = No <b>1</b> = Yes
RECSTATUS	Status message is received and ignored in call state zero.	<b>0</b> = No <b>1</b> = Yes
RELBCHNLDIRECT	All B-channels are released when receiving DATA-LINK-RELEASE-INDICATION	<b>0</b> = No <b>1</b> = Yes
RELCOMATCLEARCOLL	Send Release Complete after clear collision	<b>0</b> = No <b>1</b> = Yes
REPOLDCS	Call state to report in Status message	<b>0</b> = New call state <b>1</b> = Old call state
RESETINVOKEIDCOUNTER	Reset the INVOKEID counter for every call (ASN1)	<b>0</b> = No <b>1</b> = Yes
SENMULCHNLRESTACK	Send Restart Acknowledge message after T317 time out	<b>0</b> = No <b>1</b> = Yes
SENSTATUS	Send Status message when received message is incompatible with call state in release sequence	<b>0</b> = No <b>1</b> = Yes
STAERRCTRL	Action taken when Status message is received. The action is dependent on own call state and received call state in Status message.	<b>0</b> = The state does not exist <b>1</b> = Send Release message <b>2</b> = Send Release Complete message <b>3</b> = No action <b>4</b> = State OK <b>5</b> = Clear the call internally <b>6</b> = Send Disconnect message



ENTRY	Description of ENTRY value	DATA
SUPCLEARBLEV	Support sending of internal MX-ONE-signal CLEARBLEV (which executes all jobs in the B-level queue before starting a new job on the A-level)	0 = No 1 = Yes
SUPPINBANDTONE	Support reception of inband tones/announcements indicated in Disconnect message	0 = No 1 = Yes
SUPSTAENQ	Support of Status Enquiry message	0 = No 1 = Status Enquiry + Status
	Support of Status Enquiry and Status in connection with data link restart	0 = No 1 = Status Enquiry 2 = Status
T200	Maximum waiting time for acknowledgement signal from the data link	Value x 0.1 seconds
T201	Time between retransmission of signal ID-check request on the data link	Value x 0.1 seconds
T202	Minimum time between retransmission of TEI-identity request on the data link.	Value x 0.1 seconds
T203	Maximum period of data link inactivity	Time in seconds
TIM-TONE-ANNOUNCE	T306 Time before Release message is sent, when sending tones/announcement	Time in seconds
TIMBEFANSACK	T313 Time before reception of Connect Acknowledge message	Time in seconds
TIMBEFDETACK	T311 Time before reception of Detach acknowledgement	Time in seconds
TIMBEFEOS	T310 Time in call state incoming/outgoing call proceeding	Time in seconds
TIMBEFFACACK	T3SS Time before reception of Facility acknowledgement	Time in seconds
TIMBEFOTGCALACK	T303 Time before acknowledgement to sent Setup message	Time in seconds
TIMBEFRELCOM	T308 Time before reception of Release Complete message	Time in seconds
TIMBEFRELMES	T305 Time before reception of Release message	Time in seconds
TIMBEFRESTRACK	T317 Time before sending of Restart Acknowledge message	Time in seconds
TIMBETRECDIG	T302 Time between received digits	Time in seconds
TIMBETSENDIG	T304 Time between sent digits	Time in seconds
TIMDATLNKEST2B	T309 Time to perform data link establishment 2B+D	Time in seconds
TIMDATLNKEST30B	T309 Time to perform data link establishment 30B+D	Time in seconds
TIMFLOWCTRL	T397 Time before User Information messages may be sent again in active state after having been shut off due to flow control of User Information messages	Time in seconds

ENTRY	Description of ENTRY value	DATA
TIMINTRESTRACK	T316 Time before reception of Restart Acknowledge message	Time in seconds
TIMSTATUSENQ	T322 Time before reception of response to Status Enquiry message	Time in seconds
TREFUUS2COUNT	Number of User Information messages permitted for UUS service 2	Number of messages

## 8.1.4

## EXAMPLE 1

Print out the value of ISDN timer T302 (maximum time between received digits), when the type of ISDN protocol is ETSI ISDN. This timer is handled by the ISDN protocol related parameter TIMBETRECDIG. The ETSI ISDN protocol is handled by SL60.

**Table 282**

IRPDP:TYPE=SL60,PROT=ETSI,LIM=1,ENTRY=TIMBETRECDIG;				
ISDN TRUNK PROTOCOL DATA PRINT				
TYPE	PROT	ENTRY		DATA
SL60	ETSI	TIMBETRECDIG		15
END				

The value of TIMBETRECDIG is **15** in the ETSI ISDN protocol handled by SL60. This means that the maximum time between received digits is *15 seconds*, according to Table 1.

## 8.1.5

## EXAMPLE 2

Print out the type of codeset that is used for the ISDN message Setup, when the type of ISDN protocol is national ISDN. The type of codeset to use for different ISDN messages is handled by the ISDN protocol related parameter MESSAGEGROUP. The national ISDN protocol is handled by SL60.

**Table 283**

IRPDP:TYPE=SL60,PROT=NAT,LIM=1,ENTRY=MESSAGEGROUP,MSG=SETUP;				
ISDN TRUNK PROTOCOL DATA PRINT				
TYPE	PROT	ENTRY	MSG	DATA
SL60	NAT	MESSAGEGROUP	SETUP	0
END				

The value of MESSAGEGROUP when the message is Setup is **0** in the national ISDN protocol handled by SL60. This means that the type of codeset to use for ISDN message Setup is *ITU message type*, according to Table 1.

## 8.1.6

## EXAMPLE 3

Check whether the ISDN message Connect is compatible with call state 4 (Call delivered), when the type of ISDN protocol is national ISDN. Message compatibility is handled by the ISDN protocol related parameter COMPATCS. The National ISDN protocol is handled by SL60.

**Table 284**

IRPDP:TYPE=SL60,PROT=NAT,LIM=1,ENTRY=COMPATCS, MSG=CONNECT, CALLST=4;					
ISDN TRUNK PROTOCOL DATA PRINT					
TYPE	PROT	ENTRY	MSG	CALLST	DATA
SL60	NAT	COMPATCS	CONNECT	4	1
END					

The value of COMPATCS, when the message is Connect and the call state is 4 (Call delivered), is **1** in the National ISDN protocol handled by SL60. This means that the message Connect is *Compatible* with call state 4, according to Table 1.

## 8.1.7

## EXAMPLE 4

Check how the different information elements are handled at reception of ISDN message Setup, when the type of ISDN protocol is national ISDN. Handling of information elements in received ISDN message is handled by the ISDN protocol related parameter MESSAGERECCTRL. The national ISDN protocol is handled by SL60.

**Table 285**

IRPDP:TYPE=SL60,PROT=NAT,LIM=1,ENTRY=MESSAGERECCTRL, MSG=SETUP, IE=ALL;					
ISDN TRUNK PROTOCOL DATA PRINT					
TYPE	PROT	ENTRY	MSG	IE	DATA
SL60	NAT	MESSAGERECCTRL	SETUP	MOREDATA	0
SL60	NAT	MESSAGERECCTRL	SETUP	CONGESTIONLEVEL	0
SL60	NAT	MESSAGERECCTRL	SETUP	BEARERCAPABILITY	8
SL60	NAT	MESSAGERECCTRL	SETUP	CAUSE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CALLSTATE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CHANNELIDENTIFICATION	8
SL60	NAT	MESSAGERECCTRL	SETUP	PROGRESSINDICATOR	2
SL60	NAT	MESSAGERECCTRL	SETUP	NOTIFICATIONINDICATION	2
SL60	NAT	MESSAGERECCTRL	SETUP	DISPLAY	1
SL60	NAT	MESSAGERECCTRL	SETUP	KEYPAD	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLINGPARTYNUMBER	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLINGPARTYSUBADDRESS	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLEDPARTYNUMBER	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLEDPARTYSUBADDRESS	2
SL60	NAT	MESSAGERECCTRL	SETUP	TRANSITNETWORKSELECTION	0
SL60	NAT	MESSAGERECCTRL	SETUP	RESTARTINDICATOR	0
SL60	NAT	MESSAGERECCTRL	SETUP	LOWLAYERCOMPATIBILITY	2
SL60	NAT	MESSAGERECCTRL	SETUP	HIGHLAYERCOMPATIBILITY	2
SL60	NAT	MESSAGERECCTRL	SETUP	USERUSERINFORMATION	2
SL60	NAT	MESSAGERECCTRL	SETUP	TELESERVICETYPE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CHARGEADVICE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CONNECTEDNUMBER	0

SL60	NAT	MESSAGERECCTRL	SETUP	CONNECTEDSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	REDIRECTINGNUMBER	0
SL60	NAT	MESSAGERECCTRL	SETUP	SENDINGCOMPLETE	2
SL60	NAT	MESSAGERECCTRL	SETUP	SEGMENTEDMESSAGE	0
SL60	NAT	MESSAGERECCTRL	SETUP	FACILITYIE	2
SL60	NAT	MESSAGERECCTRL	SETUP	NETWORKSPECIFICFACILITY	0
SL60	NAT	MESSAGERECCTRL	SETUP	DATETIME	0
SL60	NAT	MESSAGERECCTRL	SETUP	ORIGCALLEDPTYNUMBER	0
SL60	NAT	MESSAGERECCTRL	SETUP	ORIGCALLEDPTYSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	REDIRECTIONSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	REDIRECTINGSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	TRANSITCOUNTER	6
SL60	NAT	MESSAGERECCTRL	SETUP	PARTYCATEGORY	6
END					

The value of MESSAGERECCTRL for ISDN message Setup in national ISDN protocol is **0, 1, 2, 6** or **8** for the different information elements.

According to Table 1:

- the value **0** means that the information element is *not implemented* in the message
- the value **1** means that the information element is *discarded* if received, codeset 0
- the value **2** means that the information element is *optional*, codeset 0
- the value **6** means that the information element is *optional*, codeset 5,6
- the value **8** means that the information element is *mandatory*, codeset 0

This means that the following information elements are **not implemented** in ISDN message Setup:

- More data
- Congestion level
- Cause
- Call state
- Transit network selection
- Restart indicator
- Teleservice type
- Charge advice
- Connected number
- Connected subaddress
- Redirecting number
- Segmented message
- Network specific facilities
- Date/time

- Originally called party number
- Originally called party subaddress
- Redirection subaddress
- Redirecting subaddress

And that the following information element belongs to codeset 0 and is **discarded** if received in ISDN message Setup:

- Display

And that the following information elements belong to codeset 0 and are **optional** in ISDN message Setup:

- Progress indicator
- Notification indicator
- Keypad facility
- Calling party number
- Calling party subaddress
- Called party number
- Called party subaddress
- Low layer compatibility
- High layer compatibility
- User-user
- Sending complete
- Facility

And that the following information elements belong to codeset 5 or 6 and are **optional** in ISDN message Setup:

- Transit counter
- Party category

And that the following information elements belong to codeset 0 and are **mandatory** in ISDN message Setup:

- Bearer capability
- Channel identification

### 8.1.8

### COMMAND CATEGORY

Dangerous = **No**

# 9 IS - INTERCEPTION SERVICE

## 9.1 ISEPE

Interception service position end

### 9.1.1 FORMAT

ISEPE: { DIR = ... } ;  
          { GRP = ... } ;

Figure 23:  
Table 286

- DIR** =     Directory number.  
          & and && are permitted for this parameter.
- GRP** =     Group number. Directory number for internal group hunting (PBX) group number.  
          & and && are permitted for this parameter.

### 9.1.2 FUNCTION

The command is used to remove answer position for message diversion or message printout positions.

On removal of an internal group hunting group number as answer position, the group number is to be stated.

### 9.1.3 EXAMPLE 1

Remove the answer position for message diversion with directory number 962.

Table 287

ISEPE:DIR=962;  
EXECUTED

### 9.1.4 EXAMPLE 2

Remove the group with directory number 900 as answer position for message diversion.

Table 288

ISEPE:GRP=900;  
EXECUTED

### 9.1.5 COMMAND CATEGORY

Dangerous = **No**

9.2 ISEPI

Interception service position initiate

9.2.1 FORMAT

ISEPI: { DIR = ..., TERM=,ICSPOS= }  
GRP= ... ;

Figure 24:  
Table 289

DIR =	Directory number. & and && are permitted for this parameter.
GRP =	Group number. Directory number for internal group hunting group (PBX).
ICSPOS =	Type of interception service position.
TERM =	Terminal number. Terminal number of answer position for message diversion or message printout position. When & or && is stated in DIR parameter value TERM is used as start value.

9.2.2 FUNCTION

The command is used for initiating an answer position as message diversion position or message printout position. An answer position for message diversion is an extension or PBX operator who is equipped with a terminal, switched to the interception service and message waiting.

A message printout position is an extension that has a terminal with printer that is connected to the interception service and message waiting.

Internal group hunting group (PBX) can be defined as answer position for message diversion, in which case the parameter GRP is used. The individual members of the internal group hunting group (PBX) must then be defined as answer position for message diversion and each assigned a terminal.

9.2.3 EXAMPLE 1

Initiation of an answering position for message diversion with directory number 962 and terminal number 06.

Table 290

ISEPI:DIR=962,TERM=06,ICSPOS=A; EXECUTED
---

9.2.4 EXAMPLE 2

Initiation of an Internal group hunting group (PBX) with directory number 900 as answer position for message diversion.

Table 291

ISEPI:GRP=900; EXECUTED
----------------------------

9.2.5                      EXAMPLE 3

Initiation of an extension with directory number 963 and terminal number 7 as message printout position.

**Table 292**

ISEPI:DIR=963,TERM=07,ICSPOS=M; EXECUTED
---

9.2.6                      COMMAND CATEGORY

Dangerous = **No**

9.3                              ISEPP

Interception service position print

9.3.1                      FORMAT

**ISEPP**  $\left[ \left\{ \begin{array}{l} \text{DIR} = \dots \\ \text{TERM} = \dots \\ \text{GRP} = \dots \end{array} \right\} \right];$

**Figure 25:**  
**Table 293**

- DIR** =                      Directory number.  
ALL, && and & are permitted for this parameter.
- GRP** =                      Group number. Directory number for internal group hunting group (PBX).  
ALL, && and & are permitted for this parameter.
- TERM** =                      Terminal number. Terminal number of answer position for message diversion or message printout position.  
ALL, && and & are permitted for this parameter.

9.3.2                      FUNCTION

The command is used to print out the terminal numbers and directory numbers of answer positions for message diversion and message printout positions.

If the parameters are omitted, all initiated answer positions and message diversion positions will be printed out. Internal group hunting group (PBX) group numbers are shown last in the printout.

9.3.3                      PRINTOUT 1 (DIR/TERM)

**Table 294**

INTERCEPTION SERVICE POSITION DATA		
DIR	TERM	ICSPOS
.	.	.



.	.	.
.	.	.
END		

**Table 295**  
 ICSPOS      Type of interception service position.

9.3.4                      PRINTOUT 2 (GRP)

**Table 296**

INTERCEPTION SERVICE GROUP DATA
GRP
.
.
.
END

9.3.5                      PRINTOUT 3 (NO PARAMETER)

**Table 297**

INTERCEPTION SERVICE POSITION DATA		
DIR	TERM	ICSPOS
.	.	.
.	.	.
.	.	.
INTERCEPTION SERVICE GROUP DATA		
GRP		
.		
.		
.		
END		

9.3.6                      EXAMPLE 1

Print out information on all interception service and message waiting terminals.

**Table 298**

ISEPP:TERM=ALL;		
INTERCEPTION SERVICE POSITION DATA		
DIR	TERM	ICSPOS
962	06	A
963	07	M
END		

The answer position for message diversion (ICSPOS=A) with directory number 962 is affiliated to terminal 06.

The message printout position (ICSPOS=M) with directory number 963 is affiliated to terminal 07.

9.3.7

EXAMPLE 2

Print out information on all groups that have been initiated as answer positions for message diversion.

Table 299

ISEPP:GRP=ALL;		
INTERCEPTION SERVICE GROUP DATA		
GRP		
900		
901		
910		
END		

Groups 900, 901 and 910 are initiated as answer positions for message diversion.

9.3.8

EXAMPLE 3

Print out all information on answer positions for message diversion/message printout positions.

Table 300

ISEPP;		
INTERCEPTION SERVICE POSITION DATA		
DIR	TERM	ICSPOS
962	06	A
963	07	M
INTERCEPTION SERVICE GROUP DATA		
GRP		
900		
901		
910		
END		

9.3.9

COMMAND CATEGORY

Dangerous = **No**

9.4

ISFUE

Interception service function end

9.4.1
FORMAT

**Table 301**  
**ISFUE;**

9.4.2
FUNCTION

The command results in removal of the interception service function.

9.4.3
EXAMPLE

Remove the interception service function.

**Table 302**

ISFUE;
EXECUTED

9.4.4
COMMAND CATEGORY

Dangerous = **No**

9.5
ISFUI

Interception service function initiate

9.5.1
FORMAT

**Table 303**

**ISFUI:IFCIND=,TEFMT=,TIFMT=,DTERM=;**

**Table 304**

<b>DTERM =</b>	Default terminal number. The terminal number of the message printout position to be used when nothing else has been stipulated in an extension procedure.
<b>IFCIND =</b>	Information computer individual. Sequence number for relevant information system.
<b>TEFMT =</b>	External terminal number format. Format of the terminal number in the signal interface between the interception service and message waiting and the PBX.
<b>TIFMT =</b>	Internal terminal number format. Format of the terminal number in extension procedures for ordering message diversion facilities.

9.5.2
FUNCTION

The command initiates the interception service and message waiting function and defines:

- the directory number for the interception service and message waiting function whose equipment position is stated

- the interception service and message waiting's format for the terminal number, i.e. the quantity of digits sent by the interception service and that it expects as terminal number
- The PBX's format for the terminal number. This number is used in extension procedures for ordering/cancelling message diversion facilities
- number to the terminal that shall serve as message waiting position to be used when nothing else is stipulated in an extension procedure.

## 9.5.3

## EXAMPLE

Initiate the interception service function with:

- Information computer individual number 6
- 2 digits as the interception service and message waiting's format for the terminal number
- 2 digits as the PBX's format for the terminal number
- Terminal number 03 as the message printout position to be used when nothing else has been stipulated in certain extension procedures

**Table 305**

ISFUI:IFCIND=6,TEFMT=2,TIFMT=2,DTERM=03; EXECUTED
--

## 9.5.4

## COMMAND CATEGORY

Dangerous = **No**

## 9.6

## ISFUP

Interception service function data print

## 9.6.1

## FORMAT

**Table 306**

ISFUP;
--------

## 9.6.2

## FUNCTION

The command results in printout of data for the interception computer function.

## 9.6.3

## PRINTOUT

**Table 307**

INTERCEPTION SERVICE FUNCTION DATA			
IFCIND	TEFMT	TIFMT	DTERM
...	...	...	...
END			

**Table 308**

IFCIND	Information computer individual. Sequence number for relevant information system.
TEFMT	External terminal number format. Format of the terminal number in the signal interface between the interception service and message waiting and the PBX. See interworking description for <i>interception service</i> .
TIFMT	Internal terminal number format. Format of the terminal number in extension procedures for ordering message diversion facilities.
DTERM	Default terminal number. The terminal number of the message printout position to be used unless otherwise stated in an extension procedure.

## 9.6.4

## EXAMPLE

Print out data for the interception service and message waiting function

**Table 309**

ISFUP;			
INTERCEPTION SERVICE FUNCTION DATA			
IFCIND	TEFMT	TIFMT	DTERM
06	2	2	03
END			

The interception service and message waiting is initiated as follows:

- Information computer number 6
- 2 digits representing the interception service and message waiting's format for the terminal number
- 2 digits representing the PBX's format for the terminal number
- Terminal number 03 representing the message printout position to be used unless otherwise stated in some of the extension procedures

## 9.6.5

## COMMAND CATEGORY

Dangerous = **No**

# 10 IT - ISDN TERMINAL

## 10.1 ITCAC

ISDN Terminal Category Change

### 10.1.1 FORMAT

ITCAC:DIR=,CSP=

**Figure 26:**  
**Table 310**

**CSP =** Common service profile, see command extension\_profile.  
**DIR =** Directory number. Directory number for ISDN terminal interfaces & and && are permitted for this parameter.

### 10.1.2 FUNCTION

The command is used to change the common service profile of one or more ISDN directory numbers.

**Table 311**

### 10.1.3 EXAMPLE 1

ISDN directory numbers 4430 and 4498 are to change common service profile, so that they obtain the values given in the common service profile 3.

**Table 312**

ITCAC:DIR=4430&4498,CSP=3;
EXECUTED

**Table 313**

### 10.1.4 COMMAND CATEGORY

Dangerous = **No**

## 10.2 ITCUC

ISDN Terminal Customer Number Change

### 10.2.1 FORMAT

**Table 314**  
ITCUC:DIR=[,CUST=];

**Table 315**

<b>CUST =</b>	Customer number. The parameter is not optional in the customary sense. If the parameter is omitted, the customer number for the directory number will be removed.
<b>DIR =</b>	Directory number. Directory number for ISDN terminal interfaces. & and && are permitted for this parameter.

10.2.2                      FUNCTION

The command is used to initiate, alter, or remove a directory number’s customer affiliation.

All ISDN directory numbers for which customer numbers are to be changed, must be stated.

10.2.3                      EXAMPLE

ISDN directory number 3320 shall alter customer number to 5.

**Table 316**

ITCUC:DIR=3320,CUST=5;
EXECUTED

10.2.4                      COMMAND CATEGORY

Dangerous = **No**

10.3                        ITDAP

ISDN Terminal Data Print

10.3.1                      FORMAT

$$ITDAP: \left[ \begin{array}{l} DIR=... \\ EQU= \end{array} \right] ;$$

**Figure 27:**  
**Table 317**

<b>DIR =</b>	Directory number. Directory number for ISDN terminal interfaces. ALL, & and && are permitted for this parameter.
<b>EQU =</b>	Equipment position.

10.3.2                      FUNCTION

The command is used to print data either for the stated directory numbers or for all directory numbers initiated at the stated equipment position.

When parameter EQU is stated, the default directory number is printed first.

## 10.3.3 PRINTOUT 1 (DIR)

**Table 318**

ISDN EXTENSION DIRECTORY DATA								
DIR	EQU	CUST	CSP					
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
END								

## 10.3.4 PRINTOUT 2 (EQU)

**Table 319**

ISDN EXTENSION LINE DATA								
EQU	DIR	CUST	CSP					
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
END								

**Table 320**

**ACCTYP** Access type. States standard protocol and mode of operation at the access.

**CSP** Common service profile, see command extension\_profile.

**CUST** Customer number.

## 10.3.5 EXAMPLE 1 (DIR)

Print data for directory numbers 4496 and 4519.

**Table 321**

ITDAP:DIR=4496&4519;					
ISDN EXTENSION DIRECTORY DATA					
DIR	EQU	CUST	CSP	ACCTYP	
4496	001A-0-42-02	-	1	2	
4519	002B-0-42-00	11	3	0	
END					

The categories for directory number 4496 and 4519 is assigned the common service profile CSP 2 and 3.

Directory number 4519 is affiliated to customer number 11. Directory number 4496 is not affiliated to any customer number, which is stated with a hyphen (-).

The access type for equipment position 002B-0-42-0 is defined for ETSI protocol and configuration point-to-multipoint (ACCTYP = 0) and for 001A-0-42-2 is defined for Bell-core protocol (ACCTYP = 2).



10.3.6                      EXAMPLE 2 (EQU)

Print data for all directory numbers at equipment position 1B-1-62-3.

**Table 322**

ITDAP:EQU=1B-1-62-3;				
ISDN EXTENSION DIRECTORY DATA				
EQU	DIR	CUST	CSP	ACCTYP
1B-1-62-3	1150	-	5	1
	1152	-	39	
END				

The access type for equipment position 1B-1-62-3 is defined for ETSI protocol and point-to-point configuration (ACCTYP = 1).

The categories for directory number 1150 is assigned with the common service profile CSP 5 and for directory number 1152 with CSP 39.

10.3.7                      COMMAND CATEGORY

Dangerous = **No**

10.4                        ITNUE

ISDN Terminal Number End

10.4.1                    FORMAT

**Table 323**

**ITNUE:DIR=;**

**Table 324**

**DIR =**            Directory number. Directory number for ISDN terminal interfaces.  
                    & and && are permitted for this parameter.

10.4.2                    FUNCTION

The command removes one or several ISDN directory numbers.

10.4.3                    EXAMPLE

Remove directory number 4496.

**Table 325**

ITNUE:DIR=4496;
ITNUE:DIR=4496;
SURE?(YES/NO)
YES;
EXECUTED

#### 10.4.4 COMMAND CATEGORY

Dangerous = **Yes**

### 10.5 ITNUI

ISDN Terminal Number Initiate

#### 10.5.1 FORMAT

**ITNUI:DIR,EQU=.CSP=[,ACCTYP=][,CUST=] ;**

**Table 326**

<b>ACCTYP =</b>	Access type. States the standard protocol used as well as the mode of operation at the access. If the parameter is omitted the default value (0) is used.
<b>CSP =</b>	Common service profile, see command extension_profile.
<b>CUST =</b>	Customer number. If the parameter is omitted the directory number will not be given any customer affiliation.
<b>DIR =</b>	Directory number. Directory number for ISDN terminal interfaces.
<b>EQU =</b>	Equipment position.

#### 10.5.2 FUNCTION

The command is used to initiate one ISDN Terminal directory number with characteristics as stated in the parameters. It is possible to initiate up to 32 directory numbers at the same equipment position.

The directory number first initiated at every equipment position decides which access type, ACCTYP, that shall be valid for the interface. When affiliating additional directory numbers to an already defined interface, ACCTYP must be of the same type as for the existing interface. If not, the initiation will not be successful.

#### 10.5.3 EXAMPLE 1

Initiate directory number 4496 on equipment position LIM 1, gateway B, magazine 0, board position 42 and individual 2.

The number is assigned with the common service profile CSP 2.

**Table 327**

```
ITNUI:DIR=4496,EQU=1B-0-42-2, CSP=2;
EXECUTED
```

**Table 328**

#### 10.5.4 COMMAND CATEGORY

Dangerous = **No**

11

KS - DIGITAL KEY SYSTEM TELEPHONE

11.1

KSADC

Key System Additional Data Change

11.1.1

FORMAT

**Table 329**  
**KSADC:ADDNUM=,DIR=;**

<b>Table 330</b>	
<b>ADDNUM =</b>	Additional number. The directory number that is used for presentation on the display of the other party.
<b>DIR =</b>	Directory number. Own Directory Number or Additional Directory Number. & is allowed for this parameter.

11.1.2

FUNCTION

The command is used to set an additional number for an extension that is to be presented on the display of the other party. The additional number should be an already assigned directory number, which represents a physical extension that can be called.

More than one directory number can have the same additional number. If no additional number is assigned, the directory number will be the default additional number.

11.1.3

EXAMPLE 1

Change the additional number for extension 1147 to 2158.

<b>Table 331</b>
KSADC:DIR=1147,ADDNUM=2158;
EXECUTED

11.1.4

EXAMPLE 2

Change the additional number for extensions 1111 and 1112 to 1100.

<b>Table 332</b>
KSADC:DIR=1111&1112,ADDNUM=1100;
EXECUTED

11.1.5

COMMAND CATEGORY

Dangerous = **No**

## 11.2

## KSADP

Key System Additional Data Print

### 11.2.1

### FORMAT

**Table 333**

**KSADP:DIR=;**

**Table 334**

**DIR =** Directory number. Own Directory Number or Additional Directory Number.  
&, &&, and ALL are permitted for this parameter

### 11.2.2

### FUNCTION

The command is used to print additional data for the given extension.

**Note:** The additional data of an extension will be printed only if it is different from the DIR data of that extension.

### 11.2.3

### PRINTOUT

**Table 335**

EXTENSION ADDITIONAL DATA	
DIR	ADDNUM
.	.
.	.
END	

**Table 336**

**ADDNUM** Additional number.  
For the value, see the parameter description for digital key system telephone.

### 11.2.4

### EXAMPLE

Print the additional data for extensions 1147 and 1148.

**Table 337**

KSADP:DIR=1147&1148;	
EXTENSION ADDITIONAL DATA	
DIR	ADDNUM
1147	2148
1148	2150
END	

The additional number for extension 1147 is 2148 and the additional number for extension 1148 is 2150.

## 11.2.5 COMMAND CATEGORY

Dangerous = **No**

## 11.3 KSANC

Key System Additional Number Change

### 11.3.1 FORMAT

**Table 338**

**KSANC:ADN=[,DIR=],[DIRK=],[KEY=],[HKID=];**

**Table 339**

**ADN =** Additional directory number.

**DIR =** Directory number. Own Directory Number.

**DIRK =** Directory number and key placing. Own Directory Number.  
& is allowed for this parameter.

**HKID =** Hide Key Information on Display.

**KEY =** Key placements. Key at which Additional Directory Number shall exist.  
The parameter is optional only if ADN is multiple represented on the telephone stated in parameter DIR. If the parameter is omitted, the key that possessed multiple representation of the number stated in parameter ADN will be used. See also under function.

### 11.3.2 FUNCTION

The command achieves the move of an Additional Directory Number to a new party with main responsibility. In addition to this Hide key information on display cab be changed by using KSANC.

If the new party with main responsibility has the relevant Additional Directory Number as a Multiple Directory Number, then parameter KEY can be processed in two ways:

- KEY is omitted, which means that the key which had Multiple Directory Number will receive the Additional Directory Number.
- KEY is stated, which means that the stated key is assigned the Additional Directory Number. The key that had function Multiple Directory Number switches automatically to Telephone Name Selection.

If the new party with main responsibility does not have the relevant Additional Directory Number as Multiple Directory Number, then parameter KEY must always be stated.

The party previously having main responsibility for the relevant Additional Directory Number will not have the number represented on the telephone at all and the key switches to Telephone Name Selection.

### 11.3.3 EXAMPLE 1

Assign Additional Directory Number 1149 to a new party with main responsibility with Own Directory Number 1237. The function shall be affiliated to key 30.

**Table 340**

KSANC:DIR=1237,KEY=30,ADN=1149; EXECUTED
---

11.3.4

**EXAMPLE 2**

Initiate Number Presentation restriction for the Additional directory Number 1150.

**Table 341**

KSANC:ADN=1150,HKID=1; EXECUTED
------------------------------------

11.3.5

**COMMAND CATEGORY**

Dangerous = **No**

**11.4****KSANE**

Key System Additional Number End

11.4.1

**FORMAT****Table 342**

**KSANE:ADN=;**

**Table 343**

**ADN =** Additional directory number.  
& and && are permitted for this parameter.

11.4.2

**FUNCTION**

The command results in the erasure of additional directory number for the digital key system telephones. If this number is multiple represented, then the latter must be erased before the number itself can be erased.

If the additional directory number is part of a parallel ringing list, then the additional directory number cannot be erased.

11.4.3

**EXAMPLE 1**

Erase Additional Directory Number 1149.

**Table 344**

KSANE:ADN=1149; KSANE:ADN=1149; SURE?(YES/NO) YES; EXECUTED
---

11.4.4
EXAMPLE 2

Erase Additional Directory Number 1149, which is part of a parallel ringing list.

**Table 345**

KSANE:ADN=1149;
KSANE:ADN=1149;
SURE? (YES/NO)
YES;
NOT ACCEPTED
DIR=1149
INITIATED IN A PARALLEL RINGING LIST

11.4.5
COMMAND CATEGORY

Dangerous = **Yes**

11.5
KSANI

Key System Additional Number Initiate

11.5.1
FORMAT

KSANI: DIR=,KEY=,ADN=, CSP

[,ADC=] [,CUST=] [,CALALT=][,HKID=];

**Figure 28:**  
**Table 346**

<b>ADC =</b>	Additional category. If the parameter is omitted, a default value will be used.
<b>ADN =</b>	Additional directory number.
<b>CALALT =</b>	Call alternative. And if the ODN call alternative can be programmed from the extension. If the parameter is omitted, a default value will be used.
<b>CSP =</b>	Common service profile, see command extension_profile.
<b>CUST =</b>	Customer number. If the parameter is omitted, a default value will be used.
<b>DIR =</b>	Directory number. Own Directory Number.
<b>HKID =</b>	Hide Key Information on Display.
<b>KEY =</b>	Key placement. Key on which Additional Directory Number shall exist.

11.5.2
FUNCTION

The command signifies an initiation and an assignment of an Additional Directory Number to an extension which possesses an Own Directory Number, and an affiliate Additional Directory Number to a customer number.

A digital key system telephone may have one or many additional directory numbers. Corresponding to directory numbers from the normal extension number series, these may be used for both incoming and outgoing traffic.

The Hospitality class assigned to an ADDITIONAL DIRECTORY NUMBER by parameter -ext-serv in the common service profile must be Normal extension.

The parameter KEY states the key on the digital key system telephone which is to have the Additional Directory Number.

### 11.5.3

#### EXAMPLE 1

Initiate Additional Directory Number 1149 for a digital key system telephone with Own Directory Number 1147. The function must be initiated for key 24 and have category characteristics corresponding to the common service profile CSP 2. ADN shall belong to customer number 3. The call alternative shall be ringing after delay. The call alternative cannot be programmed for an ADN.

Additional category shall be:

- ACD agent position is not used.
- Multimember busy MMB. If MMB is set on ODN; and if ADN is busy, then ODN is treated as busy for incoming calls. If ADN has MMB set and if the ODN is busy, then ADN is treated as busy for incoming calls.
- Number log is always active.

**Table 347**

KSANI:DIR=1147,KEY=24,ADN=1149,CSP=2,ADC=01, CUST=3,CALALT=20; EXECUTED
---

**Table 348**

### 11.5.4

#### COMMAND CATEGORY

Dangerous = **No**

## 11.6

## KSCAC

Key System Category Change.

### 11.6.1

#### FORMAT

KSCAC: DIR=,

[,CSP=][,ITYPE=][,ADC=][,TRM=][,LANG=][,BSEC=];

**Figure 29:**  
**Table 349**

**ADC =** Additional category.  
If the parameter is omitted, a default value will be used.



<b>BSEC =</b>	Boss-secretary category. If the parameter is omitted, a default value will be used.
<b>CSP =</b>	Common service profile, see command extension_profile.
<b>DIR =</b>	Directory number. Own Directory Number or Additional Directory Number. & and && are allowed for this parameter.
<b>ITYPE =</b>	Instrument telephone type. (Must not be stated if the directory number is an Additional Directory Number).
<b>LANG =</b>	Language code. This parameter is <b>only</b> available when the choice of language optional feature is loaded in the exchange. If the parameter is omitted, the extension will be assigned the exchange language.
<b>TRM =</b>	Transmission category. Indicates the transmission characteristics (attenuation or amplification) that are to be valid for the extension. If TRM is omitted, the default value 0 is given.

## 11.6.2

### FUNCTION

The command results in a change of the category for the directory number stated. For Own Directory Number, a new type of telephone and a new language can also be stated. If ITYPE or LANG are stated for Additional Directory Number, a fault printout will be given.

The extension is given a new common service profile by means of the CSP parameter.

If parameter ITYPE is used, the type of DTS is changed. If the new extension type has a different number of keys than the previous one, it may occur that some keys are lost. If these keys were programmed with information, this will be printed before the key is removed, to avoid the loss of important information. The printout is the following:

**Table 350**

KEY DATA NOT INITIATED ON NEW EXTENSION			
DIR	KEY	FCN	DIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

The data corresponding to parameters that are not stated will remain unchanged.

If an Additional Directory Number is part of a parallel ringing list, it cannot be a part of an ACD group.

**Note:** At least one of the optional parameters must be stated.

## 11.6.3

### EXAMPLE 1

An extension with 1147 as directory number will have a 10-key system telephone (a DBC223) and categories according to common service profile 3.

The additional category shall be as follows:

- ACD agent position not used.
- Multimember busy MMB. If MMB is set on ODN and if ADN is busy, then ODN is treated as busy for incoming calls. If ADN has MMB set and if the ODN is busy, then ADN is treated as busy for incoming calls.

- Number log is always active.

**Table 351**

KSCAC:DIR=1147, CSP=3, ITYPE=28, ADC=010;  
EXECUTED

## 11.6.4

## EXAMPLE 2

Change the transmission category for extension 4498 to transmission category 1.

**Table 352**

KSCAC:DIR=4498, TRM=1;  
EXECUTED

## 11.6.5

## EXAMPLE 3

An extension with directory number 1149 will change the additional category. The Additional category shall be:

- Agent Position is a Normal Extension.
- Multimember busy is not set.
- No number log information if PN extension is not the same as the alerted extension for a personal number call to the PN extension.

**Table 353**

KSCAC:DIR=1149,ADC=001;  
EXECUTED

## 11.6.6

## EXAMPLE 4

Extension 1149 is a DBC 213 with two extra key panels (ITYPE 22). It is changed to type DBC 213 without extra key panels (ITYPE 20). In the transfer the key numbers 24-57 are lost.

The keys are programmed like this:

**Table 354**

key 26	INTRUSION.
key 28	CALL PICK-UP.
key 33	TNS 12345.
key 39	DO NOT DISTURB.

**Table 355**

KSCAC:DIR=1149, ITYPE=20;			
KEY DATA NOT INITIATED ON NEW EXTENSION			
DIR	KEY	FCN	DIG
1149	26	INT	
	28	CUP	
	33	TNS	12345
	39	DND	
END			

## 11.6.7

### EXAMPLE 5

The text string messages for extension 1148 are to be displayed in the Spanish language.

**Table 356**

KSCAC:DIR=1148,LANG=3; EXECUTED
------------------------------------

## 11.6.8

### EXAMPLE 6

Change the Boss-secretary category for extension 3312 to boss. If the Boss-secretary feature is active, then it is not possible to change the BSEC category for it.

**Table 357**

KSCAC:DIR=3312,BSEC=2; EXECUTED
------------------------------------

## 11.6.9

### EXAMPLE 7

Change the additional directory number 3312 which is part of a parallel ringing list from normal extension to an ACD agent.

**Table 358**

KSCAC:DIR=3312,ADC=100;NOT ACCEPTED DIR=3312 INITIATED IN A PARALLEL RINGING LIST
---

The command is not executed because the additional directory number is part of a parallel ringing list.

## 11.6.10

### COMMAND CATEGORY

Dangerous = **No**

## 11.7

### KSCAP

Key System Category Print.

## 11.7.1

### FORMAT

**Table 359**

**KSCAP:DIR=;**

**Table 360**

**DIR =** Directory number. Own Directory Number or Additional Directory Number. &, &&, and ALL are permitted for this parameter.

## 11.7.2 FUNCTION

The command initiates a printout of the category for the stated directory number. The instrument type is also stated for the Own Directory Number.

## 11.7.3 PRINTOUT

**Table 361**

KEY SYSTEM CATEGORY PRINT						
DIR	CSP	ITYPE	TRM	ADC	LANG	BSEC
.	.	.	.	.		
.	.	.	.	.		
.	.	.	.	.		
END						

**Table 362**

<b>ADC</b>	Additional category.
<b>BSEC</b>	Boss-secretary category.
<b>CSP</b>	Common service profile, see command extension_profile.
<b>ITYPE</b>	Instrument telephone type. If instrument type is not set (ADNs), then a hyphen (-) will be printed out.
<b>LANG</b>	Language code.
<b>TRM</b>	Transmission category.

## 11.7.4 EXAMPLE 1

Initiate a printout of the categories for extensions 1147, 1148 and 1149.

**Table 363**

KSCAP:DIR=1147&&1149;						
KEY SYSTEM CATEGORY PRINT						
DIR	CSP	ITYPE	TRM	ADC	LANG	BSEC
1147	3	28	0	010	F	1
1148	4	33	1	001	1	2
1149	1	-	2	001	-	-
END						

Extensions 1147-1149 have the above categories. 1147 and 1148 are Own Directory Numbers, and consequently ITYPE, LANG and BSEC are stated for these.

For interpretation of the values of ROC, ITYPE, TRM, ADC, LANG, and BSEC, see the parameter description for *DIGITAL KEY SYSTEM TELEPHONE*.

## 11.7.5 EXAMPLE 2

Initiates a printout of the category for 1147. The instrument type is also stated for the Own Directory Number.

**Table 364**

KSCAP:DIR=1147&&1149;						
-----------------------	--	--	--	--	--	--

KEY SYSTEM CATEGORY PRINT							
DIR	CSP	ITYPE	TRM	ADC	LANG	BSEC	OFTIME
1147	3	28	0	010	F	1	0
END							

11.7.6 COMMAND CATEGORY

Dangerous = **No**

11.8 KSCHC

Key System Character Data Change

11.8.1 FORMAT

$$\text{KSCHC:} \left\{ \begin{array}{l} \text{CHRVAL=,FONT=... [,LANG=]} \\ \text{DISPOS=,DISVAL= [,LANG=]} \end{array} \right\} ;$$

Figure 30:  
Table 365

- CHRVAL** = Character number for special characters.
- DISPOS** = Display conversion table position.
- DISVAL** = Display conversion table value.
- FONT** = Character font for special characters.  
& is **required** for this parameter.
- LANG** = Language code.  
.If the parameter is omitted, the exchange language will be used (see below).

11.8.2 FUNCTION

**Note:** This command only affects D3 terminals or older, if D4 terminals or newer are used they are unaffected by this command.

The command is used for changing the character font of a special character, for changing the value of an entry in the alphanumerical telephone display conversion table to include new characters, depending on the parameters introduced.

When the parameters used are CHRVAL and FONT, the command causes a change of the character font (bit matrix) of a special character in one of the special character sets. There is a separate special character set for each of the ten available languages in the exchange.

The character is stated by parameter CHRVAL. Parameter LANG is used to state in which language (= special character set) the special character is to be changed. If no particular language is stated, the value of the application system parameter (PARNUM = 193) for the exchange language will be used. Only one character in one of the languages can be changed at a time.

The bit matrix (8 rows X 8 bits, the 5 least significant bits are used) is stated by parameter FONT. The form of input has to be XX, that is, exactly eight values XX as multiple input must be given where XX states, in hexadecimal form, the bits for one row in the matrix (the three most significant bits are not used).

When parameters DISPOS and DISVAL are used, the command causes a change of the value of a position in the alphanumerical telephone display conversion table. The alphanumerical digital key system telephone display is not able to display all the ISO 8859-1 characters, there is a conversion table to set the most similar character to be displayed on the digital key system telephone.

There is an alphanumerical telephone display conversion table per language, parameter LANG is used to state the language. If no particular language is stated, the value of the application system parameter (PARNUM = 193) for the exchange language will be used. Only one position in one of the languages can be changed at a time.

## 11.8.3

## EXAMPLE 1

Assign the Ericsson-logo to the special character 2. As no particular language is stated, the affected language will be the one selected as exchange language at the moment of issuing command KSCHC.

**Table 366**

KSCHC:CHRVAL=2, FONT=02&04&0A&14&0A&14&08&10; EXECUTED
---

## 11.8.4

## EXAMPLE 2

Assign the Ericsson-logo to the special character 2 of the special character set for the French language.

**Table 367**

KSCHC:CHRVAL=2, FONT=02&04&0A&14&0A&14&08&10, LANG=1; EXECUTED
---

## 11.8.5

## EXAMPLE 3

Assign the Ñ character to the special character 0 of the special character set for the Spanish language.

**Table 368**

KSCHC:CHRVAL=0, FONT=06&11&19&15&13&11&11&00, LANG=3; EXECUTED
---

## 11.8.6

## EXAMPLE 4

Assign the value of the special character 0 (Ñ, considering example 3) to the position D1 (character Ñ for the ISO 8859-1) of the alphanumerical telephone display conversion table for the Spanish language.

**Table 369**

KSCHC:DISPOS=D1, DISVAL=00, LANG=3; EXECUTED
---

11.8.7

EXAMPLE 5

Assign the value of the character 0 to the position D8 (character Ø for the ISO 8859-1) of the alphanumerical telephone display conversion table for the fifth language.

**Table 370**

<div> KSCHC:DISPOS=D8,DISVAL=30,LANG=5; EXECUTED </div>
---

11.8.8

COMMAND CATEGORY

Dangerous = **No**

11.9

KSCHP

Key System Character Data Print.

11.9.1

FORMAT

$$KSCHP \left[ : \left\{ \begin{matrix} CHRVAL=... [LANG=...] \\ DISPOS=... [LANG=...] \end{matrix} \right\} \right];$$

**Figure 31:**  
**Table 371**

<b>CHRVAL =</b>	Character number for special characters. &, &&, and ALL are permitted for this parameter.
<b>DISPOS =</b>	Display conversion table position. &, &&, and ALL are permitted for this parameter.
<b>LANG =</b>	Language code. ALL is permitted for this command. If the parameter is omitted, data of exchange language will be printed

11.9.2

FUNCTION

**Note:** This command only affects D3 terminals or older, if D4 terminals or newer are used they are unaffected by this command.

The command is used for the printout of the character font (bit matrix) of a special character, for the printout of the alphanumerical telephone display conversion table values, depending on the parameters introduced.

When parameter CHRVAL is used, the command causes a printout of the character font (bit matrix) of a special character. The printout shows the current bit setting for a special character in form of eight bytes in consecutive order, where the first byte states the upper most row of the matrix. Parameter LANG is used to state which of the language-associated sets of special characters is to be used when reading the character. If no particular language is stated, the value of the application system parameter for the exchange language will be used.

When parameter DISPOS is used, the command causes a printout of the required alphanumerical digital key system telephone display conversion table values. The printout shows the current value in hexadecimal format. Parameter LANG is used to

state which of the language-associated alphanumerical digital key system telephone display conversion tables are used when reading the values. If no particular language is stated, the value of the application system parameter for the exchange language will be used.

If all the parameters are omitted, data of all special characters will be printed.

11.9.3

PRINTOUT 1

CHRVAL parameter is used, or no parameter is used.

Table 372

KEY SYSTEM CHARACTER DATA	
LANG:...	
CHRVAL	FONT
.	.
.	.
.	.
END	

Table 373

**FONT** Character font for special characters.  
For the value, see the parameter description for digital key system telephone text.

11.9.4

PRINTOUT 2

DISPOS Parameter is Used with & and &&.

Table 374

KEY SYSTEM CHARACTER DATA	
LANG:...	
DISPOS	DISVAL
.	.
.	.
.	.
END	

Table 375

**DISVAL** Display conversion table value.  
For the value, see the parameter description for digital key system telephone text.

11.9.5

PRINTOUT 3

DISPOS parameter is used with ALL.

Table 376

KEY SYSTEM CHARACTER DATA																
LANG:...																
	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
00			.	.	.	.	.	.			.	.	.	.	.	.



01	.	.	.	.	.	.	.	.	.	.	.	.	.	.
02	.	.	.	.	.	.	.	.	.	.	.	.	.	.
03	.	.	.	.	.	.	.	.	.	.	.	.	.	.
04	.	.	.	.	.	.	.	.	.	.	.	.	.	.
05	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08	.	.	.	.	.	.	.	.	.	.	.	.	.	.
09	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0A	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0B	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0C	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0D	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0E	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0F	.	.	.	.	.	.	.	.	.	.	.	.	.	.
END														

**Note:** When DISPOS=ALL is used, the whole alphanumerical telephone display conversion table will be shown. The most suitable output is by means of a table instead of a list.

The table contains the required alphanumerical telephone display conversion table values (DISVAL) of the different alphanumerical telephone display conversion table positions (DISPOS). The sum of the column and the row is DISPOS. For example, to know the conversion value (DISVAL) of DISPOS=37, column 30 and row 07 must be taken (30+07=37); the required value (DISVAL) is placed in the intersection of them.

11.9.6

EXAMPLE 1

Print the bit settings of the special characters 2 and 5. As no particular language is stated, the one selected as exchange language at the moment of issuing command KSCHP will be used, English in this case.

**Table 377**

KSCHP:CHRVAL=2&5;								
KEY SYSTEM CHARACTER DATA								
LANG: ENGLISH								
CHRVAL	FONT							
2	02	04	0A	14	0A	14	08	10
5	00	00	00	00	00	00	00	00
END								

11.9.7

EXAMPLE 2

Print the bit settings of the special character 6. Use the special character set associated with the Spanish language.

**Table 378**

KSCHP:CHRVAL=6,LANG=3;

KEY SYSTEM CHARACTER DATA

LANG: SPANISH

CHRVAL      FONT

6            00      00      00      00      00      00      00      00

END

## 11.9.8

## EXAMPLE 3

Print the value of the position D1 in the alphanumerical telephone display conversion table for the Spanish language.

**Table 379**

KSCHP:DISPOS=D1,LANG=3;

KEY SYSTEM CHARACTER DATA

LANG: SPANISH

DISPOS                  DISVAL

D1                      EE

END

## 11.9.9

## EXAMPLE 4

Print the alphanumerical telephone display conversion table for the exchange language, English in this case.

**Table 380**

KSCHP:DISPOS=ALL;

KEY SYSTEM CHARACTER DATA

LANG: ENGLISH

	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
00			20	30	40	50	60	70			20	DF	41	44	61	FF
01			21	31	41	51	61	71			FF	FF	41	EE	61	EE
02			22	32	42	52	62	72			EC	FF	41	4F	61	6F
03			23	33	43	53	63	73			FF	FF	41	4F	61	6F
04			24	34	44	54	64	74			FF	27	41	4F	E1	6F
05			25	35	45	55	65	75			5C	E4	06	4F	06	6F
06			26	36	46	56	66	76			7C	F7	07	EF	07	EF
07			27	37	47	57	67	77			FF	A5	EC	78	EC	FD
08			28	38	48	58	68	78			22	2C	45	30	65	F2
09			29	39	49	59	69	79			FF	FF	45	55	65	75
0A			2A	3A	4A	5A	6A	7A			FF	FF	45	55	65	75
0B			2B	3B	4B	5B	6B	7B			FF	FF	45	55	65	75
0C			2C	3C	4C	A4	6C	7C			FF	FF	49	F5	69	F5
0D			2D	3D	4D	5D	6D	7D			FF	FF	49	59	69	79
0E			2E	3E	4E	5E	6E	7E			FF	FF	49	F0	69	F0

0F	2F	3F	4F	5F	6F		B0	FF	49	E2	69	79
END												

11.9.10 COMMAND CATEGORY

Dangerous = **No**

11.10 KSCUC

Key System Extension Customer Number Change

11.10.1 FORMAT

**Table 381**  
**KSCUC:DIR=[,CUST=];**

**Table 382**

**CUST =** Customer number.  
If the parameter is omitted, the customer number will be removed.

**DIR =** Directory number. Own Directory Number or Additional Directory Number.  
& and && are permitted for this parameter.

11.10.2 FUNCTION

The command results in initiation, alteration or erasure of the extension's customer number.

Parameter CUST is not optional in an ordinary meaning. When the CUST is omitted it causes a removal of the extensions.

11.10.3 EXAMPLE 1

The extension with Own Directory Number 1147 shall belong to customer number 4.

**Table 383**

KSCUC:DIR=1147,CUST=4; EXECUTED
------------------------------------

11.10.4 EXAMPLE 2

The extension with Own Directory Number 1148 shall not belong to any customer.

**Table 384**

KSCUC:DIR=1148; EXECUTED
-----------------------------

11.10.5 COMMAND CATEGORY

Dangerous = **No**

## 11.11

## KSDDP

Key System Directory Data Print

## 11.11.1

## FORMAT

**Table 385****KSDDP:DIR=;****Table 386**

**DIR =** Directory number. Own Directory Number or Additional Directory Number. &, &&, and ALL are permitted for this parameter.

## 11.11.2

## FUNCTION

The command initiates a printout of directory number data for the digital key system telephone.

## 11.11.3

## PRINTOUT

**Table 387**

KEY SYSTEM DIRECTORY DATA							
DIR	CUST	EQU	CSP	ADN	ODN	CALALT	TIMER
.	.	.	.	.	.	..	.
.	.	.	.	.	.	..	.
.	.	.	.	.	.	..	.
END							

**Table 388**

**ADN** Additional directory number.

**CALALT** Call alternative.

**CSP** Common service profile, see command extension\_profile.

**CUST** Customer number.

**EQU** Equipment position.

**ODN** Own directory number.

**TIMER** Type of Timer. The Timer Parameter is not valid for ADN and is therefore marked with a dash (-).

## 11.11.4

## EXAMPLE

Print the directory number data for the extensions 1147, 1148, 1149 and 1150.

**Table 389**

KSDDP:DIR=1147&&1150;							
KEY SYSTEM DIRECTORY DATA							
DIR	CUST	EQU	CSP	ADN	ODN	CALALT	TIMER
1147	3	001A-1-62-01	5			10	1

	9		2	1149	21	-
1148		001A-1-62-02	3		10	0
1149	9		2	1147	41	-
1150		001A-1-62-03	4		10	0
END						

- Directory number 1147 is an Own Directory Number with categories according to common service profile CSP 5.

Own Directory Number belongs to customer number 3 and has periodic ringing as call alternative (1). Programming of call alternative can be done from the extension.

The extension has Additional Directory Number 1149, which belongs to customer number 9, has common service profile CSP 2, and has ringing after delay as call alternative (2). Terminal programming is not allowed for ADNs.

It is connected to LIM 1, gateway A, magazine 1, board position 62 and individual 1. The timer is automatic.
- Directory number 1148 has an Own Directory Number with categories according to common service profile CSP 3.

The extension is connected to LIM 1, gateway A, magazine 1, board position 62, individual 2.

The call alternative is periodic ringing (1).

Programming of call alternative is allowed from the extension.

Timer is default/manual.
- Directory number 1149 is an Additional Directory Number with categories according to common service profile CSP 2, and with ringing period after delay as call alternative (4).

The telephone serving as primary instance for directory number 1149 is directory number 1147. Timer parameter is not valid for ADNs, 1149 is an ADN. Programming of call alternative cannot be done from the extension.
- Directory number 1150 is an Own Directory Number with categories according to common service profile CSP 4.

The extension is connected to LIM 1, gateway A, magazine 1, board position 62, individual 3.

The call alternative is periodic ringing (1). Programming of call alternative is allowed. Timer is default/manual.

## 11.11.5

## COMMAND CATEGORY

Dangerous = **No**

## 11.12

## KSEX

Key System Extension End.

## 11.12.1

## FORMAT

**Table 390****KSEXEX:DIR=;****Table 391**

**DIR =** Directory number. Own Directory Number.  
& and && are allowed for this parameter.

## 11.12.2

## FUNCTION

The command results in erasure of a digital key system telephone with Own Directory Number stated. If this number is represented in multiple form, such multiple representation must be erased before the digital key system telephone is erased. The same rule applies to Additional Directory Number.

## 11.12.3

## EXAMPLE

Erase digital key system telephone with Own Directory Number 1147.

**Table 392**

```
KSEXEX:DIR=1147;
KSEXEX:DIR=1147;
SURE? (YES/NO)
YES;
EXECUTED
```

## 11.12.4

## COMMAND CATEGORY

Dangerous = **Yes**

## 11.13

## KSEXI

Key System Extension Initiate.

## 11.13.1

## FORMAT

KSEXI:DIR=,EQU=

CSP=,ITYPE= [,ADC=][,TRM=][,CUST=][,CALALT=][,LANG=]  
[,BSEC=][,TIMER=];

**Figure 32:****Table 393**

**ADC =** Additional category.

If the parameter is omitted, the default values 0 are given.

**BSEC =** Boss-secretary category.

If the parameter is omitted, none (neither Boss or secretary) will be used.

<b>CALALT =</b>	Call alternative. If the parameter is omitted, the default value for call alternative will be 00 or 10. Programming is allowed by default.
<b>CSP =</b>	Common service profile, see command extension_profile.
<b>CUST =</b>	Customer number. If the parameter is omitted, no customer number will be assigned to the extension.
<b>DIR =</b>	Directory number. Own Directory Number. & and && are allowed for this parameter.
<b>EQU=</b>	Equipment position.
<b>ITYPE =</b>	Instrument telephone type.
<b>LANG =</b>	Language code. This parameter is <b>only</b> available when the choice of language optional feature is loaded in the exchange. If the parameter is omitted, the extension will be assigned the exchange language.
<b>TIMER =</b>	Timer information. If the parameter is omitted, manual timer will be used.
<b>TRM =</b>	Transmission category. Indicates the transmission characteristic (attenuation or amplification) which is valid for the extension. If the parameter is omitted, the default value 0 is given.

### 11.13.2

### FUNCTION

The command results in initiation and assignment of Own Directory Number for a new extension equipped with a digital key system telephone and affiliate the Own Directory Number to a customer number.

Each extension can have one - and only one - Own Directory Number. This means that Own Directory Number can represent the telephone as far as the free and busy states are concerned. OWN DIRECTORY number is represented on up to three keys, which can be used for three separate traffic functions (call options) having more or less independent user states:

**Table 394**

Own Directory Number	1
-"-	2
-"-	3

On initiation of certain types of digital key system telephones the Own Directory Number is represented on **only two keys**. For further information, please see parameters ITYPE and KEY in the parameter description for MML parameter.

When several extensions are to be initiated simultaneously, that is, when DIR is a multiple, the stated equipment position is used for the first extension. The other extensions are assigned to the next free equipment positions which are correctly equipped. The used gateway is set by a letter after the LIM number.

On completion of the initiation phase, Own Directory Number, Programming mode, Diversion and Automatic call back exist on predetermined button (key) positions. The other buttons are defined as TELEPHONE NAME SELECTION. see the parameter description for MML parameters.

Parameter ADC can be omitted and default value 0 is then used.

Parameter TRM states the transmission characteristics.

Parameter CUST is used to state to which customer Own Directory Number shall be affiliated. If the customer group function is used in the system, all extensions must then belong to a customer.

Parameter LANG is used to select a particular language for the initiated extension. If this parameter is not stated, the **exchange language** will be used instead. This means that the text string messages in whichever language is chosen as exchange language will be displayed at the moment of requesting them. If a new language is selected as exchange language, the text string messages in that particular language will be displayed. The exchange language is stated in the application system parameter (*PARNUM=193*).

Parameter -ext-serv in common service profile can only assign the Hospitality class Service quarter to an extension if parameter ITYPE states the telephone type DBC 203/213/223/225

Parameter BSEC states the Boss-secretary category code.

### 11.13.3

#### EXAMPLE 1

Initiate a 36-button key system telephone, a DBC 223 with extra key panels, with Own Directory Number 1147 and customer number 3 to the equipment position corresponding to LIM 1, gateway A, magazine 1, board position 62 and individual 1 and assign category characteristics according to common service profile CSP 5. The extension is not included in the public number series. ADC will have default value 0. TRM will have default value 0. No particular language is desired, so the exchange language will be used. No BSEC category is desired, which means the default value is used.

**Table 395**

KSEXI:DIR=1147,EQU=1A-1-62-1,CSP=5,ITYPE=30,CUST=3; EXECUTED
---

### 11.13.4

#### EXAMPLE 2

Initiate a DBC 225 key system telephone with Own Directory Number 1148 to the equipment position corresponding to board individual 2 in LIM 1, gateway B, magazine 1, board position 62 and individual 2.

The additional category, ADC, shall be:

- ACD not used.
- Multimember busy is not set.
- Number log is always active.
- The selected language for the extension is German.
- The selected BSEC category is Secretary.
- The selected TIMER is Automatic timer.

The common service profile CSP 10 is assigned.

The selected language for the extension is German.

The selected BSEC category is Secretary.

The selected TIMER is Automatic timer.

**Table 396**

KSEXI:DIR=1148,EQU=1B-1-62-2,CSP=10,ITYPE=33,ADC=0 00, LANG=2,BSEC=1,TIMER=1;
--



EXECUTED
----------

## 11.13.5

## EXAMPLE 3

Initiate a 23-button key system telephone (DBC 203) with Own Directory Number 1150 as an extension in the equipment position corresponding to LIM 1, gateway C, magazine 1, board position 62 and individual 3 and assign category characteristics according to common service profile CSP 5. The exchange language will be used. The selected BSEC category is boss. The selected TIMER is manual or default timer.

**Table 397**

KSEXI:DIR=1150,EQU=1C-1-62-3,CSP=5,ITYPE=20,BSEC=2, TIMER=0; EXECUTED
---

## 11.13.6

## EXAMPLE 4

Initiate a telephone with Own Directory Number 1147 with the equipment position corresponding to LIM 1, gateway A, magazine 1, board position 62, and individual 1. Assign category characteristics according to common service profile CSP 5. Programming of call alternative is allowed from this extension. Set a maximum duration of outgoing calls to 300 seconds.

**Table 398**

KSEXI:DIR=1147,EQU=1A-1-62-1,CSP=5,ITYPE=20,CALALT=11, EXECUTED
--

## 11.13.7

## EXAMPLE 5

Initiate a telephone with Own Directory Number 1147 with the equipment position corresponding to LIM 1, gateway K, magazine 1, board position 62, and individual 1. Assign category characteristics according to common service profile CSP 5. Programming of call alternative is allowed from this extension.

**Table 399**

KSEXI:DIR=1147,EQU=1K-1-62-1,CSP=5,ITYPE=20,CALALT=10; EXECUTED
--

## 11.13.8

## COMMAND CATEGORY

Dangerous = **No**

## 11.14

## KSFKC

Key System Function Key Change

## 11.14.1

## FORMAT

$$\text{KSFKC:} \left\{ \begin{array}{l} \text{DIRK=...} \\ \text{DIR=...,KEY=} \end{array} \right\} ,\text{FCN= [,DIG=]};$$

Figure 33:

Table 400

<b>DIG =</b>	Digit or personal number list or boss directory number for secretary. If the parameter is omitted, see under function for information.
<b>DIR =</b>	Directory number. Own Directory Number. &, &&, and ALL are allowed for this parameter.
<b>DIRK =</b>	Directory number and key placing. Own Directory Number.
<b>FCN =</b>	Key function.
<b>KEY =</b>	Key placement. The key that is to represent the function.

## 11.14.2

## FUNCTION

The command changes the function of a key on the digital key system telephone.

Only keys that have previously been defined as function keys, such as keys of KTYPE=FCN, can be given a new function with this command.

For further information, see parameters ITYPE and KEY in the parameter description for *DIGITAL KEY SYSTEM TELEPHONE*.

Parameter DIRK is used when several telephones are to be given a new function simultaneously, and when different key numbers are to be used on the different telephones. In all other cases, DIR and KEY should be used.

If parameter FCN has been allocated the value TNS (one-way-single-button calling), then the Name selection number can be initiated with the DIG parameter. If parameter DIG is omitted, then the number may be programmed in the usual way from the digital key system telephone

If parameter FCN has been allocated, the value PEN, then the list number associated with the key can be initiated with the DIG parameter. If parameter DIG is omitted, then list 1 will be associated with the key.

If parameter FCN has been allocated the value NLOG and the extension belongs to the Hospitality class, Service quarter, the command will be rejected.

**Note:** DBC 223 allows the user to program keys 0x0C and 0x0D using the KSFKC command. They function as TRANSFER key and MENU key, respectively. DBC 225 allows the user to program key 0x0C using the KSFKC command. It functions as a TRANSFER key.

## 11.14.3

## EXAMPLE 1

The system telephones with Own Directory Number 1127 and 1147 are to have the conference function on key 43.

Table 401

KSFKC:DIR=1127&1147,KEY=43,FCN=CNF; EXECUTED
---

## 11.14.4

## EXAMPLE 2

The system telephones with Own Directory Number 1148 and 1192 are to have the Last number redial function on keys 35 and 37, respectively.

**Table 402**

```
KSFKC:DIRK=1148-35&1192-37,FCN=ENR;
EXECUTED
```

## 11.14.5

## EXAMPLE 3

A digital key system telephone with 1147 as Own Directory Number is to have the function TELEPHONE NAME SELECTION on key 4. An external number (7364551) will be programmed as single-button calling number. The route access number is 00.

**Table 403**

```
KSFKC:DIR=1147,KEY=4,FCN=TNS,DIG=007364551;
EXECUTED
```

## 11.14.6

## EXAMPLE 4

A digital key system telephone with 1150 as Own Directory Number is to have the function Personal Number on key 23, with the list 3 associated.

**Table 404**

```
KSFKC:DIR=1150,KEY=23,FCN=PEN,DIG=3;
EXECUTED
```

## 11.14.7

## EXAMPLE 5

A digital key system telephone with 1151 as Own Directory Number and having BSEC category as secretary is to have the function Personal Number on key 18, with the boss directory number 2312 associated.

**Table 405**

```
KSFKC:DIR=1151,KEY=18,FCN=PEN,DIG=2312;
EXECUTED
```

## 11.14.8

## COMMAND CATEGORY

Dangerous = **No**

## 11.15

## KSFKP

Key System Function Key Print

## 11.15.1

## FORMAT

**Table 406**

```
KSFKP:DIR=[,KTYPE=];
```

**Table 407**

<b>DIR =</b>	Directory number. Own Directory Number. &, &&, and ALL are allowed for this parameter.
<b>KTYPE =</b>	Key type. The function for which the key is used. & and ALL are allowed for this parameter. If the parameter is omitted, keys of all key types will be included in the printout.

## 11.15.2

## FUNCTION

The command results in printout of the function key data for one or more digital key system telephones. KTYPE is used for selecting the key type to be presented.

**Note:** DBC 223 allows the user to program keys 0x0C and 0x0D using the KSFKC command. They function as TRANSFER key and MENU key, respectively, even though the KSFKP command prints the new function. DBC 225 allows the user to program keys 0x0C using the KSFKC command. The key functions as a TRANSFER key, even though the KSFKP command prints the new function.

## 11.15.3

## PRINTOUT

**Table 408**

KEY SYSTEM Function KEY DATA PRINT				
DIR=...				
KEY	KTYPE	VALUE	DIG	HKID
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
DIR=...				
KEY	KTYPE	VALUE	DIG	HKID
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Table 409**

<b>DIG</b>	Digit or personal number list or boss directory number. For the value, see the parameter description for digital key system telephone
<b>HKID</b>	Hide Key Information on Display. For the value, see the parameter description for digital key system telephone.
<b>KEY</b>	Key placing. The key that contains the function. For the value, see the parameter description for digital key system telephone.
<b>VALUE</b>	Value for function. The data in the VALUE column will depend on the key type

## 11.15.4

## COMMAND CATEGORY

Dangerous = **No**

11.16
KSMDE

Key System Multiple Directory Number End

11.16.1
FORMAT

**Table 410**  
KSMDE:DIR=,MDN=;

**Table 411**  
**DIR =**      Directory number. Own Directory Number.  
                 &, &&, and ALL are permitted for this parameter.  
**MDN =**      Multiple directory number. Directory number with multiple representation.

11.16.2
FUNCTION

The command achieves erasure of a multiple represented directory number and of a multiple representation with name selection for a digital key system telephone.

11.16.3
EXAMPLE

Erase multiple represented directory number 1150 from the extensions with Own Directory Number 1147 and 1148.

**Table 412**  

KSMDE:DIR=1147&1148,MDN=1150;  
EXECUTED

11.16.4
COMMAND CATEGORY

Dangerous = **No**

11.17
KSMDI

Key System Multiple Directory Number Initiate

11.17.1
FORMAT

$$KSMDI: \left\{ \begin{array}{l} DIRK=... \\ DIR=...,KEY= \end{array} \right\} ,MDN= [,DIG=] [,CALALT=];$$

**Figure 34:**  
**Table 413**  
**CALALT =**      Call alternative.  
                 If the parameter is omitted, a default value will be used for the call alternative.  
**DIG =**          Digit.  
                 If the parameter is omitted see under function for information.

<b>DIR =</b>	Directory number. Own Directory Number. & and && are permitted for this parameter.
<b>DIRK =</b>	Directory number and key placing. & is permitted for this parameter.
<b>KEY =</b>	Key placement. Key on which function shall exist.
<b>MDN =</b>	Multiple directory number, that is, directory number with multiple representation.

## 11.17.2

## FUNCTION

The command achieves initiation and assignment of a multiple representation of a directory number or a multiple representation with telephone name selection (executive/secretary function) for an extension equipped with a digital key system telephone, an analog telephone set or a generic extension.

Multiple representation means that a directory number belonging to a digital key system telephone (ODN or ADN), an Analog telephone set (primary or ordinary) or a generic extension can, in addition to own telephone, also be represented on one or more (maximum 40) other digital key system telephones. For multiple representation directory numbers (MDN) the key can be used for incoming as well as outgoing traffic. For multiple representation with telephone name selection (MNS) the key can be used for incoming traffic or as a single-button calling number (TNS key) in idle state. The button on a digital key system telephone where a directory number is represented has the MULTIPLE DIRECTORY NUMBER function. The button on a digital key system telephone where a directory number is multiple represented with telephone name selection has the MULTIPLE NAME SELECTION function.

The command without parameter DIG initiates a multiple representation of a directory number. Parameter DIG together with parameter MDN is used to initiate a multiple representation with telephone name selection. Parameter DIG is used to initiate the Name selection number on the multiple represented directory number stated in parameter MDN.

A generic extension can only be multiple represented as multiple representation with telephone name selection. Therefore parameter DIG is mandatory for generic extensions.

This MNS function can be initiated for any kind of generic extension but will only work on the generic extension types which allow the function, for example, cordless extensions or IP extensions.

Parameter KEY is used to state on which button on the digital key system telephone the multiple represented number shall exist.

Parameter DIRK is used when several digital key system telephones are to be initiated simultaneously and different key numbers are to be used on the various telephones. In other respects DIR and KEY should be used.

When the main DTS and the MDN DTS belong to Hospitality class Room vacant or Room occupied, both DTS extensions must be initiated in the same LIM, otherwise the command will be rejected and therefore the MDN will not be initiated.

It is not possible to initiate more than one MDN on an extension with Hospitality class Room vacant or Room occupied.

It is not possible to initiate an MNS when the main DTS or the MNS DTS belongs to Hospitality class Room vacant or Room occupied.

11.17.3                      EXAMPLE 1

Arrange multiple representation of directory number 1150 on the digital key system telephones with Own Directory Number 1147 and 1148. Buttons 37 and 46 respectively are to be used. The call alternative is to be ringing after delay.

**Table 414**

KSMDI:DIRK=1147-37&1148-46,MDN=1150,CALALT=20; EXECUTED
--

11.17.4                      EXAMPLE 2

Arrange multiple representation of directory number 1147 on the digital key system telephone possessing Own Directory Number 2214. Key 14 is used. The call alternative is to be only the first ringing period (muted).

**Table 415**

KSMDI:DIR=2214,KEY=14,MDN=1147,CALALT=30; EXECUTED
---

11.17.5                      EXAMPLE 3

A digital key system telephone with 1147 as Own Directory Number is to have the executive/secretary function (MULTIPLE REPRESENTATION WITH NAME SELECTION) on key 4. An internal number (4551) will be programmed as single-button calling number.

**Table 416**

KSMDI:DIR=1147,KEY=4,MDN=4551,DIG=4551,CALALT=30; EXECUTED
---

11.17.6                      COMMAND CATEGORY

Dangerous = **No**

11.18                        KSMDP

Key System Multiple Directory Number Print

11.18.1                      FORMAT

**Table 417**

**KSMDP:MDN=[,EXTYPE=];**

**Table 418**

<b>EXTYPE =</b>	Type of extension. Type of extension for the MDN. If the parameter is omitted, multiple represented directory numbers of all extension types will be included in the printout.
<b>MDN =</b>	Multiple directory number. Directory number with multiple representation. &, &&, and ALL are permitted for this parameter.

## 11.18.2

## FUNCTION

The command initiates a printout of multiple represented directory numbers in respect of the digital system telephone.

Multiple representation means that a directory number belonging to a digital key system telephone (ODN or ADN), an analog telephone set (primary or ordinary), or a generic extension can, in addition to its own telephone, also be represented on one or more (maximum 40) other digital key system telephones. For multiple representation directory numbers (MDN), the key can be used for incoming as well as outgoing traffic. For multiple representation with telephone name selection (MNS) the key can be used for incoming traffic or as a single-button calling number (TNS key) in idle state. The key on a digital key system telephone where a directory number is represented has the Multiple Directory Number function. The key on a digital key system telephone where a directory number is multiple represented with telephone name selection has the Multiple Name Selection function.

By using parameter EXTYPE, it is possible to get a printout of multiple represented directory numbers of a certain extension type.

## 11.18.3

## PRINTOUT

**Table 419**

KEY SYSTEM MULTIPLE DIRECTORY NUMBER DATA			
MDN	DIR	KEY	CALALT
.	.	.	..
.	.	.	..
.	.	.	..
END			

**Table 420**

<b>CALALT</b>	Call alternative plus if programming of call alternative is allowed from the extension. A hyphen (-) is stated in the row of the MDN primary instance if that is not a digital key system telephone, since call alternative is not applicable to other extension types. For the value, see the parameter description for digital key system telephone.
<b>DIR</b>	Directory number. Own Directory Number. An asterisk (*) is printed before the directory number representing the telephone that is the primary instance for the MDN, that is, where the MDN is own directory number, additional directory number, primary number, ordinary number, or generic extension number. For the value, see the parameter description for digital key system telephone.
<b>KEY</b>	Key placement. Key on which number is represented. A hyphen (-) is stated in the row of the MDN's primary instance if that is not a digital key system telephone, since key placement are not applicable to other extension types. For the value, see the parameter description for digital key system telephone.

## 11.18.4

## EXAMPLE 1

Print multiple represented directory numbers between 1147 and 1151.

**Table 421**

KSMDP:MDN=1147&&1151;			
KEY SYSTEM MULTIPLE DIRECTORY NUMBER DATA			
MDN	DIR	KEY	CALALT



1147	*1147	25	10
	1252	35	30
	2114	50	30
1150	*1118	51	10
	1147	37	20
	1148	46	20
1151	*1151	-	-
	1147	36	20
END			

The telephone that is primary instance for the number (where the number is Own Directory Number, Additional Directory Number, primary number, ordinary number, or generic extension number) is to be indicated by an asterisk (\*).

Directory number 1147 is represented on the digital key system telephones by Own Directory Numbers 1147, 1252, and 2114.

Directory number 1150 is represented on the digital key system telephones by Own Directory Numbers 1118, 1147, and 1148.

Directory number 1151—the primary or ordinary number for an analog, or an extension number for a generic extension—is multiple represented on the digital key system telephone by Own Directory Number 1147.

Under the heading KEY is stated on which keys, for each extension, the number exists.

Under the heading CALALT is stated the call alternatives programmed for the keys in question plus if the call alternative can be programmed from the extension or not.

If the MDN's primary instance is not a digital key system telephone, a hyphen (-) is stated in the KEY and CALALT columns, since there are no keys or call alternatives for other extension types.

## 11.18.5

### EXAMPLE 2

Print multiple represented directory numbers between 1147 and 1151, which are analog extensions.

**Table 422**

KSMDP:MDN=1147&&1151,EXTYPE=ATS;			
KEY SYSTEM MULTIPLE DIRECTORY NUMBER DATA			
MDN	DIR	KEY	CALALT
1151	*1151	-	-
	1147	36	20
END			

The telephone that is the primary instance for the number (where the number is Own Directory Number, Additional Directory Number, primary number, ordinary number, or generic extension number) is to be indicated by an asterisk (\*).

Directory number 1151—the primary, ordinary number for an analog, CAS, or POTS extension, or an extension number for a generic extension—is multiple represented on the digital key system telephone with Own Directory Number 1147.

Under heading KEY, it is stated on which keys, for each extension, the number exists.

Under heading CALALT, the call alternatives programmed for the keys in question are stated. The 0 indicates that the call alternative can be programmed from the extension.

If the MDN is represented on an analog extension, a hyphen (-) is stated in the KEY and CALALT columns, since there are no keys or call alternatives for other extension types.

11.18.6

## COMMAND CATEGORY

Dangerous = **No**

## 12LC - LEAST COST ROUTING

### 12.1LCDDE

Least cost destination data end

#### 12.1.1FORMAT

**Table 423**

**LCDDE:**TAB=[,ENTRY=][,FRCT=][,TZONE=];

**Table 424**

**ENTRY =**      Number to be analyzed.  
& is allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).

**FRCT =**      Fictitious Route Choice Table.  
& is allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).

**TAB =**      Table name.

**TZONE =**      Time Zone.  
& and && are allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).

#### 12.1.2FUNCTION

The command is used for deleting data from the analysis tables for Least Cost Routing, that is, the External Number Table (ENT), the Number Length Table (NLT), the Exceptions Table (DNT1), the Number Table (DNT2) and the Fictitious Destination Table (FDT).

The command may also be used for deleting data from the Private Network Routing destination tables. These tables are accessed when parameter TAB is used with the value PNR or RCT (see the matrix for PNR, RCT).

Depending on what table that is referred to, different parameters must be given in the command. This is shown in the following matrix:

**Table 425**

Value	Parameter			
TAB	ENTRY	FRCT	TZONE	
ENT	o	-	-	(both or none must be given)
NLT	o	-	-	
DNT1	o	-	-	
DNT2	o	-	-	
FDT	-	o	o	

**Table 426**

Value for	Parameter	
TAB	ENTRY	FRCT
PNR	o	-

RCT	-	o
-----	---	---

o = optional - = not allowed

If only TAB is given the whole table will be deleted.

### 12.1.3

#### EXAMPLE 1

Delete the number 91535 from the External Number Table.

**Table 427**

```
LCDDE:TAB=ENT,ENTRY=91535;
LCDDE:TAB=ENT,ENTRY=91535;
SURE? (YES/NO)
YES;
EXECUTED
```

### 12.1.4

#### EXAMPLE 2

Delete the numbers 901 and 91 in the Number Length Table.

**Table 428**

```
LCDDE:TAB=NLT,ENTRY=901&91;
LCDDE:TAB=NLT,ENTRY=901&91;
SURE? (YES/NO)
YES;
EXECUTED
```

### 12.1.5

#### EXAMPLE 3

Delete the number 901146455 from the Exceptions Table.

**Table 429**

```
LCDDE:TAB=DNT1,ENTRY=901146455;
LCDDE:TAB=DNT1,ENTRY=901146455;
SURE? (YES/NO)
YES;
EXECUTED
```

### 12.1.6

#### EXAMPLE 4

Delete the number 9714491 from the Number Table.

**Table 430**

```
LCDDE:TAB=DNT2,ENTRY=9714491;
LCDDE:TAB=DNT2,ENTRY=9714491;
SURE? (YES/NO)
YES;
EXECUTED
```

## 12.1.7 EXAMPLE 5

Delete the data in position 63 in subtable number 5 in the Fictitious Destination Table.

**Table 431**

```
LCDDE:TAB=FDT,FRCT=63,TZONE=5;
LCDDE:TAB=FDT,FRCT=63,TZONE=5;
SURE? (YES/NO)
YES;
EXECUTED
```

## 12.1.8 EXAMPLE 6 (PRIVATE NETWORK ROUTING DATA)

Delete the data for Private Network Routing access code 7400 in the PNR Destination Table.

**Table 432**

```
LCDDE:TAB=PNR,ENTRY=7400;
LCDDE:TAB=PNR,ENTRY=7400;
SURE? (YES/NO)
YES;
EXECUTED
```

## 12.1.9 EXAMPLE 7 (PRIVATE NETWORK ROUTING DATA)

Delete the data in position 22 in the fictitious Route Choice Table for PNR.

**Table 433**

```
LCDDE:TAB=RCT,FRCT=22;
LCDDE:TAB=RCT,FRCT=22;
SURE? (YES/NO)
YES;
EXECUTED
```

## 12.1.10 COMMAND CATEGORY

Dangerous = **Yes**

## 12.2 LCDDI

Least cost destination data initiate

## 12.2.1 FORMAT

**Table 434**

```
LCDDI:TAB=[,ENTRY=],[,TRC=],[,TRC1=],[,PRE=],[,PRE1=]
[,CONF=],[,ACCT=] [,MIN=],[,MAX=],[,ACF=],[,FRCT=],[,TOLL=] [,TZONE=],[,CBCS=]
[,BTON=],[,TNS=],[,OSA=],[,OPT=],[,IP1=] [,IP2=],[,RROUID="text"] [,RDEST=];
```

**Table 435**

<b>ACCT =</b>	Account Code information If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, Never require account code is assumed.
<b>ACF =</b>	Area Code flag If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, Do not prefix with own AC is assumed.
<b>BTON =</b>	Type of external B-number If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, Type of number unknown, is assumed.
<b>CBCS =</b>	Call By Call Service number If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, Destination has no Call By Call Service, is assumed.
<b>CONF =</b>	Conflict number flag If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No conflict number is assumed.
<b>ENTRY =</b>	Number to be analyses. If the parameter is optional or not depends on the value for parameter TAB (see Function). & is allowed for this parameter.
<b>FRCT =</b>	Fictitious Route Choice Table & is allowed for this parameter if TAB=FDT. If the parameter is optional or not depends on the value for parameter TAB (see Function).
<b>IP1 =</b>	First IP Address for PNR destination If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No IP information is stored in PNR.
<b>IP2 =</b>	Second IP address for PNR destination If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No IP information is stored in PNR.
<b>MAX =</b>	Maximum number of digits in analyzed number If the parameter is optional or not depends on the value for parameter TAB (see Function).
<b>MIN =</b>	Minimum number of digits in analyzed number If the parameter is optional or not depends on the value for parameter TAB (see Function).
<b>OPT =</b>	Option. Type of IP Configuration for PNR If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, value 0 is assumed, that is, No IP information is stored in PNR.
<b>OSA =</b>	Operator System Access. Call operator in chosen network If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No Operator System Access, is assumed.

<b>PRE =</b>	Digits to insert at beginning of number If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No prefix digits is assumed.
<b>PRE1 =</b>	Digits to insert at beginning of number for PNR If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No prefix digits is assumed. This parameter is only to be used with the Private Network Routing feature.
<b>RDEST =</b>	Remote Destination. Remote Destination to Routing Server(OPT=2) or Exchange Number in Cooperating Exchange(OPT=3) for PNR. If the parameter is optional or not depends on the value for parameter TAB and OPT (see Function). If the parameter is omitted when optional, No Remote Destination information is assumed.
<b>RROUID =</b>	Remote Route Identity for PNR destination If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No Remote Route Identity Information is assumed.
<b>TAB=</b>	Table name.
<b>TNS =</b>	Transit Network Selection If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No Transit Network Selection, is assumed.
<b>TOLL =</b>	Toll restriction indicator If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, Call allowed for all TCD categories is assumed.
<b>TRC =</b>	Number of leading digits to delete. If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No digits to delete is assumed.
<b>TRC1 =</b>	Number of leading digits to delete for PNR. If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No digits to delete is assumed. This parameter is only to be used with the Private Network Routing feature.
<b>TZONE =</b>	Time Zone & and && are allowed for this parameter if TAB=FDT. If the parameter is optional or not depends on the value for parameter TAB (see Function).

## 12.2.2

## FUNCTION

The command is used for initiating data in the analysis tables for Least Cost Routing, that is, the External Number Table (ENT), the Number Length Table (NLT), the Exceptions Table (DNT1), the Number Table (DNT2) and the Fictitious Destination Table (FDT).

The command may also be used for initiating data for the Private Network Routing destination tables. These tables are accessed when parameter TAB is used with the value PNR or RCT (see the matrix for PNR, RCT).

Depending on what table that is referred to, different parameters must be given in the command. This is shown in the following matrix where xxx represents the parameters: CBCS, BTON, TNS and OSA.

**Table 436**

Value	Parameter													
TAB	ENTRY	TRC	PRE	CONF	ACCT	MIN	MAX	ACF	FRCT	TOLL	CBCS	BTON	TNS	OSA
ENT	m	o	o	o	-	-	-	-	-	-	-	-	-	-
NLT	m	o	o	o	-	m	m	o	-	-	-	-	-	-
DNT1	m	o	o	-	o	-	-	-	m	o	o	o	o	o
DNT2	m	o	o	-	o	-	-	-	m	o	o	o	o	o
FDT	-	-	m	-	-	-	-	-	m	-	-	-	-	-

**Table 437**

Value	Parameter											
TAB	ENTRY	TRC	PRE	TRC1	PRE1	OPT	IP1	IP2	RROUID	RDEST	FRCT	
PNR	m	o	o	o	o	o	o	o	o	o	m	
RCT	-	-	m	-	-	-	-	-	-	-	m	

o = optional m = mandatory - = not allowed

### 12.2.3

#### EXAMPLE 1

Insert the number 91535 in the External Number Table.

9 is the LAC (Least Cost Routing Access Code).

The digit 1 is to be replaced by the area code number which is 214. This is accomplished by deleting the first two digits (91) and inserting the digits 9214 instead.

The number 91535 is not a conflict number.

**Table 438**

```
LCDDI:TAB=ENT,ENTRY=91535,TRC=2,PRE=9214;
EXECUTED
```

### 12.2.4

#### EXAMPLE 2

Insert the numbers 901 and 91 in the Number Length Table.

The number length will be 9 to 12 digits.

No digits shall be deleted or prefixed.

The numbers are no conflict numbers and shall not be prefixed by own area code.

**Table 439**

```
LCDDI:TAB=NLT,ENTRY=901&91,MIN=9,MAX=12;
EXECUTED
```

### 12.2.5

#### EXAMPLE 3

Insert the number 901146455 in the Exceptions Table.

The digit 9 (LAC) shall be replaced by the prefix digits completed with the external destination that is stored in position 27 in the Fictitious Destination Table. This destina-



tion code will be used for finding the first hand choice and up to five alternative choices in the Route Choice Table.

Users with TCD categories 8-10 and 12-14 shall be allowed to complete the call (TCD category 15 is by default allowed to complete the call.)

No account code is required.

Call by call service number shall be 2.

Type of external B-number shall be international.

The transit network selection is 123.

No operator system access.

**Table 440**

LCDDI:TAB=DNT1,ENTRY=901146455,TRC=1,PRE=005, FRCT=27,TOLL=111011100000000,CBCS=2,BTON=1,TNS=123; EXECUTED
--

## 12.2.6

### EXAMPLE 4

Insert the number 9714491 in the Number Table.

The digit 9 (LAC) shall be replaced by the prefix digits completed with the external destination that is stored in position 63 in the Fictitious Destination Table. This destination code will be used for finding the first hand choice and up to five alternative choices in the Route Choice Table.

Users with TCD categories 7-14 shall be allowed to complete the call (TCD category 15 is by default allowed to complete the call.)

No account code is required.

No call by call service number.

Type of external B-number is to be national.

No transit network selection.

The network operator (OSA) to access shall be 16.

**Table 441**

LCDDI:TAB=DNT2,ENTRY=9714491,TRC=1,PRE=005,FRCT=63, TOLL=111111110000000,BTON=2,OSA=16; EXECUTED
--

## 12.2.7

### EXAMPLE 5

Insert data in position 63 in subtable number 5 in the Fictitious Destination Table. The digits 13 shall be used as prefix (=external destination).

**Table 442**

LCDDI:TAB=FDT,FRCT=63,TZONE=5,PRE=13; EXECUTED
---

## 12.2.8

**EXAMPLE 6 (PRIVATE NETWORK ROUTING DATA, WITHOUT IP INFORMATION)**

Insert data in the Private Network Routing destination table. The Private Network access code 7400 shall have data for two sets of individual number translation information, the External Destination code is stored in the fictitious route choice table 22.

The digits 74 are replaced by the digits 72 when using the first set of translation information.

The digits 74 are replaced by the digits 70 when using the second set of translation information.

**Table 443**

LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,PRE=72,TRC=2, PRE1=70,TRC1=2; EXECUTED
---

## 12.2.9

**EXAMPLE 7 (PRIVATE NETWORK ROUTING DATA, WITH LOCAL IP INFORMATION)**

Insert data in the Private Network Routing destination table. Private Network access code 7400 shall have data for two sets IP addresses with Remote Route Identity information to the cooperating Exchange, the External Destination code is stored in fictitious route choice table position 22.

IP address 1 in the Cooperating Exchange is:130.100.69.32

IP address 2 in the Cooperating Exchange is:130.100.69.30

The Remote Route Identity (Local Route identity in the Cooperating Exchange) is: "Stockholm"

At calls to 7400 the PNR function will receive IP information, which is used to Setup calls to the Cooperating Exchange

**Table 444**

LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,OPT=1, IP1=130.100.69.32, IP2=130.100.69.30,RROUID="Stockholm"; EXECUTED
---

## 12.2.10

**EXAMPLE 8 (PRIVATE NETWORK ROUTING DATA, FETCH IP INFO FROM ROUTING SERVER)**

Insert data in the Private Network Routing destination table. The Private Network access code 7400 is first to fetch IP information from the Routing Server and store the information temporarily in PNR for further usage. The External Destination code to the Routing Server is stored in the fictitious route choice table position 22.

The destination to the Routing Server shall be 6500

**Table 445**

LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,OPT=2,RDEST=6500; EXECUTED
--

## 12.2.11

### EXAMPLE 9 (PRIVATE NETWORK ROUTING DATA, IP INFORMATION IN ROUTING SERVER)

Insert data in the Private Network Routing destination table. Private Network access code 7400 shall be marked as "possible" to fetch from cooperating exchanges. The data storage have data for two sets of IP addresses with Remote Route Identity information to the cooperating exchange. The exchange number for the cooperating exchange is 7131. The External Destination code is stored in the fictitious route choice table position 22.

IP address 1 in the cooperating exchange is: 130.100.69.32

IP address 2 in the cooperating exchange is: 130.100.69.30

The IP information is returned at request from cooperating exchanges.

The Remote Route Identity (Local Route identity in the Cooperating Exchange) is : "Stockholm"

The exchange number 7131 in the cooperating exchange is used in the check routine.

**Table 446**

```
LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,OPT=3,RDEST=7131,
IP1=130.100.69.32, IP2=130.100.69.30,RROUID="Stockholm";
EXECUTED
```

## 12.2.12

### EXAMPLE 10 (PRIVATE NETWORK ROUTING DATA)

Insert data in position 22 in the fictitious route choice table for PNR. The digits 08 shall be used as prefix (=external destination).

**Table 447**

```
LCDDI:TAB=RCT,FRCT=22,PRE=08;
EXECUTED
```

## 12.2.13

### COMMAND CATEGORY

Dangerous = **No**

## 12.3

### LCDDP

Least cost destination data print

## 12.3.1

### FORMAT

**Table 448**

```
LCDDP:TAB=[,ENTRY=[,FRCT=[,ACCT=[,TOLL=[,TZONE=[ [,IPOPT];
```

**Table 449**

**ACCT** = Account Code information  
If the parameter is optional or not depends on the value for parameter TAB (see Function).

<b>ENTRY=</b>	Number to be analyzed & and && are allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).
<b>FRCT=</b>	Fictitious Route Choice Table & and && are allowed for this parameter if TAB = FDT. If the parameter is optional or not depends on the value for parameter TAB (see Function).
<b>IPOPT=</b>	IP Print Flag Indicator
<b>TAB=</b>	Table name
<b>TOLL =</b>	Toll restriction indicator If the parameter is optional or not depends on the value for parameter TAB (see Function).
<b>TZONE=</b>	Time Zone & and && are allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).

## 12.3.2

## FUNCTION

The command is used for printing data from the analysis tables for Least Cost Routing, that is, the External Number Table (ENT), the Number Length Table (NLT), the Exceptions Table (DNT1), the Number Table (DNT2) and the Fictitious Destination Table (FDT).

The command may also be used for printing data for the Private Network Routing destination tables. These tables are accessed when parameter TAB is used with the value PNR or RCT (see matrix for PNR, RCT).

Depending on what table that is referred to, different parameters must be given in the command. This is shown in the following matrix:

**Table 450**

Value	Parameter					
TAB	ENTRY	FRCT	ACCT	TOLL	TZONE	
ENT	o	-	-	-	-	(both or none must be given)
NLT	o	-	-	-	-	
DNT1	o	o	o	o	-	
DNT2	o	o	o	o	-	
FDT	-	o	-	-	o	

**Table 451**

Value	Parameter	
TAB	ENTRY	FRCT
PNR	o	-
RCT	-	o

o = optional - = not allowed

If only TAB is given the whole table will be printed.

### 12.3.3 PRINTOUT 1 (TAB = ENT)

**Table 452**

LEAST COST DESTINATION DATA			
EXTERNAL NUMBER TABLE			
ENTRY	TRC	PRE	CONF
.	.	.	.
.	.	.	.
.	.	.	.
END			

### 12.3.4 PRINTOUT 2 (TAB = NLT)

**Table 453**

LEAST COST DESTINATION DATA						
NUMBER LENGTH TABLE						
ENTRY	TRC	PRE	CONF	MIN	MAX	ACF
.	.	.	.	..	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
END						

### 12.3.5 PRINTOUT 3 (TAB = DNT1)

**Table 454**

LEAST COST DESTINATION DATA									
EXCEPTIONS TABLE									
ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
END									

### 12.3.6 PRINTOUT 4 (TAB = DNT2)

**Table 455**

LEAST COST DESTINATION DATA									
NUMBER TABLE									
ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
END									

## 12.3.7 PRINTOUT 5 (TAB = FDT)

**Table 456**

LEAST COST DESTINATION DATA		
FICTITIOUS DESTINATION TABLE		
FRCT	TZONE	PRE
.	.	.
.	.	.
.	.	.
END		

## 12.3.8 PRINTOUT 6 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR)

**Table 457**

PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	TRC	PRE	TRC1	PRE1	FRCT
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
END					

## 12.3.9 PRINTOUT 7 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR , IPOPT = Y/YES)

**Table 458**

PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	OPT	RDEST	IP1	IP2	RROUID
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
END					

## 12.3.10 PRINTOUT 8 (PRIVATE NETWORK ROUTING DATA WITH TAB = RCT)

**Table 459**

PRIVATE NETWORK ROUTING DATA	
FICTITIOUS ROUTE CHOICE TABLE	
FRCT	PRE
.	.
.	.
END	

**Table 460**

<b>ACF</b>	Area Code flag
<b>BTON</b>	Type of external B-number
<b>CBCS</b>	Call By Call Service number
<b>CONF</b>	Conflict number flag
<b>IP1</b>	First IP Address for PNR destination This subheading in the printout is only used with the Private Network Routing feature.
<b>IP2</b>	Second IP address for PNR destination This subheading in the printout is only used with the Private Network Routing feature.
<b>MAX</b>	Maximum number of digits in analyzed number
<b>MIN</b>	Minimum number of digits in analyzed number
<b>OPT</b>	Option. Type of IP information for PNR This subheading in the printout is only used with the Private Network Routing feature.
<b>OSA</b>	Operator System Access. Call operator in chosen network
<b>PRE</b>	Digits to insert at beginning of number.
<b>PRE1</b>	Digits to insert at beginning of number for PNR This parameter is only to be used with the Private Network Routing feature.
<b>RDEST</b>	Remote Destination. Remote Destination to Routing Server or Exchange Number in cooperating exchange. This subheading in the printout is only used with the Private Network Routing feature.
<b>RROUID</b>	Remote Route Identity for PNR destination This subheading in the printout is only used with the Private Network Routing feature.
<b>TNS</b>	Transit Network Selection.
<b>TRC</b>	Number of leading digits to delete.
<b>TRC1</b>	Number of leading digits to delete for PNR. This parameter is only to be used with the Private Network Routing feature.

### 12.3.11

#### EXAMPLE 1 (TAB = ENT)

Print the data for the number 91535 from the External Number Table.

**Table 461**

LCDDP:TAB=ENT,ENTRY=91535;			
LEAST COST DESTINATION DATA			
EXTERNAL NUMBER TABLE			
ENTRY	TRC	PRE	CONF
91535	2	9214	N
END			

For the number 91535 the first two digits shall be replaced by 9214.

The number is not a conflict number.

### 12.3.12

#### EXAMPLE 2 (TAB = NLT)

Print the data for all the numbers between 900 and 91 from the Number Length Table.

**Table 462**

LCDDP:TAB=NLT,ENTRY=900&&91;						
LEAST COST DESTINATION DATA						
NUMBER LENGTH TABLE						
ENTRY	TRC	PRE	CONF	MIN	MAX	ACF
900	0		N	3	3	N
901	0		N	9	12	N
902	0		N	10	20	N
903	0		N	10	20	N
904	0		N	10	20	N
905	0		N	10	20	N
906	0		N	10	20	N
907	0		N	10	20	N
908	0		N	10	20	N
909	0		N	10	20	N
91	0		N	9	12	N
END						

For the numbers 900-91 no digits shall be deleted or prefixed.

The numbers are no conflict numbers.

The number length is 3 digits for 900, 9 to 12 digits for 901 and 91 and minimum 10 digits for 902 to 909.

No prefixing with own area code shall be performed.

## 12.3.13

**EXAMPLE 3 (TAB = DNT1)**

Print the data for the number 901146455 from the Exceptions Table.

**Table 463**

LCDDP:TAB=DNT1,ENTRY=901146455;									
LEAST COST DESTINATION DATA									
EXCEPTIONS TABLE									
ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
901146455	1	005	0	27	111011100000000	2	1	123	
END									

For the number 901146455 the first digit shall be deleted.

No account code is required.

The digits that shall be used as prefix are found at position 27 in the Fictitious Destination Table added with the prefix digits initiated.

Users with TCD categories 8-10 and 12-14 are allowed to complete the call (TCD category 15 is by default allowed to complete the call and is therefore not included in the printout.)

The call by call service number for this destination is 2.

The type of external B-number for this destination is international number.

The transit network selection for this destination is 123.



This destination is not routed to a network operator (OSA).

### 12.3.14

#### EXAMPLE 4 (TAB = DNT2)

Print the data for the number 9714491 from the Number Table.

**Table 464**

LCDDP:TAB=DNT2,ENTRY=9714491;									
LEAST COST DESTINATION DATA									
NUMBER TABLE									
ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
9714491	1	005	0	63	111111110000000		2		16
END									

For the number 9714491 the first digit shall be deleted.

No account code is required.

The digits that shall be used as prefix are found at position 63 in the Fictitious Destination Table added with the prefix digits initiated.

Users with TCD categories 7-14 are allowed to complete the call. (TCD category 15 is by default allowed to complete the call and is therefore not included in the printout.)

No call by call service number for this destination.

The type of external B-number for this destination is national number.

No transit network selection for this destination.

This destination can be routed to network operator (OSA) 16.

### 12.3.15

#### EXAMPLE 5 (TAB = FDT)

Print the data for position 63 in subtable number 5 in the Fictitious Destination Table.

**Table 465**

LCDDP:TAB=FDT,FRCT=63,TZONE=5;		
LEAST COST DESTINATION DATA		
FICTITIOUS DESTINATION TABLE		
FRCT	TZONE	PRE
63	5	13
END		

For individual 63 in subtable 5, the prefix digits (=destination code) are 13.

### 12.3.16

#### EXAMPLE 6 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT = N/NO OR OMITTED)

Print the data for Private Network access code 7400 from the PNR Destination Table.

**Table 466**

LCDDP:TAB=PNR,ENTRY=7400;	
PRIVATE NETWORK ROUTING DATA	
PRIVATE NETWORK ROUTING DESTINATION TABLE	

ENTRY	TRC	PRE	TRC1	PRE1	FRCT
7400	2	72	2	70	22
END					

For PNR access 7400 the number may be truncated with two digits and prefixed with 72 as a first choice editing and truncated with two digits and prefixed with 70 as a second choice. Index to the External Destination code is stored in the fictitious Route Choice Table at position 22.

## 12.3.17

### EXAMPLE 7 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT= Y/YES, BEFORE DATA IS FETCHED FROM ROUTING SERVER)

Print the data for Private Network access code 7400 from the PNR Destination Table.

**Table 467**

LCDDP:TAB=PNR,ENTRY=7400;					
PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	OPT	RDEST	IP1	IP2	RROUID
7400	2	6500			
END					

When the IP and Remote Route Identity fields are empty, no IP information is fetched from the Routing Server.

## 12.3.18

### EXAMPLE 8 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT = YES, AFTER DATA IS FETCHED FROM ROUTING SERVER)

Print the IP data for Private Network access code 7400 from the PNR Destination Table when IP data are fetched from the Routing Server.

**Table 468**

LCDDP:TAB=PNR,ENTRY=7400;					
PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	OPT	RDEST	IP1	IP2	RROUID
7400	2	6500	130.100.69.30*	130.100.69.32*	Stockholm*
END					

For PNR access 7400, use fetched IP information. The star (\*) after the IP address shows that the data are fetched from the Routing Server.

## 12.3.19

### EXAMPLE 9 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT = Y/YES IN ROUTING SERVER)

Print the IP data for Private Network access code 7400 from the PNR Destination Table in the Routing Server.

**Table 469**

LCDDP:TAB=PNR,ENTRY=7400;					
PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	OPT	RDEST	IP1	IP2	RROUID
7400	3	7131	130.100.69.32	130.100.69.30F	Stockholm
END					

For PNR access code 7400, IP information is stored in PNR in the Routing Server. Routine checks will be performed towards this node.

12.3.20

EXAMPLE 10 (PRIVATE NETWORK ROUTING DATA WITH TAB = RCT)

Print the data for position 22 in the Fictitious Route Choice Table.

**Table 470**

LCDDP:TAB=RCT,FRCT=22;	
PRIVATE NETWORK ROUTING DATA	
FICTITIOUS ROUTE CHOICE TABLE	
FRCT	PRE
22	08
END	

The External Destination code at position 22 in the fictitious Route Choice table is 08.

12.3.21

COMMAND CATEGORY

Dangerous = **No**

12.4

LCIPE

Least cost IP Configuration end

12.4.1

FORMAT

**Table 471**

**LCIPE;**

12.4.2

FUNCTION

This command is used to erase temporary IP-configuration in the satellite. The IP-configuration data is stored in PNR for respective DEST. The command generates also a restart of the time supervision in PNR. The time supervision is set to start in 10 seconds.

### 12.4.3 EXAMPLE

Erase temporary stored IP-configuration data in PNR.

**Table 472**

```
LCIPE;
EXECUTED
```

### 12.4.4 COMMAND CATEGORY

Dangerous = **No**

## 12.5 LCLDE

Least cost LIM data end

### 12.5.1 FORMAT

**Table 473**

**LCLDE:LIM=;**

**Table 474**

*LIM* = LIM-number.

### 12.5.2 FUNCTION

The command is used for erasing the area code for that area in which a specific LIM is situated and for erasing the default external destination for the same LIM.

### 12.5.3 EXAMPLE

Erase the area code and the default external destination for LIM 1.

**Table 475**

```
LCLDE:LIM=1;
LCLDE:LIM=1;
SURE? (YES/NO)
YES;
EXECUTED
```

### 12.5.4 COMMAND CATEGORY

Dangerous = **Yes**

## 12.6 LCLDI

Least cost LIM data initiate

## 12.6.1 FORMAT

**Table 476**

**LCLDI:**{LIM= | MGW=}, AC=, DEST=;

**Table 477**

**AC** = Area Code.  
**DEST** = External destination.  
**LIM** = LIM-number.  
**MGW** = Media Gateway.

## 12.6.2 FUNCTION

The command is used for defining the area code for that area in which a specific LIM is situated. It is also used for defining a default external destination for the same LIM for routing of calls if no match is found in the LCR analysis tables.

## 12.6.3 EXAMPLE

The LIM 2 is situated in an area with the area code 714 and the default destination to be used for these LIMs if no match is found in the analysis tables is 15.

**Table 478**

```
LCLDI:LIM=2,AC=714,DEST=15;
EXECUTED
```

## 12.6.4 COMMAND CATEGORY

Dangerous = **No**

## 12.7 LCLDP

Least cost LIM data print

### 12.7.1 FORMAT

**Table 479**

**LCLDP:**LIM=;

**Table 480**

**LIM** = LIM-number.

### 12.7.2 FUNCTION

The command is used for printing own area code and the default external destination. The default external destination is used for routing of calls if no match is found in the LCR analysis tables.

12.7.3

PRINTOUT

Table 481

LEAST COST LIM DATA			
LIM	GATEWAY	AC	DEST
.	.	.	.
.	.	.	.
.	.	.	.
END			

Table 482

<b>AC</b>	Area Code.
<b>DEST</b>	External destination.
<b>GATEWAY</b>	Gateway.

12.7.4

EXAMPLE

Print the own area code and the default external destination for LIM 1.

Table 483

LCLDP:LIM=1;			
LEAST COST LIM DATA			
LIM	GATEWAY	AC	DEST
1	A	714	15
END			

LIM 1 is situated in the area with area code 714.

12.7.5

COMMAND CATEGORY

Dangerous = **No**

12.8

LCOPE

Least cost office prefix data end

**Note:** This command is valid only when numbering plans of North American type are used.

12.8.1

FORMAT

**LCOPE:** { **ROU=...**  
**OCPT=,OC=...** } ;

Figure 35:

**Table 484**

<b>OC =</b>	Office Code. &, && and ALL are allowed for this parameter.
<b>OCPT =</b>	Office Code Prefix Table Number.
<b>ROU =</b>	Route number. &, && and ALL are allowed for this parameter.

## 12.8.2

### FUNCTION

The command is used as follows.

- Deletion of data in the Office Code Prefix Tables, that is, to remove office code numbers that no longer are to be prefixed by 1.
- Removal of the assignment of a route to a specific Office Code Prefix Table.

## 12.8.3

### EXAMPLE 1

The office codes 207 and 211 in Office Code Prefix Table number 9 are no longer to be marked for adding of the prefix 1.

**Table 485**

```

LCOPE:OCPT=9,OC=207&211;
LCOPE:OCPT=9,OC=207&211;
SURE? (YES/NO)
YES;
EXECUTED
    
```

## 12.8.4

### EXAMPLE 2

The routes with numbers 7 and 28 are no longer to be assigned to any Office Code Prefix Table.

**Table 486**

```

LCOPE:ROU=7&28;
LCOPE:ROU=7&28;
SURE? (YES/NO)
YES;
EXECUTED
    
```

## 12.8.5

### COMMAND CATEGORY

Dangerous = **Yes**

## 12.9

### LCOPI

Least cost office prefix data initiate

**Note:** This command is valid only when numbering plans of North American type are used.

12.9.1

FORMAT

$$\text{LCOPI:OCPT} = \left\{ \begin{array}{l} \text{,ROU=...} \\ \text{,OC=...} \end{array} \right\} ;$$

Figure 36:  
Table 487

- OC =** Office Code.  
&, && and ALL are allowed for this parameter.
- OCPT =** Office Code Prefix Table Number.
- ROU =** Route number.  
&, && and ALL are allowed for this parameter.

12.9.2

FUNCTION

The command is used as follows.

- Insertion of data in the Office Code Prefix Tables, that is, to insert office code numbers that are to be prefixed by 1.
- Assignment of a route to a specific Office Code Prefix Table.

12.9.3

EXAMPLE 1

The office codes 207 and 211 in Office Code Prefix Table number 9 are to be marked for adding of the prefix 1.

Table 488

LCOPI:OCPT=9,OC=207&211;
EXECUTED

12.9.4

EXAMPLE 2

The routes with numbers 7 and 28 are to be assigned to Office Code Prefix Table number 14.

Table 489

LCOPI:OCPT=14,ROU=7&28;
EXECUTED

12.9.5

COMMAND CATEGORY

Dangerous = **No**

12.10

LCOPP

Least cost office prefix data print

**Note:** This command is valid only when numbering plans of North American type are used.



12.10.1
FORMAT

LCOPP:
{
OCPT=...
ROU=...
}
;

**Figure 37:**  
**Table 490**  
*OCPT* = Office Code Prefix Table Number.  
*ROU* = Route number.  
 &, && and ALL are allowed for this parameter.

12.10.2
FUNCTION

The command is used as follows.
 

- Printing of data from the Office Code Prefix Tables, that is, to print office code numbers that are to be prefixed by 1.
- Printing of which Office Code Prefix Table that a specific route belongs to.

12.10.3
PRINTOUT 1 (OCPT)

**Table 491**  
 LEAST COST OFFICE PREFIX DATA  

OCPT	-----	OC	-----
.	.	.	.
.	.	.	.
.	.	.	.
END			

12.10.4
PRINTOUT 2 (ROU)

**Table 492**  
 LEAST COST OFFICE PREFIX DATA  

ROU	OCPT
.	.
.	.
.	.
END	

12.10.5
EXAMPLE 1 (OCPT)

Print the office codes that according to Office Code Prefix Table number 9 are to be prefixed by 1.

**Table 493**  

LCOPP:OCPT=9;  
 LEAST COST OFFICE PREFIX DATA

OCPT	OC									
9	207	211	218	219	220	221	222	223	224	225
9	230	231								
END										

In Office Code Prefix Table number 9 the office codes 207, 211, 218-225, 230 and 231 are to be prefixed by 1.

## 12.10.6

## EXAMPLE 2 (ROU)

Print which Office Code Prefix Tables that the routes number 7 and 28 are assigned to.

**Table 494**

LCOPP:ROU=7&28;	
LEAST COST OFFICE PREFIX DATA	
ROU	OCPT
7	14
28	14
END	

The routes 7 and 28 are both assigned to Office Code Prefix Table number 14.

## 12.10.7

## COMMAND CATEGORY

Dangerous = **No**

## 12.11

## LCTDI

Least cost time zone data initiate

## 12.11.1

## FORMAT

**Table 495**

LCTDI:DAY=[,TIM1=[,FDT1=[,TIM2=[,FDT2=[,TIM3=[,FDT3=];

**Table 496**

<b>DAY</b> =	Day group.
<b>FDT1</b> =	Fictitious Destination Table entry for TIM1.
<b>FDT2</b> =	Fictitious Destination Table entry for TIM2.
<b>FDT3</b> =	Fictitious Destination Table entry for TIM3.
<b>TIM1</b> =	Start time for first time interval.
<b>TIM2</b> =	Start time for second time interval.
<b>TIM3</b> =	Start time for third time interval.

## 12.11.2

## FUNCTION

The command is used for assigning the different time intervals within the week to different subtables in the Fictitious Destination Table and thereby making it possible to make the routing of a call dependent on the time of day and of the day within the week.

As a default the whole 24 hour period for all the different day groups is assigned to subtable number 1 in the Fictitious Destination Table.

If a day group shall consist of just one 24 hour interval, only the parameters DAY and FDT1 must be used.

If a day group shall be divided into two time intervals, the parameters DAY, TIM1, FDT1, TIM2 and FDT2 must be used.

If a day group shall be divided into three time intervals, the parameters DAY, TIM1, FDT1, TIM2, FDT2, TIM3 and FDT3 must be used.

A given command must thus always cover a complete 24-hour period.

## 12.11.3

## EXAMPLE 1

Set the FDT-entry to 5 for the day group SUNDAY which shall consist of just one time interval.

**Table 497**

```
LCTDI:DAY=SUN,FDT1=5;
EXECUTED
```

## 12.11.4

## EXAMPLE 2

The day group MONDAY to FRIDAY shall be divided into three time intervals, namely 08:00-16:59, 17:00-19:59, and 20:00-07:59. The FDT-entries for the different intervals shall be 2, 6, and 9 respectively.

**Table 498**

```
LCTDI:DAY=M-F,TIM1=08-00,FDT1=2,TIM2=17-00,FDT2=6,
TIM3=20-00,FDT3=9;
EXECUTED
```

## 12.11.5

## COMMAND CATEGORY

Dangerous = **No**

## 12.12

## LCTDP

Least cost time zone data print

## 12.12.1

## FORMAT

**Table 499**

**LCTDP;**

## 12.12.2

## FUNCTION

The command is used for printing the data in the Time/Day Table, that is, which FDT-entries (subtables) that are assigned to the different time intervals within the week.

## 12.12.3

## PRINTOUT

**Table 500**

LEAST COST TIME ZONE DATA						
DAY	TIM1	FDT1	TIM2	FDT2	TIM3	FDT3
M-F	.	.	.	.	.	.
SAT	.	.	.	.	.	.
SUN	.	.	.	.	.	.
END						

**Table 501**

<b>DAY</b>	Day group
<b>FDT1</b>	Fictitious Destination Table entry for TIM1
<b>FDT2</b>	Fictitious Destination Table entry for TIM2
<b>FDT3</b>	Fictitious Destination Table entry for TIM3
<b>TIM1</b>	Start time for first time interval
<b>TIM2</b>	Start time for second time interval
<b>TIM3</b>	Start time for third time interval

## 12.12.4

## EXAMPLE

Print the Time/Day Table.

**Table 502**

LCTDP;						
LEAST COST TIME ZONE DATA						
DAY	TIM1	FDT1	TIM2	FDT2	TIM3	FDT3
M-F	08:00	2	17:00	6	20:00	9
SAT	08:00	4	23:00	7		
SUN		5				
END						

Monday to Friday is divided into three time intervals, namely 08:00-16:59, 17:00-19:59 and 20:00-07:59. The FDT-entries assigned to these intervals are 2, 6, and 9 respectively.

Saturday is divided into two time intervals, namely 08:00-22:59 and 23:00-07:59. The corresponding FDT-entries are 4 and 7.

Sunday consists of just one time interval covering the whole 24 hour period. The FDT-entry is 5.

12.12.5COMMAND CATEGORY

Dangerous = **No**

12.13LCTMP

Least cost traffic measurement data print

12.13.1FORMAT

LCTMP: { DEST=...  
           QINF=          } [,RES=];

Figure 38:  
 Table 503

- DEST** =
 External destination.  
 ALL is allowed for this parameter.
- QINF** =
 Queue information indicator.
- RES** =
 Reset indicator.  
 If the parameter is omitted, the value N is assumed.

12.13.2FUNCTION

The command is used for printing traffic measurement data for LCR-calls. Data are printed for the whole system and can, depending on given parameters, include different information.

- Only DEST, or DEST plus RES=N is given. The first hand choice and all the alternative choices including the customer specific choices for requested external destinations are printed.
- Only QINF=Y, or QINF=Y plus RES=N is given. Information about calls that have been requested for On-hook queuing at threshold 1 and 2, when searching for a free trunk, is printed.
- DEST plus RES=Y is given. All counters for requested external destinations are reset.
- QINF=Y plus RES=Y is given. All counters for On-hook queuing are reset.

12.13.3PRINTOUT

Table 504

LEAST COST TRAFFIC MEASUREMENT DATA				
TIME= ...				
[ DEST	CUST	CHO	CALL ATTEMPTS	TRUNK SEIZURES ]
[ .	.	.	.	. ]
[ .	.	.	.	. ]

[	THRESHOLD1	THRESHOLD2	]
[ QUEUED CALLS	.	.	]
[ TIME-OUT QUEUE MISSION	.	.	]
[ ACCUMULATED QUEUE TIME	.	.	]
[ COUNTERS HAVE BEEN RESET FOR DEST =...			]
[ COUNTERS FOR ON-HOOK QUEUING HAVE BEEN RESET			]
END			

**Table 505**

<b>ACCUMULATED QUEUE TIME</b>	Accumulated queuing time for the queued calls in tenths of minutes.
<b>CALL ATTEMPTS</b>	Number of call attempts towards a given combination of DEST, CHO and CUST.
<b>CHO</b>	Route choice.
<b>COUNTERS FOR ON-HOOK QUEUING HAVE BEEN RESET</b>	On-hook queuing counters have been reset.
<b>COUNTERS HAVE BEEN RESET FOR DEST =</b>	External destination for which counters have been reset.
<b>CUST</b>	Customer number.
<b>QUEUED CALLS</b>	Number of calls that have been requested for On-hook queuing.
<b>THRESHOLD1</b>	First threshold in a route choice table where a specific call may be ordered to on-hook queuing.
<b>THRESHOLD2</b>	Second threshold in a route choice table where a specific call may be ordered to on-hook queuing.
<b>TIME</b>	Time and date for printout.
<b>TIMED-OUT QUEUE MISSIONS</b>	Number of the queued calls that have reached time-out.
<b>TRUNK SEIZURES</b>	Number of call attempts resulting in seizure of a trunk.

## 12.13.4

## EXAMPLE 1

Print the traffic measurement data for the external destination 13.

**Table 506**

LCTMP:DEST=13;				
LEAST COST TRAFFIC MEASUREMENT DATA				
TIME = 14:21:35 06DEC98				
DEST	CUST	CHO	CALL ATTEMPTS	TRUNK SEIZURES
13			136	114
		1	22	20
	2		53	50
	2	1	3	3
END				

There have been 136 call attempts to external destination 13 (not counting the ones for customer 2). 114 of these have got the first hand choice route and 22 have got the first alternative route. Out of these 22, 20 have been successful and 2 have been rejected.

For external destination 13 and customer 2 there have been 53 call attempts and 50 have been successful with the first hand choice and the rest with the first alternative choice.

## 12.13.5

## EXAMPLE 2

Print information about queued calls.

**Table 507**

LCTMP:QINF=Y;		
LEAST COST TRAFFIC MEASUREMENT DATA		
TIME = 14:33:38 06DEC98		
	THRESHOLD1	THRESHOLD2
QUEUED CALLS	12	3
TIMED-OUT QUEUE MISSIONS	3	0
ACCUMULATED QUEUE TIME	2.6	0.6
END		

For threshold 1 there have been 12 On-hook queue missions and 3 out of these have resulted in time-out. The accumulated queuing time is 2.6 min.

For threshold 2 there have been 3 On-hook queue missions and none of these have resulted in time-out. The accumulated queuing time is 0.6 min.

## 12.13.6

## EXAMPLE 3

Reset the counters for external destination 13.

**Table 508**

```
LCTMP:DEST=13,RES=Y;
LEAST COST TRAFFIC MEASUREMENT DATA
TIME = 15:25:12 06DEC98
COUNTERS HAVE BEEN RESET FOR DEST = 13
END
```

## 12.13.7

## EXAMPLE 4

Reset the counters for queued calls.

**Table 509**

```
LCTMP:QINF=Y,RES=Y;
LEAST COST TRAFFIC MEASUREMENT DATA
TIME = 15:33:18 06DEC98
COUNTERS FOR ON-HOOK QUEUING HAVE BEEN RESET
END
```

12.13.8                    COMMAND CATEGORY

Dangerous = **No**

12.14                    **LCUDE**

Least cost Update Time Supervision End

12.14.1                    FORMAT

**Table 510**  
**LCUDE;**

12.14.2                    FUNCTION

This command is used to stop the time-based update routine in PNR.

12.14.3                    EXAMPLE

Stop the time-based update routine in PNR.

**Table 511**

LCUDE;
EXECUTED

12.14.4                    COMMAND CATEGORY

Dangerous = **No**

12.15                    **LCUDI**

Least cost Update Time Supervision initiate

12.15.1                    FORMAT

**Table 512**  
**LCUDI;**

12.15.2                    FUNCTION

This command is used to restart the time-based update routine in PNR. The time supervision is set to start in 10 seconds.

12.15.3                    EXAMPLE

Restart the time-based update routine in PNR.



**Table 513**

LCUDI; EXECUTED
--------------------

12.15.4

COMMAND CATEGORY

Dangerous = **No**

13

MT - MESSAGE TRANSFER PART DATA

13.1

MTLIE

Message Transfer Part Link Inhibition End

13.1.1

FORMAT

**Table 514**  
**MTLIE:LINK=;**

**Table 515**  
**LINK =**      Signaling link number.  
For the value, see the parameter description for Message Transfer Part Data, Mt.

13.1.2

FUNCTION

The command is used to remove the local inhibition of a signaling link.

**Note:** Execution of this command takes place only if the signaling link is initiated, locally inhibited and accessibility data for remote signaling points can be obtained.

13.1.3

EXAMPLE

Remove the local inhibition of signaling link number 2.

**Table 516**

MTLIE:LINK=2;
EXECUTED

13.1.4

COMMAND CATEGORY

Dangerous = **No**

13.2

MTLII

Message Transfer Part Link Inhibition Initiate

13.2.1

FORMAT

**Table 517**  
**MTLII:LINK=;**

**MTLII:LINK=;**  
**Table 518**  
**LINK =**      Signaling link number.  
For the value, see the parameter description for Message Transfer Part Data, MT.

13.2.2 FUNCTION

The command is used to initiate local inhibition of an existing signaling link, which means that the signaling link will be unavailable for user part-generated signaling traffic.

**Note:** Execution of this command takes place only if the signaling link is initiated, not locally inhibited, and there is an alternative signaling link for user part-generated signaling traffic in the system.

13.2.3 EXAMPLE

Initiate local inhibition of signaling link number 2.

**Table 519**

MTLII:LINK=2; EXECUTED
---------------------------

13.2.4 COMMAND CATEGORY

Dangerous = **No**

13.3 MTLIP

Message Transfer Part Link Inhibition Data Print

13.3.1 FORMAT

**Table 520**

MTLIP[:LINK=];

**Table 521**

**LINK** =     Signaling link number.  
              For the value, see the parameter description for Message Transfer Part Data, MT.

13.3.2 FUNCTION

The command is used to obtain a printout of signaling link inhibition state.

13.3.3 PRINTOUT

**Table 522**

SIGNaling LINK INHIBITATION STATE		
LINK	LOCALLY INHIBITED	REMOVEDLY INHIBITED
.	.	.
.	.	.
END		

Table 523

<b>LINK</b>	Signaling link number. For the value, see the parameter description for Message Transfer Part Data, Mt.
<b>LOCALLY INHIBITED</b>	Signaling link inhibited by own exchange. The printout can assume the values YES or NO. <b>YES</b> = Inhibited signaling link <b>NO</b> = Not inhibited signaling link.
<b>REMOTELY INHIBITED</b>	Signaling link inhibited by remote exchange. The printout can assume the values YES or NO. <b>YES</b> = Inhibited signaling link. <b>NO</b> = Not inhibited signaling link.

13.3.4

EXAMPLE 1

Print the inhibition state of signaling link 2.

Table 524

MTLIP:LINK=2;		
SIGNALING LINK INHIBITATION STATE		
LINK	LOCALLY INHIBITED	REMOTELY INHIBITED
2	YES	NO
END		

Link 2 is locally inhibited.

13.3.5

EXAMPLE 2

Print the inhibition state of signaling links 2, 3 and 4.

Table 525

MTLIP:LINK=2&&4;		
SIGNALING LINK INHIBITATION STATE		
LINK	LOCALLY INHIBITED	REMOTELY INHIBITED
2	YES	NO
3	YES	YES
4	NO	YES
END		

Link 2 is locally inhibited, link 3 is both locally and remotely inhibited, and link 4 is remotely inhibited.

13.3.6

COMMAND CATEGORY

Dangerous = **No**

13.4

MTSDC

Message Transfer Part Signaling Data Link State Change

13.4.1
FORMAT

$$\text{MTSDC:} \left\{ \begin{array}{l} \text{LINK=} \\ \text{LNKSET=} \end{array} \right\} \left[ \text{,DEACT=} \right];$$

**Figure 39:**  
**Table 526**

<b>DEACT =</b>	Deactivate or activate signaling links. The parameter can assume the values YES or NO. <b>YES</b> = Perform deactivation of signaling links. <b>NO</b> = Perform activation of signaling links. If the parameter is omitted, the value NO is assumed.
<b>LINK =</b>	Signaling link number. For the value, see the parameter description for Message Transfer Part Data, Mt.
<b>LNKSET =</b>	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.

13.4.2
FUNCTION

The command is used to activate or deactivate signaling links. If parameter LINK is entered, that particular link is handled. Alternatively, if parameter LNKSET is entered, **all** signaling links of that signaling link set are worked out.

The type of operation is selected by parameter DEACT. If the parameter is entered with value YES, the command results in deactivation of the signaling links. Otherwise, the signaling links are activated, that is, an alignment is started on the concerned links.

**Note:** Deactivation of the last active signaling link in a link set, is only allowed if the affected trunk lines are manually blocked.

13.4.3
EXAMPLE 1

Activate the signaling link number 2.

**Table 527**

MTSDC:LINK=2;
EXECUTED

13.4.4
EXAMPLE 2

Deactivate all signaling links in signaling link set number 1.

**Table 528**

MTSDC:LNKSET=1,DEACT=YES;
EXECUTED

13.4.5
COMMAND CATEGORY

Dangerous = **No**

## 13.5

## MTSLC

Message Transfer Part Signaling Link Data Change

## 13.5.1

## FORMAT

**Table 529**

MTSLC:LINK=[,PC MID=[,SLC=[,ALIGN=[,SLIPBL=];

**Table 530**

<b>ALIGN</b> =	Type of alignment. States which type of alignment procedure that is used for startup of the signaling link. The parameter can assume the following values: <b>N</b> = Normal alignment procedure is used. <b>E</b> = Emergency alignment procedure is used.
<b>LINK</b> =	Signaling link number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>PC MID</b> =	PCM link identity. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>SLC</b> =	Signaling link code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>SLIPBL</b> =	Slip fault blocking. States whether the board has to be blocked in case of a slip fault. The parameter can assume the following values: <b>YES</b> = The board is to be blocked. <b>NO</b> = The board is to be disturbance marked (not blocked).

## 13.5.2

## FUNCTION

The command is used to change signaling link data.

At least one of the optional parameters must be stated in the command. The remaining parameters will retain their previous values.

## 13.5.3

## COMMAND CATEGORY

Dangerous = **No**

## 13.6

## MTSLE

Message Transfer Part Signaling Link End

## 13.6.1

## FORMAT

**Table 531**

MTSLE:LINK=;

**Table 532**

**LINK** =

Signaling link number.  
 & is allowed for this parameter.  
 For the value, see the parameter description for Message Transfer Part Data, MT.

13.6.2

## FUNCTION

The command is used to remove the stated signaling links.

The signaling links can be removed only if no trunk lines are assigned to the corresponding boards.

13.6.3

## EXAMPLE

Remove the signaling link number 2.

**Table 533**

MTSLE:LINK=2;  
MTSLE:LINK=2;  
SURE? (YES/NO)  
YES;  
EXECUTED

13.6.4

## COMMAND CATEGORY

Dangerous = **Yes**

13.7

## MTSLI

Message Transfer Part Signaling Link Initiate

13.7.1

## FORMAT

**Table 534**

MTSLI:LINK=,LNKSET=,BPOS=,PCMID=,SLC=,ALIGN=,SLIPBL=;

**Table 535**

**ALIGN** =

Type of alignment.  
 States which type of alignment procedure that is used for startup of the signaling link.  
 The parameter can assume the following values:  
**N** = Normal alignment procedure is used.  
**E** = Emergency alignment procedure is used.

**BPOS** =

Board position.  
 For the value, see the parameter description for Message Transfer Part Data, MT.

**LINK** =

Signaling link number.  
 For the value, see the parameter description for Message Transfer Part Data, MT.

<b>LNKSET</b> =	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>PCMID</b> =	PCM link identity. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>SLC</b> =	Signaling link code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>SLIPBL</b> =	Slip fault blocking. States whether the board has to be blocked in case of a slip fault. The parameter can assume the following values: <b>YES</b> = The board is to be blocked. <b>NO</b> = The board is to be disturbance marked (not blocked).

13.7.2                      FUNCTION

The command is used to initiate a signaling link within a signaling link set.

**Note:** It is not possible to initiate more than one signaling link with a certain signaling link number in the system, even though they might be assigned to different signaling link sets.

13.7.3                      EXAMPLE

Initiate the signaling link number 2 located in LIM 5, gateway B, magazine 0, board position 70 with SLC code 1. The signaling link will be assigned to the signaling link set number 1. Normal alignment is to be used. The board is to be blocked in case of slip fault.

**Table 536**

MTSLI:LINK=2,LNKSET=1,BPOS=5B-0-70,SLC=1, ALIGN=N,SLIPBL=YES; EXECUTED
--

13.7.4                      COMMAND CATEGORY

Dangerous = **No**

13.8                              **MTSLP**

Message Transfer Part Signaling Link Data Print

13.8.1                      FORMAT

**Table 537**  
**MTSLP[:LINK=];**



**Table 538**

**LINK =**      Signaling link number.  
                  &, &&, and ALL are permitted for this parameter. If the parameter is omitted, the value ALL is assumed.  
                  For the value, see the parameter description for Message Transfer Part Data, MT.

13.8.2                      FUNCTION

The command is used to obtain a printout of signaling link data.

13.8.3                      PRINTOUT

**Table 539**

SIGNALING LINK DATA						
LINK	LNKSET	BPOS	SLC	ALIGN	SLIPBL	STATE
.	.	.	.	.	.	.
.	.	.	.	.	.	.
END						

**Table 540**

**ALIGN =**      Type of alignment.  
                  States which type of alignment procedure that is used for startup of the signaling link.  
                  The parameter can assume the following values:  
                  **N** = Normal alignment procedure is used.  
                  **E** = Emergency alignment procedure is used.

**BPOS =**      Board position.  
                  For the value, see the parameter description for Message Transfer Part Data, MT.

**LNKSET =**    Signaling link set number.  
                  For the value, see the parameter description for Message Transfer Part Data, MT.

**SLC =**        Signaling link code.  
                  For the value, see the parameter description for Message Transfer Part Data, MT.

**SLIPBL =**    Slip fault blocking.  
                  States whether the board has to be blocked in case of a slip fault.  
                  The parameter can assume the following values:  
                  **YES** = The board is to be blocked.  
                  **NO** = The board is to be disturbance marked (not blocked).

**STATE=**      State of the given signaling link.  
                  The signaling link can have the following states:  
                  **PASSIVE** The link is out of service and ready for activation.  
                  **STARTING** The link has been activated and is currently in the startup routine. If activation is completed successfully, the state will become ACTIVE.  
                  **ACTIVE** The link is in service and ready for transfer of signaling messages.

13.8.4                      EXAMPLE

Print the data for the signaling link 2.

Table 541

MTSLP:LINK=2;						
SIGNALING LINK DATA						
LINK	LNKSET	BPOS	SLC	ALIGN	SLIPBL	STATE
2	1	005A-0-70	1	N	YES	ACTIVE
END						

Signaling link 2 is assigned to signaling link set 1. It is initiated in LIM 5, gateway A, magazine 0, board position 70, and has SLC code 1. For startup, normal alignment is used. The board is blocked in case of slip fault. The signaling link is active.

13.8.5 COMMAND CATEGORY

Dangerous = No

13.9 MTSRE

Message Transfer Part Signaling Route End

13.9.1 FORMAT

MTSRE: { ROUSET =  
          SIGROU = } ;

Figure 40:  
Table 542

<b>ROUSET =</b>	Signaling route set number. If the parameter is entered, all signaling routes within the specified route set will be removed. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>SIGROU =</b>	Signaling route number. If the parameter is entered, the signaling route specified will be removed. For the value, see the parameter description for Message Transfer Part Data, MT.

13.9.2 FUNCTION

The command is used to remove signaling routes.

13.9.3 EXAMPLE 1

Remove signaling route number 2.

Table 543

MTSRE:SIGROU=2;
-----------------

EXECUTED
----------

13.9.4
EXAMPLE 2

Remove all signaling routes in signaling route set number 1.

**Table 544**

MTSRE:ROUSET=1; EXECUTED
-----------------------------

13.9.5
COMMAND CATEGORY

Dangerous = No

13.10
MTSRI

Message Transfer Part Signaling Route Initiate

13.10.1
FORMAT

**Table 545**

MTSRI:SIGROU=,ROUSET=,PRIO=,LNKSET=;

**Table 546**

<b>LNKSET =</b>	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>PRIO =</b>	Signaling route priority. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>ROUSET =</b>	Signaling route set number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>SIGROU =</b>	Signaling route number. For the value, see the parameter description for Message Transfer Part Data, MT.

13.10.2
FUNCTION

The command is used to initiate a signaling route. The command defines which link set the signaling route will use and the signaling route set to which it will belong.

**Note:** A maximum of eight signaling routes can belong to the same signaling route set.

13.10.3
EXAMPLE

Initiate signaling route number 1 with priority 1 in signaling route set number 2. The signaling route shall use signaling link set number 2.

**Table 547**

MTSRI:SIGROU=1,ROUSET=2,PRIO=1,LNKSET=2;
--

EXECUTED

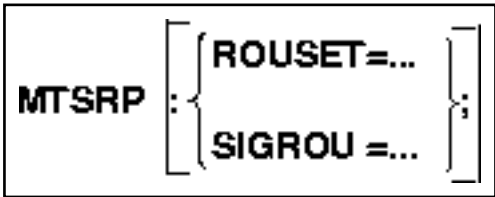
13.10.4                   COMMAND CATEGORY

Dangerous = **No**

13.11                   MTSRP

Message Transfer Part Signaling Route Data Print

13.11.1               FORMAT



**Figure 41:**  
**Table 548**

- ROUSET =**       Signaling route set number.  
                  &, &&, and ALL are permitted for this parameter.  
                  For the value, see the parameter description for Message Transfer Part Data, MT.
- SIGROU =**       Signaling route number.  
                  &, &&, and ALL are permitted for this parameter.  
                  For the value, see the parameter description for Message Transfer Part Data, MT.

13.11.2               FUNCTION

The command is used to print out data for signaling routes. Two different printout formats are available. If ROUSET is stated, the printout is sorted by signaling route set and priority. If SIGROU is stated, the printout is sorted by signaling route number only. If the command is given without any parameter, the format ROUSET = ALL is assumed.

13.11.3               PRINTOUT 1 (ROUSET)

**Table 549**

SIGNaling ROUTE DATA				
ROUSET	PRIO	SIGROU	LNKSET	AVAILABLE
.	.	.	.	.
.	.	.	.	.
END				

## 13.11.4

## PRINTOUT 2 (SIGROU)

**Table 550**

SIGNALING ROUTE DATA				
SIGROU	ROUSET	PRIO	LNKSET	AVAILABLE
.	.	.	.	.
.	.	.	.	.
END				

**Table 551**

<b>AVAILABLE=</b>	Available or unavailable signaling route. The printout can assume the values YES or NO. <b>YES</b> = Available signaling route. <b>NO</b> = Unavailable signaling route.
<b>LNKSET =</b>	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>PRIO =</b>	Signaling route priority. For the value, see the parameter description for Message Transfer Part Data, MT.

## 13.11.5

## EXAMPLE 1 (ROUSET)

Print the signaling route data for the signaling routes in signaling route set 1 and 2.

**Table 552**

SIGNALING ROUTE DATA				
ROUSET	PRIO	SIGROU	LNKSET	AVAILABLE
1	1	1	1	NO
1	2	2	2	YES
2	1	3	2	YES
END				

Signaling route 1 uses link set 1 and is initiated as first priority route in signaling route set 1. Signaling route 1 is not available. Signaling route 2 uses link set 2, is initiated as second priority route in signaling route set 1, and is available. Signaling route 3 uses link set 2 and is initiated as first priority route in signaling route set 2. Signaling route 3 is available.

## 13.11.6

## EXAMPLE 2 (SIGROU)

Print the signaling route data for the signaling routes 1 to 3.

**Table 553**

MTSRP:SIGROU=1&&3;				
SIGNALING ROUTE DATA				
SIGROU	ROUSET	PRIO	LNKSET	AVAILABLE
1	3	1	1	NO
2	1	2	2	YES
3	2	1	2	YES

END
-----

Signaling route 1 uses link set 1 and is initiated as first priority route in signaling route set 3. Signaling route 1 is not available. Signaling route 2 uses link set 2 and is initiated as second priority route in signaling route set 1 and is available. Signaling route 3 uses link set 2 and is initiated as first priority route in signaling route set 2. Signaling route 3 is available.

13.11.7

COMMAND CATEGORY

Dangerous = **No**

13.12

MTSSC

Message Transfer Part Signaling Link Set Data Change

13.12.1

FORMAT

**Table 554**  
**MTSSC:LNKSET=[,OPC=[,DPC][,MTPRST=[,PCSIZE=[,NET=];**

**Table 555**

<b>DPC</b> =	Destination point code. If the parameter is omitted, the value of destination point code remains unchanged. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>LNKSET</b> =	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>MTPRST</b> =	MTP restart. The parameter can assume the values YES or NO. <b>YES</b> = MTP restart procedure supported by adjacent node. <b>NO</b> = MTP restart is not supported. If the parameter is omitted, the MTP restart value remains unchanged.
<b>NET</b> =	Network type. If the parameter is omitted, the network type remains unchanged. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>OPC</b> =	Originating point code. If the parameter is omitted, the value of originating point code remains unchanged. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>PCSIZE</b> =	Point code size. If the parameter is omitted, the point code size remains unchanged. For the value, see the parameter description for Message Transfer Part Data, MT.

13.12.2

FUNCTION

The command is used to change signaling link set data.

At least one of the optional parameter choices has always to be entered.

13.12.3EXAMPLE

Change the originating point code for signaling link set 1 to H"001A21. The point code size remains unchanged.

Table 556

MTSSC:LNKSET=1, OPC=001A21; EXECUTED
---

13.12.4COMMAND CATEGORY

Dangerous = No

13.13MTSSE

Message Transfer Part Signaling Link Set End

13.13.1FORMAT

Table 557

MTSSE:LNKSET=;

Table 558

*LNKSET* =      Signaling link set number.  
                  & is allowed for this parameter.  
                  For the value, see the parameter description for Message Transfer Part Data, MT.

13.13.2FUNCTION

The command is used to remove the stated signaling link set.

**Note:** The signaling link set can be removed only if no signaling links are assigned to it.

13.13.3EXAMPLE

Remove the signaling link set number 1.

Table 559

MTSSE:LNKSET=1; EXECUTED
-----------------------------

13.13.4COMMAND CATEGORY

Dangerous = No

13.14

MTSSI

Message Transfer Part Signaling Link Set Initiate

13.14.1

FORMAT

Table 560

MTSSI:LNKSET=,OPC=,DPC=,PCSIZE=,NET=,MTPRST=;

Table 561

<b>DPC =</b>	Destination point code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>LNKSET =</b>	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>MTPRST =</b>	MTP restart. The parameter can assume the values YES or NO. <b>YES</b> = MTP restart procedure supported by adjacent node. <b>NO</b> = MTP restart is not supported. If the parameter is omitted, the value NO is assumed
<b>NET =</b>	Network type. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>OPC =</b>	Originating point code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>PCSIZE =</b>	Point code size. For the value, see the parameter description for Message Transfer Part Data, MT.

13.14.2

FUNCTION

The command is used to initiate a signaling link set with related data.

13.14.3

EXAMPLE

Initiate the signaling link set number 1 for international network with originating point code H"001A21 and destination point code H"000023. The point code size is 14 bits, and the adjacent node supports MTP restart.

Table 562

MTSSI:LNKSET=1,OPC=001A21,DPC=000023,PCSIZE=14,NET=0, MTPRST=YES; EXECUTED
---

13.14.4

COMMAND CATEGORY

Dangerous = **No**



13.15MTSSP

Message Transfer Part Signaling Link Set Data Print

13.15.1FORMAT

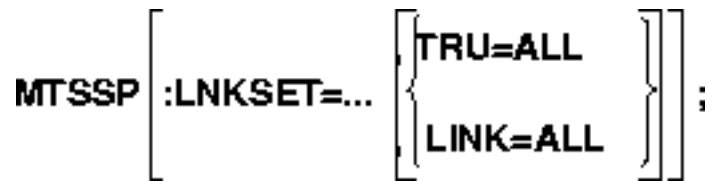


Figure 42:  
 Table 563

- LINK =** Signaling link number.  
Only the value ALL is allowed.
- LNKSET =** Signaling link set number.  
&, &&, and ALL are permitted for this parameter.  
If the parameter is omitted, the value ALL is assumed.
- TRU =** Trunk line number. LIM and serial number for the external line.  
Only the value ALL is allowed.

13.15.2FUNCTION

The command is used to obtain a printout of signaling link set data.

The command gives the choice to print either all external lines (parameter TRU entered) or all signaling links (parameter LINK entered) connected to the given signaling link set.

If the command is given without any parameter, the format LNKSET=ALL combined with LINK=ALL is assumed.

13.15.3PRINTOUT 1 (ALL EXTERNAL LINES)

Table 564

SIGNALING LINK SET DATA								
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	ROU	TRU	USER
.	.	.	.	.	.	.		.
.	.	.	.	.	.	.		.
END								

13.15.4PRINTOUT 2 (ALL SIGNALING LINKS)

Table 565

SIGNALING LINK SET DATA							
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	LINK	STATE
.	.	.	.	.	.	.	
.	.	.	.	.	.	.	
END							

**Table 566**

<b>DPC</b>	Destination point code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>MTPRST</b>	MTP restart. The parameter can assume the values YES or NO. <b>YES</b> = MTP restart procedure supported by adjacent node. <b>NO</b> = MTP restart is not supported.
<b>NET</b>	Network type. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>NET</b>	Network type. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>OPC</b>	Originating point code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>PCSIZE</b>	Point code size. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>ROU</b>	Route number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>STATE</b>	State of the given signaling link. The signaling link can have the following states: <b>PASSIVE</b> The link is out of service and ready for activation. <b>STARTING</b> The link has been activated and is currently in the startup routine. If activation is completed successfully, the state will become ACTIVE. <b>ACTIVE</b> The link is in service and ready for transfer of signaling messages.
<b>USER</b>	Type of user part for the trunk lines belonging to the corresponding board. The following value may appear: <b>TUP</b> Telephone user part

## 13.15.5

## EXAMPLE 1 (ALL EXTERNAL LINES)

Print all external lines in the signaling link set 1.

**Table 567**

MTSSP:LNKSET=1,TRU=ALL								
SIGNALING LINK SET DATA								
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	ROU	TRU	USER
1	H"001A21	H"000023	14	0	YES	18	003-1	TUP
						18	003-2	TUP
						18	003-3	TUP
						18	003-21	TUP
						18	003-22	TUP
						18	003-23	TUP
						18	003-24	TUP
END								

There are external lines of route 18 assigned to signaling link set 1 and used in international network. Originating point code is H"001A21, destination point code is H"000023, and point code size is 14 bits. The adjacent node supports MTP restart.

All external lines assigned to the signaling link set 1 are controlled by the Telephone User Part (TUP).

## 13.15.6

## EXAMPLE 2 (ALL SIGNALING LINKS)

Print all signaling links in the signaling link sets 1, 2, 3, and 4.

**Table 568**

MTSSP:LNKSET=1&&4,LINK=ALL;							
SIGNALING LINK SET DATA							
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	LINK	STATE
1	H'001A21	H'000023	14	0	YES	2	ACTIVE
2	H'000121	H'000112	14	0	NO	1	PASSIVE
3	H'000053	H'000032	14	0	NO		
4	H'820133	H'790122	24	2	NO	3	PASSIVE
END							

Assigned to link set 1 is link 2, used in international network. Originating point code is H"001A21 and destination point code is H"000023 (point code size is 14 bits). The link is active and MTP restart is supported by the link set.

Link 1 is assigned to signaling link set 2 used in the national network with originating point code H"000121 and destination point code H"000112 (point code size 14 bits). The link is passive.

Link set 3 is intended to be used in the international network with originating point code H"000053 and destination point code H"000032 (point code size 14 bits). There is no link assigned yet.

Link set 4 is used in the national network with originating point code H"820133 and destination point code H"790122 (point code size is 24 bits). There is one link, link 3, assigned to the link set. The link is passive.

Link sets 2, 3, and 4 do not support MTP restart.

## 13.15.7

## COMMAND CATEGORY

Dangerous = **No**

## 13.16

## MTSTE

Message Transfer Part Signaling Route Set End

## 13.16.1

## FORMAT

**Table 569**

**MTSTE:ROUSET=;**

**Table 570**

**ROUSET =**

Signaling route set number.  
For the value, see the parameter description for Message Transfer Part Data, MT.

13.16.2                      FUNCTION

The command is used to remove a signaling route set. All signaling routes within the signaling route set must be removed before removing the signaling route set.

13.16.3                      EXAMPLE

Remove the signaling route set number 1.

**Table 571**

MTSTE:ROUSET=1; EXECUTED
-----------------------------

13.16.4                      COMMAND CATEGORY

Dangerous = **No**

13.17                         MTSTI

Message Transfer Part Signaling Route Set Initiate

13.17.1                      FORMAT

**Table 572**

**MTSTI:ROUSET=,DPC=[,TEST=];**

**Table 573**

<b>DPC =</b>	Destination point code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>ROUSET =</b>	Signaling route set number. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>TEST =</b>	Signaling route set test. The parameter can assume the values YES or NO. <b>YES</b> = Perform signaling route set test. <b>NO</b> = No signaling route set test will be done. If the parameter is omitted, the value NO is assumed.

13.17.2                      FUNCTION

The command is used to initiate a signaling route set for a destination.

13.17.3                      EXAMPLE

Initiate the signaling route set 1 for destination point code H"000023. No signaling route set test will be done.

**Table 574**

MTSTI:ROUSET=1, DPC=000023; EXECUTED
---

13.17.4
COMMAND CATEGORY

Dangerous = **No**

13.18
MTSTP

Message Transfer Part Signaling Route Set Data Print

13.18.1
FORMAT

**Table 575**  
**MTSTP[:ROUSET=];**

**Table 576**  
**ROUSET =**      Signaling route set number.  
                   For the value, see the parameter description for Message Transfer Part Data, MT.  
                   &, &&, and ALL are permitted for this parameter.  
                   If the parameter is omitted, the value ALL is assumed.

13.18.2
FUNCTION

The command is used to obtain a printout of signaling route set data.

13.18.3
PRINTOUT

**Table 577**

SIGNALING ROUTE SET DATA			
ROUSET	DPC	TEST	ACCESSIBLE
.	.	.	.
.	.	.	.
.	.	.	.
END			

<b>Table 578</b>	
<b>ACCESSIBLE</b>	The signaling route set is accessible/inaccessible. The printout can assume the values YES or NO. <b>YES</b> = The signaling route set is accessible. <b>NO</b> = The signaling route set is inaccessible.
<b>DPC</b>	Destination point code. For the value, see the parameter description for Message Transfer Part Data, MT.
<b>TEST</b>	Signaling route set test. The parameter can assume the values YES or NO. <b>YES</b> = Perform signaling route set test. <b>NO</b> = No signaling route set test will be done.

13.18.4
EXAMPLE 1

Print the data for signaling route set 1.

**Table 579**

MTSTP:ROUSET=1;			
SIGNALING ROUTE SET DATA			
ROUSET	DPC	TEST	ACCESSIBLE
1	000023	YES	YES
END			

Signaling route set 1 is initiated for the destination 000023 and is accessible. Signaling route set test is performed for all prohibited and restricted signaling routes the route set.

13.18.5

**EXAMPLE 2**

Print out the data for all initiated signaling route sets.

**Table 580**

MTSTP;			
SIGNALING ROUTE SET DATA			
ROUSET	DPC	TEST	ACCESSIBLE
1	000023	YES	YES
2	000112	YES	YES
8	000032	NO	NO
END			

Signaling route set 1 is initiated for the destination 000023 and is accessible. Signaling route set 2 is initiated for the destination 000112 and is accessible. Signaling route set 8 is initiated for destination 000032 and is inaccessible. Signaling route set test is performed to all prohibited and restricted signaling routes with in route set within route set 1 and 2.

13.18.6

**COMMAND CATEGORY**

Dangerous = **No**

14

NC - AUTOMATIC NETWORK CALL DISTRIBUTION

14.1

NCCOE

Network Call Distribution Communication End

14.1.1

FORMAT

**Table 581**  
**NCCOE:NODE=,CHO=;**

**Table 582**  
*CHO* =      Choice.  
              ALL is permitted for this parameter.  
*NODE* =     ANCD node number.

14.1.2

FUNCTION

The command is used to erase an ANCD communication channel for an ANCD node.  
ANCD node identity for own system cannot be stated.

14.1.3

EXAMPLE

Erase choice 2 for ANCD node 1 as an alternative communication channel.

**Table 583**

NCCOE:NODE=1,CHO=2;
NCCOE:NODE=1,CHO=2;
SURE? (YES/NO)
YES;
EXECUTED

14.1.4

COMMAND CATEGORY

Dangerous = **Yes**

14.2

NCCOI

Network Call Distribution Communication Initiate

14.2.1

FORMAT

**Table 584**  
**NCCOI:NODE=,CHO=,IFCIND=;**

**Table 585**

<i>CHO</i> =	Choice. ALL is permitted for this parameter.
<i>IFCIND</i> =	Information computer individual.
<i>NODE</i> =	ANCD node number.

## 14.2.2

## FUNCTION

The command is used to initiate an ANCD communication channel for an ANCD node. ANCD is based on GICI-channel communication between ANCD nodes within the ANCD network.

If an ANCD group and a satellite group is located in different ANCD nodes in the ANCD network, the communication is done through GICI-channels setup between the ANCD nodes.

To ensure that the GICI communication channel is not broken, it is possible to define several choices to establish an information channel from one ANCD node to another within the ANCD network.

ANCD node identity for own system cannot be stated.

## 14.2.3

## EXAMPLE

For ANCD node 1, define information computer individual number 10 as the second communication choice.

**Table 586**

NCCOI:NODE=1,CHO=2,IFCIND=10; EXECUTED
---

## 14.2.4

## COMMAND CATEGORY

Dangerous = **No**

## 14.3

## NCCOP

Network Call Distribution Communication Print

## 14.3.1

## FORMAT

**Table 587**

**NCCOP:NODE=;**

**Table 588**

<i>NODE</i> =	ANCD node number. &, && and ALL are permitted for this parameter.
---------------	--

## 14.3.2

## FUNCTION

The command is used to print out ANCD communication channel data.



## 14.3.3

## PRINTOUT

**Table 589**

ANCD COMMUNICATION DATA				
NODE	CHO	IFCIND	LIM	STATUS
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Table 590**

CHO	Choice.
IFCIND	Information computer individual.
LIM	LIM number. LIM where information computer individual is located.
STATUS	GICI communication channel status for a choice. Possible values are IN TRAFFIC, OUT OF TRAFFIC and OUT OF TRAFFIC IN OTHER NODE.

## 14.3.4

## EXAMPLE

Print out communication data for ANCD node 1 and 2.

**Table 591**

NCCOP:NODE=1&2;				
ANCD COMMUNICATION DATA				
NODE	CHO	IFCIND	LIM	STATUS
1	1	9	1	IN TRAFFIC
.	2	10	1	IN TRAFFIC
2	1	6	2	IN TRAFFIC
.	2	7	2	IN TRAFFIC
.	3	8	2	IN TRAFFIC
END				

For ANCD node number 1, first choice has information computer individual 9 as communication channel, second choice has information computer individual 10 as communication channel.

For ANCD node number 2, first choice has information computer individual 6 as communication channel, second choice has information computer individual 7 as communication channel, third choice has information computer individual 8 as communication channel.

Communication channel status for all choices is IN TRAFFIC.

## 14.3.5

## COMMAND CATEGORY

Dangerous = **No**

## 14.4

## NCCTI

Network Call Distribution Communication Test Initiate

### 14.4.1

### FORMAT

**Table 592**

**NCCTI:NODE=,CHO=;**

**Table 593**

*CHO* = Choice.

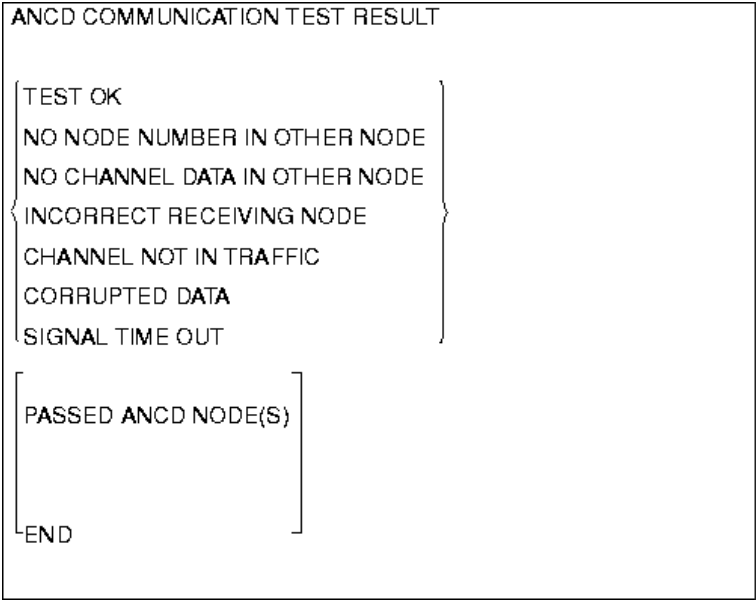
*NODE* = ANCD node number.

### 14.4.2

### FUNCTION

The command is used to test ANCD communication on a GICI communication channel. This command performs a check on specified GICI communication channel (i.e. the GICI communication channel the choice belongs to) to obtain information if the connection between the ANCD nodes is not interrupted, the ANCD node number in the other ANCD node is assigned and equal with expected ANCD node number, and that data can be sent and received correctly.

14.4.3 PRINTOUT



ANCD COMMUNICATION TEST RESULT  
TEST OK  
NO NODE NUMBER IN OTHER NODE  
NO CHANNEL DATA IN OTHER NODE  
INCORRECT RECEIVING NODE  
CHANNEL NOT IN TRAFFIC  
CORRUPTED DATA  
SIGNAL TIME OUT

PASSED ANCD NODE(S)

END

**Figure 43:**  
**Table 594**

TEST OK	The communication on the GICI communication channel is OK.
NO NODE NUMBER IN OTHER NODE	The ANCD node number in the other node is not set.
NO CHANNEL DATA IN OTHER NODE	Channel data in the other ANCD node are not initiated.
INCORRECT RECEIVING NODE	Error depending on incorrect received ANCD node number.
CHANNEL NOT IN TRAFFIC	The GICI channel is out of traffic due to no physical connection with the other node.

CORRUPTED DATA	Transmission error depending on corrupted data.
SIGNAL TIME OUT	Signal time out depending on communication error.
PASSED ANCD NODES	List of passed ANCD nodes where the test was OK.

## 14.4.4

## EXAMPLE

Initiate a communication test on choice 2 for ANCD node 2.

**Table 595**

NCCTI:NODE=2,CHO=2;	
ANCD COMMUNICATION TEST RESULT	
TEST OK	
PASSED ANCD NODE(S)	
	3
	4
	2
END	

The communication for ANCD node 2 and choice 2 is OK, i.e. the ANCD node number in the other ANCD node is assigned and equal with expected ANCD node number and the result of the checked channel is OK.

To reach ANCD node 2, ANCD nodes 3 and 4 are passed. The terminated node 2 is also printed.

## 14.4.5

## COMMAND CATEGORY

Dangerous = **No**

## 14.5

## NCGMC

Network Call Distribution Group Member Change

## 14.5.1

## FORMAT

**Table 596**

**NCGMC:ANCD=,SAT=[,NODE=],STRING=;**

**Table 597**

<i>ANCD</i> =	ANCD group number. Directory number of ANCD group.
<i>NODE</i> =	ANCD node number. ANCD node where satellite group is located. If the parameter is omitted, ANCD node number of own system will be used.
<i>SAT</i> =	Satellite group number. Directory number of satellite group. & is permitted for this parameter.
<i>STRING</i> =	Information string. Removal of information string, set STRING="".

## 14.5.2 FUNCTION

The command is used to change the information string for an ANCD group member.

## 14.5.3 EXAMPLE

Change information string for member 8010 to domestic. Satellite group 8010 is a member of the ANCD group 8000.

**Table 598**

```

NCGMC:ANCD=8000,SAT=8010,STRING="DOMESTIC";
EXECUTED

```

## 14.5.4 COMMAND CATEGORY

Dangerous = **No**

# 14.6 NCGME

Network Call Distribution Group Member End

## 14.6.1 FORMAT

**Table 599**

**NCGME:ANCD=,SAT=[,NODE=];**

**Table 600**

**ANCD** = ANCD group number. Directory number of ANCD group.

**NODE** = ANCD node number. ANCD node where satellite group is located.  
If the parameter is omitted, ANCD node number of own system will be used.

**SAT** = Satellite group number. Directory number of satellite group.  
& is permitted for this parameter.

## 14.6.2 FUNCTION

This command is used to remove a member of the ANCD group. The member could either be an ACD group or an ANCD group. The command is executed in the ANCD node.

## 14.6.3 EXAMPLE

Satellite group 8020 in ANCD node 2 shall be erased as member of ANCD group 8000.

**Table 601**

```

NCGME:ANCD=8000,SAT=8020,NODE=2;
NCGME:ANCD=8000,SAT=8020,NODE=2;
SURE? (YES/NO)
YES;
EXECUTED

```

## 14.6.4 COMMAND CATEGORY

Dangerous = **Yes**

## 14.7 NCGMI

Network Call Distribution Group Member Initiate

### 14.7.1 FORMAT

**Table 602**

**NCGMI :ANCD=,SAT=[,NODE=,DISTNO=][,STRING=];**

**Table 603**

<i>ANCD</i> =	ANCD group number. Directory number of ANCD group.
<i>DISTNO</i> =	Distribution number. Complete number to satellite group for call distribution. If the parameter is omitted, directory number of satellite group will be used.
<i>NODE</i> =	ANCD node number. ANCD node where satellite group is located. If the parameter is omitted, ANCD node number of own system will be used.
<i>SAT</i> =	Satellite group number. Directory number of satellite group.
<i>STRING</i> =	Information string. If the parameter is omitted, no string will be used.

### 14.7.2 FUNCTION

The command is used to initiate a satellite group of an ANCD group. Members of the ANCD group can be a satellite ANCD group or a satellite ACD group.

The members can be located in the same ANCD node as the ANCD group or in another ANCD node within the ANCD network.

The ANCD group will distribute a call to the satellite group which provides the best answer capability for the moment.

### 14.7.3 EXAMPLE 1

Initiate satellite group 8010 as member of ANCD group 8000. Satellite group 8010 is located in ANCD node 3, and has distribution number 038010. The information string shall contain the name domestic.

**Table 604**

```
NCGMI:ANCD=8000,SAT=8010,NODE=3,DISTNO=038010,
STRING="DOMESTIC";
EXECUTED
```

### 14.7.4 EXAMPLE 2

Initiate satellite group 8020 as member of ANCD group 8000. Satellite group 8020 is located in the same ANCD node as ANCD group 8000, so the parameter NODE can be omitted.

**Table 605**

NCGMI:ANCD=8000,SAT=8020; EXECUTED
---------------------------------------

14.7.5                      COMMAND CATEGORY

Dangerous = **No**

14.8                        NCGMP

Network Call Distribution Group Member Print

14.8.1                    FORMAT

**Table 606**

**NCGMP:ANCD=[,SORT=];**

**Table 607**

- ANCD* =      ANCD group number. Directory number of ANCD group.  
                 & and ALL are permitted for this parameter.
- SORT* =      Sorting method.  
                 If the parameter is omitted, the sorting method used will be numerical order.

14.8.2                    FUNCTION

The command is used to print out member data for an ANCD group.

14.8.3                    PRINTOUT

**Table 608**

ANCD GROUP MEMBER DATA				
ANCD	SAT	NODE	DISTNO	STRING
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Table 609**

- DISTNO*      Distribution number. Complete number to satellite group for call distribution.
- NODE*        ANCD node number. ANCD node where satellite group is located.
- SAT*         Satellite group number. Directory number of satellite group.
- STRING*      Information string.

14.8.4                    EXAMPLE 1

Print out member data for ANCD group number 8000.

**Table 610**

NCGMP:ANCD=8000;				
ANCD GROUP MEMBER DATA				
ANCD	SAT	NODE	DISTNO	STRING
8000	8020			
	8030	2	028030	INTERNATIONAL
	8010	3	038010	DOMESTIC
END				

ANCD group 8000 has three satellite groups initiated as members with directory numbers 8010, 8020 and 8030. Satellite group 8020 is located in the same ANCD node as ANCD group 8000. Satellite group 8030 is located in ANCD node 2 and has distribution number 028030. The information string contains the name international. Satellite group 8010 is located in ANCD node 3 and has distribution number 038010. The information string contains the name domestic.

## 14.8.5

## EXAMPLE 2

Print out member data for ANCD group number 7100 sorted by initiation order of the members.

**Table 611**

NCGMP:ANCD=7100,SORT=1;				
ANCD GROUP MEMBER DATA				
ANCD	SAT	NODE	DISTNO	STRING
7100	7110			
	7140	2	027140	PURCHASE
	7120	3	037120	SALES
END				

ANCD group 7100 consists of three members initiated in the order 7110, 7140, 7120. Satellite group 7110 is located in the same ANCD node as ANCD group 7100. Satellite group 7140 is located in ANCD node 2 and has distribution number 027140. The information string contains the name purchase. Satellite group 7120 is located in ANCD node 3 and has distribution number 037120. The information string contains the name sales.

## 14.8.6

## COMMAND CATEGORY

Dangerous = **No**

## 14.9

## NCGRC

Network Call Distribution Group Change

## 14.9.1

## FORMAT

**Table 612**

**NCGRC:ANCD=[,EGCSP=[,SEL=[,CUST=[,MAXTIM=];**



**Table 613**

<i>ANCD</i> =	ANCD group number. Directory number of ANCD group. & is permitted for this parameter.
<i>CUST</i> =	Customer number.
<i>EGCSP</i> =	Extension group common service profile, see command extension_group_profile.
<i>MAXTIM</i> =	Maximum waiting time.
<i>SEL</i> =	Selection category.

14.9.2                      **FUNCTION**

The command is used to alter the category characteristics of an ANCD group. If the ANCD group is a satellite group, maximum waiting time cannot be assigned. At least one of the parameters EGCSP, SEL, CUST, or MAXTIM must be stated.

14.9.3                      **EXAMPLE 1**

Alter the category characteristics for the group with directory number 8000 so that common group categories are those stated in extension group common service profile 25. Value for the maximum waiting time is 300 seconds.

**Table 614**

NCGRC:ANCD=8000,EGCSP=25,MAXTIM=300; EXECUTED
--

14.9.4                      **EXAMPLE 2**

Alter the category characteristics for the group with directory number 8100 so the selection of satellite groups with free members shall use the load sharing method.

**Table 615**

NCGRC:ANCD=8100,SEL=3; EXECUTED
------------------------------------

14.9.5                      **COMMAND CATEGORY**

Dangerous = **No**

14.10                      **NCGRE**

Network Call Distribution Group End

14.10.1                    **FORMAT**

**Table 616**

**NCGRE:ANCD=;**

**Table 617**

<i>ANCD</i> =	ANCD group number. Directory number of ANCD group. & is permitted for this parameter.
---------------	---

## 14.10.2 FUNCTION

The command is used to erase an ANCD group.

## 14.10.3 EXAMPLE

ANCD group 8000 shall be erased.

**Table 618**

```

NCGRE:ANCD=8000;
NCGRE:ANCD=8000;
SURE? (YES/NO)
YES;
EXECUTED

```

## 14.10.4 COMMAND CATEGORY

Dangerous = **Yes**

## 14.11 NCGRI

Network Call Distribution Group Initiate

### 14.11.1 FORMAT

**Table 619**

**NCGRI :ANCD=,LIM=,EGCSP=,SEL=[,CUST=][,MAXTIM=];**

**Table 620**

ANCD =	ANCD group number. Directory number of ANCD group. & is permitted for this parameter.
CUST =	Customer number. If the parameter is omitted, no customer number will be assigned.
EGCSP =	Extension group common service profile, see command extension_group_profile.
LIM =	LIM number. LIM in which the group is to be located.
MAXTIM =	Maximum waiting time. If the parameter is omitted, no maximum waiting time will be assigned.
SEL =	Selection category.

### 14.11.2 FUNCTION

The command is used to initiate an ANCD group. The command states if incoming calls shall be received directly in the ANCD group or not, which traffic group the group shall belong to, search order for selection of free members, if a customer group number shall be defined for the group and if a maximum waiting time shall be defined for the ANCD group.

If a maximum waiting time is defined for the group, the ANCD group will check if all satellite groups have a longer estimated waiting time than the specified maximum

waiting time, in that case the call will be overflowed to the diversion position for the ANCD group.

14.11.3
EXAMPLE

Initiate an ANCD group with directory number 8000. The group is to be located in LIM number 1. The common group categories are those stated in extension group common service profile 55. Direct in-dialing traffic shall be permitted to the group number. Collect Call (Brazil) traffic will not be permitted.

Satellite group with free members in the ANCD group are selected in initiation order, that is, in accordance with the order in which they were initiated in the ANCD group.

The group number shall be affiliated to customer number 1. Value for the maximum waiting time is 240 seconds.

Table 621

NCGRI:ANCD=8000,LIM=1,EGCSP=55,SEL=0,CUST=1, MAXTIM=240; EXECUTED
---

14.11.4
COMMAND CATEGORY

Dangerous = No

14.12
NCGRP

Network Call Distribution Group Print

14.12.1
FORMAT

Table 622

NCGRP:ANCD=;

Table 623

ANCD = ANCD group number. Directory number of ANCD group.  
& and ALL are permitted for this parameter.

14.12.2
FUNCTION

The command is used to print out the category for an ANCD group.

14.12.3
PRINTOUT

Table 624

ANCD GROUP DATA					
ANCD	LIM	EGCSP	CUST	MAXTIM	SAT
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.

END
-----

**Table 625**

<i>CUST</i> =	Customer number.
<i>EGCSP</i> =	Extension group common service profile, see command <i>extension_group_profile</i> .
<i>LIM</i> =	LIM number. LIM in which the group is to be located.
<i>MAXTIM</i> =	Maximum waiting time.
<i>SAT</i> =	Satellite group. States if ANCD group is a satellite group or not. Possible values are YES or NO.
<i>SEL</i> =	Selection category.

## 14.12.4

## EXAMPLE

Print out the categories for ANCD group number 8000.

**Table 626**

NCGRP:ANCD=8000;						
ANCD GROUP DATA						
ANCD	LIM	EGCSP	SEL	CUST	MAXTIM	SAT
8000	1	55	0	1	240	YES
END						

The ANCD group's directory number is 8000. The group is located in LIM 1. The common group categories are those stated in extension group common service profile 55.

Satellite group with free members in the ANCD group are selected in initiation order, i.e. in accordance with the order in which they were initiated in the ANCD group.

The group is affiliated to customer number 1. Value for the maximum waiting time is 240 seconds. The ANCD group is a satellite group.

## 14.12.5

## COMMAND CATEGORY

Dangerous = **No**

## 14.13

## NCGSP

Network Call Distribution Group Status Print

## 14.13.1

## FORMAT

$$\text{NCGSP:ANCD} = \left[ \begin{array}{l} \text{,SAT=} \\ \text{,SAT=,NODE=} \end{array} \right];$$
**Figure 44:**

**Table 627**

<b>ANCD =</b>	ANCD group number. Directory number of ANCD group.
<b>NODE =</b>	ANCD node number. ANCD node where satellite group is located. If the parameter is omitted, ANCD node number of own system will be used.
<b>SAT =</b>	Satellite group number. Directory number of satellite group.

## 14.13.2

## FUNCTION

The command gives the current status for an ANCD group and the satellite groups that are initiated as its members. If the parameter SAT is omitted, all satellite groups will be printed. Parameter NODE must be stated if a specific satellite group in another node will be printed.

## 14.13.3

## PRINTOUT

**Table 628**

ANCD GROUP STATUS									
ANCD	NODE	MAXTIM	OFLTIM	STATUS					
...	...	...	...	...					
AGENT INFO				QUEUE INFO					
SAT	NODE	TOTAL	AVAIL	BUSY	TOTAL	BUSY	AVCT	EWT	STATUS
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
END									

**Table 629**

<b>AVAIL (AI)</b>	Number of available agents in a satellite group.
<b>AVCT</b>	Average conversation time for the satellite group.
<b>BUSY (AI)</b>	Number of busy agents in a satellite group.
<b>BUSY (QI)</b>	Number of busy queue records in a satellite group.
<b>EWT</b>	Estimated waiting time in queue for the satellite group.
<b>MAXTIM</b>	Maximum waiting time.
<b>NODE</b>	ANCD node number. ANCD node where the ANCD group is located.
<b>OFLTIM</b>	Overflow time.
<b>STATUS</b>	ANCD group status. Possible result values, see below.
<b>STATUS</b>	Satellite group status. Possible result values, see below.
<b>TOTAL (AI)</b>	Number of initiated agents in a satellite group.
<b>TOTAL (QI)</b>	Number of total available queue positions in a satellite group.

## 14.13.4

## STATUS PRINTOUTS FOR ANCD GROUP

**Table 630**

<b>CLOSED</b>	ANCD group is not initiated for traffic distribution.
<b>OPEN</b>	ANCD group is initiated for traffic distribution.
<b>RELINK</b>	Updating the list of ANCD members under progress.

## 14.13.5

## STATUS PRINTOUTS FOR SATELLITE GROUPS

**Table 631**

ALREADY SATELLITE	The assigned satellite group, already belongs to another ANCD group.
CLOSEDBYAGENT	No agents are available.
CLOSEDBYERROR	Error depending on incorrect data.
CLOSEDBYHIGHTRAF	The satellite group is busy and/or the queue is full with calls, or the AVQT is to high.
CLOSEDBYORDER	Member, which is an ANCD satellite group, is closed by command.
CLOSEDBYRESTART	The satellite group is closed by restart.
CLOSEDBYSUPERVISOR	The satellite group is closed by the supervisor.
CLOSEDBYTIMEOUT	The ANCD has lost the connection with the satellite group.
CLOSEDTEMPORARY	Ordering from an ANCD group to a satellite group under progress.
COMMUNICATIONERROR	Communication error caused by ANCD information channel fault.
INITLINKSENT	Linking to the member under progress.
NOGROUP	The assigned number is not an ANCD/ACD group.
NOSATELLITE	The assigned number is not a satellite group.
NOTASSIGNED	The assigned number is not defined.
OK	The satellite group is open for distributed calls.

## 14.13.6

## EXAMPLE

Print out current status for ANCD group number 8000.

**Table 632**

NCGSP:ANCD=8000;									
ANCD GROUP STATUS									
ANCD	NODE	MAXTIM	OFLTIM	STATUS					
8000	1	240		OPEN					
AGENT INFO					QUEUE INFO				
SAT	NODE	TOTAL	AVAIL	BUSY	TOTAL	BUSY	AVCT	EWT	STATUS
8010	1	20	14	14	10	4	90	26	OK
8020	2	25	17	9	10	0	80	0	OK
8030	2	15	0	0	8	0			CLOSEDBY ORDER
END									

The ANCD group is initiated for traffic distribution, initiated in ANCD node 1 and the maximum waiting time is 240 seconds. The satellite groups setup as members are 8010, 8020 and 8030.

Satellite group 8010 is located in ANCD node 1, and satellite groups 8020 and 8030 are located in ANCD node 2. Satellite group 8010 and 8020 are open for distributed calls. Satellite group 8030 is closed by order.

There are 20 agents initiated in the satellite group 8010. All 14 available agents are busy. Total number of queue records for the satellite group is 10 and 4 of these are busy. The AVCT for the moment is 90 seconds and EWT is 26 seconds.

There are 25 agents initiated in the satellite group 8020. 17 of the agents are available and 9 of the agents are busy. Total queue records for the satellite group are 10 and none of these are busy. The AVCT for the moment is 80 seconds and there is no queuing time. For satellite group 8030, which is closed, 15 agents are initiated. The total number of queue records for the group is 8.

14.13.7
COMMAND CATEGORY

Dangerous = No

14.14
NCGTE

Network Call Distribution Traffic End

14.14.1
FORMAT

$$NCGTE:ANCD=\left[\begin{matrix},SAT=\\,SAT=,NODE=\end{matrix}\right];$$

**Figure 45:**  
**Table 633**

ANCD = ANCD group number. Directory number of ANCD group.

NODE = ANCD node number. ANCD node where satellite group is located.

SAT = Satellite group number. Directory number of satellite group.

14.14.2
FUNCTION

The command is used to stop traffic distribution from an ANCD group to the satellite group(s) setup as its member(s). If parameter SAT and NODE are omitted, the stated ANCD group will be closed for traffic. If the parameter SAT is stated only the specified satellite will be closed for traffic. If the parameter NODE is omitted, own node number will be used.

14.14.3
EXAMPLE 1

Close the traffic distribution for the ANCD group with directory number 8000.

**Table 634**

NCGTE:ANCD=8000; NCGTE:ANCD=8000; SURE? (YES/NO) YES; EXECUTED
--

14.14.4

**EXAMPLE 2**

Close the traffic distribution for the ANCD group with directory number 8000 to the satellite group 8020 in node 2.

**Table 635**

```

NCGTE:ANCD=8000,SAT=8020,NODE=2;
NCGTE:ANCD=8000,SAT=8020,NODE=2;
SURE? (YES/NO)
YES;
EXECUTED

```

14.14.5

**COMMAND CATEGORY**

Dangerous = **Yes**

14.15

**NCGTI**

Network Call Distribution Group Traffic Initiate

14.15.1

**FORMAT**

$$\text{NCGTI:ANCD= } \left[ \begin{array}{l} \text{,SAT=} \\ \text{,SAT=,NODE=} \end{array} \right];$$
**Figure 46:****Table 636**

ANCD = ANCD group number. Directory number of ANCD group.  
 NODE = ANCD node number. ANCD node where satellite group is located.  
 SAT = Satellite group number. Directory number of satellite group.

14.15.2

**FUNCTION**

The command is used to initiate traffic distribution from an ANCD group to the satellite groups setup as its members. The command is used when the ANCD network has been built up and is ready for traffic distribution.

If parameter SAT and NODE are omitted, the stated ANCD group will be open for traffic. If the parameter SAT is stated, only the specified satellite will be open for traffic. If the parameter NODE is omitted, own node number will be used.

14.15.3

**EXAMPLE 1**

Initiate traffic distribution for the ANCD group with directory number 8000.

**Table 637**

```

NCGTI:ANCD=8000;
NCGTI:ANCD=8000;
SURE? (YES/NO)

```



YES;  
EXECUTED

14.15.4EXAMPLE 2

Initiate traffic distribution for the ANCD group with directory number 8000 to the satellite group 8010.

**Table 638**

NCGTI:ANCD=8000,SAT=8010;  
NCGTI:ANCD=8000,SAT=8010;  
SURE? (YES/NO)  
YES;  
EXECUTED

14.15.5COMMAND CATEGORY

Dangerous = **Yes**

14.16NCICE

Network Call Distribution Information Channel End

14.16.1FORMAT

**Table 639**

**NCICE :IFCIND=;**

**Table 640**

*IFCIND* = Information computer individual.  
& is permitted for this parameter.

14.16.2FUNCTION

The command removes an ANCD information channel.

14.16.3EXAMPLE

Remove information computer individual 9 as ANCD information channel.

**Table 641**

NCICE:ICUIND=9;  
NCICE:ICUIND=9;  
SURE? (YES/NO)  
YES;  
EXECUTED

## 14.16.4 COMMAND CATEGORY

Dangerous = **Yes**

## 14.17 NCICI

Network Call Distribution Information Channel Initiate

## 14.17.1 FORMAT

**Table 642**

**NCICI:IFCIND=;**

**Table 643**

*IFCIND* = Information computer individual.  
& is permitted for this parameter.

## 14.17.2 FUNCTION

The command initiates an ANCD information channel. The distribution of calls from an ANCD group to a satellite group is based on current status of the satellite group. The satellite group will update the superior ANCD group with necessary status information. This information is distributed through the GICI communication channel, if the satellite group and the ANCD group is located in different ANCD nodes.

## 14.17.3 EXAMPLE

Initiate information computer individual 10 as an ANCD information channel.

**Table 644**

NCICI:IFCIND=10; EXECUTED
------------------------------

## 14.17.4 COMMAND CATEGORY

Dangerous = **No**

## 14.18 NCICP

Network Call Distribution Information Channel Print

## 14.18.1 FORMAT

**Table 645**

**NCICP;**

## 14.18.2 FUNCTION

The command is used to print out the ANCD information channel(s).

14.18.3 PRINTOUT

Table 646

ANCD INFORMATION CHANNEL DATA
IFCIND
.
END

Table 647

*IFCIND* = Information computer individual.

14.18.4 EXAMPLE

Print out the information computer individual(s) initiated as ANCD information channels.

Table 648

NCICP;
ANCD INFORMATION CHANNEL DATA
IFCIND
8
END

Information computer individuals 8 is initiated as ANCD communication channel.

14.18.5 COMMAND CATEGORY

Dangerous = **No**

14.19 NCNOE

Network Call Distribution Node End

14.19.1 FORMAT

Table 649

**NCNOE;**

14.19.2 FUNCTION

The command is used to erase the ANCD node identity used for the system.

14.19.3 EXAMPLE

Erase ANCD node identity for the system.

Table 650

NCNOE;
NCNOE;

SURE? (YES/NO)
----------------

YES;
------

EXECUTED
----------

14.19.4

**COMMAND CATEGORY**Dangerous = **Yes****14.20****NCNOI**

Network Call Distribution Node Initiate

14.20.1

**FORMAT****Table 651****NCNOI:NODE=;****Table 652**

NODE =     ANCD node number.

14.20.2

**FUNCTION**

The command is used to initiate an ANCD node identity for the system.

14.20.3

**EXAMPLE**

Initiate ANCD node identity 1 for the system.

**Table 653**

NCNOI:NODE=1;
---------------

EXECUTED
----------

14.20.4

**COMMAND CATEGORY**Dangerous = **No****14.21****NCNOP**

Network Call Distribution Node Print

14.21.1

**FORMAT****Table 654****NCNOP;**

14.21.2                      FUNCTION

The command is used to print out the ANCD node identity for the system.

14.21.3                      PRINTOUT

**Table 655**

ANCD NODE DATA
NODE
END

**Table 656**

NODE =     ANCD node number.

14.21.4                      EXAMPLE

Print out the ANCD node identity for the system.

**Table 657**

NCNOP;
ANCD NODE DATA
NODE
1
END

ANCD node identity 1 is initiated for the system.

14.21.5                      COMMAND CATEGORY

Dangerous = **No**

14.22                        NCSGC

Network Call Distribution Satellite Group Change

14.22.1                      FORMAT

**Table 658**

**NCSGC :SAT=[,INFTYP=],[OFLTIM=],[OVFLOW=];**

**Table 659**

*INFTYP* =     Information flow type. The parameter is only used for satellite ACD groups.  
*OFLTIM* =     Overflow time.  
*OVFLOW* =     Overflow category.  
SAT =         Satellite group number. Directory number of satellite group.  
                 & is permitted for this parameter.

## 14.22.2 FUNCTION

The command is used to alter the characteristics for a satellite group. If the overflow time shall be initiated, the parameter OVFLOW must be initiated for overflow calls.

At least one of the parameters INFTYP, OFLTIM and OVFLOW must be stated.

## 14.22.3 EXAMPLE

Change the information flow type to periodically for satellite group 8010.

**Table 660**

NCSGC:SAT=8010,INFTYP=P; EXECUTED
--------------------------------------

## 14.22.4 COMMAND CATEGORY

Dangerous = **No**

## 14.23 NCSGE

Network Call Distribution Satellite Group End

## 14.23.1 FORMAT

**Table 661**

**NCSGE:SAT=;**

**Table 662**

SAT =     Satellite group number. Directory number of satellite group.  
          & is permitted for this parameter.

## 14.23.2 FUNCTION

The command is used to erase an ANCD/ACD group as satellite group.

## 14.23.3 EXAMPLE

ACD group 8010 shall be erased as satellite group.

**Table 663**

NCSGE:SAT=8010; NCSGE:SAT=8010; SURE? (YES/NO) YES; EXECUTED
--

## 14.23.4 COMMAND CATEGORY

Dangerous = **Yes**

## 14.24

## NCSGI

Network Call Distribution Satellite Group Initiate

## 14.24.1

## FORMAT

**Table 664**

**NCSGI:SAT=,ANCD=[,NODE=,OFLNO=][,INFTYP=][,OFLTIM=]  
[,OVFLOW=];**

**Table 665**

<i>ANCD</i> =	ANCD group number. Directory number of ANCD group.
<i>INFTYP</i> =	Information flow type. Can only be stated for satellite ACD group. If the parameter is omitted, periodically flow type will be initiated for satellite group.
<i>NODE</i> =	ANCD node number. ANCD node where ANCD group is located.
<i>OFLNO</i> =	Overflow number. Complete number to ANCD group for call overflow.
<i>OFLTIM</i> =	Overflow time. If the parameter is omitted, no overflow time will be used.
<i>OVFLOW</i> =	Overflow category. If the parameter is omitted, the satellite group will be initiated for call overflow.
<i>SAT</i> =	Satellite group number. Directory number of satellite group.

## 14.24.2

## FUNCTION

The command is used to define an ANCD/ACD group as satellite group. The satellite group shall be defined to which ANCD group it belongs to.

If the satellite group that shall be defined is an ANCD group, maximum waiting time must be removed for the ANCD group.

If the satellite group shall be initiated for no overflow calls, the parameter OFLTIM is then not allowed to specify.

If parameter NODE and OFLNO are omitted, own node number will be used.

## 14.24.3

## EXAMPLE 1

Define an ACD group with directory number 8010 as a satellite group. The satellite group shall belong to ANCD group 8000, which is located in ANCD node 1.

The overflow number to the ANCD group is 018000. The status information from the satellite group to the ANCD group shall be sent periodically.

Overflow time shall be set to 60 seconds.

**Table 666**

```
NCSGI:SAT=8010,ANCD=8000,NODE=1,OFLNO=018000,
INFTYP=P,OFLTIM=60;
EXECUTED
```

## 14.24.4

## EXAMPLE 2

Define an ACD group with directory number 8020 as a satellite group. The satellite group shall belong to ANCD group 8000, which is located in the same ANCD node.

The status information from the satellite group to the ANCD group shall be sent every time a status change occurs for the group. The satellite group shall not be initiated for call overflow.

**Table 667**

```
NCSGI:SAT=8020,ANCD=8000,INFTYP=E,OVFLOW=NO;
EXECUTED
```

14.24.5

**EXAMPLE 3**

Define an ANCD group with directory number 8030 as a satellite group. The satellite group shall belong to ANCD group 8000, which is located in ANCD node 1. The overflow number to the ANCD group is 018000.

**Table 668**

```
NCSGI:SAT=8030,ANCD=8000,NODE=1,OFLNO=018000;
EXECUTED
```

14.24.6

**COMMAND CATEGORY**

Dangerous = **No**

14.25

**NCSGP**

Network Call Distribution Satellite Group Print

14.25.1

**FORMAT****Table 669**

**NCSGP:SAT=;**

**Table 670**

SAT =        Satellite group number. Directory number of satellite group.  
& and ALL are permitted for this parameter.

14.25.2

**FUNCTION**

The command is used to print out data for a satellite group.

14.25.3

**PRINTOUT****Table 671**

SATELLITE GROUP DATA							
SAT	ANCD	NODE	OFLNO	INFTYP	OFLTIM	OVFLOW	GRPTYPE
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
END							



**Table 672**

ANCD	ANCD group number.
GRPTYPE	Group type. The satellite group can be of type ANCD or ACD.
INFTYP	Information flow type.
NODE	ANCD node number.
OFLNO	Overflow number.
OFLTIM	Overflow time.
OVFLOW	Overflow category.

14.25.4

**EXAMPLE**

Print out data for the satellite group number 8010.

**Table 673**

NCSGP:SAT=8010;							
SATELLITE GROUP DATA							
SAT	ANCD	NODE	OFLNO	INFTYP	OFLTIM	OVFLOW	GRPTYPE
8010	8000	1	018000	P	60	YES	ACD
END							

Satellite group 8010, which is of type ACD, belongs to ANCD group 8000 which is located in ANCD node 1. The distribution number to the ANCD group is 018000.

The status information from the satellite group to the ANCD group shall be sent periodically. Overflow time shall be set to 60 seconds and the satellite group shall be initiated for overflow calls.

14.25.5

**COMMAND CATEGORY**

Dangerous = **No**

# 15 NS - NIGHT SERVICE

## 15.1 NSCOE

Night switch common end

### 15.1.1 FORMAT

**Table 674**  
**NSCOE;**

### 15.1.2 FUNCTION

The command removes the universal night switching positions. The function for universal night switching is as follows:

On a call to a night switching position the call is put in a queue and all the signalling devices are activated and continues signalling as long as there are calls in the queue. All extensions in the exchange can answer the call by entering a procedure on the telephone instrument.

### 15.1.3 EXAMPLE

Remove the universal night switching position.

**Table 675**

NSCOE; EXECUTED
--------------------

### 15.1.4 COMMAND CATEGORY

Dangerous = **No**

## 15.2 NSCOI

Night switch common initiate

### 15.2.1 FORMAT

**Table 676**  
**NSCOI:EQU=;[,EGCSP=];**

**Table 677**

EGCSP = Extension group common service profile, see command extension\_group\_profile.

EQU = Equipment number.  
Hardware position for the signaling equipment.

## 15.2.2 FUNCTION

The command initiates a universal night switching position. There can be a maximum of 30 night switching positions initiated in an exchange. The function for universal night switching is as follows:

On a call to a night switching position the call is put in a queue and all the signaling devices are activated and continues signaling as long as there are calls in the queue. All extensions in the exchange can answer the call by entering a procedure on the telephone instrument. The specified hardware position indicates where the signaling equipment can be connected.

## 15.2.3 EXAMPLE

Initiate the hardware position in LIM 1, gateway B, magazine 1, board position 10, and individual 2 as a universal night switching position. The common group categories are those stated in extension group common service profile 150.

**Table 678**

NSCOI:EQU=1B-1-10-2;EGCSP=150; EXECUTED
--

## 15.2.4 COMMAND CATEGORY

Dangerous = **No**

## 15.3 NSDAP

Night switch data print

### 15.3.1 FORMAT

**Table 679**

**NSDAP;**

### 15.3.2 FUNCTION

The command prints the data for the universal night switching positions.

### 15.3.3 PRINTOUT

**Table 680**

NIGHT SWITCH DATA
EQU      EGCSP
END

**Table 681**

EGCSP = Extension group common service profile, see command extension\_group\_profile.

EQU = Equipment number.  
Hardware position for the signalling equipment.

## 15.3.4

## EXAMPLE

Print the data for the universal night switching position.

**Table 682**

NSDAP;
NIGHT SWITCH DATA
EQU    EGCSP
001B-1-10-02    150
END

The signalling equipment of the universal night switching position is placed in LIM 1, gateway B, magazine 1, board position 10, and individual 2. The common group categories are those stated in extension group common service profile 150.

## 15.3.5

## COMMAND CATEGORY

Dangerous = **No**

## 16

## OP - PBX OPERATOR TRAFFIC

### 16.1

### OPADC

Operator absent trunk traffic distribution change

#### 16.1.1

#### FORMAT

**Table 683**

**OPADC:CORG=[,NDIR=[,RERNUM= ],TIME= ,OFLNUM=];**

**Table 684**

<b>CORG =</b>	Call origin group ALL, & and && are permitted for this parameter.
<b>NDIR =</b>	Night service. Specifies whether night switching position is to be used or not.
<b>OFLNUM =</b>	Overflow number. States the number of the overflow position when the timer for the call towards a specific call origin group expires. The parameter can only be entered if the parameter TIME is also entered.
<b>RERNUM =</b>	Diversion number. States the number of the night switching position if all local and central PBX operators are absent-marked or not defined.
<b>TIME =</b>	Queue time threshold. The maximum time a call is allowed to queue towards a specific call origin group. The parameter can only be entered if the parameter OFLNUM is also entered.

#### 16.1.2

#### FUNCTION

The command is used to specify handling of incoming calls when the PBX operator is absent or not able to answer them within a certain period of time. The command specifies, in respect of origin groups, whether external public calls are to be connected to the night switching position of the route, the call origin group, or to the customer night switching position. The command also specifies whether all incoming calls to a certain origin group, which is absent, are to be distributed as second hand traffic among the PBX operators present.

The RERNUM parameter can be used only when NDIR has been stated as Y or D. If RERNUM is omitted when NDIR has been stated as Y, external public calls will be diverted to the night switching position of the route, to the customer night switching position, or to the night bell. All other call types will get a no progress message indicating that the operators are absent.

If RERNUM is specified when NDIR has been stated as D, external public calls will be connected to the day answering position (set by RERNUM) of the call origin group when the exchange is day switched.

If the parameter TIME has been entered together with parameter OFLNUM, then calls towards this call origin group will only be allowed to queue for the specified time before they are sent to the OFLNUM position.

#### 16.1.3

#### EXAMPLE 1

Change the call handling so that calls to origin group 1 are directed to extension 4246 if all PBX operators serving this origin group are absent.

**Table 685**

OPADC:CORG=1,NDIR=Y,RERNUM=4246; EXECUTED
--

16.1.4

**EXAMPLE 2**

Change the call handling so that when all PBX operators serving origin 8 are absent, calls to this origin group are distributed among other PBX operators who are present.

**Table 686**

OPADC:CORG=8,NDIR=N; EXECUTED
----------------------------------

16.1.5

**EXAMPLE 3**

Change the call handling so that when all PBX operators serving origin group 9 are absent, external public calls are directed to the night switching position of the route while other call types get an appropriate no progress message indicating that the operators are absent.

**Table 687**

OPADC:CORG=9,NDIR=Y; EXECUTED
----------------------------------

16.1.6

**EXAMPLE 4**

Change the call handling so that if the call has been queuing longer than 10 seconds, it is 'overflowed' to the extension 1321.

**Table 688**

OPADC:CORG=9,TIME=20,OFLNUM=1321; EXECUTED
---

16.1.7

**EXAMPLE 5**

Change the call handling so that calls to origin group 1 are directed to extension 4247 if all PBX operators serving this origin group are absent, and the exchange is day switched.

**Table 689**

OPADC:CORG=1,NDIR=D,RERNUM=4247; EXECUTED
--

16.1.8

**EXAMPLE 6**

Change the call handling so that calls to origin group 1 are directed to extension 4246 if all PBX operators serving this origin group are absent. Also if the call towards the call origin group 1 has been queuing longer than 10 seconds, it is 'overflowed' to the extension 1321.

**Table 690**

OPADC:CORG=1,NDIR=Y,RERNUM=4246,TIME=20, OFLNUM=1321;
--

EXECUTED

16.1.9                      EXAMPLE 7

Change the call handling so that if the call towards the call origin group 1 has been queuing longer than 10 seconds, it is 'overflowed' to the extension 1321. The calls are not directed towards any extension if all the PBX operators serving the call origin group are absent.

**Table 691**

OPADC:CORG=1,TIME=20,OFLNUM=1321;  
EXECUTED

16.1.10                    EXAMPLE 8

Change the call handling so that calls to origin group 1 are directed to extension 4247 if all PBX operators serving this origin group are absent. Also calls remain in the queue until they are picked up by any of the PBX operators serving the call origin group.

**Table 692**

OPADC:CORG=1,NDIR=Y,RENUM=4247;  
EXECUTED

16.1.11                    COMMAND CATEGORY

Dangerous = **No**

16.2                        OPCAC

Operator category    change

16.2.1                    FORMAT

**Table 693**

**OPCAC:DIR=[,TRAF=][,OPC=][,TRM=];**

**Table 694**

- DIR =**        Directory number.  
              & and && are permitted for this parameter.
- OPC =**        PBX operator category.
- TRAF =**       Traffic category.
- TRM =**        Transmission category.

16.2.2                    FUNCTION

The command is used to change the category properties of the PBX operator. One of the parameters TRAF, OPC, or TRM must always be specified.  
Not affected parameters will remain unchanged.

### 16.2.3 EXAMPLE

The traffic category is to be changed in respect of the PBX operator with directory number 4020 to TCD category 14 and the traffic connection class to traffic group 7.

**Table 695**

OPCAC:DIR=4020,TRAF=1407; EXECUTED
---------------------------------------

### 16.2.4 COMMAND CATEGORY

Dangerous = **No**

## 16.3 OPCAP

Operator category print

### 16.3.1 FORMAT

**Table 696**

**OPCAP:DIR=;**

**Table 697**

**DIR =** Directory number.  
ALL, & and && are permitted for this parameter.

### 16.3.2 FUNCTION

The command is used to print PBX operator categories.

### 16.3.3 PRINTOUT

**Table 698**

OPERATOR CATEGORY DATA			
DIR ...	OPC ...	TRAF ...	TRM ...
END			

**Table 699**

**OPC** PBX operator category.

**TRAF** Traffic category.

**TRM** Transmission category.

### 16.3.4 EXAMPLE

Print the categories of the PBX operators with directory numbers 4020 to 4023.

**Table 700**

OPCAP:DIR=4020&&4023; OPERATOR CATEGORY DATA
---



DIR	OPC	TRAF	TRM
4020	00000	1515	0
4021	01010	1515	0
4022	10101	1515	0
4023	11111	1515	0
END			

The PBX operator with directory number 4020 has a common queue counter display, individual operator calls are not presented to the PBX operator console when it is absent marked, individual operator recalls are not presented to the PBX operator console when it is manually absent marked, the queue counter is not displayed on the PBX operator console when it is absent marked and the type of charging is per route (OPC=00000).

The PBX operator with directory number 4023 has an individual queue counter display, individual operator calls are presented to the PBX operator console when it is absent marked, individual operator recalls are presented to the PBX operator console when it is manually absent marked, the queue counter is displayed on the PBX operator console when it is absent marked and the type of charging is per line (OPC=11111).

All PBX operators are fully open (TRAF=1515) for outgoing traffic and are permitted to be connected with all A and B parties.

All PBX operators have the transmission category set to the default value zero.

### 16.3.5

## COMMAND CATEGORY

Dangerous = **No**

## 16.4

## OPCEE

Operator central number end

### 16.4.1

## FORMAT

**Table 701**

**OPCEE:CORG=[,NCA=],PRIO=;**

**Table 702**

**CORG =** Call origin group.

**NCA =** Network central answer position. This parameter is used to indicate if a customer centralized operator number is to be removed.  
If this parameter is omitted, the command is used to remove a central answer position for a call origin group.

**PRIO =** Priority for central answer position or customer centralized operator defines the priority of the central answer position or customer centralized operator in the network to be removed.

## 16.4.2 FUNCTION

This command is used to remove a central answer position, that is, rerouting the number to a central answer position, or to a customer centralized operator in another exchange.

## 16.4.3 EXAMPLE 1

Remove the central answer position number which is defined as a priority 2 central answer position for call origin group 1.

**Table 703**

```
OPCEE:CORG=1,PRIO=2;
EXECUTED0
```

## 16.4.4 EXAMPLE 2

Remove the customer centralized operator number which is defined as priority 1 for call origin group 1.

**Table 704**

```
OPCEE:CORG=1,NCA=CCOP,PRIO=1;
EXECUTED
```

## 16.4.5 COMMAND CATEGORY

Dangerous = **No**

## 16.5 OPCEI

Operator central number initiate

### 16.5.1 FORMAT

**Table 705**

```
OPCEI:CORG=,NCA=,CENUM=,PRIO=;
```

**Table 706**

<b>CENUM =</b>	Common abbreviated number for central answer position or customer centralized operator. A common abbreviated number whose translation number is the central answer position or customer centralized operator number.
<b>CORG =</b>	Call origin group
<b>NCA =</b>	Network central answer position. Defines the exchange number for the central answer position or indicates if a customer centralized operator is to be initiated.
<b>PRIO =</b>	Priority for central answer position or customer centralized operator

**Note:** PRIO can only be 1 or 2 if a customer centralized operator is to be initiated.

16.5.2
FUNCTION

The command is used to initiate a central PBX answer position number for common PBX operator calls in an exchange where there is no present PBX operator, no operator serving that call origin group or customer, or in a night switched exchange. The number is set to a common abbreviated number. The complete translation number is set with command *ADCOI*.

The command is also used to initiate a customer centralized operator number for common PBX operator calls in an exchange where there is no present operator serving that call origin group. The call origin group has to be affiliated to the same customer as the calling party. The number is set to a common abbreviated number. The complete translation number is set with command *ADCOI*.

16.5.3
EXAMPLE 1

Initiate a central answer position number in a network for PBX operator call origin group 1. The calls should as first priority be rerouted to exchange 684 which can be reached with the translation for the common abbreviated number 0121.

**Table 707**

OPCEI:CORG=1,NCA=684,CENUM=0121,PRIO=1;
EXECUTED

16.5.4
EXAMPLE 2

Initiate a customer centralized operator number in a network for the PBX operator call origin group 1. The calls should as first priority be rerouted to the customer centralized operator which can be reached with the translation for the common abbreviated number 180.

**Table 708**

OPCEI:CORG=1,NCA=CCOP,CENUM=180,PRIO=1;
EXECUTED

16.5.5
COMMAND CATEGORY

Dangerous = **No**

16.6
OPCEP

Operator central number print

16.6.1
FORMAT

**Table 709**

**OPCEP:CORG=;**

**Table 710**

**CORG =**      Call origin group.  
ALL, & and && are permitted for this parameter.

## 16.6.2

## FUNCTION

The command is used to print the central answer positions and customer centralized operator numbers which are associated with call origin groups or customers.

## 16.6.3

## PRINTOUT

**Table 711**

OPERATOR CENTRAL NUMBER DATA			
CORG	PRIO.	NCA.	CENUM
.	.	.	.
.	.	.	.
END			

**Table 712**

<b>CENUM</b>	Common abbreviated number for central answer position or customer centralized operator. A common abbreviated number which translation number is the central answer position or customer centralized operator number.
<b>NCA</b>	Network central answer position Defines the exchange number for the central answer position or indicates if it is a customer centralized operator.
<b>PRIO</b>	Priority for central answer position or customer centralized operator.

## 16.6.4

## EXAMPLE 1

Print the data for origin groups 1, 8, and 9.

**Table 713**

OPCEP:CORG=1&8&9;			
OPERATOR CENTRAL NUMBER DATA			
CORG	PRIO	NCA	CENUM
1	1	CCOP	0131
	2	CCOP	0132
	1	4	0121
	2	5	0122
	3	6	0123
8	1	5	0122
	2	6	0123
9	1	CCOP	0118
	2	CCOP	0119
END			

Origin group 1 has been initiated with:

- a priority 1 customer centralized operator number that can be reached with the common abbreviated number 0131
- a priority 2 customer centralized operator number that can be reached with the common abbreviated number 0132

- a priority 1 central answer position number to exchange 4 that can be reached with the common abbreviated number 0121
- a priority 2 central answer position number to exchange 5 that can be reached with the common abbreviated number 0122
- a priority 3 central answer position number to exchange 6 that can be reached with the common abbreviated number 0123

Origin group 8 has been initiated with:

- a priority 1 central answer position in exchange 5 that can be reached with the common abbreviated number 0122
- a priority 2 central answer position in exchange 6 that can be reached with the common abbreviated number 0123

Origin group 9 has been initiated with:

- a priority 1 customer centralized operator number that can be reached with the common abbreviated number 0118
- a priority 2 customer centralized operator number that can be reached with the common abbreviated number 0119

## 16.6.5

### EXAMPLE 2

Print the data for origin groups 1 to 9.

**Table 714**

OPCEP:CORG=1&&9;			
OPERATOR CENTRAL NUMBER DATA			
CORG	PRIO	NCA	CENUM
7	2	CCOP	0132
8	3	6	0144
9	1	CCOP	0121
	1	4	0132
END			

Origin group 7 has been initiated with:

- a priority 2 customer centralized operator number that can be reached with the common abbreviated number 0132

Origin group 8 has been initiated with:

- a priority 3 central answer position in exchange 6 that can be reached with the common abbreviated number 0144

Origin group 9 has been initiated with:

- a priority 1 customer centralized operator number that can be reached with the common abbreviated number 0121
- a priority 1 central answer position in exchange 4 that can be reached with the common abbreviated number 0132

## 16.6.6 COMMAND CATEGORY

Dangerous = **No**

## 16.7 OPCGP

Operator call origin group print

### 16.7.1 FORMAT

**OPCGP:** { **DIR=...**  
**CORG=...** } ;

**Figure 47:**

**Table 715**

**CORG =** Call origin group.  
ALL, & and && are permitted for this parameter.

**DIR =** Directory number.  
ALL, & and && are permitted for this parameter. If more values are stated for DIR these must be listed in ascending order.

### 16.7.2 FUNCTION

The command is used to print the origin groups and PBX operators linked to each other. A unique combination of call type, route number, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types. Note that the DIR and CORG information is presented in columns!

The printout shows the link between PBX operators and origin groups. The printout can be requested in two different ways:

- If the parameter DIR is specified a printout of the origin groups handled by the PBX operators with the specified directory numbers will be obtained. The printout also shows for each origin group whether the respective PBX operator handles the group as first or second choice.
- If the parameter CORG is specified a printout of the PBX operators handling the specified origin groups and whether they have the respective group as a first or second choice will be obtained.

If there are more than 50 operators assigned, the data will be printed in two or more sections.

### 16.7.3 PRINTOUT

**Table 716**

OPERATOR CALL ORIGIN GROUP DATA	
	DIR
	...
	...

	...
CORG	---
.	...
.	...
END	

The affiliation between origin group and PBX operator is stated with digits 0, 1, and 2.

- 0 = No PBX operator handles the call
- 1 = First choice
- 2 = Second choice

16.7.4

EXAMPLE 1 (CORG)

Print the directory numbers of the PBX operators serving origin groups 1 and 9.

**Table 717**

OPCGP:CORG=1&9;	
	OPERATOR CALL ORIGIN GROUP DATA
	DIR
	34444
	30004
	42225
	60127
CORG	-----
1	01102
9	12220
END	

Calls from origin group 1 are served by PBX operator with directory numbers 4020, 4021 and 4457. PBX operators with directory numbers 4020 and 4021 serve origin group 1 as first choice. The PBX operator with directory number 4457 serves the group as second choice. The number 4457 is seen in the fifth column.

Calls from origin group 9 are served by PBX operators with directory numbers 3346, 4020, 4021 and 4022. PBX operator 3346 serves the group as first choice while PBX operators 4020, 4021 and 4022 serve the group as second choice.

16.7.5

EXAMPLE 2 (DIR)

Print the origin groups served by PBX operators having directory numbers 4020 to 4024.

**Table 718**

OPCGP:DIR=4020&&4024;	
	OPERATOR CALL ORIGIN GROUP DATA
	DIR
	44444
	00000

	22222
	01234
CORG	-----
1	11000
3	00002
9	22220
13	00001
END	

PBX operators with directory numbers 4020 and 4021 serve origin group 1 as first choice and group 9 as second choice.

Origin group 9 is also served by PBX operators 4022 and 4023 as second choice.

PBX operator 4024 serves group 13 as first choice and group 3 as second choice.

#### 16.7.6

### COMMAND CATEGORY

Dangerous = **No**

## 16.8

### OPCGR

Operator call origin group remove

#### 16.8.1

### FORMAT

**Table 719**

**OPCGR:DIR=,CORG=;**

**Table 720**

**CORG =** Call origin group.  
ALL, & and && are permitted for this parameter if the parameter DIR is a single value.

**DIR =** Directory number.  
Directory number for individual PBX operator.  
ALL, & and && are permitted for this parameter if the parameter CORG is a single value.

#### 16.8.2

### FUNCTION

The command is used to erase PBX operators from origin groups. A unique combination of call type, route numbers, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types.

Removal of PBX operators from origin groups is carried out regardless of whether the PBX operators have the group as a first choice or second choice.

#### 16.8.3

### EXAMPLE

Remove the PBX operators having directory numbers 4020, 4021 from origin group 9.



**Table 721**

OPCGR:DIR=4020&4021,CORG=9; EXECUTED
---

16.8.4                   COMMAND CATEGORY

Dangerous = **No**

16.9                   OPCGS

Operator call origin group   set

16.9.1               FORMAT

**Table 722**

**OPCGS:DIR=,CORG=,CHO=;**

**Table 723**

- CHO =**           Choice. First or second choice.
- CORG =**        Call origin group.  
ALL, & and && are permitted for this parameter, if DIR is a single value.
- DIR =**         Directory number.  
ALL, & and && are permitted for this parameter, if CORG is a single value.

16.9.2               FUNCTION

The command specifies the linking between the origin groups and the PBX operators, that is, it specifies which PBX operators that handle the different origin groups. The command also specifies whether handling is carried out as first choice or second choice.

A unique combination of call type, route number, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types. The composition of the origin groups is carried out with another command (16.14 OPCTS on page 255 OPCTS).

One or more PBX operators can be linked to the same origin group (DIR can have one or more values but CORG only one value).

One or more origin groups can be linked to the same PBX operator (CORG can have one or more values but DIR only one value).

The parameter CHO specifies whether PBX operator serves an origin group as first or second choice.

16.9.3               EXAMPLE 1 (DIR HAS ONE OR MORE VALUES)

Calls from origin group 9 are to be served as second choice by PBX operators with directory numbers 4020 and 4022.

**Table 724**

OPCGS:DIR=4020&4022,CORG=9,CHO=2; EXECUTED
---

#### 16.9.4 EXAMPLE 2 (CORG HAS ONE OR MORE VALUES)

Calls from origin groups 1 and 8 are to be served as first choice by the PBX operator having directory number 4021.

**Table 725**

OPCGS:DIR=4021,CORG=1&8,CHO=1; EXECUTED
--

#### 16.9.5 COMMAND CATEGORY

Dangerous = **No**

### 16.10 OPCOE

Operator common access code end

#### 16.10.1 FORMAT

**Table 726**

**OPCOE:COACC=;**

**Table 727**

**COACC =** Common PBX operator access code Common PBX operator call number for customer group.

#### 16.10.2 FUNCTION

The command is used to erase the common PBX operator call number for the customer group.

#### 16.10.3 EXAMPLE

The common PBX operator call number 9, for the customer group is erased.

**Table 728**

OPCOE:COACC=9; EXECUTED
----------------------------

#### 16.10.4 COMMAND CATEGORY

Dangerous = **No**

### 16.11 OPCOI

Operator common access code initiate

16.11.1                      FORMAT

**Table 729**  
**OPCOI:COACC=;**

**Table 730**  
**COACC =**                      Common PBX operator access code Common PBX operator call number for customer group.

16.11.2                      FUNCTION

The command is used to initiate the common PBX operator call number for the customer group. This number is used to allow all customers to have the same common PBX operator call number and nevertheless access their own PBX operator for their customer number.

16.11.3                      EXAMPLE

The PBX operator call number 9 is initiated as a common PBX operator call number for the group.

**Table 731**

OPCOI:COACC=9;
EXECUTED

16.11.4                      COMMAND CATEGORY

Dangerous = **No**

16.12                              OPCTP

Operator call type data    print

16.12.1                      FORMAT

**Table 732**  
**OPCTP:CORG=;**

**Table 733**  
**CORG =**                      Call origin group.  
ALL, & and && are permitted for this parameter.

16.12.2                      FUNCTION

The command is used to print data about origin groups. An origin type is formed from a unique combination of call type, route number, if any, PBX operator call number, and customer number. An origin group may consist of several different origin types. Also the command prints if there are any central answer position numbers or customer centralized operator numbers which have been initiated with this operator origin group. It also prints the threshold time after which a queued call to the CORG gets 'overflowed'. The overflow position to which the re-direction occurs, is printed as well.

Another command (16.9 OPCGS on page 249 OPCGS) is used to specify whether a PBX operator is to answer calls from the origin group and whether the answering should be performed as primary or secondary choice.

## 16.12.3

## PRINTOUT

Table 734

OPERATOR CALL TYPE DATA											
[ COMMON OACC NUMBER = ... ]											
CORG..	CALT..	ROU..	OACC..	CUST..	NDIR..	RERNUM...	CEN..	CCOP..	TIME..	OFLNUM..	SDAY.. SNIG..
.	.	..	.	..	..	..	..	.	..	..	..
END											

Table 735

<b>COMMON OACC NUMBER</b>	Call number to the common PBX operator in the customer group. This header is obtained only when the call number is initiated
<b>CALT</b>	Route number.
<b>CCOP</b>	Customer centralized operators assigned. Defines whether customer centralized operators are initiated (YES=Y, NO=N). Only call types 1,2, 3, 6 and 7 are applicable.
<b>CEN</b>	Network central answer positions assigned. Defines whether central answer positions are initiated (YES=Y, NO=N). Only call types 2, 3, 6 and 7 are applicable.
<b>CUST</b>	Customer number.
<b>NDIR</b>	Night or Day service. Indicates whether night switching is used for the specified origin group or not (YES=Y, NO=N). Also indicates whether day answering position is used (NDIR=D).
<b>OACC</b>	PBX operator access code. The PBX operator call number, that is, the common PBX operator call number or the direct in-dialling number for the PBX operator.
<b>OFLNUM</b>	Overflow number. States the number of the overflow position when the timer for the call towards a specific call origin group expires. The parameter can only be entered if the parameter TIME is also entered.
<b>RERNUM</b>	Diversion number. Indicates the number of the night service position or day answering position for the indicated call origin group.
<b>ROU</b>	Call type
<b>SDAY</b>	Day time diversion number for DID calls. This parameter is valid only for DID routes.
<b>SNIG</b>	Night time diversion number for DID calls. This parameter is valid only for DID routes.
<b>TIME</b>	Queue time threshold. Maximum time a call is allowed to queue towards a specific call origin group. The parameter can only be entered if the parameter OFLNUM is also entered.

## 16.12.4

## EXAMPLE 1

Print the data for origin groups 1,4, 8, and 9.

OPCTP:CORG=1&4&8&9;

**Table 736**

OPERATOR CALL TYPE DATA												
CORG	CALT	ROU	OACC	CUST	NDIR	RERNUM	CEN	CCOP	TIME	OFLNUM	SDAY	SNIG
1	2	-	09	-	Y	4246	Y	Y	20	1321	-	-
	4	32	-	-	Y	4246	N	N	20	1321	-	-
	5	7	-	-	Y	4246	N	N	20	1321	-	-
	6	13	09	-	Y	4246	Y	N	20	1321	-	-
4	0	-	9001	-	N	-	N	N	-	-	-	-
8	3	-	8	-	N	-	Y	Y	-	-	-	-
	5	9	-	-	N	-	N	N	-	-	-	-
9	7	6	9000	-	N	-	N	Y	100	1322	1234	5432
END												

Origin group 1 consists of four combinations of call types:

- all intercepted calls with PBX operator call number 09
- calls on manual direct line in route number 32
- calls on manual exchange line in route number 7
- calls on automatic direct line in route number 13 and with PBX operator call number 09.

External calls for origin group 1 are connected to the origin group night switching point (extension 4246) if no PBX operators for the origin group are present. There are central answer position numbers and customer centralized operator numbers initiated to this call origin group.

Calls for origin group 1 are re-directed to the overflow position (extension 1321) if they are not answered by any PBX operator of the origin group within 10 seconds.

Origin group 4 consists of emergency calls. The emergency number is 9001. There is no central answer position number or customer centralized operator number initiated for this call origin group.

Origin group 8 consists of internal calls. The common PBX operator call number is 8. There are central answer position numbers and customer centralized operator numbers initiated to this call origin group. External calls for origin group 8 are distributed as secondary traffic among other PBX operators if no PBX operator for the origin group is present.

Origin group 9 consists of direct in-dialling calls in route number 6. The common call number is 9000. There is no central answer position number initiated for this call origin group. There is a customer centralized operator number initiated for this call origin group. All the calls coming with operator common DID number in this route will be rerouted to the SDAY, SNIG positions depending on the status of the exchange if they are defined through 16.14 OPCTS on page 255 OPCTS command.

Calls for origin group 9 are re-directed to the overflow position (extension 1322) if they are not answered by any PBX operator of the origin group within 50 seconds.

## 16.12.5

### EXAMPLE 2

Print the data for origin groups 2 and 3.

OPCTP:CORG=2&3;

**Table 737**

OPERATOR CALL TYPE DATA												
COMMON OACC NUMBER = 9												
CORG	CALT	ROU	OACC	CUST	NDIR	RERUM	CEN	CCOP	TIME	OFLNUM	SDAY	SNIG
2	4	2	-	10	N	-	N	N	-	-		
3	7	5	4000	15	N	-	N	Y	-	-	1234	4321
END												

The common PBX operator call number for the group is 9.

Origin group 2 consists of calls on a manual tie line in route 2, that is affiliated to customer number 10. There is no central answer position number or customer centralized operator number initiated for this call origin group.

Origin group 3 consists of calls on a direct in dialing line in route 5 that is affiliated to customer number 15. There is no central answer position number initiated for this call origin group. There is a customer centralized operator number initiated for this call origin group. All the DID trunk calls with operator common DID number will be re-directed to the SDAY and SNIG positions depending on the status of the exchange.

The common PBX operator call number is 4000.

## 16.12.6

## COMMAND CATEGORY

Dangerous = **No**

## 16.13

## OPCTR

Operator call type data remove

## 16.13.1

## FORMAT

**Table 738**

**OPCTR:**CALT=[,OACC=][,ROU=];

**Table 739**

**CALT =** Call type.

**OACC =** PBX operator access code.  
(The common PBX operator number or direct indialling number to the PBX operator). The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT.

**ROU =** Route number.  
The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT.

## 16.13.2

## FUNCTION

The command is used to remove origin types from origin groups. A unique combination of call type, emergency number, route number, if any, PBX operator call number, and customer number forms an origin type. An origin group may consist of many different origin types.

The CALT parameter is intimately connected to the OACC and the ROU parameters. The value of the CALT parameter indicates when the OACC or the ROU parameter is to be omitted. One of the parameters OACC or ROU must always be specified.

16.13.3                      EXAMPLE 1

Remove the origin type calls from the exchange line in route 7. The PBX operator access code is not present for the exchange lines.

**Table 740**

OPCTR:CALT=5,ROU=7; EXECUTED
---------------------------------

16.13.4                      EXAMPLE 2

Remove the origin type internal calls with PBX operator access code 8. Route number is not present for the internal calls.

**Table 741**

OPCTR:CALT=3,OACC=8; EXECUTED
----------------------------------

16.13.5                      EXAMPLE 3

Remove the origin type direct indialing call on route 6. On this route PBX operator access code 9000 has been used.

**Table 742**

OPCTR:CALT=7,ROU=6,OACC=9000; EXECUTED
---

16.13.6                      COMMAND CATEGORY

Dangerous = **No**

16.14                        OPCTS

Operator call type data set

16.14.1                      FORMAT

**Table 743**

**OPCTS:**CORG=,CALT=[,OACC=[,ROU=[,CUST=[,SDAY=[,  
[,SNIG=];

**Table 744**

<b>CALT =</b>	Call type
<b>CORG =</b>	Call origin group
<b>CUST=</b>	Customer number The parameter is only optional when customer function is not existing in the system.

<b>OACC =</b>	PBX operator access code. Call number for PBX operator. (Common PBX operator number or direct in-dialling number for PBX operator). The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT.
<b>ROU =</b>	Route number The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT. & and && are permitted for this parameter only for call type of automatic tie line (CALT = 6).
<b>SDAY =</b>	Day time diversion number for DID calls The parameter is optional. This parameter is valid only for DID routes.
<b>SNIG =</b>	Night time diversion number for DID calls The parameter is optional. This parameter is valid only for DID routes.

## 16.14.2

## FUNCTION

The command is used to define an origin group. A unique combination of call type, emergency number, route number, if any, PBX operator call number, and customer number forms an origin type. An origin group may consist of several different origin types.

Another command (16.9 OPCGS on page 249 OPCGS) is used to specify whether a PBX operator is to handle the respective origin group or not.

The CALT parameter is intimately affiliated to the OACC and the ROU parameters. The value of the CALT parameter indicates when the OACC or the ROU parameter is to be omitted. One of the parameters OACC or ROU must always be specified.

## 16.14.3

## EXAMPLE 1 (OACC NOT USED)

Calls of exchange line type in route 7 are included in origin group 1.

**Table 745**

OPCTS:CORG=1,CALT=5,ROU=7; EXECUTED
--

## 16.14.4

## EXAMPLE 2 (ROU NOT USED)

Calls of diverted type with PBX operator call number 09 are also included in origin group 1. The route number is not to be specified for diverted calls.

**Table 746**

OPCTS:CORG=1,CALT=2,OACC=09; EXECUTED
--

## 16.14.5

## EXAMPLE 3 (ROU NOT USED)

Form origin group 8 from calls of internal call type made with PBX operator call number 8. Route numbers are not used where internal calls are concerned.

**Table 747**

OPCTS:CORG=8,CALT=3,OACC=8; EXECUTED
---



16.14.6

### EXAMPLE 4

Form origin group 9 from calls of direct in-dialing type on route 6. PBX operator call number 9000 is obtained on this route.

**Table 748**

```
OPCTS:CORG=9,CALT=7,ROU=6,OACC=9000;
EXECUTED
```

16.14.7

### EXAMPLE 5

Form origin group 3 with direct in-dialing type calls on route 5. PBX operator call number 4000 for customer 15 is obtained on this route.

**Table 749**

```
OPCTS:CORG=3,CALT=7,ROU=5,OACC=4000,CUST=15;
EXECUTED
```

16.14.8

### EXAMPLE 6

Form origin group 4 from calls of automatic tie line type on route number 3 and 7 with PBX operator call number 5000 for customer 9.

**Table 750**

```
OPCTS:CORG=4,CALT=6,ROU=3&7,CUST=9,OACC=5000;
EXECUTED
```

16.14.9

### EXAMPLE 7

Form origin group 5 from calls of automatic tie line type on route number 4,5,6,7 and 8 with PBX operator call number 5000 for customer 12, where route 7 is not assigned yet.

**Table 751**

```
OPCTS:CORG=5,CALT=6,ROU=4&&8,CUST=12,OACC=5000;
PARTLY EXECUTED
ROU
NOT ASSIGNED
```

16.14.10

### EXAMPLE 8

Form origin group 5 from calls of direct in-dialing type on route number 5, with PBX operator call number 4000, with day time diversion to position 1234, and night time diversion to 4321.

**Table 752**

```
OPCTS:CORG=5,CALT=7,ROU=5,OACC=4000,SDAY=1234,
SNIG=4321;
EXECUTED
```

16.14.11

**EXAMPLE 9**

Form origin group 5 from calls of direct in-dialing line type on route number 5 with PBX operator call number 4000, with night time diversion to 1234.

**Table 753**

```
OPCTS:CORG=5,CALT=7,ROU=5,OACC=4000,SNIG=1234;
EXECUTED
```

16.14.12

**COMMAND CATEGORY**

Dangerous = **No**

16.15

**OPCUC**

Operator customer number change

16.15.1

**FORMAT****Table 754**

**OPCUC:DIR=[,OCUST=];**

**Table 755**

**DIR =** Directory number. Directory number for individual PBX operator in customer group. && and & are permitted for this parameter.

**OCUST =** Outgoing customer number Customer number for outgoing traffic.

16.15.2

**FUNCTION**

The command is used to initiate, alter, and remove an outgoing customer number for a PBX operator. Parameter OCUST should be omitted on removal.

16.15.3

**EXAMPLE 1**

The PBX operator with directory number 4022 is using customer number 10 for outgoing calls.

**Table 756**

```
OPCUC:DIR=4022,OCUST=10;
EXECUTED
```

16.15.4

**EXAMPLE 2**

The customer number is erased for the PBX operator with directory number 4022 and customer number 10.

**Table 757**

```
OPCUC:DIR=4022;
EXECUTED
```

16.15.5                    COMMAND CATEGORY

Dangerous = **No**

16.16                    OPDDP

Operator directory data   print

16.16.1                    FORMAT

**Table 758**  
**OPDDP:DIR=[,SORT=];**

**Table 759**

**DIR =**                    Directory number. Directory number of individual PBX operator.  
ALL, & and && are permitted for this parameter.

**SORT =**                    Sorting method. Indicates whether the PBX operator numbers are to be printed in  
numerical order or in order of initiation.  
If the parameter is omitted, the printout will be in numerical order.

16.16.2                    FUNCTION

The command is used to print the customer numbers. Data for the parameters EQU  
and REV are not relevant to the MX-ONE.

16.16.3                    PRINTOUT

**Table 760**

OPERATOR DIRECTORY DATA				
DIR	EQU	OCUST	TYPE	REV
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Table 761**

**EQU**                    Not relevant

**OCUST**                    Outgoing customer number

**REV**                    Not relevant

**TYPE**                    Operator console type

16.16.4                    EXAMPLE

Print the equipment positions for PBX operators having directory numbers 4020 to  
4023.

**Table 762**

OPDDP:DIR=4020&&4023;					
OPERATOR DIRECTORY DATA					
DIR	EQU	OCUST	TYPE	REV	
4020	-	-	7	-	-
4021	-	-	7	-	-
4022	-	-	7	-	-
4023	-	5	7	-	-
END					

The PBX operators use the Operator Assistant or the IP-based Operator Workstation operator console. The PBX operator with directory number 4023 is using customer number 5 for outgoing calls.

16.16.5

**COMMAND CATEGORY**

Dangerous = **No**

16.17

**OPDNC**

Operator day and night time threshold change

16.17.1

**FORMAT****Table 763**

**OPDNC:WDAY= [,DTIME=][,NTIME=];**

**Table 764**

**DTIME** = Day time threshold.  
**NTIME** = Night time threshold.  
**WDAY** = Day of the week.

16.17.2

**FUNCTION**

This command is used to set up the day time threshold and night time threshold for a specific day of the week. The given threshold controls the day or night trunk call discrimination.

The following table shows the valid and invalid combination of the DTIME and NTIME parameters:

**Table 765**

		DTIME			
		=ALL	=NONE	=hhmm	not entered
N	=ALL	not valid	not valid	not valid	valid
T	=NONE	not valid	valid	not valid	valid
I	=hhmm	not valid	not valid	valid	not valid
M	not entered	valid	valid	not valid	not valid

E
---

The above table will be interpreted as follows:

- hhmm: hh is hour and the range is from 00 to 23. mm is minute and the range is from 00 to 59.
- If the NTIME parameter is entered as ALL then any value of DTIME entered will be invalid, the NTIME value will be zero hour of the day.
- If the NTIME parameter is entered as NONE then the DTIME parameter can only have the value NONE or not entered. If NONE is entered, it means that the value for this parameter and the DTIME parameter will be removed, and the system day or night exchange status depends on the PBX operator presence or absence status.
- If the NTIME parameter is entered in the format of hhmm then DTIME can only be entered in the same format.
- If the NTIME parameter is not entered then DTIME can only have the value of ALL or NONE.
- NTIME cannot be equal to DTIME.

16.17.3

#### EXAMPLE 1

Change Sunday's day status to start from 10:30 AM and the night time status to start from 7:30 PM.

**Table 766**

OPDNC:WDAY=SUN,DTIME=1030,NTIME=1930; EXECUTED
---

16.17.4

#### EXAMPLE 2

Change Monday's day status for all day and without night status.

**Table 767**

OPDNC:WDAY=MON,DTIME=ALL; EXECUTED
---------------------------------------

16.17.5

#### EXAMPLE 3

Change Tuesday's night status for all night and without day status.

**Table 768**

OPDNC:WDAY=TUE,NTIME=ALL; EXECUTED
---------------------------------------

16.17.6

#### EXAMPLE 4

Remove Wednesday's day time threshold in the table.

**Table 769**

OPDNC:WDAY=WED,DTIME=NONE; EXECUTED
--

## 16.17.7 COMMAND CATEGORY

Dangerous = **No**

## 16.18 OPDNP

Operator day of week table information print

## 16.18.1 FORMAT

**Table 770**  
**OPDNP;**

## 16.18.2 FUNCTION

The command is used to print the entire information in a day of the week table which includes current day of week, current day or night exchange status, day time threshold, and night time threshold for each day of the week.

The printout also lists any days without the day time or night time threshold set. If no data is set in either the day or the night time threshold, this means that the day or night status for trunk call discrimination depends on the PBX operator presence or absence status. If the day time threshold is ALL, this means that the trunk call discrimination has day status for that whole day. If the night time threshold is ALL, this means that the trunk call discrimination has night status for that whole day and night.

## 16.18.3 PRINTOUT

**Table 771**

DAY OF WEEK: . . .		
CURRENT STATUS: . . .		
	DAY	NIGHT
MON	...	...
TUE	...	...
WED	...	...
THU	...	...
FRI	...	...
SAT	...	...
SUN	...	...
END		

**Table 772**

**CURRENT STATUS** The current day or night exchange status, for example, day.

**DAY** The time value preset by command OPDNC.  
For value, consult parameter DTIME in the parameter description for MML parameters.

**DAY OF WEEK** Current day of the week, for example, Monday or Tuesday.

**NIGHT**                      The time value preset by command OPDNC.  
For value, consult parameter NTIME in the parameter description for MML parameters.

16.18.4

EXAMPLE

Print the entire information for the day of week table:

**Table 773**

OPDNP;		
DAY OF WEEK: MON		
CURRENT STATUS: DAY		
	DAY	NIGHT
MON	08:00	17:00
TUE		
WED	09:00	18:00
THU	08:30	17:30
FRI	ALL	
SAT		ALL
SUN		ALL
END		

In the above example:

**Table 774**

MON	night status from 00:00 AM to 7:59 AM day status from 8:00 AM to 4:59 PM night status from 5:00 PM to 11:59 PM
TUE	day or night status depends on the PBX operator presence or absence status
WED	night status from 00:00 AM to 8:59 AM day status from 9:00 AM to 5:59 PM night status from 6:00 PM to 11:59 PM
THU	night status from 00:00 AM to 8:29 AM day status from 8:30 AM to 5:29 PM night status from 5:30 PM to 11:59 PM
FRI	day status from 00:00 AM to 11:59 PM
SAT	night status from 00:00 AM to 11:59 P
SUN	night status from 00:00 AM to 11:59 PM

16.18.5

COMMAND CATEGORY

Dangerous = **No**

16.19

OPERE

Operator end

16.19.1

FORMAT

**Table 775**

**OPERE:DIR=;**

**Table 776**

**DIR =** Directory number  
& and && are permitted for this parameter.

16.19.2

**FUNCTION**

The command is used to erase one or more PBX operators from the system.

16.19.3

**EXAMPLE**

The PBX operator having directory number 4020 is to be erased from the system.

**Table 777**

```
OPERE:DIR=4020; OPERE:DIR=4020;
SURE? (YES/NO)
YES;
EXECUTED
```

16.19.4

**COMMAND CATEGORY**

Dangerous = **Yes**

16.20

**OPERI**

Operator initiate

16.20.1

**FORMAT**

$$\text{OPERI: DIR=} \left\{ \begin{array}{l} \text{,EQU= [,PASSW=} \\ \text{,MGW=, PASSW=} \end{array} \right\} \text{[,MODE= ][,OCUST=]} \\ \text{[,OPC= ],TRAF= [,TRM=],TYPE=;}$$
**Figure 48:****Table 778**

**DIR =** Directory number. Directory number for individual PBX operator.  
& and && are permitted for this parameter.

**EQU =** Equipment position. If TYPE=7, the parameter is not allowed.

**MGW =** Media gateway where the operator has been initiated.

**MODE =** Signalling mode Standard visual indications only or an addition of special audible tone indications.

**OCUST =** Outgoing customer number.

**OPC =** PBX operator category.

**PASSW =** Password for individual PBX operator.

**TRAF =** Traffic category.

**TRM =** Transmission category. If TRM is omitted default value 0 is given.



**TYPE =** Operator console type.

## 16.20.2

### FUNCTION

The command is used to initiate one or more PBX operators in the system.

If several PBX operators, using the equipment position (EQU) parameter, are initiated simultaneously by giving more than one value on the directory number DIR, the first PBX operator is given the specified EQU value. The subsequent PBX operators are given the subsequent free equipment positions of the correct type.

The command also sets some default values for PBX-operator consoles. The default values include:

- manual answer on calls to PBX operator
- calls signalled by tone ringer (OPI-II, OPI 3203/3213 and OPI 3214 only)
- automatic call selection (OPI-II, symbolic and OPI 3214 consoles only)
- manual call selection (Operator Assistant, OPI 3203/3213, and alphanumeric consoles)
- standard visual indication mode

Manual answer and manual call selection values can be altered from the Operator Assistant operator console. All values, with the exception of tone level and signalling mode, can be altered from the other types of PBX operator console. For OPI-II, the tone level can be altered from the console.

The command is also used to affiliate an outgoing customer number for a PBX operator if the customer group function is used in the system.

With parameter OPC in the command it is possible to:

- select the type of queue counter to be displayed on a specific PBX operator console. The common queue counter can either show all common calls to the PBX or only show calls to the PBX operator's own call origin groups.
- specify if individual operators' calls can be admitted when the PBX operator console is absent marked. If individual operator calls are admitted to the PBX operator console when it is absent marked, the operator can answer and process the call in the same way as when the PBX operator console is present marked.
- specify if recalls to an individual operator can be admitted when the PBX operator console is manually absent marked. If recalls to an individual operator are presented to the PBX operator console when it is manually absent marked, the operator can answer and process the call in the same way as when the PBX operator console is present marked.
- specify if the queue counter is displayed on the PBX operator console when the operator console is absent marked.
- specify if the type of charging for the calls from the operator is per route or per line.

Leaving out the parameter is equivalent to entering **OPC=00000**.

MODE selects whether a console should be initiated to receive special audible tone indications, in addition to standard visual indications, to inform of call progress states, call origin and function-key states. The feature is intended to facilitate the use of the consoles for visually impaired PBX operators. Leaving out the parameter is equivalent to entering **MODE=0**, which disables the feature.

The TYPE parameter specifies the type of PBX operator console. The OPI-II, OPI 3203/3213 and OPI 3214 must be assigned on an ELU33 board.

The OCUST parameter affiliates a PBX operator to a customer for outgoing calls.

The TRM parameter is the PBX operator attenuation or amplification.

### 16.20.3

#### EXAMPLE 1

The PBX operators should have directory numbers 4020 to 4022 and the console type is Operator Assistant.

Parameter OPC has default value 00000, that is, the common queue counter shows all calls to the PBX, individual operator calls are not admitted to the PBX operator console when it is absent marked, recalls to an individual operator are not presented to the PBX operator console when it is manually absent marked, the queue counter is not displayed when the PBX operator console is absent marked, and the type of charging is per route.

The PBX operators are completely open for outgoing traffic and have the traffic switching class fully open.

The operators have been initiated in first gateway in LIM 1.

The operators are to receive standard visual indications, but no special blind mode audible status indications.

The password for all the operators is to be "polind".

**Table 779**

OPERI:DIR=4020&&4022,TRAF=1515,MGW=1A,TYPE=7, PASSW="polind"; EXECUTED
--

### 16.20.4

#### EXAMPLE 2

The PBX operator has directory number 4023 and is placed in LIM 1, gateway A, magazine 0, board position 21, individual 3. The console type is OPI-II.

The PBX operator's common queue counter is used to show calls to the PBX operator's own call origin groups, individual operator calls are admitted to the PBX operator console when it is absent marked, recalls to an individual operator are presented to the PBX operator console when it is manually absent marked, and the queue counter is displayed when the PBX operator console is absent marked, and the type of charging is per line, OPC=1111.

The PBX operator is fully open for outgoing traffic and has the traffic switching class fully open.

The PBX operator shall use customer number 5 for outgoing calls.

The PBX operator shall receive special blind mode audible status indications in addition to standard visual indications.

The PBX operator transmission coding principle is A law.

The PBX operator shall use the attenuation or amplification levels set by the transmission matrix in row and column 1.

**Table 780**

OPERI:DIR=4023,EQU=1A-0-21-3,OPC=1111,TRAF=1515, OCUST=5,MODE=1,TYPE=5,TRM=1; EXECUTED
--

16.20.5
COMMAND CATEGORY

Dangerous = **No**

16.21
OPIDP

Operator IP data print

16.21.1
FORMAT

**Table 781**  
**OPIDP:DIR=;**

**Table 782**  
**DIR =**      Directory number. Directory number of individual PBX operator.  
              ALL, & and && are permitted for this parameter.

16.21.2
FUNCTION

The command is used to print the IP address used by the Operator Assistant (NOW workstation) application, the IP address used by the OMD, the LIM where the operators have been initiated, and the individual passwords.

16.21.3
PRINTOUT

**Table 783**

IP OPERATOR DATA				
DIR	MGW	OWS IP ADDRESS	OMD IP ADDRESS	PASSWORD
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Table 784**

**MGW**                      Media gateway where the operator has been initiated.  
**OMD IP ADDRESS**      IP address used by the Operator Media Device (OMD).  
**OWS IP ADDRESS**      IP address used by the Operator workstation application.  
**PASSW**                    Operator password

16.21.4
EXAMPLE

Print the IP data related to operators having directory numbers 4020 to 4022.

**Table 785**

OPIDP:DIR=4020&&4023;
IP OPERATOR DATA

DIR	MGW	OVS IP ADDRESS	OMD IP ADDRESS	PASSWORD
4020	1A	159.107.27.222	159.107.27.232	diingly
4021	1A	159.107.27.223	NOT REGISTERED	qasdi21
4022	1A	NOT REGISTERED	NOT REGISTERED	1hantop
END				

All the PBX operators have been initiated in LIM 1 and gateway A.

The PBX operator with directory number 4020 has the OVS registered at IP 159.107.27.222, the OMD at IP 159.107.27.232, and its password is "diingly".

The PBX operator with directory number 4021 has the OVS registered at IP 159.107.27.223, the OMD is not registered, and its password is "qasdi21".

The PBX operator with directory number 4022 has the OVS and the OMD not registered, and its password is "1hantop".

## 16.21.5

## COMMAND CATEGORY

Dangerous = **No**

## 16.22

## OPISP

Operator instrument data print

### 16.22.1

### FORMAT

**Table 786**

**OPISP:DIR=;**

**Table 787**

**DIR =** Directory number. Directory number for the individual PBX operator. ALL, & and && are permitted for this parameter.

### 16.22.2

### FUNCTION

The command is used to print the status of the PBX operator instrument for the specified PBX operator directory number. The printout shows:

- the answer type and whether it can be changed from the PBX operator instrument or not
- call connection type and whether it can be changed from the PBX operator instrument or not
- signalling method and whether it can be changed from the PBX operator instrument or not
- level of the tone burst signalling.
- whether the special audible tone indication feature for the visually impaired is enabled or not.
- which language the operator is using for display purpose.

## 16.22.3

## PRINTOUT

**Table 788**

OPERATOR INSTRUMENT STATUS DATA						
DIR	ANSW	EXTEND	AUD	LEV	MODE	LANG
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
END						

**Table 789**

<b>ANSW</b>	Answer type
<b>AUD</b>	Audible indication type. Specifies the signalling method and Queuing Tone indication for calls to the PBX operator.
<b>EXTEND</b>	Extending type
<b>LANG</b>	Language code Specifies the language the operator console is currently using for display purpose.
<b>LEV</b>	Tone burst level. Level of the tone burst signalling.
<b>MODE</b>	Signalling mode Standard visual indications only or an addition of special audible tone indications.

## 16.22.4

## EXAMPLE

Print the status of the PBX operators with directory numbers 4020 to 4022.

**Table 790**

OPISP:DIR=4020&&4022;						
OPERATOR INSTRUMENT STATUS DATA						
DIR	ANSW	EXTEND	AUD	LEV	MODE	LANG
4020	N	A	N0	L	1	F
4021	A	M	N0	L	0	0
4022	N	N	N0	L	0	2
END						

The PBX operator with directory number 4020 can change the answer type from the PBX operator instrument. Extending is performed automatically and cannot be changed by the PBX operator. The PBX operator receives special blind mode audible tone indications in addition to standard visual indications. Queuing tone indication is set to periodic tone burst. The PBX operator uses the exchange default language for display purpose.

## 16.22.5

## COMMAND CATEGORY

Dangerous = **No**

## 16.23

## OPISS

Operator instrument status set

## 16.23.1

## FORMAT

**Table 791**

**OPISS:DIR=[,ANSW=][,EXTEND=][,AUD= ][,LEV=][,MODE=] [,LANG=];**

**Table 792**

<b>ANSW =</b>	Answer type
<b>AUD =</b>	Audible indication type and the Call queuing tone indication for IP operators (type = 7).
<b>DIR =</b>	Directory number ALL, & and && are permitted for this parameter.
<b>EXTEND =</b>	Extending type
<b>LANG =</b>	Language code.
<b>LEV =</b>	Tone burst level.
<b>MODE =</b>	Signalling mode Standard visual indications only or an addition of special audible tone indications.

## 16.23.2

## FUNCTION

The command is used to set the status of the PBX operator console. One of the parameters ANSW, EXTEND, AUD, LEV, MODE, or LANG must be specified. The statuses are:

**ANSWER TYPE**

Automatic answering means that the PBX operator is put in direct connection with the calling party.

Manual answer means that the PBX operator has to press the answer button in order to gain connection with the calls.

**EXTENDING TYPE**

Automatic extending means that the PBX operator extends a call simply by dialling the directory number of the desired B party.

Manual extending means that the PBX operator, after dialling the directory number of B party, has to press the extending button in order for the call to be forwarded.

**AUDIBLE INDICATION TYPE**

Specifies the signalling method on calling the PBX operator and the Call queuing tone indication for IP operators (type = 7). For types other than 7, the queuing tone indication is set to the default value (0, periodic tone burst).

**TOPE BURST LEVEL**

There exist three tone levels:

H = High: normal sound level L = Low: muted sound level S = Silent: no call tone

**Note:** On alphanumeric PBX operator consoles and Operator Assistant consoles, tone burst is set to default value and cannot be changed. On OMD and NOW, the tone burst level can be changed by the end user if the default value is set to H=High.

**SIGNALLING MODE**

Specifies whether or not a PBX operator should receive special audible tone indications, in addition to standard visual indications, to inform of call progress, call origin and function-key states. The feature is primarily intended for the visu-

ally impaired PBX operator. If the parameter MODE is not entered, the feature is disabled as default.

**LANGUAGE CODE**

Specifies in which language the text strings on the operator console should be displayed in. The parameter is only available when the console is of type OPI 3214.

16.23.3

**EXAMPLE 1**

Assign PBX operators of type alphanumeric with directory numbers 4020 to 4022 the following PBX operator instrument (console) status:

- automatic answering and extending
- tone burst calling
- muted signal level for tone burst calling
- standard visual indications only
- display messages in German.

**Table 793**

OPISS:DIR=4020&&4022,ANSW=A,EXTEND=A,AUD=T,LEV=L, MODE=0,LANG=2; EXECUTED
--

16.23.4

**EXAMPLE 2**

Assign PBX operators with directory numbers 4020 to 4022 with the following status:

- manual answering
- special audible tone indications for the visually impaired, in addition to standard visual indications

**Table 794**

OPISS:DIR=4020&&4022,ANSW=M,MODE=1; EXECUTED
---

16.23.5

**COMMAND CATEGORY**

Dangerous = **No**

16.24

**OPNEE**

Operator notified exchange end

16.24.1

**FORMAT**

**Table 795**

OPNEE:NEXGNO=[,OWNID=];

**Table 796**

<b>NEXGNO =</b>	Notified exchange number. An exchange number for exchanges, which are to be notified of day or night-status changes in the centralized PBX operator's exchange. & is permitted for this parameter.
<b>OWNID =</b>	Own exchange number. An exchange number which should be the own exchange number of the centralized PBX operator's exchange, and is used as A-number in day or night status notification calls. Only one number can be set. The parameter may not be omitted if the own exchange number for the exchange was previously set.

16.24.2

**FUNCTION**

The command is used to remove one or several exchange numbers from the table, which gives the information about the exchanges that are to be notified of day or night-status changes in the centralized PBX operator's exchange. It is also used to remove the own exchange number used as A-party number in day or night status notification calls.

16.24.3

**EXAMPLE**

Remove the exchanges with exchange numbers 742 and 764 from the table of exchanges, that are to be notified of day or night-status changes in a centralized PBX operator's exchange. Keep the own exchange number.

**Table 797**

OPNEE:NEXGNO=742&764; EXECUTED
-----------------------------------

16.24.4

**COMMAND CATEGORY**

Dangerous = **No**

16.25

**OPNEI**

Operator notified exchange initiate

16.25.1

**FORMAT****Table 798**

**OPNEI:NEXGNO=[,OWNID=];**

**Table 799**

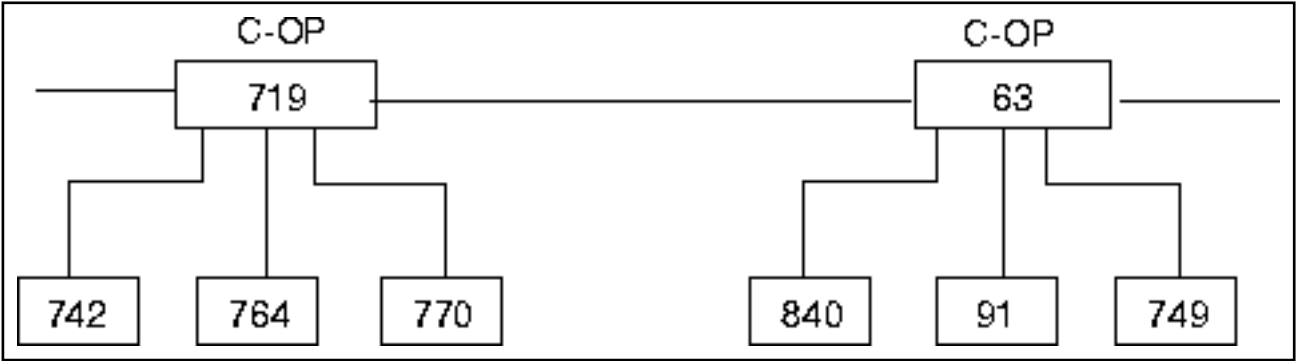
<b>NEXGNO =</b>	Notified exchange number The exchanges which are to be notified of the day or night-status changes in the centralized PBX operator's exchange. & is permitted for this parameter.
<b>OWNID =</b>	Own exchange number The own exchange number of the centralized PBX operator's exchange to be used as A-number in day or night status notification calls. Only one number can be set. If the parameter is omitted, no own exchange number will be set.



16.25.2FUNCTION

The command is used to initiate one or several exchange numbers that are to be notified of day or night-status changes in the centralized PBX operator's exchange. The exchanges included in the command will be regularly notified of the time and the status change. The own exchange number used for day or night status notification is also set with this command.

16.25.3EXAMPLE



**Figure 49:**  
 Assign the centralized PBX operator's exchange (719) to the exchanges with numbers 742, 764, and 770 for notification of day or night-status changes. The own exchange number should be 719.

```

OPNEI:NEXGNO=742&764&770,OWNID=719;
EXECUTED
    
```

**Table 800**

16.25.4COMMAND CATEGORY

Dangerous = **No**

16.26OPNEP

Operator notified exchange print

16.26.1FORMAT

**Table 801**  
**OPNEP;**

16.26.2FUNCTION

The command is used to print the table which contains the exchanges that are to be notified of day or night-status changes in the centralized PBX operator's exchange. The command also prints the own exchange number of that exchange.

16.26.3

## PRINTOUT

**Table 802**

NOTIFIED EXCHANGE DATA	OWN EXCHANGE NUMBER
.	...
.	
END	

16.26.4

## EXAMPLE

Print the exchanges which the centralized PBX operator's exchange is to update and the own exchange number.

**Table 803**

OPNEP;		
	NOTIFIED EXCHANGE DATA	OWN EXCHANGE NUMBER
	742	719
	764	
	770	
END		

The exchanges 742, 764 and 770 are to be notified of day or night-status changes in the centralized PBX operator's exchange. The own exchange number is 719.

16.26.5

## COMMAND CATEGORY

Dangerous = **No**

16.27

## OPRSC

Operator route string change

16.27.1

## FORMAT

**OPRSC:** { **ROU=...**,  
          **SDM=...**, [ **LANG=**, ] } **STRING="text";**

**Figure 50:****Table 804**

<b>LANG =</b>	Language code.
<b>ROU =</b>	Route number. & and && are permitted for this parameter. The parameter has no effect for the Operator Assistant.
<b>SDM =</b>	Simplified diversion message number. & and && are permitted for this parameter.
<b>STRING =</b>	Text string The name of the route or a simplified diversion message.

16.27.2

FUNCTION

The command is used to change the name for each route. The default text string is TRK. The text string will be displayed on certain PBX operator consoles whenever route information is displayed on the console. It does not apply for the Operator Assistant, but a string must still be entered.

The command is also used to change the contents of a given simplified diversion message on the same consoles. If the LANG parameter is left out the diversion message will be changed for the exchange default language.

16.27.3

EXAMPLE 1

Display TIE on the console, when a call arrives to the PBX operator on route 1.

**Table 805**

OPRSC:ROU=1,STRING="TIE";  
EXECUTED

16.27.4

EXAMPLE 2

Display OUT-VAC on the console for simplified diversion message number 1 for the exchange default language.

**Table 806**

OPRSC:SDM=1,STRING="OUT-VAC";  
EXECUTED

16.27.5

EXAMPLE 3

Display KRANK on the console for simplified diversion message number 9 for the German language.

**Table 807**

OPRSC:SDM=9,STRING="KRANK",LANG=2;  
EXECUTED

16.27.6

COMMAND CATEGORY

Dangerous = **No**

16.28

OPRSP

Operator route string print

16.28.1

FORMAT

OPRSP: { ROU=...  
SDM=... [ ,LANG=... ] } ;

**Figure 51:**  
**Table 808**

<b>LANG</b>	=	Language code ALL is permitted for this parameter.
<b>ROU</b>	=	Route number. &, && and ALL are permitted for this parameter. The parameter has no effect for the Operator Assistant.
<b>SDM</b>	=	Simplified diversion message number. &, && and ALL are permitted for this parameter.

16.28.2

## FUNCTION

The command is used to print the text string for route numbers or simplified diversion message data.

If parameter LANG is left out the exchange default language will be printed.

16.28.3

## PRINTOUT 1 (ROU)

**Table 809**

OPERATOR ROUTE NAME		
	ROU	NAME
	.	.
	.	.
	.	.
END		

**Table 810**

<b>ROU</b>	Route number.
<b>NAME</b>	The text string for the route.

16.28.4

## PRINTOUT 2 (SDM)

**Table 811**

OPERATOR SIMPLIFIED DIVERSION MESSAGE		
	LANG: ...	
	SDM	TEXT
	.	.
END		

**Table 812**

<b>LANG</b>	Printed language.
<b>SDM</b>	Simplified diversion message number.
<b>TEXT</b>	The associated text string.

16.28.5

## EXAMPLE 1 (ROU)

Print the text strings for route 1, 2 and 3.

**Table 813**

OPRSP:ROU=1&&3;	
OPERATOR ROUTE NAME	
ROU	NAME
1	TIE
2	TRK
3	TRK
END	

The text string for route 1 is TIE. The remaining routes have the default text string TRK.

16.28.6

EXAMPLE 2 (SDM)

Print the simplified diversion message number 1 for the default exchange language.

**Table 814**

OPRSP:SDM=1;	
OPERATOR SIMPLIFIED DIVERSION MESSAGE	
LANG: ENGLISH	
SDM	TEXT
1	OUT-VAC
END	

The text string for simplified diversion message number 1 for the exchange default language is OUT-VAC.

16.28.7

EXAMPLE 3 (SDM)

Print the simplified diversion message number 9 for the German language.

**Table 815**

OPRSP:SDM=9,LANG=2;	
OPERATOR SIMPLIFIED DIVERSION MESSAGE	
LANG: GERMAN	
SDM	TEXT
9	KRANK
END	

The text string for simplified diversion message number 9 for the German language is KRANK.

16.28.8

COMMAND CATEGORY

Dangerous = **No**

16.29

OPSAE

Operator server address end

16.29.1

## FORMAT

**Table 816****OPSAE:LIM=;****Table 817**

**LIM =** LIM number.  
& and && are permitted for this parameter.

16.29.2

## FUNCTION

The command is used for closing the operator server port used for registration in a LIM.

16.29.3

## EXAMPLE

The operator server port in LIM 1 will be closed.

**Table 818**

```
OPSAE:LIM=1; OPSAE:LIM=1;
SURE? (YES/NO)
YES;
EXECUTED
```

16.29.4

## COMMAND CATEGORY

Dangerous = **Yes**

16.30

## OPSAI

Operator server address initiate

16.30.1

## FORMAT

**Table 819****OPSAI:LIM=,PORT=;****Table 820**

**LIM=** LIM number.  
**PORT =** Port number.

16.30.2

## FUNCTION

The command is used to initiate a TCP server port for registration in a LIM with a specific port. The IP address is fetched from the system configuration files.

16.30.3

## EXAMPLE

An operator server will be initiated in LIM 1 at port 7777.

Table 821

OPSAI:LIM=1,PORT=7777; EXECUTED
------------------------------------

16.30.4                   COMMAND CATEGORY

Dangerous = **No**

16.31                   OPSAP

Operator server address print

16.31.1               FORMAT

Table 822

OPSAP:LIM=;

Table 823

*LIM* =       LIM number.  
              ALL and & are permitted for this parameter.

16.31.2               FUNCTION

The command is used to print the operator server data (IP address and port).

16.31.3               PRINTOUT

Table 824

OPERATOR SERVER DATA		
LIM . . .	IP ADDRESS . . .	PORT . . .
END		

Table 825

**IP ADDRESS**       IP address where the operator server is initiated.

**PORT**             Port number.

16.31.4               EXAMPLE 1

Print the operator server data in LIM 1.

Table 826

OPSAP:LIM=1;		
OPERATOR SERVER DATA		
LIM	IP ADDRESS	PORT
1	159.107.27.111	7777
END		

The operator server in LIM 1 is initiated at the IP address 159.107.27.111 and port 7777.

16.31.5

## EXAMPLE 2

Print the operator server data in all LIMs.

**Table 827**

OPSAP:LIM=ALL;		
OPERATOR SERVER DATA		
LIM	IP ADDRESS	PORT
1	159.107.27.111	7777
2	159.107.27.112	7777
END		

The operator server in LIM 1 is initiated at the IP address 159.107.27.111 and port 7777. The operator server in LIM 2 is initiated at the IP address 159.107.27.112 and port 7777.

16.31.6

## COMMAND CATEGORY

Dangerous = **No**

16.32

## OPTSP

Operator traffic status print

16.32.1

## FORMAT

**Table 828**

**OPTSP;**

16.32.2

## FUNCTION

The command is used to print the traffic status of all PBX operators.

The printout contains:

- directory numbers of all initiated PBX operators,
- whether the respective PBX operator is marked present or absent,
- whether the respective PBX operator is free or busy,
- how long the oldest call has waited in the queue,
- which origin groups have been initiated,
- number of waiting calls per origin group,
- number of PBX operators present per origin group.

A unique combination of call type, route number, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types.



16.32.3
PRINTOUT

**Table 829**

OPERATOR TRAFFIC STATUS DATA		
DIR	BUSY/FREE	ABSENT/PRESENT
.	.	.
.	.	.
WAITING TIME FOR OLDEST CALL IN QUEUE:.. .S		
CORG	WAITING CALLS	OPERATORS PRESENT
.	.	.
.	.	.
END		

**Table 830**

<b>ABSENT/ PRESENT</b>	PBX operator marked present or absent. A = absent, P = present.
<b>BUSY/FREE</b>	PBX operator busy or free. B = busy, F = free
<b>CORG</b>	Origin group
<b>DIR</b>	Directory number of individual PBX operator
<b>OPERATORS PRESENT</b>	Indicates how many PBX operators are marked present for a specified origin group
<b>WAITING CALLS</b>	Number of calls in queue per origin group.
<b>WAITING TIME ...</b>	Indicates in seconds how long the oldest call in the queue has been waiting.

16.32.4
EXAMPLE

Print the traffic status of all PBX operators.

**Table 831**

OPTSP;		
OPERATOR TRAFFIC STATUS DATA		
DIR	BUSY/FREE	ABSENT/PRESENT
4020	B	P
4021	B	P
4022	F	P
4025	F	A
WAITING TIME FOR OLDEST CALL IN QUEUE: 12S		
CORG	WAITING CALLS	OPERATORS PRESENT
1	0	0
8	3	2
10	1	1
END		

The PBX operator with directory number 4020 is marked present and is busy. The oldest call in the queue has been waiting for 12 seconds. Three calls from origin group 8 are in the queue and there are two PBX operators present.

16.32.5

## COMMAND CATEGORY

Dangerous = **No**

# 17 PA - PAGING

## 17.1 PAALE

Paging alarm group code end

### 17.1.1 FORMAT

**Table 832**  
**PAALE:DIR=;**

**Table 833**  
**DIR =** Extension directory number.  
& and && are permitted for this parameter.

### 17.1.2 FUNCTION

The command is used to erase automatic transmission of the alarm group code for an extension.

### 17.1.3 EXAMPLE

Erase the alarm group code for extension 1234.

**Table 834**

PAALE: DIR=1234; EXECUTED
------------------------------

### 17.1.4 COMMAND CATEGORY

Dangerous = **No**

## 17.2 PAALI

Paging alarm group code initiate

### 17.2.1 FORMAT

**Table 835**  
**PAALI:CODE=,DIR=;**

**Table 836**  
**CODE =** Alarm group code.  
Alarm group code for paging.  
**DIR =** Extension directory number.  
& and && are permitted for this parameter.

17.2.2 FUNCTION

The command is used to initiate an alarm group code for paging. The alarm group code is common for a group of extensions, for example, one floor of an office, and states the origin of the alarm. On alarm generation the alarm group code will be issued to paging receivers, stating from where the alarm was started.

17.2.3 EXAMPLE

Associate alarm group code 123 to extensions 1234 and 1250.

**Table 837**

PAALI: CODE=123, DIR=1234&1250; EXECUTED
---

17.2.4 COMMAND CATEGORY

Dangerous = **No**

17.3 PAALP

Paging alarm group code print

17.3.1 FORMAT

**Table 838**

**PAALP:DIR=;**

**Table 839**

**DIR** =      Extension directory number.  
         ALL, &, and && are permitted for this parameter.

17.3.2 FUNCTION

The command is used to print the alarm group code in respect of stated extensions.

17.3.3 PRINTOUT

**Table 840**

[WAIT]	
PAGING ALARM GROUP CODE	
DIR	CODE
.	.
.	.
.	.
END	

**Table 841**

<b>CODE</b>	Alarm group code. Alarm group code for paging.
<b>WAIT</b>	Printout in the event of long execution times.

17.3.4

EXAMPLE

Print the alarm group codes for extension numbers 1234-1250.

**Table 842**

PAALP: DIR=1234&&1250;	
PAGING ALARM GROUP CODE	
DIR	CODE
1234	123
1250	123
END	

In the extension number series 1234-1250, 1234 and 1250 are affiliated to alarm group code 123. When these extensions start the alarm towards paging the alarm group code will be sent to the paging receiver’s display automatically.

17.3.5

COMMAND CATEGORY

Dangerous = **No**

17.4

PACAC

Paging category change

17.4.1

FORMAT

$$\text{PACAC:} \left[ \begin{array}{l} \text{DIR=...} \\ \text{EPN=...} \\ \text{CPN=...} \end{array} \right], \text{PCAT=;}$$

**Figure 52:**

**Table 843**

<b>CPN =</b>	Common paging number. Common paging number for paging group. & and && are permitted for this parameter.
<b>DIR =</b>	Extension directory number. & and && are permitted for this parameter.
<b>EPN =</b>	Extra paging number. Extra paging number when own extension is lacking. & and && are permitted for this parameter.

**PCAT =**     Paging category.  
Paging category with respect to priority for access to paged number, transmission of display message and type of paging receiver.

17.4.2                      FUNCTION

The command is used to alter the paging category in respect of extension numbers, extra paging number, or common paging number.

17.4.3                      EXAMPLE

The category for extra paging number 1150 is to be altered. The new receiver is type 4, that is, with display and "meet me". The display transmission category is 1, that is, the A-number is sent automatically. The priority level shall be 1.

**Table 844**

PACAC:EPN=1150,PCAT=411; EXECUTED
--------------------------------------

17.4.4                      COMMAND CATEGORY

Dangerous = **No**

17.5                              **PACHE**

Paging channel end

17.5.1                      FORMAT

**Table 845**

**PACHE:CHL=;**

**Table 846**

**CHL =**        Channel number.  
Channel number for paging equipment.  
& and && are permitted for this parameter.

17.5.2                      FUNCTION

The command is used to remove a paging channel. The equipment position assigned to the initiated channel becomes free on execution of the command.

17.5.3                      EXAMPLE

Paging channels with numbers 5 and 10 are removed from the system.

**Table 847**

PACHE:CHL=5&10; EXECUTED
-----------------------------

17.5.4                      COMMAND CATEGORY

Dangerous = **No**

17.6                        PACHI

Paging channel initiate

17.6.1                    FORMAT

**Table 848**  
**PACHI:SAR=,CHL=,EQU=;**

**Table 849**  
**CHL =**        Channel number.  
                 Channel number for paging equipment.  
                 & and && are permitted for this parameter.  
  
**EQU =**        Equipment number.  
                 Equipment position for paging channel.  
  
**SAR =**        Search area.  
                 Search area for paging.

17.6.2                    FUNCTION

The command is used to state which paging channel is to be initiated in respect of a specific hardware position in the system. At the same time the channel is affiliated to a stated search area. If several channels are to be initiated in one command the system will automatically search for free and correctly equipped equipment positions from and including the position stated in parameter EQU.

17.6.3                    EXAMPLE

Paging channel number 5 shall be initiated to equipment position in LIM 7, gateway C, magazine 1, board position 11, individual 1 on the board. The channel shall be affiliated to search area 7.

**Table 850**

PACHI: SAR=7, CHL=5, EQU=7C-1-11-1; EXECUTED
---

17.6.4                    COMMAND CATEGORY

Dangerous = **No**

17.7                        PADAP

Paging data print

17.7.1

FORMAT

**PADAP:**  $\left[ \begin{array}{l} \text{DIR}=\dots \\ \text{EPN}=\dots \\ \text{CPN}=\dots \end{array} \right] ;$

**Figure 53:**  
**Table 851**

- CPN =** Common paging number.  
Common directory number for paging group.  
ALL, & and && are permitted for this parameter.
- DIR =** Extension directory number.  
ALL, & and && are permitted for this parameter.
- EPN =** Extra paging number.  
Extra directory number for paging when own extension is lacking.  
ALL, & and && are permitted for this parameter.

17.7.2

FUNCTION

The command is used to print paging data in respect of stated directory numbers.

17.7.3

PRINTOUT

[WAIT]				
PAGING DATA				
$\left[ \begin{array}{l} \text{DIR} \\ \text{EPN} \\ \text{CPN} \end{array} \right]$	SCD	MSAR	SSAR	PCAT
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Figure 54:**  
**Table 852**

- MSAR** Meet me search area.  
Search area for meet me paging.



<b>PCAT</b>	Paging category. Paging category with respect to priority for access to paged number, transmission of display message and type of paging receiver.
<b>SCD</b>	Search code. Search code for paging receivers.
<b>SSAR</b>	Speech search area. Search area for voice paging.
<b>WAIT</b>	Printout in the event of long execution times.

#### 17.7.4

#### EXAMPLE 1

Print the paging data for the extension number series 2600-2630.

**Table 853**

PADAP: DIR=2600&&2630;				
PAGING DATA				
DIR	SCD	MSAR	SSAR	PCAT
2600	151	1, 2	2	510
2621	153	1		412
END				

In the extension number series 2600-2630 extensions 2600 and 2621 have paging. Extension 2600 has a receiver with search code 151 and meet me paging takes place simultaneously in search areas 1 and 2. Voice paging takes place in search area 2. The receiver has one-way speech and display. The priority level is 0 and A-number is transmitted automatically. Extension 2621 has a receiver with search code 153 and it is paged with meet me in search 1. The receiver has a display and A-number is transmitted automatically. The priority level is 2.

#### 17.7.5

#### EXAMPLE 2

Print the paging data for extra paging number 1150.

**Table 854**

PADAP: EPN=1150;				
PAGING DATA				
EPN	SCD	MSAR	SSAR	PCAT
1150	132	11		000
END				

An extra directory number for paging, 1150, is initiated and the receiver has paging code 132. Meet me paging is undertaken in search area 11, the receiver is a meet me type with tone bursts. Neither A nor B number is sent to the receiver. The priority level is 0.

#### 17.7.6

#### EXAMPLE 3

Print the data for common paging numbers 2970 and 2980.

**Table 855**

PADAP: CPN=2970&2980;				
-----------------------	--	--	--	--

PAGING DATA				
CPN	SCD	MSAR	SSAR	PCAT
2970	612	1		002
2980	613	7	1	602
END				

The common paging number 2970 reaches all receivers with group paging code 612 in the meet me search area 1, the receivers are for meet me only. Neither A nor B number is transmitted. The priority level is 2.

Number 2980 reaches all receivers with group paging code 613 in meet me search area 7 or voice search area 1. Bothway voice with meet me receivers are used. The display transmit category is 0, so neither A nor B number is transmitted. The priority level is 2.

### 17.7.7 COMMAND CATEGORY

Dangerous = **No**

## 17.8 PAEDP

Paging equipment data print

### 17.8.1 FORMAT

**Table 856**

PAEDP:SAR=;

**Table 857**

**SAR =** Search area.  
Search area for paging.  
ALL, & and && are permitted for this parameter

### 17.8.2 FUNCTION

The command is used to print data for search area and paging channel.

### 17.8.3 PRINTOUT

**Table 858**

PAGING EQUIPMENT DATA							
SAR	CHL	EQU	TYPE	VAR	THO	TBL	REP
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
END							

**Table 859**

**CHL** Channel number. Channel number for paging equipment.

<b>EQU</b>	Equipment number. Equipment position at which paging channel is initiated.
<b>REP</b>	Number of repetitions for a paging job. The parameter states the number of times a paging job shall be repeated. The normal value is REP = 0, that is, no repetition shall take place.
<b>TBL</b>	Total blocking time for paging channel. Blocking time for the paging channel before new seizure is permitted. Normal value is TBL = 0, that is, no blocking shall take place.
<b>THO</b>	Total holding time for paging channel. Maximum seizure time for paging channel.
<b>TYPE</b>	Type of signalling diagram for paging equipment, that is, which PG function block administers the equipment position. For value, see the parameter description for <i>BRDID</i> , <i>TYPE</i> , <i>UNIT</i> .
<b>VAR</b>	Signalling diagram variation.

## 17.8.4

### EXAMPLE

Information about search areas 7 through 10 is to be printed.

**Table 860**

PAEDP:SAR=7&&10;							
PAGING EQUIPMENT DATA							
SAR	CHL	EQU	TYPE	VAR	THO	TBL	REP
7	5	7C-1-11-01	PG1	H'0000123000	111089	0	0
	7	7C-1-11-02					
9	9	9A-1-11-00	PG1	H'00645B9D00	005089	0	4
	10	9A-1-11-01					
END							

Of search areas 7 through 10, areas 7 and 9 have been initiated. Search area 7 has channels 5 and 7 initiated at the equipment positions in LIM 7, gateway C, magazine 1, board position 10 and individual numbers 1 and 2 on the board. Signaling diagram is PG1, that is, signaling via a serial E interface. The signaling diagram variation is 0000123000.

The maximum seizure time for the channel for meet me paging is 111 seconds and for voice paging 89 seconds. The channels in search area 7 shall not be blocked. No repetition of the paging jobs.

Search area 9 has channels 9 and 10 initiated to LIM 9, gateway A, magazine 1, board position 10, individuals 0 and 1 respectively. The signaling diagram is PG1 with the signaling diagram variation 00645B9D00. Maximum seizure time for the channels is 5 and 89 seconds for meet me and voice paging respectively. The paging jobs are repeated four times towards the paging equipment.

## 17.8.5

### COMMAND CATEGORY

Dangerous = **No**

17.9 **PAGIE**

Paging end

17.9.1 **FORMAT**

**PAGIE:**  $\left[ \begin{array}{l} \text{DIR=...} \\ \text{EPN=...} \\ \text{CPN=...} \end{array} \right];$

**Figure 55:**  
**Table 861**

- CPN** = Common paging number.  
Common directory number for paging group.  
& and && are permitted for this parameter.
- DIR** = Extension directory number.  
& and && are permitted for this parameter.
- EPN** = Extra paging number.  
Extra paging number when own extension is lacking.  
& and && are permitted for this parameter.

17.9.2 **FUNCTION**

The command is used to erase:

- Paging from an existing extension.
- Paging with an extra paging number.
- Paging with a common paging number.

17.9.3 **EXAMPLE**

Paging shall be erased from extensions with directory number 2600 through 2630.

**Table 862**

PAGIE:2600&&2630;
EXECUTED

17.9.4 **COMMAND CATEGORY**

Dangerous = **No**

17.10 **PAGII**

Paging initiate

## 17.10.1

## FORMAT

**PAGII:**  $\left[ \begin{array}{l} \text{DIR=} \\ \text{EPN=} \\ \text{CPN=} \end{array} \right], \text{SCD=}, \text{MSAR=...} [ , \text{SSAR=} [ , \text{PCAT=};$

**Figure 56:****Table 863**

<b>CPN =</b>	Common paging number. Common directory number for paging group.
<b>DIR =</b>	Extension directory number.
<b>EPN =</b>	Extra paging number. Extra paging number when own extension is lacking.
<b>MSAR =</b>	Meet-me search area. & and && are permitted for this parameter.
<b>PCAT =</b>	Paging category. Paging category with respect to order of priority for access to paged number, transmission of display message and type of paging receiver.
<b>SCD =</b>	Search code. Search code for paging receiver.
<b>SSAR =</b>	Speech search area.

## 17.10.2

## FUNCTION

The command is used to assign:

- paging to an existing extension
- paging with extra paging number, that is, a visitor to a company, is to be equipped with a paging receiver. The visitor lacks an own extension in the PBX and it shall be possible to page the visitor with an extra paging number.
- paging to a common paging number, that is, a group of paging receivers whose members are paged simultaneously when the common paging number is called.

Each extension can be initiated to several search areas for meet me. In conjunction with this, the paging job will be transmitted to all these areas.

## 17.10.3

## EXAMPLE 1

Extension 2621, existing in the PABX, shall have paging. The paging receiver shall have paging code 153 and belong to search area 1 for meet me. The receiver is type 4, that is, display with meet me. The display transmission category is 1, that is, A number is to be sent. The priority level is 2.

**Table 864**

PAGII: DIR=2621, SCD=153, MSAR=1, PCAT=412; EXECUTED
---

17.10.4

EXAMPLE 2

A visitor, lacking own extension in the PBX, shall be assigned paging. The visitor is assigned extra directory number 1150 for paging. The receiver shall have search code 132 and the visitor shall be paged with meet me via search area 11. The receiver provides tone bursts only, that is, display and speech are lacking. The priority level is 0. Neither A nor B number is sent to the receiver.

**Table 865**

PAGII: EPN=1150, SCD=132, MSAR=11, PCAT=000; EXECUTED
--

17.10.5

EXAMPLE 3

A group of persons shall have a common paging number, 2970. All paging receivers in the group have a common paging code, 612, and shall belong to search area 1 for meet me. The receivers are type 0. Neither A nor B number is transmitted. The priority level is 2.

**Table 866**

PAGII: CPN=2970, SCD=612, MSAR=1, PCAT=002; EXECUTED
---

17.10.6

COMMAND CATEGORY

Dangerous = **No**

17.11

PASAE

Paging search area end

17.11.1

FORMAT

**Table 867**

PASAE:SAR=;

**Table 868**

**SAR** =      Search area.  
                 Search area for paging.

17.11.2

FUNCTION

The command is used to erase a search area. All channels in the search area must be removed before the area itself can be removed.

17.11.3

EXAMPLE

Erase search area number 7 from the system.

**Table 869**

PASAE:SAR=7;
--------------

EXECUTED

17.11.4COMMAND CATEGORY

Dangerous = **No**

17.12PASAI

Paging search area initiate

17.12.1FORMAT

**Table 870**  
**PASAI:SAR=,TYPE=,VAR=,THO=,TBL=[,REP=];**

<b>Table 871</b>	
<b>REP =</b>	Number of repetitions for a paging job. The parameter states the number of times a paging job is to be repeated. If the parameter is omitted it receives a default value, that is, no repetition shall take place.
<b>SAR =</b>	Search area. Search area for paging.
<b>TBL =</b>	Total blocking time before new paging. Total blocking time for paging channel before new seizure.
<b>THO =</b>	Total holding time for paging channel. Maximum seizure time for paging channel.
<b>TYPE =</b>	Type of signalling diagram for paging equipment, that is, which PG function block administers the equipment position. For value, see the parameter description for <i>BRDID</i> , <i>TYPE</i> , <i>UNIT</i> .
<b>VAR =</b>	Signalling diagram variation.

17.12.2FUNCTION

The command is used to initiate a search area for paging and to assign the characteristics that shall apply for the search area.

17.12.3EXAMPLE

Initiate search area number 7 and assign characteristics.

- The signalling diagram is type PG1, that is, serial interface with E&M signalling. TLU80 configuration and short line presentation.
- The signalling diagram is 0000123001.
- The maximum seizure time for the channel is 111 seconds for meet me paging and 89 seconds for voice paging. The channel need not be blocked after terminated seizure. No repetition of the paging assignment towards the search area shall take place.

**Table 872**  
**PASAI: SAR=7, TYPE=PG1, VAR=0000123001, THO=111089, TBL=0;**

EXECUTED
----------

17.12.4

## COMMAND CATEGORY

Dangerous = **No**



# 18RA - RECORDED VOICE ANNOUNCEMENT

## 18.1RACEC

Recorded Voice Announcement Connection Change

### 18.1.1FORMAT

$$\text{RACEC:} \left\{ \begin{array}{l} \text{DIR}=[, \text{WELCOM}=[, \text{CONT}=] \\ \text{VOCT}=, \text{VOCGU}=[, \text{CUST}=] \\ \text{OPE}=, \text{CONT}= \end{array} \right\};$$

Figure 57:  
Table 873

<b>CONT =</b>	Continuous announcement number.
<b>CUST =</b>	Customer group number. & is permitted for this parameter.
<b>DIR =</b>	Directory number. Directory number of extension. & is permitted for this parameter.
<b>OPE =</b>	Individual PBX operator directory number. & is permitted for this parameter.
<b>VOCGU =</b>	Vocal Guidance announcement number.
<b>VOCT =</b>	Vocal Guidance Traffic case. & is permitted for this parameter.
<b>WELCOM =</b>	Welcome announcement number.

### 18.1.2FUNCTION

The command is used to change or reset (set no announcement):

- welcome and continuous announcements for ATS and IP extension directory number(s).
- vocal guidance announcement assigned to vocal guidance traffic case.
- continuous announcement for individual PBX operator directory number(s).

**Note:** At least one of the optional parameters must be stated.

The parameter CONT is used to state the type of announcement to be connected when a call is parked by an ATS, IP extension or an individual PBX operator.

### 18.1.3EXAMPLE 1

For the ATS or IP extension directory number 12345, change the welcome announcement to number 28 and remove the continuous announcement.

Table 874

RACEC:DIR=12345,WELCOM=28,CONT=0; EXECUTED
---

18.1.4                      EXAMPLE 2

For the ATS or IP extension directory number 12346, change the continuous announcement number to number 30.

**Table 875**

RACEC:DIR=12346,CONT=30; EXECUTED
--------------------------------------

18.1.5                      EXAMPLE 3

For vocal guidance traffic case 3, change the announcement number to 20.

**Table 876**

RACEC:VOCT=3, VOCGU=20; EXECUTED
-------------------------------------

18.1.6                      EXAMPLE 4

For the individual PBX operator directory number 10001, change the continuous announcement to number 21.

**Table 877**

RACEC:OPE=10001,CONT=21; EXECUTED
--------------------------------------

18.1.7                      COMMAND CATEGORY

Dangerous = **No**

18.2                              RACEE

Recorded Voice Announcement Connection End

18.2.1                      FORMAT

$$\text{RACEE:} \left\{ \begin{array}{l} \text{DIR=} \\ \text{VOCT=[,CUST=]} \\ \text{OPE=} \end{array} \right\};$$

**Figure 58:**  
**Table 878**

- CUST =**      Customer group number.  
                 & is permitted for this parameter.
- DIR =**        Directory number. Directory number of extension.  
                 &, &&, and ALL are permitted for this parameter.
- OPE =**        Individual PBX operator directory number.  
                 &, &&, and ALL are permitted for this parameter.

**VOCT =** Vocal Guidance Traffic case.  
& and && are permitted for this parameter.

## 18.2.2 FUNCTION

This command can be used to remove

- all announcements assigned to ATS and IP extension directory number(s).
- vocal guidance announcements assigned to a vocal guidance traffic. This removal can also be optionally made to a customer using the parameter CUST.
- the continuous announcement assigned to an individual PBX operator directory number(s).

## 18.2.3 EXAMPLE 1

Remove all announcements for the ATS or IP extension directory number 12347.

**Table 879**

RACEE:DIR=12347; EXECUTED
------------------------------

## 18.2.4 EXAMPLE 2

Remove announcement assigned to vocal guidance traffic case 5.

**Table 880**

RACEE:VOCT=5; EXECUTED
---------------------------

## 18.2.5 EXAMPLE 3

For customer number 100, remove announcement associated with vocal guidance traffic case 5.

**Table 881**

RACEE:VOCT=5,CUST=100; EXECUTED
------------------------------------

## 18.2.6 EXAMPLE 4

For customer number 100, remove announcement associated with vocal guidance traffic case 5.

**Table 882**

RACEE:VOCT=5,CUST=100; EXECUTED
------------------------------------

## 18.2.7 EXAMPLE 5

Remove the continuous announcement for the individual PBX operator directory number 10001.

Table 883

RACEE:OPE=10001; EXECUTED
------------------------------

18.2.8                    COMMAND CATEGORY

Dangerous = **No**

18.3                      RACEI

Recorded Voice Announcement Connection Initiate

18.3.1                    FORMAT

RACEI: { DIR=[,WELCOM=][,CONT]  
          VOCT=,VOCGU=[,CUST=]  
          OPE=,CONT= } ;

Figure 59:  
Table 884

<b>CONT =</b>	Continuous announcement number.
<b>CUST =</b>	Customer group number. & is permitted for this parameter.
<b>DIR =</b>	Directory number. Directory number of extension. & is permitted for this parameter.
<b>OPE =</b>	Individual PBX operator directory number. & is permitted for this parameter.
<b>VOCGU =</b>	Vocal Guidance announcement number.
<b>VOCT =</b>	Vocal Guidance Traffic case. & is permitted for this parameter.
<b>WELCOM =</b>	Welcome announcement number.

18.3.2                    FUNCTION

The command can be used to

- set the values of welcome and continuous announcement numbers for extension directory number(s).
- initiate a vocal guidance announcement for a vocal guidance traffic case. The parameter CUST can be optionally used to assign these announcements to a particular customer.
- to initiate continuous announcement for individual PBX operator directory number(s)

The parameter CONT is used to state the type of announcement to be connected when a call is parked by either an ATS, IP extension or an individual PBX operator.

18.3.3
EXAMPLE 1

For the directory number of extension12345 and 12346, set the welcome announcement to number 25 and the continuous announcement to number 10.

**Table 885**

RACEI:DIR=12345&12346,WELCOM=21,CONT=10; EXECUTED
--

18.3.4
EXAMPLE 2

Initiate announcement number 20 to vocal guidance traffic case 3.

**Table 886**

RACEI:VOCT=3, VOCGU=20; EXECUTED
-------------------------------------

18.3.5
EXAMPLE 3

For customer number 100, initiate the announcement number 30 for the traffic case 5.

**Table 887**

RACEI:VOCT=5,VOCGU=30,CUST=100; EXECUTED
---

18.3.6
EXAMPLE 4

For the directory number of individual PBX operators10001 and 10002, set the continuous announcement number to 22.

**Table 888**

RACEI:OPE=10001&10002,CONT=22; EXECUTED
--

18.3.7
COMMAND CATEGORY

Dangerous = **No**

18.4
RACEP

Recorded Voice Announcement Connection Print

18.4.1
FORMAT

$$RACEP: \left\{ \begin{array}{l} DIR= [,CUST=] \\ VOCT= [,CUST=] \\ OPE= \end{array} \right\} ;$$

Figure 60:  
Table 889

<b>CUST =</b>	When used with DIR: Customer group number. A single value is permitted. If the parameter is omitted, data for all customers are printed. When used with VOCT: Customer group number. & is permitted for this parameter.
<b>DIR =</b>	Directory number. Directory number of extension. &, &&, and ALL are permitted for this parameter.
<b>OPE =</b>	Individual PBX operator directory number. &, &&, and ALL are permitted for this parameter.
<b>VOCT =</b>	Vocal Guidance Traffic case. &, && and ALL are permitted for this parameter.

18.4.2

FUNCTION

The command can be used to print

- Welcome and continuous announcement assigned to ATS or IP extension directory number(s)
- Vocal guidance announcement assigned to different vocal guidance traffic cases. Announcements can also be printed optionally for a customer using the CUST parameter
- Continuous announcement assigned to individual PBX operator directory number(s)

18.4.3

PRINTOUT (DIR)

Table 890

DIRECTORY ANNOUNCEMENT DATA			
DIR	CUST	WELCOM	CONT
.	.	.	.
.	.	.	.
.	.	.	.
END			

Table 891

<b>CONT</b>	Continuous announcement number or tone message number. It can also be a tone message number.
<b>WELCOM</b>	Welcome announcement number.

18.4.4

PRINTOUT 2 (VOCT)

Table 892

VOCAL GUIDANCE ANNOUNCEMENT DATA	
VOCT	VOCGU
.	.
.	.
.	.

END
-----

**Table 893**

**VOCGU**      Vocal Guidance announcement number.

18.4.5

PRINTOUT 3 (OPE)

Print announcements for Individual Operator directory number(s).

**Table 894**

ANNOUNCEMENT DATA FOR INDIVIDUAL OPERATOR	
OPE	CONT
.	.
.	.
END	

**Table 895**

**CONT**      Continuous announcement number or tone message number.

18.4.6

EXAMPLE 1 (DIR)

Print all announcements for all extensions.

**Table 896**

RACEP:DIR=ALL;			
DIRECTORY ANNOUNCEMENT DATA			
DIR	CUST	WELCOM	CONT
12345	0	25	100
12346	0	25	100
12347	0	21	
12348	0	21	
END			

ATS or IP extension directory number 12346 has the welcome announcement number 25 and continuous announcement number 100.

ATS or IP extension directory number 12347 has the welcome announcement number 21.

18.4.7

EXAMPLE 2 (VOCT)

Print announcement numbers assigned to all vocal guidance traffic cases.

**Table 897**

RACEP:VOCT=ALL;	
VOCAL GUIDANCE ANNOUNCEMENT DATA	
VOCT	VOCGU
1	20

8	30
15	20
17	40
END	

Announcement 20 is assigned for traffic case 1 and 15, 30 for traffic case 8 and 40 for traffic case 17.

18.4.8                      **EXAMPLE 3 (VOCT & CUST)**

Print all vocal announcements for customer number 50.

**Table 898**

RACEP:VOCT=ALL,CUST=50;	
VOCAL GUIDANCE ANNOUNCEMENT DATA	
VOCT	VOCGU
1	20
3	10
5	25
13	10
END	

For customer number 50, announcement 20 is assigned for traffic case 1, announcement 10 is assigned to traffic case 3 and 13, and announcement 25 for traffic case 5.

18.4.9                      **COMMAND CATEGORY**

Dangerous = **No**

18.5                        **RADSE**

Recorded Voice Announcement Device Selection End

18.5.1                      **FORMAT**

**Table 899**

**RADSE:VSID=,ANN=;**

**Table 900**

**ANN** =      Announcement number.  
**VSID** =      Voice server board identity number.  
              & and && are permitted for this parameter.

18.5.2                      **FUNCTION**

The command is used for removing an announcement number associated with a voice server board identity number.



18.5.3                      EXAMPLE

Announcement number 10 associated with VSID 4 is to be removed.

**Table 901**

RADSE:VSID=4,ANN=10;
EXECUTED

18.5.4                      COMMAND CATEGORY

Dangerous = **No**

18.6                        RADSI

Recorded Voice Announcement Device Selection Initiate

18.6.1                    FORMAT

**Table 902**

**RADSI:VSID=,ANN=;**

**Table 903**

**ANN** =      Announcement number  
**VSID** =      Voice server board identity number  
              & and && are permitted for this parameter.

18.6.2                    FUNCTION

The command is used for assigning announcement numbers to a voice server board identity number. An announcement number can be assigned to more than one VSID.

18.6.3                    EXAMPLE

Assign announcement number 10 to VSID 4.

**Table 904**

RADSI:VSID=4,ANN=10;
EXECUTED

18.6.4                    COMMAND CATEGORY

Dangerous = **No**

18.7                        RADSP

Recorded Voice Announcement Device Selection Print

18.7.1

FORMAT

**Table 905**  
**RADSP:ANN=;**

**Table 906**

**ANN =**      Announcement number  
              &, &&, and ALL are permitted for this parameter

18.7.2

FUNCTION

The command is used for printing the VSIDs associated with announcement numbers.

18.7.3

PRINTOUT

**Table 907**

RECORDED VOICE ANNOUNCEMENT DEVICE SELECTION DATA		
ANN	VSID	EMDEV
.	.	.
.	.	.
.	.	.
END		

**Table 908**

**EMDEV**      The parameter is not used.  
**VSID**        Voice server board identity number.

18.7.4

EXAMPLE

Print the devices assigned to announcement numbers 1 to 12.

**Table 909**

RADSP:ANN=1&&12;		
RECORDED VOICE ANNOUNCEMENT DEVICE SELECTION DATA		
ANN	VSID	EMDEV
1	1	
	2	
	3	
4	10	
	17	
5	1	
	10	
10	1	
	4	
END		

Announcement number 10 is assigned to VSID 1 and 4.

## 18.7.5 COMMAND CATEGORY

Dangerous = **No**

## 18.8 RAGAC

Recorded Voice Announcement Group Announcement Change

### 18.8.1 FORMAT

RAGAC: {  
     CORG = ...  
     GRP = ... [ ,CIDREQ = ] [ ,EWTA = ]  
 } [ ,WELCOM = ] [ ,QUEUE = ] [ ,REPQUE = ] [ ,CONT = ]  
 [ ,QTIME = ] [ ,RTIME = ] ;

Figure 61:  
Table 910

<b>CIDREQ =</b>	Customer identity request announcement number.
<b>CONT =</b>	Continuous announcement number.
<b>CORG =</b>	Call origin group. & is permitted for this parameter.
<b>EWTA =</b>	Estimated waiting time announcement request. Specifies if an estimated waiting time announcement is requested. The parameter can assume the following values:  <b>YES</b> An estimated waiting time announcement is requested <b>NO</b> An estimated waiting time announcement is not requested.
<b>GRP =</b>	Group number. ACD or internal group hunting group. & is permitted for this parameter.
<b>QTIME =</b>	Queue announcement time.
<b>QUEUE =</b>	Queue announcement number.
<b>REPQUE =</b>	Repeat queue announcement number.
<b>RTIME =</b>	Repeated queue announcement time.
<b>WELCOM =</b>	Welcome announcement number.

### 18.8.2 FUNCTION

The command is used to change and/or remove the values of various announcement numbers and respective timer values for ACD groups and Internal Group hunting groups, and operator call origin groups.

If the parameter EWTA is changed to a YES value, the queue announcement must be assigned.

At least one of the optional parameters must be stated.

The parameters CIDREQ and EWTA are only valid for ACD groups.

The parameter CONT is used to state the type of announcement to be connected when a call becomes queued in an ACD/PBX group or a PBX operator group. CONT can also be used to change the continuous announcement that is provided when the call to a PBX operator is parked.

If the parameter is entered together with the REPQUE parameter, the CONT will be used to select which type of announcement will be provided between the repeated queue announcement message.

The parameters QTIME and RTIME are used to assign timer values for the respective queue and repeat queue announcements.

18.8.3

EXAMPLE 1

For the ACD group 12345, change the welcome announcement to number 28, the customer identity request announcement to number 50, the estimated waiting time announcement request to NO, and remove the repeat queue announcement.

Table 911

RAGAC:GRP=12345,CIDREQ=50,EWTA=NO,WELCOM=28, REPQUE=0; EXECUTED
---

18.8.4

EXAMPLE 2

For the ACD group 12346, change the queue announcement number to number 30 and the queue announcement timer to 15.

Table 912

RAGAC:GRP=12346,QUEUE=30,QTIME=15; EXECUTED
--

18.8.5

EXAMPLE 3

For the call origin group 3, change the welcome announcement to number 40, the queue announcement to number 02, continuous announcement to number 241, the repeat queue announcement to number 28, the queue announcement timer to number 30 and the repeat queue announcement timer to number 45.

Table 913

RAGAC:CORG=3,WELCOM=40,QUEUE=02,CONT=241, REPQUE=28, QTIME=30,RTIME=45; EXECUTED
--

18.8.6

COMMAND CATEGORY

Dangerous = **No**

18.9

RAGAE

Recorded Voice Announcement Group Announcement End

18.9.1
FORMAT

$$\text{RAGAE:} \left\{ \begin{array}{l} \text{GRP=} \\ \text{CORG=} \end{array} \right\};$$

**Figure 62:**  
**Table 914**

- CORG =**

Call origin group.  
& is permitted for this parameter.
- GRP =**

Group number. ACD or Internal group hunting group.  
&, and && are permitted for this parameter.

18.9.2
FUNCTION

The command is used to remove all announcements assigned to ACD groups and Internal group hunting groups and Operator call origin groups.

18.9.3
EXAMPLE 1 (GRP)

Remove all announcements for the Internal group hunting group 12347.

**Table 915**

RAGAE:GRP=12347; EXECUTED
------------------------------

18.9.4
EXAMPLE 2 (CORG)

Remove all announcements for the call origin group 2.

**Table 916**

RAGAE:CORG=2; EXECUTED
---------------------------

18.9.5
COMMAND CATEGORY

Dangerous = **No**

18.10
RAGAI

Recorded Voice Announcement Group Announcement Initiate

## 18.10.1

## FORMAT

**RAGAI:** { **CORG = ...** } [ **,WELCOM =** ] [ **,QUEUE =** ] [ **,REPQUE =** ] [ **,CONT =** ]  
 { **GRP =...** [ **,CIDREQ =** ] [ **,EWTA=** ] }  
 [ **,QTIME =** ] [ **,RTIME =** ] ;

Figure 63:

Table 917

<b>CIDREQ =</b>	Customer identity request announcement number.
<b>CONT=</b>	Continuous announcement number.
<b>CORG =</b>	Call origin group. & is permitted for this parameter.
<b>EWTA =</b>	Estimated waiting time announcement request. Specifies if an estimated waiting time announcement is requested. The parameter can assume the following values: <b>YES</b> = An estimated waiting time announcement is requested. <b>NO</b> = An estimated waiting time announcement is not requested.
<b>GRP =</b>	Group number. ACD or internal group hunting group. & is permitted for this parameter.
<b>QTIME =</b>	Queue announcement time.
<b>QUEUE =</b>	Queue announcement number.
<b>REPQUE =</b>	Repeat queue announcement number.
<b>RTIME =</b>	Repeat queue announcement time.
<b>WELCOM =</b>	Welcome announcement number.

## 18.10.2

## FUNCTION

The command is used to set the values of various announcement numbers for ACD groups, Internal Group hunting groups and operator call origin groups.

At least one of the optional parameters must be stated.

The parameters CIDREQ and EWTA are only valid for ACD groups.

The parameter CONT is used to state the type of announcement to be connected when a call becomes queued in either an ACD/PBX group or a PBX operator. CONT is also used to provide continuous announcement when the call to a PBX operator is parked.

If the parameter is entered together with the REPQUE parameter, the CONT will be used to select which type of announcement will be provided between the repeated queue announcement message.

The parameters QTIME and RTIME are used to assign timer values for the respective queue and repeat queue announcements.

## 18.10.3

## EXAMPLE 1

For the ACD groups 12345 and 12346, set the welcome announcement to number 25, the queue announcement to number 10, the repeat queue announcement to number 13, the customer identity request announcement to number 65, the estimated waiting time announcement is requested, the queue announcement timer to number 10 and the repeat queue announcement timer to number 60.

**Table 918**

```
RAGAI:GRP=12345&12346,WELCOM=25,QUEUE=10,REPQUE=13,
CIDREQ=65,EWTA=YES,QTIME=10,RTIME=60;
EXECUTED
```

## 18.10.4

## EXAMPLE 2

For the internal group hunting group 12347 and 12348, set the welcome announcement to number 21, the queue announcement to number 99, the repeat queue announcement to number 11, the queue announcement timer to number 40 and the repeat queue announcement timer to number 100.

**Table 919**

```
RAGAI:GRP=12347&12348,WELCOM=21,QUEUE=99,REPQUE=11,QTIME=40,
RTIME=100;
EXECUTED
```

## 18.10.5

## EXAMPLE 3

For the ACD groups 12350, set the welcome announcement to number 21, the queue announcement to number 99, the repeat queue announcement to number 11, the continuous announcement to number 241, the queue announcement timer to number 15 and the repeat queue announcement timer to number 100.

**Table 920**

```
RAGAI:GRP=12350,WELCOM=21,QUEUE=99,REPQUE=11,
CONT=241,QTIME=15,RTIME=100;
EXECUTED
```

## 18.10.6

## EXAMPLE 4

For the call origin groups 2 and 3, set the welcome announcement to number 1, the queue announcement to number 99, the repeat queue announcement to number 11 and the continuous announcement to number 30, the queue announcement timer to number 60 and the repeat queue announcement timer to number 150.

**Table 921**

```
RAGAI:CORG=2&3,WELCOM=01,QUEUE=99,CONT=30,
REPQUE=11,QTIME=60,RTIME=150;
EXECUTED
```

## 18.10.7

## COMMAND CATEGORY

Dangerous = **No**

18.11 RAGAP

Recorded Voice Announcement Group Announcement Print

18.11.1 FORMAT

**RAGAP:** { **GRP=**  
          **CORG=** } ;

Figure 64:  
Table 922

**CORG =** Operator Call origin group.  
&, &&, and ALL are permitted for this parameter.

**GRP =** Group number.  
ACD or Internal Group hunting group.  
&, &&, and ALL are permitted for this parameter.

18.11.2 FUNCTION

The command is used to print all announcements assigned to ACD groups and internal group hunting groups and operator call origin groups.

18.11.3 PRINTOUT1 (GRP)

Table 923

GROUP ANNOUNCEMENT DATA								
GRP	WELCOM	QUEUE	CONT	REPQUE	CIDREQ	EWTA	QTIME	RTIME
.	.	.	.	.	.	.		
.	.	.	.	.	.	.		
.	.	.	.	.	.	.		
END								

18.11.4 PRINTOUT 2 (CORG)

Table 924

CORG ANNOUNCEMENT DATA						
CORG	WELCOM	QUEUE	CONT	REPQUE	QTIME	RTIME
.	.	.	.	.		
.	.	.	.	.		
.	.	.	.	.		
END						

Table 925

**CIDREQ** Customer identity request announcement number.  
Only valid for ACD groups.

**CONT** Continuous announcement number.



<b>EWTA</b>	Estimated waiting time announcement request. Specifies if an estimated waiting time announcement is requested. Only valid for ACD groups. The parameter can assume the following values: <b>YES</b> = An estimated waiting time announcement is requested. <b>NO</b> = An estimated waiting time announcement is not requested.
<b>QUEUE</b>	Queue announcement number.
<b>QTIME</b>	Queue announcement time.
<b>REPQUE</b>	Repeat queue announcement number.
<b>RTIME</b>	Repeat queue announcement time.
<b>WELCOM</b>	Welcome announcement number.

## 18.11.5

## EXAMPLE 1 (GRP)

Print all announcements for all ACD and internal group hunting groups.

**Table 926**

RAGAP:GRP=ALL;								
GRP	WELCOM	QUEUE	CONT	REPQUE	CIDREQ	EWTA	QTIME	RTIME
12345	25	10	100	13	65	YES	10	60
12346	25	10	100	13	65	YES	10	60
12347	21	99		11			40	100
12348	21	99		11			40	100
12350	21	99	240	11			15	150
END								

ACD group 12346 has the welcome announcement number 25, queue announcement number 10, continuous announcement number 100, repeat queue announcement number 13, queue announcement time 10, repeat queue announcement timer 60 and CID request announcement number 65 assigned to it. The estimated waiting time announcement request is set to YES so this ACD group will provide a queue message associated with the estimated waiting time.

Internal group hunting group 12347 has the welcome announcement number 21, queue announcement number 99, repeat queue announcement number 11, queue announcement timer 40 and repeat queue announcement timer 100 assigned to it.

## 18.11.6

## EXAMPLE 2 (CORG)

Print all announcements for all call origin groups.

**Table 927**

RAGAP:CORG=ALL;						
CORG	WELCOM	QUEUE	CONT	REPQUE	QTIME	RTIME
2	01	99	30	11	60	150
3	02	40	241	11	10	30
END						

Call origin group 2 has welcome announcement number 01, queue announcement number 99, continuous announcement number 30, repeat queue announcement

number 11, queue announcement time 60 and repeat queue announcement time 150 assigned to it.

#### 18.11.7 COMMAND CATEGORY

Dangerous = **No**

### 18.12 RAGME

Recorded Voice Announcement Group Members End

#### 18.12.1 FORMAT

**Table 928**

**RAGME:DIR=;**

**Table 929**

**DIR =** Directory number. Directory number of individual PBX operator.  
& and && are permitted for this parameter.

#### 18.12.2 FUNCTION

The command is used for removing association of PBX operator with recorded announcement group. The PBX operator answer announcement is no longer given when the PBX operator answers an incoming call.

#### 18.12.3 EXAMPLE

PBX operators with directory number 4000 and 4025 are no longer to have the recorded voice announcement service and are therefore to be removed from the announcement group which had previously been assigned to them.

**Table 930**

RAGME:DIR=4000&4025; EXECUTED
----------------------------------

#### 18.12.4 COMMAND CATEGORY

Dangerous = **No**

### 18.13 RAGMI

Recorded Voice Announcement Group Member Initiate

#### 18.13.1 FORMAT

**Table 931**

**RAGMI:DIR=,AGP=;**

**Table 932**

<b>AGP =</b>	Announcement group number.
<b>DIR =</b>	Directory number. Directory number of individual PBX operator. & and && are permitted for this parameter.

18.13.2

## FUNCTION

The command is used for allocating one or more PBX operators to an announcement group. Only one announcement group can be associated with a PBX operator's directory number. The same announcement group can be associated with several PBX operators (directory numbers).

When the PBX operator answers an incoming call, a recorded voice announcement is selected from the announcement group that has been assigned to the PBX operator with this command. Choice of right announcement from the announcement group takes place on the basis of the call origin group (CORG).

18.13.3

## EXAMPLE

PBX operators with directory numbers 4000 and 4025 are to have the recorded voice announcement service and are to be associated with the same announcement group 12.

**Table 933**

RAGMI:DIR=4000&4025,AGP=12;
EXECUTED

18.13.4

## COMMAND CATEGORY

Dangerous = **No**

18.14

## RAGMP

Recorded Voice Announcement Group Member Print

18.14.1

## FORMAT

$$\text{RAGMP:} \left\{ \begin{array}{l} \text{DIR=} \\ \text{AGP=} \end{array} \right\} ;$$

**Figure 65:**  
**Table 934**

<b>AGP =</b>	Announcement group number. &, && and ALL are permitted for this parameter.
<b>DIR =</b>	Directory number. Directory number of individual PBX operator. &, && and ALL are permitted for this parameter.

18.14.2 FUNCTION

The command is used for printing out an announcement group, call origin groups, announcement numbers and directory numbers for PBX operators.

18.14.3 PRINTOUT

Table 935

RECORDED ANNOUNCEMENT GROUP MEMBERS			
AGP	DIR	CORG	ANN
.	.	.	.
.	.	.	.
.	.	.	.
END			

Table 936

**ANN**      Announcement number.  
**CORG**    Call origin group.

18.14.4 EXAMPLE 1 (DIR)

Print out announcement group data for the PBX operators with directory numbers 4000 and 4030.

Table 937

RAGMP:DIR=4000&4030;			
RECORDED ANNOUNCEMENT GROUP MEMBERS			
AGP	DIR	CORG	ANN
12	4000	5	21
		9	22
		12	22
13	4030	5	21
		8	17
END			

The PBX operator with directory number 4000 is associated with announcement group 12.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 22 to calls with call origin groups (CORG) 9 and 12.

The PBX operator with the directory number 4030 is associated with announcement group 13.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 17 to calls with call origin group (CORG) 8. Calls from call origin groups not included on the list are not given a recorded voice announcement.

18.14.5
EXAMPLE 2 (AGP)

Print out group data for announcement groups 12 and 13.

**Table 938**

RAGMP:AGP=12&13;			
RECORDED ANNOUNCEMENT GROUP MEMBERS			
AGP	DIR	CORG	ANN
12	4000	5	21
	4025	9	22
		12	22
13	4030	5	21
	4032	8	17
	5000		
END			

The PBX operators with directory numbers 4000 and 4025 are associated with announcement group 12.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 22 to calls with call origin groups (CORG) 9 and 12.

The PBX operators with directory numbers 4030, 4032 and 5000 are associated with announcement group 13.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 17 to calls with call origin group (CORG) 8.

18.14.6
COMMAND CATEGORY

Dangerous = **No**

18.15
RAGPE

Recorded Voice Announcement Group End

18.15.1
FORMAT

**Table 939**

**RAGPE:AGP=,CORG=;**

**Table 940**

**AGP** =      Announcement group number.

**CORG** =     Call origin group.

              &, && and ALL are permitted for this parameter.

18.15.2                      FUNCTION

This command is used for removing recorded voice announcements from specified call origin groups in the announcement group.

18.15.3                      EXAMPLE

In announcement group 12, calls from call origin groups 5 and 9 are no longer to be given recorded voice announcements.

**Table 941**

RAGPE:AGP=12,CORG=5&9;
EXECUTED

18.15.4                      COMMAND CATEGORY

Dangerous = **No**

18.16                        RAGPI

Recorded Voice Announcement Group Initiate

18.16.1                      FORMAT

**Table 942**

**RAGPI:AGP=,CORG=,ANN=;**

**Table 943**

**AGP =**            Announcement group number.  
**ANN =**            Announcement number.  
**CORG =**          Call origin group.  
                    &, && and ALL are permitted for this parameter.

18.16.2                      FUNCTION

The command is used for initiating an announcement group. On initiation, the announcement group is allocated a table which makes it possible to determine separately for every call origin group which recorded voice announcement an incoming call is to be given before it is connected to the PBX operator.

ANNOUNCEMENT GROUP	
call origin group	announcement number
CORG 1	announcement 21
CORG 2	announcement 22
:	:

**Figure 66:**

Only the call origin groups which are given a recorded voice announcement are to be associated with an announcement number. Calls to omitted call origin groups are connected directly to the PBX operator.

A call origin group may consist of one or more origin types. An origin type is a unique combination of call type, PBX operator access number and route access code, if any. Composition of the call origin groups is performed with another command (OPCTS).

The same announcement number can be associated with several call origin groups simultaneously. In cases where it must be possible to give the same origin group different announcements, depending on the PBX operator answering (e.g. all PBX operators are to have recorded voice announcements in their own voice), several announcement groups are to be initiated in the exchange. Association of PBX operator with announcement group takes place with another command (RAGMI).

18.16.3

**EXAMPLE**

Announcement group 12 is to be initiated. Calls with call origin group (CORG) 5 are to have recorded voice announcement number 21 and calls with call origin groups 9 and 12 are both to have recorded voice announcement number 22. Calls from other call origin groups are not to be given recorded voice announcements.

**Table 944**

RAGPI:AGP=12,CORG=5,ANN=21;
EXECUTED
RAGPI:AGP=12,CORG=9&12,ANN=22;
EXECUTED

18.16.4

**COMMAND CATEGORY**

Dangerous = **No**

18.17

**RAMDE**

Recorded Voice Announcement Message Data End

18.17.1                      FORMAT

$$\text{RAMDE:} \left\{ \begin{array}{l} \text{ANN=} \\ \text{ANN=} \text{ ,MSG=} \\ \text{ANN=} \text{ ,EWT=} \end{array} \right\} ;$$

**Figure 67:**  
**Table 945**

- ANN =**      Announcement number.
- EWT =**      Estimated waiting time.  
                 Only && is permitted for this parameter.
- MSG =**      Message number.

18.17.2                      FUNCTION

The command is used to remove messages or the EWT and its message from an announcement.

18.17.3                      EXAMPLE 1

Remove message number 100 assigned to announcement number 96.

**Table 946**

RAMDE:ANN=96,MSG=100;
EXECUTED

18.17.4                      EXAMPLE 2

Remove the message for the estimated waiting time range of 30 to 45 seconds, assigned to announcement number 96.

**Table 947**

RAMDE:ANN=96,EWT=30&&45;
EXECUTED

18.17.5                      COMMAND CATEGORY

Dangerous = **No**

18.18                        RAMDI

Recorded Voice Announcement Message Data Initiate



## 18.18.1

## FORMAT

**Table 948**

RAMDI:ANN=,MSG=[,EWT=];

**Table 949**

**ANN =** Announcement number.

**EWT =** Estimated waiting time.  
Only && is permitted for this parameter.

**MSG =** Message number.

## 18.18.2

## FUNCTION

The command is used to have one of the following messages assigned to an announcement:

- The default message.
- A message based on the estimated waiting time.

If the parameter EWT is omitted, the message will be assigned to be the announcement's default message.

## 18.18.3

## EXAMPLE 1

Assign the default message to the announcement. Assign announcement number 96 with message number 100.

**Table 950**

```
RAMDI:ANN=96,MSG=100;
EXECUTED
```

## 18.18.4

## EXAMPLE 2

Assign announcement number 96 with message number 26 for the estimated waiting time range of 30 to 45 seconds.

**Table 951**

```
RAMDI:ANN=96,MSG=26,EWT=30&&45;
EXECUTED
```

## 18.18.5

## COMMAND CATEGORY

Dangerous = **No**

## 18.19

## RAMDP

Recorded Voice Announcement Message Data Print

18.19.1                      FORMAT

**Table 952**  
**RAMDP:ANN=;**

**Table 953**  
**ANN =**        Announcement number.  
                  &, &&, and ALL are permitted for this parameter.

18.19.2                      FUNCTION

The command will print all of the message data and the estimated waiting times assigned to an announcement.

18.19.3                      PRINTOUT

**Table 954**

RECORDED VOICE ANNOUNCEMENT MESSAGE DATA		
ANN	MSG	EWT
.	.	.
.	.	.
.	.	.
END		

**Table 955**  
**EWT**        Estimated waiting time.  
**MSG**        Message number.

18.19.4                      EXAMPLE

Print out the message data for all announcement numbers.

**Table 956**

RAMDP:ANN=ALL;			
RECORDED VOICE ANNOUNCEMENT MESSAGE DATA			
ANN	MSG	EWT	
1	1		
1	2	1	- 60
1	3	61	- 120
1	4	121	- 180
2	17		
2	18	1	- 120
2	19	121	- 240
10	161	1	- 60
10	162	61	- 300
20	171		
END			

Announcement number two has the default message number 17, message number 18 with estimated waiting time of 1 to 120 seconds, and message number 19 with estimated waiting time of 121 to 240 seconds assigned to it.

Announcement number 20 has only message number 171 assigned to it.

#### 18.19.5

#### COMMAND CATEGORY

Dangerous = **No**

# 19

## RI - IP NETWORKING

### 19.1

### RIANC

Route IP additional network information change

#### 19.1.1

#### FORMAT

**Table 957**

**RIANC:ROU**=[,IP=][,LROUID="text"][, RROUID="text"][,CODECS=] [,TLS=];

**Table 958**

<b>CODECS</b> =	Coder/Decoder priority list.
<b>IP</b> =	IP address. IP address of the route terminating node.
<b>LROUID</b> =	Local route identifier.
<b>ROU</b> =	Route number.
<b>RROUID</b> =	Remote route identifier.
<b>TLS</b> =	Type of session for a call over an IP route.

#### 19.1.2

#### FUNCTION

This command is used to change the IP additional network information of an H.323 route.

**Note:** All the parameters (but the ROU one) are optional. However, at least one of the options must be entered.

**Note:** All defined local route identifiers must be unique. It is the system administrator's responsibility to preserve this uniqueness.

The command can also be used to reset the value of a parameter or to restore it to its default value.

To reset the IP address of a route (no IP address would be associated to the route), the command RIANC with parameter IP=0 must be used.

**Note:** The IP address cannot be reset if destinations are attached to the route.

To reset the route identifiers (no route identifier would be associated to the route), the command RIANC with parameters LROUID="", RROUID="", or both of them must be used.

To restore the coder/decoder priority list to its default value (as defined in the parameter description for IP networking), the command RIANC with parameter CODECS=0 must be used.

#### 19.1.3

#### EXAMPLE 1

Change IP address to 10.43.58.7 and reset the remote route identifier for route number 3.

**Table 959**

```
RIANC:ROU=3,IP=10.43.58.7,RROUID="";
EXECUTED
```

19.1.4                      EXAMPLE 2

Enable TLS security for the route number 6, with fall back option.

**Table 960**

RIANC:ROU=6,TLS=1; EXECUTED
--------------------------------

19.1.5                      COMMAND CATEGORY

Dangerous = **No**

19.2                        RIANI

Route IP additional network information initiate

19.2.1                      FORMAT

**Table 961**

RIANI:ROU=[,IP=[[,LROUID="text"][,RROUID="text"][,CODECS=] [,TLS=];

**Table 962**

<b>CODECS =</b>	Coder/Decoder priority list.
<b>IP =</b>	IP address. IP address of the route terminating node.
<b>LROUID =</b>	Local route identifier.
<b>ROU =</b>	Route number.
<b>RROUID =</b>	Remote route identifier.
<b>TLS =</b>	Type of session for a call over an IP route.

19.2.2                      FUNCTION

This command is used to initiate IP additional network information of an H.323 route.  
The information initiated in this command is removed when the route is terminated using the *ROUTE* command.

**Note:** All defined local route identifiers must be unique. It is the system administrator's responsibility to preserve this uniqueness. To know when it is admissible not to state a local route identifier, see the extra facility description for *IP NETWORKING*.

19.2.3                      EXAMPLE 1

Initiate the IP additional network information for route number 3 with the following data: the route IP address should be 10.43.58.96 at the terminating node, the local route identifier should be "LOCK", its remote route identifier should be "SEA", and the preferred CODECs for the route should be the G723.1 CODEC and the G.711 m-law, 64 kbit/s CODEC.

**Table 963**

```
RIANI:ROU=3,IP=10.43.58.96,LROUID="LOCK",RROUID="SEA",
CODECS=4-C;
EXECUTED
```

19.2.4

**EXAMPLE 2**

Initiate the IP additional network information for route number 7 with the following data: the route IP address should be 10.43.58.85 at the terminating node, the local route identifier should be "Local7", its remote route identifier should be "Rem7", and the preferred CODECs for the route should be the G729 Annex A CODEC and the TLS value should allow both TCP and TLS sessions.

**Table 964**

```
RIANI:ROU=7,IP=10.43.58.85,LROUID="Local7",RROUID="Rem7",
CODECS=2,TLS=1;
EXECUTED
```

19.2.5

**COMMAND CATEGORY**

Dangerous = **No**

19.3

**RIANP**

Route IP additional network information print

19.3.1

**FORMAT****Table 965**

**RIANP:ROU=;**

**Table 966**

**ROU** =      Route number.  
ALL, & and && are allowed for this parameter.

19.3.2

**FUNCTION**

The command is used to print out the IP additional network information data of one or more H.323 routes.

19.3.3

**PRINTOUT****Table 967**

H.323 ROUTE DATA					
ROU	IP ADDRESS	LROUID	RROUID	CODECS	TLS
.	.	.	.	.	.
.	.	.	.	.	.
END					

Table 968

<b>CODECS</b>	Coder/Decoder priority list.
<b>IP ADDRESS</b>	IP address. IP address of the route terminating node.
<b>LROUID</b>	Local route identifier.
<b>ROU</b>	Route number.
<b>RROUID</b>	Remote route identifier.
<b>TLS</b>	Type of session for a call over an IP route.

19.3.4

EXAMPLE

Print out the IP additional network information for all the routes in the system.

Table 969

H.323 ROUTE DATA					
ROU	IP ADDRESS	LROUID	RROUID	CODECS	TLS
6	10.43.58.84	Local6	Rem6	2013456789ABC	0
7	10.43.58.85	Local7	Rem7	2013456789ABC	2
END					

There are two H.323 routes initiated in the system, routes 6 and 7.

For route 6, the IP address at the remote node is 10.43.58.84, the local route identifier is "Local6", the remote identifier is "Rem6", and the preferred CODEC is the one corresponding to number 2 (G.729 Annex A). The rest of the CODECs follow the default list of priorities. Route 6 does not support TLS for signaling.

For route 7, the IP address at the remote node is 10.43.58.85, the local route identifier is "Local7", the remote identifier is "Rem7", and the preferred CODEC is the one corresponding to number 2 (G.729 Annex A). The rest of the CODECs follow the default list of priorities. Route 7 allows only TLS (encryption) for calls over the trunk.

19.3.5

COMMAND CATEGORY

Dangerous = **No**

# 20 RO - ROUTE DATA

## 20.1 ROAPE

Route A-number prefix end

### 20.1.1 FORMAT

**Table 970**  
**ROAPE:ROU=;**

**Table 971**  
**ROU =**      Route number.  
                 & and && are permitted for this parameter.

### 20.1.2 FUNCTION

The command is used for removal of the prefix for calling number and the type of number for the calling number, for incoming calls on the stated routes.

### 20.1.3 EXAMPLE

Remove the prefix and the type of number data for calls incoming on route 4.

**Table 972**  
ROAPE:ROU=4;  
EXECUTED

### 20.1.4 COMMAND CATEGORY

Dangerous = **No**

## 20.2 ROAPI

Route A-number prefix initiate

### 20.2.1 FORMAT

**ROAPI:ROU=** { ,PREPRI= [ ,PRITON= ]  
                  ,PREPUB= [ ,PUBTON= ]  
                  ,PREPRI= ,PREPUB= [ ,PRITON= ] [ ,PUBTON= ] }

Figure 68:



**Table 973**

<b>PREPRI =</b>	Prefix digits for private calling number. States the digits (exchange numbers) to prefix an incoming private calling number with, in order to form a complete private calling number. If the parameter is omitted, the calling number will not be prefixed.
<b>PREPUB =</b>	Prefix digits for public calling number. States the digits (exchange numbers) to prefix an incoming public calling number with, in order to form a complete public calling number. If the parameter is omitted, the calling number will not be prefixed.
<b>PRITON =</b>	Private type of number. States the private type of number to affiliate to an incoming private calling number. If the parameter is omitted, no type of number shall be affiliated.
<b>PUBTON =</b>	Public type of number. States the public type of number to affiliate to an incoming public calling number. If the parameter is omitted, no type of number shall be affiliated.
<b>ROU =</b>	Route number.

## 20.2.2

### FUNCTION

The command is used for initiation of a prefix for calling number and type of number for calling number, for incoming calls on the stated routes.

The command is only applicable in transit or gateway exchanges where it is necessary to prefix the incoming private number in order to be able to distinguish one private number, on a specific incoming route, from another identical private number on another route.

Both public and private calling numbers can be prefixed using this command. Prefixing of private calling numbers make it possible to distinguish one private number from another, when the private numbers have been further transited to some kind of a back-bone network.

On signaling systems where no private number is received, the prefix itself (either public or private) can be used to create a complete private calling number to use on all incoming calls on the route.

**Note:** The total length of a private number can be maximum 10 digits. The total length of a public number can be maximum 20 digits. This must be considered when initiating the prefix digits, so that the complete calling number length does not exceed the allowed length.

A type of number that is initiated with this command will replace any received type of number. If no type of number is initiated with this command, any received type of number will be used in the further conveyance of the number type.

For signaling systems where no type of number is received and no type of number to use is initiated with this command, the system will per default affiliate the type of number *unknown* for the missing type of number. That is, unknown private as the private type of number, and/or unknown public as the public type of number.

The above is applicable for both private type of number and public type of number respectively.

**Note:** The prefixes initiated with the ROAPI command cannot be used in conjunction with the route directory number, ROUDIR, in the ROND command, see 20.31 ROND on page 379. It is not possible to add PREPRI and/or PREPUB with ROUDIR. If prefixes are assigned with command ROAPI, and ROUDIR is assigned with command ROND, the parameter ROUDIR will be ignored.

20.2.3                      EXAMPLE 1

Initiate the following data for route 4:

All incoming private calling numbers on route 4 are to be prefixed with 864, and have the private type of number as Local private affiliated (for the further conveyance of the call).

**Table 974**

ROAPI:ROU=4,PRITON=6,PREPRI=864; EXECUTED
--

20.2.4                      EXAMPLE 2

Initiate the following data for route 6:

All incoming private calling numbers on route 6 are to be prefixed with 10, and have the private type of number Local private affiliated (for the further conveyance of the call).

All incoming public calling numbers are to be prefixed with 0455. No public type of number is to be initiated for use, that is, the received public type of number is to be used.

**Table 975**

ROAPI:ROU=6,PRITON=6,PREPRI=10,PREPUB=0455; EXECUTED
---

20.2.5                      COMMAND CATEGORY

Dangerous = **No**

20.3                              ROAPP

Route A-number prefix print

20.3.1                      FORMAT

**Table 976**

**ROAPP:ROU=;**

**Table 977**

**ROU =**        Route number.  
ALL, & and && are permitted for this parameter.

20.3.2                      FUNCTION

The command is used to print any initiated prefix for calling number and type of number for calling number, for incoming calls on the stated routes.

20.3.3 PRINTOUT

Table 978

ROUTE A-NUMBER PREFIX DATA				
ROU	PRITON	PREPRI	PUBTON	PREPUB
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

Table 979

<b>PREPRI</b>	Prefix digits for private calling number.
<b>PREPUB</b>	Prefix digits for public calling number.
<b>PRITON</b>	Private type of number.
<b>PUBTON</b>	Public type of number.

20.3.4 EXAMPLE

Print the route A-number prefix data for all routes.

Table 980

ROAPP:ROU=ALL;				
ROUTE A-NUMBER PREFIX DATA				
ROU	PRITON	PREPRI	PUBTON	PREPUB
4	6	864		
6	6	10		0455
END				

All private calling numbers incoming on route 4 will be prefixed with 864, and Local private (TON=6) will be affiliated as type of number. No modifications are done regarding public calling number and public type of number.

All private calling numbers incoming on route 6 will be prefixed with 10, and Local private (TON=6) will be affiliated as type of number. Any received public calling number will be prefixed with 0455. The received public type of number will be used.

20.3.5 COMMAND CATEGORY

Dangerous = **No**

20.4 ROCAC

Route category change

20.4.1 FORMAT

Table 981

**ROCAC:ROU=[,CUST][,SEL=][,SIG= ][,TRAF=][,TRM=]**  
**[,SERV= ][,DIST=] [,DISL=][,NODG=][,BCAP=];**

**Table 982**

<b>BCAP =</b>	Bearer capability. States the bearer capability of the route. The value is not valid for incoming calls on CAS external lines. If the parameter is omitted, the bearer capabilities SPEECH and 3.1 kHz are assumed to apply for outgoing calls.
<b>CUST =</b>	Customer number. For programming customer number this parameter is preferred over SEL and must be used if the customer number > 250.
<b>DISL =</b>	Disturbance level. States the number of consecutive, faulty seizures on one and the same external line that is tolerated before the external line is given a disturbance marking.
<b>DIST =</b>	Disturbance time. States the minimum duration required for a call to be regarded as not faulty.
<b>NODG =</b>	Market-dependent parameter: <ol style="list-style-type: none"> <li>Number of 500-groups. In some cases, the number received in DID traffic from an AGF exchange must be modified. The modification consists of adding or subtracting one or more 500-numbers to/from the number sent by the AGF exchange to the system. <b>Note:</b> Not applicable in MX-ONE.</li> <li>Automatic through-connection route. An incoming call (transit call) from an interworking exchange in some cases must be automatically through-connected to an outgoing route. The parameter states the route access code for external traffic.</li> </ol>
<b>ROU =</b>	Route number. ALL, & and && are permitted for this parameter.
<b>SEL =</b>	Route selection category. States the selection categories for the route. The traffic direction, outgoing or incoming, may not be altered.
<b>SERV =</b>	Route service category. States the service categories for the route.
<b>SIG =</b>	Route signalling category. States the signalling relationship between the route and public exchange/interworking PBX.
<b>TRAF =</b>	Traffic category.
<b>TRM =</b>	Transmission category. States the transmission characteristics (attenuation or amplification) that shall apply for the route's lines.

## 20.4.2

## FUNCTION

The command is used to alter one or more categories of one or more routes. Only those category parameters to be altered shall be stated. At least one category parameter shall be stated.

The traffic direction in parameter SEL, and call metering characteristics in parameter SERV must not be altered. In case of H.323 routes, net service facilities of the SIG parameter cannot be changed if there are trunk lines initiated in such route.

The default call service information category shall be set to 0 if the IDNX service selection feature is to be used in the system.

## 20.4.3

## EXAMPLE 1

The following is to be altered for route 1:

- During night service the route shall be open in accordance with TCD data 09. During day service it shall be fully open.
- The traffic connection class shall be altered to traffic group 12.
- The route service categories shall be altered to *Reception of call waiting tone permitted and intrusion permitted* and *Automatic call back permitted*. Least Cost Routing Class of Service shall be changed to value 2. The features *Presentation of calling number* and *Request calling number (A-number) from PSTN* are not supported by the signaling system. Number conversion shall be made.

**Table 983**

ROCAC:ROU=1,TRAF=00091512,SERV=2100020001; EXECUTED
--

20.4.4

### EXAMPLE 2

The following is to be altered for route 1:

- The route service categories set in example 1 shall be altered to *Bearer Capability substitution shall be made*.

**Table 984**

ROCAC:ROU=1,SERV=2100020002; EXECUTED
--

20.4.5

### EXAMPLE 3

The following is to be altered for route 1:

- The route service categories set in example 1 shall be altered to *Bearer Capability and High Level substitution and number conversion shall be made*.

**Table 985**

ROCAC:ROU=1,SERV=2100020007; EXECUTED
--

20.4.6

### COMMAND CATEGORY

Dangerous = **No**

20.5

## ROCAI

Route category initiate

20.5.1

### FORMAT

**Table 986**

**ROCAI:ROU=,SEL=,SIG=,TRAF=,TRM=,SERV=[,CUST=][,DIST=][,DISL=] [,NODG=][,BCAP=];**

**Table 987**

<b>BCAP =</b>	Bearer capability. States the bearer capability of the route. The value is not valid for incoming calls on CAS external lines. If the parameter is omitted, the bearer capabilities SPEECH and 3.1 kHz audio are assumed to apply for outgoing calls.
<b>CUST =</b>	Customer number. For programming customer number this parameter is preferred over SEL and must be used if the customer number > 250.
<b>DISL =</b>	Disturbance level. States the number of consecutive, faulty seizures on one and the same external line that is tolerated before the external line is given a disturbance marking. If the parameter is omitted, the value 128 is assumed to apply.
<b>DIST =</b>	Disturbance time. States the minimum duration required for a call to be regarded not faulty. If the parameter is omitted, the value 30 is assumed to apply.
<b>NODG =</b>	Market-dependent parameter: <ol style="list-style-type: none"> <li><b>1</b> Number of 500-groups. In some cases, the number received in DID traffic from an AGF exchange must be modified. The modification consists of adding or subtracting one or more 500-numbers to/from the number sent by the AGF exchange to the system. <b>Note:</b> Not applicable in MX-ONE.</li> <li><b>2</b> Automatic through-connection route An incoming call (transit call) from an interworking exchange in some cases must be automatically through-connected to an outgoing route. The parameter states the route access code for external traffic.</li> </ol>
<b>ROU =</b>	Route number.
<b>SEL =</b>	Route selection category. States the selection categories for the route.
<b>SERV =</b>	Route service category. States the service categories for the route.
<b>SIG =</b>	Route signaling category. States the signaling relationship between the route and public exchange/interworking PBX.
<b>TRAF =</b>	Traffic category.
<b>TRM =</b>	Transmission category States the transmission characteristics (attenuation or amplification) that shall apply for the route's lines.

## 20.5.2

## FUNCTION

The command is used to initiate a route and a subset of its categories. Complete categorization of the route also requires entering of the RODAI command.

The default call service information category shall be set to 0 if the IDNX service selection feature is to be used in the system.

## 20.5.3

## EXAMPLE

Initiate route 1 with the following characteristics:

Parameter SEL:

- The route allows bothway traffic.
- At outgoing traffic, line selection is to take place by sequential hunting within the route.
- Alternative routing is allowed.
- No virtual calls. No malicious call tracing.

- The incoming route has Facilities Restriction Level value set to 3.
- The incoming route has Call Service Information category set to *normal extension* (=0).
- No TCM is received on the incoming external line.
- Toll exchange category (AON) is not used.

Parameter SIG:

- The monitor path is to be established on reception of dial tone.
- An answer signal is received at outgoing traffic.
- Extended calls require supervision by operator.
- Ringing tone is to be sent to the A-party on end of selection of an outgoing call.
- ISDN signalling.
- No net service facilities.

Parameter TRAF:

- Traffic connection class: Traffic group 03.

Parameter TRM:

- Transmission category: Row/column 4.

Parameter SERV:

- Reception of call waiting tone and intrusion on the external lines of the route are allowed.
- Automatic call back is not allowed.
- The external lines of the route are of the *public trunk line* type.
- The route is a non-metered route. Paging over speech channels is not allowed.
- Least Cost Routing Class of Service is set to 1.
- Presentation of calling number is set to be controlled by the extension.
- The signaling system does not support calling number (A-number) request from the PSTN.
- Number conversion is not supported.

Parameter CUST:

- The route belongs to customer 2.

Parameter DIST:

- A call attempt of a duration of more than 20 time units is regarded as not faulty.

Parameter DISL:

- 10 consecutive, faulty seizures on one and the same external line are required before the line is given a disturbance marking.

Parameter NODG:

- No addition or subtraction of 500-groups is required. Note: not applicable in MX-ONE.

No automatic through-connection is requested.

This is a market-dependent application.

Parameter BCAP:

- The route support the bearer capabilities SPEECH, 3.1 kHz audio and 64 Kbit/s unrestricted digital.

**Table 988**

```
ROCAI:ROU=1,SEL=0130000021030001,SIG=400111100030,
TRAF=00000003,TRM=4,SERV=2000010000,CUST=2,DIST=20, DISL=10, BCAP=101100;
EXECUTED
```

## 20.5.4 COMMAND CATEGORY

Dangerous = **No**

## 20.6 ROCAP

Route category data print

### 20.6.1 FORMAT

**Table 989**

**ROCAP:ROU=;**

**Table 990**

**ROU =** Route number.  
ALL, & and && are permitted for this parameter.

### 20.6.2 FUNCTION

The command is used to produce a printout of the route categories initiated by command ROCAI, see 20.5 ROCAI on page 333. To produce a printout of all route categories, the command RODAP must be entered as well. See 20.11 RODAP on page 344.

### 20.6.3 PRINTOUT

**Table 991**

ROUTE CATEGORY DATA										
ROU	CUST	SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.
END										

**Table 992**

**BCAP** Bearer capability. States the bearer capability of the route.  
**CUST** Customer number.



<b>DISL</b>	Disturbance level. States the number of consecutive, faulty seizures on one and the same external line that is tolerated before the external line is given a disturbance marking.
<b>DIST</b>	Disturbance time. States the minimum duration required for a call to be regarded as not faulty.
<b>NODG</b>	Market-dependent parameter: <ul style="list-style-type: none"> <li><b>1</b> Number of 500-groups. States the number of 500-numbers that are to be added to/subtracted from a number sent by the AGF exchange to the system. <b>Note:</b> Not applicable in MX-ONE.</li> <li><b>2</b> Automatic through connection route. States the route access code to use for incoming calls (transit calls) from an interworking exchange that are to be automatically through connected to an outgoing route.</li> </ul>
<b>SEL</b>	Route selection category. States the selection categories for the route.
<b>SERV</b>	Route service category. States the service categories for the route.
<b>SIG</b>	Route signaling category. Indicates the signaling relationship between the route and the public exchange/ interworking PBX.
<b>TRAF</b>	Traffic category.
<b>TRM</b>	Transmission category. Indicates the transmission characteristics (attenuation or amplification) that apply to the route's lines.

## 20.6.4

### EXAMPLE 1

Print the route categories for route 1.

**Table 993**

ROCAP:ROU=1;										
ROUTE CATEGORY DATA										
ROU	CUST	SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
1	1	01300002 1030001	4	2000010000	0	20	10	00000003	400111100030	101100
END										

For interpretation of the parameter values, consult the parameter description for *MML parameters*.

## 20.6.5

### EXAMPLE 2

Print the route categories for routes 1, 2, 4 and 12.

**Table 994**

ROCAP:ROU=1&2&4&12;										
ROUTE CATEGORY DATA										
ROU	CUST	SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
1	1	013000021030001	4	2000010000	0	20	10	00000003	400111100030	101100
2	1	010000001001001	7	0000001000	0	0	0	01061505	010000000030	001100
4	1	610000001051001	7	1000000101	6	30	10	01061505	010000000030	001100
12		610000001051001	7	1000000106	6	30	10	01061505	010000000030	001100
END										

For interpretation of the parameter values, consult the parameter description for MML parameters.

## 20.6.6 COMMAND CATEGORY

Dangerous = **No**

## 20.7 ROCDE

Route customer diversion number end

### 20.7.1 FORMAT

$$\text{ROCDE:CUST} = \left\{ \begin{array}{l} \text{,NIG=,DAY=} \\ \text{,NIG=} \\ \text{,DAY=} \end{array} \right\};$$

**Figure 69:**

**Table 995**

**CUST** = Customer number.

**DAY** = Day number. Day service position.

**NIG** = Night number. Night service position.

### 20.7.2 FUNCTION

The command is used to erase the diverttee position for a customer. The diverttee position can be a day or night service position.

The night service position can be an extension or a common bell group. The day service position can be an extension, a common or individual PBX operator number or some form of group number.

At least one of the parameters DAY or NIG must be stated.

### 20.7.3 EXAMPLE 1

Erase the diverttee position for customer No. 2. The night service position is directory number 1121. The day service position is common PBX operator number 9.

**Table 996**

ROCDE:CUST=2,NIG=1121,DAY=9; EXECUTED
--

### 20.7.4 EXAMPLE 2

Erase the day service position for customer No. 4. The day service position is common PBX operator number 9. The night service position (if any) is not affected.

**Table 997**

ROCDE:CUST=4,DAY=9;
---------------------

EXECUTED
----------

20.7.5                      EXAMPLE 3

Erase the night service position for customer No. 3. The night service position is directory number 1332. The day service position (if any) is not affected.

**Table 998**

ROCDE:CUST=3,NIG=1332; EXECUTED
------------------------------------

20.7.6                      COMMAND CATEGORY

Dangerous = **No**

20.8                        ROCDI

Route customer diversion number initiate

20.8.1                      FORMAT

**ROCDE:CUST=...**  $\left\{ \begin{array}{l} \text{,NIG=,DAY=} \\ \text{,NIG=} \\ \text{,DAY=} \end{array} \right\} ;$

**Figure 70:**  
**Table 999**

- CUST =**     Customer number.  
              & and && are allowed for this parameter.
- DAY =**     Day number. Day service position.
- NIG =**     Night number. Night service position.

20.8.2                      FUNCTION

The command is used to initiate and/or change the diverttee position for a customer. This rerouting position is neither route nor line dependent. One diverttee position for a day switched PBX and one for a night switched PBX is possible.

The night service position can be an extension or some type of group number. The group number can be an internal group hunting group or a common bell group. The day service position can be an extension, a common or an individual PBX operator number or some form of group number.

At least one of the parameters DAY or NIG must be stated.

20.8.3                      EXAMPLE 1

Customer No. 3 shall have directory number 1332 as night service position. The day service position (if any) is not affected.

**Table 1000**

ROCDI:CUST=3,NIG=1332; EXECUTED
------------------------------------

20.8.4

**EXAMPLE 2**

Change the diverttee position for customer No. 2. The night service positions shall be directory number 1121. The day service position shall be common PBX operator number 9.

**Table 1001**

ROCDI:CUST=2,NIG=1121,DAY=9; EXECUTED
--

20.8.5

**EXAMPLE 3**

Customer No. 4 shall have common PBX operator number 9 as day service position. The night service position (if any) is not affected.

**Table 1002**

ROCDI:CUST=4,DAY=9; EXECUTED
---------------------------------

20.8.6

**COMMAND CATEGORY**

Dangerous = **No**

20.9

**ROCDP**

Route customer diversion number print

20.9.1

**FORMAT****Table 1003**

**ROCDP:CUST=;**

**Table 1004**

**CUST =** Customer number.  
& and && are allowed for this parameter.

20.9.2

**FUNCTION**

The command is used to obtain a printout of the diverttee positions for a customer. One diverttee position for a day switched PBX and one for a night switched PBX exist.

The night service position can be an extension or some type of group number. The group number can be an internal group hunting group or a common bell group. The day service position can be an extension, a common or an individual PBX operator number or some form of group number.

20.9.3 PRINTOUT

Table 1005

CUSTOMER DIVERSION NUMBER DATA		
CUST	DAY	NIG
.	.	.
.	.	.
.	.	.
END		

Table 1006

**CUST** Customer number.  
**DAY** Day number. Day service position.  
**NIG** Night number. Night service position.

20.9.4 EXAMPLE

Print the divertee positions for customers 2 up to and including 4.

Table 1007

ROCDP:CUST=2&&4;		
CUSTOMER DIVERSION NUMBER DATA		
CUST	DAY	NIG
2	9	1121
3		1332
4	9	
END		

The divertee position for a customer No. 2 when the PBX is night switched is directory number 1121, and when day switched the common PBX operator number 9.  
Customer No. 3 has night service position 1332 but lacks a day service position.  
Customer No. 4 lacks a night service position but has common PBX operator number 9 as day service position.

20.9.5 COMMAND CATEGORY

Dangerous = **No**

20.10 RODAI

Route data initiate

## 20.10.1

## FORMAT

$$\text{RODAI:ROU=,TYPE=}\left\{\begin{array}{l},\text{VARI=}\\,\text{VARO=}\\,\text{VARI=,VARO=}\end{array}\right\}\left[\text{,VARC=}\right];$$

Figure 71:

Table 1008

<b>ROU =</b>	Route number.
<b>TYPE =</b>	Type of signalling diagram, that is, the TL function block that handles the TL unit in the equipment position to use. For value, see parameter description for <i>BRDID</i> , <i>TYPE</i> , <i>UNIT</i> .
<b>VARC =</b>	Signal diagram variations common for incoming and outgoing traffic. Can be omitted only if the relevant TL function block permits this.
<b>VARI =</b>	Signal diagram variations for incoming traffic. Must be stated if the route is defined for incoming traffic.
<b>VARO =</b>	Signal diagram variations for outgoing traffic. Must be stated if the route is defined for outgoing traffic.

## 20.10.2

## FUNCTION

The command is used to initiate more categories for an existing route. The route must have been initiated previously with command **ROCAI**, see 20.5 **ROCAI** on page 333. It is **necessary** to key the command **RODAI** before the route is completely initiated. See 20.10 **RODAI** on page 341. It is not possible to initiate lines before this command has been keyed also.

If no lines are initiated it is possible to type the command once again in order to change some categories.

**Note:** Parameters that do not have to be changed must also be stated in the command (with the existing values).

## 20.10.3

## EXAMPLE 1

Initiate the following categories for route 1:

Parameter **TYPE**:

- The route shall consist of ISDN/SL60. lines.

Parameter **VARI**:

- Signal diagram for incoming traffic:
  - ETSI protocol.
  - Support UUS service 1, 2 and 3.

Parameter **VARO**:

- Signal diagram for outgoing traffic:
  - ETSI protocol.
  - Network master
  - Tie line.

Parameter VARC:

- Signal diagram for incoming and outgoing traffic:
  - Automatic line test, TIMELINETEST3.
  - Board programmed for long line.
  - Guarded clear type of release at loop start.
  - CLI Support as FSK, ETSI.

**Table 1009**

RODAI:ROU=1,TYPE=TL1,VARI=00000002,VARO=0000000E,  
VARC=00033210;  
EXECUTED

## 20.10.4

### EXAMPLE 2

Initiate the following categories for route 2:

Parameter TYPE:

- The route shall consist of ISDN/SL60 lines.

Parameter VARI:

- Signal diagram for incoming traffic:
  - Type of channel numbering is 1-15 and 17-31.
  - Code UII in GFP not supported
  - Support GFP
  - Support UUS service 1,2 and 3.
  - ISO-QSIG protocol selected.
  - DSS1 network side not supported
  - Incoming divleg2 information ON

Parameter VARO:

- Signal diagram for outgoing traffic:
  - ETSI/ISO protocol
  - Connected number IE in CONNECT message
  - UII IE in ALERTING message
  - Non-fix connection between B-channel and external line
  - Priority for layer 1. Slave
  - Priority for layer 2. Terminal
  - Priority for layer 1. User Tie line

Parameter VARC:

- Signal diagram for incoming and outgoing traffic:
  - Permit forward switching
  - Send ringing tone to co-operating exchange
  - Overlap receiving

- Full ISDN functionality
- Type of signaling system, ISDN
- Type of interface, 30B+D

**Table 1010**

```
RODAI:ROU=2,TYPE=SL60,VARI=15440000,VARO=06400000,
VARC=01000310;
EXECUTED
```

20.10.5

**COMMAND CATEGORY**Dangerous = **No**

20.11

**RODAP**

Route data print

20.11.1

**FORMAT****Table 1011****RODAP:ROU=;****Table 1012**

**ROU =** Route number.  
ALL, & and && are permitted for this parameter.

20.11.2

**FUNCTION**

The command is used to produce a printout of the route categories initiated by the RODAI command. To get a printout of all route categories, the ROCAP command must be keyed as well.

20.11.3

**PRINTOUT****Table 1013**

ROUTE DATA					
ROU	TYPE	VARC	VARI	VARO	FILTER
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
END					

**Table 1014**

**FILTER** Filter category. **Note:** not valid in MX-ONE. Indicates whether filter equipment is connected between tone sender and PBX. Possible values are:

**YES** Filter equipment connected  
**NO** Filter equipment not connected



<b>TYPE</b>	Type of signalling diagram, that is, the TL function block that handles the TL unit in the equipment position used or to be used. For value, see parameter description for <i>BRDID</i> , <i>TYPE</i> , <i>UNIT</i> .
<b>VARC</b>	Signal diagram variations common for incoming and outgoing traffic.
<b>VARI</b>	Signal diagram variations for incoming traffic.
<b>VARO</b>	Signal diagram variations for outgoing traffic.

## 20.11.4

## EXAMPLE 1

Print the route categories for route 1.

**Table 1015**

RODAP:ROU=1;					
ROUTE DATA					
ROU	TYPE	VARC	VARI	VARO	FILTER
1	SL60	H"00000210	H"15400000	H"06300000	NO
END					

For interpretation of the TYPE value, consult the parameter description for relevant route data, which will be found in the O&M documentation for route data.

For interpretation of the VARC, VARI and VARO values, consult the parameter description for the relevant TL function block, which will be found in the O&M documentation for Route Data.

## 20.11.5

## EXAMPLE 2

Print the route categories for all routes initiated in the system.

**Table 1016**

RODAP:ROU=ALL;					
ROUTE DATA					
ROU	TYPE	VARC	VARI	VARO	FILTER
1	TL1	H"00000002	H"00000002	H"0000000E	NO
4	TL19	H"00000182	H"0000109C	H"00000086	NO
END					

For interpretation of the TYPE value, consult parameter description for relevant application system, which will be found under Route Data, RO.

For interpretation of the VARC, VARI and VARO, consult parameter description for relevant function block TL, which will be found under Route Data, RO.

## 20.11.6

## COMMAND CATEGORY

Dangerous = **No**

## 20.12

## RODDE

Route external destination data end

## 20.12.1

## FORMAT

$$\text{RODDE:DEST} = \left[ \begin{array}{l} ,\text{CHO}=\dots \\ ,\text{CUST}=\dots \\ ,\text{CUST}=\dots,\text{CHO}=\dots \end{array} \right] ;$$
**Figure 72:****Table 1017**

**CHO** = Choice. Sequence number for alternative route.  
& is allowed for this parameter.

**CUST** = Customer number.

**DEST** = External destination. Route access code for external traffic.

## 20.12.2

## FUNCTION

This command is used to erase one or more route choices of an external destination. The CHO parameter is stated if alternative route choices are to be erased.

Parameter CUST is stated if customer route choices are to be erased.

If only DEST is stated all route choices, that is, the ordinary route choice, all alternative routes choices, and all customer routes choices, of an external destination are erased.

## 20.12.3

## EXAMPLE 1

The public exchange is accessed by dialing the digits 00. Erase this route choice from the PBX.

**Table 1018**

```
RODDE:DEST=00;
EXECUTED
```

## 20.12.4

## EXAMPLE 2

Delete the first alternative route choice to an external destination accessed by dialing the digit 7.

**Table 1019**

```
RODDE:DEST=7,CHO=1;
EXECUTED
```

## 20.12.5

## EXAMPLE 3

The public exchange is accessed by dialing digits 00. Customer No. 2 shall no longer have this route access code.

**Table 1020**

```
RODDE:DEST=00,CUST=2;
EXECUTED
```

20.12.6
EXAMPLE 4

Erase customer No. 3's first alternative route choice to the public exchange. The public exchange is accessed by dialing digits 00.

**Table 1021**

RODDE:DEST=00,CUST=3,CHO=1; EXECUTED
---

20.12.7
COMMAND CATEGORY

Dangerous = **No**

20.13
RODDI

Route external destination data initiate

20.13.1
FORMAT

$$\text{RODDI:DEST= } \left[ \begin{matrix} \text{,CHO=} \\ \text{,CUST=} \\ \text{,CUST=,CHO=} \end{matrix} \right] \left[ \begin{matrix} \text{,DRN=} \\ \text{,ROU=} \end{matrix} \right] \left[ \text{,PRE=} \right] \left[ \text{,TRC=} \right] \left[ \text{,SRT=} \right] \\
 \left[ \text{,NUMACK=} \right] \left[ \text{,ADC=} \right] \left[ \text{,IP=} \right] \left[ \text{,RROUID=} \right] ;$$

**Figure 73:**  
**Table 1022**

<b>ADC =</b>	Additional category for external traffic. If the parameter is omitted value 0005000000000250000000000000 will be assumed, that is, all zeros except for type of number for calling number in private network where value 5 is assumed and loop avoidance / transit counter where value 25 is assumed. Values in this parameter define the type of number for private and public calling number. These values control what exchange numbers to use when composing the complete calling number. (See the command ROND I on page 379).
<b>CHO =</b>	Choice. Sequence number for alternative route. If the parameter is omitted, the ordinary route is assumed to apply.
<b>CUST =</b>	Customer number.
<b>DEST =</b>	External destination. Route access code for external traffic.
<b>DRN =</b>	Direction.
<b>IP =</b>	IP address, IP networking. IP address of a network interface at the external destination (remote end). This parameter will be used only for external destinations that can be reached via H.323 routes.
<b>NUMACK =</b>	Number of digits to be acknowledged. States the number of digits to be acknowledged during digit sending. If the parameter is omitted, no digit acknowledgement is done.

<b>PRE =</b>	Predigits. Digits required to form a correct external number, possibly together with dialled digits. If the parameter is omitted, no predigits are added.
<b>ROU =</b>	Route number.
<b>RROUID =</b>	Remote route identifier, IP networking. Identifier to be sent to the remote end so that the right incoming route is chosen. It is also used as a password. This parameter will be used only for external destinations that can be reached via H.323 routes.
<b>SRT =</b>	Start position for digit transmission. States the start position for the formed external number, that is, the position in which the digit sending to the interworking PBX/public exchange shall start. If the parameter is omitted, the digit sending will start with the first digit.
<b>TRC =</b>	Truncated digits in dialled number. The number of dialled digits to be deleted, starting with the most significant digit. The remaining part of the dialled number is inserted after the predigits. If the parameter is omitted, no digits are deleted.

## 20.13.2

## FUNCTION

The command RODDI is used to initiate the ordinary route (or direction) choice, or an alternative route choice to an external destination. The external destination may be a public exchange. Up to seven alternative route choices can be initiated in order to reach an external destination.

Before a customer route choice can be initiated the route access code must be initiated, for example, the ordinary route choice for the destination must be initiated.

The command RODDI is used to determine the TON for sent private calling number, public calling number and called number.

There is a connection between RODDI and RNDI, see 20.31 RNDI on page 379, regarding the ADC parameter values for calling number's TON (public and private).

When associating an H.323 route to an external destination, the IP address of the network interface at the remote end may be stated on a per-route basis or on a per-destination basis.

When using IP addressing per destination, the IP parameter must be stated when entering the RODDI command. If no IP address for the network interface at the remote end was provided when the H.323 route was initiated, the IP parameter is mandatory in RODDI, too.

IP addressing per destination also allows several IP addresses at the remote end to be associated to every destination (*alternative addressing*). To define them, a different IP address must be provided for every choice (parameter CHO).

When associating a direction to an external destination neither IP nor RROUID can be set since a direction can be formed by routes with different types of signalling.

## 20.13.3

## EXAMPLE 1

The PSTN is reached via route 1. Destinations in the PSTN is to be reached by dialling (route access code) 00. The route access code shall not be sent to the public exchange. Other route data have previously been set in the ROCAI and RODAI commands. See 20.5 ROCAI on page 333 and 20.10 RODAI on page 341.

**Table 1023**

RODDI:DEST=00,ROU=1,SRT=3;
----------------------------

EXECUTED
----------

20.13.4                      **EXAMPLE 2**

An external destination is reached by dialing the route access code 7. The ordinary route choice of the destination is route 14.

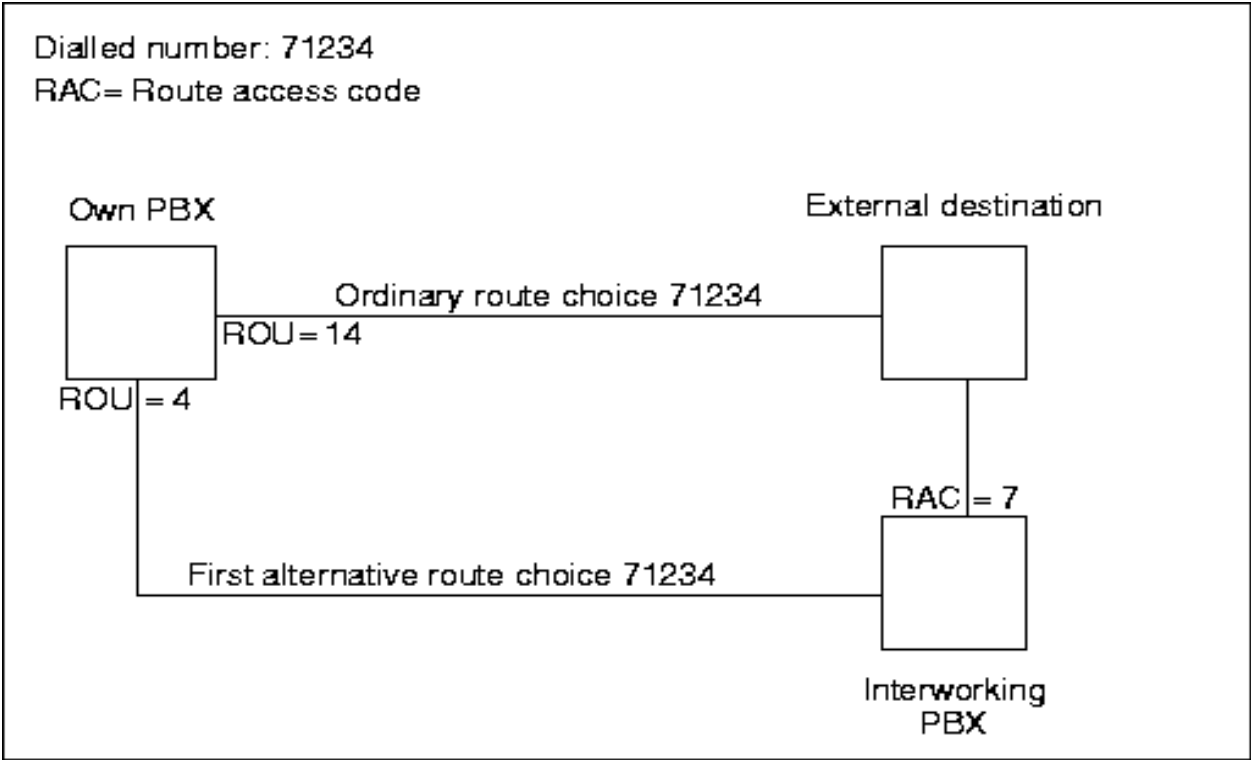
**Table 1024**

RODDI:DEST=7,ROU=14,SRT=1; EXECUTED
--

20.13.5                      **EXAMPLE 3**

The ordinary route choice of the external destination initiated in Example 2 is to have an alternative route choice. An extension has dialed the digits 71234. The first alternative route choice to the destination is route 4.

The complete dialed number shall be sent to the interworking exchange.  
The route access code 7 will be used for routing in the interworking exchange.



**Figure 74:**  
**Table 1025**

RODDI:DEST=7,CHO=1,ROU=4,SRT=1; EXECUTED
---

## 20.13.6

## EXAMPLE 4

The PSTN is reached via route 2 by dialing (route access code) 01. But for customer No. 2 the PSTN shall be reached by dialing 00. The route access code shall not be sent to the PSTN.

**Table 1026**

RODDI:DEST=01,ROU=2,SRT=3; EXECUTED RODDI:DEST=00,CUST=2,ROU=2,PRE=01,TRC=2,SRT=3; EXECUTED
--

## 20.13.7

## EXAMPLE 5

Direction 1 shall be used to reach the destination.

**Table 1027**

RODDI:DEST=02,DRN=01,SRT=3; EXECUTED
---

## 20.13.8

## EXAMPLE 6

The PSTN is reached via route 3.

The route access code shall be 03. The route access code shall be sent to the public exchange.

Seizure of external line should take place immediately.

TON for called number shall be Unknown public.

TON for calling number public Unknown public and TON for private calling number shall be unknown private.

It is possible to send UUI and special charging shall be used if connected through public network (VPN), the route is not a fiber or TNS route.

Clearing shall take place directly when one of the parties terminates.

No backward signal will be sent before direct through-connection.

Transit seizure signal will be sent.

No threshold level for OFF HOOK Queuing is set.

Expensive Route Warning Tone will not be sent for this route choice.

Access to external destination will be permitted only via Least Cost Routing facility or for originators with TCD category 15.

Traveling Class Mark will be sent to co-operating exchange. In order to reach the final destination the call is allowed to pass maximum 3 transit exchanges.

For PNR no individual number translation information is available.

Type of protocol to use for Supplementary Service callback/Call Completion will be Proprietary UUI protocol.

B-answer is available.

VPN-connection in a switched network without IN-node (MX-ONE VPN). Unknown public TON shall be sent to the PSTN.

Start selection point, SSP, is not used for this destination.

Original A-number and TON are not used for this destination.

Enhanced A-number conversion shall be disabled.

The type of ISDN protocol for supplementary services shall be Proprietary UUI.

ETSI diversion supplementary service is not supported towards PSTN.

No forward switching for any redirection services requested from trunks.

**Table 1028**

RODDI:DEST=03,ROU=3,ADC=0005100510011030000000000000; EXECUTED
---

## 20.13.9

### EXAMPLE 7

Customer 2 shall have route 3 as first alternative route for route access code 00. The route access code shall not be sent to the public exchange.

**Table 1029**

RODDI:DEST=00,CUST=2,CHO=1,SRT=3,ROU=3; EXECUTED
---

## 20.13.10

### EXAMPLE 8

Route 5 (calling exchange) shall be initiated as terminating transit seizure (German = Weichenverkehr). This is achieved by using two route access codes for external traffic using the route.

1) Route access code 32: Terminating seizure signal is sent.

2) Route access code 38: Transit seizure signal is sent.

In case 2 above the outgoing call shall be automatically connected through the inter-working exchange to another exchange.

The route access code shall not be sent to the transit exchange.

Seizure of the line shall take place immediately.

TON for called number shall be (Public) International.

TON for calling number public shall be International.

TON for calling number private shall be Level 1 Regional.

UUI is possible to send. Special charging shall be used if connected through public network (VPN). The route is not a fibre or TNS route.

Clearing shall take place directly when one of the parties terminates.

MFC backward signal states that digit transmission should start from the first digit.

Route choice will be marked as threshold level 0 for OFF HOOK Queuing.

Individual number translation information according to PRE/TRC is available, see parameter description for *LEAST COST ROUTING, LC*. Other route data has been initiated previously with commands RODAI and ROCAI.

Type of protocol to use for Supplementary Service callback/Call Completion will be Proprietary UUI protocol.

B-answer is available.

VPN-connection in a switched network without IN-node (MX-ONE VPN). International TON shall be sent to the PSTN.

Start selection point, SSP, is not used for this destination.

Original A-number and TON are not used for this destination.

Enhanced A-number conversion shall be disabled.

The type of ISDN protocol for supplementary services shall be Proprietary UUI.

ETSI diversion supplementary service is not supported towards PSTN.

No forward switching for any redirection services requested from trunks.

**Table 1030**

RODDI:DEST=32,ROU=5,ADC=0117100002000031001000000000, SRT=3;  EXECUTED  RODDI:DEST=38,ROU=5,ADC=0117100002000031001000000000, SRT=3;  EXECUTED
--

## 20.13.11

### EXAMPLE 9

An external destination is reached by dialing the route access code 35. The ordinary route choice of the destination is H.323 route 13. The route access code shall not be sent. The destination IP address is 192.4.6.87 and the remote route identifier is the string "SECRET".

**Table 1031**

RODDI:DEST=35,ROU=13,SRT=3,IP=192.4.6.87, RROUID="SECRET";  EXECUTED
---

## 20.13.12

### EXAMPLE 10

A different network interface shall be defined as first alternative path for H.323 route 13 and route access code 35. The route access code shall not be sent. The IP address of this interface is 192.4.6.10 and the remote route identifier is the string "SECRET".

**Table 1032**

RODDI:DEST=35,ROU=13,CHO=1,SRT=3,IP=192.4.6.10, RROUID="SECRET";  EXECUTED
---

## 20.13.13

### EXAMPLE 11

The PSTN is reached via route 3.

The route access code shall be 03. The route access code shall be sent to the public exchange.

Seizure of external line should take place immediately.

The TON for the called number shall be Local public.

The TON for the calling public number shall be Local public and the TON for the private calling number shall be Unknown private.

Informative signaling to the MX-ONE gateway for calls to a public destination is allowed.

The route is not a fiber or TNS route.



Clearing shall take place directly when one of the parties terminates.  
 No backwards signal will be sent before direct through connection.  
 Terminating seizure signal will be sent.  
 No threshold level for Off Hook Queuing is set.  
 Expensive Route Warning Tone will not be sent for this route choice.  
 Access to external destination will be permitted to all calls.  
 Traveling Class Mark will not be sent.  
 In order to reach the final destination the call is allowed to pass maximum 25 transit exchanges.  
 For PNR no individual number translation information is available.  
 VPN-connection in a switched network without IN-node (MX-ONE VPN).  
 Local public TON shall be sent to the PSTN.  
 Start selection point, SSP, is not used for this destination.  
 The Original A-number shall be sent as A-number and the Original A-number's TON shall be sent as A-number's TON at external follow me or personal number deflection to public party.  
 Enhanced A-number conversion shall be disabled.  
 ETSI diversion supplementary service is supported towards PSTN.

**Table 1033**

RODDI:DEST=03,ROU=3,ADC=044520050000025000000110001; EXECUTED
--

20.13.14

## COMMAND CATEGORY

Dangerous = **No**

20.14

## RODDP

Route external destination data print

20.14.1

## FORMAT

**Table 1034**

**RODDP:DEST=, CUST=[,IPOPT=];**

**Table 1035**

<b>CUST =</b>	Customer number.
<b>DEST =</b>	External destination. Route access code for external traffic. ALL, & and && are permitted for this parameter.
<b>IPOPT =</b>	IP data option. Print the IP-specific data attached to destinations that can be reached via H.323 routes. If this parameter is omitted, the default value (NO) is chosen and the standard printout is displayed.

## 20.14.2

## FUNCTION

The command is used to produce a printout of the current data associated with an external destination.

## 20.14.3

## PRINTOUT 1

Printout with either IPOPT set to NO or omitted:

**Table 1036**

EXTERNAL DESTINATION DATA									
DEST	DRN	ROU	CHO	CUST	ADC	TRC	SRT	NUMACK	PRE
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
END									

**Table 1037**

<b>ADC</b>	Additional category for external traffic.
<b>CHO</b>	Choice. Sequence number for alternative route.
<b>CUST</b>	Customer number.
<b>DRN</b>	Direction.
<b>NUMACK</b>	Number of digits to be acknowledged. Indicates the number of digits to be acknowledged during digit sending.
<b>PRE</b>	Predigits. Digits required to form correct external number, possibly together with dialled digits.
<b>ROU</b>	Route number.
<b>SRT</b>	Start position for digit transmission. Indicates the start position in the formed external number, that is, the position from which the digit sending to the interworking PBX or public exchange shall start.
<b>TRC</b>	Truncated digits in dialed number. The number of dialed digits to be deleted, starting with the most significant digit. The remaining part of the dialed number is inserted after the predigits.

## 20.14.4

## PRINTOUT 2

Printout with IPOPT set to YES:

**Table 1038**

EXTERNAL DESTINATION DATA						
DEST	DRN	ROU	CHO	CUST	IP ADDRESS	RROUID
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
END						

**Table 1039**

<b>CHO</b>	Choice. Sequence number for alternative route.
------------	--

<b>CUST</b>	Customer number.
<b>DRN</b>	Direction.
<b>IP ADDRESS</b>	IP address of an interface at the remote end.
<b>ROU</b>	Route number.
<b>RROUID</b>	Remote route identifier. Identifier used at the remote exchange to discriminate and authenticate incoming traffic.

## 20.14.5

## EXAMPLE 1

Print the data associated to all external destinations.

**Table 1040**

RODDP:DEST=ALL;										
EXTERNAL DESTINATION DATA										
DEST	DRN	ROU	CHO	CUST	ADC	TRC	SRT	NUMACK	PRE	
00		1			000500000000025000000000000000		3		01	
		2		2	000500000000025000000000000000	2	3			
		3	1	2	000500000000025000000000000000		3			
01		2			0005200000000250000001000010		3			
02	1				0005200000000250000001000010		3			
03		3			000510051001103200000000000000		1			
32		5			000510000200003200000000000000		3			
38		5			000510001200003200000000000000		3			
7		14			000500000000025100000000000000		1			
		4	1		000500000000025100000000000000		1			
35		13			000500000000025000000000000000		3			
		13	1		000500000000025000000000000000		3			
END										

The public exchange is reached via route 1 by dialing the digits (= route access code) 00. If the extension belongs to customer 2 route 2 is used. Customer 2 has route 3 as alternative route choice.

An external destination is reached via route 2 by dialing route access code 01.

An external destination is reached via direction 1 by dialing route access code 02.

An external destination is reached via route 3 by dialing route access code 03.

An external destination is reached via route 5 by dialling route access code 32. Another external destination is reached via the same route by dialling route access code 38. The route access code is not sent to the interworking exchange in either of these two cases.

An external destination is reached via route 14 by dialling route access code 7. The first alternative route choice is route 4.

An external destination is reached via route 13 by dialling route access code 35. The same route has been defined as the first alternative route choice (see next example).

For interpretation of the values for parameter ADC consult the parameter description for *ROUTE DATA*.

## 20.14.6

## EXAMPLE 2

Print the IP data associated to all external destinations.

**Table 1041**

RODDP:DEST=ALL,IPOPT=YES;						
EXTERNAL DESTINATION DATA						
DEST	DRN	ROU	CHO	CUST	IP ADDRESS	RROUID
00		1				
		2		2		
		3	1	2		
01		2				
02	1					
03		3				
32		5				
38		5				
7		14				
		4	1			
35		13			192.4.6.87	SECRET
		13	1		192.4.6.10	SECRET
END						

The public exchange is reached via route 1 by dialling the digits (= route access code) 00. If the extension belongs to customer 2 route 2 is used. Customer 2 has route 3 as alternative route choice.

An external destination is reached via route 2 by dialling route access code 01.

An external destination is reached via direction 1 by dialling route access code 02.

An external destination is reached via route 3 by dialling route access code 03.

An external destination is reached via route 5 by dialling route access code 32. Another external destination is reached via the same route by dialling route access code 38.

An external destination is reached via route 14 by dialling route access code 7. The first alternative route choice is route 4.

An external destination can be reached via the H.323 route 13 by dialling the route access code 35. It is possible to reach that external destination through two different network interfaces defined at the remote end (boards with IP addresses 192.4.6.87 for the ordinary route choice with remote route identifier string as "SECRET", and 192.4.6.10 for the first alternative route choice with remote route identifier string as "SECRET").

20.14.7

COMMAND CATEGORY

Dangerous = **No**

20.15

RODIE

Route direction end

20.15.1

FORMAT

**Table 1042**  
**RODIE:DRN=[,ROU=];**

**Table 1043**  
**DRN=**      Direction.  
**ROU =**      Route number.

20.15.2

FUNCTION

This command is used to remove an entire direction, or a route within a direction.

20.15.3

EXAMPLE 1

Erase direction 01.

**Table 1044**

RODIE:DRN=01; EXECUTED
---------------------------

20.15.4

EXAMPLE 2

Erase route number 4 from direction 02.

**Table 1045**

RODIE:DRN=02,ROU=4; EXECUTED
---------------------------------

20.15.5

COMMAND CATEGORY

Dangerous = **No**

20.16

RODII

Route direction initiate

20.16.1

FORMAT

$$\text{RODII:DRN=,ROU=}\left\{\begin{array}{l},\text{CSIU=,FRL=}\\,\text{CSIU=}\\,\text{FRL=}\end{array}\right\};$$

Figure 75:  
Table 1046

<b>CSIU=</b>	Call service information users. Authorization category for route calls.
<b>DRN=</b>	Direction.
<b>FRL=</b>	Facilities Restriction Level. Restriction category for route calls.
<b>ROU =</b>	Route number.

20.16.2

FUNCTION

The command is used to initiate a direction, and compile an authorization table for route calls within the direction. A route shall be selected with consideration given to the A-party authorization category.

If the route that is going to be associated to the direction is an H.323 route, the parameter IP in command *R/ANI* must have been initiated previously.

Alternative routes can exist within the direction. A direction can have alternative directions. The customer group function can have a direction initiated.

A direction consists of maximum 4 routes.

The CSIU parameter shall not be set if the IDNX service selection feature is to be used in the system. For an explanation of IDNX, see the operational directions for ADMINISTRATION OF ROUTES.

20.16.3

EXAMPLE 1

Route 1 in direction 01 shall be open for all types of CSI users.

Table 1047

RODII:DRN=01,ROU=1,CSIU=00000000; EXECUTED
---

20.16.4

EXAMPLE 2

Only PBX operator traffic shall be permitted on route 4 in direction 02.

Table 1048

RODII:DRN=02,ROU=4,CSIU=10111111; EXECUTED
---

20.16.5

EXAMPLE 3

Originating parties with FRL equal or higher than 4 are allowed to access route 5 in direction 05.

Table 1049

RODII:DRN=05,ROU=5,FRL=4; EXECUTED
---------------------------------------

20.16.6 COMMAND CATEGORY

Dangerous = **No**

20.17 RODIP

Route direction print

20.17.1 FORMAT

Table 1050

RODIP:DRN=;

Table 1051

**DRN=** Direction.  
ALL, & and && are permitted for this parameter.

20.17.2 FUNCTION

The command is used to print the routes and the authorization table for the routes within a direction.

20.17.3 PRINTOUT

Table 1052

DIRECTION DATA			
DRN	ROU	CSIU	FRL
.	.	.	.
.	.	.	.
.	.	.	.
END			

Table 1053

**CSIU** Call service information users.  
Authorization category for route calls.

**FRL** Facilities Restriction Level.  
Restriction category for route calls.

**ROU** Route number.

20.17.4 EXAMPLE

Print all authorization tables for all directions.

Table 1054

RODIP:DRN=ALL;			
DIRECTION DATA			
DRN	ROU	CSIU	FRL
1	1	00000000	
2	4	10011111	
5	5		4
END			

Route 1 in direction 1 is open for all traffic. Route 4 in direction 2 is open for PBX operator. Route 5 in direction 5 is open for originators with FRL equal to 4 or higher.

20.17.5 COMMAND CATEGORY

Dangerous = **No**

20.18 RODNE

Route day and night number end

20.18.1 FORMAT

RODNE:ROU=... [,TRU=...] { ,NIG=,DAY= ,NIG= ,DAY= } ;

Figure 76:  
Table 1055

- DAY** = Day number. Day service position.
- NIG** = Night number. Night service position.
- ROU** = Route number.  
& and && are allowed for this parameter, provided that the TRU parameter is omitted.
- TRU** = Trunk line number.  
LIM and sequence number for the external line. If the TRU parameter is omitted, the service position for the whole route will be removed.  
& and && are allowed for this parameter within one and the same route, provided that the ROU parameter is a single value.  
**Note:** This parameter cannot be stated when the route number in ROU belongs to an H.323 route.

20.18.2 FUNCTION

The command is used to remove day and/or night service positions within the own exchange for one or more routes or external lines within a route.



At least one of the DAY and NIG parameters must always be stated.

20.18.3                      EXAMPLE 1

Remove the day service position and the night service position for external lines 7 and 8 of route 1, in LIM 1. The day service position is the PBX operator with number 09, and the night service position is directory number 4845.

**Table 1056**

RODNE:ROU=1,TRU=1-7&1-8,DAY=09,NIG=4845; EXECUTED
--

20.18.4                      EXAMPLE 2 (SERVICE POSITION FOR SEVERAL ROUTES)

Remove the night service position with directory number 4498 for all lines in routes 1 and 2.

**Table 1057**

RODNE:ROU=1&2,NIG=4498; EXECUTED
-------------------------------------

20.18.5                      COMMAND CATEGORY

Dangerous = **No**

20.19                          RODNI

Route day and night number initiate

20.19.1                      FORMAT

$$\text{RODNI:ROU=... [ ,TRU=... ] } \left\{ \begin{array}{l} \text{ ,NIG=,DAY=} \\ \text{ ,NIG=} \\ \text{ ,DAY=} \end{array} \right\} ;$$

**Figure 77:**  
**Table 1058**

<b>DAY</b> =	Day number. Day service position.
<b>NIG</b> =	Night number. Night service position.
<b>ROU</b> =	Route number. & and && are allowed for this parameter, provided that the TRU parameter is omitted.

**TRU =** Trunk line number.  
 LIM and sequence number for the external line. If the TRU parameter is omitted, the service position for the whole route will be removed.  
 & and && are allowed for this parameter within one and the same route, provided that the ROU parameter is a single value.  
**Note:** This parameter cannot be stated when the route number in ROU belongs to an H.323 route.

## 20.19.2

## FUNCTION

The command is used to initiate day or night, or day and night, service positions within the own exchange for one or more routes or external lines within a route. Any previously initiated day or night service position for the line or route in question will be cancelled by this command.

On a DID route DAY or NIG will be the answering position at rerouting.

If no DAY or NIG is initiated the primary answering position is determined by answering positions initiated with OP commands. In this case, the common operator number should be set as primary answering position with the OP commands. See the operational directions for *PBX OPERATOR TRAFFIC* for further information.

A night service position may be an extension, an internal group hunting group number, a common bell group number, or a common abbreviated number.

A day service position may be an extension, an individual or common PBX operator number, an internal group hunting group number, a common bell group number or a common abbreviated number.

When the exchange uses a customer group facility and the route is defined as a DID route, only customer group dependent day or night, or day and night, service positions should be stated.

At least one of the DAY and NIG parameters must be stated.

## 20.19.3

## EXAMPLE 1

Initiate day service position and night service position for external lines 7 and 8 of route 1 in LIM 1. The day service position shall be the PBX operator with number 09, and the night service position shall be directory number 4845.

**Table 1059**

RODNI:ROU=1,TRU=1-7&1-8,DAY=09,NIG=4845; EXECUTED
--

## 20.19.4

## EXAMPLE 2 (SERVICE POSITION FOR SEVERAL ROUTES)

Initiate, for all lines in routes 1 and 2, night service position with directory number 4498. (The day service position (if any) is not affected).

**Table 1060**

RODNI:ROU=1&2,NIG=4498; EXECUTED
-------------------------------------

## 20.19.5

## COMMAND CATEGORY

Dangerous = **No**

20.20 RODNP

Route day and night number print

20.20.1 FORMAT

**Table 1061**  
RODNP:ROU=[,TRU=];

**Table 1062**

**ROU =** Route number.  
& and && are allowed for this parameter, provided that the TRU parameter is omitted.

**TRU =** Trunk line number.  
LIM number and sequence number for the external line.  
ALL, & and && are permitted for this parameter.  
**Note:** This parameter cannot be stated when the route number in ROU belongs to an H.323 route.

20.20.2 FUNCTION

The command is used to print day and night service positions within the own exchange for one or more routes or external lines within a route.

Two types of printout contents can be obtained:

- If the TRU parameter is omitted, the service position for the stated route (the whole route) is printed out.
- By stating both the TRU and ROU parameters, the service position for a specific external line within a route is printed out.

20.20.3 PRINTOUT

**Table 1063**

ROUTE DAY AND NIGHT NUMBER DATA			
ROU	TRU	DAY	NIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

**Table 1064**

**DAY** Day number. Day service position.

**NIG** Night number. Night service position.

20.20.4 EXAMPLE 1 (SERVICE POSITION FOR ROUTE)

Printout the day service and night service positions for routes 1 and 2.

**Table 1065**

RODNP:ROU=1&2;
----------------

ROUTE DAY AND NIGHT NUMBER DATA			
ROU	TRU	DAY	NIG
1			4498
2		4497	4498
END			

The night service position for routes 1 & 2 is directory number 4498. No day service position has been initiated for route 1.

## 20.20.5

## EXAMPLE 2 (SERVICE POSITION FOR EXTERNAL LINE)

Print the day service and night service positions for the external lines in route 7 in LIM 1 (external lines 13-17).

**Table 1066**

RODNP:ROU=7, TRU=1-13&&1-17;			
ROUTE DAY AND NIGHT NUMBER DATA			
ROU	TRU	DAY	NIG
7	001-13	09	4845
7	001-14	09	4845
7	001-15	09	4845
7	001-16	09	4845
7	001-17	09	4845
END			

The day service position for external lines 13-17 of route 7 in LIM 1 is the PBX operator with number 09, and the night service position is directory number 4845. No day service or night service positions for the complete route have been initiated.

## 20.20.6

## EXAMPLE 3 (SERVICE POSITION FOR ROUTE AND EXTERNAL LINE)

Print the day service and night service positions for all external lines in route 3 and 4 for which such positions have been initiated.

**Table 1067**

RODNP:ROU=3&4,TRU=ALL;			
ROUTE DAY AND NIGHT NUMBER DATA			
ROU	TRU	DAY	NIG
3		09	
3	001-2	4740	
3	001-3	4740	
3	001-6	4740	
3	001-7	4740	
4		09	
4	001-4		4845
4	001-5		4845
4	001-6		4845

END

The day service position for route 3 is the PBX operator with number 09. For the external lines with sequence numbers 2, 3, 6 and 7 in LIM 1, directory number 4740 serves as day service position. No night service positions have been initiated, neither for the route nor for any of the external lines.

The day service position for the entire route 4 is the PBX operator with number 09. For the external lines with the sequence numbers 4, 5 and 6 in LIM 1 the number 4845 is the night service position.

20.20.7

COMMAND CATEGORY

Dangerous = **No**

20.21

RODRP

Route external destination route data print

20.21.1

FORMAT

**Table 1068**  
**RODRP:ROU=;**

**Table 1069**  
**ROU =**      Route number.  
              ALL, & and && are permitted for this parameter.

20.21.2

FUNCTION

The command initiates a printout of the external destinations which are reached by the stated route or routes (the route access codes for external traffic).

20.21.3

PRINTOUT

**Table 1070**

EXTERNAL DESTINATION ROUTE DATA	
ROU	DEST
.	.
.	.
.	.
END	

20.21.4

EXAMPLE

Print information about which destinations are reached by routes 1-20.

**Table 1071**

RODRP:ROU=1&&20;

## EXTERNAL DESTINATION ROUTE DATA

ROU	DEST
1	00
14	7
END	

The public exchange is reached via route 1. The route is accessed using route access code 00. External destinations with route access code 7 is reached via route 14.

20.21.5

## COMMAND CATEGORY

Dangerous = **No**

## 20.22

## ROECE

Route equipment connection end

20.22.1

## FORMAT

**Table 1072**

**ROECE:EQU=,CDU=;**

**Table 1073**

**CDU** = Equipment position for the call metering/charging equipment.

**EQU** = Equipment position for the external line.

20.22.2

## FUNCTION

The command removes the affiliation between an external line and its call metering equipment.

The external line and call metering equipment have previously been affiliated to each other using command ROECI, see 20.23 ROECI on page 367, and a cable between the external line and the call metering equipment.

The external line and the call metering equipment must be situated in the same LIM.

20.22.3

## EXAMPLE

Remove the affiliation between the external line located in LIM 2, gateway A, magazine 0, board position 13, individual 0, and the call metering individual in magazine 0, board position 12 and individual 7.

**Table 1074**

ROECE:EQU=2A-0-13-0,CDU=0-12-7; EXECUTED
---

20.22.4

## COMMAND CATEGORY

Dangerous = **No**

20.23 ROECI

Route equipment connection initiate

20.23.1 FORMAT

**Table 1075**  
ROECI:EQU=,CDU=;

**Table 1076**  
**CDU** = Equipment position for the call metering/charging equipment.  
**EQU** = Equipment position for the external line.

20.23.2 FUNCTION

The command affiliates call metering equipment to an external line. The external line must also be connected to the call metering equipment with a connection cable. The external line and the call metering equipment must be situated in the same LIM.

20.23.3 EXAMPLE

Affiliate the call metering individual located in LIM 2, gateway A, magazine 0, board position 12, individual 7, to the external line located in LIM 2, magazine 0, board position 13 and individual 0.

**Table 1077**

ROECI:EQU=2A-0-13-0,CDU=0-12-7; EXECUTED
---

20.23.4 COMMAND CATEGORY

Dangerous = **No**

20.24 ROECP

Route equipment connection print

20.24.1 FORMAT

**Table 1078**  
ROECP:EQU=;

**Table 1079**  
**EQU** = Equipment position for the external line.  
ALL, & and && are permitted for this parameter.

## 20.24.2 FUNCTION

The command is used to print the equipment positions for the specified external lines which are linked to call metering equipment and the equipment positions of these.

## 20.24.3 PRINTOUT

**Table 1080**

ROUTE EQUIPMENT CONNECTION DATA	
EQU	CDU
.	.
.	.
.	.
END	

**Table 1081**

**CDU** Equipment position for call metering/charging equipment.

## 20.24.4 EXAMPLE

Print the equipment positions for the call metering equipment that are affiliated to the external line in LIM 2, default gateway, magazine 0, board position 13 and individual 0 on the board.

**Table 1082**

ROECP:EQU=2-0-13-0;	
ROUTE EQUIPMENT CONNECTION DATA	
EQU	CDU
002A-0-13-00	002-0-12-07
END	

Call metering equipment is affiliated to the external line. The call metering equipment is in the same magazine, board position 12 and individual 7. Between the call metering equipment and external line is a connecting cable.

## 20.24.5 COMMAND CATEGORY

Dangerous = **No**

## 20.25 ROEDP

Route equipment data print

## 20.25.1 FORMAT

**Table 1083**

**ROEDP:ROU=,TRU=;**



**Table 1084**

<b>ROU =</b>	Route number. ALL, & and && are permitted for this parameter.
<b>TRU =</b>	Trunk line number. LIM number and sequence number for the external line. ALL, & and && are permitted for this parameter.

20.25.2

FUNCTION

This command is used to produce a printout of external line data of a route, including the equipment position of the respective external line. Any individually set data for the external lines are also printed.

For H.323 routes, route number, the number of the trunk lines associated to the route, and the IP address associated to these trunk lines are printed. In case no IP address has been initiated for specific trunk lines (ROEQI command), the IP address tied to the route, if it has been initiated, is printed.

20.25.3

PRINTOUT

**Table 1085**

ROUTE EQUIPMENT DATA					
ROU	TRU	EQU	IP ADDRESS	INDDAT	CNTRL
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
END					

**Table 1086**

<b>CNTRL</b>	Controlling side indicator. The controlling side indicator states whether the exchange has control over the trunk line in the case of double seizure. CNTRL is only valid for CCSS7 trunks.
<b>EQU</b>	Equipment position. Equipment position for the external line.
<b>INDDAT</b>	Individual trunk data for the external line.
<b>IP ADDRESS</b>	IP address of an interface at the remote end. If there is IP address tied to the trunk it is printed, if not, the IP address tied to the route is printed with star (*) at the end, otherwise no IP address is printed.

20.25.4

EXAMPLE 1

Print the equipment positions for the external lines in route 1 (Lines 7 and 8 in LIM 1).

**Table 1087**

ROEDP:ROU=1,TRU=1-7&1-8;					
ROUTE EQUIPMENT DATA					
ROU	TRU	EQU	IP ADDRESS	INDDAT	CNTRL
1	001-7	001A-1-10-07			
1	001-8	001A-1-10-08			
END					

The two lines within route 1 in LIM 1 for the default gateway, A, are affiliated to magazine 1, board position 10, and the individuals numbered 07 and 08.

## 20.25.5

## EXAMPLE 2

Print all external lines of route 3 with their respective equipment positions.

**Table 1088**

ROEDP:ROU=3,TRU=ALL;					
ROUTE EQUIPMENT DATA					
ROU	TRU	EQU	IP ADDRESS	INDDAT	CNTRL
3	001-4	001A-1-10-04			
3	001-5	001A-1-10-05			
3	001-6	001A-1-10-06			
3	001-7	001B-1-10-07			
END					

Route 3 has external lines in LIM 1. Four external lines with sequence numbers 4-7. Three are located in gateway A and one in gateway B.

## 20.25.6

## EXAMPLE 3

Print the equipment position and individual data for external line 3 within route 5 in LIM 1.

**Table 1089**

ROEDP:ROU=5,TRU=1-3;					
ROUTE EQUIPMENT DATA					
ROU	TRU	EQU	IP ADDRESS	INDDAT	CNTRL
5	001-3	001A-1-10-03		H'0000000000003	
END					

The external line within route 5 in LIM 1, gateway A, is affiliated to magazine 1, board position 10 and individual number 3. This individual has individually set data: 0000000000003. For interpretation of this data consult the parameter description for the relevant TL function block, which will be found in the O&M documentation for Route Data.

## 20.25.7

## EXAMPLE 4

Print all external lines of route 7 with their respective equipment positions.

**Table 1090**

ROEDP:ROU=7,TRU=ALL;					
ROUTE EQUIPMENT DATA					
ROU	TRU	EQU	IP ADDRESS	INDDAT	CNTRL
7	001-1	001A-0-40-01			YES
7	001-2	001A-0-40-02			NO
7	001-3	001A-0-40-03			YES
7	001-4	001A-0-40-04			NO

7	001-5	001A-0-40-05	YES
7	001-6	001A-0-40-06	NO
END			

The external line is affiliated to gateway A, magazine 0, board position 40 and individual number 1 to 6. It is a CCSS7 trunk and the odd individual numbers are controlled by the own exchange and the even numbers are controlled by the cooperating exchange.

20.25.8

EXAMPLE 5

Print all external lines of route 3.

**Table 1091**

ROEDP:ROU=3,TRU=ALL;					
ROUTE EQUIPMENT DATA					
ROU	TRU	EQU	IP ADDRESS	INDDAT	CNTRL
3	001-1		192.4.6.87		
3	001-2		192.4.6.87		
3	001-3		192.4.6.70*		
3	001-4		192.4.6.70*		
END					

Route 3 has got four external lines in LIM 1 with sequence number 1 to 4. The first two trunk lines have been associated to the same destination IP address through ROEQI command and the other two use the IP address tied to the route. For these last, a star(\*) is printed out at the end of the IP address in order to inform the use of the IP address tied to the route.

At any case, no equipment position (nor any other information) is printed out because the route was initiated as an H.323 route.

20.25.9

COMMAND CATEGORY

Dangerous = **No**

20.26

ROEQE

Route equipment end

20.26.1

FORMAT

**Table 1092**

ROEQE:ROU=,TRU=;

**Table 1093**

**ROU =**      Route number.  
**TRU =**      Trunk line number. LIM and sequence number for external lines.  
              & and && are permitted for this parameter.

## 20.26.2 FUNCTION

The command is used in order to remove external lines of a given route. All data affiliated to the lines are removed.

## 20.26.3 EXAMPLE

Remove the external lines with sequence numbers 7 and 8 in LIM 1 for route 1.

**Table 1094**

```
ROEQE:ROU=1,TRU=1-7&1-8;
ROEQE:ROU=1,TRU=1-7&1-8;
SURE?(YES/NO)
YES;
EXECUTED
```

## 20.26.4 COMMAND CATEGORY

Dangerous = **Yes**

## 20.27 ROEQI

Route equipment initiate

## 20.27.1 FORMAT

**Table 1095**

**ROEQI:ROU=,TRU=[,EQU=][,IP=][,INDDAT=][,CNTR=];**

**Table 1096**

<b>CNTRL =</b>	Controlling side indicator. The parameter can be used only in combination with ITU-T method 2 line selection and it can only be used with a CCSS7 trunk. If the parameter is omitted when initiating a CCSS7 trunk, it will be set to NO. The parameter has no significance when initiating any other trunk and will be left out.
<b>EQU =</b>	Equipment position. Equipment position for external line. This parameter is normally mandatory, but when initiating external lines for H.323 routes, the parameter must be omitted.
<b>INDDAT =</b>	Individual trunk data for external line. If the parameter is omitted the value H"0000000000FF is assumed to apply.
<b>IP =</b>	IP address. IP address of a network interface at the remote end. This parameter is used only for external destinations that can be reached via H.323 routes.
<b>ROU =</b>	Route number.
<b>TRU =</b>	Trunk line number. LIM and sequence number for the external line. & and && are allowed for this parameter.

## 20.27.2

### FUNCTION

The command is used to initiate one or more equipment positions as external lines of a previously initiated route.

The external lines for H.323 routes shall be initiated without equipment position. These external lines will dynamically allocate an equipment position when required.

One or more lines can be initiated at the same time in a LIM, the line that comes first is associated with the equipment position stated. The rest of the external lines are associated with the subsequent free equipment positions of the right type in the same LIM.

**Note:** Only one external line at a time can be initiated when signaling equipment is to be affiliated to the line.

If an external line that requires individual data shall be initiated, these individual data shall be stated at the initiation. If several external lines are initiated at the same time, all these will receive the same individual data.

The order of selecting an external line (of a route) within a LIM is controlled by the sequence number of the line. The lines within the LIM are scanned, starting with the line with the lowest sequence number.

The order of selecting an external line when the lines of the route are divided over several LIMs is controlled by the programming order, that is, the order in which the external lines were initiated in the different LIMs.

## 20.27.3

### EXAMPLE 1

Initiate external lines for route 1. The lines are to be placed in LIM 1, where they will have sequence numbers 7 and 8. The lines are to be connected to gateway A, magazine 1, board position 10, where the line with serial number 7 is to be connected to board individual number 0. The first free equipment position of the right type in LIM 1 is to be associated with the line with sequence number 8.

**Table 1097**

ROEQI:ROU=1,TRU=1-7&1-8,EQU=1A-1-10-7; EXECUTED
--

## 20.27.4

### EXAMPLE 2

Initiate an external line for route 5. The line is to be placed in LIM 1, where it will have sequence number 3. The line is to be connected to gateway B, magazine 1, board position 10, where the line with sequence number 3 is to be connected to board individual 0. The external line shall have the individual data 000000000003.

**Table 1098**

ROEQI:ROU=5,TRU=1-3,EQU=1B-1-10-3,INDDAT=000000000003; EXECUTED
--

## 20.27.5

### EXAMPLE 3

Initiate an external CCSS7 line for route 7. The line is to be placed in LIM 1, where it will have sequence number 1. The line is to be connected to gateway C, magazine 0, board position 40, where the line with sequence number 1 is to be connected to board individual number 1. The line should be controlled by the own exchange.

**Table 1099**

ROEQI:ROU=7,TRU=1-1,EQU=1C-0-40-1,CNTRL=YES; EXECUTED
--

20.27.6

**EXAMPLE 4**

Initiate external lines for route 2, which is an H.323 route. These lines are to be placed in LIM 3, where they will have sequence numbers 5 and 6.

**Table 1100**

ROEQI:ROU=2,TRU=3-5&3-6; EXECUTED
--------------------------------------

20.27.7

**EXAMPLE 5**

Initiate external lines for route 2, which is an H.323 route. These lines are to be placed in LIM 3, where they will have sequence numbers 7 and 8, and they will be associated a destination IP address different from the IP address tied to the route.

**Table 1101**

ROEQI:ROU=2,TRU=3-7&3-8, IP=192.4.6.87; EXECUTED
---

20.27.8

**COMMAND CATEGORY**

Dangerous = **No**

**20.28****ROFCC**

Route fault counter change

20.28.1

**FORMAT****Table 1102**

**ROFCC:BPOS=;**

**Table 1103**

**BPOS =** Board position.  
& and && are permitted for this parameter.

20.28.2

**FUNCTION**

This command resets the board fault counters, which include the network information and the fault statistics.

The network information counters are:

- Current Signal Condition (NOK or OK)
- Current Interval Timer (seconds in current 15 minutes)
- Errored Seconds

- Failed Seconds
- Valid Interval Total
- Extended Super Frame Error Events (Out-Of-Frame and Cyclic Redundancy Check 6).

The Errored seconds, Failed Seconds and Valid Intervals are counted in 15 minute intervals and are incremented and stored in a past 24 hour total. This involves a sliding window to always contain the past 24 hour total.

The fault statistics counters are:

- Bipolar Violations (Two consecutive 1 with the same polarity)
- Out of Frame conditions
- CRC6 or Framing Errors
- Slip Errors

The new time and date will be stored in the system when the fault counters are reset.

See operational directions for *ROUTE DATA* to see which boards that support the command.

20.28.3
EXAMPLE

Reset all the fault counters of TLU45 boards located at 1A-0-40 and 1B-0-60.

**Table 1104**

ROFCC:BPOS=1A-0-40&1B-0-60;
EXECUTED

20.28.4
COMMAND CATEGORY

Dangerous = **No**

20.29
ROFCP

Route fault counter print

20.29.1
FORMAT

**Table 1105**

**ROFCP:BPOS=;**

**Table 1106**

**BPOS =**      Board position.  
                  & and && are permitted for this parameter.

20.29.2
FUNCTION

This command is used to print the board fault counters, which include the network information and the fault statistics.

The network information counters are:

- Current Signal Condition (NOK or OK)
- Current Interval Timer (seconds in current 15 minutes)
- Errored Seconds
- Failed Seconds
- Valid Interval Total
- Extended Super Frame Error Events (Out-Of-Frame and Cyclic Redundancy Check 6).

The Errored seconds, Failed Seconds and Valid Intervals are counted in 15 minute intervals and are incremented and stored in a past 24 hour total. This involves a sliding window to always contain the past 24 hour total.

The fault statistics counters are:

- Bipolar Violations (Two consecutive 1 with the same polarity)
- Out of Frame conditions
- CRC6 or Framing Errors
- Slip Errors

The started measurement period of the fault counters of each board is included in the printout.

Both Network Information and Failure Statistics are printed.

See operational directions for *ROUTE DATA* to see which boards that support the command.

### 20.29.3

### PRINTOUT

**Table 1107**

ROUTE FAULT COUNTER DATA													
MEASUREMENT STARTED AT: hh:mm ddmmmyy													
BPOS		TYPE											
...		...											
CSC	TIM	ES1	ES2	ES3	ES4	FS1	FS2	FS3	FS4	VI	EST	FST	ESFEE
...	...	...	...	...	...	...	...	...	...	...	...	...	...
BPV		OOF		COF		SLIP							
...		...		...		...							
END													

**Table 1108**

<b>hh:mm</b>	Hour and minute.
<b>ddmmmyy</b>	Day, month and year.
BPV	Bi-Polar Violations. Value range is 0-65535.
COF	CRC6 or Framing errors. Value range is 0-65535.
CSC	Current signal condition. Value = OK or NOK.



ES1	Errored second interval 1. Errored seconds in the first 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-90.
ES2	Errored second interval 2. Errored seconds in the second 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-900.
ES3	Errored second interval 3. Errored seconds in the third 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-900.
ES4	Errored second interval 4. Errored seconds in the fourth 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-900.
ESFEE	Extended Super Frame error events. Value range is 0-65535.
EST	Errored second total. The total number of errored seconds in the past 24 hours. Value range is 0-65535.
FS1	Failed second interval 1. The total number of failed states in the first 15 minute interval. Value range is 0-900.
FS2	Failed second interval 2. The total number of failed states in the second 15 minute interval. Value range is 0-900.
FS3	Failed second interval 3. The total number of failed states in the third 15 minute interval. Value range is 0-900.
FS4	Failed second interval 4. The total number of failed states in the fourth 15 minute interval. Value range is 0-900.
FST	Failed second total. The total number of failed seconds in the past 24 hours. Value range is 0-65535.
OOF	Out Of Frame errors. Value range is 0-65535.
SLIP	Slip errors. Value range is 0-65535.
TIM	Current interval timer. The current second within the 15 minute interval. Value range is 0-900.
TYPE	Type of signalling diagram. The TL function block that administers the TL unit in the stated board position.
VI	Valid interval total. The number of 15 minute intervals in the past 24 hours. Value range is 0-96.

## 20.29.4

## EXAMPLE

Print the fault counters of the TL45 board at position 0-40 in LIM 1, gateway B.

**Table 1109**

ROFCP:BPOS=1B-0-40;													
ROUTE FAULT COUNTER DATA													
MEASUREMENT STARTED AT: 16:20 18OCT98													
BPOS		TYPE											
1B-0-40		TL45											
CSC	TIM	ES1	ES2	ES3	ES4	FS1	FS2	FS3	FS4	VI	EST	FST	ESFEE
NOK	56	0	66	34	0	0	5	2	0	96	1184	105	2
BPV		OOF		COF		SLIP							
86		0		0		1							
END													

The last time all fault counters of the TLU45 boards were reset was at 4:20 PM on the 18th of October 1998.

The current status of the fault counters is:

- At the moment of typing the command, the signalling condition is not OK.
- The current time is the 56th second in the 900-second (15-minute) interval.
- During the past hour, there have been 0, 66, 34, and 0 errored seconds for the 1st, 2nd, 3rd, and 4th quarter respectively. The total number of errored seconds in the last 24 hours is 1184.
- During the last hour, there are 0, 5, 2, and 0 failed states for the 1st, 2nd, 3rd, and 4th quarter, respectively. The total number of failed states in the last 24 hours is 105.
- 96 or more 15-minute intervals have elapsed since last reset.
- There are 2 Extended Super Frame error events.
- There are 86 bi-polar violations and 1 slip error. No out-of-frame, CRC6, or framing error.

20.29.5

## COMMAND CATEGORY

Dangerous = **No**

20.30

## RONDE

Route number data end

20.30.1

### FORMAT

**Table 1110**  
**RONDE:ROU;**

**Table 1111**  
**ROU =**      Route number.

20.30.2

### FUNCTION

The command is used for removal of all number data for the stated routes.

20.30.3

### EXAMPLE

Remove all number data for route number 4.

**Table 1112**

RONDE:ROU=4; EXECUTED
--------------------------

20.30.4

## COMMAND CATEGORY

Dangerous = **No**

## 20.31

## RONDI

Route number data initiate

## 20.31.1

## FORMAT

Table 1113

**RONDI:ROU=** [,PRE=][,ROUDIR=][,EXNOPU=][,EXNOPR=] [,TERAC=];

Table 1114

<b>EXNOPR =</b>	Exchange number for private network. This parameter is used to build up the exchange number table with the private exchange numbers to prefix the directory number with, when composing a complete number (private calling/connected number) for the private network. If the parameter is omitted no default value is set.
<b>EXNOPU =</b>	Exchange number for public network. This parameter is used to build up an exchange number table with the public exchange numbers to prefix the directory number with, when composing a complete number (public calling/connected number) for the public network. If the parameter is omitted no default value is set.
<b>PRE =</b>	Predigits. States the digits to be placed in front of the received digits (called number/B-number) from the public exchange when this can only send a limited number of digits. If the parameter is omitted no default value is set.
<b>ROU =</b>	Route number.
<b>ROUDIR =</b>	Route directory number. States a directory number to use for all incoming calls on an incoming route. Used when the route cannot convey (public and/or private) calling number and the calling party identity is requested, for example, at transit traffic when the subsequent exchange requests calling party number transfer. The exchange numbers (EXNOPR and EXNOPU) are used together with ROUDIR at outgoing transit traffic to compose a complete calling number. If the parameter is omitted no default value is set.
<b>TERAC =</b>	Terminating area code for route. States the area code (trunk code) for the exchange where the route terminates. It is used for deleting own area code number at outgoing traffic. If the parameter is omitted no default value is set.

## 20.31.2

## FUNCTION

The command is used to set number data for an existing route.

PRE is used to prefix incoming called numbers. Used at direct in-dialling traffic, when the public exchange or interworking exchange can only send a limited number of digits to the receiving exchange.

ROUDIR is a directory number to use for all incoming calls on an incoming route. May only be stated if the route permits incoming traffic.

EXNOPU and EXNOPR are used to build up a public and a private exchange number table, with exchange numbers to prefix a directory number with, to use when composing a complete (public/private) number (calling/connected number) to send to an interworking exchange.

Table 1115 Private exchange numbers

Exchange number	Parameter	Example
Country code	EXNOPU=1-CC	EXNOPU=1-46

Trunk code	EXNOPU=2-NDC	EXNOPU=2-8
Local code	EXNOPU=4-LOCPU	EXNOPU=4-68
Network specific	EXNOPU=3-NSP	EXNOPU=3-999
Unknown public	EXNOPU=0-UNPU	EXNOPU=0-46868

**Table 1116**Private exchange numbers

Exchange number	Parameter	Example
Location code (local private)	EXNOPR=6-LOCPR	EXNOPR=6-4
Location code (level 1 regional)	EXNOPR=7-LEV1RC	EXNOPR=7-850
Unknown private	EXNOPR=5-UNPR	EXNOPR=5-8504

**Note:** If the combined length of LEV1RC and LOCPR together is more than 5 digits, the most significant digits of LEV1RC are truncated.

What exchange numbers to use, when composing a private/public **calling** number to send, is controlled by the TON that is initiated (command RODDI, see 20.13 RODDI on page 347) for the destination used at the outgoing call.

What exchange numbers to use when composing a private/public **connected** number is controlled by the TON received from the calling party.

## 20.31.3

## EXAMPLE 1

Initiate the following number data for route 8:

Parameter EXNOPU:

Initiate the following public exchange numbers to use when composing Calling/Connected numbers for the public network:

- Local code=682 (TON=4)
- Trunk code=8 (TON=2)
- Country code=46 (TON=1)

Parameter EXNOPR:

Initiate the following private exchange number to use when composing Calling/Connected numbers for the private network:

- (local private) Location code=2 (TON=6)

**Table 1117**

```

RONDI:ROU=8,EXNOPU=4-682,EXNOPR=6-2;
EXECUTED
RONDI:ROU=8,EXNOPU=2-8;
EXECUTED
RONDI:ROU=8,EXNOPU=1-46;
EXECUTED

```

## 20.31.4

## EXAMPLE 2

Initiate the following number data for route 4:

Parameter PRE:

Predigit 4 shall be placed before the received digits (called number/B-number).

**Table 1118**

RONDl:ROU=4,PRE=4; EXECUTED
--------------------------------

20.31.5

EXAMPLE 3

This example shows initiation of the exchange numbers to use for route 1, a route to the public network.

Initiate the following number data for route 1:

Parameter EXNOPU:

Initiate the following public exchange numbers to use when composing complete calling/connected numbers for the public network:

- Country code=46 (TON=1)
- Trunk code=8 (TON=2)
- Local code=68 (TON=4)
- Network specific=111 (TON=3)

**Table 1119**

RONDl:ROU=1,EXNOPU=1-46; EXECUTED RONDl:ROU=1,EXNOPU=2-8; EXECUTED RONDl:ROU=1,EXNOPU=4-68; EXECUTED RONDl:ROU=1,EXNOPU=3-111; EXECUTED
--

20.31.6

COMMAND CATEGORY

Dangerous = **No**

20.32

RONDp

Route number data print

20.32.1

FORMAT

**Table 1120**

**RONDp:ROU=;**

**Table 1121**

**ROU =**     Route number.  
              ALL, & and && are permitted for this parameter.

## 20.32.2

## FUNCTION

The command is used to print the number data initiated for the stated routes.

## 20.32.3

## PRINTOUT

**Table 1122**

ROUTE NUMBER DATA					
ROU	PRE	ROUDIR	EXNOPU	EXNOPR	TERAC
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
END					

**Table 1123**

<b>EXNOPR</b>	Exchange number for private network. This parameter indicates the private exchange numbers to prefix the directory number with, when composing complete numbers for private network.
<b>EXNOPU</b>	Exchange number for public network. This parameter indicates the public exchange numbers to prefix the directory number with, when composing a complete number for public network.
<b>PRE</b>	Predigits. Indicates the digits to be placed in front of the received digits (called number/B-number) from a public exchange that can only send a limited number of digits.
<b>ROUDIR</b>	Route directory number. Indicates a route directory number to use for all incoming calls on an incoming route. Used when the route cannot convey (public and/or private) calling number and the calling party identity is requested, for example, at transit traffic when the subsequent exchange requests calling party number transfer. Used together with the exchange numbers (EXNOPR and EXNOPU) at outgoing transit traffic to compose a complete calling number.
<b>TERAC</b>	Terminating area code for route.

## 20.32.4

## EXAMPLE

Print the categories for route 1, 4 and 8.

**Table 1124**

RONDP:ROU=1&4&8;					
ROUTE NUMBER DATA					
ROU	PRE	ROUDIR	EXNOPU	EXNOPR	TERAC
1			0-682		8
4	4				
8			1-46	6-2	
			2-8		
			4-682		
END					

For route 1 the following is valid: Exchange number 682 is used for public calls with TON unknown public (incoming calls), that is, TON = Unknown public is received, or

the destination is unknown (outgoing calls). The route terminates in an exchange with trunk code 8.

For incoming calls on route 4 the digit 4 is placed in front of the received digits.

For route 8 the following is valid: Exchange number 682 is used for local public calls. Exchange numbers 8+682 is used for national public calls. Exchange numbers 46+8+682 is used for international public calls. Exchange number 2 is used for local private calls.

20.32.5
COMMAND CATEGORY

Dangerous = **No**

20.33
RORIE

Route rerouting isolated LIM end

**Table 1125**

**RORIE:LIM=;**

**Table 1126**

**LIM** = LIM number.

20.33.1
FUNCTION

This command is used for removal of isolated LIM rerouting numbers.

20.33.2
EXAMPLE

Remove the rerouting isolated LIM number for LIM number 6.

**Table 1127**

RORIE:LIM=6; EXECUTED
--------------------------

20.33.3
COMMAND CATEGORY

Dangerous = **No**

20.34
RORII

Route rerouting isolated LIM initiate

**Table 1128**

**RORII:LIM=,ISORER=;**

**Table 1129**

**ISORER** = Isolated LIM rerouting number. Defines the rerouting number for isolated LIM.

**LIM** = LIM number.

20.34.1                      FUNCTION

The command is used to initiate a rerouting number in case of calls receiving congestion due to isolated LIM, or when a common function is located in an isolated LIM. The number is placed in front of the dialed number. The number may be a route access code for external traffic.

20.34.2                      EXAMPLE

Initiate rerouting number 010 for LIM 6.

**Table 1130**

RORII:LIM=6,ISORER=010; EXECUTED
-------------------------------------

20.34.3                      COMMAND CATEGORY

Dangerous = **No**

20.35                         RORIP

Route rerouting isolated LIM print

20.35.1                      FORMAT

**Table 1131**

**RORIP:LIM=;**

**Table 1132**

**LIM** =            LIM number.  
                 ALL is allowed for this parameter.

20.35.2                      FUNCTION

This command is used for printing of isolated LIM rerouting number.

20.35.3                      PRINTOUT

**Table 1133**

REROUTING ISOLATED LIM DATA	
LIM	ISORER
.	.
.	.
END	

**Table 1134**

**ISORER**            Isolated LIM rerouting number.



20.35.4                      EXAMPLE

Print the isolated LIM rerouting number for LIM 6.

**Table 1135**

RORIP:LIM=6;	
REROUTING ISOLATED LIM DATA	
LIM	ISORER
6	010
END	

Calls originating in LIM 6 will be rerouted to external destination 010, if LIM 6 is isolated.

20.35.5                      COMMAND CATEGORY

Dangerous = **No**

20.36                        RORNE

Route rerouting number in network end

20.36.1                    FORMAT

<b>RORNE:</b>	$\left\{ \begin{array}{l} \text{ROU=... ,NCA=...} \\ \text{CUST=,PRIO=} \end{array} \right\} ;$
---------------	---

**Figure 78:**

**Table 1136**

- CUST =**     Customer number.
- NCA =**     Network central answering position. Defines the exchange number for the central answering position.  
              & is allowed for this parameter.
- PRIO =**     Priority for central answering position or customer centralized operator.
- ROU =**     Route number.  
              & and && are allowed for this parameter.

20.36.2                    FUNCTION

When parameter ROU is entered this command is used for removal of one or more central answering positions for one or more routes, that is, removal of rerouting numbers to destinations in other exchanges within the private network.

When parameter CUST is entered this command is used for removal of a customer centralized operator for customer.

20.36.3

## EXAMPLE 1

Remove the central answering position to exchange 74 for route 1.

**Table 1137**

```
RORNE:ROU=1,NCA=74;
EXECUTED
```

20.36.4

## EXAMPLE 2

Remove the customer centralized operator with the first priority for customer 15.

**Table 1138**

```
RORNE:CUST=15,PRIO=1;
EXECUTED
```

20.36.5

## COMMAND CATEGORY

Dangerous = **No**

20.37

## RORNI

Route rerouting number in network initiate

20.37.1

## FORMAT

```
RORNI: { ROU=... } ,NCA=,NUM=,PRIO=;
        { CUST= }
```

**Figure 79:****Table 1139**

**CUST =** Customer number.

**NCA =** Network central answering position.  
Defines the exchange number for the central answering position for routes or indicates if it is a customer centralized operator.

**NUM =** Common abbreviated number for rerouting to external party.  
A common abbreviated number which translation number is the central answering position or customer centralized operator number.

**PRIO =** Priority for central answering position or customer centralized operator.

**ROU =** Route number.  
& and && are allowed for this parameter.

20.37.2

## FUNCTION

When parameter ROU is entered this command is used to initiate a *central answering position* within the private network for one or more routes.

When parameter CUST is entered this command is used to initiate a *customer centralized operator* for the customer.

The central answering position or customer centralized operator must be external (and within the own private network). The central answering position or customer centralized operator is set to a common abbreviated number. The complete translation number is set with the command *ADCOI*.

The external answering position for a route can be an extension, an individual or common PBX operator number or an internal group hunting group number. It is possible to initiate three external answering positions per route.

The customer centralized operator is a common PBX operator number. It is possible to initiate two customer centralized operators per customer.

### 20.37.3

#### EXAMPLE 1

Initiate a central answering position in a network for route 1. The calls shall in first hand be rerouted to exchange 74 which can be reached with the translation for the common abbreviated number 080.

**Table 1140**

RORNI:ROU=1,NCA=74,NUM=080,PRI0=1; EXECUTED
--

### 20.37.4

#### EXAMPLE 2

Initiate a customer centralized operator in a network for customer 15. The calls shall in first hand be rerouted to the customer centralized operator that can be reached with the translation for the common abbreviated number 180.

**Table 1141**

RORNI:CUST=15,NCA=CCOP,NUM=180,PRI0=1; EXECUTED
--

### 20.37.5

#### COMMAND CATEGORY

Dangerous = **No**

## 20.38

## RORNP

Route rerouting number in network print

### 20.38.1

#### FORMAT

$$\text{RORNP:} \left\{ \begin{array}{l} \text{ROU=...} \\ \text{CUST=...} \end{array} \right\} ;$$

**Figure 80:**

**Table 1142**

**CUST =** Customer number.  
ALL, & and && are allowed for this parameter.

**ROU =** Route number.  
ALL, & and && are allowed for this parameter.

## 20.38.2

## FUNCTION

When the parameter CUST is entered the command is used for printing the customer centralized operator numbers for customers.

When parameter ROU is entered the command is used for printing the central answering positions for one or more routes.

That is, print of rerouting numbers to destinations in other exchanges within the private network.

If the route is affiliated to a customer which has a customer centralized operator initiated, both the route's central answering positions and customer centralized operator numbers are included in the printout.

## 20.38.3

## PRINTOUT 1 (ROU)

**Table 1143**

ROUTE REROUTING NUMBER DATA				
ROU	PRIO	NCA	NUM	CUST
.	.	.	.	.
.	.	.	.	.
END				

## 20.38.4

## PRINTOUT 2 (CUST)

**Table 1144**

CUSTOMER REROUTING NUMBER DATA			
CUST	PRIO	NCA	NUM
.	.	.	.
.	.	.	.
END			

**Table 1145**

**NCA** Network central answering position.  
Defines the exchange number for the central answering position for routes or indicates if it is a customer centralized operator.

**NUM** Common abbreviated number for rerouting to external party.  
A common abbreviated number which translation number is the central answering position or customer centralized operator.

**PRIO** Priority for central answering position or customer centralized operator.

## 20.38.5

## EXAMPLE 1 (ROU)

Print the customer centralized operator data and central answering position for route 1.

**Table 1146**

RORN:ROU=1;				
ROUTE REROUTING NUMBER DATA				
ROU	PRIO	NCA	NUM	CUST
1	1	74	080	
	2	75	081	
END				

Two external answering positions exist for route 1 which has no customer affiliation. The first hand choice is located in exchange 74, and reached with the common abbreviated number 080. The second hand choice is located in exchange 75, and reached with the common abbreviated number 081.

## 20.38.6

**EXAMPLE 2 (ROU)**

Print the customer centralized operator data and central answering position for route 1.

**Table 1147**

RORN:ROU=1;				
ROUTE REROUTING NUMBER DATA				
ROU	PRIO	NCA	NUM	CUST
1	1	74	080	15
	2	75	081	15
END				

Two external answering positions exist for route 1 which is affiliated to customer 15. The first hand choice is located in exchange 74, and reached with the common abbreviated number 080. The second hand choice is located in exchange 75, and reached with the common abbreviated number 081. No customer centralized operator exists for customer 15.

## 20.38.7

**EXAMPLE 3 (ROU)**

Print the customer centralized operator data and central answering position for route 1.

**Table 1148**

RORN:ROU=1;				
ROUTE REROUTING NUMBER DATA				
ROU	PRIO	NCA	NUM	CUST
1	1	CCOP	181	15
	2	CCOP	182	15
	1	74	080	15
	2	75	081	15
END				

Route 1 is affiliated to customer 15. Two customer centralized operators exist for customer 15.

- The customer centralized operator with the first priority can be reached with the common abbreviated number 181.

- The customer centralized operator with the second priority can be reached with the common abbreviated number 182.

Two external answering positions exist for route 1.

- The first hand choice is located in exchange 74, and reached with the common abbreviated number 080.
- The second hand choice is located in exchange 75, and reached with the common abbreviated number 081.

## 20.38.8

## EXAMPLE 4 (CUST)

Print the customer centralized operator data for customer 15.

**Table 1149**

RORNPN:CUST=15;			
CUSTOMER REROUTING NUMBER DATA			
CUST	PRIOR	NCA	NUM
15	1	CCOP	181
	2	CCOP	182
END			

Two customer centralized operators exist for customer 15. The customer centralized operator with the first priority can be reached with the common abbreviated number 181. The customer centralized operator with the second priority can be reached with the common abbreviated number 182.

## 20.38.9

## COMMAND CATEGORY

Dangerous = **No**

## 20.39

## ROUTE

Route end

## 20.39.1

## FORMAT

**Table 1150**

**ROUTE:ROU=;**

**Table 1151**

**ROU =**      Route number.  
                  & and && are permitted for this parameter.

## 20.39.2

## FUNCTION

The command is used to terminate a route.

**Note:** All lines within the route must be removed before terminating the route.

20.39.3

## EXAMPLE

Remove route 1.

**Table 1152**

ROUTE:ROU=1; EXECUTED
--------------------------

20.39.4

## COMMAND CATEGORY

Dangerous = **No**

20.40

## ROVNE

Route vacant number end

20.40.1

## FORMAT

**Table 1153**

ROVNE:ROU=;

**Table 1154**

**ROU =**     Route number.  
              & and && are permitted for this parameter.

20.40.2

## FUNCTION

The command is used to erase one or more routes answering positions for vacant number.

The answering position for vacant numbers can be an extension, an internal group hunting group number, or a common bell group number.

20.40.3

## EXAMPLE

Erase the answering position for vacant number for route number 1.

**Table 1155**

ROVNE:ROU=1; EXECUTED
--------------------------

20.40.4

## COMMAND CATEGORY

Dangerous = **No**

20.41

## ROVNI

Route vacant number initiate

20.41.1

FORMAT

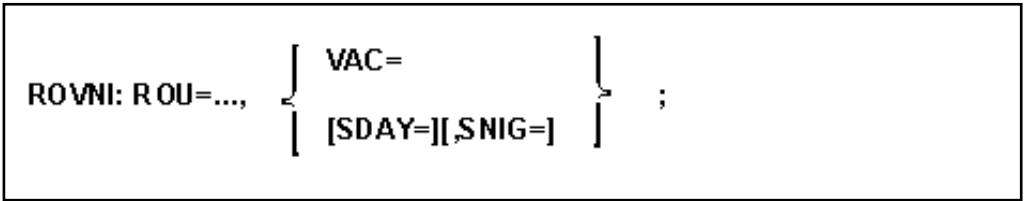


Figure 81:  
Table 1156

<b>ROU =</b>	Route number. & and && are allowed for this parameter.
<b>SDAY =</b>	Day number. Day rerouting number for incomplete number dialled on a DID route and when no digits are dialled on a DID trunk.
<b>SNIG =</b>	Night number. Night rerouting number for incomplete number dialled on a DID route and when no digits are dialled on a DID trunk.
<b>VAC =</b>	Vacant number.

20.41.2

FUNCTION

The command is used to initiate an answering position for vacant number, for incomplete number and when no digits are dialled for one or more routes. Any answering position for vacant number, incomplete number, or no digits initiated earlier for the route in question, will be over-written by this command.

VAC and SDAY, SNIG are mutually exclusive. For a route either VAC or SDAY and SNIG can be initiated. It is possible to initiate SDAY for a route after initiating VAC for the same route without ending it using ROVNE command. In this case, the initial VAC initiation for the route is overridden by the SDAY initiation. When SDAY and/or SNIG are initiated vacant number calls are directed to SDAY and SNIG depending on the status of the exchange.

The answering position for vacant number can be an extension, an internal group hunting group number, or a common bell group number.

The answering position incomplete number and no number can be an extension number, a voice mail, IVR, any directory number, an internal group hunting group, or a common bell group number.

20.41.3

EXAMPLE 1

Initiate an answering position for vacant number for route number 1. The answering position for vacant number shall be directory number 4488.

Table 1157

ROVNI:ROU=1,VAC=4488; EXECUTED
-----------------------------------

20.41.4

EXAMPLE 2

Initiate an answering position for incomplete number for route number 1. The answering position for the incomplete and no number scenario shall be directory number 1234 during day time and 4321 during night time.



**Table 1158**

ROVNI:ROU=1,SDAY=1234,SNIG=4321; EXECUTED
--

20.41.5                      COMMAND CATEGORY

Dangerous = **No**

20.42                      ROVNP

Route vacant number print

20.42.1                      FORMAT

**Table 1159**  
**ROVNP:ROU=;**

**Table 1160**  
**ROU =**      Route number.  
              ALL, & and && are permitted for this parameter.

20.42.2                      FUNCTION

The command is used to print one or more routes answering positions for vacant number or incomplete number and no number for day and night positions.

The answering position for vacant number can be an extension, an internal group hunting group, or a common bell group.

The answering position for incomplete number and no number can be an extension, a voice mail or IVR mail, any directory number, any group hunt number, or any common bell group number.

20.42.3                      PRINTOUT

**Table 1161**

ROUTE VACANT NUMBER DATA			
ROU	VAC	SDAY	SNIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

**Table 1162**  
**SDAY**      Day time rerouting number.  
**SNIG**      Night time rerouting number.  
**VAC**       Vacant number.

20.42.4

## EXAMPLE

Print the answering position for route number 1.

**Table 1163**

ROVNP:ROU=1;			
ROUTE VACANT NUMBER DATA			
ROU	VAC	SDAY	SNIG
1	4488		
END			

The answering position for vacant number for route number 1 is directory number 4488.

20.42.5

## EXAMPLE 2

Print the answering position for route number 2.

**Table 1164**

ROVNP:ROU=2;			
ROUTE VACANT NUMBER DATA			
ROU	VAC	SDAY	SNIG
2		1234	4321
END			

The answering position for incomplete number and no numbers for route number 2 are directory numbers 1234 and 4321.

20.42.6

## COMMAND CATEGORY

Dangerous = **No**

21

SE - STATIC SEMIPERMANENT CONNECTION

21.1

SEMIE

Static semipermanent connection end

21.1.1

FORMAT

**Table 1165**  
**SEMIE:EQU=;**

**Table 1166**  
EQU =      Equipment position.

21.1.2

FUNCTION

The command is used to end a static semipermanent connection. The Parameter EQU can be either port A or B of the static semipermanent connection.

21.1.3

EXAMPLE

End a static semipermanent connection between port A (at LIM 1, gateway C, magazine number 0, board position 43 and individual number 0) and port B (at LIM 2, magazine number 0, gateway A, board position 41 with individual number 2). Either one of the following two commands after execution will end the same static semipermanent connections.

<b>Table 1167</b>
SEMIE:EQU=1C-0-43-0;
EXECUTED

<b>Table 1168</b>
SEMIE:EQU=2A-0-41-2;
EXECUTED

21.1.4

COMMAND CATEGORY

Dangerous = **No**

21.2

SEMII

Static semipermanent connection initiate

## 21.2.1

## FORMAT

**Table 1169****SEMI:EQUA=,EQUB=;****Table 1170**

EQUA =     Equipment position for port A.

EQUB =     Equipment position for port B.

## 21.2.2

## FUNCTION

The command is used to set up a static semipermanent connection between equipment position A and equipment position B. Only supported equipment types pending on the application will be accepted by the system, such as between a CAS Extension position and an ISDN B channel position will be accepted for static semipermanent connection. Please refer to Operational Directions for equipment types which support this application.

## 21.2.3

## EXAMPLE 1

Set up a static semipermanent connection between equipment position A (at LIM 1, gateway D, magazine number 0, board position 43 with individual number 0) and equipment position B (at LIM 2, gateway C, magazine number 0, board position 41 with individual number 2).

**Table 1171**

```
SEMI:EQUA=1D-0-43-0,EQUB=2C-0-41-2;
EXECUTED
```

## 21.2.4

## EXAMPLE 2

The command is rejected due to that the user is not in idle state.

**Table 1172**

```
SEMI:EQUA=1A-0-43-0,EQUB=1A-3-20-2;
NOT EXECUTED
USER BUSY
```

## 21.2.5

## EXAMPLE 3

The command is rejected due to that one or both LIMs are blocked.

**Table 1173**

```
SEMI:EQUA=3C-0-10-4,EQUB=1A-3-20-2;
NOT EXECUTED
LIM(S) BLOCKED
```

## 21.2.6

## EXAMPLE 4

The command is rejected due to that one or both EQUs are not assigned.

**Table 1174**

SEMII:EQUA=1A-0-43-0,EQUB=2C-0-41-2;
NOT EXECUTED
EQU NOT ASSIGNED

21.2.7

EXAMPLE 5

The command is rejected due to that one or both board positions are not equipped.

**Table 1175**

SEMII:EQUA=1B-0-43-0,EQUB=2D-0-41-2;
NOT EXECUTED
POS
EQUIPMENT POSITION NOT EQUIPPED

21.2.8

COMMAND CATEGORY

Dangerous = **No**

21.3

SEMIP

Static semipermanent connection print

21.3.1

FORMAT

**Table 1176**

SEMIP:LIM=;

**Table 1177**

LIM =            LIM number.  
                 & and && are permitted for this parameter.

21.3.2

FUNCTION

The command is used to print all static semipermanent connections involved in the stated LIMs.

21.3.3

PRINTOUT

**Table 1178**

STATIC SEMI-PERMANENT CONNECTIONS					
	LIM	EQUA	BOARDID	EQUB	BOARDID
	.	.	.	.	.
	.	.	.	.	.
	.	.	.	.	.
END					

**Table 1179**

BOARDID	Board identification, board identity number. For value, see the parameter description for BRDID, TYPE, UNIT.
EQUA	Equipment position for port A.
EQUB	Equipment position for port B.

21.3.4

EXAMPLE

Print the static semipermanent connections involved in LIM 1 to LIM 3.

**Table 1180**

SEMIP:LIM=1&&3;					
STATIC SEMI-PERMANENT CONNECTIONS					
LIM	EQUA	BOARDID	EQUB	BOARDID	
001	001A-0-43-00	52	002A-0-41-02	59	
001	001A-0-43-01	52	003B-0-20-03	71	
002	001A-0-43-00	52	002A-0-41-02	59	
002	002B-0-10-00	71	003C-0-20-00	71	
003	001A-0-43-01	52	003B-0-20-03	71	
003	002B-0-10-00	71	003C-0-20-00	71	
END					

The system has 3 static semipermanent connections set up.

21.3.5

COMMAND CATEGORY

Dangerous = **No**

## 22 SP - SPECIAL PURPOSE EXTENSION

### 22.1 SPEXE

Special Purpose Extension End

#### 22.1.1 FORMAT

**Table 1181**  
**SPEXE:DIR=,OPT=;**

**Table 1182**  
DIR =       Directory number.  
              & and && are allowed for this parameter.  
OPT =       Option. Function code for function that is to be removed.  
              & is allowed for this parameter.

#### 22.1.2 FUNCTION

The command entails removal of the function specified by the parameter value for parameter OPT. If all extra functions with which the extension has been initiated are specified the extension will be of regular type. In other cases the extension will retain the function not specified in the command.

#### 22.1.3 EXAMPLE

Remove the direct connection (direct hot-line) function from extensions 6719 and 6793.

**Table 1183**  
SPEXE: DIR=6719&6793, OPT=N;  
EXECUTED

#### 22.1.4 COMMAND CATEGORY

Dangerous = **No**

### 22.2 SPEXI

Special Purpose Extension Initiate

#### 22.2.1 FORMAT

**Table 1184**  
**SPEXI:DIR=,OPT=[,NDC=];**

**Table 1185**  
DIR =       Directory number.  
              & is permitted for this parameter.

- NDC = Non-dialled connection number. Hot-line number.  
The parameter is not optional in the common sense. It must be stated when parameter OPT has the values N or D.
- OPT = Option. Function code for the function which is to be initiated.  
& is permitted for this parameter.

### 22.2.2

#### FUNCTION

The command allows one or more extensions, one, two or all of the following functions:

- alarm extension
- direct hot-line
- delayed hot-line
- automatic answering
- master extension

An alarm extension is an extension which may be called even when it is busy, i.e. a call to the alarm extension is connected in the conference mode.

If a direct hot-line or a delayed hot-line shall be initiated, then the non-dialled connection number must also be stated, number to be called when the calling party goes off hook, e.g. an external number or a procedure. Direct hot-line and delayed hot-line cannot be initiated at the same time.

An automatic answering extension is an extension which is connected directly when called. The extension does not have the clear signal. An extension with automatic answering may be used for, for example, telephones with loudspeakers, speech message equipment and dictation machines.

The automatic answering function can only be initiated for analog extensions.

A master extension is an extension which is permitted to order group do not disturb, bypass of an extension with group do not disturb activated or follow me for an internal group hunting group by dialling predefined procedures.

### 22.2.3

#### EXAMPLE 1

Initiate extension 3800 as a hot-line extension with non-dialled connection number 0000947C401164 (route access code 00, international prefix 009, country code 47, second dial tone (normal PTS signal) and subscriber number 401164). Let the extension, at same time be an alarm extension.

**Table 1186**

SPEXI: DIR=3800, OPT=N&E, NDC=0000947C401164; EXECUTED
---

### 22.2.4

#### EXAMPLE 2

Initiate extension 3801 as a hot-line extension with non-dialed connection number 0005C11E13D11675. The translated number consists of the route access code 00 and destination code 05 and after destination code a PTS is expected. When a PTS is received or time out expires next digits shall be 11. After digits 11 a PTS signal is expected followed by DTMF digit sending, if time out expires the external line is disconnected. If the PTS is received next digits shall be 13. After digits 13 a PTS signal is



expected and if time out expires DTMF digit sending is performed. After that next digits shall be 11675.

**Table 1187**

SPEXI: DIR=3801, OPT=N, NDC=0005C11E13D11675; EXECUTED
---

## 22.2.5

## COMMAND CATEGORY

Dangerous = **No**

## 22.3

## SPEXP

Special Purpose Extension Data Print

### 22.3.1

### FORMAT

**Table 1188**

**SPEXP:DIR=;**

**Table 1189**

DIR =       Directory number.  
ALL, & and && are permitted for this parameter.

### 22.3.2

### FUNCTION

The command states which of the following extra functions exist for the extension

- Alarm extension, i.e. an extension where all its calls are connected via conference equipment, which means that it is always possible to make a call to this extension even when it is busy.
- Direct hot-line, i.e. an extension which is automatically connected to a preset number (non-dialled connection number).
- Delayed hot-line, i.e. an extension which is, after a short delay, automatically set up to a preset number (non-dialled connection number). If dialling within the delay time, the telephone works as an ordinary telephone.
- Master extension, i.e. an extension which is permitted to order group do not disturb, bypass of an extension with group do not disturb activated or follow me of an internal group hunting group by dialling predefined procedures.
- Automatic answering extension, i.e. an extension which is connected momentarily to an incoming call. The extension does not have the clear signal. An extension with automatic answering may be used for, for example, telephones with loudspeakers, speech message equipment and dictation machines.

If the extension is a hot-line extension, the non-dialled connection number is also printed out.

## 22.3.3

## PRINTOUT

**Table 1190**

SPECIAL PURPOSE EXTENSION DATA		
DIR	OPT	NDC
.	.	.
.	.	.
.	.	.
END		

**Table 1191**

NDC      Non-dialled connection number.

OPT      Option. (Function).

## 22.3.4

## EXAMPLE

Make a printout of all the extensions with initiated extra function.

**Table 1192**

SPEXP: DIR=ALL;		
SPECIAL PURPOSE EXTENSION DATA		
DIR	OPT	NDC
3800	N, E	0000947C401164
3801	N	0005C11E13D11675
3810	D	3850
3822	A	
3840	M	
END		

Extensions 3800 and 3801 are direct hot-line extensions.

Extension 3800 has non-dialled connection number 0000947C401164 (route access code 00, international prefix 009, country code 47, second dial tone, subscriber number 401164).

Extension 3801 has non-dialled connection number 0005C11E13D11675. The translated number consists of the route access code 00 and destination code 05 and after destination code a PTS is expected. After digits 11 a PTS signal is expected followed by DTMF digit sending. In case of time out the external line is disconnected. After digits 13 a PTS signal is expected and in case of time out DTMF digit sending is performed. The last digits are 11675.

Extension 3810 has the function delayed hot-line with non-dialled connection number 3850.

Extension 3800 is also an alarm extension.

Extension 3822 has automatic answering.

Extension 3840 is a master extension.

## 22.3.5

## COMMAND CATEGORY

Dangerous = **No**

# 23 TR - TRAFFIC RECORDING

## 23.1 TRCBI

Traffic recording common bell initiate

### 23.1.1 FORMAT

Table 1193

TRCBI:GRP=,TIMEI=,TIMEE=,DATE=;

Table 1194

- DATE =** Date. Date or dates at which recording is to be performed.  
& and && are permitted for this parameter, but only one & will be accepted.
- GRP =** Group number. The directory number for a common bell group.
- TIMEE =** Time end. Stop time.
- TIMEI =** Time initiate. Start time.

### 23.1.2 FUNCTION

This command initiates traffic recording for a common bell group. The INITIATE and END times refer to one and the same 24-hour period (day). The system responds by sending the assigned measurement number.

### 23.1.3 EXAMPLE

Initiate traffic recording for a common bell group with directory number 8000 between 10:00 a.m. and 1:00 p.m. on October 15, 2006.

Table 1195

TRCBI:GRP=8000,TIMEI=10-00,TIMEE=13-00,DATE=2006-10-15;
YOUR MEASUREMENT NUMBER = 1
EXECUTED

### 23.1.4 COMMAND CATEGORY

Dangerous = **No**

## 23.2 TRCFI

Traffic recording cordless extension traffic initiate

## 23.2.1

## FORMAT

TRCFI:  $\left[ \left[ \begin{array}{l} \text{BPOS=...} \\ \text{LIM=...,} \end{array} \right] \left[ \text{RPN=...} \right] \right] \left[ \text{OBJNO=,} \right] \text{TIMEI=,TIMEE=,DATE=...;}$

Figure 82:  
Table 1196

<b>BPOS =</b>	Board position. Board position for common fixed part. & is allowed for this parameter if parameter RPN is omitted.
<b>DATE =</b>	Date. Date or dates at which a recording shall be performed. & and && are allowed for this parameter, but only one & will be accepted.
<b>LIM =</b>	LIM number. & and && are allowed for this parameter.
<b>OBJNO =</b>	Object number. The parameter is used to allow parallel measurements in the same LIM. If the parameter is omitted, the default value is set to 0.
<b>RPN =</b>	Radio fixed part number. & is allowed for this parameter. If the parameter is omitted, the default value is set to ALL.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

## 23.2.2

## FUNCTION

This command initiates traffic recording on one or more common fixed part/radio fixed part, on all common fixed parts/radio fixed parts in a LIM or group of LIMs, or - if the LIM and BPOS parameters are omitted - on all common fixed parts/radio fixed parts in the PBX. Start time and stop time are to be stated for one and the same 24-hour period. The system responds by sending the assigned measurement number.

## 23.2.3

## EXAMPLE 1

Initiate traffic recording on cordless extension common fixed parts in LIM number 4, gateway B, magazine 0, board positions 10 and 20 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

Table 1197

```
TRCFI:BPOS=4B-0-10&4-0-20,TIMEI=10-00,TIMEE=13-00,
DATE=1998-07-15&&1998-08-20;
YOUR MEASUREMENT NUMBER = 2
EXECUTED
```

## 23.2.4

## EXAMPLE 2

Initiate traffic recording on all cordless extension common fixed parts in LIM number 2 between 13:30 and 15:30 hours from July 2 to July 8, 1998, **excluding** July 5.

Table 1198

```
TRCFI:LIM=2,TIMEI=13-30,TIMEE=15-30,
DATE=1998-07-02&&1998-07-04&1998-07-06&&1998-07-08;
```

YOUR MEASUREMENT NUMBER = 12 EXECUTED
--

23.2.5
EXAMPLE 3

Initiate traffic recording on all cordless extension common fixed parts in the PBX between 06:00 hours and 20:00 hours from May 1 to May 15, 1998.

**Table 1199**

TRCFI:TIMEI=06-00,TIMEE=20-00,DATE=1998-05-01&&1998-05-15; YOUR MEASUREMENT NUMBER = 13 EXECUTED
--

23.2.6
EXAMPLE 4

Initiate traffic recording on common fixed parts in LIM number 4, gateway A, magazine 0, board position 10, Radio Fixed Parts Number 2 and 3 in this LIM and object number 3 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

**Table 1200**

TRCFI:BPOS=4A-0-10,RPN=2&3,OBJNO=3,TIMEI=10-00, TIMEE=13-00,DATE=1998-07-15&&1998-08-20; YOUR MEASUREMENT NUMBER = 5 EXECUTED
--

23.2.7
COMMAND CATEGORY

Dangerous = **No**

23.3
TRCOI

Traffic recording conference initiate

23.3.1
FORMAT

**Table 1201**

TRCOI:[LIM=,]TIMEI=,TIMEE=,DATE=;

**Table 1202**

<b>DATE =</b>	Date. Date or dates at which recording is to be performed. & and && are permitted for this parameter, but only one & will be accepted.
<b>LIM =</b>	LIM number. & and && are permitted for this parameter.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

23.3.2                      FUNCTION

This command initiates traffic recording of conference calls in the indicated node/LIM, group of node/LIMs, or - if the parameter LIM is omitted - in the entire MX-ONE. The initiate and end times refer to one and the same 24-hour period (day). The system answers by sending the assigned measurement number.

23.3.3                      EXAMPLE 1

Initiate traffic recording on established conference calls in LIM number 4 between 08:00 hours and 17:30 hours from June 2 up to and including June 6, 2005.

**Table 1203**

TRCOI:LIM=4,TIMEI=08-00,TIMEE=17-30,DATE=2005-06-02&& 2005-06-06;
YOUR MEASUREMENT NUMBER = 2
EXECUTED

23.3.4                      EXAMPLE 2

Initiate traffic recording on established conference calls between 08:00 hours and 17:30 hours from June 2 up to and including June 6, 2005.

**Table 1204**

TRCOI:TIMEI=08-00,TIMEE=17-30,DATE=2005-06-02&& 2005-06-06;
YOUR MEASUREMENT NUMBER = 2
EXECUTED

23.3.5                      COMMAND CATEGORY

Dangerous = **No**

23.4                              TRCRI

Traffic recording MFC code receiver initiate

23.4.1                      FORMAT

**Table 1205**

**TRCRI:TIMEI=,TIMEE=,DATE=;**

**Table 1206**

- DATE =**      Date. Date or dates at which recording is to be performed.  
                 & and && are permitted for this parameter, but only one & will be accepted.
- TIMEE =**      Time end. Stop time.
- TIMEI =**      Time initiate. Start time.

23.4.2                      FUNCTION

This command initiates traffic recording on all code receivers (for MFC) of the PBX. The initiate and end times refer to one and the same 24-hour (day). The system responds by sending the assigned measurement number.

23.4.3                      EXAMPLE

Initiate traffic recording on code receivers between 10:00 and 18:00 hours from May 27 to May 30, 1987.

**Table 1207**

TRCRI:TIMEI=10-00,TIMEE=18-00,DATE=1987-05-27&&1987-05-30;
YOUR MEASUREMENT NUMBER = 4
EXECUTED

23.4.4                      COMMAND CATEGORY

Dangerous = **No**

23.5                        TRCSI

Traffic recording MFC code sender initiate

23.5.1                      FORMAT

**Table 1208**

**TRCSI:TIMEI=,TIMEE=,DATE=;**

**Table 1209**

- DATE =**                      Date. Date or dates at which recording shall be done.  
                                    & and && are allowed for this parameter, but only one & will be accepted.
- TIMEE =**                      Time end. Stop time.
- TIMEI =**                      Time initiate. Start time.

23.5.2                      FUNCTION

This command initiates traffic recording on all MFC code senders in the entire PBX. Start and stop times are stated within the same 24 hour period. The system responds by sending the assigned measurement number.

23.5.3                      EXAMPLE

Initiate traffic recording on code senders between 09:15 and 11:45 hours from August 2 to August 5, and from August 9 to August 12, 1987.

**Table 1210**

TRCSI:TIMEI=09-15,TIMEE=11-45,DATE=1987-08-02&&1987-08-05 &1987-08-09&&1987-08-12;
YOUR MEASUREMENT NUMBER = 5

EXECUTED

23.5.4                   COMMAND CATEGORY

Dangerous = **No**

23.6                   TRDDI

Traffic recording dial tone delay initiate

23.6.1               FORMAT

**TRDDI:**    [ [ **LIM=...**,    ] ] **TIMEI=,TIMEE=,DATE=...;**  
                  [ **ROU=**,        ] ]

**Figure 83:**  
**Table 1211**

<b>DATE =</b>	Date. Date or dates at which recording shall be performed. & and && are allowed for this parameter, but only one & will be accepted.
<b>LIM =</b>	LIM number. & and && are allowed for this parameter.
<b>ROU =</b>	Route number.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

23.6.2               FUNCTION

This command has two modes. In the first one, it initiates traffic recording of the dial tone delay function in the indicated node/LIM, or if LIM is omitted in the entire MX-ONE for the indicated period of time.

It is also possible to initiate recording of external dial tone delay (internal register state per incoming route). Start time and stop time shall be stated within one 24 hour period. The system responds by sending the assigned measurement number.

23.6.3               EXAMPLE 1

Initiate traffic recording on external dial tone delay in LIM1 and 2, between 08:00 and 16:00 hours, and from May 1 to May 30, 2006.

**Table 1212**

TRDDI:LIM=1&2,TIMEI=08-00,TIMEE=16-00,DATE=2006-05-01&& 2006-05-30;  
YOUR MEASUREMENT NUMBER = 6  
EXECUTED



## 23.6.4

### EXAMPLE 2

Initiate traffic recording on external dial tone delay for route 4 between 08:00 and 16:00 hours from May 1 to May 30, 2005.

**Table 1213**

TRDDI:ROU=4,TIMEI=08-00,TIMEE=16-00,DATE=2005-05-01&& 2005-05-30; YOUR MEASUREMENT NUMBER = 7 EXECUTED
--

## 23.6.5

### EXAMPLE 3

Initiate traffic recording on dial tone delay in the whole MX-ONE between 06:00 and 20:00 hours from May 1 to May 15, 2005.

**Table 1214**

TRDDI:TIMEI=06-00,TIMEE=20-00,DATE=2005-05-01&&2006-05-15; YOUR MEASUREMENT NUMBER = 8 EXECUTED
---

## 23.6.6

### COMMAND CATEGORY

Dangerous = **No**

## 23.7

### TRDIP

Traffic recording directory print

## 23.7.1

### FORMAT

**Table 1215**

**TRDIP[:MENO=]**

**Table 1216**

**MENO** =        Measurement number.

## 23.7.2

### FUNCTION

This command obtains a printout of the traffic recording directory. The printout provides information about the data initiated for the indicated traffic measurement, or - if the MENO parameter is omitted for all traffic measurements.

23.7.3

PRINTOUT

TRAFFIC RECORDING DIRECTORY									
[ DIRECTORY EMPTY ]									
MENO	OBJECT	START1	STOP1	START2	STOP2	TIME	LIM	INFO	]
.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	
.	.	.	.	.	.	.	.	.	
END									

Figure 84:  
Table 1217

DIRECTORY EMPTY	No traffic recording object has been initiated.	
INFO	Supplementary information Depending on which recording object is printed out one or more of the following printouts will be obtained	
	BPOS	Board position for IP device board.
	CORG	Directory number of origin group.
	DIR	Directory number of recording object for which printout has been obtained.
	GRP	Directory number of internal group hunting group number.
	ROU	Route number.
	TRU	External line numbe5
LIM	LIM number States LIM number included in the recording. ALL is stated if the recording covers the entire MX-ONE. The parameter applies for the following measurement object: CONFER, KEYC-R, KEYC-S, and TONE-R. The parameter applies for the following measurement objects unless otherwise stated under INFO: EXTENS, TRUNKS, DIALDY, and IP-DEV.	
OBJECT	Measurement object. The following measurement objects are indicated:	
	CONFER	CONFERENCE
	DIALDY	DIAL TONE DELAY
	EXTENS	VOICE EXTENSION
	IP-DEV	IP DEVICE BOARD
	KEYC-R	KEY CODE RECEIVER
	KEYC-S	KEY CODE SENDER
	OPCORG	CALL ORIGIN GROUP - FOR PBX OPERATOR
	OPINDI	PBX OPERATOR INDIVIDUAL
	OPMANN	PBX OPERATOR MANNED TIME
	PBXGRP	INTERNAL GROUP HUNTING GROUP NUMBER
	ROUBWY	BOTHWAY ROUTE

ROUDDI	DIRECT INDIALLING ROUTE
ROUDIO	DIRECT INDIALLING & OUTGOING TRUNK ROUTE
ROUINC	INCOMING ROUTE
ROUOUT	OUTGOING ROUTE
TONE-R	TONE RECEIVER
TRUNKS	TRUNK INDIVIDUAL

START1	Start date 1 Indicates the first date for start of traffic recording
START2	Start date 2 Indicates the date when traffic recording is to start the second time
STOP1	Stop date 1 Indicates the date when traffic recording is to stop the first time
STOP2	Stop date 2 Indicates the date when traffic recording is to stop the second time
TIME	Time States start time and stop time within one 24 hour period.

## 23.7.4

## EXAMPLE 1

Print out the directory information for traffic recording with measurement No. 17.

**Table 1218**

TRDIP:MENO=17;								
TRAFFIC RECORDING DIRECTORY								
MENO	OBJECT	START1	STOP1	START2	STOP2	TIME	LIM	INFO
	17 EXTENS	24JUL05	29JUL05			07:30-11:00	1	
END								

The directory contents for traffic measurement No. 17 indicate that the measurement object is the set of voice extensions initiated in the system for LIM number 1. Recording takes place between 07:30 and 11:00 hours every day from July 24th to July 29th, 2005.

## 23.7.5

## EXAMPLE 2

Print out all the contents of the traffic recording directory.

**Table 1219**

TRDIP;								
TRAFFIC RECORDING DIRECTORY								
MENO	OBJECT	START1	STOP1	START2	STOP2	TIME	LIM	INFO
	6 DIALDY	10AUG05	25AUG05			07:00-16:00		
	10 OPCORG	01MAY05	30MAY05			09:00-17:15		CORG=7
	12 TRUNKS	02JUL05	04JUL05	06JUL05	08JUL05	13:30-15:30		
END								

The traffic recording directory provides information about the following initiated traffic measurements.

Measurement No. 6 refers to recording on dial-tone delay between 07:00 and 16:00 hours from August 10 to August 25, 2005.

Measurement No. 10 refers to recording on group-of-origin 7 between 09:00 and 17:15 hours from May 1 to May 30, 2005.

Measurement No. 12 refers to recording on all trunks between 13:30 and 15:30 hours from July 2 to July 8, 2005 excluding July 5.

### 23.7.6 COMMAND CATEGORY

Dangerous = **No**

## 23.8 TRDPE

Traffic recording data processing end

### 23.8.1 FORMAT

**Table 1220**  
**TRDPE;**

### 23.8.2 FUNCTION

This command disables the data processing and all other traffic recording activities, including the congestion supervision. It also disables all other TR-commands, except TRDPI. All ongoing measurements have to be removed before TRDPE can be executed.

### 23.8.3 EXAMPLE

Stop all traffic recording activities.

**Table 1221**

TRDPE; EXECUTED
--------------------

### 23.8.4 COMMAND CATEGORY

Dangerous = **No**

## 23.9 TRDPI

Traffic recording data processing initiate

### 23.9.1 FORMAT

**Table 1222**  
**TRDPI:[PATH=];**

**TRDPI: [PATH =];**

**Table 1223**

**PATH =** Path Description.

23.9.2
FUNCTION

This command enables the data processing and all other traffic recording activities, including the congestion supervision. The PATH parameter is mandatory if no valid path for the traffic files is already initiated in the system. Otherwise, it is optional, but if introduced will overwrite the existing path value.

It is mandatory to initiate a valid path via TRDPI before the traffic recording function is activated and any traffic measurement can be initiated.

TRDPI can be introduced only when the traffic recording function is not active, that is, initially or after a TRDPE command has been entered.

23.9.3
EXAMPLE 1

Start the traffic recording again.

Table 1224

TRDPI;
EXECUTED

23.9.4
EXAMPLE 2

Start the traffic recording and dump all traffic data to this location.

Table 1225

TRDPI:PATH= "/var/opt/eri_sn/traffic_recording/";
EXECUTED

23.9.5
COMMAND CATEGORY

Dangerous = **No**

23.10
TRDPP

Traffic recording data processing print

23.10.1
FORMAT

Table 1226

TRDPP;

23.10.2
FUNCTION

This command shows both the currently stored path and the present status of the traffic recording function (active/passive).

23.10.3
EXAMPLE

Show the traffic path and status of the function.

Table 1227

TRDPP;
TRAFFIC MEASUREMENT DATA
STATE PATH
ACT /opt/eri_sn/tr/
END

23.10.4 COMMAND CATEGORY

Dangerous = **No**

23.11 TREXI

Traffic recording voice extension initiate

23.11.1 FORMAT



Figure 85:  
Table 1228

<b>DATE =</b>	Date. Date or dates at which recording shall be performed. & and && are allowed for this parameter, but only one & will be accepted.
<b>DIR =</b>	Directory number. Voice extension number. & and && are allowed for this parameter.
<b>LIM =</b>	LIM number. & and && are allowed for this parameter.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

23.11.2 FUNCTION

This command initiates traffic recording at a voice extension or a group of extensions in a node/LIM or a group of nodes/LIMs. If both DIR and LIM are omitted, traffic recording will be initiated on all extensions in the MX-ONE. The start and stop times are to be stated within a 24-hour period. The system responds by sending the assigned measurement number.

In this command, voice extension means analog extension or digital extension.

23.11.3 EXAMPLE 1

Initiate traffic recording on extensions 1532 and 1535 between 08:00 and 16:00 hours on August 15 and August 16, 2005.

Table 1229

TREXI:DIR=1532&1535,TIMEI=08-00,TIMEE=16-00, DATE=2005-08-15&&2005-08-16;
---

```
YOUR MEASUREMENT NUMBER = 16
EXECUTED
```

#### 23.11.4

#### EXAMPLE 2

Initiate traffic recording on LIM number 8 between 06:00 and 20:00 hours from May 1 to May 15, 2005.

**Table 1230**

```
TREXI:LIM=8,TIMEI=06-00,TIMEE=20-00, DATE=2005-05-01&&2005-05-15;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

#### 23.11.5

#### EXAMPLE 3

Initiate traffic recording on all extensions in the PBX between 06:00 and 20:00 hours from May 1 to May 15, 2005.

**Table 1231**

```
TREXI:TIMEI=06-00,TIMEE=20-00,DATE=2005-05-01&& 2005-05-15;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

#### 23.11.6

#### COMMAND CATEGORY

Dangerous = **No**

### 23.12

## TRIP

Traffic recording IP device initiate

#### 23.12.1

#### FORMAT

**Table 1232**

**TRIP:** [LIM=,]TIMEI=,TIMEE=,DATE=;

**Table 1233**

**DATE =** Date. Date or dates at which a recording is to be performed.  
& and && are allowed for this parameter, but only one & will be accepted.

**LIM =** LIM number.  
& and && are allowed for this parameter.

**TIMEE =** Time end. Stop time.

**TIMEI =** Time initiate. Start time.

#### 23.12.2

#### FUNCTION

This command initiates traffic recording on RTP gateways in a node/LIM or a group of nodes/LIMs. If the parameter LIM is omitted, the function will be initiated on all RTP

gateways. The start and stop times should be stated for the same 24-hour period. The system responds by sending the assigned measurement number.

## 23.12.3

## EXAMPLE 1

Initiate traffic recording on IP devices in LIM number 1, and between 12:00 and 15:00 hours from July 14 to August 15, 2005.

**Table 1234**

TRIPI:TIMEI=12-00,TIMEE=15-00,DATE=2005-07-14&&2005-08-15; YOUR MEASUREMENT NUMBER = 1 EXECUTED
---

## 23.12.4

## EXAMPLE 2

Initiate traffic recording on all IP devices in LIM number 5 between 10:30 and 13:30 hours from August 2 to August 9, 2005, excluding August 5.

**Table 1235**

TRIPI:LIM=5,TIMEI=10-30,TIMEE=13-30, DATE=2005-08-02&&2005-08-04&&2005-08-06&&2005-08-09; YOUR MEASUREMENT NUMBER = 10 EXECUTED
--

## 23.12.5

## EXAMPLE 3

Initiate traffic recording on all IP devices in the MX-ONE between 05:00 hours and 22:00 hours from September 15 to September 30, 2005.

**Table 1236**

TRIPI:TIMEI=05-00,TIMEE=22-00,DATE=2005-09-15&&2005-09-30; YOUR MEASUREMENT NUMBER = 15 EXECUTED
--

## 23.12.6

## COMMAND CATEGORY

Dangerous = **No**

## 23.13

## TRKRI

Traffic recording key code receiver initiate

## 23.13.1

## FORMAT

**Table 1237**

TRKRI: [LIM=,]TIMEI=,TIMEE=,DATE=;

**Table 1238**

**DATE =** Date. Date or dates at which recording is required.  
 & and && are allowed for this parameter, but only one & will be accepted.



**LIM** = LIM number.  
& and && are allowed for this parameter.

**TIMEE** = Time end. Stop time.

**TIMEI** = Time initiate. Start time.

### 23.13.2

## FUNCTION

This command initiates traffic recording on key code receivers in the indicated LIM, group of LIMs, or if the LIM parameter is omitted, in the entire MX-ONE. Start and stop times are stated with one 24 hour period.

The system responds by sending the assigned measurement number.

The command is only available for MX-ONE Classic LIMs.

### 23.13.3

## EXAMPLE 1

Initiate traffic recording on the key (tone) code receivers in LIM 4 between 08:00 and 17:30 hours from June 2 to June 6, 2005.

**Table 1239**

<p>TRKRI:LIM=4,TIMEI=08-00,TIMEE=17-30, DATE=2005-06-02&amp;&amp; 2005-06-06; YOUR MEASUREMENT NUMBER = 13 EXECUTED</p>
---

### 23.13.4

## EXAMPLE 2

Initiate traffic recording on all key (tone) code receivers in the MX-ONE between 09:00 and 15:00 hours from September 11 to September 18, 2005.

**Table 1240**

<p>TRKRI:TIMEI=09-00,TIMEE=15-00,DATE=2005-09-11&amp;&amp;2005-09-18; YOUR MEASUREMENT NUMBER = 14 EXECUTED</p>
---

### 23.13.5

## COMMAND CATEGORY

Dangerous = **No**

## 23.14

## TRKSI

Traffic recording key code sender initiate

### 23.14.1

## FORMAT

**Table 1241**

TRKSI: [LIM=,]TIMEI=,TIMEE=,DATE=;

**Table 1242**

<b>DATE =</b>	Date. Date or dates at which recording is required. & and && are allowed for this parameter, but only one & will be accepted.
<b>LIM =</b>	LIM number. & and && are allowed for this parameter.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

23.14.2

FUNCTION

This command initiates traffic recording on the key (tone) code senders in the indicated LIM, group of LIMs, or if the LIM parameter is omitted, in the entire MX-ONE.

Start and stop times are to be stated within a 24 hour period. The system responds by sending the assigned measurement number.

The command is only available for MX-ONE Classic LIMs.

23.14.3

EXAMPLE 1

Initiate traffic recording on the key (tone) code senders in LIM 4 between 08:00 and 17:30 hours from June 2 to June 6, 2005.

**Table 1243**

TRKSI:LIM=4,TIMEI=08-00,TIMEE=17-30, DATE=2005-06-02&& 2005-06-06;  YOUR MEASUREMENT NUMBER = 15  EXECUTED
---

23.14.4

EXAMPLE 2

Initiate traffic recording on all key (tone) code senders in the MX-ONE between 09:00 and 15:00 hours from September 11 to September 18, 2005.

**Table 1244**

TRKSI:TIMEI=09-00,TIMEE=15-00,DATE=2005-09-11&&2005-09-18;  YOUR MEASUREMENT NUMBER = 16  EXECUTED
--

23.14.5

COMMAND CATEGORY

Dangerous = **No**

23.15

TRMBI

Traffic recording cordless extension mobility initiate

## 23.15.1

## FORMAT

**TRMBI:**  $\left[ \left\{ \begin{array}{l} \text{BPOS=...} \\ \text{LIM=...,} \end{array} \right\} \left[ \text{,RPN=...} \right] \right] \left[ \text{,OBJNO=,} \right] \text{TIMEI=,TIMEE=,DATE=...;}$

**Figure 86:****Table 1245**

<b>BPOS =</b>	Board position. Board position for common fixed part. & is allowed for this parameter if parameter RPN is omitted.
<b>DATE=</b>	Date. Date or dates at which a recording shall be performed. & and && are allowed for this parameter, but only one & will be accepted.
<b>LIM =</b>	LIM number. & and && are allowed for this parameter.
<b>OBJNO =</b>	Object number. The parameter is used to allow parallel measurements in the same LIM. If the parameter is omitted, the default value is set to 0.
<b>RPN =</b>	Radio fixed part number. & is allowed for this parameter. If the parameter is omitted, the default value is set to ALL.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

## 23.15.2

## FUNCTION

This command initiates traffic recording for mobility on one or more common fixed part/radio fixed part, on all common fixed parts/radio fixed parts in a LIM or group of LIMs, or - if the LIM and BPOS parameters are omitted - on all common fixed parts/radio fixed parts in the PBX. Start time and stop time are to be stated for one and the same 24-hour period. The system responds by sending the assigned measurement number.

## 23.15.3

## EXAMPLE 1

Initiate traffic recording for mobility for cordless extension common fixed parts in LIM number 4, gateway B, magazine 0, board positions 10 and 20 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

**Table 1246**

TRMBI:BPOS=4B-0-10&4-0-20,TIMEI=10-00,TIMEE=13-00, DATE=1998-07-15&&1998-08-20;  YOUR MEASUREMENT NUMBER = 2  EXECUTED
---

## 23.15.4

## EXAMPLE 2

Initiate traffic recording for mobility for cordless extension common fixed parts in LIM number 2 between 13:30 and 15:30 hours from July 2 to July 8, 1998, **excluding** July 5.

**Table 1247**

```
DATE=1998-07-02&&1998-07-04&1998-07-06&&1998-07-08;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

23.15.5

**EXAMPLE 3**

Initiate traffic recording for mobility for all cordless extension common fixed parts in the PBX between 06:00 hours and 20:00 hours from May 1 to May 15, 1998.

**Table 1248**

```
TRMBI:TIMEI=06-00,TIMEE=20-00,
DATE=1998-05-01&& 1998-05-15;
YOUR MEASUREMENT NUMBER = 13
EXECUTED
```

23.15.6

**EXAMPLE 4**

Initiate traffic recording for mobility on cordless extension common fixed parts in LIM number 4, gateway A, magazine 0, board position 10, Radio Fixed Parts Number 2 and 3 in this LIM and object number 3 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

**Table 1249**

```
TRMBI:BPOS=4A-0-10,RPN=2&3,OBJNO=3,TIMEI=10-00,
TIMEE=13-00,DATE=1998-07-15&&1998-08-20;
YOUR MEASUREMENT NUMBER = 5
EXECUTED
```

23.15.7

**COMMAND CATEGORY**

Dangerous = **No**

**23.16****TRMEE**

Traffic recording measurement end

23.16.1

**FORMAT****Table 1250**

```
TRMEE:MENO=;
```

**Table 1251**

**MENO** = Measurement number.

23.16.2

**FUNCTION**

This command deletes a traffic recording on the indicated measurement number and erases the associated measurement data.

### 23.16.3 EXAMPLE

Delete traffic recording with measurement number 18.

**Table 1252**

TRMEE:MENO=18; EXECUTED
----------------------------

### 23.16.4 COMMAND CATEGORY

Dangerous = **No**

## 23.17 TRMHI

Traffic recording measurement halt initiate

### 23.17.1 FORMAT

**Table 1253**

**TRMHI:MENO=;**

**Table 1254**

**MENO** = Measurement number.

### 23.17.2 FUNCTION

This command initiates an interrupt of a traffic recording operation. The associated measurement data is not erased. If the same traffic recording operation is to continue, it must first be deleted and then re-initiated.

### 23.17.3 EXAMPLE

Terminate traffic recording operation with measurement number 1.

**Table 1255**

TRMHI:MENO=1; EXECUTED
---------------------------

### 23.17.4 COMMAND CATEGORY

Dangerous = **No**

## 23.18 TROMI

Traffic recording operator manned time initiate

## 23.18.1

## FORMAT

**TROMI:**  $\left[ \begin{array}{l} \text{CORG=} \\ \text{DIR=} \end{array} \right] , \text{TIMEI=}, \text{TIMEE=}, \text{DATE=} \dots ;$

**Figure 87:****Table 1256**

<b>CORG =</b>	Call origin group.
<b>DATE =</b>	Date. Date or dates at which recording shall be performed. & and && are allowed for this parameter, but only one & will be accepted.
<b>DIR =</b>	Directory number. Directory number of individual PBX operator. ALL is allowed for this parameter.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

## 23.18.2

## FUNCTION

This command initiates traffic recording on the degree of attendance (state of the PBX operator console) for an individual PBX operator, all PBX operators in the PBX or all PBX operators in one origin group. Start time and stop time are to be stated in one 24 hour period. The system responds by sending the assigned measurement number.

## 23.18.3

## EXAMPLE 1

Initiate traffic recording during the time of attendance of the PBX operator with extension number 7100 between 10:00 and 13:00 hours on July 15 and 20, 2005.

**Table 1257**

```
TROMI:DIR=7100,TIMEI=10-00,TIMEE=13-00,
DATE=2005-07-15& 2005-07-20;
YOUR MEASUREMENT NUMBER = 18
EXECUTED
```

## 23.18.4

## EXAMPLE 2

Initiate traffic recording during the time of attendance of all PBX operators included in call origin group number 12 between 08:00 and 16:00 hours from May 2 through May 30, 2005.

**Table 1258**

```
TROMI:CORG=12,TIMEI=08-00,TIMEE=16-00,DATE=2005-05-02&&2005-05-30;
YOUR MEASUREMENT NUMBER = 19
EXECUTED
```

## 23.18.5

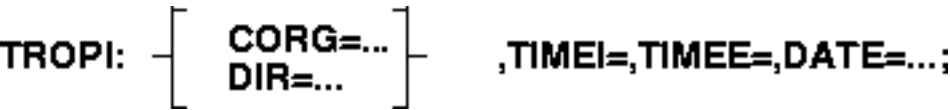
## COMMAND CATEGORY

Dangerous = **No**

23.19TROPI

Traffic recording operator initiate

23.19.1FORMAT



**Figure 88:**  
**Table 1259**

<b>CORG =</b>	Call origin group. ALL is allowed for this parameter.
<b>DATE =</b>	Date. Date or dates at which recording shall be performed. & and && are allowed for this parameter, but only one & will be accepted.
<b>DIR =</b>	Directory number. Directory number of individual PBX operator. ALL is allowed for this parameter.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

23.19.2FUNCTION

This command initiates traffic recording on an individual PBX operator or all PBX operators in the MX-ONE Service Node. For individual PBX operators, recording can be initiated on all PBX operators in an individual origin group or for all operators in all groups of origin. Start time and stop time are to be stated in a 24-hour period. The system responds by sending the assigned measurement number.

23.19.3EXAMPLE 1

Initiate traffic recording on the PBX operator with individual PBX operator number 500 between 10:00 and 13:00 hours on July 15, 2005.

**Table 1260**

TROPI:DIR=500,TIMEI=10-00,TIMEE=13-00,DATE=2005-07-15; YOUR MEASUREMENT NUMBER = 1 EXECUTED
---

23.19.4EXAMPLE 2

Initiate traffic recording on all PBX operators included in group of origin 7 between 09:00 and 17:15 from May 1 through May 30, 2005.

**Table 1261**

TROPI:CORG=7,TIMEI=09-00,TIMEE=17-15,DATE=2005-05-01&& 2005-05-30; YOUR MEASUREMENT NUMBER = 10 EXECUTED
--

23.19.5 COMMAND CATEGORY

Dangerous = **No**

23.20 TRPBI

Traffic recording PBX-group initiate

23.20.1 FORMAT

**Table 1262**

**TRPBI:GRP=,TIMEI=,TIMEE=,DATE=;**

**Table 1263**

<b>DATE =</b>	Date. Date or dates at which recording is to be performed. & and && are permitted for this parameter, but only one & will be accepted.
<b>GRP =</b>	Group number. Directory number for internal group hunting (PBX) group number.
<b>TIMEE =</b>	Time end. Stop time.
<b>TIMEI =</b>	Time initiate. Start time.

23.20.2 FUNCTION

This command initiates traffic recording on an internal group hunting number. The initiate and end times refer to one and the same 24-hour period (day). The system responds by sending the assigned measurement number.

23.20.3 EXAMPLE

Initiate traffic recording on internal group hunting (PBX) group number 8170 between 10:00 and 13:00 hours on July 15, 2005.

**Table 1264**

TRPBI:GRP=8170,TIMEI=10-00,TIMEE=13-00,DATE=2005-07-15; YOUR MEASUREMENT NUMBER = 2 EXECUTED
--

23.20.4 COMMAND CATEGORY

Dangerous = **No**

23.21 TRPEE

Traffic recording print and erase end

**Table 1265**

**TRPEE;**



23.21.1
FORMAT

**TRPEE;**

23.21.2
FUNCTION

This command will inform the traffic recording function that an external device has completed reading the traffic recording data from the data collection buffer and now the buffer can be erased.

This command is only used after the last command TRREP following the TRPEI command. See the command 23.22 TRPEI on page 425 TRPEI.

**Note:** This command should never be entered manually. It should only be used when TR data are collected automatically by an external device, for example, a PC.

23.21.3
EXAMPLE

Erase traffic recording data collection buffer.

**Table 1266**

TRPEE;
EXECUTED

23.21.4
COMMAND CATEGORY

Dangerous = **No**

23.22
TRPEI

Traffic recording print and erase initiate

23.22.1
FORMAT

**Table 1267**

**TRPEI;**

**TRPEI;**

23.22.2
FUNCTION

The command will inform the traffic recording function that an external device is about to read traffic recording data from the data collection buffer.

This command is only used when an external device, such as a PC, is used for data collection, storage, post processing and presentation of traffic recording data.

**Note:** This command should never be entered manually. It should only be used when TR data are collected automatically by an external device, for example, a PC.

23.22.3                      EXAMPLE

Start reading the traffic recording data by using command TRREP and erase the data collection buffer by command TRPEE.

**Table 1268**

TRPEI;
EXECUTED

23.22.4                      COMMAND CATEGORY

Dangerous = **No**

23.23                              TRPGI

Traffic recording paging initiate

23.23.1                      FORMAT



**Figure 89:**  
**Table 1269**

- DATE =**      Date. Date or dates at which recording shall be performed.  
                 & and && are allowed for this parameter, but only one & will be accepted.
- DIR =**        Directory number. Directory number with paging function.
- PN =**        Paging number. This number can be a common or an extra paging number.
- SAR =**       Search area number.
- TIMEE =**    Time end. Stop time.
- TIMEI =**    Time initiate. Start time.

23.23.2                      FUNCTION

This command initiates traffic recording on an extension connected to the paging function, on an individual paging number (common or extra), or on search (paging) area. The start time and stop time are to be stated within one 24-hour period.

The system responds with the assigned measurement number.

23.23.3                      EXAMPLE 1

Initiate traffic recording on extension 5230, which is connected to the paging function between 10:00 and 13:00 hours on July 15, 2007.

**Table 1270**

TRPGI:DIR=5230,TIMEI=10-00,TIMEE=13-00,DATE=2007-07-15;
---

YOUR MEASUREMENT NUMBER = 4  
EXECUTED

23.23.4
EXAMPLE 2

Initiate traffic recording on extra paging number 7700 between 08:00 and 16:00 from May 1 to May 30, 2008.

Table 1271

TRPGI:PN=7700,TIMEI=08-00,TIMEE=16-00,DATE=2008-05-01&& 2008-05-30;  
YOUR MEASUREMENT NUMBER = 5  
EXECUTED

23.23.5
EXAMPLE 3

Initiate traffic recording on search (paging) area 12 between 06:00 and 20:00 hours from May 1 to May 15, 2007.

Table 1272

TRPGI:SAR=12,TIMEI=06-00,TIMEE=20-00,DATE=2007-05-01&& 2007-05-15;  
YOUR MEASUREMENT NUMBER = 6  
EXECUTED

23.23.6
COMMAND CATEGORY

Dangerous = No

23.24
TRREP

Traffic recording result print

23.24.1
FORMAT

Table 1273

TRREP:MENO=[,PERIOD=][,TIMEI=][,TIMEE=][,DATE=];

Table 1274

DATE =

Date. The date at which a printout is to be performed. If the parameter is omitted, the date of the recording operation applies.  
One && is allowed for this parameter.

MENO =

Measurement number.

PERIOD =

Periodicity in printout.  
The time interval at which the recording result is to be presented. Periodicity would be given to make printout of the collected recording results every full quarter of an hour. If the parameter is omitted and measuring has been going on at least 4 quarters, the printout will contain only the time and recording result for the busy hour of each day.

- TIMEE =**

Time end.  
Gives the subset of the collected recording data which is to be printed out. If the parameter is omitted, the time of stop will be the same as that of the recording operation.
- TIMEI =**

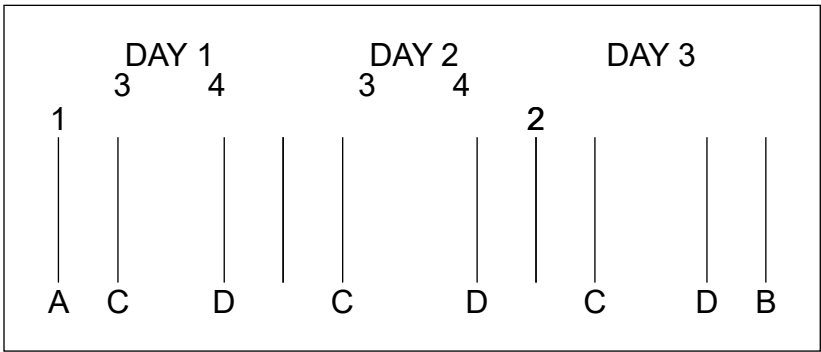
Time initiate.  
Gives the subset of the collected recording data which is to be printed out. If the parameter is omitted, the time of start will be the same as that of the recording operation.

23.24.2

FUNCTION

This command results in a printout of the recording data for the indicated measurement number. Various types of printouts are available, depending on which recording object has been initiated for the indicated measurement number; see under PRINTOUTS below. The various parameters of the printouts are described under PARAMETERS below. The command defines how much of the data collected during the measurement period should be printed out. The indications refer to the time of start (TIMEI) and the time of stop (TIMEE) of the period (within the recording operation) for which collected recording data is to be printed out. DATE indicates the days for which recording data (that is, a subset of the total amount of recording data collected) is to be printed out. Times of start and stop are given within one and the same day.

The following table shows how the DATE, TIMEI and TIMEE parameters are used in the command.



**Figure 90:**  
**Table 1275**Times defined when initiating a recording operation:

- A

=

Date of start
- B

=

Date of stop
- A - B

=

Length of recording operation
- C

=

Hour of start
- D

=

Hour of stop
- C - D

=

Time of recording per day

**Table 1276**Times defined by command.

- 1

=

Date of start
- 2

=

Date of stop
- 1 - 2

=

Period for printout of recording data (DATE)
- 3

=

Hour of start (TIMEI)
- 4

=

Hour of stop (TIMEE)
- 3 - 4

=

Time per day (TIMEI, TIMEE)

In the case illustrated by the above figure the recording result is printed out if the present time is after 4. For the dashed sections the result is printed out at the time interval given in the PERIOD parameter.

If only busy hour is to be printed out, no times of start and/or stop are to be stated. Busy hour is calculated for the whole of the initiated time of recording per day.

## 23.24.3

## PRINTOUTS

- Recording on individual PBX operator.
- Recording on group of origin.
- Recording of degree of attendance for all PBX operators.
- Recording of degree of attendance for individual PBX operators.
- Recording of degree of attendance for the PBX operators in a group of origin.
- Recording of dial tone delay.
- Recording on key code receivers, key code senders, and tone receivers.
- Recording on internal group hunting (PBX) group number.
- Recording on conference traffic.
- Recording on voice extension and external line.
- Recording on incoming route.
- Recording on outgoing route.
- Recording on bothway route.
- Recording on IP device board.
- Recording Cordless extension traffic
- Recording Cordless extension mobility

## 23.24.4

## PRINTOUT 1

**Table 1277**

TRAFFIC RECORDING RESULT DATA								
DATE	MENO	OPERATOR						
...	...	DIR ...						
TIME	CORGC	HCORGC	OPC	HOPC	DLYOPC	REC	HREC	DLYREC
	OPIC	HOPIC	IABND	WABND	ABNDREC	WABNDREC	RESPT	ABND
...	.	.	.	.	.	.	.	.
...	.	.	.	.	.	.	.	.
.[ BUSY HOUR START TIME ]					.	.	.	.
END	.	.	.	.	.	.	.	.

23.24.5

## PRINTOUT 2

TRAFFIC RECORDING RESULT DATA								
DATE	MENO	CALL ORIGIN GROUP						
...	...	CORG ...						
TIME	ANS	ANSSEC	DLYTOT	HNOLTOT	ABND	WAITTOT	WAITEXCEED	
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
[BUSY HOUR START TIME...]								
END								

Figure 91: Recording on group of origin.

23.24.6

## PRINTOUT 3

TRAFFIC RECORDING RESULT DATA			
DATE	MENO	OPERATORS PRESENT	
...	...	DIR ...	
TIME	PRES	IDLE	
.	.	.	
.	.	.	
.	.	.	
END			

Figure 92: Recording of degree of attendance for all PBX operators.

23.24.7
PRINTOUT 4

TRAFFIC RECORDING RESULT DATA			
DATE	MENO	OPERATORS PRESENT	
...	...	DIR ...	
TIME	PRESI	IDLEI	
.	.	.	
.	.	.	
.	.	.	
END			

**Figure 93: Recording of degree of attendance for an individual PBX operator.**

23.24.8
PRINTOUT 5

TRAFFIC RECORDING RESULT DATA				
DATE	MENO	OPERATORS PRESENT		
...	...	CORG ...		
TIME	PRESPRI	PRESSEC	IDLEPRI	IDLESEC
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
END				

**Figure 94: Recording of degree of attendance for the PBX operators in a group of origin.**

23.24.9

## PRINTOUT 6

```

TRAFFIC RECORDING RESULT DATA

DATE      MEMO  OBJECT
...       ...   DIALDY

TIME      CALLS  CALL1  CALL3  CALL10  TERM  ACCU
.         .     .     .     .     .     .
.         .     .     .     .     .     .
.         .     .     .     .     .     .

[BUSY HOUR START TIME ...]

END

```

**Figure 95: Recording of dial tone delay.**

23.24.10

## PRINTOUT 7

```

TRAFFIC RECORDING RESULT DATA

DATE      MEMO  OBJECT
...       ...   ...

TIME      TRAFF  CALLS  NDV   NBLO  CONGO  CONGP  OFLO
.         .     .     .     .     .     .     .
.         .     .     .     .     .     .     .
.         .     .     .     .     .     .     .

[BUSY HOUR START TIME ...]

END

```

**Figure 96: Recording on key code receivers, key code senders, and tone receivers.**



23.24.11

## PRINTOUT 8

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OBJECT
...       ...   PBXGRP

TIME TRAFF CALLS CONG QCAL QTIME QLEN QABN QMAXT PREMB ABSMB
.     .     .     .     .     .     .     .     .     .     .
.     .     .     .     .     .     .     .     .     .     .
.     .     .     .     .     .     .     .     .     .     .

[BUSY HOUR START TIME ...]

END

```

**Figure 97: Recording on internal group hunting number.**

23.24.12

## PRINTOUT 9

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OBJECT
...       ...   ...

TIME      TRAFF  CALLS  NDV  NBLO  CONG
.         .     .     .     .     .
.         .     .     .     .     .
.         .     .     .     .     .

[BUSY HOUR START TIME...]

END

```

**Figure 98: Recording on conference traffic.**

23.24.13

## PRINTOUT 10

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OBJECT
...      ...   ...

TIME      TRAFF  CALLS  NDV  NBLO
.         .     .     .     .
.         .     .     .     .
.         .     .     .     .

[BUSY HOUR START TIME ]

END

```

**Figure 99: Recording on voice extensions and external lines.**

23.24.14

## PRINTOUT 11

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  ROUTE
...      ...   ROU   ...

TIME      TRAFF  CALLS  NDV  NBLO
.         .     .     .     .
.         .     .     .     .
.         .     .     .     .

[BUSY HOUR START TIME ]

END

```

**Figure 100: Recording incoming route.**

23.24.15

## PRINTOUT 12

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  ROUTE
...      ...   ROU   ...

TIME      TRAFF  CALLS  NDV  NBLO  OFLO  CONG
.         .     .     .   .   .   .
.         .     .     .   .   .   .
.         .     .     .   .   .   .

[BUSY HOUR START TIME ...]

END

```

**Figure 101: Recording on outgoing route.**

23.24.16

## PRINTOUT 13

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  ROUTE
...      ...   ROU   ...

TIME      TRAFF  OUTG.CALLS  INC.CALLS  NDV  NBLO  OFLO  CONG
.         .     .     .     .   .   .   .
.         .     .     .     .   .   .   .
.         .     .     .     .   .   .   .

[BUSY HOUR START TIME ...]

END

```

**Figure 102: Recording on bothway route.**

23.24.17

## PRINTOUT 14

TRAFFIC RECORDING RESULT DATA					
DATE	MENO	OBJECT			
...	...	...			
TIME	TRAFF	CALLS	NDV	NBLO	CONG
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
[BUSY HOUR START TIME ]					
END					

Figure 103:Recording on IP device.

23.24.18

## PARAMETERS

**ABND**

The number of abandoned calls to a PBX operator.

**ABNDREC**

The number of abandoned recalls for an individual PBX operator.

**ABSMB**

The number of absent marked and blocked group members.

**ACCU**

The accumulated time of delay (in seconds) for all calls with a dial tone delay of more than 1 second.

**ANS**

The number of answered calls to a group of origin.

**ANSSEC**

The number of calls answered by a secondary PBX operator.

**BUSY HOUR START TIME**

The point in time when busy hour starts for the day concerned. No printout is produced if the time of recording is less than one hour, or if the hours of start and/or stop have been stated differently from those valid for the recording operation.

**CALL1**

The number of calls with a dial tone delay of more than 1 second.

**CALL3**

The number of calls with a dial tone delay of more than 3 seconds.

**CALL10**

The number of calls with a dial tone delay of more than 10 seconds.

**CALLS**

The total number of call attempts, successful as well as unsuccessful. EXAMPLES of the latter category are unanswered calls and calls that encounter congestion. For recording objects that may have both incoming and outgoing calls, these are recorded regardless of direction. For the recording objects data extension and IP extension board, calls that encounter busy state are also recorded (this does not apply to the other recording objects).

### **CONG**

The number of calls that encounter congestion. Depending on the recording object, congestion is defined as follows:

- No free device individual available
- No free group member available
- No free queue position available
- No free time slot available

### **CONGO**

Congestion overflowing. The number of calls that encounter congestion when making attempts in some other LIM.

### **CORG**

Group of origin (call origin group).

### **CORGC**

The number of answered calls to a group of origin.

### **CXNTRF**

Recording Cordless extension traffic.

### **CXNMOB**

Recording Cordless extension mobility.

### **DATE**

Date of traffic recording.

### **DIR**

Directory number for the object of the recording.

### **DLYOPC**

The time of delay (stated in seconds), which means the time from the moment a call to a PBX operator is detected, (queued) to the moment it is answered by the PBX operator. Delay time = queue time plus response time, see also RESPT. The value of DLYOPC is rounded down to the nearest ten.

### **DLYREC**

The time of delay (in seconds) for recall. See also DLYOPC. The value of DLYREC is rounded down to the nearest 10.

### **DLYTOT**

The total time of delay (in seconds) for a group of origin. See also DLYOPC.

### **HCORGC**

The handling time (in seconds), which means the time from the moment a call to a group of origin is answered to the moment the handling procedure is completed.

### **HNDLTOT**

The total handling time (in seconds) for a group of origin. See also HCORGC.

### **HREC**

The handling time (in seconds) for recalls. See also HCORGC.

### **HOPC**

The handling time (in seconds) for calls to an individual PBX operator. See also HCORGC.

### **HOPIC**

The handling time (in seconds) of operator- initiated calls, from the moment the call is initiated to the moment the handling procedure is completed. The value of HOPIC is rounded down to the nearest ten.

**IABND**

The number of abandoned calls to an individual PBX operator.

**IDLE**

The mean value of the number of free (idle) PBX operators. Here free means that the PBX operator is marked as present but not as busy.

**IDLEI**

The mean value of the free state for a PBX operator. Value range = 0.00 - 1.00.

**IDLEPRI**

The mean value of the number of free primary PBX operators in a group of origin.

**IDLESEC**

The mean value of the number of free secondary PBX operators in a group of origin.

**INC.CALLS**

The number of incoming calls.

**NBLO**

The number of manually blocked individuals (devices) included in the measurement. For IP extension boards, the number of boards with any kind of blocking or that do not answer when data collection is in progress.

**NBRD**

The number of IP extension boards included in the measurement.

**NDV**

The number of individuals (devices), included in the measurement.

**OBJECT**

Type of recording object: (for example)

**CONFER**

Conference equipment

**DIALDY**

Dial tone delay

**EXTENS**

Voice extension

**IP-DEV**

IP device board

**KEYC-R**

Key-code receiver

**KEYC-S**

Key-code sender

**PBXGRP**

Internal group hunting group (PBX) number

**TONE-R**

Tone receiver

**TRUNKS**

External lines

**OFLO**

Overflow. Depending on the recorded object, overflow is defined as:

- The number of calls that result in seizure attempts in some other LIM.
- The number of calls that result in switch over to an alternative route.

**OPC**

The number of answered calls sent to an individual PBX operator.

**OPIC**

The number of calls initiated by a PBX operator.

**OUTG.CALLS**

The number of outgoing calls.

**PACKETS**

Parts per thousand of dropped and lost packets in the traffic flow.

**PREMB**

The number of present-marked group members.

**PRES**

The mean value of the number of present marked PBX operators.

**PRESI**

The mean value of the present state for a PBX operator. Value range: 0.00-1.00

**PRESPRI**

The mean value of the number of present marked primary PBX operators in a group of origin.

**PRESSEC**

The mean value of the number of present marked secondary PBX operators in a group of origin.

**QABN**

The number of abandoned calls in queue.

**QCAL**

The number of queue calls.

**QLEN**

The mean queue length.

**QMAXT**

The maximum individual queuing time (in seconds).

**QTIME**

The mean queuing time in seconds.

**REC**

The number of answered recalls.

**REJINC**

The number of rejected incoming data calls

**RESPT**

The total response time for all calls. The response time (in seconds) for each call is recorded from the moment the call is displayed on the PBX operator console to the moment it is answered. Queue time is not included in response time. See also DLYOPC.

**ROU**

Route number.

**STIME**

The mean value of the paging time (in seconds), that is, the time from the moment the call is detected to the moment it is answered, for all calls.

**TERM**

The number of terminated call attempts without dial tone after 1 second.

**TIME**

Hours of start and stop during one and the same day.

**TRAFF**

Traffic intensity in Erlang. Value range: 0.00 - 9999.99.

**Note:** Traffic is indicated for the recording object internal group (PBX) number even when a group member records traffic as a non-group member.

**WABND**

Waiting Time for Abandoned Calls. The waiting time (in seconds) for abandoned calls, that is, the time from the moment the call is detected (placed in queue) until the moment it disappears without being attended to. The value of WABND is rounded down to the nearest ten.

**WABNDREC**

The waiting time (in seconds) for abandoned recalls. The value of WABNDREC is rounded down to the nearest ten.

**WAITEXCEED**

The number of calls whose waiting time (queuing time) exceeds a value set by the global\_traffic\_data command.

**WAITTOT**

The total waiting (queuing) time (in seconds) for calls that are not attended to.

23.24.19

**EXAMPLE 1**

Request a printout for measurement number 18 of the recording result obtained every full quarter of an hour between 10:30 and 11:30 on July 20, 2005.

```

TRREP:MENO=18,PERIOD=2,TIMEI=10-30,TIMEE=11-30,DATE=2005-07-20;

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OPERATORS PRESENT
20JUL05   18    DIR = 7100

TIME      PRESI  IDLEI
10:30-10:45  0.87  0.55
10:45-11:00  1.00  0.43
11:00-11:15  1.00  0.51
11:15-11:30  1.00  0.46

END

```

**Figure 104:**

Measurement number 18 applies to recording of the degree of attendance of a PBX operator with individual PBX operator number 7100. The printout is interpreted as follows:

Between 10:30 and 10:45 the PBX operator is present-marked for 87% of 15 minutes and free-marked (that is, not busy) for 55% of the time the operator is marked as present.

During the other 15-minute periods the PBX operator is present-marked all the time, and free-marked for 43%, 51% and 46%, respectively, of the time the PBX operator is marked as present.



## 23.24.20

## EXAMPLE 2

Print out the recording result for measurement number 1 at 1-hour intervals.

```

TRREP:MENO=1,PERIOD=1;

TRAFFIC RECORDING RESULT DATA

DATE      MENO      OPERATOR
15JUL05    1        DIR = 500

TIME      CORGC HCORGC  OPC  HOPC   DLYOPC      REC  HREC  DLYREC
          OPIC  HOPIC  ABND  WAEND  ABNDREC  WAENDREC  RESPT
10:00-11:00  11   120    0    0       0       2    17    10
              8   110    0    0       0       0    18
10:15-11:15  30   184    3   40      10       0     0     0
              25  300    0    0       0       0    66
10:30-11:30  12   126    1   28      20       0     0     0
              10   15    0    0       0       0    41
BUSY HOUR START TIME = 10:15
END

```

**Figure 105:**

For measurement number 1 a recording result is obtained for a PBX operator with directory number 500. The measurement has been initiated for 10:00 to 11:30 on July 15, 2005. The following data are presented for the period 10:00 to 11:00 hours:

- 11 calls are sent to the PBX operator group of origin and answered by the PBX operator. The handling time for these calls is 120 seconds.
- 2 recalls are sent to the PBX operator. The handling time for these recalls is 17 seconds and the time of delay is 10 seconds.
- 8 calls are initiated by the PBX operator. The handling time for these calls is 110 seconds.
- The total response time for all calls is 18 seconds.

The following data are presented for the period 10:15 to 11:15:

- 30 calls are sent to the PBX operator group of origin and answered by the PBX operator. The handling time for these calls is 184 seconds.
- 3 calls sent to the PBX operator individual directory number are answered.
- The handling time for these is 40 seconds and the delay time 10 seconds.
- 25 calls are initiated by the PBX operator. The total handling time for these calls is 300 seconds.
- The total response time for all calls is 66 seconds.
- This one-hour period coincides with the busy hour of the day concerned.

## 23.24.21

## EXAMPLE 3

Printout the recording data for busy hour for measurement number 16.

```

TRREP:MENO=16;

TRAFFIC RECORDING RESULT DATA

DATE          MENO  OBJECT
15AUG05        16  EXTENS

TIME          TRAFF  CALLS  NDV  NBLO
13:45-14:45    0.24    13    7    0

DATE          MENO  OBJECT
16AUG05        16  EXTENS

TIME          TRAFF  CALLS  NDV  NBLO
10:15-11:15    0.18    11    7    0

END

```

**Figure 106:**

The recording data for busy hour refers to the recording object voice extension.

On 15 August 2005 the busy hour began at 13:45. The traffic intensity is 0.24 Erlang. The number of calls is 13. The number of board individuals (devices) is 7, none of which are blocked.

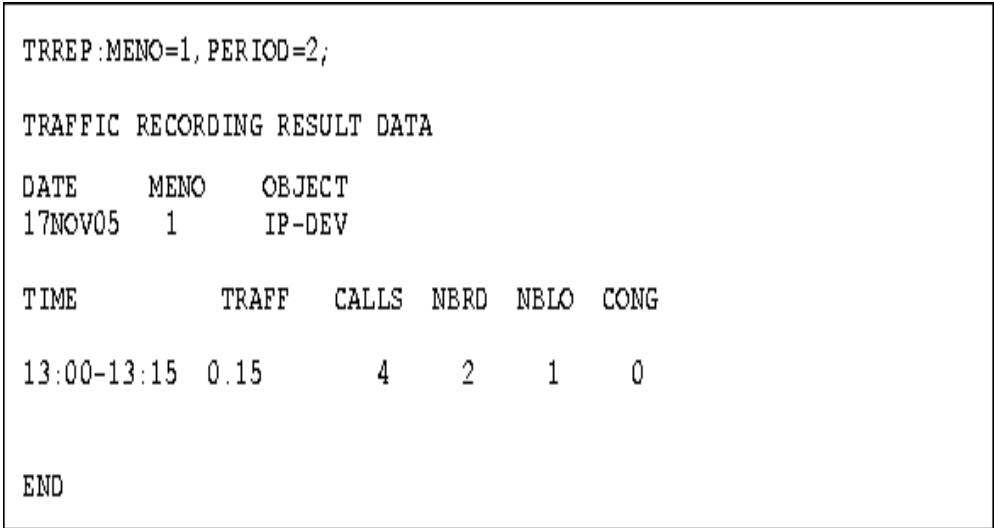
On 16 August 2005 the busy hour began at 10:15. The traffic intensity is 0.18 Erlang. The number of calls is 11. The rest of the data items are the same as for 15 August.

## 23.24.22

## EXAMPLE 4

Request a printout for measurement number 1 of the recording result obtained every full quarter of an hour. The measurement is limited to the following:

- Only gateway traffic is measured.
- The only traffic on MGU-based gateways is measured, not media server-based gateways.



**Figure 107:**  
 The recording data refer to the recording object (virtual) IP device.  
 On 17 November 2005 between 13:00 and 13:15 the traffic intensity is 0.15 Erlang. The number of calls is 4. The number of boards (devices) is 2, one of them is blocked. The mean value of jitter is 20. There are neither lost packets nor dropped packets.

23.24.23

### COMMAND CATEGORY

Dangerous = **No**

23.25

## TRROI

Traffic recording route initiate

23.25.1

### FORMAT

**Table 1278**  
 TRROI:ROU=,TIMEI=,TIMEE=,DATE=;

**Table 1279**  
**DATE =**            Date. Date or dates at which recording is to be performed.  
                   & and && are permitted for this parameter, but only one & will be accepted.  
**ROU =**            Route number.  
**TIMEE =**          Time end. Stop time.  
**TIMEI =**          Time initiate. Start time.

23.25.2

### FUNCTION

This command initiates traffic recording on a route for the indicated period of time. The initiate and end times refer to one and the same 24-hour period (day). The system responds by sending the assigned measurement number.

23.25.3

## EXAMPLE

Initiate traffic recording on route 23 between 06:45 and 17:15 hours on May 22, 2005.

**Table 1280**

TRROI:ROU=23,TIMEI=06-45,TIMEE=17-15,DATE=2005-05-22; YOUR MEASUREMENT NUMBER = 7 EXECUTED
--

23.25.4

## COMMAND CATEGORY

Dangerous = **No**

23.26

## TRRSI

Traffic recording route supervision value initiate

23.26.1

## FORMAT

**Table 1281**

**TRRSI:ROU=,SVAL=;**

**Table 1282**

**ROU** =     Route number.

**SVAL** =     Supervision value.

23.26.2

## FUNCTION

This command initiates or alters a congestion supervision value for the indicated route. An alarm is generated and sent to the alarm log if the proportion of calls that encounter congestion reaches the preset congestion value.

23.26.3

## EXAMPLE

The congestion supervision value is to be set at 600 per thousand for route 86.

**Table 1283**

TRRSI:ROU=86,SVAL=600; EXECUTED
------------------------------------

23.26.4

## COMMAND CATEGORY

Dangerous = **No**

23.27

## TRRSP

Traffic recording route supervision value print

23.27.1
FORMAT

**Table 1284**  
**TRRSP[:ROU=];**

**TRRSP[:ROU=];**

**Table 1285**  
**ROU** =      Route number.

23.27.2
FUNCTION

This command achieves a printout of the congestion supervision value for an individual route, or if the ROU parameter is omitted, for all routes in the MX-ONE.

23.27.3
PRINTOUT

**Table 1286**

CONGESTION SUPERVISION DATA	
ROU	SVAL(0/00)
.	.
.	.
.	.
END	

**SVAL(0/00)**  
Supervision value in per thousand.

23.27.4
EXAMPLE 1

Request a printout of the congestion supervision value for route 86.

**Table 1287**

TRRSP:ROU=86;	
CONGESTION SUPERVISION DATA	
ROU	SVAL(0/00)
86	600
END	

The congestion supervision value is 600 per thousand for route 86.

23.27.5
EXAMPLE 2

Request a printout of the congestion supervision value for all routes in the MX-ONE.

**Table 1288**

TRRSP;	
CONGESTION SUPERVISION DATA	
ROU	SVAL (0/00)
23	50

25	430
37	50
58	800
86	600
END	

The congestion supervision value is 50 per thousand for routes 23 and 37, 430 per thousand for route 25, 800 per thousand for route 58 and 600 per thousand for route 86.

23.27.6 COMMAND CATEGORY

Dangerous = **No**

23.28 TRTLI

Traffic recording trunk line initiate

23.28.1 FORMAT

TRTLI: [ [ ROU=,TRU=..., ] ] TIMEI=,TIMEE=,DATE=...;

LIM=...,

Figure 108:  
Table 1289

- DATE** = Date. Date or dates at which recording shall be performed.  
& and && are allowed for this parameter, but only one & will be accepted.
- LIM** = LIM number.  
& and && are allowed for this parameter.
- ROU** = Route number.
- TIMEE** = Time end. Stop time.
- TIMEI** = Time initiate. Start time.
- TRU** = Trunk line number. External line number (LIM and line number for trunk line).  
& is allowed for this parameter.

23.28.2 FUNCTION

This command initiates traffic recording on one or more external lines in the indicated route, on all external lines in a LIM, and if parameters LIM, ROU and TRU are omitted for all external lines, in the entire MX-ONE. Start time and stop time are stated in a 24-hour period. The system responds by sending the assigned measurement number. All trunk types are covered by this command.

23.28.3 EXAMPLE 1

Initiate traffic recording on an external line in route 4, LIM 1 and lines 40 and 41 between 10:00 and 13:00 hours from July 15 through August 20, 2005.

**Table 1290**

TRTLI:ROU=4,TRU=1-40&1-41,TIMEI=10-00,TIMEE=13-00, DATE=2005-07-15&&2005-08-20; YOUR MEASUREMENT NUMBER = 11 EXECUTED
--

23.28.4

EXAMPLE 2

Initiate traffic recording on all lines in LIM 2 between 13:30 and 15:30 hours from July 2 through July 8, 2005, **excluding** July 5.

**Table 1291**

TRTLI:LIM=2,TIMEI=13-30,TIMEE=15-30, DATE=2005-07-02&&2005-07-04&2005-07-06&&2005-07-08; YOUR MEASUREMENT NUMBER = 12 EXECUTED
---

23.28.5

EXAMPLE 3

Initiate traffic recording on all external lines in the MX-ONE Service Node between 06:00 and 20:00 from May 1 through May 15, 2005.

**Table 1292**

TRTLI:TIMEI=06-00,TIMEE=20-00,DATE=2005-05-01&&2005-05-15; YOUR MEASUREMENT NUMBER = 3 EXECUTED
---

23.28.6

COMMAND CATEGORY

Dangerous = **No**

23.29

TRTRI

Traffic recording tone receiver initiate

23.29.1

FORMAT

**Table 1293**

TRTRI:[LIM=,]TIMEI=,TIMEE=,DATE=;

**Table 1294**

<b>DATE</b> =	Date. Date or dates at which recording is to be performed. & and && are permitted for this parameter, but only one & will be accepted.
<b>LIM</b> =	LIM number. & and && are allowed for this parameter.
<b>TIMEE</b> =	Time end. Stop time.
<b>TIMEI</b> =	Time initiate. Start time.

## 23.29.2

## FUNCTION

This command initiates traffic recording on the tone receivers in the indicated LIM or group of LIMs, or if the LIM parameter is omitted, on all tone receivers in the MX-ONE for the indicated period of time. The initiate and end times refer to one and the same 24-hour period (day).

The system responds by sending the assigned measurement number.

The command is only available for MX-ONE Classic LIMs.

## 23.29.3

## EXAMPLE 1

Initiate traffic recording on the tone receivers in LIM 4 between 08:00 and 17:30 hours from June 2 through June 6, 2005.

**Table 1295**

TRTRI:LIM=4,TIMEI=08-00,TIMEE=17-30,DATE=2005-06-02&& 2005-06-06; YOUR MEASUREMENT NUMBER = 16 EXECUTED
---

## 23.29.4

## EXAMPLE 2

Initiate traffic recording on all tone receivers in the MX-ONE between 09:00 and 15:00 hours from September 11 through September 18, 2005.

**Table 1296**

TRTRI:TIMEI=09-00,TIMEE=15-00,DATE=2005-09-11&&2005-09-18; YOUR MEASUREMENT NUMBER = 17 EXECUTED
--

## 23.29.5

## COMMAND CATEGORY

Dangerous = **No**



# 24 VM - VOICE MAIL

## 24.1 VMFUE

Voice Mail Function End

### 24.1.1 FORMAT

**Table 1297**  
**VMFUE:IFCIND=;**

**Table 1298**  
**IFCIND =** Information computer individual.  
The sequence number for the relevant information system.  
& and && are allowed for this parameter.

### 24.1.2 FUNCTION

The command removes one or more voice mail systems.

### 24.1.3 EXAMPLE

Remove the voice mail systems connected to information computer individuals 1 and 2.

**Table 1299**

VMFUE:IFCIND=1&2; EXECUTED
-------------------------------

### 24.1.4 COMMAND CATEGORY

Dangerous = **No**

## 24.2 VMFUI

Voice Mail Function Initiate

### 24.2.1 FORMAT

**Table 1300**  
**VMFUI:IFCIND=,VMF=,POFMT=;**

**Table 1301**  
**IFCIND =** Information computer individual.  
The sequence number for the relevant information system.  
& and && are allowed for this parameter.  
  
**POFMT =** Port number format.  
  
**VMF =** Voice mail functionality.

## 24.2.2 FUNCTION

The command results in initiation of a voice mail system (which means that the information computer individual is affiliated with the voice mail system) and defines the functionality of the voice mail system to be used in the signal interface between the MX-ONE Service Node and that voice mail system.

## 24.2.3 EXAMPLE

Initiate the voice mail system connected to information computer individual 1 and set extended functionality, the port number format to 2 digits.

**Table 1302**

VMFUI:IFCIND=1,VMF=EXTND,POFMT=2; EXECUTED
---

## 24.2.4 COMMAND CATEGORY

Dangerous = **No**

## 24.3 VMFUP

Voice Mail Function Data Print

### 24.3.1 FORMAT

**Table 1303**

**VMFUP [:IFCIND=];**

**VMFUP [:IFCIND=];**

**Table 1304**

**IFCIND =** Information computer individual.  
The sequence number for the relevant information system.  
& and && are allowed for this parameter.

### 24.3.2 FUNCTION

The command results in printout of the data for one or more or all the voice mail systems connected to the exchange.

### 24.3.3 PRINTOUT

**Table 1305**

VOICE MAIL FUNCTION DATA		
IFCIND	VMF	POFMT
...	...	...
END		

**Table 1306**

**POFMT** Port number format.  
**VMF** Voice mail functionality.

24.3.4

EXAMPLE

Print out data for the voice mail systems connected to IFC individuals 1, 2, and 3.

**Table 1307**

VMFUP:IFCIND=1&2&3;		
VOICE MAIL FUNCTION DATA		
IFCIND	VMF	POFMT
01	EXTND	02
02	STD	02
03	EXTN2	02
END		

The voice mail system on information computer individual 1 has been initiated as follows:

- Extended functionality
- 2 digits for the port number format

While the voice mail system on information computer individual 2 has been initiated with:

- Standard functionality
- 2 digits for the port number format

And the voice mail system on information computer individual 3 has been initiated with:

- Extended level 2 functionality
- 2 digits for the port number format

24.3.5

COMMAND CATEGORY

Dangerous = **No**

24.4

VMGEE

Voice Mail Generic Extension End

24.4.1

FORMAT

**VMGEE:DIR=;**

**Table 1308**

**DIR =** Directory number.  
Directory number for generic extension.  
&& and & are allowed for this parameter.

## 24.4.2 FUNCTION

The command results in removal of one or more generic voice mail ports, i.e. ports affiliated to directory numbers for generic extensions

## 24.4.3 EXAMPLE

Remove the generic port affiliated to directory number 964.

**Table 1309**

VMGEE:DIR=964; EXECUTED
----------------------------

## 24.4.4 COMMAND CATEGORY

Dangerous = **No**

# 24.5 VMGEI

Voice Mail Generic Extension Initiate

## 24.5.1 FORMAT

$$\text{VMGEI:IFCIND} = \left[ , \left\{ \begin{array}{l} \text{DIR= ...} \\ \text{GRP= ...} \end{array} \right\} \right];$$

**Figure 109:**  
**Table 1310**

<b>DIR =</b>	Directory number. Directory number for generic extension. && and & are allowed for this parameter.
<b>GRP =</b>	Group number. Directory number for internal group hunting group (PBX group). && and & are allowed for this parameter.
<b>IFCIND =</b>	Information computer individual. The sequence number for the relevant information system.

## 24.5.2 FUNCTION

The command results in the initiation of one or more voice mail ports for the voice mail system connected to the specified information computer individual. This means one or more affiliations between a voice mail port in the specified voice mail system and a generic extension in the PBX.

Only for generic extensions initiated as IP extensions the voice mail functionality will be fully available.

An internal group hunting group (PBX group) can be defined as message diversion position. In this case each extension included in the group shall also be affiliated to a separate generic port by entering the VMGEI command.

24.5.3                      EXAMPLE 1

Affiliate generic extension 964 to the generic voice mail system connected to information computer individual number 1.

**Table 1311**

VMGEI:IFCIND=1,DIR=964; EXECUTED
-------------------------------------

24.5.4                      EXAMPLE 2

Affiliate internal group hunting group 2560 to the IP voice mail system connected to information computer individual number 1.

**Table 1312**

VMGEI :IFCIND=1,GRP=2560; EXECUTED
---------------------------------------

24.5.5                      COMMAND CATEGORY

Dangerous = **No**

24.6                        VMGEP

Voice Mail Generic Extension Print

24.6.1                      FORMAT

$$\text{VMGEP} \left[ : \left\{ \begin{array}{l} \text{IFCIND} = \dots \\ \text{DIR} = \dots \end{array} \right\} \right] ;$$

**Figure 110:**

**Table 1313**

<b>DIR</b> =	Directory number. Directory number for generic extension. &&, & and ALL are allowed for this parameter.
<b>IFCIND</b> =	Information computer individual. The sequence number for the relevant information system. &, && and ALL are allowed for this parameter.

24.6.2                      FUNCTION

This command results in printout of the generic extensions defined as voice mail ports. If the parameters are omitted all the generic extensions defined as voice mail ports for all voice mail systems will be printed out.

## 24.6.3

## PRINTOUT

**Table 1314**

GENERIC VOICE MAIL DATA	
DIR	IFCIND
...	...
END	

## 24.6.4

## EXAMPLE

Print out data for the generic voice mail systems connected to IFC individuals 1 and 2.

**Table 1315**

VMGEP:IFCIND=1&2;	
GENERIC VOICE MAIL DATA	
DIR	IFCIND
964	01
965	01
966	02
END	

Generic extensions 964 and 965 belong to the generic voice mail system connected to the information computer individual 1. Generic extension 966 belongs to the generic voice mail system connected to the information computer individual 2.

## 24.6.5

## COMMAND CATEGORY

Dangerous = **No**

## 24.7

## VMPOE

Voice Mail Port End

## 24.7.1

## FORMAT

**VMPOE:** { DIR= ... } ;  
                  { GRP= ... }

**Figure 111:****Table 1316**

<b>DIR =</b>	Directory number. Directory number for analog extension. && and & are allowed for this parameter.
<b>GRP =</b>	Group number. Directory number for internal group hunting group (PBX group). && and & are allowed for this parameter.

24.7.2
FUNCTION

The command results in removal of one or more voice mail ports, i.e. ports affiliated to directory numbers for analog extensions.  
The group number is to be stated when removing an internal group hunting group (PBX group) which has been defined as a message diversion position.

24.7.3
EXAMPLE 1

Remove the port affiliated to directory number 964.

**Table 1317**

VMPOE:DIR=964; EXECUTED
----------------------------

24.7.4
EXAMPLE 2

Remove the group with directory number 911, which has been defined as message diversion position.

**Table 1318**

VMPOE:GRP=911; EXECUTED
----------------------------

24.7.5
COMMAND CATEGORY

Dangerous = **No**

24.8
VMPOI

Voice Mail Port Initiate

24.8.1
FORMAT

$$\text{VMPOI:IFCIND} = \left\{ \begin{array}{l} \text{DIR} = \dots, \text{PORT} = \{ \\ \text{GRP} = \dots \end{array} \right\} ;$$

**Figure 112:**  
**Table 1319**

<b>DIR</b> =	Directory number. Directory number for analog extension. && and & are allowed for this parameter.
<b>GRP</b> =	Group number. Directory number for internal group hunting group (PBX group). && and & are allowed for this parameter.
<b>IFCIND</b> =	Information computer individual. The sequence number for the relevant information system.
<b>PORT</b> =	Voice mail port. Port number in the voice mail system. When & or && are stated in DIR, the parameter value port is used as start value.

## 24.8.2

## FUNCTION

The command results in the initiation of one or more voice mail ports for the voice mail system connected to the specified information computer individual. This means one or more affiliations between a voice mail port in the specified voice mail system and an analog extension in the MX-ONE Service Node. At the same time, the analog extension individual concerned is defined as a message diversion position.

Each voice mail port is physically connected over a voice channel to the analog extension concerned.

An internal group hunting group (PBX group) can be defined as message diversion position, in which case the GRP parameter is used. Each extension individual included in the group shall also be initiated to a separate port by entering the VMPOI command.

## 24.8.3

## EXAMPLE 1

Connect extension 964 to port 63 in the voice mail system connected to information computer individual number 1.

**Table 1320**

```
VMPOI:IFCIND=1,DIR=964,PORT=63;
EXECUTED
```

## 24.8.4

## EXAMPLE 2

Define the group with directory number 911 as message diversion position for the voice mail system connected to information computer individual 2.

**Table 1321**

```
VMPOI:IFCIND=2,GRP=911;
EXECUTED
```

## 24.8.5

## COMMAND CATEGORY

Dangerous = **No**

## 24.9

## VMPOP

Voice Mail Port Print

## 24.9.1

## FORMAT

$$\text{VMPOP} \left[ : \left\{ \begin{array}{l} \text{DIR} = \dots \\ \text{PORT} = \dots \\ \text{GRP} = \dots \\ \text{IFCIND} = \dots \end{array} \right\} \right];$$

**Figure 113:**



**Table 1322**

<b>DIR =</b>	Directory number. Directory number for analog extension. &&, & and ALL are allowed for this parameter.
<b>GRP =</b>	Group number. Directory number for internal group hunting group (PBX group). &&, & and ALL are allowed for this parameter.
<b>IFCIND =</b>	Information computer individual. The sequence number for the relevant information system. &&, & and ALL are allowed for this parameter.
<b>PORT =</b>	Voice mail port. Port number in the voice mail system. &, && and ALL are allowed for this parameter.

24.9.2

FUNCTION

The command results in printout of initiated voice mail ports and/or internal group hunting groups (PBX groups) defined as message diversion positions.

If the parameters are omitted, the voice mail ports and internal group hunting groups for all voice mail systems will be printed out. The internal group hunting groups numbers (PBX groups) is shown last in the printout.

24.9.3

PRINTOUT 1 (DIR/PORT)

**Table 1323**

VOICE MAIL PORT DATA		
DIR	PORT	IFCIND
.	.	.
.	.	.
.	.	.
END		

The printout is in increasing order of directory numbers if parameter DIR is specified or in increasing order of port numbers if parameter PORT is specified.

24.9.4

PRINTOUT 2 (GRP)

**Table 1324**

VOICE MAIL GROUP DATA	
GRP	IFCIND
.	.
.	.
.	.
END	

The printout is in increasing order of group numbers.

24.9.5

PRINTOUT 3 (IFCIND/NO PARAMETER)

**Table 1325**

VOICE MAIL PORT DATA		
DIR	PORT	IFCIND

```

.
.
.
VOICE MAIL GROUP DATA
GRP          IFCIND
.
.
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
.
.
VOICE MAIL GROUP DATA
GRP          IFCIND
.
.
END

```

Both printouts are produced one after the other for each IFCIND parameter value that was entered (all information computer individual assigned for voice mail application if parameter value was ALL).

The DIR/PORT part of the printout (if any) is in increasing order of the directory numbers. The GRP part of the printout, if any, is in increasing order of the internal group hunting group (PBX group) numbers.

#### 24.9.6

#### EXAMPLE 1

Print out of data for voice mail ports 63 - 66.

**Table 1326**

```

VMPOP:PORT=63&&66;
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
964          63           01
965          64           01
966          65           02
967          66           01
END

```

Voice mail ports 63,64, 65 and 66 are affiliated to the analog extension individuals 964 - 967. Voice mail ports 63, 64 and 66 belong to the voice mail system connected to the information computer individual 1. Voice mail port 65 belongs to the voice mail system connected to information computer individual 2.

#### 24.9.7

#### EXAMPLE 2

Print out data for all groups which have been defined as message diversion position for the voice mail function.

**Table 1327**

```

VMPOP:GRP=ALL;
VOICE MAIL GROUP DATA
GRP                IFCIND
910                01
911                02
END

```

The groups with directory numbers 910 and 911 are defined as message diversion positions. Group 910 is initiated for voice mail system connected to information computer individual 1, while group 911 is defined for the voice mail system connected to information computer individual 2.

## 24.9.8

## EXAMPLE 3

Print out all information on the voice mail system connected to information computer individual number 1 and 2.

**Table 1328**

```

VMPOP:IFCIND=1&2;
VOICE MAIL PORT DATA
DIR                PORT                IFCIND
964                63                01
965                64                01
967                66                01
VOICE MAIL GROUP DATA
GRP                IFCIND
910                01
VOICE MAIL PORT DATA
DIR                PORT                IFCIND
966                65                02
VOICE MAIL GROUP DATA
GRP                IFCIND
911                02
END

```

Printout is according to Examples 1 and 2.

## 24.9.9

## EXAMPLE 4

Print out all information on all the voice mail systems connected to the exchange.

**Table 1329**

```

VMPOP:IFCIND=ALL;
or
VMPOP;
VOICE MAIL PORT DATA
DIR                PORT                IFCIND

```

964	63	01
965	64	01
967	66	01
VOICE MAIL GROUP DATA		
GRP	IFCIND	
910	01	
VOICE MAIL PORT DATA		
DIR	PORT	IFCIND
966	65	02
968	67	02
VOICE MAIL GROUP DATA		
GRP	IFCIND	
911	02	
VOICE MAIL PORT DATA		
DIR	PORT	IFCIND
970	1001	04
END		

24.9.10

## COMMAND CATEGORY

Dangerous = **No**

25

ZO - SURVEILLANCE, OBSERVATION AND MONITORING

25.1

ZODLE

SOM data link end

25.1.1

FORMAT

**Table 1330**  
**ZODLE:PSW=;**

**Table 1331**  
**PSW =** Password.  
The parameter is used for protection against unauthorized administration of the SOM application.

25.1.2

FUNCTION

The command disconnects the SOM data link.

25.1.3

EXAMPLE

Disconnect the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

**Table 1332**

ZODLE:PSW=ABCDEF;
ZODLE:PSW=ABCDEF;
SURE? (YES/NO)
YES;
EXECUTED

25.1.4

COMMAND CATEGORY

Dangerous = **Yes**

25.2

ZODLI

SOM data link initiate

## 25.2.1

## FORMAT

**ZODLI:PSW=, CCLDEV=, ECLDEV=, [PTIMER=,] { COM=, PORT1=,[PORT2=,] } {MONROU=,CNTRY=,[NUMFMT=, ROU=,][NODTYP=,] [ACCDIG=,[ICTDIG=,][PREDIG=,][PRVDIG=,][CTYCDS=]]};**

**Figure 114:****Table 1333**

<b>ACCDIG =</b>	Access Digits. The parameter specifies the access code for PSTN calls.
<b>CCLDEV =</b>	Control Channel Device. The parameter specifies the identity of the control channel.
<b>CNTRY =</b>	Country Code. The parameter specifies whether the Country is Russia or not.
<b>COM =</b>	Communication Port. The parameter specifies which type of port is used for connecting the channel.
<b>CTYCDS =</b>	City Codes. This parameter specifies the access codes to the cities to which MX-ONE node is connected.
<b>ECLDEV =</b>	Event Channel Device. The parameter specifies the identity of the event channel.
<b>ICTDIG =</b>	Intercity Digits. This parameter specifies the access code for intercity calls.
<b>MONROU =</b>	Monitored route number. This parameter specifies the route numbers that shall be monitored by the SOM feature.
<b>NUMFMT =</b>	Number Format. The parameter specifies the object number format used in the control orders and events.
<b>NODTYP =</b>	Node Type. The parameter specifies if the MX-ONE service node acts as a Terminal communication node, Transit node or Transit-terminal node.
<b>PORT1 =</b>	Local Port Number. The parameter states local port number on which the server will bind.
<b>PORT2 =</b>	Local Port Number. The parameter states local port number on which the server will bind.
<b>PSW =</b>	Password. The parameter is used for protection against unauthorized administration of the SOM application.
<b>PREDIG =</b>	Prefix Digit. This parameter specifies the A-number prefix digit.
<b>PRVDIG =</b>	Service Provider Digits. This parameter specifies the service provider code.
<b>PTIMER =</b>	Passive State Timer. The parameter specifies the timer value in minutes within which if no control order is received through SCC, events are not sent to SCC.
<b>ROU =</b>	Route number for a SOM route (TL99 route).

## 25.2.2

## FUNCTION

The command initiates the data link and its channels, the CCL and ECL. The channels are connected either to the corresponding V.24 or USB port or TCP/IP interface.

## 25.2.3

## EXAMPLE 1

Initiate the data link between the SCC and the MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, and COM=YES (V.24 port).

**Table 1334**

ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, COM=YES; EXECUTED
---

## 25.2.4

## EXAMPLE 2

Initiate the data link between the SCC and the MX-ONE MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, and Local Port Number= 30001.

**Table 1335**

ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001; EXECUTED
---

## 25.2.5

## EXAMPLE 3

Initiate the data link between the SCC and the MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, and Local Port Number2= 30002.

**Table 1336**

ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001,PORT2=30002; EXECUTED
--

## 25.2.6

## EXAMPLE 4

Initiate the data link between the SCC and the MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, Local Port Number2= 30002, and Passive State Timer =10. Country is not Russia. Monitored route numbers shall be 12 and 13.

**Table 1337**

ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001, PORT2=30002,PTIMER=10,CNTRY=0,MONROU=12&13; EXECUTED
--

## 25.2.7

## EXAMPLE 5

Initiate the data link between the SCC and the MX-ONE Service Node for Russia, with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, Local Port Number2= 30002, Passive State Timer =10, MX-ONE Service Node type as "Transit-terminal node", and accepting International number format, route number is 99, access code 9 and Intercity code 6. Monitored route numbers shall be 33 and 59.

**Table 1338**

ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001,  
PORT2=30002,PTIMER=10,CNTRY=1,NODTYP=3,NUMFMT=1,ROU=99,  
ACCDIG=9,ICTDIG=6,MONROU=33&59;  
EXECUTED

25.2.8

## EXAMPLE 6

Initiate the data link between the SCC and the MX-ONE Service Node for Russia, with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, Local Port Number2= 30002, Passive State Timer =10, MX-ONE Service Node type as Terminal communication node, accepting OWN numbering format, access code 9, Intercity code 6, A-number prefix digit 3, Service Provider digits 51, and City codes 812 and 813.

**Table 1339**

ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001,  
PORT2=30002,PTIMER=10,CNTRY=1,NODTYP=1,NUMFMT=0,ACCDIG=9,ICTDIG=6,  
PREDIG=3,PRVDIG=51,CTYCDS=812&813;  
EXECUTED

25.2.9

## COMMAND CATEGORY

Dangerous = **No**

25.3

## ZODLP

SOM data link print

25.3.1

### FORMAT

**Table 1340**

**ZODLP:PSW=;**

**Table 1341**

**PSW =** Password. The parameter is used for protection against unauthorized administration of the SOM application.

25.3.2

### FUNCTION

The command is used to print data for the SOM data link.

25.3.3

### PRINTOUT

**Table 1342**

SOM DATA LINK DATA						
	CCLDEV	ECLDEV	COM	PTIMER	PORT1	PORT2
						IP



...	...	...	...	...	...	...	...	...
ACCDIG	ICTDIG	PREDIG	PRVDIG	NUMFMT	MONROU	ROU	NODTYP	CTYCDS
...	...	...	...	...	...	...	...	...
END								

**Table 1343**

<b>CCLDEV</b>	Control Channel Device.
<b>ACCDIG</b>	Access Code for PSTN calls.
<b>PREDIG</b>	A-Number Prefix Digit.
<b>CTYCDS</b>	City Codes.
<b>COM</b>	Communication Port.
<b>ECLDEV</b>	Event Channel Device.
<b>ICTDIG</b>	Access Code for Intercity calls.
<b>IP</b>	IP address.
<b>MONROU =</b>	Monitored route number.
<b>NODTYP</b>	MX-ONE Service node Type.
<b>NUMFMT</b>	Number format.
<b>PORT1</b>	Local Port Number.
<b>PORT2</b>	Local Port Number.
<b>PRVDIG</b>	Service Provider Digits.
<b>PTIMER</b>	Passive State Timer.
<b>ROU</b>	Route number (of the TL99 route).

## 25.3.4

## EXAMPLE 1

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

**Table 1344**

ZODLP:PSW=ABCDEF; SOM DATA LINK DATA								
CCLDEV	ECLDEV	COM	CNTR	PTIME	PORT1	PORT2	IP	
	V		Y	R				
CONCHAN1	EVCHAN1	YES	0	...	...	...	...	...
ACCDIG	ICTDIG	PREDIG	PRVDIG	NUMFMT	MONROU	ROU	NODTYP	CTYCDS
...	...	255	...	0	12, 15	99	1	...
END								

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the V.24 port.

## 25.3.5

## EXAMPLE 2

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

**Table 1345**

ZODLP:PSW=ABCDEF; SOM DATA LINK DATA								
CCLDEV	ECLDEV	COM	CNTRY	PTIMER	PORT1	PORT2	IP	
CONCHAN1	EVCHAN1	YES	0	...		...	192.168.27.210	
ACCDIG	ICTDIG	PREDIG	PRVDIG	NUMFM	MONROU	ROU	NODTYP	CTYCDS
...	...	255	...	0	...	0	...	...
END								

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the TCP/IP.

## 25.3.6

## EXAMPLE 3

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

**Table 1346**

ZODLP:PSW=ABCDEF; SOM DATA LINK DATA								
CCLDEV	ECLDEV	COM	CNTRY	PTIME R	PORT1	PORT2	IP	
CONCHAN 1	EVCHAN1	YES	1	10	...	...	...	...
ACCDIG	ICTDIG	PREDIG	PRVDIG	NUMF MT	MONRO U	ROU	NODTY P	CTYCD S
9	7	255	51	1	33, 59	99	1	812, 814
END								

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the V.24 port and Passive Time configured to 10 minutest.

## 25.3.7

## EXAMPLE 4

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

**Table 1347**

ZODLP:PSW=ABCDEF; SOM DATA LINK DATA								
CCLDEV	ECLDEV	COM	CNTRY	PTIMER	PORT1	PORT2	IP	
CONCHAN 1	EVCHAN 1	...	1	10	30001	30002	192.168.27. 210	
ACCDIG	ICTDIG	PREDI G	PRVDI G	NUMFM T	MONR OU	ROU	NODTYP	CTYCD S
9	7	255	51	1	...	99	1	812, 814
END								

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the TCP/IP Dual ports connection and Passive Time configured to 10 minutes.

25.3.8COMMAND CATEGORY

Dangerous = No

25.4ZOPWC

SOM password change

25.4.1FORMAT

Table 1348  
 ZOPWC:PSW=,NEWPSW=;

Table 1349  
 NEWPSW = New password. The parameter is used for protection against unauthorized administration of the SOM application.  
 For value, consult the parameter description for Surveillance, Observation and Monitoring.  
 PSW = Password. The parameter is used for protection against unauthorized administration of the SOM application.  
 For value, consult the parameter description for Surveillance, Observation and Monitoring.

25.4.2FUNCTION

The command is used to change the O&M password for SOM.

25.4.3EXAMPLE

Change the O&M password to the new password SECRET using the old password ABCDEF.

Table 1350  
 ZOPWC:PSW=ABCDEF,NEWPSW=SECRET;  
 ZOPWC:PSW=ABCDEF,NEWPSW=SECRET;  
 SURE? (YES/NO)  
 YES;  
 EXECUTED

25.4.4COMMAND CATEGORY

Dangerous = Yes

## 25.5

## ZOTGE

SOM trunk group end

## 25.5.1

## FORMAT

**Table 1351**

**ZOTGE:PSW=,TLG=;**

**Table 1352**

**PSW=** Password.  
The parameter is used for protection against unauthorized administration of the SOM application.

**TLG=** Trunk line group number.  
The parameter specifies the trunk line group that is to be removed.

## 25.5.2

## FUNCTION

The command removes a TLG, that is, the relation between a TLG interface is removed.

## 25.5.3

## EXAMPLE

Remove the TLG with serial number 2 from the system using the password ABCDEF.

**Table 1353**

```
ZOTGE:PSW=ABCDEF,TLG=2;
ZOTGE:PSW=ABCDEF,TLG=2;
SURE? (YES/NO)
YES;
EXECUTED
```

## 25.5.4

## COMMAND CATEGORY

Dangerous = **Yes**

## 25.6

## ZOTGP

SOM trunk group print

## 25.6.1

## FORMAT

**Table 1354**

**ZOTGP:PSW=[,TLG=];**

**Table 1355**

**PSW =** Password. The parameter is used for protection against unauthorized administration of the SOM application.

**TLG =** Trunk line group number. The parameter specifies the trunk line group that is to be removed.

25.6.2 FUNCTION

The command prints data for initiated SOM trunk line groups (TLGs).

25.6.3 PRINTOUT

**Table 1356**

SOM TRUNK LINE GROUP DATA	
TLG	BPOS
...	...
...	...
END	

**Table 1357**

**BPOS** Board position.

25.6.4 EXAMPLE 1

Print the data of all TLGs in the system.

**Table 1358**

ZOTGP:PSW=ABCDEF;	
SOM TRUNK LINE GROUP DATA	
TLG	BPOS
1	1A-1-20
2	2A-1-10
3	2A-1-40
END	

TLG number 1 was assigned to board position 1A-1-20. TLGs 2 and 3 were also initiated.

25.6.5 EXAMPLE 2

Print the data for TLG 3.

**Table 1359**

ZOTGP:PSW=ABCDEF,TLG=3;	
SOM TRUNK LINE GROUP DATA	
TLG	BPOS
3	2B-1-10
END	

TLG number 3 was assigned to board position 2B-1-10.

## 25.6.6

## EXAMPLE 3

Print the data for TLG 2.

**Table 1360**

ZOTGP:PSW=ABCDEF,TLG=2;	
SOM TRUNK LINE GROUP DATA	
TLG	BPOS
2	2A-1-10
END	

TLG number 2 was assigned to board position 2A-1-10.

## 25.6.7

## COMMAND CATEGORY

Dangerous = **No**