

v1.19_

ACTUAL_FROM ACTUAL_TO . 1:
- , ACTUAL_TO, , SoftWLC. ACTUAL_FROM .
ACTUAL_FROM, , SoftWLC. ACTUAL_TO 2024.12.31. 23:59:59.

UNSTRUCT_NAME . 1:
HotSpot « **Wi-Fi +** », « Wi-Fi » - , - HotSpot ().
ENTERPRISE, « + », « » - , - Enterprise (- , ,).
VOUCHER « **VOUCHER +** », « VOUCHER » - , - , .

IDENT_CARD_UNSTRUCT . 1:
HotSpot, SMS, - « **Wi-Fi** ».
HotSpot, , - « **Wi-Fi** ».
HotSpot, / , , (). ENTERPRISE , ().
VOUCHER , ().

PHONE . 2:
HotSpot, SMS, , .
HotSpot, , , .
HotSpot, / , , .
ENTERPRISE , .
VOUCHER , .

LOGIN . 2:
HotSpot, SMS, , .
HotSpot, , ESIA .
HotSpot, / , .
ENTERPRISE .
VOUCHER .

E_MAIL . 2:
ENTERPRISE , .
. 1 (ABONENT*)_

	« »						
1	ID	INTEGER(0..4294967295)	+		PK – (ABONENT_IDENT, ABONENT_INTERNAL_USER, ABONENT_ADDRESS, ABONENT_SERVICE)	ABONENTS_* ABONENTS_ENTERPRIS E_* ABONENTS_VOUCHER_*	ID
2	REGION_ID	INTEGER (0 .. 65535)	+		()	ABONENTS_* ABONENTS_ENTERPRIS E_* ABONENTS_VOUCHER_*	REGION_ID
3	CONTRACT_DATE	UTCTime	+			ABONENTS_* ABONENTS_ENTERPRIS E_* ABONENTS_VOUCHER_*	CONTRACT_DATE
4	CONTRACT	UTF8String (SIZE (1 .. 64)	+			ABONENTS_* ABONENTS_ENTERPRIS E_* ABONENTS_VOUCHER_*	CONTRACT (« »)
5	ACTUAL_FROM	UTCTime	+		, (ABONENT + (ABONENT_IDENT, ABONENT_INTERNAL_USER, ABONENT_ADDRESS, ABONENT_SERVICE)	ABONENTS_* ABONENTS_ENTERPRIS E_* ABONENTS_VOUCHER_*	ACTUAL_FROM
6	ACTUAL_TO	UTCTime	+		, (ABONENT + (ABONENT_IDENT, ABONENT_INTERNAL_USER, ABONENT_ADDRESS, ABONENT_SERVICE)	ABONENTS_* ABONENTS_ENTERPRIS E_* ABONENTS_VOUCHER_*	ACTUAL_TO («2024.12.31 23:59:59»)

7	ABONENT_TYPE	sorm-report-abonent-person OID ::= "42", sorm-report-abonent-organization OID ::= "43"	+		: "42" - , "43" -	ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	ABONENT_TYPE («42»)
8	NAME_INFO_TYPE	UTF8String (SIZE (1))	+	ABONENT_TYPE = "42"	.: , "0" - "1" -	ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	NAME_INFO_TYPE («1»)
<name-info <struct-name> <unstruct-name>				+	.: :		
<struct-name							
9	FAMILY_NAME	UTF8String (SIZE (1 .. 128))	+	ABONENT_TYPE = "42" NAME_INFO_TYPE= "0"			8, «1», ()
10	GIVEN_NAME	UTF8String (SIZE (1 .. 128))	+	ABONENT_TYPE = "42" NAME_INFO_TYPE= "0"			8, «1», ()
11	INITIAL_NAME	UTF8String (SIZE (1 .. 128))	+	ABONENT_TYPE = "42" NAME_INFO_TYPE= "0"			8, «1», ()
struct-name>							
<unstruct-name							
12	UNSTRUCT_NAME	UTF8String(SIZE(1 .. 1024))	+	ABONENT_TYPE = "42" NAME_INFO_TYPE= "1"		ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	UNSTRUCT_NAME (ENTERPRISE VOUCHER 2017.)
unstruct-name>							
name-info>							
13	BIRTH_DATE	GeneralizedTime	+	ABONENT_TYPE = "42"	.:	ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	BIRTH_DATE («1970.12.31 23:59:59»)
14	IDENT_CARD_TYPE_ID	INTEGER (0 .. 65535)	+	ABONENT_TYPE = "42"	.: , ()	ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	IDENT_CARD_TYPE_ID («0»)
15	IDENT_CARD_TYPE	UTF8String (SIZE (1))	-	ABONENT_TYPE = "42" IDENT_CARD_TYPE	.: , "0" - "1" -	ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	IDENT_CARD_TYPE («1»)
<ident-card-info <struct-info> <unstruct-info>				+		.: , ,	
<struct-info							

16	IDENT_CARD_SERIAL	UTF8String (SIZE (1 .. 16))	+	ABONENT_TYPE = "42" IDENT_CARD_TYPE			15 ()
17	IDENT_CARD_NUMBER	NumericString (SIZE (1 .. 16))	+	ABONENT_TYPE = "42" IDENT_CARD_TYPE			15 ()
18	IDENT_CARD_DESCRIPTION	UTF8String (SIZE (1 .. 256))	+	ABONENT_TYPE = "42" IDENT_CARD_TYPE			15 ()
struct-info>							
<unstruct-info							
19	IDENT_CARD_UNSTRUCT	UTF8String (SIZE (1 .. 512))	+	ABONENT_TYPE = "42"		ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	IDENT_CARD_UNSTRUCT (VOUCHER 2017.)
unstruct-info>							
ident-card-info>							
20	BANK	UTF8String (SIZE (1 .. 256))	-		()		()
21	BANK_ACCOUNT	UTF8String (SIZE (1 .. 30))	-		()		()
22	FULL_NAME	UTF8String (SIZE (1 .. 128))	+	ABONENT_TYPE = "43"	..		7, «42», ()
23	INN	UTF8String (SIZE (1 .. 64))	+	ABONENT_TYPE = "43"	..	ABONENTS_ENTERPRISE_*	7, «42», ()
24	CONTACT	UTF8String (SIZE (1 .. 128))	-	ABONENT_TYPE = "43"	..	ABONENTS_ENTERPRISE_*	7, «42», ()
25	PHONE_FAX	UTF8String (SIZE (1 .. 128))	-	ABONENT_TYPE = "43"	.. ,		7, «42», ()
26	STATUS	ENUMERATED { active (0), not-active (1)}	+		"0" - (), "1" - ()	ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	STATUS («0»)
27	ATTACH	UTCTime	-		()		()
28	DETACH	UTCTime	-		()		()
29	NETWORK_TYPE	ENUMERATED { not-specified(0), mob-gsm(1), mob-cdma(2), fix-pstn (3), data-ip(4), data-srv(5), data-ip-mob(6), data-ip-max (7), paging(9), voip(10)}	+		: 0 - , 1 - GSM, 2 - CDMA, 3 - , 4 - , 5 - , 6 - , 7 - WiFi, 8 - WiMAX, 9 - , 10 -	ABONENTS_* ABONENTS_ENTERPRISE_* ABONENTS_VOUCHER_*	NETWORK_TYPE («7»)
30	INTERNAL_ID1	UTF8String (SIZE (1 .. 128))	-		(1). .. ID.		()
31	INTERNAL_ID2	UTF8String (SIZE (1 .. 128))	-		(2). .. ID.		()

2 ABONENT_IDENT (ABONENT_ID*)_

1	ABONENT_ID	INTEGER(0..4294967295)	+		FK (ABONENT)	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	ID

2	REGION_ID	INTEGER (0 .. 65535)	+		()	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	REGION_ID
4	IDENT_TYPE	UTF8String(SIZE (1 .. 256))	+		: "1" – PAGER "2" – PSTN "3" – GSM "4" – CDMA "5" – DATA NETWORK "6" – VOIP	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	IDENT_TYPE («5»)
5	PHONE	UTF8String(SIZE (2 .. 32))	+	IDENT_TYPE = "5"	/	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	PHONE (ENTERPRISE VOUCHER 2017.)
6	INTERNAL_NUMBER	UTF8String (SIZE (1 .. 32))	-	IDENT_TYPE = "2"	pstn: ,		()
7	IMSI	NumericString (SIZE (10 .. 18))	+	IDENT_TYPE = "3" IDENT_TYPE = "4"	gsm,cdma:		4 ()
8	IMEI	NumericString (SIZE (10 .. 18))	-	IDENT_TYPE = "3" IDENT_TYPE = "4"	gsm,cdma:		()
9	ICC	NumericString (SIZE (19 .. 20))	-	IDENT_TYPE = "3" IDENT_TYPE = "4"	gsm,cdma: SIM-		()
10	MIN	NumericString (SIZE (10 .. 18))	-	IDENT_TYPE = "4"	cdma:		()
11	ESN	NumericString (SIZE (10 .. 18))	-	IDENT_TYPE = "4"	cdma:		()
12	EQUIPMENT_TYPE	Integer(SIZE(1))	-	IDENT_TYPE = "5"	data-network: : 0 – MAC-, 1- ATM		()
<user-equipment <mac><atm>			-				
<mac					MAC-		
13	MAC	OCTET STRING (SIZE (6))	+	IDENT_TYPE = "5" EQUIPMENT_TYP E=0	MAC- (HEX)		11 ()
mac>							
<atm					ATM		
14	VPI	OCTET STRING (SIZE (1))	+	IDENT_TYPE = "5" EQUIPMENT_TYP E=1	(VCI) (HEX)		11 ()
15	VCI	OCTET STRING (SIZE (2))	-	IDENT_TYPE = "5" EQUIPMENT_TYP E=1	(VCI) (HEX)		11 ()
atm>							
user-equipment>							
16	LOGIN	UTF8String (SIZE (1 .. 128)) O	-	IDENT_TYPE = "5"	data-network: – login	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	LOGIN
17	E_MAIL	UTF8String (SIZE (1 .. 128))	-	IDENT_TYPE = "5"	data-network:	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	E_MAIL (ENTERPRISE 2017.)
18	PIN	NumericString (SIZE (2 .. 20))	-	IDENT_TYPE = "5"	data-network: PIN		()
19	USER_DOMAIN	UTF8String (SIZE (2 .. 128))	-	IDENT_TYPE = "5"	data-network:	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	USER_DOMAIN
20	RESERVED	UTF8String (SIZE (1 .. 128))	-	IDENT_TYPE = "5"	data-network:		()
21	ORIGINATOR_NAME	UTF8String (SIZE (1 .. 32))	+	IDENT_TYPE = "6"	voip:		()

22	IP_TYPE	UTF8String(SIZE (1))	-	IDENT_TYPE = "5" IDENT_TYPE = "6"	data-network, voip: IP : "0" - 4, "1" - 6.	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	()
<ip-address IPV4 IPV6				+	data-network: IP- voip: IP-.		
23	IPV4	OCTET STRING (SIZE (4))	+	IDENT_TYPE = "5" IDENT_TYPE = "6" IP_TYPE = "0"	IP4 (HEX)		21 ()
24	IPV6	OCTET STRING (SIZE (16))	+	IDENT_TYPE = "5" IDENT_TYPE = "6" IP_TYPE = "1"	IP6 (HEX)		21 ()
ip-address>							
25	IP_MASK		-	IDENT_TYPE = "5" IDENT_TYPE = "6"			()
26	IP_RANGE_START	OCTET STRING (SIZE (16))	-	IDENT_TYPE = "5" IDENT_TYPE = "6"	IP (HEX), IPv6 16 byte HEX		()
26	IP_RANGE_END	OCTET STRING (SIZE (16))	-	IDENT_TYPE = "5" IDENT_TYPE = "6"	IP (HEX), IPv6 16 byte HEX		()
28	INTERNAL_ID1	UTF8String (SIZE (1 .. 128))	+		(1)		()
29	INTERNAL_ID2	UTF8String (SIZE (1 .. 128))	+		(2)		()
30	BEGIN_TIME	UTCTime	-		. .	ABONENTS_ID_* ABONENTS_ENTERPRISE_ID_* ABONENTS_VOUCHER_ID_*	BEGIN_TIME
31	END_TIME	UTCTime	-		. .		()
<line-data			-		(, , ..)		
32	LINE_OBJECT	UTF8String (SIZE (1 .. 128))	-				()
33	LINE_CROSS	UTF8String (SIZE (1 .. 128))	-				()
34	LINE_BLOCK	UTF8String (SIZE (1 .. 128))	-				()
35	LINE_PAIR	UTF8String (SIZE (1 .. 128))	-				()
36	LINE_RESERVED	UTF8String (SIZE (1 .. 128))	-				()
line-data>							
<last-location <mobile-location><wireless-location> <geo-location>			-		,		
					.		
					,		
37	LOC_TYPE	INTEGER	-		0 - , 1 - , 2 -		()
<mobile-location							
38	LOC_LAC	INTEGER (0 .. 65535)	+	LOC_TYPE = "0"			36 ()
39	LOC_CELL	INTEGER (0 .. 4294967295)	+	LOC_TYPE = "0"			36 ()
40	LOC_TA	INTEGER (0 .. 63)	-	LOC_TYPE = "0"	Timing Advance ()		36 ()
mobile-location >							
<wireless-location							
41	LOC_CELL_WIRELESS	UTF8String (SIZE (1 .. 64))	+	LOC_TYPE = "1"			36 ()

42	LOC_MAC	OCTET STRING (SIZE (6))	+	LOC_TYPE = "1"	MAC-		36 ()
wireless-location>							
<geo-location							
43	LOC_LATITUDE	REAL	+	LOC_TYPE = "2"	. - .		36 ()
44	LOC_LONGITUDE	REAL	+	LOC_TYPE = "2"	. - .		36 ()
45	LOC_PROJECTION_TYPE	ENUMERATED { wgs84 (0), utm (1), sgs85 (2) }	+	LOC_TYPE = "2"	(wgs84 (0), utm (1), sgs85 (2))		36 ()
geo-location>							
last-location>							

. 3 (BASE_STATION*)_

1	ID		+		BASE_STATION_*	ID	
2	BEGIN_TIME	UTCTime	+		BASE_STATION_*	BEGIN_TIME («2000.12.31 23:59:59»)	
3	END_TIME	UTCTime	+		BASE_STATION_*	END_TIME («2024.12.31 23:59:59»)	
4	STATION_TYPE	ENUMERATED { gsm (0), cdma (1), umts (2), wifi (3), wimax (4)}	+	: 0 - GSM, 1 - CDMA, 2 – UMTS, 3 – WIFI, 4 - WIMAX	BASE_STATION_*	STATION_TYPE («3»)	
5	ADDRESS	UTF8String (SIZE (1 .. 256))	+	SECTOR_TYPE = 0	BASE_STATION_*	« »	
6	SECTOR_TYPE		+	: 0 - , 1 -	BASE_STATION_*	SECTOR_TYPE («1»)	
<BasicStationIdentifiers <telephone>			+	:			
<telephone							
7	LAC	INTEGER (0 .. 65535)	+	:		6, «1», ()	
8	CELL	INTEGER (0 .. 4294967295)	+	- SECTOR_TYPE = 0		6, «1», ()	
9	CELL_SIGN	UTF8String (SIZE (1 .. 18))	-	() SECTOR_TYPE = 0		6, «1», ()	
telephone >							
10	ADDRESS_TYPE_ID	ENUMERATED { registered (0), postal (1), invoice (2), device-location (3), reserved (4)}	-	: 0 - 1 - 2 - 3 - 4 -	BASE_STATION_*	ADDRESS_TYPE_ID («3»)	
11	ADDRESS_TYPE		-	: 0 - , 1 -	BASE_STATION_*	ADDRESS_TYPE («0»)	
<ReportedAddress <struct-info> < unstruct-info>				-	:		
<struct-info							
12	ZIP	UTF8String (SIZE (1 .. 32))	-	: , zip-	BASE_STATION_*	ZIP	
13	COUNTRY	UTF8String (SIZE (1 .. 128))	-	:	BASE_STATION_*	COUNTRY («Russia»)	
14	REGION	UTF8String (SIZE (1 .. 128))	-	:	BASE_STATION_*	REGION	
15	ZONE	UTF8String (SIZE (1 .. 128))	-	: ,	BASE_STATION_*	ZONE	
16	CITY	UTF8String (SIZE (1 .. 128))	-	: , ,	BASE_STATION_*	CITY	
17	STREET	UTF8String (SIZE (1 .. 128))	-	:	BASE_STATION_*	STREET	
18	BUILDING	UTF8String (SIZE (1 .. 128))	-	: ,	BASE_STATION_*	BUILDING	
19	BUILD_SECT	UTF8String (SIZE (1 .. 128))	-	:	BASE_STATION_*	BUILD_SECT	
20	APARTEMENT	UTF8String (SIZE (1 .. 128))	-	: ,	BASE_STATION_*	APARTEMENT	

struct-info>							
< unstruct-info							
21	UNSTRUCT_INFO	UTF8String(SIZE (1 .. 1024))	+				11, «0», ()
unstruct-info> ReportedAddress>							
<GeoLocation							
22	LATITUDE	REAL	+	:			LATITUDE
23	LONGITUDE	REAL	+	:			LONGITUDE
24	PROJECTION_TYPE	ENUMERATED {wgs84 (0), utm (1), sgs85 (2) }	+	:	0 – wgs84, 1 – utm, 2 – sgs85		()
GeoLocation>							
25	REGION_ID	INTEGER (0 .. 65535)	+			BASE_STATION_*	REGION_ID

. 4 (BASE_STATION_WIFI_ANTENNA*)_

1	base_station_id		+	FK (FOREIGN_KEY to BASE_STATION.ID)	BASE_STATION_WIFI_ANTENNA_*	base_station_id
2	antenna_type		+	: 0 - gsm, 1 - cdma, 2 - wireless	BASE_STATION_WIFI_ANTENNA_*	antenna_type («2»)
3	azimut	INTEGER (-1 .. 359)	+	: + , , -1,	BASE_STATION_WIFI_ANTENNA_*	azimut («-1»)
4	width	INTEGER (-1 .. 359)	+		BASE_STATION_WIFI_ANTENNA_*	width («-1»)
5	horizon_angle	INTEGER (-1 .. 359)	+		BASE_STATION_WIFI_ANTENNA_*	horizon_angle («-1»)
6	power	INTEGER (0 .. 25000)	-	()	BASE_STATION_WIFI_ANTENNA_*	power («1»)
7	frequency_start	INTEGER (0 .. 10000000000)	-	()), cdma - ()	BASE_STATION_WIFI_ANTENNA_*	frequency_start
8	frequency_stop	INTEGER (0 .. 10000000000)	-	cdma - ()	BASE_STATION_WIFI_ANTENNA_*	frequency_stop
9	leaf_level	INTEGER (-45 .. 45)	-	cdma -		()
10	vertical_lift	INTEGER (0 .. 100)	-			()
11	gain_factor	INTEGER (-100 .. 100)	-	()	BASE_STATION_WIFI_ANTENNA_*	gain_factor
12	polarization	INTEGER (-45 .. 45)	-			()
13	REGION_ID	INTEGER (0 .. 65535)	+		BASE_STATION_WIFI_ANTENNA_*	REGION_ID

. 5 (BASE_STATION_WIFI_WRL*)_

1	ID		+	PK	BASE_STATION_WIFI_WRL_*	ID
2	BASE_STATION_ID		+	BASE_STATION.ID SECTOR_TYPE = 1	BASE_STATION_WIFI_WRL_*	BASE_STATION_ID
3	CELL_WIRELESS	UTF8String (SIZE (1 .. 64))	+	:	BASE_STATION_WIFI_WRL_*	CELL_WIRELESS
4	MAC	OCTET STRING (SIZE (6))	-	: MAC-	BASE_STATION_WIFI_WRL_*	MAC
5	REGION_ID	INTEGER (0 .. 65535)	+		BASE_STATION_WIFI_WRL_*	REGION_ID

. 6 IP-/ (BASE_STATION_IP)

1	WRL_ID		+		BASE_STATION_IP_*	WRL_ID

2	IP_TYPE	NUMBER(1)	+	IP-: 0 - IPv4-, 1 - IPv6-	BASE_STATION_IP_*	IP_TYPE («0»)
3	IPv4	OCTET STRING (SIZE (4))	+	IP-, 4 (IP-) IP_TYPE = 0	BASE_STATION_IP_*	IPv4
4	IPv6	OCTET STRING (SIZE (16))	+	IP-, 6 (IP-) IP_TYPE = 1		2, «0», ()
5	IP_PORT	OCTET STRING (SIZE (2))	-	IP-		()
6	REGION_ID	INTEGER (0 .. 65535)	+		BASE_STATION_IP_*	REGION_ID

.7 (IP_ACC*)_

1	CONNECTION_TIME	UTCTime	+	/ (UTC)	IP_ACC_*	START_TIME /END_TIME
2	REGION_ID	INTEGER (0 .. 65535)	+		IP_ACC_*	REGION_ID
3	POINT_ID	INTEGER (0 .. 1000)	+	,	IP_ACC_*	POINT_ID («0»)
4	LOGIN_TYPE	ENUMERATED {connect (0) disconnect (1)}	+	0 - 1 -	IP_ACC_*	0/1 (Start/Alive Stop)
5	SESSION_ID	UTF8String (SIZE (1 .. 64))	+		IP_ACC_*	SESSION_ID
<aaa-allocated-ip ipv4, ipv6		IPAddress	+	IP-		
<ipv4		IPv4Address		IPv4-		
6	ALLOCATED_IPV4	OCTET STRING (SIZE (4))	+	IP- (v4-)	IP_ACC_*	ALLOCATED_IPV4
ipv4>						
<ipv6		IPv6Address		IPv6-		
7	ALLOCATED_IPV6	OCTET STRING (SIZE (16))	+	IP- (v6-)		6 ()
ipv6>						
aaa-allocated-ip>						
8	USER_NAME	UTF8String SIZE (1 .. 64))	+	()	IP_ACC_*	LOGIN
9	CONNECT_TYPE	INTEGER (0 .. 65535)	+	RFC1700 TCP/UDP	IP_ACC_*	CONNECT_TYPE («0»)
10	CALLING_NUMBER	UTF8String (SIZE (2 .. 18))	+		IP_ACC_*	CALLING_NUMBER («»)
11	CALLED_NUMBER	UTF8String (SIZE (2 .. 18))	+		IP_ACC_*	CALLED_NUMBER («»)
<aaa-nas ipv4, ipv6		NetworkPeerInfo	+	IP-/ NAS-		
<ipv4		IPv4Address		IPv4-		
12	NAS_IPV4	OCTET STRING (SIZE (4))	+	IP-(v4) NAS-	IP_ACC_*	NAS_IPV4
ipv4>						
<ipv6		IPv6Address		IPv6-		
13	NAS_IPV6	OCTET STRING (SIZE (16))	+	IP-(v6) NAS-		12 ()
ipv6>						
14	NAS_IP_PORT	OCTET STRING (SIZE (2))	-	IP- NAS-		()

aaa-nas>						
15	IN_BYTES_COUNT	INTEGER (0 .. 18446744073709551615)	+		IP_ACC_*	IN_BYTES_COUNT
16	OUT_BYTES_COUNT	INTEGER (0 .. 18446744073709551615)	+		IP_ACC_*	OUT_BYTES_COUNT
17	USER_PASSWORD	UTF8String (SIZE (1 .. 16))	-			()
<aaa-user-equipment mac, atm		DataNetworkEquipment	-			
<mac				MAC-		
18	USER_EQ_MAC	OCTET STRING (SIZE (6))	+	MAC-	IP_ACC_*	USER_EQ_MAC
mac>						
<atm		DataNetworkATM		(SDH/PDH)		
19	USER_EQ_VPI	OCTET STRING (SIZE (1))	+	(VPI)		18 ()
20	USER_EQ_VCI	OCTET STRING (SIZE (2))	-	(VCI)		18 ()
atm>						
aaa-user-equipment>						
21	APN	UTF8String (SIZE (1 .. 32))	-	(Access Point Name)		()
<aaa-sgsn-ip ipv4, ipv6		IPAddress	-	IP- GPRS/EDGE SGSN		
<ipv4		IPv4Address		IPv4-		
22	SGSN_IPV4	OCTET STRING (SIZE (4))	+	IP- (v4) GPRS/EDGE SGSN		()
ipv4>						
<ipv6		IPv6Address	IPv6-			
23	SGSN_IPV6	OCTET STRING (SIZE (16))	+	IP- (v6) GPRS/EDGE SGSN		()
ipv6>						
aaa-sgsn-ip>						
<aaa-ggsn-ip ipv4, ipv6		IPAddress	-	IP- GPRS/EDGE GGSN		
<ipv4		IPv4Address		IPv4-		
24	GGSN_IPV4	OCTET STRING (SIZE (4))	+	IP- (v4) GPRS/EDGE GGSN		()
ipv4>						
<ipv6		IPv6Address	IPv6-			
25	GGSN_IPV6	OCTET STRING (SIZE (16))	+	IP- (v6) GPRS/EDGE GGSN		()
ipv6>						
aaa-ggsn-ip>						
26	SERVICE_AREA_CODE	INTEGER (0 .. 65535)	-	(SAC) GPRS/EDGE		()
<aaa-location-start mobile-location, wireless-location		Location	-	, ()		
<mobile-location		MobileLocation				
27	LAC_START	INTEGER (0 .. 65535)	+	, () ()		()
28	CELL_START	INTEGER (0 .. 4294967295)	+	, () ()		()
29	TA_START	INTEGER (0 .. 63)	-	, () ()		()
mobile-location>						
<wireless-location		WirelessLocation				
30	WL_CELL_START	UTF8String (SIZE (1 .. 64))	+	(WirelessLocation)	IP_ACC_*	WL_CELL_START
31	WL_MAC_START	OCTET STRING (SIZE (6))	+	MAC- (WirelessLocation)	IP_ACC_*	WL_MAC_START
wireless-location>						
aaa-location-start>						

<aaa-location-end mobile-location, wireless-location		Location	-	, ()		
<mobile-location		MobileLocation				
32	LAC_END	INTEGER (0 .. 65535)	+	, ()		()
33	CELL_END	INTEGER (0 .. 4294967295)	+	, () ()		()
34	TA_END	INTEGER (0 .. 63)	-	, () ()		()
mobile-location>						
<wireless-location		WirelessLocation				
35	WL_CELL_END	UTF8String (SIZE (1 .. 64))	+	(WirelessLocation)	IP_ACC _ *	WL_CELL_END
36	WL_MAC_END	OCTET STRING (SIZE (6))	+	MAC- (WirelessLocation)	IP_ACC _ *	WL_MAC_END
wireless-location>						
aaa-location-end>						
37	PHONE_CARD_NUMBER	NumericString (SIZE (20))	-			()
38	IMSI	NumericString (SIZE (10 .. 18))	-	IMSI		()
39	IMEI	NumericString (SIZE (10 .. 18))	-	(GSM)		()
40	ESN	NumericString (SIZE (10 .. 18))	-	(CDMA)		()
41	POOL_NUMBER	UTF8String (SIZE (2 .. 18))	-			()