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# A CDR Format

This appendix introduces the final CDR formats after sorting and conversion.

SOFTX3000 version	Length of original CDR (bytes)	Length of final CDR (bytes)
V300R006	953	881

**NOTE**

CDR formats change frequently. The CDR format is for your reference only.

## A.1 Fixed IN bill

Field	length (bytes)	Offset	Remark
csn	4	0	The unified number of bill, expressed in long integer.
length	2	4	Bill length,count from next field (net_type).
net_type	1	6	11: fixed network bill 22: mobile network bill
bill_type	1	7	C0x03: IN record.
check_sum	1	8	Used for checking whether the bill is saved correctly, it is a kind of checking mode.
partial_record_indicator	0.5	9	It is always 0,indicating a single record reserved when intelligent bill integrates with ordinary bill, therefore, it overlaps with charging record indicator. It uses one byte together with validity flag and reserved bit, and this indicator uses the lower 4 bits in this byte.

Field	length (bytes)	Offset	Remark
valid_indicator	0.125	9.5	It is always 0, indicating valid; it is 1, indicating invalid.
Spared	0.375	9.625	Spared bit.
Intelligent Bill Related Flag	4	10	<p>Indicating that which fields are available in bill, 0 for this field is not available in bill, 1 for this field is available in bill. This field is used for the realization of ACR program in INAP operation. Each field flag occupies a bit, as shown below:</p> <p>Caller number address indicator flag, 0 for not indicated, 1 for indicated, the same hereafter.</p> <p>caller number flag location number address indicator flag charging category indicator flag charging mode indicator flag partial record indicator flag location number indicator flag called number address indicator flag called number flag destination number address indicator flag destination number flag charging number address information flag charging number flag incoming trunk indicator flag outgoing trunk indicator flag answering time flag call end time flag conversation duration flag call charging flag traffic type flag release cause flag indicator flag call subscriber category flag bearer capability flag final service flag tariff adjustment flag premium flag transparent charging flag with other 4 bits reserved</p>
Intelligent Bill Related Flag	4	10	
Intelligent Bill Related Flag	4	10	
Record type	1	14	0x03: IN record.

Field	length (bytes)	Offset	Remark
Charging Record Indicator	2	15	Used for AC operation in INAP, ranging 1-127.
Charging Category	2	17	Ranging 1~1000.
Charging Mode	1	19	0 for free of charge, 1 for charging.
partial_record_indicator	1	20	Partial record indicator field. For the bill with overlong conversation duration, it is allowed to split the conversation into multiple bills to record the call case, and the values are as follows: 0 for single bill 1 for the first bill of this call 2 for the intermediate part bill of this call 3 for the last bill of this call
Caller number address information indicator	1	21	It is a repetition of address nature indicator in caller number description. The actual meanings are as follows: 0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number.

Field	length (bytes)	Offset	Remark
Caller number description	14	22	<p>It includes 2 fields: calling number address nature indicator and caller number, which is inherited from AC operation number description. Only the address nature and number content are useful to the user. The specific meanings are as follows:</p> <p>Address nature indicator: 7 bits, in which, 0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number.</p> <p>Odd/even indicator: 1 bit, 0 for address information is even, 1 for address information is odd.</p> <p>mask indicator: 2 bits, 0 for provided by the subscriber and not checked, 1 for provided by the user, checked and passed, 2 for provided by the user, checked to be faulty, 3 for provided by the network.</p> <p>Address presentation restriction indicator: 2 bits, 0 for presentation allowed and 1 for presentation restricted.</p> <p>Numbering plan indicator: 3 bits, 0 for spared, 1 for ISDN number plan, 3 for data number plan, 4 for subscriber telex number plan.</p> <p>Caller number incomplete indicator: 1 bit, 0 for complete number, 1 for incomplete number.</p> <p>Number length: 5 bits</p> <p>Spared: 3 bits</p> <p>Content of number: 11 bytes, BCD code</p>
location Address information indicator	1	36	<p>It is a repetition of address nature in called number description. The actual meanings are as follows:</p> <p>0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number</p>
Location number description	14	37	Refer to the caller number description.
Called number address information indicator	1	51	<p>It is a repetition of address nature in called number description. The actual meanings are as follows:</p> <p>0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number.</p>

Field	length (bytes)	Offset	Remark
Called number description	14	52	Refer to the caller number description, but mask indicator and address presentation restriction indicator are not contained, and the 4 bits occupied by these 2 fields are spared bit.
Destination number address information indicator	1	66	It is a repetition of address nature in destination number description. The actual meanings are as follows: 0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number.
Destination number description	14	67	Refer to the called number description.
paid-party indicator	1	81	Charge party indicator.
Designated charge number address information indicator	1	82	Charge number address nature indicator.
Designated charging number	11	83	BCD code.
trunk_group_in	2	94	It is the same as the incoming trunk group identifier.
trunk_group_out	2	96	It is the same as the outgoing trunk group identifier.
ans_time	6	98	Not to the accuracy of 100mm. It is in the YYMMDDHHMMSS format, these 6 bytes record year, month, day, hour, minute, second in the BCD form in order.
Conversation end time	6	104	Not to the accuracy of 100mm. It is in the YYMMDDHHMMSS format, these 6 bytes record year, month, day, hour, minute, second in the BCD form in order.
conversation_time	4	110	The duration of this IN conversation recorded by SOFTX3000, expressed with long interger, the unit is equal to IN charging precision 10ms of SOFTX3000.
Conversation charge	8	114	The same as international charge field.
Traffic type	0.5	122	At present, only local call, national originated call and international originated call are used.

Field	length (bytes)	Offset	Remark
Release cause	0.5	122.5	At present, only caller onhook, called onhook and abnormal end are used.
caller_category	1.5	123	-
Identifier	0.5	124.5	This field is invalid and will not be used.
Bearer capability	3	125	It includes selection type and selection value. The meanings are as follows: Selection type occupies one byte, and is useless to the subscriber. “Selection value” is fixed at 1 and in character form.
Service type	0.5	128	The value is fixed at 1. If no other location fields are added, actually only one byte will be occupied. Service type occupies 4 bits and uses the lower 4 bits in the byte, and 4 bits are spared.
Spared	0.5	-	-
Tariff	4	129	The structure in character form is shown as follows: Charge adjustment ratio: occupies 2 bytes Charge adjustment type: occupies 2 bytes
Premium	8	133	Only premium value is included, excluding premium type.
Transparent transmission charge parameter	20	141	-
RxFlux	4	161	-
TxFlex	4	165	-
Caller side media gateway/terminal IP address	4	169	-
Caller side media gateway/terminal IP address	4	173	-
Caller side soft switch equipment IP address	4	177	-

Field	length (bytes)	Offset	Remark
Called side soft switch equipment IP address	4	181	-
Module number	1	185	module number which generates the bill.
Local csn	4	186	The unified number of bill generated after current module is started, expressed in long integer.
Reserve	10	190	-
Total length of information	-	200	-

## A.2 Failed IN bill

Field	length (bytes)	Offset	Remark
csn	4	0	The unified number of bill, expressed in long integer.
length	2	4	Bill length,count from next field (net_type).
net_type	1	6	11: fixed network bill 22: mobile network bill
bill_type	1	7	Failed IN record.
check_sum	1	8	Used for checking whether the bill is saved correctly, it is a kind of checking mode.
partial_record_indicator	0.5	9	It is always 0,indicating a single record reserved when intelligent bill integrates with ordinary bill, therefore, it overlaps with charging record indicator. It uses one byte together with validity flag and reserved bit, and this indicator uses the lower 4 bits in this byte.
valid_indicator	0.125	9.5	It is always 0, indicating valid; it is 1, indicating invalid.
Spared	0.375	9.625	Spared bit.



Field	length (bytes)	Offset	Remark
Intelligent Bill Related Flag	4	10	<p>Indicating that which fields are available in bill, 0 for this field is not available in bill, 1 for this field is available in bill. This field is used for the realization of ACR program in INAP operation. Each field flag occupies a bit, as shown below:</p> <p>Caller number address indicator flag, 0 for not indicated, 1 for indicated, the same hereafter.</p> <p>caller number flag location number address indicator flag charging category indicator flag charging mode indicator flag partial record indicator flag location number indicator flag called number address indicator flag called number flag destination number address indicator flag destination number flag charging number address information flag charging number flag incoming trunk indicator flag outgoing trunk indicator flag answering time flag call end time flag conversation duration flag call charging flag traffic type flag release cause flag indicator flag call subscriber category flag bearer capability flag final service flag tariff adjustment flag premium flag transparent charging flag with other 4 bits reserved</p>
Intelligent Bill Related Flag	4	10	
Intelligent Bill Related Flag	4	10	
Record type	1	14	0x03: IN record.
Charging Record Indicator	2	15	Used for AC operation in INAP, ranging 1-127.

Field	length (bytes)	Offset	Remark
Charging Category	2	17	Ranging 1~1000.
Charging Mode	1	19	0 for free of charge, 1 for charging.
partial_record_indicator	1	20	<p>Partial record indicator field.</p> <p>For the bill with overlong conversation duration, it is allowed to split the conversation into multiple bills to record the call case, and the values are as follows:</p> <p>0 for single bill  1 for the first bill of this call  2 for the intermediate part bill of this call  3 for the last bill of this call</p>
Caller number address information indicator	1	21	<p>It is a repetition of address nature indicator in caller number description. The actual meanings are as follows:</p> <p>0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number.</p>

Field	length (bytes)	Offset	Remark
Caller number description	14	22	<p>It includes 2 fields: calling number address nature indicator and caller number, which is inherited from AC operation number description. Only the address nature and number content are useful to the user. The specific meanings are as follows:</p> <p>Address nature indicator: 7 bits, in which, 0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number</p> <p>Odd/even indicator: 1 bit, 0 for address information is even, 1 for address information is odd</p> <p>mask indicator: 2 bits, 0 for provided by the subscriber and not checked, 1 for provided by the user, checked and passed, 2 for provided by the user, checked to be faulty, 3 for provided by the network</p> <p>Address presentation restriction indicator: 2 bits, 0 for presentation allowed and 1 for presentation restricted</p> <p>Numbering plan indicator: 3 bits, 0 for spared, 1 for ISDN number plan, 3 for data number plan, 4 for subscriber telex number plan</p> <p>Caller number incomplete indicator: 1 bit, 0 for complete number, 1 for incomplete number</p> <p>Number length: 5 bits</p> <p>Spared: 3 bits</p> <p>Content of number: 11 bytes, BCD code</p>
Caller number description	14	22	
location Address information indicator	1	36	
Location number description	14	37	Refer to the caller number description.

Field	length (bytes)	Offset	Remark
Called number address information indicator	1	51	It is a repetition of address nature in called number description. The actual meanings are as follows: 0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number.
Called number description	14	52	Refer to the caller number description, but mask indicator and address presentation restriction indicator are not contained, and the 4 bits occupied by these 2 fields are spared bit.
Destination number address information indicator	1	66	It is a repetition of address nature in destination number description. The actual meanings are as follows: 0 for spared, 1 for subscriber number, 2 for spared, 3 for domestic valid number, 4 for international valid number.
Destination number description	14	67	Refer to the called number description.
paid-party indicator	1	81	Charge party indicator.
Designated charge number address information indicator	1	82	Charge number address nature indicator.
Designated charging number	11	83	BCD code.
trunk_group_in	2	94	It is the same as the incoming trunk group identifier.
trunk_group_out	2	96	It is the same as the outgoing trunk group identifier.
ans_time	6	98	Not to the accuracy of 100mm. It is in the YYMMDDHHMMSS format, these 6 bytes record year, month, day, hour, minute, second in the BCD form in order.
Conversation end time	6	104	Not to the accuracy of 100mm. It is in the YYMMDDHHMMSS format, these 6 bytes record year, month, day, hour, minute, second in the BCD form in order.

Field	length (bytes)	Offset	Remark
conversation_time	4	110	The duration of this IN conversation recorded by SOFTX3000, expressed with long interger, the unit is equal to IN charging precision 10ms of SOFTX3000.
Conversation charge	8	114	The same as international charge field.
Traffic type	0.5	122	At present, only local call, national originated call and international originated call are used.
Release cause	0.5	122.5	At present, only caller onhook, called onhook and abnormal end are used.
caller_category	1.5	123	For detailed description,pls refer “ <a href="#">A.8.5 Caller_category/ called_category</a> ”.
Identifier	0.5	124.5	This field is invalid and will not be used.
Bearer capability	3	125	It includes selection type and selection value. The meanings are as follows: Selection type occupies one byte, and is useless to the subscriber. “Selection value” is fixed at 1 and in character form.
Service type	0.5	128	The value is fixed at 1. If no other location fields are added, actually only one byte will be occupied.  Service type occupies 4 bits and uses the lower 4 bits in the byte, and 4 bits are spared.
Spared	0.5	-	-
Tariff	4	129	The structure in character form is shown as follows: Charge adjustment ratio: occupies 2 bytes Charge adjustment type: occupies 2 bytes
Premium	8	133	Only premium value is included, excluding premium type.
Transparent transmission charge parameter	20	141	Code with BCD, Display all contents of 20 bytes (not end with F) Invalidate value: all 0x00.
RxFlux	4	161	-
TxFlex	4	165	-

Field	length (bytes)	Offset	Remark
Caller side media gateway/ terminal IP address	4	169	-
Caller side media gateway/ terminal IP address	4	173	-
Caller side soft switch equipment IP address	4	177	-
Called side soft switch equipment IP address	4	181	-
Module number	1	185	module number which generates the bill.
Local csu	4	186	The unified number of bill generated after current module is started, expressed in long integer.
Reserve	10	190	Reserve.
Total length of information	-	200	-

## A.3 Fixed Ordinary Detail Bill Format

Field	length (bytes)	Offset	Remark
csu	4	0	The unified number of bill, expressed in long integer.
length	2	4	Bill length,count from next field (net_type).
net_type	1	6	11: fixed network bill 22: mobile network bill
bill_type	1	7	0x01: Detailed ticket 0xFF: Warn ticket 0x55: Failed call ticket

Field	length (bytes)	Offset	Remark
check_sum	1	8	Used for checking whether the bill is saved correctly, it is only a kind of checking mode, this field occupies one byte.
partial_record_indicator	0.5	9	Indicating that this bill is a single record, and is also a record of a certain time segment in a long bill, the values are: 0: single record 1: the first part of record 2: the intermediate part of record 3: the last part of record 4: single record for multi-record bill
valid_indicator	0.125	9.5	It is always 0, indicating valid; it is 1, indicating invalid.
clock_indicator	0.125	9.625	Indicating that whether the clock is modified during the call process (such as whether the host time has been modified via BAM) 0 for YES, 1 for NO. Now the value of this field is fixed to 1 (NO) in SOFTX3000V2.
free_indicator	0.125	9.75	0 for free of charge; 1 for charging (at present the default is free call attempt).
call_attempt_indicator	0.125	9.875	0 for free call attempt; 1 for charged call attempt.
complain_indicator	0.125	10	0 for no complaint; 1 for complaint.
cama_indicator	0.125	10.125	0 for non-centralized charging; 1 for centralized charging.
is_credit_indicator	0.125	10.25	0 for non-credit call; 1 for credit call.
CNG	0.125	10.375	CNG indicator 0: No 1: Yes

Field	length (bytes)	Offset	Remark
charge_party_in dicator	0.5	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: 11,12,13,14 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
ans_time	6	11	Indicating 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)
end_time	6	17	Indicating the time of conversation end, 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)
conversation_ti me	4	23	the duration of this conversation recorded by switch, expressed with long integer, the unit is 10 ms.
caller_dnset	2	27	Caller number network identifier.



Field	length (bytes)	Offset	Remark
caller_address_nature Caller number address nature indicator	1	29	the caller number address nature: 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.
caller_number	16	30	Caller number, expressed with compressed BCD code, and the surplus bits are filled with "0xF".
called_dnset	2	46	Called subscriber network identifier.
called_address_nature	1	48	Called address nature: 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.
called_number	16	49	Called number, indicating the called number occurred at network side, compressed with compressed BCD code, and the surplus bits are filled with "0xF".
centrex_group_number	2	65	Indicating Centrex group number of charging object, ranging 0-65535, in the case of non-Centrex group subscriber, the value is 0Xffff.
caller_ctx_number	5	67	Indicating the short number of caller within the Centrex group, expressed with BCD code, if this field is not available, each bit should be filled with "0xF".
called_ctx_number	5	72	Indicating the short number of called party within the Centrex group, expressed with BCD code, if this field is not available, each bit should be filled with "0xF".
trunk_group_in	2	77	The group number of incoming trunk, ranging 0-65535, if this call is not via incoming trunk, then it is expressed with 0xFFFF.

Field	length (bytes)	Offset	Remark
trunk_group_out	2	79	The group number of outgoing trunk, ranging 0-65535, if this call is not via outgoing trunk, then it is expressed with 0xFFFF.
caller_did	1	81	For detailed description,pls refer “ <a href="#">A.8.2 Caller_did/Callee_did</a> ”.
called_did	1	82	Equipment type of the called party in local office, ranging 0-255 For detailed description,pls refer “ <a href="#">A.8.2 Caller_did/Callee_did</a> ”.
caller_category	1	83	For detailed description,pls refer “ <a href="#">A.8.5 Caller_category/ called_category</a> ”.
called_category	1	84	For detailed description,pls refer “ <a href="#">A.8.5 Caller_category/ called_category</a> ”.
call_type	0.5	85	1. intra-office 2: incoming office 3. outgoing office 4: tandem 5: new service
terminating_reason	0.5	85.5	0: caller party release; 1: called party release; 2: inter release 3: peer caller release 4: peer called release
gsvn	1	86	Values: 0: local office 1: local 2: local toll 3: national toll 4: international toll 5: new service 6: PABX Call 14: local CENTREX 15: Intra office National Toll 16: Intra office International Toll
termination_code	1	87	Refer “ <a href="#">A.8.3 Termination_code</a> ” for the detailed description.
CallerSrc	2	88	Caller Source.
CalledSrc	2	90	Called Source.

Field	length (bytes)	Offset	Remark
supplementary_service_type	2	92	For detailed description, please refer to “ <a href="#">A.8.4 Supplementary_service_type</a> ”.
charging_case	2	94	The charging case value of this call, determined by the host charging setup data.
pulse_count	4	96	Receiving the number of charging pulse from the senior office.
connected_dnset	2	100	Connected number network identifier.
connected_address_nature	1	102	Connected number address nature 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
connected_number	16	103	The connected number refers to the actual connection number of this call, mainly displaying the information, expressed in compressed BCD code, and the surplus bits are filled by “0xF”. In normal cases, the connected number is equal to the called number, and the exceptional case is: call transfer of the called subscriber, the connected number is the actual connection number after the transfer.
charge_dnset	2	119	Charge number network identifier.

Field	length (bytes)	Offset	Remark
charge_address_ nature	1	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: NULL
charge_number	16	122	Describing various kinds of subscriber number, card number, account in the compressed BCD mode (including Centrex group number), the surplus bits are filled with "0xF".

Field	length (bytes)	Offset	Remark
bearer_service	1	138	<p>Values:</p> <p>1: circuit mode, 64Kbps unrestricted, 8KHZ structured bearer service</p> <p>2: circuit mode, 64Kbps, 8KHZ structured bearer voice, including 100, 101, 102 and 103</p> <p>3: circuit mode, 64Kbps, 8KHZ structured bearer 3.1KHZ voice</p> <p>4: packet mode, ISDN virtual call, permanent virtual circuit service is accessed by the subscriber provided by the B channel</p> <p>5: subscriber signaling bearer service</p> <p>7: circuit mode, 2X64Kbps unrestricted, 8KHZ structured bearer service type</p> <p>8: circuit mode, 6X64Kbps unrestricted, 8KHZ structured bearer service type</p> <p>9: circuit mode, 24X64Kbps unrestricted, 8KHZ structured bearer service type</p> <p>10: circuit mode, 30X64Kbps unrestricted, 8KHZ structured bearer service type</p> <p>11: packet voice service</p> <p>12: packet video service</p> <p>13: fax service</p> <p>14: modem service</p> <p>100: voice, analog subscriber calls analog subscriber</p> <p>101: voice, analog subscriber calls digit subscriber</p> <p>102: voice, digit subscriber calls analog subscriber</p> <p>103: voice, digit subscriber calls digit subscriber</p> <p>255: unknown</p> <p>Others: spared</p>
dial_number	16	139	Dialed number, expressed with compressed BCD code, and the surplus bits are filled with "0xF".

Field	length (bytes)	Offset	Remark
Partial_counter	1	155	When it is a long time call,the partial bill's Partial_counter increases by degrees from 01.when it is larger than 99, Partial_counter will increases by degrees from 00 again. When it is not a long time call, the single bill's Partial_counter is 01.
Module number	1	156	module number which generates the bill.
Local csu	4	157	The unified number of bill generated after current module is started, expressed in long integer.
spared	39	161	Reserved.
CLI_rec_flux_H	4	200	How many bytes have caller been received? High 4 bytes.
CLI_rec_flux_L	4	204	How many bytes have caller been received? Low 4 bytes.
CLI_snt_flux_H	4	208	How many bytes have caller been sent? High 4 bytes.
CLI_snt_flux_L	4	212	How many bytes have caller been sent? Low 4 bytes.
CLD_rec_flux_H	4	216	How many bytes have called been received? High 4 bytes
CLD_rec_flux_L	4	220	How many bytes have called been received? Low 4 bytes
CLD_snt_flux_H	4	224	How many bytes have called been sent? High 4 bytes
CLD_snt_flux_L	4	228	How many bytes have called been sent? Low 4 bytes
Address of Caller GK or SoftSwitch	4	232	-
Address of Caller GW or Terminal	4	236	-

Field	length (bytes)	Offset	Remark
Address of Callee GK or SoftSwitch	4	240	-
Address of Callee GW or Terminal	4	244	-
callerRoamIP	4	248	-
calledRoamIP	4	252	-
callerRoamMode	0.5	256	0: No roam 1.Local roam 2.Roam within current province 3.National roam 4.International roam 5.Other Roam
calledRoamMode	0.5	256.5	0: No roam 1.Local roam 2.Roam within current province 3.National roam 4.International roam 5.Other Roam
caller_local_dnsset_before_change	2	257	local dnset for caller number before change Invalidate Value: 0xFFFF
caller_address_nature_before_change	1	259	caller number address nature before change: 0: subscriber number = local number 1: spared 2: national valid number = toll area code + local number 3: international number Invalidate Value: 0xFFFF
caller_number_before_change	16	260	Caller number before number changing, expressed with compressed BCD code, and the surplus bits are filled with "0xF" Invalidate Value: 0xFFFF
callee_local_dnsset_before_change	2	276	Local dnset for called number before change.

Field	length (bytes)	Offset	Remark
callee_address_nature_before_change	1	278	called number address nature before change: 0: subscriber number = local number 1: spared 2: national valid number = toll area code + local number 3: international number = country code + toll area code + local number Invalidate Value: 0xFFFF
called_number_before_change	16	279	Called number before number changing, indicating the called number occurred at network side, compressed with compressed BCD code, and the surplus bits are filled with "0xF". Invalidate Value: 0xFFFF
Ingress Media Gateway ID	32	295	Name of caller gateway.[According to pre-defined in the used signaling such as H.248,MGCP,H.323,SIP]
Egress Media Gateway ID	32	327	Name of called gateway.[According to pre-defined in the used signaling such as H.248,MGCP,H.323,SIP]
caller_seize_duration	4	359	Caller seizure duration (Datatype: long, Unit: 10ms)
called_seize_duration	4	363	Called seizure duration (Datatype: long, Unit: 10ms)
OPC	4	367	Originating Point Code.
DPC	4	371	Destination Point Code.
TMG_Circuits_seizure_time	6	375	TMG Circuits Seizure Time, the format is: YYMMDDHHMMSS,binary YY: 0-99 (binary) MM: 1-12 (binary) DD: 1-31 (binary) HH: 0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) (If this field all filled with FF, display with 00) Invalidate Value: All Filled with 0xFF



Field	length (bytes)	Offset	Remark
TMG_Circuits _release_time	6	381	TMG circuits release time, the format is: YYMMDDHHMMSS,binary YY: 0-99 (binary) MM: 1-12 (binary) DD: 1-31 (binary) HH: 0-23 (binary) MM: 0-59 (binary) SS: 0-59 (binary) Invalidate Value: All Filled with 0xFF
Start Date and Time of Call Setup	6	387	Indicating the time of receiving or sending setup message, 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)
call_setup_durat ion	4	393	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. Invalidate Value: 0xFFFFFFFF
Incoming Route ID	16	397	Trunk group name of the ingress TG
Outgoing Route ID	16	413	Trunk group name of the egress TG
Switch_ID	6	429	local switch name, display with string Invalidate Value: All filled with 0
localTimeZone	1	435	Invalidate Value: 0xFF
CAC	3	436	expressed with compressed BCD code, and the surplus bits are filled with "0xF" Invalidate Value: 0xFF
PayerShortNum ber	5	439	Advance payment short number Invalidate Vaule: 0xFF

Field	length (bytes)	Offset	Remark
balance	4	444	Balance of prepaid subscriber Invalidate Value: 0
Ingress occupied Time Slot	1	448	-
Ingress Media Gateway TimeZone	1	449	Occupied Time Slot number in corresponding trunk group of the ingress TG.
Egress occupied Time Slot	1	450	-
Egress Media Gateway TimeZone	1	451	Occupied Time Slot number in corresponding trunk group of the egress TG.
Caller Time Zone	1	452	Caller Time zone Index Invalidate Value: 0xFF
Called Time Zone	1	453	Called Time zone Index Invalidate Vaule: 0xFF
caller_port_num ber	2	454	Caller number Port Invalidate Vaule: 0xFFFF
Called_port_nu mber	2	456	Called number Port Invalidate Vaule: 0xFFFF
Outgoing Traffic Dispersion ID	2	458	Identifier of the caller number prefix Invalidate Vaule: 0xFFFF
Incoming Traffic Dispersion ID	2	460	Identifier of the callee number prefix Invalidate Vaule: 0xFFFF
Calling_SS_duri ng_the_call	7	462	Description of the supplementary services called during the call  Note: The explanation of this field is not defined in GB standard, use 0 temporarily. Invalidate Vaule: 0

Field	length (bytes)	Offset	Remark
teleservice	1	469	Values: 0: spared 1: 3.1K telecom service 2: 7Khz telecom service 3: category-4 fax 4: intelligent subscriber telegraph 5: videotex 6: mixed telecom service 7: 7Khz image 15: Unknown Others: spared
UUS1 count	1	470	Number of switched UUS1 segments (64 bytes/ segment).
UUS2 count	1	471	Number of switched UUS2 segments (64 bytes/ segment).
UUS3 count	1	472	Number of switched UUS3 segments (64 bytes/ segment).
post_delay_metering	2	473	To capture the delay from the time Call Proceeding has sent to the caller to the time connect is received from the callee.
Packetization time	1	475	Packetization time, the unit is millisecond.
Connected data rate	2	476	It's reserved.
Packet loss	2	478	H248 can support it. The number of the lost packets. It's reserved for other protocols now.
PSTN/ISDN indicator	1	480	0: speech 1: spare 2: 64 kbit/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 11~255: spare

Field	length (bytes)	Offset	Remark
ISUP charge number indicator	1	481	0: Caller number 1: Callee number 2: Connected number 3~255: spare
Connected number type	0.25	482	0-call forwarded, 1-redirect number, 2, 3-reserved
ISDN capability	0.25	482.25	0: PRI, 1: BRI, 2,3: Reserved.
VAD	0.125	482.5	VAD indicator 0: No 1: Yes
Call Charge Amount	0.375	482.625	1 – A rate 2 – B rate 3 – C rate 4 – D rate 5 – Spare
pps_flag: 1	0.125	483	0: Non-PPS call; 1: PPS call
np_call_flag: 1	0.125	483.125	0: non-NP call; 1: NP call
charging_metho d: 2	0.25	483.25	0: Meter table; 1: Detailed ticket;2: Detailed and Meter table
incomplete_call _watch_type: 2	0.25	483.5	0: No watch; 1: Watch caller; 2: Watch called; 3: Watch both
caller_ISDN_ac cess: 1	0.125	483.75	0: Terminal access non ISDN; 1: Terminal access is ISDN
called_ISDN_ac cess: 1	0.125	483.875	0: Terminal access non ISDN; 1: Terminal access is ISDN
ISUP_indication : 1	0.125	484	0: ISUP not all way; 1: ISUP all way
B_num: 5	0.625	484.125	Occupied B chunnels“1~30”
Caller_CLIR fla g	0.125	484.85	caller CLIR flag: 0: FALSE; 1: TRUE
CNG	0.125	484.975	CNG indicator 0: No 1: Yes
release_index	2	485	-
Billed_party	1	487	0: DDD,DDI, local Calls; 1: DDC and DLC ( Colected Calls ); 2: No billed calls

Field	length (bytes)	Offset	Remark
Service ID	0.75	488	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 10 -UC ICW 11 -UC SMS 12 –UC EMAIL 13 –UC IM other value - Reserved
MCE	0.25	488.75	0: NULL 1: call-by-call selection 2: preselected 3: call-by-call selection of preselected carrier
IP release cause	2	489	Release cause according to the VOIP protocol. We can fill this field like the following, Actual value of protocol: H248 Actual value of protocol + 1000: MGCP Actual value of protocol + 2000: SIP Actual value of protocol + 3000: H323 release reason Actual value of protocol + 3100: H323 extend release reason Please refer “ <a href="#">A.8.2 Caller_did/Callee_did</a> ” for the detail.

Field	length (bytes)	Offset	Remark
Caller equipment type	1	491	Equipment type of caller, such as Phone, FAX, Modem, PC, IAD, AG etc. 0: IAD, 1: AG 2: TG 3: UMG 4: H.323 5: SIP 0xFF: EQUIPMENT_BUTT
org_called_dnse t	2	492	local dnset for original called number
org_called_addr ess_nature	1	494	original called number address nature: 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.
org_number	16	495	original called number, expressed with compressed BCD code, and the surplus bits are filled with "0xF".
redirecting_dnse t	2	511	local dnset for redirecting number
redirecting_addr ess_nature	1	513	redirecting number address nature: 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
redirecting_num ber	16	514	redirecting number, expressed with compressed BCD code, and the surplus bits are filled with "0xF".
SHLR_MON_R oute	4	530	Return route number from SHLR in SHLR Mon service, expressed with compressed BCD code, and the surplus bits are filled with "0xF".

Field	length (bytes)	Offset	Remark
SHLR_MON_O peration	1	534	Return operation from SHLR in SHLR Mon service 0x19: Both MON user 0x1a: Both not MON,default caller 0x1b: Caller MON,callee common 0x1c: Callee common,drop back 0x1d: Caller MON,default caller 0x1e: Callee MON,callee common 0x1f: Both common user 0x20: Caller MON over max call 0x21: Callee MON over max call 0x22: SHLR error config The surplus bits are filled with "0xF"
Caller WLL User Type	0.5	535	0: WLL_UT_LOCAL //Local User 1: WLL_UT_ROAMING, //Roam User 2: WLL_UT_UNKNOW_LOCATION, //Unknow Location User 3: WLL_UT_ILLEGAL_USER, //Illegal User, used for urgent call 15: WLL_UT_UNKNOW_USER, //Unknow User, Include No-WLL User and the User who hasn't been checked status. When this filed is not available, each bit should be filled with "0xF".
Called WLL User Type	0.5	535.5	Same as Caller WLL User Type.
Caller WLL Home Area Information	5	536	if the value of Caller WLL User Type is Illegal User or Unknow User, this field is not available and each bit should be filled with "0xF".
Caller WLL Visit Area Information	5	541	If the value of Caller WLL User Type is Unknow User, this field is not available and each bit should be filled with "0xF".
Called WLL Home Area Information	5	546	If the value of Called WLL User Type is Unknow User, this field is not available and each bit should be filled with "0xF".
Called WLL Visit Area Information	5	551	If the value of Called WLL User Type is Illegal User or Unknow User, this field is not available and each bit should be filled with "0xF".

Field	length (bytes)	Offset	Remark
spareed	6	556	Reserved.
IN CallID	20	562	Code with BCD, Display all content of 20 bytes (not end with F) Invalidate Value: 0x00
spareed	12	582	Reserved.
local dnset of caller physical number	2	594	local dnset for caller physical number Invalidate Value: 0xFFFF
address nature of caller physical number	1	596	caller physical number address nature: 0: subscriber number, caller physical number = local number 1: spared 2: national valid number, caller physical number = toll area code + local number 3: international number, caller physical number =country code + toll area code + local number Invalidate Value: 0xFF
caller physical number	16	597	caller physical number, expressed with compressed BCD code, and the surplus bits are filled with "0xF" Invalidate Vaule: 0xFF
local dnset of callee physical number	2	613	local dnset for callee physical number Invalidate Value: 0xFFFF
address nature of callee physical number	1	615	callee physical number address nature: 0: subscriber number, callee physical number = local number 1: spared 2: national valid number, callee physical number = toll area code + local number 3: international number, callee physical number =country code + toll area code + local number Invalidate Value: 0xFF
callee physical number	16	616	callee physical number, expressed with compressed BCD code, and the surplus bits are filled with "0xF" Invalidate Vaule: 0xFF



Field	length (bytes)	Offset	Remark
local dnset of redirecting physical number	2	632	local dnset for redirecting physical number Invalidate Vaule: 0xFF
address nature of redirecting physical number	1	634	redirecting physical number address nature: 0: subscriber number, redirecting physical number = local number 1: spared 2: national valid number, redirecting physical number = toll area code + local number 3: international number, redirecting physical number =country code + toll area code + local number Invalidate Vaule: 0xFF
redirecting physical number	16	635	redirecting physical number, expressed with compressed BCD code, and the surplus bits are filled with "0xF". Invalidate Vaule: 0xFF
local dnset of MON caller physical number	2	651	local dnset for MON caller physical number. Invalidate Vaule: 0xFF
address nature of MON caller physical number	1	653	MON caller physical number address nature: 0: subscriber number, MON caller physical number = local number 1: spared 2: national valid number, MON caller physical number = toll area code + local number 3: international number, MON caller physical number =country code + toll area code + local number Invalidate Vaule: 0xFF
MON caller physical number)	16	654	MON caller physical number, expressed with compressed BCD code, and the surplus bits are filled with "0xF". Invalidate Vaule: all filled with 0xFF
local dnset of MON callee physical number)	2	670	local dnset for MON callee physical number. Invalidate Vaule: 0xFFFF

Field	length (bytes)	Offset	Remark
address nature of MON callee physical number	1	672	MON callee physical number address nature: 0: subscriber number, MON callee physical number = local number 1: spared 2: national valid number, MON callee physical number = toll area code + local number 3: international number, MON callee physical number = country code + toll area code + local number Invalidate Vaule: 0xFF
MON callee physical number	16	673	MON callee physical number, expressed with compressed BCD code, and the surplus bits are filled with "0xF". Invalidate Vaule: all filled with 0xFF
caller_module	1	689	Module number which caller belongs to.
called_module	1	690	Module number which called belongs to.
Bearer Mode	1	691	0: Non Standard 1: Video Mode 2: Audio Mode 3: Application Mode 4: Data Mode 5: Encryption Mode 255: Unknown
audio codec type	1	692	0: no indication
audio codec type	1	692	1: G.711 64 kbit/s A-law 2: G.711 64 kbit/s Mu-law 3: G.711 56 kbit/s A-law 4: G.711 56 kbit/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) 14: G.729 A Annex A (silence

Field	length (bytes)	Offset	Remark
			suppression) 15: G.729 W Annex B (silence suppression) 16: G.729 Annex A W Annex B (silence suppression) 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 100: GSM Full Rate 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: NULL
video codec type	1	693	The same as above.
Max Bit Rate	2	694	Max Bit Rate (Unitsk bit ).
Conference ID	4	696	Conference ID,4bytes,Integer,display with Hex

Field	length (bytes)	Offset	Remark
reserved	21	700	spared Invalidate value: all filled with 0xFF
AEC	0.125	721	0x00: no enhanced 0x01: enhanced Invalidate value: 0x00
NC	0.125	721.125	0x00: no enhanced 0x01: enhanced Invalidate value: 0x00
NR	0.25	721.25	0x00: no enhanced 0x01: calling in enhanced 0x02: calling out enhanced 0x03: calling in and out enhanced Invalidate value: 0x00
AGC	0.25	721.5	0x00: no enhanced 0x01: calling in enhanced 0x02: calling out enhanced 0x03: calling in and out enhanced Invalidate value: 0x00
SSPARE	0.25	721.75	spared Invalidate value: 0x00
rate	8	722	Charging unit price. The unit: 1*10E (-10)cent Invalidate value: 0x00
fee	8	730	The fee (including premium) calculated according to the host charging data. The unit: 1*10E (-10)minute Invalidate value: 0x00
reserved	143	738	Invalidate value: all filled with 0xFF
Total Length	-	881	-

## A.4 Fixed Network Meter Table Bill Format

Field	length (bytes)	Offset	Remark
csn	4	0	The unified number of bill, expressed in long integer.
length	2	4	Bill length,count from next field (net_type).
net_type	1	6	11: fixed network bill 22: mobile network bill
bill_type	1	7	0xF0: Meter table ticket
check_sum	1	8	Used for checking whether the bill is saved correctly. It is only a kind of check method, occupying one byte.
partial_record_indicator	0.5	9	Indicating whether the bill is an independent record or it is a time segment record in the long bill, the values are: 0: single record 1: the first part of the record 2: the middle part of the record 3: the last part of the record
valid_indicator	0.125	9.5	It is always 0, indicating valid; it is 1, indicating invalid.
Charge object	0.25	9.625	0: subscriber 1: incoming trunk 2: outgoing trunk
Spared	0.125	9.875	-
Number of meter tables	1	10	The number of the meter tables. It is currently 20.
Date and time of meter table generation	6	11	Indicating 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)
Dnset	2	17	Number network identifier

Field	length (bytes)	Offset	Remark
address_nature	1	19	Number address nature: 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
Number	10	20	The subscriber number, expressed in compressed BCD code, and the surplus bits are filled with "0xF".
Trunk group number	2	30	The charge objects are the trunk number and the trunk group number in the case of the outgoing trunk.
Module number	1	32	The number of the module that the subscriber or the trunk group belongs to
Subscriber equipment type	1	33	The equipment type of the subscriber meter table: value range (0-255) IGWB should display the corresponding ENUM Name for the value received. Equipment type of the user or trunk. Such as H.323, SIP, ISUP, etc. DID_CON= 00 DID_SS= 01 DID_ST= 02 DID_DSL= 03 DID_AT2= 04 DID_AT4= 05 DID_AT0= 06 DID_EM4= 07 DID_MTK= 08 DID_DT= 09 DID_TUP= 10 DID_ISUP=11 DID_V5X= 12 DID_V5TK= 13 DID_V5PCM= 14 DID_PRA= 15 DID_PHI= 16 DID_DTMF=17 DID_MFC= 18

Field	length (bytes)	Offset	Remark
			DID_NO7= 19
			DID_CT0= 20
			DID_TSS= 21
			DID_TST= 22
			DID_ETS= 23
			DID_DMC= 24
			DID_MPU= 25
			DID_EMA= 26
			DID_NOD= 27
			DID_NET= 28
			DID_SIG= 29
			DID_TKD= 30
			DID_TCI= 31
			DID_CHD= 32
			DID_MC2= 33
			DID_OPT= 34
			DID_ALM= 35
			DID_MEM= 36
			DID_LPV5= 37
			DID_LPN7= 38
			DID_LPRA=39
			DID_LPHI=40
			DID_OLE= 41
			DID_CLK= 42
			DID_CK2= 43
			DID_CK3= 44
			DID_RSA_0= 45
			DID_RSA_1= 46
			DID_RSU_0= 47
			DID_RSU_1= 48
			DID_DTR= 49
			DID_SEL= 50
			DID_SLT= 51
			DID_SPT= 52
			DID_AVM= 53
			DID_DCN= 54
			DID_DIU= 55
			DID_iDT= 56
			DID_V5ST= 57
			DID_V5DSL=58

Field	length (bytes)	Offset	Remark
			DID_V5PRA=59 DID_V5PHI=60 DID_TSI= 61 DID_LPRSA=62 DID_RDT= 63 DID_LPMC2=64 DID_V5DCN=65 DID_CKS= 66 DID_DRV_IN=67 DID_FSK= 68 DID_CONF= 69 DID_OTM= 70 DID_HSL= 71 DID_VDM = 72, DID_VFB = 73, DID_COCK = 74, DID_DT5 = 75, DID_DTT = 76, DID_RSD5 = 77, DID_ST32 = 78, DID_DTMF32 = 79, DID_PWX = 80, DID_SPTIN = 81 DID_DIN = 82, DID_AIT = 83, DID_ASB = 84, DID_AIN = 85, DID_MEMIN = 86, DID_SCCP = 87, DID_TCAP = 88, DID_iCLI = 89, DID_iCLD = 90, DID_RSP = 91, DID_ESC = 107, DID_ESL = 114, /* iNET_Ephone DID_ITC = 115, /* iNET_Ephone DID_EDCN = 116, DID_BICC_AAL1 = 117, DID_SIP_TRUNK = 118, DID_H323_TRUNK = 119,



Field	length (bytes)	Offset	Remark
			DID_BPC = 120, DID_SDM = 121, DID_PVM = 122, DID_BSSAP = 123, DID_ECT= 124, DID_ECI= 125, DID_RAB= 126, DID_BICC_SAAL1 = 127, DID_BICC_AAL2 = 128, DID_BICC_IP= 129, DID_SIP_TERMINAL = 130, DID_H323_TERMINAL = 131, DID_BUTT
Equipment sequence number	2	34	The equipment sequence of the subscriber within the module 0-65534, 65535 is a void value
Value of meter table 1	4	36	The value accumulated on the table since the last meter table bill is generated (same below)
Call times of meter table 1	2	40	The call number accumulated on the table since the last meter table bill is generated (same below)
Value of meter table 2	4	42	-
Call times of meter table 2	2	46	-
Value of meter table 3	4	48	-
Call times of meter table 3	2	52	-
There are totally 20 meter tables, and the detailed description will be omitted.			
CallerSrc	2	156	-
CalledSrc	2	158	-
CallerShortNumber	5	160	-
Identifier of bill time	1	165	One attribute of the user, it shows when the user's bill should be sent to bill center

Field	length (bytes)	Offset	Remark
Local csu	4	166	The unified number of bill generated after current module is started, expressed in long integer
Spared	30	170	-
Total length		200	-

## A.5 Fixed Network Meter Table Statistics Bill

Field	length (bytes)	Offset	Remark
csu	4	0	The unified number of bill, expressed in long integer.
length	2	4	Bill length,count from next field (net_type).
net_type	1	6	11: fixed network bill 22: mobile network bill
bill_type	1	7	0xF1: meter table statistics bill.
check_sum	1	8	Used for checking whether the bill is saved correctly. It is only a kind of check method, occupying one byte.
partial_record_indicator	0.5	9	Indicating whether the bill is an independent record or it is a time segment record in the long bill, the values are: 0: single record 1: the first part of the record 2: the middle part of the record 3: the last part of the record
valid_indicator	0.125	9.5	It is always 0, indicating valid; it is 1, indicating invalid.
Spared	0.375	9.625	-
Number of meter tables	1	10	The number of the meter tables. It is currently 20.

Field	length (bytes)	Offset	Remark
Date and time of bill generation	6	11	Indicating 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)
Module number	1	17	The number of the module generating the meter table statistics bills, with the value range: 1-240.
Call type	1	18	The call type. The values: 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	19	The value accumulated on the table since the last meter table bill is generated (same below).
Call times of meter table 1	2	23	The call number accumulated on the table since the last meter table bill is generated (same below).
Value of meter table 2	4	25	-
Call times of meter table 2	2	29	-
Value of meter table 3	4	31	-
Call times of meter table 3	-	35	-
There are totally 20 meter tables, and the detailed description will be omitted.			
Local csn	4	139	The unified number of bill generated after current module is started, expressed in long integer.
Total length	-	143	-

## A.6 Fixed Network Trunk Occupation Duration Statistics Bill

Field	length (bytes)	Offset	Remark
csn	4	0	The unified number of bill, expressed in long integer.
length	2	4	Bill length, count from next field (net_type).
net_type	1	6	11: fixed network bill 22: mobile network bill
bill_type	1	7	0xF2: trunk occupation duration statistics bill
check_sum	1	8	Used for checking whether the bill is saved correctly. It is only a kind of check method, occupying one byte.
Spared	0.5	9	-
valid_indicator	0.125	9.5	It is always 0, indicating valid; it is 1, indicating invalid
Spared	1.375	9.625	-
Date and time of bill generation	6	11	Indicating 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)
Module number	1	17	The number of the module generating the trunk occupation duration statistics bills, with the value range of 1-240
Spared	1	18	-
Trunk group number	2	19	The charge objects are the trunk number and the trunk group number in the case of the outgoing trunk.
Incoming conversation duration	4	21	expressed with long integer, the unit is 10 ms.
Incoming call times	2	25	-

Field	length (bytes)	Offset	Remark
Tandem conversation duration	4	27	expressed with long integer, the unit is 10 ms.
Tandem call times	2	31	-
Outgoing conversation duration	4	33	expressed with long integer, the unit is 10 ms.
Outgoing call times	2	37	-
Local csu	4	39	The unified number of bill generated after current module is started, expressed in long integer
Total length	-	43	-

## A.7 Fixed Network Statistics Bill of Free Calls

Field	length (bytes)	Offset	Remark
csu	4	0	The unified number of bill, expressed in long integer.
length	2	4	Bill length,count from next field (net_type).
net_type	1	6	11: fixed network bill 22: mobile network bill
bill_type	1	7	0xF3: statistics bill of free calls
check_sum	1	8	Used for checking whether the bill is saved correctly. It is only a kind of check method, occupying one byte.
Spared	0.5	9	-
valid_indicator	0.125	9.5	It is always 0, indicating valid; it is 1, indicating invalid.
Spared	1.375	9.625	-

Field	length (bytes)	Offset	Remark
Date and time of bill generation	6	11	Indicating 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)
Module number	1	17	The number of the module generating the meter table statistics bills, with the value range of 1-240.
Spared	1	18	-
Statistics value of free call duration	4	19	The statistics value of free call duration since the last free call statistics bill is generated expressed with long integer, the unit is 10 ms.
Statistics value of free call times	2	23	The statistics value of free call times since the last free call statistics bill is generated
Local csu	4	25	The unified number of bill generated after current module is started, expressed in long integer.
Total length	-	29	-

## A.8 Reference

### A.8.1 Protocol release cause

#### H248

Reason Value	Reason Description
400	Bad Request
401	Protocol Error
402	Unauthorized
403	Syntax Error in Transaction

Reason Value	Reason Description
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
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

Reason Value	Reason Description
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 "ServiceChangeing"
526	Insufficient bandwidth
529	Internal hardware failure
530	Temporary Network failure
531	Permanent Network failure
581	Does Not Exist

## MGCP

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.



Reason Value	Reason Description
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
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.

Reason Value	Reason Description
1000+900	Endpoint malfunctioning.
1000+901	Endpoint taken out of service.
1000+902	Loss of lower layer connectivity.

## SIP

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
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

Reason Value	Reason Description
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

### H323

Reason Value	Reason Description
3000+0	No Bandwidth
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

Reason Value	Reason Description
3100+6	Replace With Conference Invite
3100+7	Generic Data Reason
3100+8	Needed Feature Not Supported
3100+9	Tunneled Signaling Rejected

## A.8.2 Caller\_did/Callee\_did

Value	Item
00	DID_CON
01	DID_SS
02	DID_ST
03	DID_DSL
04	DID_AT2
05	DID_AT4
06	DID_AT0
07	DID_EM4
08	DID_MTK
09	DID_DT
10	DID_TUP
11	DID_ISUP
12	DID_V5X
13	DID_V5TK
14	DID_V5PCM
15	DID_PRA
16	DID_PHI
17	DID_DTMF
18	DID_MFC
19	DID_NO7
20	DID_CT0
21	DID_TSS
22	DID_TST

Value	Item
23	DID_ETS
24	DID_DMC
25	DID_MPU
26	DID_EMA
27	DID_NOD
28	DID_NET
29	DID_SIG
30	DID_TKD
31	DID_TCI
32	DID_CHD
33	DID_MC2
34	DID_OPT
35	DID_ALM
36	DID_MEM
37	DID_LPV5
38	DID_LPN7
39	DID_LPRA
40	DID_LPHI
41	DID_OLE
42	DID_CLK
43	DID_CK2
44	DID_CK3
45	DID_RSA_0
46	DID_RSA_1
47	DID_RSU_0
48	DID_RSU_1
49	DID_DTR
50	DID_SEL
51	DID_SLT
52	DID_SPT
53	DID_AVM

Value	Item
54	DID_DCN
55	DID_DIU
56	DID_iDT
57	DID_V5ST
58	DID_V5DSL
59	DID_V5PRA
60	DID_V5PHI
61	DID_TSI
62	DID_LPRSA
63	DID_RDT
64	DID_LPMC2
65	DID_V5DCN
66	DID_CKS
67	DID_DRV_IN
68	DID_FSK
69	DID_CONF
70	DID_OTM
71	DID_HSL
72	DID_VDM
73	DID_VFB
74	DID_COCK
75	DID_DT5
76	DID_DTT
77	DID_RSD5
78	DID_ST32
79	DID_DTMF32
80	DID_PWX
81	DID_SPTIN
82	DID_DIN
83	DID_AIT
84	DID_ASB

Value	Item
85	DID_AIN
86	DID_MEMIN
87	DID_SCCP
88	DID_TCAP
89	DID_iCLI
90	DID_iCLD
91	DID_RSP
107	DID_ESC
114	DID_ESL /* iNET_Ephone
115	DID_ITC /* iNET_Ephone
116	DID_EDCN
117	DID_BICC_AAL1
118	DID_SIP_TRUNK
119	DID_H323_TRUNK
120	DID_BPC
121	DID_SDM
122	DID_PVM
123	DID_BSSAP
124	DID_ECT
125	DID_ECI
126	DID_RAB
127	DID_BICC_SAAL1
128	DID_BICC_AAL2
129	DID_BICC_IP
130	DID_SIP_TERMINAL
131	DID_H323_TERMINAL
132	DID_BUTT

## A.8.3 Termination\_code

Value	Termination_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
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



Value	Termination_code
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
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

Value	Termination_code
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_REGISTERED
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_INCOMPATIBLE
86	UNKNOWN_CUG
87	NO_CUG_SELECTED
88	CUG_OUTGOING_CALL_BARRED
89	CUG_WITHOUT_INCOMING_ACCESS
90	CUG_SS_INTERACTION_VIOLATION
91	CUG_INCOMPATIBLE_DESTINATION
92	FORWARD_IND

Value	Termination_code
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_ACKNOWLEDGE
102	GSM_CLD_USER_BAIC
103	GSM_CLI_USER_BAOC
104	GSM_CLD_USER_NOT_REACHABLE
105	GSM_LOCAL_CALL_NO_NATIONAL_AREA_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_S UBSCRIBER
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

Value	Termination_code
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
144	NORMAL_CALL_CLEAR
145	BUSY
146	NO_RESPOND
147	NO_ACKNOWLEDGE
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

Value	Termination_code
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
182	CALL_BARRING_FOR_ISRAEL
183	CUG_INCOMING_CALL_UNALLOW
185	BEARER_CAPABILITY_NOT_PERMIT
186	NO_BEARER_CAPABILITY_AVAILABLE_THIS_TIME
191	NO_SUITABLE_SERVICE_OR_OPTIONAL_PROJECT
193	BEARER_CAPABILITY_NOT_LAY_OUT
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_UNAVAILABLE
202	NO_ECP
207	SERVICE_OR_OPTIONAL_PROJECT_NOT_LAY_OUT
209	INVALID_CALL_REFERENCE
210	ROUTE_IDENTIFIED_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

Value	Termination_code
218	NON_EXIST_CUG
219	INVALID_TRANSMIT_NETWORK_SELECTION
220	REJECT_IN_REJECT_OUT
221	REJECT_IN_ALLOW_OUT
222	ALLOW_IN_REJECT_OUT
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
235	CUG_OUTGO_CALL_BARRED
236	CUG_INCOMING_CALL_UNALLOW
237	CUG_CALLED_NOT_CUG_USER
239	PROTOCOL_ERROR
240:	REROUTING_FAIL_FOR_ISRAEL
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

Value	Termination_code
250	CALLED_CANNOT_ACCEPT_COLLECT_CALL
254	BUTT
255	INTERWORK

## A.8.4 Supplementary\_service\_type

Value	Supplementary_service_type
0	Register abbreviated dialing
1	Use abbreviated dialing
2	Cancel abbreviated dialing
3	Cancel all abbreviated dialing
4	Verify 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
12	Use absent subscriber
13	Cancel absent subscriber
14	Register do not disturb
15	Use do not disturb
16	Cancel do not disturb
17	Verify do not disturb
18	Register outgoing call barring
19	Cancel outgoing call barring
20	Verify outgoing call barring
21	Use malicious call trace
22	Register auto-redial
23	Use auto-redial

Value	Supplementary_service_type
24	Cancel auto-redial
25	Register call forwarding unconditionally (CFU)
26	Use call forwarding unconditionally (CFU)
27	Cancel call forwarding unconditionally (CFU)
28	Verify 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	Verify 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	Verify 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	Verify time call forwarding (CFT)
41	Register call forwarding offline (CFO)
42	Use call forwarding offline (CFO)
43	Cancel call forwarding offline (CFO)
44	Verify 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



Value	Supplementary_service_type
55	Use caller hooking
56	Use called hooking
57	Use CLIP
58	Register CLIR
59	Cancel CLIR
60	Verify CLIR
61	Register number barring
62	Used number barring
63	Cancel number barring
64	Cancel all number barring
65	Verify number barring
66	Register secretary station
67	Use secretary station
68	Cancel secretary station
69	Verify secretary station
70	Register secretary service
71	Use secretary service
72	Cancel secretary service
73	Verify secretary service
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

Value	Supplementary_service_type
86	Cancel remote CFO
87	Modify password
88	Register COLR
89	Cancel COLR
90	Verify COLR
91	CFB to voice mail
92	CFNR 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
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

Value	Supplementary_service_type
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	Deactive DNCOA table
130	Active DN call barring
132	Deactive DN call barring
133	Center maintain DN
134	Special function DN
135	Service mode1 access code
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	Verify floating work area
147	Cancel floating work area

Value	Supplementary_service_type
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
167	Register normal BTB
168	Cancel normal BTB
169	Register duplex BTB
170	Cancel duplex BTB
171	Register PBXCFU
172	Verify PBXCFU
173	Cancel PBXCFU
174	Register PBXCFNR
175	Verify PBXCFNR
176	Cancel PBXCFNR
177	Register PBXCFB
178	Verify PBXCFB

Value	Supplementary_service_type
179	Cancel PBXCFB
180	Register MWI
181	Cancel MWI
182	Register CWCFNR
183	Verify CWCFNR
184	Cancel CWCFNR
185	Modify super password
186	Register CFU to centrex attendant
187	Verify CFU to centrex attendant
188	Cancel CFU to centrex attendant
189	Register CFU to mailbox
190	Verify CFU to mailbox
191	Cancel CFU to mailbox
192	Register CFB to mailbox
193	Verify CFB to mailbox
194	Cancel CFB to mailbox
195	Register CFNR to mailbox
196	Verify CFNR to mailbox
197	Cancel CFNR to mailbox
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

Value	Supplementary_service_type
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
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

Value	Supplementary_service_type
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	Verify 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
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

Value	Supplementary_service_type
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
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



Value	Supplementary_service_type
303	Register CCBNR
304	Cancel CCBNR
305	Register Park On
306	Cancel Park On
307	Modify Rcsc Password
65535	NEW SERVICE BUTT

### A.8.5 Caller\_category/ called\_category

Value	Item
0	unknown caller category
1	operator in French
2	operator in English
3	operator in German
4	operator in Russian
5	operator in Spanish
6	operator (the adopted Chinese)
7	operator (the lang. adopted)
8	operator in Japanese
9	domestic operator
10	ordinary subscriber
11	priority subscriber
12	data call (speech band data)
13	test call
14	spared
15	collect call
16	spared
224	national spared
240	ordinary FPH (local-toll)
241	ordinary periodic (local-toll)
242	ordinary immediate subscriber

Value	Item
243	ordinary immediate printer
244	prior FPH (local-toll)
245	prior periodic subscriber
248	ordinary local subscriber