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Tables

A Format of Original Bills

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A.1 Bill Interface Data Between U-SYS SoftX3000 and iGWB

Table A-1 lists the bill interface data between the U-SYS SoftX3000 and the iGWB V2.

Table A-1 U-SYS SoftX3000 bill interface data

Product	Original Bill Bytes (Header Csn Not Included)	Default Final Bill Bytes	Description
SoftX3000	953	953	Original Bills are used for the charging bill. The basic part of the bill is 200-byte long. If the Call Sequence Number (Csn) is removed, it is196-byte long. The variable part of the bill is 757-byte long.
iGWB	953	907 (Ordinary Detail Bill Format)	The primary server uses the compressed bill format. The bill format includes the basic part and the variable part. The variable part consists of various matchable field sets. A field set is decided by the parameter set on the primary server. Other field sets contain null values.

NOTE

The format of original bills change frequently, so this format is for reference only.

A.2 U-SYS SoftX3000 Bill Format

A.2.1 Fixed IN Bill

The fields in the fixed IN bill are listed in Table A-2.

Table A-2 Fields in the fixed IN bill

Field	Length (Bytes)	Data Type	Offset	Description
Csn	4	unsigned long	0	It identifies a bill. It is a number when a bill is generated by the SoftX3000. It is expressed in decimal.
Length	2	unsigned short	4	Calculated from **Net type**. It is expressed in decimal.
Net type	1	unsigned char	6	=11: fixed network bill =22: mobile network bill It is expressed in enumerated values.
Bill type	1	unsigned char	7	0x03: IN record
Check sum	1	unsigned char	8	It is used for checking whether the bill is saved correctly. It is a kind of checking mode. This field is not available in GB. It occupies one byte.
Partial record indicator	0.5	4 bit	9	It can only be set to **0**, indicating a single record reserved when the IN bill is integrated with the ordinary bill. It overlaps the charging record indicator. It uses one byte together with the validity flag and the reserved bit, and this indicator uses the last 4 bits in this byte. It is expressed in decimal.
Valid indicator	0.125	1 bit	9.5	=0: valid =1: invalid It is expressed in decimal.
Spared	0.375	3 bit	9.625	It is reserved.

Field	Length (Bytes)	Data Type	Offset	Description
Intelligent bill related flag	4	struct	10	=0: not available in a bill =1: available in a bill This field is used for the realization of ACR program in the INAP operation, and is useless to the user. Each field flag occupies a bit, as shown below. Caller number address indicator flag: =0: not indicated =1: indicated The same applies to the following: • Caller number flag • Location number address flag • Charging category flag • Charging mode flag • Partial record flag • Location number flag • Called number address flag • Called number flag • Destination number address flag • Destination number flag • Charging number address information flag • Charging number flag • Incoming trunk flag • Outgoing trunk flag • Answer time flag • Call end time flag • Conversation duration flag • Call charging flag • Traffic type flag • Release cause flag • Indication flag • Call subscriber category flag • Bearer capability flag • Final service flag • Tariff modulate flag • Premium flag • Transparent charging flag The other 4 bits are reserved. It is expressed in decimal.

Field	Length (Bytes)	Data Type	Offset	Description
Record type	1	unsigned char	14	It identifies the type of a bill, such as IN bill and ordinary bill. It can only be set to **3** in the IN bill and has the same meaning as **Net type** which is set to **3** in the field. 0x03: IN record It is expressed in enumerated values.
Charging record indicator	2	unsigned short	15	It is an array subscript and controls which called subscriber hooks off when there are multiple called subscribers (for example, simultaneous ringing). It is used for the AC operation in INAP, ranging 1-127. This field is useless for the users. It is expressed in decimal.
Charging category	2	unsigned short	17	It is an integer configured by command and relates to such factors as rate, charging form and discount case. For example, for a toll call, the meter counts every one minute with the rate of 0.8 RMB and half the rate on holidays. In this case, it corresponds to the value **1**. It ranges from 1 to 1000 as specified by INAP. It is expressed in decimal.
Charging mode	1	unsigned char	19	=0: free =1: charging It is expressed in enumerated values.
Partial record indicator	1	unsigned char	20	For a call with overlong conversation duration, multiple bills can be generated to record the call case. It enumerated values are as follows: =0: single bill =1: first bill of this call =2: intermediate part bill of this call =3: last bill of this call

Field	Length (Bytes)	Data Type	Offset	Description
Caller number address information indicator	1	unsigned char	21	When a call is a local call, it corresponds to subscriber number; when a call is a national toll call, it corresponds to national valid number; when a call is an international toll call, it corresponds to international valid number. The actual meanings are as follows: =0: reserved =1: subscriber number =2: reserved =3: domestic valid number =4: international valid number It is expressed in enumerated values.
Caller number description	14	struct	22	Caller number is inherited from the AC operation number description. Only the address nature indicator and number content are useful to the users. The specific meanings are as follows: Address nature indicator: 7 bits, here, =0: reserved =1: subscriber number =2: reserved =3: domestic valid number =4: international valid number Odd/even indicator: 1 bit, here, =0: The address information is even. =1: The address information is odd. Mask indicator: 2 bits, here, =0: provided by the subscriber and not checked =1: provided by the user, checked and passed =2: provided by the user, checked and faulty =3: provided by the network Address presentation restriction indicator: 2 bits, here, =0: The presentation is allowed. =1: The presentation is restricted. Numbering plan indicator: 3 bits, here, =0: reserved =1: ISDN number plan =3; data number plan =4: subscriber telex number plan Caller number incomplete indicator: 1 bit, here,

Field	Length (Bytes)	Data Type	Offset	Description
				=0: complete number =1: incomplete number Number length: 5 bits Reserved: 3 bits Content of number: 11 bytes, BCD code
Location address information indicator	1	unsigned char	36	See the caller address information indicator.
Location number description	14	struct	37	See the caller number description
Called number address information indicator	1	unsigned char	51	See the caller address information indicator.
Called number description	14	struct	52	See the caller number description. The mask indicator and address presentation restriction indicator are not contained. The 4 bits occupied by these 2 fields are reserved.
Destination number address information indicator	1	unsigned char	66	See the caller address information indicator.
Destination number description	14	struct	67	See the called number description.
Paid party indicator	1	unsigned char	81	It is equal to the charge party ID indicator in GB. For its meaning, see GB.
Designated charge number address information indicator	1	unsigned char	82	It is the same as the charge number address nature indicator. See the description of the caller number address information indicator.
Designated charging number	11	BCD	83	When the third party is adopted for charging, keep the third party number. It is expressed in BCD code. When it is set to **OxFF**, it is valid.

Field	Length (Bytes)	Data Type	Offset	Description
In trunk group	2	unsigned short	94	For an incoming call or transit call, it is used to indicate the in-trunk number. It is expressed in decimal. When it is set to **65535**, it is valid.
Out trunk group	2	unsigned short	96	For an outgoing call or transit call, it is used to indicate the out-trunk number. It is expressed in decimal. When it is set to **65535**, it is valid.
Answer time	6	BCD	98	It is up to the accuracy of one second for the time when a callee hooks off. It is in the **YYMMDDHHMMSS** format. These 6 bytes record year, month, day, hour, minute, second in the BCD form respectively.
Conversation end time	6	BCD	104	It is up to the accuracy of one second. It is in the **YYMMDDHHMMSS** format. These 6 bytes record year, month, day, hour, minute, second in the BCD form respectively.
Conversation time	4	unsigned long	110	It is the duration of IN conversation recorded by the SoftX3000, expressed in long integer. The unit is equal to IN charging precision 10 ms of SoftX3000.
Conversation charge	8	double	114	It is the same as international charge field.
Traffic type	0.5	4 bit	122	It defines the relationship of the caller and callee. When a local subscriber is called, the bill is of traffic local; when a national toll subscriber is called, the bill is of traffic domestic incoming; when an international toll subscriber is called, the bill is of traffic international incoming. Currently, only traffic local, traffic domestic outgoing and traffic international incoming are used. =2: traffic international tandem =3: traffic local =4: traffic facility =5: traffic domestic outgoing =6: traffic international outgoing =7: traffic domestic incoming =8: traffic international incoming =9: traffic tandem It is expressed in enumerated values.

Field	Length (Bytes)	Data Type	Offset	Description
Release cause	0.5	4 bit	122.5	At present, only calling on hook, called on hook and abnormal end are used. =0: calling on hook =1: called on hook =2: abnormal end It is expressed in enumerated values.
Caller category	1.5	12 bit	123	It identifies the category of a caller. =0: caller category unknown =1: operator in French =2: operator in English =3: operator in German =4: operator in Russian =5: operator in Spanish =6: operator two side define1 =7: operator two side define2 =8: operator two side define3 =9: national operator =10: national calling user =11: priority calling user (toll-toll call, toll-local call, local-local call) =12: data call =13: test call =14: pay phone It is expressed in enumerated values.
Identifier	0.5	4 bit	124.5	This field is invalid and is not used.
Bearer capability	3	struct	125	It identifies the capability of information transmission, such as code standard, transmission rate and transmission mode. These features are related to links. Transmission capability: 5bit =0: speech (for non-ISDN subscribers) =8: unrestricted information =9: restricted information =16: 3.1-Khz audio =17: 7.1-Khz audio (unrestricted with tones) =24: video It is expressed in enumerated values. Code standard: 2bit =0: CCITT standard

Field	Length (Bytes)	Data Type	Offset	Description
				=1: ISO standard =2: national standard =3: network standard It is expressed in enumerated values. Ext1: 1 bit It is fixedly set to **1**. It is not displayed. Transmission rate: 5 bit =0: packet calls =16: 64kbit/s (circuit 64k) =17: 2*64kbit/s (circuit 128k) =19: 384kbit/s (circuit 384k) =21: 1532kbit/s (circuit 1532k) =23: 1920kbit/s (circuit 1920k) =24: 64kbit/s (multirate 64k) It is expressed in enumerated values. Transmission mode: 2 bit
Service type	0.5	4 bit	128	It is equal to the teleservice in GB. The value is always set to **1**. If no other location fields are added, then only one byte is occupied. Service type occupies the last four bits. Four bits are reserved.
Spared	0.5	4 bit	128.5	It is reserved.

Field	Length (Bytes)	Data Type	Offset	Description
Tariff	4	struct	129	Service-related discount is determined by service. For a call made by an 800 service subscriber, when the number of call times or the fee of call exceeds the threshold, the 800 service subscriber can enjoy a certain discount. There are two types: modulate rate and modulate fee. Modulate rate changes with time. Modulate fee refers to the discount on the total fee and it has nothing to do with time. Modulator type is expressed in enumerated values; discount value is expressed in decimal. Charging modulate rate: 2 bytes Charging modulator type: 2 bytes Charging modulator type: =1: rate discount =2: fee discount Modulator type is expressed in enumerated values. =0: invalid Modulate rate is expressed in decimal.
Premium	8	double	133	It relates to such factors as different IN services and different surcharge regulations. The surcharge rate is based on each metering for a call or a complete call. It is expressed in decimal. =0: invalid
Transparent transmission charge parameter	20	BCD	141	It differentiates IN bill from ordinary bill. It displays the contents of 20 bytes, not ending with F. It is expressed in hexadecimal. =0x00: invalid
RxFlux	4	unsigned long	161	It indicates the number of bytes received by the caller and callee in a call. It is expressed in decimal. =0: invalid
TxFlux	4	unsigned long	165	It indicates the number of bytes sent by the caller and callee in a call. It is expressed in decimal. =0: invalid
Caller side media gateway/ terminal IP address	4	unsigned long	169	It identifies the media gateway of a caller side or the IP address of a terminal. = 0xFF: invalid. It is expressed in dotted decimal, such as 182.20.40.111.

Field	Length (Bytes)	Data Type	Offset	Description
Called side media gateway/ terminal IP address	4	unsigned long	173	It identifies the media gateway of a callee side or the IP address of a terminal. =0xFF: invalid It is expressed in dotted decimal, such as 182.20.40.111.
Caller side SoftSwitch equipment IP address	4	unsigned long	177	It identifies the softswitch equipment IP address of a caller side. =0xFF: invalid It is expressed in dotted decimal, such as 182.20.40.111.
Called side SoftSwitch equipment IP address	4	unsigned long	181	It identifies the softswitch equipment IP address of a callee side. =0xFF: invalid. It is expressed in dotted decimal, such as 182.20.40.111.
Module number	1	unsigned long	185	It identifies which FCCU generates the bill. It is expressed in decimal.
Local csn	4	unsigned long	186	The serial number of the bill generated after a current module is started, is expressed in long integers. In case of power failure for single configuration or dual configuration of module, the serial number will be recalculated again when the module is restarted. It is expressed in long integers.
Spared	18	unsigned char	190	It specifies the service keys used by IN services.
Incoming trunk name	16	unsigned char	194	It specifies the trunk name of the incoming trunk.
Outgoing trunk name	16	unsigned char	210	It specifies the trunk name of the outgoing trunk.
Balance	4	unsigned char	226	It specifies the balance recorded in the bill before the conversation.
Spared	120		230	It is reserved.
Total length of information			350	

A.2.2 Fixed Ordinary Detail Bill Format

Overview

The primary server uses the compressed bill format. The bill format includes the basic part and the variable part. The variable part consists of various matchable field sets. A field set is determined by the parameter set on the primary server. The network module of the iGWB uses the 953-byte format. Other field sets contain null values.

The fields of variable part as follows:

0: Flux

1: IP address

2: Original number

3: EID

4: Seizure duration

5: SPC

6: Call seizure time

7: Trunk group name

8: Local exchange information

9: Prepay

10: Time zone and slot

11: Port and traffic dispersion

12: Mixed field1

13: Mixed field2

14: CF number

15: Reserve field1

16: Reserve field2

17: NP

18: MON

19: Mixed field 5

20: Reserve field 6

21: Caller CALL-ID High 32 Bytes

22: Caller CALL-ID Low 32 Bytes

23: Called CALL-ID High 32 Bytes

24: Called CALL-ID Low 32 Bytes

Basic Part

The fields in the basic part are listed in Table A-3.

Table A-3 Fields in the basic part

Field	Length (Bytes)	Data Type	Offset	Remark
Csn	4	unsigned long	0	A serial number is generated automatically for a bill generated by the SoftX3000. It identifies the bill and is expressed in decimal.
Bill length	2	unsigned short	4	It is used to record the bill length, calculating from Net type. The current bill is configurable. If the current bill does not have configurable fields, its calculation only includes the basic fields; if the current bill has configurable fields; its calculation includes the configurable fields. It is expressed in decimal.
Net type	1	unsigned char	6	=11: fixed network bill =22: mobile network bill It is expressed in enumerated values.
Bill type	1	unsigned char	7	0x01: Detailed ticket 0x02: DBO call record 0x03: IN record 0x05: TAX record 0xF0: Meter table ticket 0xF1: Meter table statistics 0xF2: Trunk duration statistics 0xF3: Free call statistics 0xF4: SCCP meter table ticket 0xFF: Warn ticket 0x55: Failed call ticket 0x66: Failed IN record Note: 0x01 means that the ticket be explained by this table.

Field	Length (Bytes)	Data Type	Offset	Remark
Check sum	1	unsigned char	8	It is used for checking whether the bill is saved correctly. It is a type of checking mode. It does not include in GB. It occupies one byte.
Partial record indicator	0.5	4 bit	9	If it is defaulted by the system, for a call, the SoftX3000 generates a bill, also called single record, completely recording the call information when the call ends. If segmented bill functions, the system generates segmented bills regularly according to the preset configuration, with a segmented bill recording part of the call information. The first segmented bill is called first part of record; the last segmented bill is called last part of record; the intermediate segmented bill is called intermediate part of record. When the call ends, a single record of multi-record bill is generated. You can choose complete bill or segmented bill. When you choose segment bill, complete bill is generated in the form of failed call bill; if you choose complete bill, segmented bill is generated in the form of failed call bill. =0: single record =1: first part of record =2: intermediate part of record =3: last part of record =4: single record for multi-record bill It is expressed in enumerated values.

Field	Length (Bytes)	Data Type	Offset	Remark
Valid indicator	0.125	1 bit	9.5	It determines whether the bill is valid. =0: valid =1: invalid It is expressed in enumerated values.
Clock indicator	0.125	1 bit	9.625	Indicates Whether The Clock Is Modified During The Call Process (For Example, Whether The Host Time Has Been Modified Via BAM): =0: Yes =1: No
Free indicator	0.125	1 bit	9.75	It defines whether the call is free. =0: free =1: charging It is expressed in enumerated values.
Call attempt indicator	0.125	1 bit	9.875	It defines whether to charge for a call attempt. =0: free call attempt =1: charged call attempt
Complain indicator	0.125	1 bit	10	It indicates whether the bill is generated because of the subscriber or trunk complaint. If subscribers have any question about the bill, they need to query fees of each call. In configuring subscriber or trunk data, if you have set subscriber or trunk charging complaint attribute to complaint request, the system will charge normally and at the same time generate a detailed bill indicating that complaint flag has been set to complaint request. =0: no complaint =1: complaint It is expressed in enumerated values.

Field	Length (Bytes)	Data Type	Offset	Remark
Cama charge indicator	0.125	1 bit	10.125	Centralized charging is that a high-level office charges all calls from other office in the local network. It is mainly used between toll offices and end offices which are interworking through ISUP, and charges the calls from a toll office to an end office. =0: non-centralized charging =1: centralized charging It is expressed in enumerated values.
Credit indicator	0.125	1 bit	10.25	It defines whether the call is a credit call. =0: No. =1: Yes. It is expressed in enumerated values.
Call forward flag	0.125	1 bit	10.375	It defines whether it is a forward call. =0: No. =1: Yes. It is expressed in enumerated values.

Field	Length (Bytes)	Data Type	Offset	Remark
Charge party indicator	0.5	4 bit	10.5	=0: free of charge =1: charging the calling party =2: charging the called party =3: charging the destination address number (used in IN) =4: third party charged, which can be divided into case 11, 12, 13 and 14 =9: charging incoming trunk =10: charging outgoing trunk =11: charging calling party (third party charged) =12: charging called party (third party charged) =13: charging incoming trunk (third party charged) =14: charging outgoing trunk (third party charged) =15: no charging It is expressed in enumeration.
Answering time	6	unsigned char	11	Indicates the start time of answering. The format is: YYMMDDHHMMSS, binary: YY:00-99(binary) MM: 1-12 (binary) DD: 1-31 (binary) HH:0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) It is expressed in decimal, such as 2005-12-23 12:26:41.

Field	Length (Bytes)	Data Type	Offset	Remark
Call end time	6	unsigned char	17	Indicates the end time of conversation. The format is: YYMMDDHHMMSS, binary: YY:00-99 (binary) MM: 1-12 (binary) DD: 1-31 (binary) HH:0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) It is expressed in decimal, such as 2005-12-23 12:26:41.
Conversation duration	4	unsigned long	23	The duration of this conversation recorded by the SoftX3000, expressed in long integer. The unit is 10 ms.
Caller local dnset	2	unsigned short	27	Indicates the local DN set which the caller belongs to.
Caller address nature	1	unsigned char	29	Indicates the address nature of the calling number. =0: subscriber number, caller number = local number =1: spared =2: domestic valid number, caller number =toll area code + local number =3: international number, caller number =country code + toll area code + local number It is expressed in enumeration.
Caller number	16	BCD	30	Compressed with compressed BCD code. The surplus bits are filled with **0xF**.
callee local dnset	2	unsigned short	46	Indicates the local DN set which the callee belongs to. It ranges from 0 to 65534. =65535: invalid. It is expressed in decimal.

Field	Length (Bytes)	Data Type	Offset	Remark
callee address nature	1	unsigned char	48	Indicates the address nature of called number. =0: subscriber number, called number = local number =1: spared =2: domestic valid number, called number =toll area code + local number =3: international number, called number =country code + toll area code + local number =7: JAZZTEL NP (for Spanish JAZZTEL NP only) It is expressed in enumeration.
Callee number	16	BCD	49	Compressed with compressed BCD code. The surplus bits are filled with **0xF**.
Centrex group number	2	unsigned short	65	Indicates the Centrex group number which the caller belongs to. It ranges from 0 to 65535. In the case of non-Centrex group subscriber, =0XFFFF: invalid
Caller centrex number	5	BCD	67	Indicates the short number of caller within the Centrex group, expressed in BCD code. If this field is not available, each bit should be filled with **0xF**.
callee centrex number	5	BCD	72	Indicates the short number of called party within the Centrex group, expressed in BCD code. If this field is not available, each bit should be filled with **0xF**.
Incoming trunk group	2	unsigned short	77	It is the group number of incoming trunk, ranging from 0 to 65535. If this call is not via incoming trunk, it is set to **65535**. It is expressed in enumeration.

Field	Length (Bytes)	Data Type	Offset	Remark
Outgoing trunk group	2	unsigned short	79	Indicates the group number of outgoing trunk, ranging from 0 to 65535. If this call is not via outgoing trunk, it is set to **65535**. It is expressed in enumeration.
Caller equipment type	1	unsigned char	81	Indicates the equipment type of the calling party in local office. For details, see section A.3.3 "Caller_did/Callee_did."
Callee equipment type	1	unsigned char	82	Indicates the equipment type of the called party in local office, ranging from 0 to 255. For details, see section A.3.3 "Caller_did/Callee_did."

Field	Length (Bytes)	Data Type	Offset	Remark
Caller category	1	unsigned char	83	Indicates the category of a caller. The SoftX3000 defines different authority of different subscriber authorities. • Ordinary: It indicates that it has no priority to choose routes during system congestion. For example, it cannot take the reserved circuits of ISUP trunk group. And it will be the first to be barred once system overload occurs and the last to be retrieved lastly once the system overload is restored. • Priority: It indicates that it has the priority to choose routes during system congestion. For example, it can take the reserved circuits of ISUP trunk group. And it will be the last to be barred once system overload occurs and the first to be retrieved once the system overload is restored. • Operator: It is used for operators or console subscribers. Operators or console subscribers can forcedly break in, or forcedly release, or monitor other subscribers. • Data: Other subscribers (including operators) cannot forcedly break in, or forcedly release, or monitor the subscribers with this authority. • Test: Only operators and console subscribers can have this authority to use the dedicated line call service. For details, see section A.3.4 "Caller/Callee Category." It is expressed in enumeration.

Field	Length (Bytes)	Data Type	Offset	Remark
Callee category	1	unsigned char	84	For details, see section A.3.4 "Caller/Callee Category."
Call type	0.5	4 bit	85	It indicates the type of a call. It categorizes the call based on whether the call belongs to the local office. For example, if both the caller and callee belong to the local office, the call is categorized as an intra-office call; if the caller belongs to the local office, and the callee belongs to a non-local office, the call is categorized as an outgoing office call; if the caller belongs to a non-local office, and the callee belongs to the local office, it is categorized as an incoming office call; if neither the caller or the callee belongs to the local office, it is categorized as a tandem call. =1: intra-office call =2: incoming office call =3: outgoing office call =4: tandem call =5: supplementary service call It is expressed in enumerated values.
Release party	0.5	4 bit	85.5	It indicates the party of a call which is to be released. =0: caller party release =1: called party release =2: inter release =3: peer caller release =4: peer called release It is expressed in enumerated values.

Field	Length (Bytes)	Data Type	Offset	Remark
Service type	1	unsigned char	86	It indicates the party of a call which is to be released. =0: caller party release =1: called party release =2: inter release =3: peer caller release =4: peer called release It is expressed in enumerated values.
Termination code	1	unsigned char	87	For details, see section A.3.5 "Failure Cause Code."
Caller call source code	2	unsigned short	88	Indicates the call source code of a caller. Call source refers to a set of subscribers or trunks, which have some attributes in common, such as local DN set, route selection source code, failure source code. It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Callee call source code	2	unsigned short90	90	Indicates the call source code of a callee. For details, see "Caller call source code." It ranges from 0 to 65534. It is expressed in enumerated values.
Supplementary service type	2	unsigned short	92	For details, see section A.3.6 "Supplementary_service_type."
Charging case	2	unsigned short	94	Indicates the charging case matching a call. If there is no charging case matching a call, = 65535: invalid It ranges from 0 to 29999.
Pulse count	4	unsigned long	96	Indicates the charging pluses of a call. It is expressed in decimal.

Field	Length (Bytes)	Data Type	Offset	Remark
Connected number local dnset	2	unsigned short	100	Indicates the local DN set which a connected number belongs to. The connected number refers to the number connected to the calling number actually. In general, the connected number is the called number. If the called number is forwarded, the connected number is the forwarded-to number. It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Connected number address nature	1	unsigned char	102	=0: subscriber number, connected number = local number =1: spared =2: national valid number, connected number = toll area code + local number =3: international number, connected number = country code+ toll area code + local number =7: JAZZTEL NP (for Spanish JAZZTEL NP only) It is expressed in enumeration.
Connected number	16	BCD	103	The connected number refers to the actual connection number of this call. It is used to display the information. It is expressed in the compressed BCD code, and the surplus bits are filled by **0xF**. In normal cases, the connected number is equal to the called number. If the call transfer of the called subscriber takes place, the connected number is the connection number after the transfer.

Field	Length (Bytes)	Data Type	Offset	Remark
Charge number local dnset	2	unsigned short	119	Indicates the local DN set to which the charge number belongs. The value ranges from 0 to 65534. 65535: invalid It is expressed in decimal.
Charge number address nature	1	unsigned char	121	=0: subscriber number, charging number = local number =1: spared =2: national valid number, charging number = toll area code + local number =3: international number, charging number = country code+ toll area code + local number =4: account card, A card =5: account card, B card =6: account card, C card =7: account card, D card =8: VISA card =9: CTX group number =10: CTX intra-group extension number =11: Bank 1 =12: Bank 2 =13: Bank 3 =14: Bank 4 =15: Reserved =255: Invalid
Charge number	16	BCD	122	Describes various kinds of subscriber number, card number, account in the compressed BCD mode (including Centrex group number), and the surplus bits are filled with **0xF**.

Field	Length (Bytes)	Data Type	Offset	Remark
Service bearer type	1	unsigned char	138	=1: circuit mode, 64 Kbps unrestricted, 8 KHZ structured bearer service =2: circuit mode, 64 Kbps, 8 KHZ structured bearer voice, including 100, 101, 102 and 103 =3: circuit mode, 64 Kbps, 8 KHZ structured bearer 3.1 KHZ voice =4: packet mode, ISDN virtual call, permanent virtual circuit service is accessed by the subscribers provided through the B channel =5: subscriber signaling bearer service =7: circuit mode, 2 X 64 Kbps unrestricted, 8 KHZ structured bearer service type =8: circuit mode, 6 X 64 Kbps unrestricted, 8 KHZ structured bearer service type =9: circuit mode, 24 X 64 Kbps unrestricted, 8 KHZ structured bearer service type =10: circuit mode, 30 X 64 Kbps unrestricted, 8 KHZ structured bearer service type =11: Packet audio service =12: Packet video service =13: fax service =14: MODEM service =100: voice service. Analog subscriber calls analog subscriber. =101: voice service. Analog subscriber calls digital subscriber. =102: voice service. Digital subscriber calls analog subscriber. =103: voice service. Digit subscriber calls digit subscriber. =255: unknown

Field	Length (Bytes)	Data Type	Offset	Remark
				The others: Reserved Others: reserved
Dial number	16	BCD	139	Expressed in the compressed BCD code, and the surplus bits are filled with **0xF**.
Partial counter	1	unsigned char	155	When it is a long duration call, the partial bill's Partial_counter increases by degrees from 01 to 99. When it is greater than 99, Partial_counter increases by degrees from 00 again. When it is not a long duration call, the single bill's Partial_counter is 01.
Module number	1	unsigned char	156	Specifies the number of the module that generates the bill.
Local csn	4	unsigned long	157	A serial number is generated automatically for each bill generated by a module. It is used to identify a bill from the module.
Spare	39	unsigned char	161	Reserved. All bits are filled with **0xFF**.
Total Length	None	None	200	

Variable Part-Flux Fields

The flux fields in the variable part are listed in Table A-4.

Table A-4 Flux fields in the variable part

Filed	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **0**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **CLI_rec_flux_H** (its offset is 2). It can only be set to **32**. =0: invalid

Filed	Length (Byte)	Data Type	Offset	Remark
Receive flux of caller side, high 4 bytes	4	unsigned long	2	Indicates the number of bytes the caller receives. High 4 bytes =0: invalid It is expressed in hexadecimal.
Receive flux of caller side, low 4 bytes	4	unsigned long	6	Indicates the number of bytes the caller receives. Low 4 bytes =0: invalid It is expressed in hexadecimal.
Send flux of caller side, high 4 bytes	4	unsigned long	10	Indicates the number of bytes the caller sends. High 4 bytes =0: invalid It is expressed in hexadecimal.
Send flux of caller side, low 4 bytes	4	unsigned long	14	Indicates the number of bytes the caller sends. Low 4 bytes =0: invalid It is expressed in hexadecimal.
Receive flux of callee side, high 4 bytes	4	unsigned long	18	Indicates the number of bytes the callee receives. High 4 bytes =0: invalid It is expressed in hexadecimal.
Receive flux of callee side, low 4 bytes	4	unsigned long	22	Indicates the number of bytes the callee receives. Low 4 bytes =0: invalid It is expressed in hexadecimal.
Send flux of callee side, high 4 bytes	4	unsigned long	26	Indicates the number of bytes the callee sends. High 4 bytes =0: invalid It is expressed in hexadecimal.
Send flux of callee side, low 4 bytes	4	unsigned long	30	Indicates the number of bytes the callee sends. Low 4 bytes =0: invalid It is expressed in hexadecimal.
Total length			34	

Variable Part-IP Address Fields

The IP address fields in the variable part are listed in Table A-5.

Table A-5 IP address fields in the variable part

Filed	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	In the IP address fields, it can only be set to **1**. =0xFF: invalid
Length	1	unsigned char	1	It is calculated from IP Address of Caller GK or softswitch (Its offset is 2). It can only be set to **25**. =0: invalid
IP address of caller GK or SoftSwitch	4	unsigned long	2	Specifies the IP address of the GK or softswitch at the caller side. =0xFFFFFFFF: Invalid It is expressed in dotted decimal, such as 182.20.40.111.
IP address of caller GW or terminal	4	unsigned long	6	Specifies the IP address of the GW or softswitch at the caller side. =0xFFFFFFFF: Invalid It is expressed in dotted decimal, such as 182.20.40.111.
IP Address of Callee GK or SoftSwitch	4	unsigned long	10	Specifies the IP address of the GK or softswitch at the callee side. =0xFFFFFFFF: Invalid It is expressed in dotted decimal, such as 182.20.40.111.
IP address of callee GW or terminal	4	unsigned long	14	Specifies the IP address of the GW or softswitch at the callee side. =0xFFFFFFFF: Invalid It is expressed in dotted decimal, such as 182.20.40.111.
Caller roam IP address	4	unsigned long	18	Specifies the roam IP address of the caller. =0xFFFFFFFF: Invalid It is expressed in dotted decimal, such as 182.20.40.111.

Filed	Length (Byte)	Data Type	Offset	Remark
callee roam IP address	4	unsigned long	22	Specifies the roam IP address of the callee. =0xFFFFFFFF: Invalid It is expressed in dotted decimal, such as 182.20.40.111.
Caller roam mode	0.5	4 bit	26	Specifies the roam mode of the GW or terminal at the caller side. =0: No roam =1: Local roam =2: Roam within current province =3: National roam =4: International roam =5: Other Roam =6: Unknown
callee roam mode	0.5	4 bit	26.5	Specifies the roam mode of the GW or terminal at the callee side. =0: No roam =1: Local roam =2: Roam within current province =3: National roam =4: International roam =5: Other Roam =6: Unknown
Total length			27	

Variable Part-Original Number Fields

The original number fields in the variable part are listed in Table A-6.

Table A-6 Original number fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	In the flux fields, it can only be set to **2**. =0xFF: invalid

Field	Length (Byte)	Data Type	Offset	Remark
Length	1	unsigned char	1	Calculated from **caller number before change** (its offset is 2). It can only be set to **38**. =0xFF: invalid
Caller local dnset before change	2	unsigned short	2	It specifies the local DN set of the caller number before change. The value range is from 0 to 65534. The value **65535** is invalid. It is expressed in decimal.
Caller address nature before change	1	unsigned char	4	It specifies the address nature of the caller number before change. The values are as follows: 0: subscriber number 1: spared 2: national valid number 3: international number It is displayed in enumeration.
Caller number before change	16	BCD	5	Expressed in the compressed BCD code, and the surplus bits are filled with **0xF**. =0xFF: invalid
Callee local dnset before change	2	unsigned short	21	It specifies the local DN set of the callee number before change. The value is from 0 to 65534. The value **65535** is invalid. It is displayed in decimal.
Callee address nature before change	1	unsigned char	23	It specifies the address nature of the callee number before change. 0: subscriber number 1: spared 2: national valid number 3: international number 7: AZZTEL NP (for Spanish JAZZTEL NP only) It is displayed in enumeration.

Field	Length (Byte)	Data Type	Offset	Remark
Callee number before change	16	BCD	24	Indicates the called number occurred at network side, compressed in compressed BCD code, and the surplus bits are filled with **0xF**. =0xFF: invalid
Total length			40	

Variable Part-EID Fields

The EID fields in the variable part are listed in Table A-7.

Table A-7 EID fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	In the flux fields, it can only be set to **3**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **Ingress Media Gateway ID** (its offset is 2). It can only be set to **64**. =0xFF: invalid
Ingress media gateway ID	32	string	2	Specifies the name of caller gateway, pre-defined in signaling such as H.248, MGCP, H.323, and SIP. =0xFF: invalid It is expressed in character string.
Egress media gateway ID	32	string	34	Specifies the name of called gateway, pre-defined in the used signaling such as H.248, MGCP, H.323, and SIP. =0xFF: invalid It is expressed in character string.
Total length			66	

Variable Part-Seizure Duration Fields

The seizure duration fields in the variable part are listed in Table A-8.

Table A-8 Seizure duration fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **4**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **caller seize duration** (its offset is2). For the seizure duration fields, it can only be set to **8**. =0: invalid
Caller seize duration	4	unsigned long	2	The call duration is from the moment the SoftX3000 receives the setup message from the caller to the moment the call ends, expressed in 10 ms. It is expressed in decimal.
Callee seize duration	4	unsigned long	6	The call duration is the moment the SoftX3000 sends the setup message to the callee to the moment the call ends, expressed in 10 ms. It is expressed in decimal.
Total length			10	

Variable Part-SPC

The SPC fields in the variable part are listed in Table A-9.

Table A-9 SPC fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **5**. =0xFF: invalid

Field	Length (Byte)	Data Type	Offset	Remark
Length	1	unsigned char	1	Calculated from **OPC** (its offset is 2). For SPC, it can only be set to **8**. 0: invalid
OPC	4	unsigned long	2	It is one of the parameters which are used for interconnection between the SoftX3000 to the peer office SS7. =0xFFFFFFFF: invalid It is expressed in hexadecimal.
DPC	4	unsigned long	6	It is one of the parameters which are used for interconnection between the SoftX3000 to the peer office SS7. =0xFFFFFFFF: invalid It is expressed in hexadecimal.
Total length			10	

Variable Part-Call Seizure Time

The call seizure time fields in the variable part are listed in Table A-10.

Table A-10 Call seizure time fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **6**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **TMG circuit seizure time** (its offset is 2). For the call seizure time, it can only be set to **22**. =0

Field	Length (Byte)	Data Type	Offset	Remark
TMG circuit seizure time	6	unsigned char	2	It is the moment the SoftX3000 sends the setup message to the callee when the callee is a trunk; when the callee is a subscriber, it is set to **0xFF**, indicating invalid. It is expressed in binary, and the format is YYMMDDHHMMSS. YY: 0-99(binary) MM: 1-12(binary) DD: 1-31(binary) HH: 0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) =0xFF: invalid It is expressed in decimal, such as 2005-12-23 12:26:41.
TMG circuit release time	6	unsigned char	8	It is the moment the SoftX3000 releases the call when the callee is a trunk; when the callee is not a trunk, it is set to **0xFF**, indicating invalid. It is expressed in binary, and the format is YYMMDDHHMMSS. YY: 0-99(binary) MM: 1-12(binary) DD: 1-31(binary) HH: 0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) =0Xff: invalid It is expressed in decimal, such as 2005-12-23 12:26:41.

Field	Length (Byte)	Data Type	Offset	Remark
Start time of call setup	6	unsigned char	14	It is the moment the SoftX3000 receives the setup message when the caller is a trunk or the moment the SoftX3000 sends the setup message when the caller is a subscriber. It is expressed in binary, and the format is YYMMDDHHMMSS.YY: 00-99(binary). MM: 1-12 (binary) DD: 1-31 (binary) HH: 0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) =0xFF: invalid It is expressed in decimal, such as 2005-12-23 12:26:41.
Call setup duration	4	unsigned long	20	The duration from receiving or sending setup message to the call is released by receiving or sending of release message to/from the other end, expressed with long integer. expressed with long integer , the unit is 10 ms. It is the duration from the moment the SoftX3000 receives the setup message to the moment the call is released when the caller is a trunk; or the duration from the moment the SoftX3000 sends the setup message to the callee to the moment the call is released when the caller is a subscriber. =: 0xFFFFFFFF: invalid It is expressed in decimal.
Total length			24	

Variable Part-Trunk Group Name Fields

The trunk group name fields in the variable part are listed in Table A-11.

Table A-11 Trunk group name fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **7**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **Incoming Route ID** (its offset is 2). For the trunk group name fields, It can only be set to **32**. =0: invalid
Incoming trunk name	16	string	2	Specifies the trunk group name of the incoming TG. It ends with **0**. =0: invalid It is expressed in character string.
Outgoing trunk name	16	string	18	Specifies the trunk group name of the outgoing TG. It ends with **0**. =0: invalid It is expressed in character string.
Total length			34	

Variable Part-Local Exchange Information Fields

The local exchange information fields in the variable part are listed in Table A-12.

Table A-12 Local exchange information fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **8**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **Switch ID** (its offset is 2). For the local exchange information fields, it can only be set to **10**. =0: invalid

Field	Length (Byte)	Data Type	Offset	Remark
Local switch name	32	string	2	It ends with **0** =0x00: invalid It is expressed in character string.
Local time zone	1	unsigned char	34	It identifies the time zone of a local office. It is defined by the SoftX3000. It ranges from 0 to 254. =255: invalid It is expressed in decimal.
Carrier access code	3	BCD	35	Expressed in compressed BCD codes, and the surplus bits are filled with **0xF** =0xFF: invalid
Total length			38	

Variable Part-Prepaid Fields

The prepaid fields in the variable part are listed in Table A-13.

Table A-13 Prepaid fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **9**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **Payer Short Number** (its offset is 2). For the prepaid fields, it can only be set to **9**. =0: invalid
Payer short number	5	BCD	2	It is the short number of a Centrex subscriber. It is expressed in BCD codes and its surplus bits are filled with **0xFF**. =0xFF: invalid

Field	Length (Byte)	Data Type	Offset	Remark
Balance	4	unsigned long	7	It indicates the balance of a subscriber account, expressed in *fen* =0: invalid. It is expressed in decimal.
Total length			11	

Variable Part-Time Zone and Slot Fields

The time zone and slot fields in the variable part are listed in Table A-14.

Table A-14 Time zone and slot fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **10**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **Ingress media gateway time zone** (its offset is 2). For the time zone and slot fields, it can only be set to **6**. =0: invalid
Spare	1	unsigned char	2	It is reserved.
Ingress trunk occupied time slot number	1	unsigned char	3	Specifies the slot number occupied by the incoming trunk. The value range is from 0 to 254. The value **255** is invalid. It is expressed in decimal.
Spare	1	unsigned char	4	It is reserved.
Egress trunk occupied time slot number	1	unsigned char	5	Specifies the slot number occupied by the outgoing trunk. The value range is from 0 to 254. The value **255** is invalid. It is expressed in decimal.

Field	Length (Byte)	Data Type	Offset	Remark
Caller time zone	1	unsigned char	6	Specifies the time zone of the caller. The time zone is defined by the SoftX3000. The value range is from 0 to 254. The value **255** is invalid. It is expressed in decimal.
Callee time zone	1	unsigned char	7	Specifies the time zone of the callee. The time zone is defined by the SoftX3000. The value range is from 0 to 254. The value **255** is invalid. It is expressed in decimal.
Total length			8	

Variable Part-Port and Traffic Dispersion Fields

The port and traffic dispersion fields in the variable part are listed in Table A-15.

Table A-15 Port and traffic dispersion fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **11**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **caller port number** (its offset is 2). For the flux fields, it can only be set to **8** =0: invalid
Caller port number	2	unsigned short	2	It indicates the port number of a caller. It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Called port number	2	unsigned short	4	It indicates the port number of a callee. It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.

Field	Length (Byte)	Data Type	Offset	Remark
Outgoing traffic dispersion ID	2	unsigned short	6	It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Incoming traffic dispersion ID	2	unsigned short	8	It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Total length			10	

Variable Part-Mixed Filed 1

The mixed fields 1 in the variable part are listed in Table A-16.

Table A-16 Mixed fields 1 in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	In the mixed field 1, it can only be set to **12**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **SS Calling SS** during the call (its offset is 2). For the mixed field 1, it can only be set to **11**. =0: invalid
Spare	7	unsigned char	2	It is reserved.
Teleservice	1	unsigned char	9	=0: spared =1: 3.1 K telecom service =2: 7 KHZ telecom service =3: category-4 fax =4: intelligent subscriber telegraph =5: videotex =6: mixed telecom service =7: 7 KHZ image =15: invalid Others: reserved

Field	Length (Byte)	Data Type	Offset	Remark
UUS1 count	1	unsigned char	10	Specifies the number of switched UUS1 segments (64 bytes/segment). =0: invalid
UUS2 count	1	unsigned char	11	Specifies the number of switched UUS2 segments (64 bytes/segment). =0: invalid
UUS3 count	1	unsigned char	12	Specifies the number of switched UUS3 segments (64 bytes/segment). =0: invalid
Total length			13	

Variable Part-Mixed Fields 2

The mixed fields 2 in the variable part are listed in Table A-17.

Table A-17 Mixed fields 2 in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the mixed fields, it can only be set to **13**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **Post delay metering**. It can only be set to **9**. =0: invalid It is expressed in decimal.
Post delay metering	2	unsigned short	2	Indicates the delay metering of data transmission, expressed in seconds. =0: invalid It is expressed in decimal.

Field	Length (Byte)	Data Type	Offset	Remark
Packetization time	1	unsigned char	4	Indicates the needed time for data packetization, expressed in milliseconds. It ranges from 0 to 254. =255: invalid. It is expressed in decimal.
Spare	2	unsigned char	5	It is reserved.
Packet loss	2	unsigned short	7	It is supported by H.248. It ranges from 0 to 65534. =65535: invalid. It is expressed in decimal.
PSTN/ISDN indicator	1	unsigned char	9	Indicates the type of a PSTN/ISDN service. =0: speech =1: reserved =2: 64kbit/s unrestricted =3: 3.1 kHz audio =4: reserved for alternate speech (service 2)/64 kbit/s unrestricted (service 1) =5: reserved for alternate 64 kbit/s unrestricted (service 1)/speech (service 2) =6: 64 kbit/s preferred =7: 2 × 64 kbit/s unrestricted =8: 384 kbit/s unrestricted =9: 1536 kbit/s unrestricted =10: 1920 kbit/s unrestricted =11–254: reserved =255: invalid It is expressed in enumerated values.
ISUP charge number indicator	1	unsigned char	10	0: caller number 1: called number 2: connected number =255: invalid It is expressed in enumerated values.

Field	Length (Byte)	Data Type	Offset	Remark
Connected number type	0.25	2 bit	11	=0: original number =1: redirect number It is expressed in numerated values.
ISDN capability	0.25	2 bit	11.25	=0: primary rate interface =1: basic rate interface It is expressed in enumerated values.
Spare	0.125	1 bit	11.5	It is reserved.
Spare	0.375	3 bit	11.625	It is reserved.
IN flag	0.125	1 bit	12	Controls whether it is an ordinary bill for an IN call. =0: ordinary bill of ordinary call =1: ordinary bill of IN call It is expressed in enumerated values.
HongKong NP call flag	0.125	1 bit	12.125	Controls whether it is a Hongkong NP call. =0: non-NP call =1: NP call It is expressed in enumerated values.
Charging method	0.25	2 bit	12.25	Indicates the charging mode of a call. =0: meter table =1: detailed ticket =3: detailed and meter table It is expressed in numerated values.
Incomplete call watch type	0.25	2 bit	12.5	Indicates the watch type of an incomplete call. =0: no watch =1 watch caller =2 watch called =3 watch both It is expressed in enumerated values.

Field	Length (Byte)	Data Type	Offset	Remark
Caller ISDN access flag	0.125	1 bit	12.75	Controls whether the caller accesses the network through ISDN. =0: terminal access non-ISDN =1: Terminal access is ISDN It is expressed in enumerated values.
Called ISDN access flag	0.125	1 bit	12.875	Controls whether the callee accesses the network through ISDN. =0: terminal access non-ISDN =1: Terminal access is ISDN It is expressed in enumerated values.
ISUP call indication	0.125	1 bit	13	Controls whether the call is an ISUP call all way. =0: ISUP not all way =1: ISUP all way It is expressed in enumerated values.
B channel number	0.625	5 bit	13.125	Defines B-channel numbers for data transmission. It ranges from 1 to 30. It is expressed in decimal.
Caller number CLIR flag	0.125	1 bit	13.75	Controls whether the caller has registered the CLIR service. =0: No. =1: Yes. It is expressed in enumerated values.
Spare	0.125	1 bit	13.875	It is reserved.
Spare	2	unsigned char	14	It is reserved.
Billed party	1	unsigned char	16	Controls whether the call uses the collected call service in Brazil. =0: Yes. =1: No. =2: invalid It is expressed in enumerated values.

Field	Length (Byte)	Data Type	Offset	Remark
Service ID	0.75	6 bit	17	=0: pre paid =1: post paid =2: mass calling =3: voting service =4: internet call waiting =5: ACC service =6: FPH service =7: VPN service =8: AD service =9: IP Centrex service =10: card calling service =11: advanced intelligent network =12: advanced prepaid service =13: color ringback tone service =14: IN IVR service =15: IN RCSS service =16: IN RADIUS service =17: IN AUCC service =18: NP color tone service =19 telecom communication partner service =20: umber portability service =21: authentication card service =62:universal intelligent service =63: unknown It is expressed in enumerated values.
Multi Carrier Environment (MCE)	0.25	2 bit	17.75	It is used for preselection service in German. Indicates the preselection service type. =0: spare =1: call-by-call selection =2: preselect =3: call-by-call selection or preselected carrier It is expressed in enumerated values.

Field	Length (Byte)	Data Type	Offset	Remark
IP release cause	2	unsigned short	18	It is bases on VOIP. It equals to an actual release value plus an offset value. For different VOIP protocols, the offset value differs. • H.248: actual release value • MGCP: actual release value plus 1000 • SIP: actual release value plus 2000 • H.323: actual release value plus 3000 • H.323 (extended): actual release value plus 3100. It is expressed in enumerated values.
Caller access equipment type	1	unsigned char	20	=0: IAD =1: AG =2: TG =3: UMG =4: H.323 =5: SIP =255: invalid It is expressed in enumerated values.
Total length			21	

Variable Part-CF Number Fields

The CFN number fields in the variable part are listed in Table A-18.

Table A-18 CFN number fields in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For the flux fields, it can only be set to **14**. =0xFF: invalid

Field	Length (Byte)	Data Type	Offset	Remark
Length	1	unsigned char	1	Calculated from **original callee local dnset** (its offset is 2). For the original number fields, it can only be set to **38**. =0: invalid
Original callee local dnset	2	unsigned short	2	The original callee number refers to the first number connected during one or more than one forwarding or hooking. It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Original callee number address nature	1	unsigned char	4	Specifies the address nature of the original called number. =0: subscriber number, original called number = local number =1: spared =2: national valid number, original called number = toll area code + local number =3: international number, original called number =country code + toll area code + local number =7: JAZZTEL NP (for Spanish JAZZTEL NP only) =0xFF: invalid
Original callee number	16	BCD	5	Expressed in the compressed BCD code, and the surplus bits are filled with **0xF**. =0xFF: invalid
Redirecting local dnset	2	unsigned char	21	The original callee number refers to the last number connected during one or more than one forwarding or hooking. It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.

Field	Length (Byte)	Data Type	Offset	Remark
Redirecting address nature	1	unsigned char	23	Specifies the address nature of the redirecting number. =0: subscriber number, redirecting number = local number =1: spared =2: national valid number, redirecting number = toll area code + local number =3: international number, redirecting number =country code + toll area code + local number =7: JAZZTEL NP (for Spanish JAZZTEL NP only) =0xFF: invalid
Redirecting number	16	BCD	24	Expressed in compressed BCD code, and the surplus bits are filled with **0xF**. =0xFF: invalid
Total length			40	

Variable Part-Reserved 1

Reserved fields 1 in the variable part are listed in Table A-19.

Table A-19 Reserved fields 1 in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	For reserved fields 1, it can only be set to **15**. =0xFF: invalid
Length	1	unsigned char	1	Calculated from **SHLR MON Route** (its offset is 2). For reserved field 1, It can only be set to **32**. =0: invalid

Field	Length (Byte)	Data Type	Offset	Remark
SHLR MON Route	4	BCD	2	Return route number from SHLR in SHLR Mon service, expressed in the compressed BCD code, and the surplus bits are filled with **0xF**.
SHLR MON Operation	1	unsigned char	6	Return operation from SHLR in SHLR Mon service =0x19: Both MON user =0x1a: Both MON, default caller =0x1b: Caller MON, callee common =0x1c: Callee common, drop back =0x1d: Caller MON, default caller =0x1e: Callee MON, caller common =0x1f: Both common user =0x20: Caller MON over max call =0x21: Callee MON over max call =0x22: SHLR error configuration It is expressed in hexadecimal.
Caller WLL user type	0.5	4 bit	7	Specifies the wireless local loop (WLL) user type of the caller. WLL_UT_ LOCAL = 0 WLL_UT_ROAMING = 1 WLL_UT_UNKNOW_LOCATION = 2 WLL_UT_ILLEGAL_USER = 3 //WLL_UT_UNKNOW_USER = 15 =0x0F:invalid

Field	Length (Byte)	Data Type	Offset	Remark
Callee WLL user type	0.5	4 bit	7.5	Specifies the WLL user type of the callee. WLL_UT_ LOCAL = 0 WLL_UT_ROAMING = 1 WLL_UT_UNKNOW_LOCATION = 2 WLL_UT_ILLEGAL_USER = 3 //WLL_UT_UNKNOW_USER = 15 =0x0F:invalid
Caller WLL home area information	5	string	8	Specifies the home area information of the caller WWL. For unknown WLL subscribers or illegal WLL subscribers, it is invalid. =0xFF: invalid It is expressed in character string.
Caller WLL visit area information	5	string	13	Specifies the visit area information of the caller WWL. For unknown WLL subscribers or illegal WLL subscribers, it is invalid. =0xFF: invalid It is expressed in character string.
Callee WLL home area information	5	string	18	Specifies the home area information of the callee WWL. For unknown WLL subscribers or illegal WLL subscribers, it is invalid. =0xFF: invalid It is expressed in character string.
Callee WLL visit area information	5	string	23	Specifies the visit area information of the callee WWL. For unknown WLL subscribers or illegal WLL subscribers, it is invalid. =0xFF: invalid It is expressed in character string.

Field	Length (Byte)	Data Type	Offset	Remark
Reserved	6	unsigned char	28	It is reserved. =0xFF: invalid
Total length			34	

Variable Part-Reserved Fields 2

Reserved fields 2 in the variable part are listed in Table A-20.

Table A-20 Reserved fields 2 in the variable part

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	unsigned char	0	In reserved fields 2, it can only be set to **16**. =0xFF:invalid
Length	1	unsigned char	1	Calculated from **reserved** (its offset is 2). For reserved field 2, It can only be set to **32**. =0: invalid
IN Call ID	20	unsigned char	2	For an IN call, an IN bill is generated for SSP (when the SoftX3000 is used as SSP) and SCP, and an ordinary bill is generated for the SoftX3000. These bill are associated because the IN call IDs of these bills are the same. It is expressed with BCD codes, and all the contents of 20 bytes are displayed and they do not end with F. =0x00: invalid It is expressed in hexadecimal.
Originating line info	1	unsigned char	22	=0: POTS =1: ONI(multiparty line) =2: ANI failure(unavailable) =6: hotel/motel(without room identification) =7: special operator handling required =10: test call

Field	Length (Byte)	Data Type	Offset	Remark
				=20: AIOD-listed DN sent =23: coin or non-coin(identified line) =24: toll-free Translated to POTS from non-pay station =25: toll-free Translated to POTS from any pay station =27: coin line =29: prison/inmate service =30: intercept(blank)-for calls to unassigned directory number(DN) =31: intercept(trouble)-for calls to directory numbers(DN) that have been manually placed in trouble-busy state by Telco personnel =32: intercept(regular)-for calls to recently changed or disconnected numbers =34: telecom operator handled call =52: OUTWATS =60: TRS(unrestricted Line) =61: cellular service(type 1)-Cellular Carrier identified =62: cellular service(type 2)-Mobile DN identified =63: cellular service(roaming) =66: TRS(hotel/motel) =67: TRS(restricted line) =70: Private paystations =93: private virtual network =255: invalid It is expressed in enumerated values. This parameter is defined in ISUP; the above values are displayed in the English version iGWB. The parts in grey may not be displayed in iGWB, because the character string is too long.

Field	Length (Byte)	Data Type	Offset	Remark
Reserved	11	unsigned char	23	It is reserved. =0xFF: invalid
Total length			34	

NP Physical Number

The NP physical number fields are listed in Table A-21.

Table A-21 NP physical number fields

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For the NP physical number, it can only be set to **17**. =0xFF:invalid
Length	1	Unsigned char	1	Calculated from **IN call ID**. It can only be set to **57**. =0: invalid
Local dnset of caller physical number	2	Unsigned short	2	The physical number refers to the location routing number assigned for subscribers by carriers and used for internal network addressing. It ranges from 0 to 65534. =65535: invalid It is expressed with decimal.
Address nature of caller physical number	1	Unsigned char	4	=0: subscriber number =1: spared =2: valid national number =3: international number =255: invalid It is expressed in enumerated values.
Caller physical number	16	BCD	5	It is expressed with BCD codes and its surplus bits are filled with **0xF**. =0XFF: invalid.

Field	Length (Byte)	Data Type	Offset	Remark
Local dnset of callee physical number	2	Unsigned short	21	It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Address nature of callee physical number	1	Unsigned char	23	=0: subscriber number =1: spared =2: valid national number =3: international number =7: JAZZTEL NP (JAZZTEL NP), which is exclusive to Spanish JAZZTEL NP. If the callee registers NP, the callee address nature is JAZZTEL NP. =255: invalid It is expressed in enumerated values.
Callee physical number	16	BCD	24	It is expressed with BCD codes and its surplus bits are filled with **0xFF**. =0xFF: invalid
Local dnset of redirecting physical number	2	Unsigned short	40	The redirecting physical number refers to the last number connected during one or more than one forwarding. It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Address nature of redirecting physical number	1	Unsigned char	42	=0: subscriber number =1: spared =2: valid national number =3: international number =7: JAZZTEL NP (JAZZTEL NP), which is exclusive to Spanish JAZZTEL NP. If the callee registers NP, the callee address nature is JAZZTEL NP. =255: invalid It is expressed in enumerated values.

Field	Length (Byte)	Data Type	Offset	Remark
Redirecting physical number	16	BCD	43	It is expressed with BCD codes and its surplus bits are filled with **0xF**. =0xFF: invalid
Total length			59	

MON Number Fields

The MON number fields are listed in Table A-22.

Table A-22 MON number fields

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For MON number fields, it can only be set to **18**. =0xFF:invalid
Length	1	Unsigned char	1	Calculated from **IN call ID**. It can only be set to **38**. =0: invalid
Local dnset of MON caller physical number	2	Unsigned short	2	It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.
Address nature of MON caller physical number	1	Unsigned char	4	=0: subscriber number =1: spared =2: valid national number =3: international number It is expressed in enumerated values.
MON caller physical number	16	BCD	5	It is expressed with BCD codes and its surplus bits are filled with **0xF** =OxFF: invalid
Local dnset of MON callee physical number	2	Unsigned short	21	It ranges from 0 to 65534. =65535: invalid It is expressed in decimal.

Field	Length (Byte)	Data Type	Offset	Remark
Address nature of MON callee physical number	1	Unsigned char	23	=0: subscriber number =1: spared =2: valid national number =3: international number =7: JAZZTEL NP (JAZZTEL NP), which is exclusive to Spanish JAZZTEL NP. If the callee registers NP, the callee address nature is JAZZTEL NP. It is expressed in enumerated values.
MON callee physical number	16	BCD	24	It is expressed in BCD codes and its surplus bits are filled in 0xF. =0xFF: invalid
Total length			40	

Mixed Field 5

The mixed fields 5 are listed in Table A-23.

Table A-23 Mixed fields 5

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For mixed field 3, it can only be set to **19**. =0xFF:invalid
Length	1	Unsigned char	1	Calculated from **IN call ID**. It can only be set to **32**. =0: invalid
Caller module	1	Unsigned short	2	It defines the number of a caller module. It is expressed in decimal.
Called module	1	Unsigned char	3	It defines the number of a called module. It is expressed in decimal.

Field	Length (Byte)	Data Type	Offset	Remark
Bear mode	1	Unsigned char	4	=0: non standard =1: video mode =2: audio mode =3: application mode =4: data mode =5: encryption mode =255: invalid It is expressed in enumerated values.
Audio codec type	1	Unsigned char	5	=0: no indication =1: G.711 64 k-bit/s A-law =2: G.711 64 k-bit/s Mu-law =3: G.711 56 k-bit/s A-law =4: G.711 56 k-bit/s Mu-law =5: G.722 (SB-ADPCM 64K) =6: G.722 (SB-ADPCM 56K) =7: G.722 (SB-ADPCM 48K) =8: G.723.1 =9: G.723.1 Annex A (silence suppression) =10: G.726 (ADPCM) =11: G.727 (embedded ADPCM) =12: G.728 =13: G.729 (CS-ACELP) =17: H.261(Video codec) =18: H.262(Video codec, ITU Name for MPEG2) =19: H.263 (High performance codec) =20: MPEG4 audio =21: MPEG4 video =25 G.726 (in first dynamic PT negotiation mode) =26 G.726 (in second dynamic PT negotiation mode) =27 G.726 (in third dynamic PT negotiation mode) =28 G.726 (in fourth dynamic PT negotiation mode) =99 All audio codec

Field	Length (Byte)	Data Type	Offset	Remark
				=100: Unknown audio codec =101: GSM half rate =102: GSM enhanced full rate =103: Full rate adaptive multi-rate =104: Half rate adaptive multi-rate =105: UMTS adaptive multi-rate =106: UMTS adaptive multi-rate 2 =107: TDMA enhanced full rate =108: enhanced full rate =150: 1016 =151: clock rate: 8000 =152: clock rate: 16000 =153: LPC =154: L16 2 channels =155: L16 1 channel =156: QCELP =157: MPA =158: DVI4, clock rate: 11025 =159: DVI4, clock rate: 22050 =160: T38 =161: adaptive Multi-Rate =162: clear mode =255: invalid It is expressed in enumerated values.
Video codec type	1	Unsigned char	6	The values are the same as **Audio codec type**. =255: invalid It is expressed in enumerated values.

Field	Length (Byte)	Data Type	Offset	Remark
Maxi bit rate	2	Unsigned short	7	It defines the max bit rate of audio media, expressed in kbit/s. =65535: invalid It is expressed in decimal.
Conference ID	4	Unsigned long	9	=0xFFFFFFFF: invalid It is expressed in hexadecimal.
Reserved	21	Unsigned char	13	It is reserved. =0XFF: invalid
Total length			34	

Reserved Fields 6

Reserved fields 6 are listed in Table A-24.

Table A-24 Reserved fields 6

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For reserved fields 6, it can only be set to **20**. =0xFF:invalid
Length	1	Unsigned char	1	Calculated from **IN call ID**. It can only be set to **32**. =0: invalid
AEC	0.125	1 bit	2	It, abbreviated for acoustics echo counteract, is used to enhance voice effect. =0: no enhanced =1: enhanced It is expressed in enumerated values.
NC	0.125	1 bit	2.125	It, abbreviated for noise compensate, is used to enhance voice effect. =0: no enhanced =1: enhanced It is expressed in enumerated values.

Field	Length (Byte)	Data Type	Offset	Remark
NR	0.25	2 bit	2.25	It, abbreviated for noise restrain, is used to enhance voice effect. =0: no enhanced =1: incoming enhanced =2: outgoing enhanced =3: incoming and outgoing enhanced It is expressed in enumerated values.
AGC	0.25	2 bit	2.5	It, abbreviated for automatically gain control, is used to enhance voice effect. =0: no enhanced =1: incoming enhanced =2: outgoing enhanced =3: incoming and outgoing enhanced It is expressed in enumerated values.
Spare	0.25	2 bit	2.75	It is reserved.
Rate	8	Double	3	It specifies the fee for each meter count or pulse.
Fee	8	Double	11	It defines the fee of a call (including a surcharge). It is expressed in *fen* (RMB) It has the precision of 1*10E(-10) It is expressed in decimal.
Reserved	15	Unsigned char	19	It is reserved. =0XFF: invalid
Total length			34	

Caller Call-ID High 32 Bytes

Caller Call-ID High 32 Bytes are listed in Table A-25.

Table A-25 Caller Call-ID high 32 bytes

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For this field group, it can only be set to **21**. =0xFF: invalid
Length	1	Unsigned char	1	Calculated from **Reserved**. It can only be set to **32**. =0: invalid
Caller Call-ID high 32 bytes	32	Unsigned char	2	The CALL-ID of the H.323 protocol is expressed in binary, so that this field is displayed with Caller Call-ID low 32 bytes in hexadecimal mode. (SIP supports up to 64-byte CALL-ID and H.323 supports up to 16-byte CALL-ID. The SoftX3000 host must ensure the length of CALL-ID.)
Total length			34	

Caller Call-ID Low 32 Bytes

Caller Call-ID low 32 bytes are listed in Table A-26.

Table A-26 Caller Call-ID low 32 bytes

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For this field group, it can only be set to **22**. =0xFF: invalid
Length	1	Unsigned char	1	Calculated from **Reserved**. It can only be set to **32**. =0: invalid

Field	Length (Byte)	Data Type	Offset	Remark
Caller Call-ID low 32 bytes	32	Unsigned char	2	The CALL-ID of the H.323 protocol is expressed in binary, so that this field is displayed with Caller Call-ID high 32 bytes in hexadecimal mode. (SIP supports up to 64-byte CALL-ID and H.323 supports up to 16-byte CALL-ID. The SoftX3000 host must ensure the length of CALL-ID.)
Total length			34	

Called Call-ID High 32 Bytes

Called Call-ID high 32 bytes are listed in Table A-27.

Table A-27 Called Call-ID high 32 bytes

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For this field group, it can only be set to **23**. =0xFF: invalid
Length	1	Unsigned char	1	Calculated from **Reserved**. It can only be set to **32**. =0: invalid
Called Call-ID high 32 bytes	32	Unsigned char	2	The CALL-ID of the H.323 protocol is expressed in binary, so that this field is displayed with Called Call-ID low 32 bytes in hexadecimal mode. (SIP supports up to 64-byte CALL-ID and H.323 supports up to 16-byte CALL-ID. The SoftX3000 host must ensure the length of CALL-ID.)
Total length			34	

Called Call-ID Low 32 Bytes

Called Call-ID low 32 bytes are listed in Table A-28.

Table A-28 Called Call-ID low 32 bytes

Field	Length (Byte)	Data Type	Offset	Remark
Name	1	Unsigned char	0	For this field group, it can only be set to **24**. =0xFF: invalid
Length	1	Unsigned char	1	Calculated from **Reserved**. It can only be set to **32**. =0: invalid
Called Call-ID low 32 bytes	32	Unsigned char	2	The CALL-ID of the H.323 protocol is expressed in binary, so that this field is displayed with Called Call-ID high 32 bytes in hexadecimal mode. (SIP supports up to 64-byte CALL-ID and H.323 supports up to 16-byte CALL-ID. The SoftX3000 host must ensure the length of CALL-ID.)
Total length			34	

A.2.3 Fixed Network Meter Table Bill Format

The fields in the fixed network meter table bill are listed in Table A-29.

Table A-29 Fields in the fixed network meter table bill

Field	Length (Bytes)	Data Type	Offset	Remark
Csn	4	unsigned long	0	Expressed in long integer.
Bill length	2	unsigned short	4	Calculated from next field, that is **Net type**.
Net type	1	unsigned char	6	Specifies the network type of a bill. 11: fixed network bill 22: mobile network bill It is expressed in enumeration.
Bill type	1	unsigned char	7	0xF0: Meter table ticket

Field	Length (Bytes)	Data Type	Offset	Remark
Check sum	1	unsigned char	8	Used for checking whether the bill is saved correctly. It is a type of check method, not provided in the GB. It occupies one byte.
Spared	0.5	4 bit	9	It is reserved.
Valid indicator	0.125	1 bit	9.5	0: valid 1: invalid It is equal to the record validity indicator in GB.
Charge object	0.25	2 bit	9.625	0: subscriber 1: incoming trunk 2: outgoing trunk
Reserved	0.125	1 bit	9.875	It is reserved.
Number of meter tables	1	unsigned char	10	Specifies the number of the meter tables. Currently, it is 20.
Date and time of meter table generation	6	unsigned char	11	Indicates the date and time when the meter table is generated, the format is: YYMMDDHHMMSS YY:00-99 (binary) MM: 1-12(binary) DD: 1-31(binary) HH:0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary)
Subscriber local dnset	2	unsigned short	17	Number network identifier
Subscriber address nature	1	unsigned char	19	0: subscriber number, number = local number 1: spared 2: national valid number, number = toll area code + local number 3: international number, number = country code + toll area code + local number 255: invalid

Field	Length (Bytes)	Data Type	Offset	Remark
Subscriber number	10	BCD	20	Expressed in compressed BCD code, and the surplus bits are filled with **0xF**. 0xFF: invalid It is expressed in BCD code.
Trunk group number	2	unsigned short	30	When the charging number is a subscriber, it is invalid. It ranges from 0 to 65534. 65535: invalid It is expressed in decimal.
Module number	1	unsigned char	32	Specifies the number of the module to which the subscriber or the trunk group belongs.
Equipment type	1	unsigned char	33	0: CON 1: SS 2: ST 3: DSL 4: AT2 5: AT4 6: AT0 7: EM4 8: MTK 9: DT 10: TUP 11: ISUP 12: V5X 13: V5TK 14: V5PCM 15: PRA 16: PHI 17: DTMF 18: MFC 19: NO7 20: CT0 21: TSS 22: TST 23: ETS 24: DMC 25: MPU

Field	Length (Bytes)	Data Type	Offset	Remark
				26: EMA 27: NOD 28: NET 29: SIG 30: TKD 31: TCI 32: CHD 33: MC2 34: OPT 35: ALM 36: MEM 37: LPV5 38: LPN7 39: LPRA 40: LPHI 41: OLE 42: CLK 43: CK2 44 CK3 45 RSA0 46 RSA1 47 RSU0 48 RSU1 49 DTR 50 SEL 51 SLT 52 SPT 53 AVM 54 DCN 55 DIU 56 iDT 57 V5ST 58 V5DSL 59 V5PRA 60 V5PHI 61 TSI 62 LPRSA 63 RDT 64 LPMC2

Field	Length (Bytes)	Data Type	Offset	Remark
				65 V5DCN 66 CKS 67 DRV IN 68 FSK 69 CONF 70 OTM 71 HSL 72 VDM 73 VFB 74 COCK 75 DT5 76 DTT 77 RSD5 78 ST32 79 DTMF32 80 PWX 81 SPTIN 82 DIN 83 AIT 84 ASB 85 AIN 86 MEMIN 87 SCCP 88 TCAP 89 iCLI 90 iCLD 91 RSP 107 ESC 114 ESL 115 ITC 116 EDCN 117 BICC AAL1 118 DID_SIP_TRUNK 119 DID_H323_TRUNK 120 BPC 121 SDM 122 PVM 123 BSSAP 124 ECT

Field	Length (Bytes)	Data Type	Offset	Remark
				125 ECI 126 RAB 127 BICC SAAL1 128 BICC AAL2 129 BICC IP 130 DID_SIP_TERMINAL 131 DID_H323_TERMINAL 132 BUTT
Equipment sequence number of subscriber	2	unsigned short	34	Specifies the equipment sequence of the subscriber within the module. The value ranges from 0 to 65534. 65535: invalid
Value of meter table 1	4	unsigned long	36	Specifies the value accumulated on the table since the last meter table bill is generated
Call times of meter table 1	2	unsigned short	40	Specifies the call number accumulated on the table since the last meter table bill is generated
Value of meter table 2	4	unsigned long	42	Specifies the call number accumulated on the table since the last meter table bill is generated
Call times of meter table 2	2	unsigned short	46	Specifies the call number accumulated on the table since the last meter table bill is generated
Value of meter table 3	4	Unsigned long	48	Specifies the call number accumulated on the table since the last meter table bill is generated
Call times of meter table 3	2	unsigned short	52	Specifies the call number accumulated on the table since the last meter table bill is generated
There are totally 20 meter tables, and the detailed description is not provided.				

Field	Length (Bytes)	Data Type	Offset	Remark
Call source code	2	unsigned short	156	Specifies the call source code of a subscriber or trunk. The value ranges from 0 to 65534. 65535: invalid It is expressed in decimal.
Spared	2	unsigned short	158	It is reserved.
Subscriber short number	5	BCD	160	It is the intra-Centrex short number, expressed in compressed BCD codes. Its surplus bits are filled with **0xF**. When the charging object is a trunk, it is set to **0xFF**, indicating it is invalid. It is expressed in BCD code.
Identifier of bill time	1	unsigned char	165	It is mainly used in Thailand. According to the identifier of bill time, the charging gateway maps it with a specific period, and then sends meter table bills to the billing center regularly on the basis of the specific period. It ranges from 0 to 255. It is expressed in decimal.
Local bill csn	4	unsigned long	166	The sequence number is generated for unique identification of a bill. It is expressed in decimal.
Spared	30	unsigned char	170	It is reserved. =0xFF: invalid
Total length			200	

A.2.4 Fixed Network Meter Table Statistics Bill

The fields in the fixed network meter table statistics bill are listed in Table A-30.

Table A-30 Fields in the fixed network meter table statistics bill

Field	Length (Bytes)	Data Type	Offset	Remark
Csn	4	unsigned long	0	The unified number of bill, expressed in long integer.
Bill length	2	unsigned char	4	Calculated from the next field, that is **Net type**.
Net type	1	unsigned char	6	=11: fixed network bill =22: mobile network bill It is expressed in enumeration.
Bill type	1	unsigned char	7	0xF1: meter table statistics bill
Check sum	1	unsigned char	8	It is used for checking whether the bill is saved correctly. It is a type of check method, not provided in the GB, occupying one byte.
Spared	0.5	4 bit	9	It is reserved.
Valid indicator	0.125	1 bit	9.5	0: valid 1: invalid It is equal to the record validity indicator in GB.
Spared	0.375	3 bit	9.625	It is reserved.
Number of meter tables	1	unsigned char	10	Specifies the number of the meter tables. It is currently **20**.

Field	Length (Bytes)	Data Type	Offset	Remark
Date and time of bill generation	6	unsigned char	11	Indicates the date and time when the meter table is generated, the format is: YYMMDDHHMMSS YY:00-99 (binary) MM: 1-12 (binary) DD: 1-31 (binary) HH:0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) It is expressed in decimal, such as 2005-12-23 12:26:41.
Module number	1	unsigned char	17	Specifies the number of the module generating the meter table statistics bills. The value ranges from 1 to 240.
Call type	1	unsigned char	18	1: local office statistics 2: incoming office statistics 3: outgoing office statistics 4: tandem statistics Others: invalid Note: It indicates the statistics type of this meter table bill.
Value of meter table 1	4	unsigned long	19	Specifies the value accumulated on the table since the last meter table bill is generated
Call times of meter table 1	2	unsigned short	23	Specifies the call number accumulated on the table since the last meter table bill is generated
Value of meter table 2	4	unsigned long	25	Specifies the call number accumulated on the table since the last meter table bill is generated
Call times of meter table 2	2	unsigned short	29	Specifies the call number accumulated on the table since the last meter table bill is generated

Field	Length (Bytes)	Data Type	Offset	Remark
Value of meter table 3	4	unsigned long	31	Specifies the call number accumulated on the table since the last meter table bill is generated
Call times of meter table 3	-	unsigned short	35	Specifies the call number accumulated on the table since the last meter table bill is generated
There are totally 20 meter tables, and the detailed description will be omitted.				
Local csn	4	unsigned long	139	The sequence number is generated for unique identification of a bill. It is expressed in decimal.
Spared	57	unsigned char	143	It is reserved. 0xFF: invalid
Total length			143	

A.2.5 Fixed Network Trunk Occupation Duration Statistics Bill

The fields in the fixed network trunk occupation duration statistics bill are listed in Table A-31.

Table A-31 Fields in the fixed network trunk occupation duration statistics bill

Field	Length (Bytes)	Data Type	Offset	Remark
Csn	4	unsigned long	0	The unified number of bill, expressed in decimal.
Bill length	2	unsigned short	4	Calculated from next field, that is, **Net type**.
Net type	1	unsigned char	6	Specifies the network type of a bill 11: fixed network bill 22: mobile network bill It is expressed in enumeration.
Bill type	1	unsigned char	7	0xF2: trunk occupation duration statistics bill

Field	Length (Bytes)	Data Type	Offset	Remark
Check sum	1	unsigned char	8	Used for checking whether the bill is saved correctly. It is only a kind of check method, not provided in the GB, occupying one byte.
Spared	0.5	4 bit	9	It is reserved.
Valid indicator	0.125	1 bit	9.5	0: valid 1: invalid It is equal to the record validity indicator in GB.
Spared	1.375	11 bit	9.625	It is reserved.
Date and time of bill generation	6	unsigned char	11	Indicates the date and time when the trunk occupation duration statistics bill is generated, the format is: **YYMMDDHHMMSS** YY:00-99 (binary) MM: 1-12 (binary) DD: 1-31 (binary) HH:0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary)] It is expressed in decimal, such as 2005-12-23 12:26:41.
Module number	1	unsigned char	17	Specifies the number of the module generating the trunk occupation duration statistics bills. The value ranges from 1 to 240.
Spared	1	unsigned char	18	It is reserved.
Trunk group number	2	unsigned short	19	The charge objects are the trunk number and the trunk group number in the case of the outgoing trunk. The value ranges from 0 to 65534. 65535: invalid It is expressed in decimal.

Field	Length (Bytes)	Data Type	Offset	Remark
Incoming conversation duration	4	unsigned long	21	It indicates the duration of all incoming trunk calls since a trunk statistics bill is generated last time. The value is expressed in 10 ms It is expressed in decimal.
Incoming call times	2	unsigned short	25	It indicates the number of all incoming trunk call times since a trunk statistics bill is generated last time. The value is expressed in 10 ms It is expressed in decimal.
Tandem conversation duration	4	unsigned short	27	It indicates the duration of all tandem calls since a trunk statistics bill is generated last time. The value is expressed in 10 ms It is expressed in decimal.
Tandem call times	2	unsigned short	31	It indicates the number of all tandem call times since a trunk statistics bill is generated last time. The value is expressed in 10 ms It is expressed in decimal.
Outgoing conversation duration	4	unsigned long	33	It indicates the duration of all outgoing calls since a trunk statistics bill is generated last time. The value is expressed in 10 ms It is expressed in decimal.
Outgoing call times	2	unsigned short	37	It indicates the number of all outgoing call times since a trunk statistics bill is generated last time. The value is expressed in 10 ms It is expressed in decimal.
Local csn	4	unsigned long	39	The sequence number is generated for unique identification of a bill. It is expressed in decimal.
Spared	157	unsigned char	43	It is reserved. 0xFF: invalid

Field	Length (Bytes)	Data Type	Offset	Remark
Total length			200	

A.2.6 Fixed Network Statistics Bill of Free Calls

The fields in the fixed network statistics bill of free calls are listed in Table A-32.

Table A-32 Fields in the fixed network statistics bill of free calls

Field	Length (Bytes)	Data Type	Offset	Remark
Csn	4	unsigned long	0	The unified number of bill, expressed in decimal.
Length	2	unsigned short	4	Calculated from next field, that is **Net type**.
Net type	1	unsigned char	6	Specifies the network type of a bill. 11: fixed network bill 22: mobile network bill It is expressed in decimal.
Bill type	1	unsigned char	7	0xF3: statistics bill of free calls
Check sum	1	unsigned char	8	Used for checking whether the bill is saved correctly. It is only a kind of check method, not provided in the GB, occupying one byte.
Spared	0.5	4 bit	9	It is reserved.
Valid indicator	0.125	1 bit	9.5	0: valid 1: invalid It is equal to the record validity indicator in GB.
Spared	1.375	11 bit	9.625	It is reserved.

Field	Length (Bytes)	Data Type	Offset	Remark
Date and time of bill generation	6	unsigned char	11	Indicates the date and time when the meter table is generated, the format is: YYMMDDHHMMSS YY:00-99 (binary) MM: 1-12 (binary) DD: 1-31(binary) HH:0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) It is expressed in decimal, such as 2005-12-23 12:26:41.
Module number	1	unsigned char	17	Specifies the number of the module generating the meter table statistics bills. The value ranges from 1 to 240.
Reserved	1	unsigned char	18	It is reserved.
Statistics value of free call duration	4	unsigned long	19	It indicates the duration of all free calls since a free statistics bill is generated. It is expressed in decimal.
Statistics value of free call times	2	unsigned short	23	It indicates the number of all free calls since a free statistics bill is generated.
Local csn	4	unsigned long	25	The sequence number is generated for unique identification of a bill. It is expressed in decimal.
Spared	171	unsigned char	29	It is reserved. =0xFF: invalid
Total length			200	

A.3 Add-tables

A.3.1 Relation Between termination_ code and Q.850

The relation between termination_ code and Q.850 is shown in Table A-33.

Table A-33 Relation between termination_ code and Q.850

Internal Cause		Q.850 Cause	
Value	**Description**	**Value**	**Description**
26	CV_CALL_BARRING	21	Call rejected
37	CV_CALLIN_BARRING		
77	CV_BW_LIST_BARRING		
78	CV_CLI_JUDGE_RESTRICTION		
63	CV_REDIRECT_FROM_TRUNK_RESTRICTION		
149	CV_CALL_REJECTED		
11	CV_NS_ABSENT_USER		
12	CV_NS_NO_DISTURB		
21	CV_IN_BAND_SIGNAL		
35	CV_NS_RECORD_USE_OK		
32	CV_OWNED		
52	CV_CALLED_OWNED		
54	CV_REDIRECT_RESTRICTION		
55	CV_MODULE_NOT_ARRIVED	47	Resource unavailable, unspecified
175	CV_NO_RESOURCE_AVAILABLE		
60	CV_CPU_OVERLAP	42	Switching equipment congestion
61	CV_NO_CR		
62	CV_NO_CCB		
66	CV_NO_CONFO		
42	CV_REMOTE_EQUIPMENT_CONGESTION		
13	CV_SWITCHING_EQUIPMENT_CONGESTION		
170	CV_EXCHANGE_FACILITY_SURGE		
70	CV_PARTIAL_DIAL_TIMEOUT	102	Recovery on timer expiry
230	CV_RECOVERY_OF_TIME_OUT		
14	CV_LONG_TIME_NO_DIALING	28	Invalid number format (address incomplete)
68	CV_NO_DIALING_TIMEOUT		
67	CV_NO_DIALING_ABANDON		

Internal Cause		Q.850 Cause	
Value	**Description**	**Value**	**Description**
156	CV_INVALID_FORMAT_OR_ADDRESS_NOT_ENOUGH		
15	CV_LONG_TIME_NO_ANSWER	19	No answer from user (user alerted)
147	CV_NO_ACKNOWLEGE		
16	CV_TEMPORARY_FAILURE	41	Temporary failure
169	CV_ERROR_FOR_THE_TIME_BEING		
18	CV_LONG_TIME_NO_INFORMATION	18	No user responding
146	CV_NO_RESPOND		
19	CV_LONG_TIME_NO_ALERTING		
20	CV_LONG_TIME_NO_RELEASE	16	Normal call clearing
144	CV_NORMAL_CALL_CLEAR		
69	CV_PARTIAL_DIAL_ABANDON		
24	CV_RELEASE_BEFORE_RING		
25	CV_RELEASE_BEFORE_ANSWER		
45	CV_INVALID_CODE_FORM	1	Unallocated (unassigned) number
129	CV_UNALOC_CODE		
22	CV_COCK_FAILURE	44	Requested circuit/channel not available
172	CV_NO_ROUTE_OR_CIRCUIT_APPLIED_AVAILABLE		
23	CV_EXCEED_MAX_REATTEMPT_TIME	34	No circuit or channel available
83	CV_NO_ACIRCUIT		
162	CV_NO_ROUTE_AVAILABLE		
27	CV_SWITCHING_EQUIPMENT_FAULT	38	Network out of order
166	CV_NETWORK_ERROR		
30	CV_ST_BUSY	17	User busy
31	CV_SL_BUSY		
57	CV_USER_QUEUE_FAIL		
58	CV_GROUP_QUEUE_FAIL		
59	CV_TIMEOUT_IN_QUEUE		
145	CV_BUSY		

Internal Cause		Q.850 Cause	
Value	**Description**	**Value**	**Description**
Others	Other Internal Cause Values	31	Normal, unspecified

A.3.2 Protocol Release Cause

H.248

The H.248 release causes are listed in Table A-34.

Table A-34 H.248 release causes

Reason Value	Reason Description
400	Bad Request
401	Protocol Error
402	Unauthorized
403	Syntax Error in Transaction
406	Version Not Supported
410	Incorrect identifier
411	The transaction refers to an unknown ContextID
412	No ContextIDs available
421	Unknown action or illegal combination of actions
422	Syntax Error in Action
430	Unknown TerminationID
431	No TerminationID matched a wildcard
432	Out of TerminationIDs or No TerminationID available
433	TerminationID is already in a Context
440	Unsupported or unknown Package
441	Missing RemoteDescriptor
442	Syntax Error in Command
443	Unsupported or Unknown Command
444	Unsupported or Unknown Descriptor
445	Unsupported or Unknown Property
446	Unsupported or Unknown Parameter

Reason Value	Reason Description
447	Descriptor not legal in this command
448	Descriptor appears twice in a command
450	No such property in this package
451	No such event in this package
452	No such signal in this package
453	No such statistic in this package
454	No such parameter value in this package
455	Parameter illegal in this Descriptor
456	Parameter or Property appears twice in this Descriptor
471	Implied Add for Multiplex failure
500	Internal Gateway Error
501	Not Implemented
502	Not ready
503	Service Unavailable
504	Command Received from unauthorized entity
505	Command Received before Restart Response
510	Insufficient resources
512	Media Gateway unequipped to detect requested Event
513	Media Gateway unequipped to generate requested Signals
514	Media Gateway cannot send the specified announcement
515	Unsupported Media Type
517	Unsupported or invalid mode
518	Event buffer full
519	Out of space to store digit map
520	Media Gateway does not have a digit map
521	Termination is "Service Changing"
526	Insufficient bandwidth
529	Internal hardware failure
530	Temporary Network failure
531	Permanent Network failure
581	Does Not Exist

MGCP

The MGCP release causes are listed in Table A-35.

Table A-35 MGCP release causes

Reason Value	Reason Description
1000+0	Endpoint state is nominal
1000+100	The transaction is currently being executed
1000+200	The requested transaction was executed normally
1000+250	The connection was deleted
1000+400	The transaction could not be executed, due to a transient error
1000+401	The phone is already off hook
1000+402	The phone is already on hook
1000+403	The transaction could not be executed, because the endpoint does not have sufficient resources at this time
1000+404	Insufficient bandwidth at this time
1000+500	The transaction could not be executed, because the endpoint is unknown
1000+501	The transaction could not be executed, because the endpoint is not ready
1000+502	The transaction could not be executed, because the endpoint does not have sufficient resources
1000+510	The transaction could not be executed, because a protocol error was detected
1000+511	The transaction could not be executed, because the command contained an unrecognized extension
1000+512	The transaction could not be executed, because the gateway is not equipped to detect one of the requested events
1000+513	The transaction could not be executed, because the gateway is not equipped to generate one of the requested signals
1000+514	The transaction could not be executed, because the gateway cannot send the specified announcement
1000+515	The transaction refers to an incorrect connection-id
1000+516	The transaction refers to an unknown call-id
1000+517	Unsupported or invalid mode
1000+518	Unsupported or unknown package
1000+519	Endpoint does not have a digit map

Reason Value	Reason Description
1000+520	The transaction could not be executed, because the endpoint is "restarting"
1000+521	Endpoint redirected to another Call Agent
1000+522	No such event or signal
1000+523	Unknown action or illegal combination of actions
1000+524	Internal inconsistency in LocalConnectionOptions
1000+525	Unknown extension in LocalConnectionOptions
1000+526	Insufficient bandwidth
1000+527	Missing RemoteConnectionDescriptor
1000+528	Incompatible protocol version
1000+529	Internal hardware failure
1000+530	CAS signaling protocol error
1000+531	Failure of a grouping of trunks
1000+900	Endpoint malfunctioning
1000+901	Endpoint taken out of service
1000+902	Loss of lower layer connectivity

SIP

The SIP release causes are listed in Table A-36.

Table A-36 SIP release causes

Reason Value	Reason Description
2000+400	Bad Request
2000+401	Unauthorized
2000+402	Payment Required
2000+403	Forbidden
2000+404	Not Found
2000+405	Method Not Allowed
2000+406	Not Acceptable
2000+407	Proxy Authentication Required
2000+408	Request Timeout

Reason Value	Reason Description
2000+409	Conflict
2000+410	Gone
2000+411	Length Required
2000+413	Request Entity Too Large
2000+414	Request-URI Too Long
2000+415	Unsupported Media Type
2000+420	Bad Extension
2000+480	Temporarily Unavailable
2000+481	Call Leg/Transaction Does Not Exist
2000+482	Loop Detected
2000+483	Too Many Hops
2000+484	Address Incomplete
2000+485	Ambiguous
2000+486	Busy Here
2000+500	Server Internal Error
2000+501	Not Implemented
2000+502	Bad Gateway
2000+503	Service Unavailable
2000+504	Gateway Time-out
2000+505	Version Not Supported
2000+600	Busy Everywhere
2000+603	Decline
2000+604	Does Not Exist Anywhere
2000+606	Not Acceptable

H.323

The H.323 release causes are listed in Table A-37.

Table A-37 H.323 release causes

Reason Value	Reason Description
3000+0	No Bandwidth

Reason Value	Reason Description
3000+1	Gatekeeper Resources
3000+2	Unreachable Destination
3000+3	Destination Rejection
3000+4	Invalid Revision
3000+5	No Permission
3000+6	Unreachable Gatekeeper
3000+7	Gateway Resources
3000+8	Bad Format Address
3000+9	Adaptive Busy
3000+10	In Conf
3000+11	Undefined Reason
3100+0	Facility Call Deflection
3100+1	Security Denied
3100+2	Called Party Not Registered
3100+3	Caller Not Registered
3100+4	New Connection Needed
3100+5	Non Standard Reason
3100+6	Replace With Conference Invite
3100+7	Generic Data Reason
3100+8	Needed Feature Not Supported
3100+9	Tunneled Signaling Rejected

A.3.3 Caller_did/Callee_did

The values of Caller_did/Callee_did are listed in Table A-38.

Table A-38 Values of Caller_did/Callee_did

Value	Item
0	DID_CON
3	DID_DSL
6	DID_AT0
9	DID_DT

Value	Item
10	DID_TUP
11	DID_ISUP
15	DID_PRA
54	DID_DCN
57	DID_V5ST
58	DID_V5DSL
75	DID_DT5
114	DID_ESL
116	DID_EDCN
118	DID_SIP
119	DID_H323
130	DID_SIPSL
131	DID_H323SL
133	DID_BUTT

A.3.4 Caller/Callee Category

The values of subscriber categories sent from the SoftX3000 to the iGWB are listed in Table A-39.

Table A-39 Values of subscriber categories sent from the SoftX3000 to the iGWB

Value	Subscriber Category	Remarks
0x00	INNER_CAT_Unknown	Standard, unknown subscriber category
Operator		
0x01	INNER_CAT_French_NoTransfer	Standard
0x02	INNER_CAT_English_NoTransfer	
0x03	INNER_CAT_German_NoTransfer	
0x04	INNER_CAT_Russian_NoTransfer	
0x05	INNER_CAT_Spanish_NoTransfer	
0x06	INNER_CAT_TWO_SIDE1_NoTransfer	
0x07	INNER_CAT_TWO_SIDE2_NoTransfer	
0x08	INNER_CAT_TWO_SIDE3_NoTransfer	

Value	Subscriber Category	Remarks
Ordinary subscriber		
0x10	INNER_CAT_OrdinaryCall_R_IDD	With international toll call authority
0x11	INNER_CAT_OrdinaryFree_R_IDD	
0x12	INNER_CAT_OrdinaryPeriodic_R_IDD	
0x13	INNER_CAT_OrdinaryPrint_R_IDD	
0x14	INNER_CAT_OrdinaryMeter_R_IDD	
0x15	INNER_CAT_PBX_Group	
0x17	INNER_CAT_OrdinaryCall_R_DDD	With national toll call authority
0x18	INNER_CAT_OrdinaryFree_R_DDD	
0x19	INNER_CAT_OrdinaryPeriodic_R_DDD	
0x1A	INNER_CAT_OrdinaryPrint_R_DDD	
0x1B	INNER_CAT_OrdinaryMeter_R_DDD	
0x1E	INNER_CAT_OrdinaryCall_R_Local	With local call authority
0x1F	INNER_CAT_OrdinaryFree_R_Local	
0x20	INNER_CAT_OrdinaryPeriodic_R_Local	
0x21	INNER_CAT_OrdinaryPrint_R_Local	
0x22	INNER_CAT_OrdinaryMeter_R_Local	
Pre-paid service subscriber		
0x25	INNER_CAT_PayphoneCall_R_Local	With local call authority
0x26	INNER_CAT_PayphoneCall_R_DDD	With national toll call authority
0x27	INNER_CAT_PayphoneCall_R_IDD	With international toll call authority
High-priority subscriber		
0x28	INNER_CAT_PriorityCall_R_IDD	With international toll call authority
0x29	INNER_CAT_PriorityFree_R_IDD	
0x2A	INNER_CAT_PriorityPeriodic_R_IDD	
0x2B	INNER_CAT_PriorityPrint_R_IDD	
0x2C	INNER_CAT_PriorityMeter_R_IDD	
0x2E	INNER_CAT_PriorityCoin_R_IDD	
0x30	INNER_CAT_PriorityCall_R_DDD	With national toll call authority
0x31	INNER_CAT_PriorityFree_R_DDD	

Value	Subscriber Category	Remarks
0x32	INNER_CAT_PriorityPeriodic_R_DDD	
0x33	INNER_CAT_PriorityPrint_R_DDD	
0x34	INNER_CAT_PriorityMeter_R_DDD	
0x35	INNER_CAT_PriorityCoin_R_DDD	
0x36	INNER_CAT_PriorityCall_R_Local	With local call authority
0x37	INNER_CAT_PriorityFree_R_Local	
0x38	INNER_CAT_PriorityPeriodic_R_Local	
0x39	INNER_CAT_PriorityPrint_R_Local	
0x3A	INNER_CAT_PriorityMeter_R_Local	
0x3B	INNER_CAT_PriorityCoin_R_Local	
Data service subscriber		
0x40	INNER_CAT_DataCall_R_IDD	With international toll call authority
0x41	INNER_CAT_DataCall_R_DDD	With national toll call authority
0x42	INNER_CAT_DataCall_R_Local	With local call authority
Test subscriber		
0x43	INNER_CAT_TestCall_R_IDD	With international toll call authority
0x44	INNER_CAT_TestCall_R_DDD	With national toll call authority
0x45	INNER_CAT_TestCall_R_Local	With local call authority
Hotel subscriber		
0x46	INNER_CAT_HotelCall_R_IDD	With international toll call authority
0x47	INNER_CAT_HotelCall_R_DDD	With national toll call authority
0x48	INNER_CAT_HotelCall_R_Local	With local call authority
Reserved for special subscriber		
0x49	INNER_CAT_SpecialCall_R_IDD	With international toll call authority
0x4A	INNER_CAT_SpecialCall_R_DDD	With national toll call authority
0x4B	INNER_CAT_SpecialCall_R_Local	With local call authority
Added for Russia ANI_CAT7		
0x4C	INNER_CAT_SpecialService_R_IDD	With international toll call authority

Value	Subscriber Category	Remarks
0x4D	INNER_CAT_SpecialService_R_DDD	With national toll call authority
0x4E	INNER_CAT_SpecialService_R_Local	With local call authority
Reserved for special service		
0x50	INNER_CAT_OrdinaryCall_R_Special1	
0x51	INNER_CAT_PriorityCall_R_Special1	
0x52	INNER_CAT_DataCall_R_Special1	
0x53	INNER_CAT_TestCall_R_Special1	
0x54	INNER_CAT_HotelCall_R_Special1	
0x55	INNER_CAT_OrdinaryCall_R_Special2	
0x56	INNER_CAT_PriorityCall_R_Special2	
0x57	INNER_CAT_DataCall_R_Special2	
0x58	INNER_CAT_TestCall_R_Special2	
0x59	INNER_CAT_HotelCall_R_Special2	
0x60	INNER_CAT_VIP_Call	Pakistan
0x61	INNER_CAT_EmergencyCall	USA
0x62	INNER_CAT_EmergencyCall_WithPrior	USA
0x63	INNER_CAT_NationalSecurityCall	USA
0x64	INNER_CAT_MaintenanceLine	Pakistan
0x65	INNER_CAT_HotelCall	
0x66	INNER_CAT_HotelMeter	
0x67	INNER_CAT_Hotel_WithPrior	
0x68	INNER_CAT_PBXCall	
0x69	INNER_CAT_PBXMeter	Singapore
0x6A	INNER_CAT_PBX_WithPrior	Singapore
0x6B	INNER_CAT_PABXCall	
0x6C	INNER_CAT_PABXMeter	Singapore
0x6E	INNER_CAT_PABX_WitchPrior	
0x6F	INNER_CAT_SpecialLine1	Argentina
0x70	INNER_CAT_SpecialLine2	Argentina
0x71	INNER_CAT_MobileCall	Argentina

Value	Subscriber Category	Remarks
0x72	INNER_CAT_Centrex	
0x73	INNER_CAT_WideCentrex	Metropolitan Centrex subscriber, Singapore
0x74	INNER_CAT_BuiessGroup	Singapore
0x75	INNER_CAT_PrivateGroup	
0x76	INNER_CAT_PrivateNet	Argentina
0x77	INNER_CAT_Teletasa	Argentina
0x78	INNER_CAT_Booth	Argentina
0x79	INNER_CAT_Semi_PublicPhone	Argentina
0x7A	INNER_CAT_Multi_PartyLine	Multi-subscriber line, Pakistan
0x7B	INNER_CAT_Req_Charge_Inf	Charging information request, Pakistan
0x7C	INNER_CAT_ImmediateCharge	Thailand
0x7D	INNER_CAT_IDS_Barred	Pakistan
0x7E	INNER_CAT_ANI_Equipment_Trouble	Pakistan
0x7F	INNER_CAT_OrdinaryDIC	Collect Call service subscriber, Brazil
0x81	INNER_CAT_French_Transfer	
0x82	INNER_CAT_English_Transfer	
0x83	INNER_CAT_German_Transfer	
0x84	INNER_CAT_Russian_Transfer	
0x85	INNER_CAT_Spanish_Transfer	
0x86	INNER_CAT_TWO_SIDE1_Transfer	
0x87	INNER_CAT_TWO_SIDE2_Transfer	
0x88	INNER_CAT_TWO_SIDE3_Transfer	
0x89	INNER_CAT_InternationalOpr	
0x8A	INNER_CAT_Forward_InterworkInd	
0x8B	INNER_CAT_Redirect	
0x09	INNER_CAT_InsertOpr_DDD	Standard
0x90	INNER_CAT_OrdinaryOpr_DDD	
0x91	INNER_CAT_InterceptionOpr_DDD	
0x92	INNER_CAT_TransferOpr_DDD	

Value	Subscriber Category	Remarks
0x0A	INNER_CAT_OrdinaryCall	Standard
0x95	INNER_CAT_OrdinaryFree	
0x96	INNER_CAT_OrdinaryPeriodic	
0x97	INNER_CAT_OrdinaryPrint	
0x98	INNER_CAT_OrdinaryDelinquent	Owing-fee subscriber, Argentina
0x99	INNER_CAT_Ordinary_Pre_paid	Pre-paid service subscriber, Argentina
0x9A	INNER_CAT_OrdinaryCall_IDD	
0x9B	INNER_CAT_OrdinaryFree_IDD	
0x9C	INNER_CAT_OrdinaryPeriodic_IDD	
0x9D	INNER_CAT_OrdinaryPrint_IDD	
0xA0	INNER_CAT_OrdinaryCall_DDD	
0xA1	INNER_CAT_OrdinaryFree_DDD	
0xA2	INNER_CAT_OrdinaryPeriodic_DDD	
0xA3	INNER_CAT_OrdinaryPrint_DDD	
0xA5	INNER_CAT_OrdinaryCall_Local	
0xA6	INNER_CAT_OrdinaryFree_Local	
0xA7	INNER_CAT_OrdinaryPeriodic_Local	
0xA8	INNER_CAT_OrdinaryPrint_Local	
0x0B	INNER_CAT_PriorityCall	Standard
0xAA	INNER_CAT_PriorityFree	
0xAB	INNER_CAT_PriorityPeriodic	
0xAC	INNER_CAT_PriorityMeter	
0xAD	INNER_CAT_PriorityPrint	
0xB0	INNER_CAT_PriorityCall_IDD	
0xB1	INNER_CAT_PriorityFree_IDD	
0xB2	INNER_CAT_PriorityPeriodic_IDD	
0xB3	INNER_CAT_PriorityMeter_IDD	
0xB4	INNER_CAT_PriorityPrint_IDD	
0xB5	INNER_CAT_PriorityCall_DDD	
0xB6	INNER_CAT_PriorityFree_DDD	

Value	Subscriber Category	Remarks
0xB7	INNER_CAT_PriorityPeriodic_DDD	
0xB8	INNER_CAT_PriorityMeter_DDD	
0xB9	INNER_CAT_PriorityPrint_DDD	
0xBA	INNER_CAT_PriorityCall_Local	
0xBB	INNER_CAT_PriorityFree_Local	
0xCE	INNER_CAT_PriorityPeriodic_Local	
0xAE	INNER_CAT_PriorityMeter_Local	
0xAF	INNER_CAT_PriorityPrint_Local	
0x0C	INNER_CAT_DataCall	Standard
0xBC	INNER_CAT_DataCall_IDD	
0xBD	INNER_CAT_DataCall_DDD	
0xBE	INNER_CAT_DataCall_Local	
0xBF	INNER_CAT_DataFree	
0x0D	INNER_CAT_TestCall	Standard
0xC0	INNER_CAT_LineMonitor	
0xC1	INNER_CAT_LineTest	
0xC2	INNER_CAT_ATMECall	
0xC3	INNER_CAT_CheckCall	
0xC4	INNER_CAT_TestCall_IDD	
0xC5	INNER_CAT_TestCall_DDD	
0xC6	INNER_CAT_TestCall_Local	
0x0F	INNER_CAT_PayphoneCall	Standard
0xC7	INNER_CAT_PayphoneCall_IDD	
0xC8	INNER_CAT_PayphoneCall_DDD	
0xC9	INNER_CAT_PayphoneCall_Local	
0xCA	INNER_CAT_MeterCall	
0xCB	INNER_CAT_MeterCall_IDD	
0xCC	INNER_CAT_MeterCall_DDD	
0xCD	INNER_CAT_MeterCall_Local	
0xD0	INNER_CAT_Transparent1	
0xD1	INNER_CAT_Transparent2	

Value	Subscriber Category	Remarks
0xD2	INNER_CAT_Transparent3	
0xD3	INNER_CAT_Transparent4	
0xD4	INNER_CAT_Transparent5	
0xD5	INNER_CAT_Transparent6	
0xD6	INNER_CAT_Transparent7	
0xD7	INNER_CAT_Transparent8	
0xD8	INNER_CAT_Transparent9	
0xD9	INNER_CAT_Transparent10	
0xE0	INNER_CAT_HotelCall_IDD	
0xE1	INNER_CAT_HotelCall_DDD	
0xE2	INNER_CAT_HotelCall_Local	
Reserved for special subscriber		
0xE5	INNER_CAT_SpecialCall_IDD	
0xE6	INNER_CAT_SpecialCall_DDD	
0xE7	INNER_CAT_SpecialCall_Local	
0xE8	INNER_CAT_NPNI_OrdinaryCall	Added for Chile CLIR service. For the category, Chile R2 supports II-12 signal.
The following categories are call properties added for Russia (category type: national or international):		
0xF1	INNER_CAT_SemiAutoCall1	
0xF3	INNER_CAT_SemiAutoCall2	
0xF5	INNER_CAT_SemiAutoCall3	
0xF7	INNER_CAT_SemiAutoCall4	
0xF0	INNER_CAT_AutoCall1	
0xF2	INNER_CAT_AutoCall2	
0xF4	INNER_CAT_AutoCall3	
0xF6	INNER_CAT_AutoCall4	
0xFE	INNER_CAT_IDDRestrict	
0xEE	INNER_CAT_VIS	
0x00	INITIAL_CALLING_PARTY_CAT_VALUE	Invalid

When the iGWB receives the subscriber category and then sends the bills to the charging gateway, it must convert the subscriber category to the following external value and external enumeration name. The iGWB performs the same operation when it conducts a query and displays the query results.

The mapping between the internal value and external value are shown in Table A-40.

Table A-40 Mapping between the internal value and external value

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
0	INNER_CAT_Unknown	0	unknown caller category
1	INNER_CAT_French_NoTransfer	1	operator in French
2	INNER_CAT_English_NoTransfer	2	operator in English
3	INNER_CAT_German_NoTransfer	3	operator in German
4	INNER_CAT_Russian_NoTransfer	4	operator in Russian
5	INNER_CAT_Spanish_NoTransfer	5	operator in Spanish
6	INNER_CAT_TWO_SIDE1_NoTransfer	6	operator, the language adopted after the negotiation of both parties
7	INNER_CAT_TWO_SIDE2_NoTransfer	7	operator, the language adopted after the negotiation of both parties
8	INNER_CAT_TWO_SIDE3_NoTransfer	8	operator, the language adopted after the negotiation of both parties
16	INNER_CAT_OrdinaryCall_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
17	INNER_CAT_OrdinaryFree_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
18	INNER_CAT_OrdinaryPeriodic_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
19	INNER_CAT_OrdinaryPrint_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
20	INNER_CAT_OrdinaryMeter_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
21	INNER_CAT_PBX_Group	10	PBX group

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
23	INNER_CAT_OrdinaryCall_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
24	INNER_CAT_OrdinaryFree_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
25	INNER_CAT_OrdinaryPeriodic_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
26	INNER_CAT_OrdinaryPrint_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
27	INNER_CAT_OrdinaryMeter_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
30	INNER_CAT_OrdinaryCall_R_Local	10	ordinary subscriber (toll-toll, toll-local)
31	INNER_CAT_OrdinaryFree_R_Local	10	ordinary subscriber (toll-toll, toll-local)
32	INNER_CAT_OrdinaryPeriodic_R_Local	10	ordinary subscriber (toll-toll, toll-local)
33	INNER_CAT_OrdinaryPrint_R_Local	10	ordinary subscriber (toll-toll, toll-local)
34	INNER_CAT_OrdinaryMeter_R_Local	10	ordinary subscriber (toll-toll, toll-local)
37	INNER_CAT_PayphoneCall_R_Local	15	collect call
38	INNER_CAT_PayphoneCall_R_DDD	15	collect call
39	INNER_CAT_PayphoneCall_R_IDD	15	collect call
40	INNER_CAT_PriorityCall_R_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
41	INNER_CAT_PriorityFree_R_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
42	INNER_CAT_PriorityPeriodic_R_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
43	INNER_CAT_PriorityPrint_R_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
44	INNER_CAT_PriorityMeter_R_IDD	11	priority subscriber (toll-toll, toll-local, local-local)

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
46	INNER_CAT_PriorityCoin_R_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
48	INNER_CAT_PriorityCall_R_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
49	INNER_CAT_PriorityFree_R_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
50	INNER_CAT_PriorityPeriodic_R_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
51	INNER_CAT_PriorityPrint_R_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
52	INNER_CAT_PriorityMeter_R_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
53	INNER_CAT_PriorityCoin_R_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
54	INNER_CAT_PriorityCall_R_Local	11	priority subscriber (toll-toll, toll-local, local-local)
55	INNER_CAT_PriorityFree_R_Local	11	priority subscriber (toll-toll, toll-local, local-local)
56	INNER_CAT_PriorityPeriodic_R_Local	11	priority subscriber (toll-toll, toll-local, local-local)
57	INNER_CAT_PriorityPrint_R_Local	11	priority subscriber (toll-toll, toll-local, local-local)
58	INNER_CAT_PriorityMeter_R_Local	11	priority subscriber (toll-toll, toll-local, local-local)
59	INNER_CAT_PriorityCoin_R_Local	11	priority subscriber (toll-toll, toll-local, local-local)
64	INNER_CAT_DataCall_R_IDD	12	data call (speech band data)
65	INNER_CAT_DataCall_R_DDD	12	data call (speech band data)
66	INNER_CAT_DataCall_R_Local	12	data call (speech band data)
67	INNER_CAT_TestCall_R_IDD	13	test call
68	INNER_CAT_TestCall_R_DDD	13	test call

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
69	INNER_CAT_TestCall_R_Local	13	test call
70	INNER_CAT_HotelCall_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
71	INNER_CAT_HotelCall_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
72	INNER_CAT_HotelCall_R_Local	10	ordinary subscriber (toll-toll, toll-local)
73	INNER_CAT_SpecialCall_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
74	INNER_CAT_SpecialCall_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
75	INNER_CAT_SpecialCall_R_Local	10	ordinary subscriber (toll-toll, toll-local)
76	INNER_CAT_SpecialService_R_IDD	10	ordinary subscriber (toll-toll, toll-local)
77	INNER_CAT_SpecialService_R_DDD	10	ordinary subscriber (toll-toll, toll-local)
78	INNER_CAT_SpecialService_R_Local	10	ordinary subscriber (toll-toll, toll-local)
80	INNER_CAT_OrdinaryCall_R_Special1	10	ordinary subscriber (toll-toll, toll-local)
81	INNER_CAT_PriorityCall_R_Special1	11	priority subscriber (toll-toll, toll-local, local-local)
82	INNER_CAT_DataCall_R_Special1	12	data call (speech band data)
83	INNER_CAT_TestCall_R_Special1	13	test call
84	INNER_CAT_HotelCall_R_Special1	10	ordinary subscriber (toll-toll, toll-local)
85	INNER_CAT_OrdinaryCall_R_Special2	10	ordinary subscriber (toll-toll, toll-local)
86	INNER_CAT_PriorityCall_R_Special2	11	priority subscriber (toll-toll, toll-local, local-local)
87	INNER_CAT_DataCall_R_Special2	12	data call (speech band data)

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
88	INNER_CAT_TestCall_R_Special2	13	test call
89	INNER_CAT_HotelCall_R_Special2	10	ordinary subscriber (toll-toll, toll-local)
96	INNER_CAT_VIP_Call	11	priority subscriber (toll-toll, toll-local, local-local)
97	INNER_CAT_EmergencyCall	10	ordinary subscriber (toll-toll, toll-local)
98	INNER_CAT_EmergencyCall_WithPrior	11	priority subscriber (toll-toll, toll-local, local-local)
99	INNER_CAT_NationalSecurityCall	11	priority subscriber (toll-toll, toll-local, local-local)
100	INNER_CAT_MaintenanceLine	13	test call
101	INNER_CAT_HotelCall	10	ordinary subscriber (toll-toll, toll-local)
102	INNER_CAT_HotelMeter	10	ordinary subscriber (toll-toll, toll-local)
103	INNER_CAT_Hotel_WithPrior	11	priority subscriber (toll-toll, toll-local, local-local)
104	INNER_CAT_PBXCall	10	ordinary subscriber (toll-toll, toll-local)
105	INNER_CAT_PBXMeter	10	ordinary subscriber (toll-toll, toll-local)
106	INNER_CAT_PBX_WithPrior	11	priority subscriber (toll-toll, toll-local, local-local)
107	INNER_CAT_PABXCall	10	ordinary subscriber (toll-toll, toll-local)
108	INNER_CAT_PABXMeter	10	ordinary subscriber (toll-toll, toll-local)
110	INNER_CAT_PABX_WitchPrior	11	priority subscriber (toll-toll, toll-local, local-local)
111	INNER_CAT_SpeciaLLine1	10	ordinary subscriber (toll-toll, toll-local)
112	INNER_CAT_SpeciaLLine2	10	ordinary subscriber (toll-toll, toll-local)

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
113	INNER_CAT_MobileCall	10	ordinary subscriber (toll-toll, toll-local)
114	INNER_CAT_Centrex	10	ordinary subscriber (toll-toll, toll-local)
115	INNER_CAT_Wide Centrex	10	ordinary subscriber (toll-toll, toll-local)
116	INNER_CAT_Buiess Group	10	ordinary subscriber (toll-toll, toll-local)
117	INNER_CAT_PrivateGroup	10	ordinary subscriber (toll-toll, toll-local)
118	INNER_CAT_PrivateNet	10	ordinary subscriber (toll-toll, toll-local)
119	INNER_CAT_Teletasa	10	ordinary subscriber (toll-toll, toll-local)
120	INNER_CAT_Booth	10	ordinary subscriber (toll-toll, toll-local)
121	INNER_CAT_Semi_PublicPhone	10	ordinary subscriber (toll-toll, toll-local)
122	INNER_CAT_Multi_PartyLine	10	ordinary subscriber (toll-toll, toll-local)
123	INNER_CAT_Req_Charge_Inf	10	ordinary subscriber (toll-toll, toll-local)
124	INNER_CAT_ImmediateCharge	10	ordinary subscriber (toll-toll, toll-local)
125	INNER_CAT_IDS_Barred	10	ordinary subscriber (toll-toll, toll-local)
126	INNER_CAT_ANI_Equipment_Trouble	10	ordinary subscriber (toll-toll, toll-local)
127	INNER_CAT_OrdinaryDIC	10	ordinary subscriber (toll-toll, toll-local)
129	INNER_CAT_French_Transfer	1	operator in French
130	INNER_CAT_English_Transfer	2	operator in English
131	INNER_CAT_German_Transfer	3	operator in German
132	INNER_CAT_Russian_Transfer	4	operator in Russian

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
133	INNER_CAT_Spanish_Transfer	5	operator in Spanish
134	INNER_CAT_TWO_SIDE1_Transfer	6	operator, the language adopted after the negotiation of both parties
135	INNER_CAT_TWO_SIDE2_Transfer	7	operator, the language adopted after the negotiation of both parties
136	INNER_CAT_TWO_SIDE3_Transfer	8	operator, the language adopted after the negotiation of both parties
137	INNER_CAT_InternationalOpr	7	operator, the language adopted after the negotiation of both parties
138	INNER_CAT_Forward_InterworkInd	10	ordinary subscriber (toll-toll, toll-local)
139	INNER_CAT_Redirect	10	ordinary subscriber (toll-toll, toll-local)
9	INNER_CAT_InsertOpr_DDD	9	domestic operator
144	INNER_CAT_OrdinaryOpr_DDD	9	domestic operator
145	INNER_CAT_InterceptionOpr_DDD	9	domestic operator
146	INNER_CAT_TransferOpr_DDD	9	domestic operator
10	INNER_CAT_OrdinaryCall	10	ordinary subscriber (toll-toll, toll-local)
149	INNER_CAT_OrdinaryFree	10	ordinary subscriber (toll-toll, toll-local)
150	INNER_CAT_OrdinaryPeriodic	10	ordinary subscriber (toll-toll, toll-local)
151	INNER_CAT_OrdinaryPrint	10	ordinary subscriber (toll-toll, toll-local)
152	INNER_CAT_OrdinaryDelinquent	10	ordinary subscriber (toll-toll, toll-local)
153	INNER_CAT_Ordinary_Pre_paid	10	ordinary subscriber (toll-toll, toll-local)
154	INNER_CAT_OrdinaryCall_IDD	10	ordinary subscriber (toll-toll, toll-local)

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
155	INNER_CAT_OrdinaryFree_IDD	10	ordinary subscriber (toll-toll, toll-local)
156	INNER_CAT_OrdinaryPeriodic_IDD	10	ordinary subscriber (toll-toll, toll-local)
157	INNER_CAT_OrdinaryPrint_IDD	10	ordinary subscriber (toll-toll, toll-local)
160	INNER_CAT_OrdinaryCall_DDD	10	ordinary subscriber (toll-toll, toll-local)
161	INNER_CAT_OrdinaryFree_DDD	10	ordinary subscriber (toll-toll, toll-local)
162	INNER_CAT_OrdinaryPeriodic_DDD	10	ordinary subscriber (toll-toll, toll-local)
163	INNER_CAT_OrdinaryPrint_DDD	10	ordinary subscriber (toll-toll, toll-local)
165	INNER_CAT_OrdinaryCall_Local	10	ordinary subscriber (toll-toll, toll-local)
166	INNER_CAT_OrdinaryFree_Local	10	ordinary subscriber (toll-toll, toll-local)
167	INNER_CAT_OrdinaryPeriodic_Local	10	ordinary subscriber (toll-toll, toll-local)
168	INNER_CAT_OrdinaryPrint_Local	10	ordinary subscriber (toll-toll, toll-local)
11	INNER_CAT_PriorityCall	11	priority subscriber (toll-toll, toll-local, local-local)
170	INNER_CAT_PriorityFree	11	priority subscriber (toll-toll, toll-local, local-local)
171	INNER_CAT_PriorityPeriodic	11	priority subscriber (toll-toll, toll-local, local-local)
172	INNER_CAT_PriorityMeter	11	priority subscriber (toll-toll, toll-local, local-local)
173	INNER_CAT_PriorityPrint	11	priority subscriber (toll-toll, toll-local, local-local)
176	INNER_CAT_PriorityCall_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
177	INNER_CAT_PriorityFree_IDD	11	priority subscriber (toll-toll, toll-local, local-local)

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
178	INNER_CAT_PriorityPeriodic_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
179	INNER_CAT_PriorityMeter_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
180	INNER_CAT_PriorityPrint_IDD	11	priority subscriber (toll-toll, toll-local, local-local)
181	INNER_CAT_PriorityCall_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
182	INNER_CAT_PriorityFree_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
183	INNER_CAT_PriorityPeriodic_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
184	INNER_CAT_PriorityMeter_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
185	INNER_CAT_PriorityPrint_DDD	11	priority subscriber (toll-toll, toll-local, local-local)
186	INNER_CAT_PriorityCall_Local	11	priority subscriber (toll-toll, toll-local, local-local)
187	INNER_CAT_PriorityFree_Local	11	priority subscriber (toll-toll, toll-local, local-local)
206	INNER_CAT_PriorityPeriodic_Local	11	priority subscriber (toll-toll, toll-local, local-local)
174	INNER_CAT_PriorityMeter_Local	11	priority subscriber (toll-toll, toll-local, local-local)
175	INNER_CAT_PriorityPrint_Local	11	priority subscriber (toll-toll, toll-local, local-local)
12	INNER_CAT_DataCall	12	data call (speech band data)
188	INNER_CAT_DataCall_IDD	12	data call (speech band data)
189	INNER_CAT_DataCall_DDD	12	data call (speech band data)
190	INNER_CAT_DataCall_Local	12	data call (speech band data)
191	INNER_CAT_DataFree	12	data call (speech band data)

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
13	INNER_CAT_TestCall	13	test call
192	INNER_CAT_LineMonitor	13	test call
193	INNER_CAT_LineTest	13	test call
194	INNER_CAT_ATMECall	13	test call
195	INNER_CAT_CheckCall	13	test call
196	INNER_CAT_TestCall_IDD	13	test call
197	INNER_CAT_TestCall_DDD	13	test call
198	INNER_CAT_TestCall_Local	13	test call
15	INNER_CAT_PayphoneCall	15	collect call
199	INNER_CAT_PayphoneCall_IDD	15	collect call
200	INNER_CAT_PayphoneCall_DDD	15	collect call
201	INNER_CAT_PayphoneCall_Local	15	collect call
202	INNER_CAT_MeterCall	10	ordinary subscriber (toll-toll, toll-local)
203	INNER_CAT_MeterCall_IDD	10	ordinary subscriber (toll-toll, toll-local)
204	INNER_CAT_MeterCall_DDD	10	ordinary subscriber (toll-toll, toll-local)
205	INNER_CAT_MeterCall_Local	10	ordinary subscriber (toll-toll, toll-local)
208	INNER_CAT_Transparent1	10	ordinary subscriber (toll-toll, toll-local)
209	INNER_CAT_Transparent2	10	ordinary subscriber (toll-toll, toll-local)

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
210	INNER_CAT_Transparent3	10	ordinary subscriber (toll-toll, toll-local)
211	INNER_CAT_Transparent4	10	ordinary subscriber (toll-toll, toll-local)
212	INNER_CAT_Transparent5	10	ordinary subscriber (toll-toll, toll-local)
213	INNER_CAT_Transparent6	10	ordinary subscriber (toll-toll, toll-local)
214	INNER_CAT_Transparent7	10	ordinary subscriber (toll-toll, toll-local)
215	INNER_CAT_Transparent8	10	ordinary subscriber (toll-toll, toll-local)
216	INNER_CAT_Transparent9	10	ordinary subscriber (toll-toll, toll-local)
217	INNER_CAT_Transparent10	10	ordinary subscriber (toll-toll, toll-local)
224	INNER_CAT_HotelCall_IDD	10	ordinary subscriber (toll-toll, toll-local)
225	INNER_CAT_HotelCall_DDD	10	ordinary subscriber (toll-toll, toll-local)
226	INNER_CAT_HotelCall_Local	10	ordinary subscriber (toll-toll, toll-local)
229	INNER_CAT_SpecialCall_IDD	10	ordinary subscriber (toll-toll, toll-local)
230	INNER_CAT_SpecialCall_DDD	10	ordinary subscriber (toll-toll, toll-local)
231	INNER_CAT_SpecialCall_Local	10	ordinary subscriber (toll-toll, toll-local)
232	INNER_CAT_NPNI_OrdinaryCall	0	unknown caller category
241	INNER_CAT_SemiAutoCall1	9	domestic operator
243	INNER_CAT_SemiAutoCall2	9	domestic operator
245	INNER_CAT_SemiAutoCall3	9	domestic operator

Internal Value	Internal Enumeration Name	External Value	External Enumeration Name
247	INNER_CAT_SemiAutoCall4	9	domestic operator
240	INNER_CAT_AutoCall1	10	ordinary subscriber (toll-toll, toll-local)
242	INNER_CAT_AutoCall2	10	ordinary subscriber (toll-toll, toll-local)
244	INNER_CAT_AutoCall3	10	ordinary subscriber (toll-toll, toll-local)
246	INNER_CAT_AutoCall4	10	ordinary subscriber (toll-toll, toll-local)
248	(The same as the external category)	248	ordinary local subscriber (local-local, used by the local office)
254	INNER_CAT_IDDRestrict	0	unknown caller category
0	INITIAL_CALLING_PARTY_CAT_VALUE	0	unknown caller category

A.3.5 Failure Cause Code

The failure cause codes are listed in Table A-41.

Table A-41 Failure cause codes

No.	Failure Cause Code
0	NS_SET_CONFLICT
1	NS_SET_OK
2	NS_SET_FAIL
3	NS_CANCEL_OK
4	NS_CANCEL_FAIL
5	NS_VERIFY_OK
6	NS_VERIFY_FAIL
7	NS_USE_OK
8	NS_USE_FAIL
9	NS_MCT_USE_OK

No.	Failure Cause Code
10	NS_MCT_USE_FAIL
11	NS_ABSENT_USER
12	NS_NO_DISTURB
13	SWITCHING_EQUIPMENT_CONGESTION
14	LONG_TIME_NO_DIALING
15	LONG_TIME_NO_ANSWER
16	TEMPORARY_FAILURE
17	REMOTE_TEST_OK
18	LONG_TIME_NO_INFORMATION
19	LONG_TIME_NO_ALERTING
20	LONG_TIME_NO_RELEASE
21	IN_BAND_SIGNAL
22	COCK_FAILURE
23	EXCEED_MAX_REATTEMPT_TIME
24	RELEASE_BEFORE_RING
25	RELEASE_BEFORE_ANSWER
26	CALL_BARRING
27	SWITCHING_EQUIPMENT_FAULT
28	OPR_DISCONNECT_FORCELY_OK
29	OPR_DISCONNECT_FORCELY_FAILURE
30	ST_BUSY
31	SL_BUSY
32	OWNED
33	NUMBER_PORT
34	RESTART_CT0
35	NS_RECORD_USE_OK
36	CREDIT_ARREARAGE
37	CALLIN_BARRING
38	NS_CCW_USE_OK
39	CALL_BLOCKED
40	MWN_UNALLOCATE

No.	Failure Cause Code
41	MWN_REGISTERED
42	REMOTE_EQUIPMENT_CONGESTION
43	CALL_FAIL
44	DUAL_SEIZE
45	INVALID_CODE_FORM
46	REMOTE_PASS_UPDATE_FAIL
47	REMOTE_PASS_UPDATE_SUC
48	REMOTE_LOGIN_CF_SUC
49	REMOTE_LOGIN_CF_FAIL
50	REMOTE_CANCEL_CF_SUC
51	REMOTE_CANCEL_CF_FAIL
52	CALLED_OWNED
53	PASSWORD_WRONG
54	REDIRECT_RESTRICTION
55	MODULE_NOT_ARRIVED
56	NET_MANAGE_BARRING
57	USER_QUEUE_FAIL
58	GROUP_QUEUE_FAIL
59	TIMEOUT_IN_QUEUE
60	CPU_OVERLAP
61	NO_CR
62	NO_CCB
63	REDIRECT_FROM_TRUNK_RESTRICTION
64	NUMRISE_FROM7TO8
65	DIAL_NO_RESERED
66	NO_CONFO
67	NO_DIALING_ABANDON
68	NO_DIALING_TIMEOUT
69	PARTIAL_DIAL_ABANDON
70	PARTIAL_DIAL_TIMEOUT
71	MWN_NOT_REGISTED

No.	Failure Cause Code
72	PRESELECT_REJECT
75	SIGNALING_ERROR
76	MONEY_NOT_ENOUGH
77	BW_LIST_BARRING
78	CLI_JUDGE_RESTRICTION
79	PORT_NOT_ACTIVE
80	HW_TS_UNAVAILABE
81	IWF_UNAVAILABLE
82	NO_REQUEST_BEARER_ACIRCUIT
83	NO_ACIRCUIT
84	USER_BUSY
85	CUG_SERVICE_IMCOMPATIBLE
86	UNKNOWN_CUG
87	NO_CUG_SELECTED
88	CUG_OUTGOING_CALL_BARRED
89	CUG_WITHOUT_INCOMGING_ACCESS
90	CUG_SS_INTERACTION_VIOLATION
91	CUG_INCOMPATIBLE_DESTINATION
92	FORWARD_IND
93	CALL_RELEASE
94	HO_COMPLETE
95	HO_FAILURE
96	TOLL_CT_TO_TOLL
97	LIMIT_TIME_OUT
98	NS_SUPER_NO_DISTURB
100	GSM_CLD_DN_NO_EXIST
101	GSM_CLD_USER_NO_ACKNOWLEGE
102	GSM_CLD_USER_BAIC
103	GSM_CLI_USER_BAOC
104	GSM_CLD_USER_NOT_REACHABLE
105	GSM_LOCAL_CALL_NO_NATIONAL_AREA_CODE

No.	Failure Cause Code
106	GSM_CALL_HOLD
107	GSM_CLD_USER_BUSY
108	GSM_CLD_USER_NOT_ACTIVE
109	GSM_SERVICE_NOT_AVAILABLE
110	GSM_NO_DIAL_0_CALLING_OTHER_AREA_MOBILE_SUBSCIBER
111	GSM_EMERGENCY
112	FORWARDING_VIOLATION
113	VM_DN_LONG
114	MSISDN_DN_LONG
115	MAP_ROUTE_INFORMATION_ERROR
116	GSM_ODB_BAOC
117	GSM_ODB_BOIC
118	GSM_BOIC
119	GSM_BOIC_EXHC
120	GSM_ODB_BOIC_EXHC
121	GSM_ODB_BAIC
122	GSM_ODB_ENTERTAINMENT
123	GSM_ODB_MESSAGE
124	GSM_OUT_OF_PLMN
125	GSM_ODB_TOLL
126	INTERNAL_REL
128	UNKNOWN
129	UNALOC_CODE
130	NO_ROUTE_TO_SPECIFIED_INTERNETWORK
131	NO_ROUTE_TO_TERMINAL
132	SEND_PRIVATE_TONE
133	ERROR_INCLUDE_LONG_DISTANCE
134	ROUTE_UNACCEPTABLE
135	CALL_HAS_ESTABLISHED_AND_DELIVERED_ON_ROUTE_ESTABLISHED
136	OPERATOR_DETERMINED_BARRING

No.	Failure Cause Code
144	NORMAL_CALL_CLEAR
145	BUSY
146	NO_RESPOND
147	NO_ACKNOWLEGE
148	ABSENT_SUBSCRIBER
149	CALL_REJECTED
150	NUMBER_CHANGED
151	NO_FREE_CIRCUIT
152	NO_FREE_EC
153	RAB_PRE_EMPTED
154	CLEAR_UNSELECTED_USER
155	TERMINAL_ERROR
156	INVALID_FORMAT_OR_ADDRESS_NOT_ENOUGH
157	FACILITY_REJECTED
158	RESPOND_TO_STATUS_ENQUIRY
159	NORMAL
162	NO_ROUTE_AVAILABLE
166	NETWORK_ERROR
169	ERROR_FOR_THE_TIME_BEING
170	EXCHANGE_FACILITY_SURGE
171	ACCESS_INFO_LOST
172	NO_ROUTE_OR_CIRCUIT_APPLIED_AVAILABLE
175	NO_RESOURCE_AVAILABLE
177	NO_SUITABLE_SERVICE_QUALITY
178	FACILITY_APPLIED_NOT_PRESERVED
181	CUG_OUTGO_CALL_BARRED
183	CUG_INCOMING_CALL_UNALLOW
185	BEARER_CAPABILITY_NOT_PERMIT
186	NO_BEARER_CAPABLILITY_AVAILABLE_THIS_TIME
191	NO_SUITABLE_SERVICE_OR_OPTIONAL_PROJECT
193	BEARER_CAPABILITY_NOT_LAY_OUT

No.	Failure Cause Code
194	ROUTE_TYPE_NOT_LAY_OUT
195	AOC_SERVICE_REQ_IS_FAIL
196	ACM_EQUAL_TO_OR_GREATER_THAN_ACMMAX
197	FACILITY_APPLIED_NOT_LAY_OUT
198	ONLY_LIMITED_DIGITAL_INFO_BEARER_CAPABILITY
201	IWF_RESOURCE_UNAVAILABE
202	NO_ECP
207	SERVICE_OR_OPTIONAL_PROJECT_NOT_LAY_OUT
209	INVALID_CALL_REFERENCE
210	REOUTE_IDENTEFIED_NOT_EXIST
211	SUSPENDED_CALL_EXIST_BUT_NO_CALL_IDENTIFIER
212	CALL_IDENTIFIER_IS_USING
213	NO_SUSPENDED_CALL
214	CALL_HAS_THE_CALL_IDENTIFIER_APPLIED_CLEARED
215	CALLED_IS_NOT_CUG
216	TERMINAL_UNCOMPATABLE
218	NON_EXIST_CUG
219	INVALID_TRANSMIT_NETWORK_SELECTION
223	INVALID_MESSAGE
224	NECESSARY_IE_LOST
225	MESSAGE_TYPE_NOT_EXIST_OR_NOT_LAY_OUT
226	MESSAGE_STATE_ERROR_OR_MESSAGE_ERROR
227	IE_NOT_EXIST_OR_NOT_LAY_OUT
228	INVALID_IE_CONTENT
229	MESSAGE_UNFIT_FOR_CALL_STATE
230	RECOVERY_OF_TIME_OUT
231	PARA_NOT_EXIST
232	ORDINARY_CONGESTION
233	TARIFF_CHANGED
234	TBS_CHANGED
239	PROTOCOL_ERROR

No.	Failure Cause Code
240	EXCEPTION_OF_SCP
241	ERROR_FROM_SCP
242	REPORT_DP_ERROR
243	LONG_TIME_NO_CCF_ACK
244	RELEASECALL_FROM_O_BCSM
245	RELEASECALL_FROM_T_BCSM
246	SUBSCRIBER_REQ_FAIL
247	CAUSE_LCF
248	CAUSE_LRJ
249	GK_IP_CONFLICT
250	CALLED_CAN'T_ACC_COLLECT_CALL
254	BUTT
255	INTERWORK

A.3.6 Supplementary_service_type

The supplementary service types are listed in Table A-42.

Table A-42 Supplementary service types

No.	Supplementary_service_type
0	Register abbreviated dialing
1	Use abbreviated dialing
2	Cancel abbreviated dialing
3	Cancel all abbreviated dialing
4	Check abbreviated dialing
5	Register hot line
6	Use hot line
7	Cancel hot line
8	Register wakeup call
9	Use wakeup call
10	Cancel wakeup call
11	Register absent subscriber

No.	Supplementary_service_type
12	Use absent subscriber
13	Cancel absent subscriber
14	Register do not disturb
15	Use do not disturb
16	Cancel do not disturb
17	Check do not disturb
18	Register outgoing call barring
19	Cancel outgoing call barring
20	Check outgoing call barring
21	Use malicious call trace
22	Register auto-redial
23	Use auto-redial
24	Cancel auto-redial
25	Register call forwarding unconditionally (CFU)
26	Use call forwarding unconditionally (CFU)
27	Cancel call forwarding unconditionally (CFU)
28	Check call forwarding unconditionally (CFU)
29	Register call forwarding on busy (CFB)
30	Use call forwarding on busy (CFB)
31	Cancel call forwarding on busy (CFB)
32	Check call forwarding on busy (CFB)
33	Register call forwarding on no reply (CFNR)
34	Use call forwarding on no reply (CFNR)
35	Cancel call forwarding on no reply (CFNR)
36	Check call forwarding on no reply (CFNR)
37	Register time call forwarding (CFT)
38	Use time call forwarding (CFT)
39	Cancel time call forwarding (CFT)
40	Check time call forwarding (CFT)
41	Register call forwarding offline (CFO)
42	Use call forwarding offline (CFO)

No.	Supplementary_service_type
43	Cancel call forwarding offline (CFO)
44	Check call forwarding offline (CFO)
45	Register call waiting
46	Use call waiting
47	Cancel call waiting
48	Register calling back on busy
49	Use calling back on busy
50	Cancel calling back on busy
51	Use three parties communication
52	Use conference
53	Use designated picking up
54	Use call pickup for all
55	Use caller hooking
56	Use called hooking
57	Use CLIP
58	Register CLIR
59	Cancel CLIR
60	Check CLIR
61	Register number barring
62	Used number barring
63	Cancel number barring
64	Cancel all number barring
65	Check number barring
66	Register secretary station
67	Use secretary station
68	Cancel secretary station
69	Check secretary station
70	Register secretary service
71	Use secretary service
72	Cancel secretary service
73	Check secretary service

No.	Supplementary_service_type
74	Register immediate hot line
75	Use immediate hot line
76	Cancel immediate hot line
77	Register remote CFU
78	Cancel remote CFU
79	Register remote CFB
80	Cancel remote CFB
81	Register remote CFNR
82	Cancel remote CFNR
83	Register remote CFT
84	Cancel remote CFT
85	Register remote CFO
86	Cancel remote CFO
87	Modify password
88	Register COLR
89	Cancel COLR
90	Check COLR
91	CFB to voice mail
92	FNR to voice mail
93	Add voltage MWN
94	Register AOCE
95	Cancel AOCE
96	Special line call
97	Insert trunk
98	Supervision trunk
99	Disconnect trunk
100	Present CLI temply
101	Restrict CLI temply
102	Hooking transfer
103	Operate by password
104	Clear conference participant

No.	Supplementary_service_type
105	Register conference list
106	Use conference list
107	Cancel conference list
108	Receive coming conference
109	Reject coming conference
110	Register split auto conference
111	Register add auto conference
112	Register isolate auto conference
113	Register reattach auto conference
114	Register drop auto conference
115	Register console
116	Cancel console
117	Urgent out
118	Register room state
119	Register mini bar
120	Prefix of CTX internal
121	CLI test
122	Start ATME test
123	End ATME test
124	Special DN test
125	Intelligent
126	Intelligent route control
127	Register DN call allow
128	Cancel DN call allow
129	Active DNCOA table
130	Deactivate DNCOA table
131	Active DN call barring
132	Deactivate DN call barring
133	Center maintain DN
134	Special function DN
135	Service mode1 access code

No.	Supplementary_service_type
136	Service mode2 access code
137	Service mode3 access code
138	Service mode4 access code
139	Cancel all registered new service
140	DN display
141	Tone record
142	Play tone
143	Centrex card call
144	Centrex card modipwd
145	Register floating work area
146	Check floating work area
147	Cancel floating work area
148	Floating work area calling
149	Inter PLMN
150	Local PLMN
151	Other PLMN
152	DDD PLMN
153	IDD PLMN
154	Voice mailbox
155	Assist request mode
156	IP server DN
157	Toll semiauto service
158	International toll semiauto service
159	MCU
160	Inter DDD
161	Inter IDD
162	Block CNAM
163	Unblock CNAM
164	Block CID
165	Unblock CID
166	Apply CCW

No.	Supplementary_service_type
167	Register normal BTB
168	Cancel normal BTB
169	Register duplex BTB
170	Cancel duplex BTB
171	Register PBXCFU
172	Check PBXCFU
173	Cancel PBXCFU
174	Register PBXCFNR
175	Check PBXCFNR
176	Cancel PBXCFNR
177	Register PBXCFB
178	Check PBXCFB
179	Cancel PBXCFB
180	Register MWI
181	Cancel MWI
182	Register CWCFNR
183	Check CWCFNR
184	Cancel CWCFNR
185	Modify super password
186	Register CFU to centrex attendant
187	Check CFU to centrex attendant
188	Cancel CFU to centrex attendant
189	Register CFU to mailbox
190	Check CFU to mailbox
191	Cancel CFU to mailbox
192	Register CFB to mailbox
193	Check CFB to mailbox
194	Cancel CFB to mailbox
195	Register CFNR to mailbox
196	Check CFNR to mailbox
197	Cancel CFNR to mailbox

No.	Supplementary_service_type
198	Register CFS
199	Use CFS
200	Cancel CFS
201	Register CFS CLID
202	Cancel CFS CLID
203	Register CFS TOD
204	Cancel CFS TOD
205	Register CFS DOW
206	Cancel CFS DOW
207	Activate CFS entry
208	Cancel CFS entry
209	Deactivate CFS entry
210	Query CFS information
211	Register SCA CLID
212	Use SCA CLID
213	Cancel SCA CLID
214	Register SCA TOD
215	Use SCA TOD
216	Cancel SCA TOD
217	Register SCA DOW
218	Use SCA DOW
219	Cancel SCA DOW
220	Activate SCA entry
221	Cancel SCA entry
222	Deactivate SCA entry
223	Query SCA information
224	Register SCR CLID
225	Use SCR CLID
226	Cancel SCR CLID
227	Register SCR TOD
228	Use SCR TOD

No.	Supplementary_service_type
229	Cancel SCR TOD
230	Register SCR DOW
231	Use SCR DOW
232	Cancel SCR DOW
233	Activate SCR entry
234	Cancel SCR entry
235	Deactivate SCR entry
236	Query SCR information
237	Use password call
238	Use outgoing call prompt
239	Register SCA
240	Use SCA
241	Cancel SCA
242	Register SCR
243	Use SCR
244	Cancel SCR
245	Register IDD call in barring
246	Use IDD call in barring
247	Check IDD call in barring
248	Cancel IDD call in barring
249	Use INQUIRY
250	Use call waiting terminating
251	Register call waiting terminating
252	Cancel call waiting terminating
253	Use call waiting originating
254	Register call waiting originating
255	Cancel call waiting originating
256	Register auth call one time mode
257	Register auth call manual mode
258	Cancel auth call manual mode
259	Register PW call barring

No.	Supplementary_service_type
260	Use PW call barring
261	Cancel PW call barring
262	Remote register PW call barring
263	Remote cancel PW call barring
264	Register CCS
265	Use CCS
266	Cancel CCS
267	Use OCM
268	Use ICM
269	Use CFIO
270	Use CFGO
271	Use call park
272	Use call hold
273	Use CTIO
274	Use CTGO
275	Register DRG
276	Use DRG
277	Cancel DRG
278	Use BRGIN
279	Use EBO
280	CALL_TRN_3WAY
281	Register SCW
282	Use SCW
283	Cancel SCW
284	Use CDR
285	Register CDR
286	Use MCT
287	Use QUERYFEE180
288	Use MRSTEST
289	Register MCT
290	Cancel MCT

No.	Supplementary_service_type
291	Register PERSONALMONITOR
292	Verify PERSONALMONITOR
293	Cancel PERSONALMONITOR
294	Use PERSONALMONITOR
295	Use CLIR
296	Use CALL BARRING
297	BILL MULTI CALL
298	Use rerouting
299	Use CCBS
300	Register CCBS
301	Cancel CCBS
302	Use CCBNR
303	Register CCBNR
304	Cancel CCBNR
305	Register Park On
306	Cancel Park On
307	Modify Rcss Password
65535	NEW SERVICE BUTT