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# SPECIFICATION OF THE NETWORK SIDE OF THE USER-NETWORK INTERFACE FOR ISDN-BA- AND ISDN-PRA NETWORK LAYER 3

Subscriber control procedures (Stimulus protocol) for ISDN supplementary services

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## 0. Document history

Every update of this document results in a complete new version with new version number and release date.

Version	Date	Main or important changes since previous version
1.0	31 OCT 2002	First version

# 1. Scope

This document is applicable to the Siemens 'EWSD V16B' - and 'Alcatel S12 Pack 8' - switching systems.

It gives an overview of the generic keypad protocol procedures (service codes, keypad strings and the application of tones and announcements) for the subscriber control of the by Proximus commercialized supplementary services in the ISDN-network.

The specification is valid for both ISDN Basic Acces (BA) and ISDN Primary Rate Access (PRA).

Some parts of the technical implementation may be different in the two used switching systems. In this case, specific switch-dependent comments are added or tables are used explaining the technical implementation for both systems.

## 2. References

EN 300 403-1	ETSI-specification: Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification
ETS 300 196-1	Generic functional protocol for the support of supplementary services
ETS 300 738	Human Factors (HF); Minimum Man-Machine Interface (MMI) to public network based supplementary services
ITU-T E.330	ITU-T Recommendation : User control of ISDN - supported services
ITU-T E.331	ITU-T Recommendation : "Subscriber control procedures for supplementary telephone services"
ITU-T Q.932	ITU-T Recommendation : Digital Subscriber Signalling System No. 1 - Generic procedures for the control of ISDN supplementary services
BGC_D_48_0001_30_02_E	Proximus UNI-specification : Subscriber Control Interface (SCI)
BGC_D_48_9807_30_04_E	Proximus UNI-specification : Information tones

# 3. Symbols, definitions and abbreviations

For the purpose of the present document, the following symbols, abbreviations and definitions applies:

# 3.1. Abbreviations

ACR	Anonymeous Call Rejection
<u>BA</u>	Basic Access
BP BS	Barring Program
	Bearer Service
CFB	Call Forwarding on Busy
CFNR	Call Forwarding on No Reply
CFU	Call Forwarding Unconditional
CLIR	Calling Line Identification Restriction
CW	Call Waiting
DN	Directory Number
DSS1	Digital Subscriber Signalling System No. one
ETS	European Telecommunication Standard
EWSD	Proximus Switching System of Siemens
FDC-T	Fixed Destination Call - Timed
FTN	Forwarded-to-number
GD	General Deactivation
ISDN	Integrated Services Digital Network
<u>ITU</u>	International Telecommunication Union
<u>OCB</u>	Outgoing Call Barring
PIN	Personal Identification Number
PRA	Primary Rate Access
REC	Recorded announcement
S12	Proximus Switching System of Alcatel
<u>SC</u>	Service Code
SCT	Special Confirmation Tone
<u>SIT</u>	Special Information Tone
<u>SUN</u>	Served User Number
UNI	User Network Interface

# 3.2. Definitions

Activation	An action taken by a user or by a service provider to change the state of a service from inactive to active. For example, to activate (switch on) call waiting enables the call waiting indication and service to be invoked by the service provider whenever a call is presented to a busy terminal.
Basic service	A bearer service or teleservice. See also section "D.5 Formal definition of basic services" of ETS 300 196-1
Bearer service	A type of telecommunication service that provides the capability for the transmission of signals between user-network interfaces.
Data check	The interrogation function that compares data input by a user during an interrogation procedure with the data stored with respect to a service. For example, to confirm a Personal Identity Number (PIN) or other secure data item.
Data request	The interrogation function that enables a user to obtain information on the existing data stored with respect to a service.

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Depativetier	
Deactivation	An action taken by a user or by a service provider to change the status of a service from active to inactive. For example, to deactivate (switch off) call waiting means the call waiting indication and service will not be invoked by the service provider whenever a call is presented to a busy terminal.
En-bloc dialling	From a user's perspective, the form of dialling where a user inputs an address or supplementary service command before going off-hook or "sending" it to the network. The address or command may or may not be available to the user for editing before the user goes off-hook or "sends" the information to the network.
Erasure	An action taken by a user or by a service provider to delete data stored against a particular service by a previous registration.
Functional protocol	A generic form of protocol for sending information from the user's equipment (i.e. a terminal) to a network or service provider, which implies in this case, that the user's equipment has knowledge of the supplementary service. In effect the terminal translates the users commands into specific supplementary service function related signals that the network or service provider can interpret.
Interrogation	An action taken by a user to request information from a service provider relating to a particular service. For the purposes of this ETS, the interrogation function shall include Status Check, Data Request and enable Data Check.
Invocation	An action taken by a user or by a service provider to execute a specific service function within real time. For example, by a service provider forwarding an incoming call for a user who has activated the call forwarding service and registered a forwarding-to number; by a user invoking an active call transfer service when the two current calls are in the relevant states; or by a user, on a per call basis, to invoke (i.e. temporarily activate) a supplementary service, e.g. to switch on CLIR and allow the restriction of Calling Line Identification information for the current call, although Calling Line Identification is NOT normally active.
Network	In this description, network refers to all the ISDN telecommunications equipment that has any part in processing a call or a supplementary service for the user referred to. It does not include the ISDN terminal.
Overlap dialling	From a user's perspective, the form of dialling where a user goes off-hook and then inputs the address or supplementary service command digit by digit.
Registration	An action taken by a user or by a service provider to store specific data necessary to enable subsequent operation of a service. For example, the "forwarding-to number" in the Call Forwarding Unconditional service.
Service code	A two or three digit string used within a command dialogue control action to identify a supplementary service.
Status check	The interrogation function that enables a user to request information on the existing status of a designated service.
Stimulus protocol	A generic form of protocol for sending information from the user's equipment (i.e. a terminal) to a network or service provider, which implies in this case, that the user's equipment does not require any knowledge of the supplementary service. In effect the terminal is transparent to the user's commands.
Teleservice	A type of telecommunication service that provides the complete capability, including terminal equipment functions, for communication between users according to protocols established by agreement between Administrations.

# 4. General

Keypad signalling procedures are used for the activation, registration, invocation, registration, deactivation, erasure and interrogation procedures associated with many supplementary services.

Basic call signalling procedures are followed with the inclusion of service information from the user to the network in Keypad facility information elements. Information is provided from the network in Display information elements which can be included in all messages except the SUSPEND, RESUME and USER INFORMATION messages in accordance with basic call procedures (ETS 300 102-1).

## 5. Service codes

Allocation of the service codes for the by Proximus commercialized ISDN supplementary services.

Service Code	Supplementary Service
<u>001</u>	General Deactivation
<u>21</u>	Call Forwarding Unconditional
<u>34</u>	Outgoing Call Barring
<u>43</u>	Call Waiting
<u>53</u>	Fixed Destination Call - Timed
61	Call Forwarding on No Reply
<u>67</u>	Call Forwarding Busy
<u>933</u>	Anonymous Call Rejection
<u>94</u>	Personal Identification Number (Change of PIN)

## 6. User procedures

Supp.	Procedure	Keypad string (1) (2) (3) (4)			
Serv.		S12 Pack 8	EWSD V16B		
GD (5)	Invocation	<u># 001 {* PIN } #</u>	<u># 001 {* PIN } #</u>		
	Interrogation	Not applicable	Not applicable		
CFU	Activation	* 21 { * PIN } ( * FTN ) #	* 21 { * PIN } ( * FTN ) #		
	Deactivation	<u># 21 { * PIN } #</u>	<u>#21 { * PIN } #</u>		
	Interrogation	<u>* # 21 { * PIN } #</u>	<u>*#21 { * PIN } #</u>		
OCB	Activation / registration	* 34 * PIN ( * BP ) #	* 34 * PIN ( * BP ) #		
	Deactivation	# 34 * PIN #	# 34 * PIN #		
	Interrogation	<u>* # 34 ( * BP) #</u>	<u>* # 34 * PIN ( * BP) #</u>		
CW	Activation	<u>* 43 { * PIN } #</u> # 43	<u>* 43 { * PIN } #</u> # 43		
	Deactivation	{ * PIN } #	{ * PIN } #		
	Interrogation	* # 43 { * PIN } #	* # 43 { * PIN } #		
FDC-T	Activation / registration	<u>* 53 { * PIN } * DN #</u>	<u>* 53 { * PIN } * DN #</u>		
	Deactivation	<u># 53 { * PIN } #</u>	<u># 53 { * PIN } #</u>		
	Interrogation	* # 53 { * PIN } #	* # 53 { * PIN } #		
CFNR	Activation	* 61 { * PIN } ( * FTN ) #	* 61 { * PIN } ( * FTN ) #		
	Deactivation	<u># 61 { * PIN } #</u>	<u># 61 { * PIN } #</u>		
	Interrogation	<u>*#61 { * PIN } #</u>	<u>*#61 { * PIN } #</u>		
CFB	Activation	* 67 { * PIN } ( * FTN ) #	* 67 { * PIN } ( * FTN ) #		
	Deactivation	# 67 { * PIN } #	# 67 { * PIN } #		
	Interrogation	<u>*#67 {* PIN }#</u> *	<u>*#67{*PIN}#</u>		
ACR	Activation	<u>933 { * PIN } #</u> # 933	<u>933 { * PIN } #</u> # 933		
	Deactivation	{ * PIN } # *# 933 { *	{ * PIN } # *# 933 { *		
	Interrogation	PIN } #	PIN } #		
<u>PIN</u>	Registration	* 94 * <old pin=""> *<new pin=""> *<new pin="">#</new></new></old>	* 94 * <old pin=""> *<new pin=""> *<new pin="">#</new></new></old>		

User procedures for the user control of the by Proximus commercialized ISDN supplementary services.

Notes : Note 1	Keypad strings are included in keypad facility information elements in SETUP or INFO messages
Note 2	"not applicable" does not necessarily mean that the service is not applicable. It only means that there is no keypad procedure for this service.
Note 3	Optional parts of keypad strings are enclosed in brackets of the type "(" and ")". The user can choose to include them or leave them out.
Note 4	Wherever the PIN parameter is shown as {*PIN}, it means that it has only to be used in case of the subscriber has subscription for a PIN.
Note 5	This service gives the user the possibility to deactivate by one command some supplementary services which he has activated at his access. The following supplementary services, presently offered to customers, are deactivated by GD:
	<ul> <li>Outgoing Call Barring (OCB)</li> <li>Call Forwarding Unconditional (CFU)</li> <li>Call Forwarding on Busy (CFB)</li> <li>Call Forwarding on No Reply (CFNR)</li> <li>Anonymous Call Rejection (ACR)</li> </ul>
Abbr. : ACR BP CFB CFNR CFU CFU CW	Anonymous Call Rejection Barring Program Call Forwarding Busy Call Forwarding on No Reply Call Forwarding Unconditional Call Waiting
DN FDC-T FTN GD OCB <u>PIN</u>	Call Barring Personal Identification Number (Password)

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#### 7. Tones, announcements, displays and causes

This section defines, for the different commercialized supplementary ISDN services, the tones, announcements, displays or causes sent to the user as respons on the user procedures.

Tones or announcements are only applicable if the bearer capability is *speech*, *3.1 kHz audio* or *64 kbit/s unrestricted digital information with tones/announcements* (also sometimes referred to as *7 kHz audio*). These tables only indicate the name of the tone or announcement. The actual definition of the tones is included in Proximus UNI-specification "Information tones" (Ref. BGC\_D\_48\_9807\_30\_04\_E).

The 'Display' column defines what information is sent to the user in the ISDN Display information element.

The "Cause" column normally defines which DSS1 cause is sent to the user.

### 7.1. Tones, announcements, displays and causes - S12 Pack 8

Suppl.	Procedure	Case	Tone or	Display	Cause
Serv.			Ann.	S12 P8	S12 P8
CFx	Activation /	Succesfull activation / registration	<u>SCT</u>	* SC * 1 #	#31: normal,
	registration	Error in activation procedure : service code is	SIT	* SC * 2 #	#29: facility rejected
		correct but illegal value for parameter, or <u>mandatory parameter missing</u> . Activation rejected: the activation procedure is correct and the user has subscribed but the	SIT	* SC * 3 #	#29: facility rejected
		activation was rejected, e.g. supplementary service resource congestion Activation rejected: user has not subscribed for the service	REC #6	none	#50: facility not
	Deactivation /	Succesfull deactivation	SCT	# SC * 1 #	#31: normal,
	erasure	Error in deactivation procedure : service code	SIT	# SC * 2 #	unspecified #29: facility rejected
		is correct but illegal value for parameter, or mandatory parameter missing. Deactivation rejected: the deactivation procedure is correct and the user has	SIT	# SC * 3 #	#29: facility rejected
		subscribed but the deactivation was rejected, e.g. supplementary service resource <u>congestion</u> Deactivation rejected: user has not subscribed for the service	REC #6	none	#50: facility not
	Interrogation	Interrogation for 1 number when service is active for that number	SCT	* SC * 1 and for every BS then an individual Display IE	#31: Normal, unspecified
				*BS: <bs>*<ftn>*SUN:<sun> # *BS:<bs>*<ftn>*SUN:<sun> # </sun></ftn></bs></sun></ftn></bs>	
		Interrogation for 1 number when service is not active for that number	SIT	<u>*BS:<bs>*<ftn>*SUN:<sun> #</sun></ftn></bs></u> * SC * 0 #	#31: Normal,
		Error in interrogation procedure : service code is correct but illegal value for parameter,	SIT	* SC * 2 #	#29: facility rejected
		or mandatory parameter missing. Interrogation rejected: the interrogation procedure is correct and the user has	SIT	* SC * 3 #	#29: facility rejected
		subscribed but the interrogation was rejected, e.g. supplementary service resource <u>congestion</u> Interrogation rejected: user has not	REC #6	none	#50: facility not
		subscribed for the service			<u>subscribed</u>

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	Activation /	Succesfull activation / registration	SCT	* SC * 1 #	#31: normal,
re	registration		3	3	unspecified
		Error in activation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SIT	* SC * 2 #	#29: facility rejected
		Activation rejected: the activation procedure	SIT	* SC * 3 #	#29: facility rejected
		is correct and the user has subscribed but the activation was rejected, e.g. supplementary	SI	30 3#	
		service resource congestion			
		Activation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
	Deactivation	Succesfull deactivation	SCT	# SC * 1 #	#31: normal, unspecified
		Error in deactivation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SIT	# SC * 2 #	#29: facility rejected
		Deactivation rejected: the deactivation procedure is correct and the user has subscribed but the deactivation was rejected,	SIT	# SC * 3 #	#29: facility rejected
		e.g. supplementary service resource			
		Deactivation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
Ir	nterrogation	Successful interrogation when the service is active	SCT	* SC * 1 * DN #	#31: normal, <u>unspecified</u>
		Successful interrogation when the service is not active	SIT	* SC * 0 #	#31: normal, unspecified
		Error in interrogation procedure : service code is correct but illegal value for parameter, <u>c</u> mandatory parameter missing.	SIT or	* SC * 2 #	#29: facility rejected
		Interrogation rejected: the interrogation procedure is correct and the user has subscribed but the interrogation was rejected, e.g. supplementary service resource	SIT	* SC * 3 #	#29: facility rejected
		congestion Interrogation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
W a	activation	Succesfull activation	SCT	* SC * 1 #	#31: normal, unspecified
		Error in activation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SIT	* SC * 2 #	#29: facility rejected
		Activation rejected: the activation procedure is correct and the user has subscribed but the activation was rejected, e.g. supplementary	SIT	* SC * 3 #	#29: facility rejected
		service resource congestion Activation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
a	leactivation	Succesfull deactivation	SCI	# SC * 1 #	#31: normal, unspecified
		Error in deactivation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SIT	# SC * 2 #	#29: facility rejected
		Deactivation rejected: the deactivation procedure is correct and the user has subscribed but the deactivation was rejected, e.g. supplementary service resource congestion	SII	# SC * 3 #	#29: facility rejected
		Deactivation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
F#	nterrogation	Successful interrogation when the service is active	SCT	* SC * 1 #	#31: normal, unspecified
		Successful interrogation when the service is not active	SIT	* SC * 0 #	#31: normal, unspecified
		Error in interrogation procedure : service code is correct but illegal value for parameter, <u>c</u> mandatory parameter missing.	SIT yr	*SC*2#	#29: facility rejected

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		Interrogation rejected: the interrogation procedure is correct and the user has subscribed but the interrogation was rejected, e.g. supplementary service resource	SIT	* SC * 3 #	#29: facility rejected
5 9		congestion Interrogation rejected: user has not	REC #6	none	#50: facility not
OCB	Activation / registration	subscribed for the service Succesfull activation / registration	SCT	* SC * 1 #	subscribed #31: normal, unspecified
		Error in activation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SIT	* SC * 2 #	#29: facility rejected
		Activation rejected: the activation procedure is correct and the user has subscribed but the activation was rejected, e.g. supplementary service resource congestion	SIT	* SC * 3 #	#29: facility rejected
		Activation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
	Deactivation	Succesfull deactivation	SCT	# SC * 1 #	#31: normal, unspecified
		Error in deactivation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SIT	# SC * 2 #	#29: facility rejected
		Deactivation rejected: the deactivation procedure is correct and the user has subscribed but the deactivation was rejected, e.g. supplementary service resource <u>congestion</u>	SIT	# SC * 3 #	#29: facility rejected
		Deactivation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
	Interrogation	Interrogation for 1 number when barring program is active for that number	SCT	* SC * 1 and for every BS an individual display IE *BS: <bs>*BP:<bp>*SUN:<sun> # *BS:<bs>*BP:<bp>*SUN:<sun> #</sun></bp></bs></sun></bp></bs>	#31: Normal, unspecified
		Interrogation for 1 number when no barring	SIT	<u>*BS:<bs>*BP:<bp>*SUN:<sun> #</sun></bp></bs></u> * SC * 0 #	#31: Normal,
		program is active for that number Error in interrogation procedure : service code is correct but illegal value for parameter, <u>o</u>	SIT T	* SC * 2 #	unspecified #29: facility rejected
		mandatory parameter missing. Interrogation rejected: the interrogation procedure is correct and the user has subscribed but the interrogation was rejected, e.g. supplementary service resource congestion	SIT	* SC * 3 #	#29: facility rejected
		Interrogation rejected: user has not subscribed for the service	REC #6	none	#50: facility not subscribed
ACR	activation	Succesfull activation	SCI	* SC * 1 #	#31: normal, unspecified
		Error in activation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SI	* SC * 2 #	#29: facility rejected
		Activation rejected: the activation procedure is correct and the user has subscribed but the activation was rejected, e.g. supplementary service resource congestion	SI	* SC * 3 #	#29: facility rejected
		Activation rejected: user has not subscribed for the service	REC#6	none	#50: facility not subscribed
	deactivation	Succesfull deactivation	SCT	# SC * 1 #	#31: normal, unspecified
		Error in deactivation procedure : service code is correct but illegal value for parameter, or mandatory parameter missing.	SIT	# SC * 2 #	#29: facility rejected
		Deactivation rejected: the deactivation procedure is correct and the user has subscribed but the deactivation was rejected,	SIT	# SC * 3 #	#29: facility rejected
		e.g. supplementary service resource congestion			

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F S	interrogation	Successful interrogation when the service is	SCT	* SC * 1 #	#31: normal,
	menogation	e e e e e e e e e e e e e e e e e e e	301	30 1#	· · · · · ·
		active			unspecified
		Successful interrogation when the service is	SIT	* SC * 0 #	#31: normal,
		not active			unspecified
		Error in interrogation procedure : service	SIT	* SC * 2 #	#29: facility rejected
		code is correct but illegal value for parameter, o	<u>×</u>		
		mandatory parameter missing.	-		
		Interrogation rejected: the interrogation	SIT	* SC * 3 #	#29: facility rejected
		procedure is correct and the user has			
		subscribed but the interrogation was rejected,			
		e.g. supplementary service resource			
		congestion			
		Interrogation rejected: user has not	REC #6	none	#50: facility not
		subscribed for the service			subscribed
GD	invocation	Succesfull invocation	SCT	* SC * 1 #	#31: normal,
					unspecified
		Error in invocation procedure : service code is	SIT	* SC * 2 #	#29: facility rejected
		correct but illegal value for parameter, or	-		, ,
		mandatory parameter missing.			
		Invocation rejected: the invocation procedure	SIT	* SC * 3 #	#29: facility rejected
		is correct and the user has subscribed but the		1	
		invocation was rejected, e.g. supplementary			
		service resource congestion			
		Invocation rejected: user has not subscribed	REC #6	none	#50: facility not
		for the service			subscribed
PIN	registration	Succesfull registration	SCT	* SC * 1 #	#31: normal,
	regionanon				unspecified
		Error in registration procedure : service code	SIT	* SC * 2 #	#29: facility rejected
		is correct but illegal value for parameter, or		00 2 #	#20. Idenity rejected
		mandatory parameter missing.			
		Registration rejected: the registration	REC	* SC * 3 #	#29: facility rejected
		procedure is correct and the user has	WR. PIN	30 3#	#29. facility rejected
		subscribed but new PIN was not accepted,	VVR. PIN		
		e.g. wrong number of digits or trivial PIN.	DEO #C		
		Registration rejected: user has not	REC #6	none	#50: facility not
		subscribed for the service.			subscribed

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Abbr.:	
ACR	Anonymous Call Rejection
BP	Barring Program
CFB	Call Forwarding Busy
CFNR	Call Forwarding on No Reply
CFU	Call Forwarding Unconditional
CW	Call Waiting
DN	Directory Number
FDC-T	Fixed Destination Call - Timed
FTN	Forwarded-To-Number
GD	General Deactivation Outgoing
OCB	Call Barring
PIN	Personal Identification Number (Password)
REC #6	Recorded announcement 6 :
	- "Uw oproep is niet toegelaten"
	- "Ce type d'appel n'est pas autorisé" - "Ihr
	Anruf ist nicht zugelassen"
	WR. Recorded announcement ico wrong personal identification number
PIN	- "Uw nieuwe PIN is niet aanvaard. Kiest U a.u.b. een minder eenvoudige PIN met 4 cijfers"
	<ul> <li>"Votre nouveau code personnel n'a pas été accepté. Veuillez choisir un code personnel moins simple à 4 chiffres"</li> </ul>
	<ul> <li>"Ihr neues PIN ist nicht acceptiert. W\u00e4hlen Sie bitte ein weniger einfaches PIN mit 4 Ziffern"</li> </ul>
SCT	Special Confirmation Tone
SUN	Served User Number
<u>SП</u>	Special Information Tone
•	

# 7.2. Tones, announcements, displays and causes - EWSD V16B

Suppl.	Procedure	Case	Tone or	Display	Cause
Serv.			Ann. EWSD <u>V16B</u>	EWSD V16B	EWSD V16B
CFx	Activation / registration	Successful activation / registration	SCT	SUCCESS	#16: Normal call clearing
		Error in activation procedure	SIT	See table 1	#16: Normal call clearing
		Activation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
	Deactivation / erasure	Successful deactivation	SCT	SUCCESS	#16: Normal call clearing
		Error in deactivation procedure	SIT	See table 1	#16: Normal call clearing
		Deactivation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
	Interrogation	Interrogation positive acknowledge	SCT	See table 2	#16: Normal call clearing
		Interrogation negative acknowledge	SIT	See table 2	#16: Normal call clearing
		Interrogation rejected	SIT	See table 2	#16: Normal call clearing
		Interrogation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
FDC-T	Activation / registration	Successful activation / registration	SCT	SUCCESS	#16: Normal call clearing
		Error in activation procedure	SIT	See Table 1	#16: Normal call clearing
		Activation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
	Deactivation	Successful deactivation	SCT	SUCCESS	#16: Normal call clearing
		Error in deactivation procedure	SIT	See Table 1	#16: Normal call clearing
		Deactivation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
	Interrogation	Interrogation positive acknowledge	SCT	See table 2	#16: Normal call clearing
		Interrogation negative acknowledge	SIT	See table 2	#16: Normal call clearing
		Interrogation rejected	SIT	See table 2	#16: Normal call clearing
		Interrogation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
CW	activation	Successful activation	SCT	SUCCESS	#16: Normal call clearing
		Error in activation procedure	SI	See Table 3	#16: Normal call clearing
		Activation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
	deactivation	Successful deactivation	SCI	SUCCESS	#16: Normal call clearing
		Error in deactivation procedure	SIT	See Table 3	#16: Normal call clearing
		Deactivation rejected: user has not subscribed for the service	REC#6	NO AUTHORIZATION	#16: Normal call clearing
	Interrogation	Interrogation positive acknowledge	SCT	See table 4	#16: Normal call clearing
		Interrogation negative acknowledge	SI	See table 4	#16: Normal call clearing
		Interrogation rejected	SI	See table 4	#16: Normal call clearing
		Interrogation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing

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OCB	Activation /	Successful activation / registration	SCT	SUCCESS	#16: Normal call
	registration				clearing
		Error in activation procedure	SIT	See Table 3	#16: Normal call clearing
		Activation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
	Deactivation	Successful deactivation	SCT	SUCCESS	#16: Normal call clearing
		Error in deactivation procedure	SIT	See Table 3	#16: Normal call clearing
		Deactivation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	
	Interrogation	Interrogation positive acknowledge	SCT	See table 4	#16: Normal call clearing
		Interrogation negative acknowledge	SIT	See table 4	#16: Normal call clearing
		Interrogation rejected	SIT	See table 4	#16: Normal call clearing
		Interrogation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
ACR	activation	Successful activation	SCT	SUCCESS	#16: Normal call <u>clearing</u>
		Error in activation procedure	SIT	See Table 3	#16: Normal call <u>clearing</u>
		Activation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call <u>clearing</u>
	deactivation	Successful deactivation	SCT	SUCCESS	#16: Normal call <u>clearing</u>
		Error in deactivation procedure	SIT	See Table 3	#16: Normal call <u>clearing</u>
		Deactivation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call <u>clearing</u>
	interrogation	Interrogation positive acknowledge	SCT	See table 4	#16: Normal call <u>clearing</u>
		Interrogation negative acknowledge	SIT	See table 4	#16: Normal call <u>clearing</u>
		Interrogation rejected	SIT	See table 4	#16: Normal call <u>clearing</u>
		Interrogation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call clearing
GD	invocation	Successful invocation	SCT	RESET SUCCESS	#16: Normal call <u>clearing</u>
		Error in invocation procedure	SIT	See Table 5	#16: Normal call <u>clearing</u>
		Invocation rejected: user has not subscribed for the service	REC #6	NO AUTHORIZATION	#16: Normal call <u>clearing</u>
PIN	registration	Successful registration	SCT	SUCCESS	#16: Normal call <u>clearing</u>
		Error in registration procedure	SII	See Table 3	#16: Normal call <u>clearing</u>
		Registration rejected: user has not subscribed for the service.	REC #6	NO AUTHORIZATION	#16: Normal call <u>clearing</u>

	Abbr. :		
	ACR	Anonymous Call Rejection	
	BP	Barring Program	
	CFB	Call Forwarding Busy	
	CFNR	Call Forwarding on No Reply	
	CFU	Call Forwarding Unconditional	
	CW	Call Waiting	
1	DN	Directory Number	
	FDC-T	Fixed Destination Call - Timed	
	FTN	Forwarded-To-Number	
	GD	General Deactivation Outgoing	
	OCB	Call Barring	
Ĩ	PIN	Personal Identification Number (Password)	
3	REC #6	Recorded announcement 6 :	
		<ul> <li>"Uw oproep is niet toegelaten"</li> </ul>	
		<ul> <li>"Ce type d'appel n'est pas autorisé" -</li> </ul>	"lhr
		Anruf ist nicht zugelassen"	
	SCT	Special Confirmation Tone	
1	SUN	Served User Number	
	<u>SIT</u>	Special Information Tone	

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#### Table 1 (Activation / Deactivation CFx/FDC)

Error	Display
B2 number blocked	UNSUCCESS
Feature DN invalid	WRONG INPUT
Feature DN is own number	WRONG INPUT
Feature DN has traffic restriction	UNSUCCESS
Not activated	UNSCCESS
PIN wrong	PIN WRONG
PIN blocked	PIN BLOCKED
Change default PIN	CHANGE PIN
Default PIN dialed	WRONG INPUT
Trivial PIN dialed	WRONG INPUT
Resource unavailable	UNSUCCESS
Access code blocked	REQUEST REJECTED
SCI restriction	REQUEST REJECTED
Stimulus request not allowed	REQUEST REJECTED
SCI rejected	UNSUCCESS

Remark: Not all entries are valid for each feature / action

#### Table 2 (Interrogation CFx/FDC)

Error	Display
Interrogate state positive acknowledge	ACTIVE <dn> (for single item interrogated)</dn>
interrogate state positive acknowledge	ACTIVE (for multiple items interrogated)
laterar acts state a setting a dama da das	
Interrogate state negative acknowledge	INACTIVE
Not activated	UNSUCCESS
Interrogate data positive acknowledge	<dn> (for single item interrogated)</dn>
	NUMBER AVAILABLE (for multiple items interrogated)
Interrogate data negative acknowledge	NUMBER NOT AVAILABLE
PIN wrong	PINWRONG
PIN blocked	PIN BLOCKED
Change default PIN	CHANGE PIN
Default PIN dialed	WRONG INPUT
Trivial PIN dialed	WRONG INPUT
Resources unavailable	UNSUCCESS
Access code blocked	REQUEST REJECTED
SCI restriction	REQUEST REJECTED
Stimulus request not allowed	REQUEST REJECTED
SCI rejected	UNSUCCESS
Remark: Not all entries are valid for each fea	ature / action

#### Table 3 (Activation / Deactivation ACR/OCB/CW/PIN)

Error	Display
B2 number blocked	UNSUCCESS
Feature DN invalid	WRONG INPUT
Feature DN is own number	WRONG INPUT
Feature DN has traffic restriction	UNSUCCESS
Not activated	UNSCCESS
PIN wrong	PINWRONG
PIN blocked	PIN BLOCKED
OCB invalid	UNSUCCESS
OCB not available	UNSUCCESS
Change default PIN	CHANGE PIN
Default PIN dialed	WRONG INPUT
Trivial PIN dialed	WRONG INPUT
Resources unavailable	UNSUCCESS
Access code blocked	REQUEST REJECTED
SCI restriction	REQUEST REJECTED
Stimulus request not allowed	REQUEST REJECTED
SCI rejected	UNSUCCESS
Romark: Net all antrian are valid for each fo	I dura / action

Remark: Not all entries are valid for each feature / action

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#### Table 4 (Interrogation ACR/OCB/CW/PIN)

Error	Display ACTIVE
Interrogate state positive acknowledge	INACTIVE
Interrogate state negative acknowledge	UNSUCCESS
Not activated	ACTIVE
Interrogate data positive acknowledge	INACTIVE
Interrogate data negative acknowledge	PIN WRONG
PIN wrong	PIN BLOCKED
PIN blocked	INACTIVE
OCB invalid	INACTIVE
OCB not available	CHANGE PIN
Change default PIN	WRONG INPUT
Default PIN dialed	WRONG INPUT
Trivial PIN dialed	UNSUCCESS
Resources unavailable	REQUEST REJECTED
Access code blocked	REQUEST REJECTED
SCI restriction	REQUEST REJECTED
Stimulus request not allowed	UNSUCCESS
SCI rejected	
Remark: Not all entries are valid for each fe	atura (action

SCI rejected Remark: Not all entries are valid for each feature / action

#### Table 5 (General deactivation)

Error	Display
B2 number blocked	UNSUCCESS
Not activated	UNSCCESS
PIN wrong	PIN WRONG
PIN blocked	PIN BLOCKED
Change default PIN	CHANGE PIN
Default PIN dialed	WRONG INPUT
Trivial PIN dialed	WRONG INPUT
Resource unavailable	UNSUCCESS
Access code blocked	REQUEST REJECTED
SCI restriction	REQUEST REJECTED
Stimulus request not allowed	REQUEST REJECTED
<u>SCI rejected</u>	UNSUCCESS

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