

Log file

OK

See

13.3.3.2.1 Supported Instructions

Instruction

The data section contains the following field order:

RFP configuration file/local (OM Configurator)

```
omm_1 = 172.30.111.188
omm_2 = 172.30.11.181
gateway = 172.30.0.2
dns_server = 172.30.0.4,172.30.0.21
dns_domain = aastra.de
syslog_addr= 172.30.200.92
use_vlan = 1
srvidst = 172.30.0.4,172.30.0.21
broadcast_addr = 172.30.255.255
vlan_id = 4
preferred_tftp = 1
config_file_server = https://server/configfiles/

# -----#
# data sequence #
# -----#
# 1. MAC_ADDR          ! no instruction supported !
# 2. ACTIVE_FLAG       !
# 3. RFPADDR           ! no instruction supported !
# 4. NET MASK
# 5. TFTP_SERVER
# 6. TFTP_FILE
# 7. OMM1
# 8. OMM2
# 9. GATEWAY
#10. DNS_SERVER
#11. DNS_DOMAIN
#12. SYSLOG_ADDR
#13. SYSLOG_PORT
#14. USE_VLAN
#15. SRVIDST
#16. BROADCAST_ADDR
#17. VLAN_ID
#18. PREFERRED_TFTP
#19. CONFIG_FILE_SERVER

data_sequence
00-30-42-01-01-01::172.30.111.1
00-30-42-02-02-02::172.30.111.2
```

Parse log for import / instruction processing

```
ok: active = 1
ok: net_mask = 255.255.0.0
ok: tftp_server = 172.30.200.92
ok: tftp_file = ipfp2g.tftp
ok: omm_1 = 172.30.111.188
ok: omm_2 = 172.30.11.181
ok: gateway = 172.30.0.2
ok: dns_server = 172.30.0.4,172.30.0.21
ok: dns_domain = mibel.com
ok: syslog_addr = 172.30.200.92
not set: syslog_port
ok: use_vlan = 1
ok: srvidst = 172.30.0.4,172.30.0.21
ok: broadcast_addr = 172.30.255.255
ok: vlan_id = 4
ok: preferred_tftp = 1
ok: config_file_server = https://server/configfiles/

: parsing ok:

Processing of section: data_sequence

[...]

create data:

[...]

RFP configuration:

[...]

[...]
```

13.4 RFP EXPORT FILE FORMAT

General

RFP export files are created by OMM Management Portal in 'csv'-file format which can be easily viewed by a spreadsheet application. Export file contains all or a part of the following parameters:

- MAC address
- Location name
- DECT active
- Cluster
- Paging area
- Synchronization source
- Reflective environment
- Site
- Building
- Floor
- Room
- WLAN profile reference
- WLAN antenna
- WLAN Channel_bg
- WLAN power
- WLAN active

Example

Following example RFP export file contains all exportable RFP parameters and is re-importable by OMM Management Portal.

```
#####  
# RFP data export file: '/home/user/example.csv'  
# Date: 24.09.10 Time: 15:58:19  
#####  
#  
# Exported parameters:  
#  
# MAC address  
# Name  
# DECT activated  
# DECT cluster  
# Paging area  
# Preferred sync.  
# Reflective env.  
# Site ID  
# Building
```

```
# Floor  
# Room  
# WLAN profile  
# WLAN antenna  
# WLAN channel  
# WLAN power  
# WLAN activated  
#  
#####  
MAC address;Name;DECT activated;DECT cluster;Paging area;Preferred sync.;Reflective  
env.;Site ID;Building;Floor;Room;WLAN profile;WLAN antenna;WLAN channel;WLAN power;WLAN  
activated  
  
data_sequence  
  
00:30:42:0E:71:41;License RFP 1;  
true;1;0;false;true;1;B1;F1;R1;1;0;;100;false  
  
00:30:42:0E:26:F1;License RFP 2;  
true;1;0;false;false;1;B1;F2;R1;1;0;;100;false  
  
00:30:42:0E:75:59;License RFP 3;  
true;1;0;true;false;1;B1;F2;R2;1;0;;100;false
```

13.5 COA CONFIGURATION PARAMETERS

In addition to the information provided in section 7.23, the following sections provide examples of a CoA configuration files, and an overview of all supported parameters.

13.5.1 CONFIGURATION OF VARIABLE LISTS

A *variable list* includes a number of *list items*, each of which can be executed in the usual way by selecting it. A list item consists of an item index (1..10) and either a number (to be dialed) or a function/feature that is supported by the handset. Other attributes of a list item are optional.

<i>Item-Attribute</i>	<i>Type</i>	<i>Description</i>	<i>Example</i>
Index	decimal number	index of list item (1..10)	7
Number	quoted UTF8-string	'number' to dial	"#12#777#"
Name	quoted UTF8-string	displayed text of item	"My Voice Box"
FunctionID	function-ID-string	function/feature to execute	pbx, directory
ShortName/icon	quoted UTF8-string	displayed short name and/or icon	"XEE808B VB"
Handsfree	Boolean (0 or 1)	dial in hands-free-mode	1
VisibleSpecifier	4-digit-string of '0' or '1'	item visible in idle-, dial-, alerting- and active-state	1000

There are 2 variable lists available, and each can hold up to 10 list items.

To configure an item for one of the lists the command key *UD_VlistEntry* is used. The first value specifies the index (1 or 2) of the considered list, followed by the above mentioned attributes in the given order.

Always remember that the different values/attributes must be separated by whitespace and their positions in the configuration command are fixed. Unused attributes must be indicated by empty strings if they are followed by nonempty attributes, unused attributes (empty strings) can be omitted at the end of the configuration command.

Examples:

```
UD_VlistEntry = 1 1 "#12#777#" "My Voice Box" "" "VB" 1
UD_VlistEntry = 1 2 "043116967777" "Alice"
UD_VlistEntry = 1 3 "043116968888" "Bob's Phone" "" "BP \XEE808B"
UD_VlistEntry = 2 1 "" "App 5" f_5 "AS" "" 1000
```

Additionally a variable list can hold a name and/or short name used for representing it in another list or near a programmed soft key or side key. Again, the 'short name' attribute allows specifying an icon as well. A third attribute, 'sub item', determines whether or not a selected list item is to be displayed with sub item (sub key line).

<i>List-Attribute</i>	<i>Type</i>	<i>Description</i>	<i>Example</i>
Name	quoted UTF8-string	displayed text of list	"My Own Menu"
ShortName/icon	quoted UTF8-string	displayed short name and/or icon	"XEE808B M1"
Subitems	Boolean (0 or 1)	show sub key line of selected item	1

Again, the corresponding configuration commands take the list index (1 or 2) as first value.

Examples:

```
UD_VlistName = 1 "My Own Menu"
UD_VlistShortName = 1 "\XEE808B M1"
UD_VlistSubitems = 1 1
```

13.5.2 EXTENDED COA EXAMPLES

13.5.3 EXAMPLE 1

```
UD_ConfigurationName="UmLaute (UTF-8): 80uK0U, Escape-Sequenzen: ' \ " \x \n \t \f,
andere UTF-8-Zeichen: p @ e"
```

```
# display-einstellungen
UD_Displang=en
UD_DisplFont=large
UD_Discolor=black
```

```
# ringer-einstellungen
UD_RingerVolumeIntern=level_1
UD_RingerVolumeExtern=level_2
UD_RingerMelodyIntern=classical_1
UD_RingerMelodyExtern=pipi_longstocking
```

```
# ausblenden/sperren von Features
UD_FunctionMenuHide=active_features true
UD_FunctionMenuHide=prog_x true
UD_FunctionUserProtected=system_x true
```

```
# programmieren von Tasten (Idle-Zustand)
UD_KeyAssignmentIdle=side1 voice_box
UD_KeyAssignmentIdle=ok MenuInNew
UD_KeyAssignmentIdle=long_esc inf
UD_KeyAssignmentIdle=esc pbx_directory
UD_KeyAssignmentIdle=long_esc directories
```

13.5.4 EXAMPLE 2

```
UD_ConfigurationName = "omn-test" # dies definiert den namen des coa-files (versys)

## message options
UD_MessageMelodyNormal = basic_1
UD_MessageMelodyUrgent = basic_2
UD_MessageMelodyAlarm = basic_3

UD_MessageVolumeNormal = level_1
```

```
UD_MessageVolumeUrgent = level_2
UD_MessageVolumeAlarm = level_3

UD_MessageOverwrite = true

## ringer melody options
UD_RingerMelodyIntern = butterfly
UD_RingerMelodyExtern = barock
UD_RingerMelodyUnknown = ballade
UD_RingerMelodyCallback = fancy
UD_RingerMelodyRecall = comelody
UD_RingerMelodyVip = easy_groove
UD_RingerMelodySpecial = happy_fair
UD_RingerMelodyAppointment = kitafun
UD_RingerMelodyAppointment = latin_dance

## ringer volume options
UD_RingerVolumeIntern = off
UD_RingerVolumeExtern = increasing
UD_RingerVolumeUnknown = level_1
UD_RingerVolumeCallback = level_2
UD_RingerVolumeRecall = level_3
UD_RingerVolumeVip = level_4
UD_RingerVolumeSpecial = level_5
UD_RingerVolumeAlarm = level_6
UD_RingerVolumeAppointment = level_7

## ringer settings
UD_RingMode = repeat
UD_RingBuzz = true
UD_RingVibra = true
UD_RingHeadset = false

## attention tones
UD_ToneKey = inactive active
UD_ToneCnf = active
UD_ToneHend = active no_speaker
UD_ToneAcou = active vibra
UD_ToneRange = inactive active no_speaker vibra
UD_ToneOutrange = inactive
```

```
## audio
UD_AudioNoisedetect = true
UD_AudioLoudenv = false
UD_AudioSpkCharger = handsfree

## Systems/Subscription/<System X>
UD_DialCharSet = ABC_123
UD_DialCodeImax = 3
UD_DialCodeSys = "6"

## display
UD_DisplayAngren
UD_DisplayLarge
UD_DisplayColor=black

## illumination
UD_LightDim = 2h
UD_LightDisp = 2m
UD_LightKey = 45s
UD_LightKeyOptIncom = true
UD_LightKeyOptAlarm = false
UD_LightKeyOptCharge = false
UD_LightCharge = 60s
UD_LightCall = 30s
UD_LightMsgMsg = 10s
UD_LightMsgInf = 20s
UD_LightMsgJob = 30s
UD_LightMsgSos = 60s

## led indications
UD_LedAlive = true
UD_LedIncom = true
UD_LedRange = false
UD_LedCharge = true
UD_LedInfo = false
UD_LedSpk = true
UD_LedAutoans = false
UD_LedAppoint = false
UD_LedAlarm = false

## list access
UD_ListmodeRedial = pbx
UD_ListmodeCaller = pbx
```

```
UD_ListmodeFilter = block_list

## device options
UD_ModeSilentcharge = true
UD_ModeChargeranswr = false
UD_ModeAutoanswr = true
UD_ModeAutoquickhook = false
UD_ModeKey = oem

## phone lock
UD_LockKeyAuto = true
UD_LockKeyTime = 30s
UD_LockKeyPin = true
UD_LockPin = "1234"
UD_LockAdmin = "4711"

## SOS call
UD_SosNum = "4711"
UD_SosMelody = weekend
UD_SosVolume = increasing
UD_SosHandsfree = true

## alarm sensor
UD_SosMGNNumber = "0815"
UD_SosMGAUTOanswr = true
UD_SosMGMdePre = false
UD_SosMGMdeDown = true
UD_SosMGMdeNmove = true
UD_SosMGMdeEsc = false
UD_SosMGMdeRep = false
UD_SosMGSenseAngle = flat
UD_SosMGSenseMove = high
UD_SosMGSenseEsc = medium
UD_SosMGNomodeDown = conversation system_menu local_menu
UD_SosMGNomomove = conversation
UD_SosMGNomoEsc = idle conversation system_menu local_menu
UD_SosMDelayDown = 20s
UD_SosMDelayNmove = 30s
UD_SosMDelayEsc = 45s
UD_SosMTimePre = 30s
UD_SosMTimeRep = 60s
UD_SosMTone = true
UD_SosMViibra = false
```

```
## function/feature access
UD_FunctionMenuHide=active_features true
UD_FunctionMenuHide=prog_x TRUE
UD_FunctionLocked=time_x true
UD_FunctionUserProtected=system_x true
UD_FunctionUserProtected=dir_x true
UD_FunctionAdminProtected=system_x true
UD_FunctionGrayed=system_x true

## assignment of keys
UD_KeyAssignmentIdle=side1 caller
UD_KeyAssignmentIdle=ok MenuInNew
UD_KeyAssignmentIdle=long.ok inf
UD_KeyAssignmentIdle=esc pbx_directory
UD_KeyAssignmentIdle=long.esc directories
UD_KeyAssignmentActive=esc nop
```

13.5.5EXAMPLE 3

```
UD_ConfigurationName = "omm-test" # dies definiert den namen des coa-files (versys)
```

```
## function/feature access
UD_FunctionMenuHide = scheme true
UD_FunctionLocked = scheme true
UD_FunctionGrayed = scheme true
UD_FunctionUserProtected = scheme true
UD_FunctionAdminProtected = scheme true
```

13.5.6EXAMPLE 4

```
#UD_ConfigurationName = "omm-test" # dies definiert den namen des coa-files (versys)

## assignment of keys
#UD_KeyAssignmentIdle=side1 sos_loc
#UD_KeyAssignmentIdle=side2 shock
#UD_KeyAssignmentIdle=side3 sensor_menu

#UD_KeyAssignmentIdleMaster=side1 sos_loc
#UD_KeyAssignmentIdleMaster=side2 shock
#UD_KeyAssignmentIdleMaster=side3 sensor_menu
```

```
UD_KeyAssignmentIdle=down gappp_directory

UD_ConfigurationName= jwede-1
UD_DispFont= normal
UD_Discolor= black

UD_KeyAssignmentIdle=side1 v1st1
UD_KeyAssignmentActive=side1 v1st2

UD_VListEntry = 1 1 "8010" "unpark 10" "" "" ""
UD_VListEntry = 1 2 "80*11" "unpark 11" "" "" ""

UD_VListName = 1 "unpark call"
UD_VListShortName = 1 "\xEE8296"
UD_VListSubItems = 1 0

UD_VListEntry = 2 1 "#58110" "Park 10" "" "" ""
UD_VListEntry = 2 2 "58#11" "Park 11" "" "" ""

UD_VListName = 2 "Park call"
UD_VListShortName = 2 "\xEE8296"
UD_VListSubItems = 2 0

## var-lists
#UD_VListName = 1 "Extra-Menu 1"
#UD_VListName = 2 "Extra-Menu 2"
#UD_VListShortName = 2 \xEE808B
#UD_VListSubItems = 2 1

## var-list entries
# Parameters: list item number-to-dial name fkt
shortname/icon handsfree visible(idle,dial,alert,active)
0..1 4-digit-string-of(0,1) quoted-string string quoted-string
\xEE808B "7*<no#" "Röger's" f_1 «name»
#UD_VListEntry= 2 2 "04311696222<In=4>" "xx\yy" f_5 "nam2"
"" 1000
#UD_VListEntry= 1 3 "04311696777<>" "xx\yy" inf
"\238128\139"
#UD_VListEntry= 1 7 "04311696000" "xx\yy" "" "s e"
\xEE808B

## max=20 30
```

373

```
## mul=11 3
## subStr = 1001 1 1
## xxx = bbb

# in strings: so soll es sein:
# cfg -> lua
# "xx\yy" -> 'xx\yy'
# "xx\yy" -> 'xx\yy' (auch: "xx\yy" -> 'xx\yy')
# "xx\yy" -> 'xx\yy'
# "xx\yy" -> 'xx\yy'
# "xx\yy" -> 'xx\yy'
# "xx\yy" -> 'xx\yy'
# "xx\yy" -> 'xx\yy'
# "xx\yy" -> 'xx\yy'
# "xx\234yy" -> 'xx\234yy'

# Icons:
# "xx\x01yy" -> 'xxyy'
# :
# "xx\x1fyy" -> 'xxyy'
# "xx\xee00byy" -> 'xx\yy'
```

13.5.7 EXAMPLE 5

```
UD_ConfigurationName = "omn-test" # dies definiert den namen des coa-files (versys)

## assignment of keys
UD_KeyAssignmentIdle=side1 sos_loc
UD_KeyAssignmentIdle=side2 shock
UD_KeyAssignmentIdle=side3 sensor_menu

UD_KeyAssignmentIdle=master=side1 sos_loc
UD_KeyAssignmentIdle=master=side2 shock
UD_KeyAssignmentIdle=master=side3 sensor_menu

UD_KeyAssignmentActiveSos=red nop
UD_KeyAssignmentActiveSos=d0 dial_0
UD_KeyAssignmentActiveSos=d1 dial_1
UD_KeyAssignmentActiveSos=d2 dial_2
UD_KeyAssignmentActiveSos=d3 dial_3
UD_KeyAssignmentActiveSos=d4 dial_4
UD_KeyAssignmentActiveSos=d5 dial_5
UD_KeyAssignmentActiveSos=d6 dial_6
UD_KeyAssignmentActiveSos=d7 dial_7
UD_KeyAssignmentActiveSos=d8 dial_8
```

374

```
UD_KeyAssignmentActiveSos=d9_dial_9
UD_KeyAssignmentActiveSos=star_dial_strat
UD_KeyAssignmentActiveSos=hash_dial_hash
UD_KeyAssignmentActiveSosMaster=red_nop
```

13.5.8 SUPPORTED COA PARAMETERS

The following keys and values are supported in the CoA configuration files.

```
used in configuration commands: <key> = <value> [ <value> ]
// KEY_xxx  key
// VAL_xxx  value

"UD_ConfigurationName" // <string>

// message melody options
"UD_MessageMelodyNormal" // VAL_MELODY_xxx
"UD_MessageMelodyUrgent" // VAL_MELODY_xxx
"UD_MessageMelodyAlarm" // VAL_MELODY_xxx

// message volume options
"UD_MessageVolumeNormal" // VAL_VOLUME_xxx
"UD_MessageVolumeUrgent" // VAL_VOLUME_xxx
"UD_MessageVolumeAlarm" // VAL_VOLUME_xxx

// message overwrite
"UD_MessageOverwrite" // true/false

// ringer melody options
"UD_RingerMelodyIntern" // VAL_MELODY_xxx
"UD_RingerMelodyExtern" // VAL_MELODY_xxx
"UD_RingerMelodyUnknown" // VAL_MELODY_xxx
"UD_RingerMelodyCallback" // VAL_MELODY_xxx
"UD_RingerMelodyRecall" // VAL_MELODY_xxx
"UD_RingerMelodyVip" // VAL_MELODY_xxx
"UD_RingerMelodySpecial" // VAL_MELODY_xxx
"UD_RingerMelodyAlarm" // VAL_MELODY_xxx
"UD_RingerMelodyAppointment" // VAL_MELODY_xxx

// ringer volume options
"UD_RingerVolumeIntern" // VAL_VOLUME_xxx
"UD_RingerVolumeExtern" // VAL_VOLUME_xxx
"UD_RingerVolumeUnknown" // VAL_VOLUME_xxx
"UD_RingerVolumeCallback" // VAL_VOLUME_xxx
```

375

```
"UD_RingerVolumeRecall" // VAL_VOLUME_xxx
"UD_RingerVolumeVip" // VAL_VOLUME_xxx
"UD_RingerVolumeSpecial" // VAL_VOLUME_xxx
"UD_RingerVolumeAlarm" // VAL_VOLUME_xxx
"UD_RingerVolumeAppointment" // VAL_VOLUME_xxx

// melodies
"weekend" // Weekend
"butterfly" // Butterfly
"barock" // Barock
"ballade" // Ballade
"fancy" // Fancy
"comelody" // Comelody
"easy_groove" // Easy groove
"happy_fair" // Happy fair
"kitafun" // Kitafun
"latin_dance" // Latin dance
"little_asia" // Little asia
"mango_selassi" // Mango selassi
"parka" // Parka
"remember" // Remember
"rocky_lane" // Rocky lane
"ringing_1" // Ringing 1
"ringing_2" // Ringing 2
"ringing_3" // Ringing 3
"ringing_4" // Ringing 4
"ringing_5" // Ringing 5
"ringing_6" // Ringing 6
"ringing_7" // Ringing 7
"ring_vintage" // Ring vintage
"vibes" // Vibes
"attack" // Attack
"doorbell" // Doorbell
"boogie" // Boogie
"polka" // Polka
"classical_1" // Classical 1
"classical_2" // Classical 2
"classical_3" // Classical 3
"classical_4" // Classical 4
"alla_turca" // Alla turca
"entertainer" // Entertainer
"jollygood" // Jollygood
"in_the_saints" // In the saints
```

376

```
"drunken_sailor" // Drunken sailor
"mary_had" // Mary had
"shell_be_walking" // Shell be walking
"pippi_longstocking" // Pippi longstocking
"policehorn" // Policehorn
"synthesizer" // Synthesizer
"after_work" // After work
"beep" // Beep
"basic_1" // Basic 1
"basic_2" // Basic 2
"basic_3" // Basic 3
"basic_4" // Basic 4
"basic_5" // Basic 5
"basic_6" // Basic 6
"basic_7" // Basic 7
"basic_8" // Basic 8
"alarm_1" // Alarm 1
"alarm_2" // Alarm 2
"alarm_3" // Alarm 3
"alarm_4" // Alarm 4
"alarm_5" // Alarm 5
"alarm_6" // Alarm 6
"alarm_7" // Alarm 7
"6700_one" // 6700 One
"6700_two" // 6700 Two
"6700_three" // 6700 Three
"6700_four" // 6700 Four
"6700_five" // 6700 Five
"1_attention_tone" // 1 Attention tone
"2_attention_tones" // 2 Attention tones
"3_attention_tones" // 3 Attention tones
"4_attention_tones" // 4 Attention tones
"5_attention_tones" // 5 Attention tones
"6_attention_tones" // 6 Attention tones
"7_attention_tones" // 7 Attention tones
"8_attention_tones" // 8 Attention tones
"9_attention_tones" // 9 Attention tones
"10_attention_tones" // 10 Attention tones

// Volumes
"off" // off
"increasing" // increasing
"level_1" // Level-1
```

377

```
"level_2" // Level-2
"level_3" // Level-3
"level_4" // Level-4
"level_5" // Level-5
"level_6" // Level-6
"level_7" // Level-7

// ringer settings
"UD_RingMode" // VAL_RING_MODE_XXX
"UD_RingBuzz" // true/false
"UD_RingVibra" // true/false
"UD_RingHeadset" // true/false

"repeat" // repeat
"once" // once

// attention tones
"UD_ToneKey" // VAL_TONE_XXX (up to 3 values)
"UD_ToneCnf" // VAL_TONE_XXX (up to 3 values)
"UD_ToneMend" // VAL_TONE_XXX (up to 3 values)
"UD_ToneAccu" // VAL_TONE_XXX (up to 3 values)
"UD_ToneRange" // VAL_TONE_XXX (up to 3 values)
"UD_ToneOutrange" // VAL_TONE_XXX (up to 3 values)

"inactive" // inactive
"active" // active
"no_speaker" // without Loudspeaker
"vibra" // Vibration

// audio
"UD_AudioOnIsdetect" // true/false
"UD_AudioLoudenv" // true/false
"UD_AudioSpkCharger" // VAL_AUDIO_SPK_CHARGER_XXX

"release" // Release
"handsfree" // Handsfree

// Systems/Subscriptio/ <System X>
"UD_DialCharset" // VAL_DIAL_ABC_XXX
"UD_DialCodeImax" // VAL_DIAL_CODE_IMAX_XXX
"UD_DialCodeSys" // <digit-string>

"123_" // 123...
```

378

```
"ABC_123" // ABC...123
"123_ABC_860" // 123...ABC...860
"ABC_860_123" // ABC...860...123
"123_ABC" // 123...ABC

"automatic" // automatic
"1" // 1
"2" // 2
"3" // 3
"4" // 4
"5" // 5
"6" // 6
"7" // 7
"8" // 8

// display
"UD_DisplayLang" // VAL_DISP_LANG_XXX
"UD_DisplayFont" // VAL_DISP_FONT_XXX
"UD_DisplayColor" // VAL_DISP_COLOR_XXX

"default" // default
"de" // D - Deutsch
"en" // GB - English
"fr" // FR - Français
"es" // ES - Español
"it" // I - Italiano
"nl" // NL - Nederlands
"sv" // S - Svenska
"da" // DK - Dansk
"pt" // P - Português
"no" // N - Norsk
"cs" // Cz - Cesky
"sk" // SK - Sloven\010dina - Slovensky
"fi" // Su - Suomi
"hu" // H - Magyar - Hungarian
"ru" // RU - \u0420\u0443\u0441\u0441\u043a\u043e\u0439 - Russian
"tr" // TURK - Turkiye
"pl" // PL - Polski
"et" // EST - Eesti

"small" // Small
"normal" // Normal
"large" // Large
```

379

```
"gray" // Gray
"black" // Black
"business" // Business
"future" // Future
"plain" // Plain
"sweet" // Sweet

// illumination
"UD_LightDim" // VAL_LIGHT_DIM_XXX
"UD_LightDisp" // VAL_LIGHT_DISP_XXX
"UD_LightKey" // VAL_LIGHT_KEY_XXX
"UD_LightKeyOptIncom" // true/false
"UD_LightKeyOptAlarm" // true/false
"UD_LightKeyOptCharge" // true/false
"UD_LightCall" // VAL_LIGHT_CALL_XXX
"UD_LightMsgMsg" // VAL_LIGHT_MSG_MSG_XXX
"UD_LightMsgInf" // VAL_LIGHT_MSG_INF_XXX
"UD_LightMsgJob" // VAL_LIGHT_MSG_JOB_XXX
"UD_LightMsgSos" // VAL_LIGHT_MSG_SOS_XXX
```

```
"off" // off
"1m" // 1 min
"10m" // 10 min
"1h" // 60 min
"2h" // 120 min
"4h" // 240 min
"10h" // 600 min
"on" // on

"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
"4m" // 240 sec

"off" // off
"1s" // 1 sec
"3s" // 3 sec
"5s" // 5 sec
```

380

```
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
"4m" // 240 sec

"off" // off
"1s" // 1 sec
"3s" // 3 sec
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
"4m" // 240 sec

"off" // off
"1s" // 1 sec
"3s" // 3 sec
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
"4m" // 240 sec

"off" // off
"1s" // 1 sec
"3s" // 3 sec
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
"3m" // 180 sec
"4m" // 240 sec
"on" // on

"nochange" // No change
"dimmed" // light dimmed
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
```

381

```
"4m" // 240 sec

"nochange" // No change
"dimmed" // light dimmed
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
"4m" // 240 sec

"nochange" // No change
"dimmed" // light dimmed
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"2m" // 120 sec
"4m" // 240 sec

"4m" // 240 sec

"dimmed" // light dimmed
"30s" // 30 sec
"60s" // 60 sec
"2m" // 120 sec
"4m" // 240 sec
"5m" // 300 sec

// led indications
"UD_ledAlive" // true/false
"UD_ledIncom" // true/false
"UD_ledRange" // true/false
"UD_ledCharge" // true/false
"UD_ledInfo" // true/false
"UD_ledSpk" // true/false
"UD_ledApptoint" // true/false
"UD_ledAlarm" // true/false

// list access
```

382

```
"UD_ListmodeRedial" // VAL_LISTMODE_REDIAL_xxx
"UD_ListmodeCaller" // VAL_LISTMODE_CALLER_xxx
"UD_ListmodeFilter" // VAL_LISTMODE_FILTER_xxx

"local" // local
"automatic" // automatic
"pbx" // PBX

"local" // local
"automatic" // automatic
"pbx" // PBX

"accept_list" // Accept list
"block_list" // Block list
"filter_off" // Filter off

// device options
"UD_ModeSilentCharge" // true/false
"UD_ModeChargeranswr" // true/false
"UD_ModeAutoanswr" // true/false
"UD_ModeAutoquickhook" // true/false
"UD_ModeKey" // VAL_MODE_KEY_xxx

"emo" // Esc >> OK
"oem" // OK Esc >>
"eom" // Esc OK >>
"meo" // >> Esc OK
"EMO" // Esc Menu OK
"OEM" // OK Esc Menu
"EOM" // Esc OK Menu
"MEO" // Menu Esc OK

// phone lock
"UD_LockKeyAuto" // true/false
"UD_LockKeyTime" // VAL_LOCK_KEY_T_xxx
"UD_LockKeyPin" // true/false
"UD_LockPin" // <digit-string>
"UD_LockAdmin" // <digit-string>

"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
```

383

```
"40s" // 40 sec
"50s" // 50 sec
"60s" // 60 sec
"90s" // 90 sec
"120s" // 120 sec

// SOS call
"UD_SosNum" // <digit-string>
"UD_SosMelody" // VAL_MELODY_xxx
"UD_SosVolume" // VAL_VOLUME_xxx
"UD_SosHandsfree" // true/false

// alarm sensor
"UD_SosMGNNumber" // <digit-string>
"UD_SosMGNAutoanswr" // true/false
"UD_SosMGNModePre" // true/false
"UD_SosMGNModeDown" // true/false
"UD_SosMGNModeMove" // true/false
"UD_SosMGNModeEsc" // true/false
"UD_SosMGNModeRep" // true/false
"UD_SosMGNSenseAngle" // VAL_SOSMD_SENSE_ANGLE_xxx
"UD_SosMGNSenseMove" // VAL_SOSMD_SENSE_MOVE_xxx
"UD_SosMGNSenseEsc" // VAL_SOSMD_SENSE_ESC_xxx
"UD_SosMGNModeDown" // VAL_SOSMD_NOMO_xxx (up to 4 values)
"UD_SosMGNModeEsc" // VAL_SOSMD_NOMO_xxx (up to 4 values)
"UD_SosMGNModeRep" // VAL_SOSMD_NOMO_xxx (up to 4 values)
"UD_SosMGNDelayDown" // VAL_SOSMD_DELAY_DOWN_xxx
"UD_SosMGNDelayEsc" // VAL_SOSMD_DELAY_ESC_xxx
"UD_SosMGNTimePre" // VAL_SOSMD_T_PRE_xxx
"UD_SosMGNTimeRep" // VAL_SOSMD_T_REP_xxx
"UD_SosMGTone" // true/false
"UD_SosMGVibra" // true/false

"steep" // Steep
"medium" // Medium
"flat" // Flat

"low" // Low
"medium" // Medium
"high" // High
"low" // Low
```

384

```
"medium" // Medium
"high" // High

"idle" // in idle
"conversation" // during conversation
"local_menu" // in local menu
"system_menu" // in system menu

"1s" // 1 sec
"2s" // 2 sec
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"75s" // 75 sec

"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"75s" // 75 sec

"1s" // 1 sec
"2s" // 2 sec
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"75s" // 75 sec

"1s" // 1 sec
"2s" // 2 sec
"5s" // 5 sec
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"75s" // 75 sec

"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"75s" // 75 sec

"5s" // 5 sec
```

385

```
"10s" // 10 sec
"20s" // 20 sec
"30s" // 30 sec
"45s" // 45 sec
"60s" // 60 sec
"75s" // 75 sec
"120s" // 120 sec
"240s" // 240 sec

// function/feature access
"UD_FunctionMenuHide" // VAL_FUNCTION_xxx and true/false
"UD_FunctionLocked" // VAL_FUNCTION_xxx and true/false
"UD_FunctionStayed" // VAL_FUNCTION_xxx and true/false
"UD_FunctionUserProtected" // VAL_FUNCTION_xxx and true/false
"UD_FunctionAdminProtected" // VAL_FUNCTION_xxx and true/false

// functions/features available on device
"pbx_unpark" // <<< Unpark call(*)
"pbx_park" // <<< Pickup/Park(*)
"gapp_pickup" // <<< Pickup call(*)
"pbx_take" // <<< Take call(*)
"gapp_call_forward" // <<< Call diversion(*)
"pbx_call_routing" // <<< Call routing(*)
"gapp_pickup_select" // Pickup select
"gapp_announcement" // Announcement
"gapp_intercom" // Intercom
"gapp_vip_call" // VIP call
"inf" // >>> Info (menu item only)
"caller" // Caller list
"redial" // Redial list
"box_x" // >>> Voice box
"box_set_x" // Voice box settings
"voice_box_menu" // Settings/Voice mail(*)
"active_features" // >>> Active features
"msg_x" // >>> Text message / Jobs / Mails(*)
"omni_def_msg" // Pre-defined messages
"msg_opt_x" // Message options
"mel_msg_x" // Melodies
"mel_msg" // Normal message
"mel_msgurg" // Urgent message
"mel_msgsos" // Alarm message
"vol_msg_x" // Volume
"vol_msg" // Normal message
```

386

```
"vol_msgurg" // Urgent message
"vol_msgsos" // Alarm message
"msg_pop" // Popup
"msg_owr" // Overwrite
"msg_del" // Delete/Delete all
"directory_x" // >>> Directories
"vip" // VIP list
"vip_x" // Edit/Add VIP list entry
"dir_x" // Personal directory
"book_x" // Edit/Add personal directory entry
"quick_x" // Quick call
"add_to" // Add to...(VIP/Filter/Personal/Central directory)
"pbx_directory" // Central directory(*)
"time_x" // >>> Time functions
"alarm_x" // Alarm clock 1...3
"appointment_x" // Appointment 1...3
"tea_timer" // Timer
"audio_x" // >>> Audio
"volume_menu" // Volume settings
"tone_menu" // Attention tones
"tone_key" // Key click
"tone_cnf" // Confirm tones
"tone_end" // End of menu
"tone_bat" // Battery warning
"tone_charger" // Charger beep
"tone_cov" // Coverage warning
"tone_range" // Out of range
"tone_wait" // Call waiting
"tone_sensor" // Pre alarm (63x only)
"load_environment" // Load environment
"audio_hdt" // Audio quality (only 650)
"ring_x" // >>> Ringing
"ring_mel_x" // Ringer melodies
"mel_int" // Internal call
"mel_ext" // External call
"mel_unk" // Unknown number
"mel_nym" // Anonymous
"mel_cchs" // Callback
"mel_recall" // Recall
"mel_vip" // VIP call
"mel_special" // Special call
"mel_sos" // Emergency call
"mel_alarm" // Alarm
```

387

```
"mel_app" // Appointment
"ring_volume" // Ringer volume
"vol_int" // Internal call
"vol_ext" // External call
"vol_unk" // Unknown number
"vol_nym" // Anonymous
"vol_cchs" // Callback
"vol_recall" // Recall
"vol_vip" // VIP call
"vol_special" // Special call
"vol_sos" // Emergency call
"vol_alarm" // Alarm
"vol_app" // Appointment
"ring_type_x" // Ringer type
"play_once" // Play melody once on/off
"silent_charging" // Silent charging
"noise_detection" // Noise detection on/off
"ring_device_x" // Ringer device
"ring_off" // Ringer/Buzzer on/off
"ring_hs" // Corded headset-ring on/off
"ring_vibra" // Vibrator-ring on/off
"datamanagment" // >>> Data management / SD Card
"filter_xx" // >>> Call filter
"filter_x" // Edit call filter
"system_x" // >>> System/Subscription
"start_enrol" // <New system>
"subs_auto" // Auto search
"subs_sel" // Select subscription
"subs_stop" // Stop searching
"subs_opt" // >Edit subscription
"no_plan" // Number plan
"ehs_x" // >>> Enhanced security
"bt_x" // >>> Bluetooth (only 62x/63x/65x)
"bt_edit_x" // >Edit Bluetooth
"set_xx" // >>> User settings
"prog_x" // Key programming
"disp_x" // Display settings
"language" // Language
"font" // Font settings
"color" // Color schemes
"scheme" // Menu structure
"pic_x" // Idle picture
"illu_x" // Illumination/light
```

388

```
"disp_dim" // Display dimming
"disp_light" // Display
"disp_key" // Keyboard
"disp_charger" // Charger
"disp_call" // Conversation
"disp_inf" // Info message
"disp_msg" // Text message
"disp_job1" // Job
"disp_sos" // SOS alarm
"disp_led" // LED indications
"led_alife" // Life indication
"led_incom" // Incoming call
"led_range" // Out of range
"led_charge" // Charge indication
"led_inf" // Infos
"led_spk" // Handsfree
"led_app" // Appointment
"led_alarm" // Alarm
"list_settings" // List access
"device_opt" // Device options
"security_x" // >>> Security
"lock_x" // >>> Lock
"keylock" // Key lock
"pinlock" // Phone lock
"change_pin" // Change PIN
"sos_x" // >>> SOS call
"tms_x" // >>> Alarm sensor (63x only)
"set_pre_alarm" // Pre alarm
"set_mandom" // Mandom
"set_no_move" // No movement alarm
"set_shock" // Shock alarm
"set_rep_alarm" // Repeat alarm
"tms_opt_x" // >Sensor options
"rst_x" // >>> Reset to default
"off_menu" // >>> Off menu
"off" // Power off
"menu" // Menu
"ring_toggle" // Ringer/Buzzer on/off
"profile_x" // >>> Profiles
"prof_no" // <No profile>
"prof_norm" // Normal
"prof_hs" // Headset
"prof_meet" // Meeting
```

389

```
"prof_loud" // Loud
"prof_my" // <Profile 05>
"prof_ed_x" // Edit profiles
"prof_ed_norm" // Edit Normal
"prof_ed_hs" // Edit Headset
"prof_ed_meet" // Edit Meeting
"prof_ed_loud" // Edit Loud
"usb_mode" // USB mode
"doa_master" // DOA master
"f_x" // <<< XML Applications / Functions 01..10(*)
"pbx_fkeys" // <<< List of applications / functions(*)
"f_1" // App/F01(*)
"f_2" // App/F02(*)
"f_3" // App/F03(*)
"f_4" // App/F04(*)
"f_5" // App/F05(*)
"f_6" // App/F06(*)
"f_7" // App/F07(*)
"f_8" // App/F08(*)
"f_9" // App/F09(*)
"f_10" // App/F10(*)
"vstx" // Variable lists
"vstl1" // Variable list 1
"vstl_1" // List 1 item 1
"vstl_2" // List 1 item 2
"vstl_3" // List 1 item 3
"vstl_4" // List 1 item 4
"vstl_5" // List 1 item 5
"vstl_6" // List 1 item 6
"vstl_7" // List 1 item 7
"vstl_8" // List 1 item 8
"vstl_9" // List 1 item 9
"vstl_10" // List 1 item 10
"vst2" // Variable list 2
"vst2_1" // List 2 item 1
"vst2_2" // List 2 item 2
"vst2_3" // List 2 item 3
"vst2_4" // List 2 item 4
"vst2_5" // List 2 item 5
"vst2_6" // List 2 item 6
"vst2_7" // List 2 item 7
"vst2_8" // List 2 item 8
"vst2_9" // List 2 item 9
```

390

```
"vstc2_10" // List 2 item 10
"menu_x" // All menus
"opt" // All dial/call options

// assignment of keys
"UD_KeyAssignmentIdle" // VAL_KEY_xxx and VAL_FKT_IDLE_xxx
"UD_KeyAssignmentDial" // VAL_KEY_xxx and VAL_FKT_DIAL_xxx
"UD_KeyAssignmentAlert" // VAL_KEY_xxx and VAL_FKT_ALERT_xxx
"UD_KeyAssignmentActive" // VAL_KEY_xxx and VAL_FKT_ACTIVE_xxx
"UD_KeyAssignmentActiveSos" // VAL_KEY_xxx and VAL_FKT_ACTIVE_SOS_xxx

"UD_KeyAssignmentIdleMaster" // VAL_KEY_xxx and VAL_FKT_IDLE_xxx
"UD_KeyAssignmentDialMaster" // VAL_KEY_xxx and VAL_FKT_DIAL_xxx
"UD_KeyAssignmentAlertMaster" // VAL_KEY_xxx and VAL_FKT_ALERT_xxx
"UD_KeyAssignmentActiveMaster" // VAL_KEY_xxx and VAL_FKT_ACTIVE_xxx
"UD_KeyAssignmentActiveSosMaster" // VAL_KEY_xxx and VAL_FKT_ACTIVE_SOS_xxx

// keys available on device
"sos" // SOS-key (sos)
"side1" // Side key up (side1)
"side2" // Side key middle (side2)
"side3" // Side key down (side3)
"vip" // Hotkey (vip)
"ok" // Softkey left (ok)
"esc" // Softkey middle (esc)
"opt" // Softkey right (opt)
"left" // Navl. left (left)
"right" // Navl. right (right)
"up" // Navl. up (up)
"down" // Navl. down (down)
"green" // Hook off (green)
"red" // Hook on (red)
"long.sos" // SOS-key long (long.sos)
"long.side1" // Side key up long (long.side1)
"long.side2" // Side key middle long (long.side2)
"long.side3" // Side key down long (long.side3)
"long.vip" // Hotkey long (long.vip)
"long.ok" // Softkey left long (long.ok)
"long.esc" // Softkey middle long (long.esc)
"long.opt" // Softkey right long (long.opt)
"long.left" // Navl. left long (long.left)
"long.right" // Navl. right long (long.right)
"long.green" // Hook off long (long.green)
```

```
"long.red" // Hook on long (long.red)
"long.d0" // Key 0 long (long.d0)
"long.d1" // Key 1 long (long.d1)
"long.d2" // Key 2 long (long.d2)
"long.d3" // Key 3 long (long.d3)
"long.d4" // Key 4 long (long.d4)
"long.d5" // Key 5 long (long.d5)
"long.d6" // Key 6 long (long.d6)
"long.d7" // Key 7 long (long.d7)
"long.d8" // Key 8 long (long.d8)
"long.d9" // Key 9 long (long.d9)
"long.star" // Star key long (long.star)
"long.hash" // Hash key long (long.hash)
"d0" // Key 0 (d0)
"d1" // Key 1 (d1)
"d2" // Key 2 (d2)
"d3" // Key 3 (d3)
"d4" // Key 4 (d4)
"d5" // Key 5 (d5)
"d6" // Key 6 (d6)
"d7" // Key 7 (d7)
"d8" // Key 8 (d8)
"d9" // Key 9 (d9)
"star" // Star key (star)
"hash" // Hash key (hash)
"del" // C-key (del)
"spk" // Handfree (spk)
"long.del" // C-key long (long.del)
"long.spk" // Handfree long (long.spk)
```

```
// Functions available in IDLE state
"nop" // <no function>
"prog" // <key programming>
"menu" // >>>Menu
"dyn_pbx_option" // >>>System options / main menu
"pbx_server menu" // >>>Server menu
"alarm_time" // Time/Alarms
"alarm" // Alarm clock
"appointment" // Appointment
"tea_timer" // Timer
"directories" // Directories (Personal/Central/VIP-List)
"get_name" // Get name from personal directory
"book" // Personal directory
```

```
"gappp_directory" // Central directory (obsolete)
"pbx_directory" // Central directory(*)
"vip" // VIP list
"quick0" // Quick call list
"sos_menu" // SOS call: with confirmation
"sos" // SOS call
"sos_loc" // Localisation alarm
"shock" // Shock detection
"alarm_call" // Alarm call
"sensor_menu" // Alarm sensor
"navi" // Navigation key
"info" // (1) Info menu
"MenuInNew" // (1) New infos
"voice_box" // Voice box
"caller" // Caller list
"redial" // Redial list
"omm_jobs" // Job list
"BestMsg" // Text messages
"omm_inbox" // Inbox/Text messages
"omm_outbox" // Outbox/Text messages
"omm_def_msg" // Pre-defined messages
"txt_send" // Send new text message
"active_features" // Active Handset features
"feature_access_code" // Feature access codes(*)
"pbx_unpark" // Unpark call(*)
"gappp_pickup" // Pickup call(*)
"pbx_take" // Take call(*)
"locating_editor" // Locating(*)
"pbx_presence" // Presence(*)
"pbx_dnd" // Call protection(*)
"gappp_call_forward" // Call diversion(*)
"pbx_call_routing" // Call routing(*)
"profile" // Profile
"datamanagment" // Data managment
"keylock" // Key lock
"pinlock" // Pin/Phone lock
"light_toggle" // Light on/off
"bt" // Bluetooth settings
"bt_state" // BT status (on/off)
"ring_off" // Ringer on/off
"vol_ok" // Volume settings
"audio_hd" // HiQ audio on/off
"off" // Power off
```

393

```
"predial" // Please dial editor
"version" // Version info
"filter_menu" // Call filter
"filter_state" // Call filter state
"pbx_keys" // XML Applications
"f_1" // App 1
"f_2" // App 2
"f_3" // App 3
"f_4" // App 4
"f_5" // App 5
"f_6" // App 6
"f_7" // App 7
"f_8" // App 8
"f_9" // App 9
"f_10" // App 10
"vstx" // Variable lists
"vst1" // Variable list 1
"vst1_1" // List 1 item 1
"vst1_2" // List 1 item 2
"vst1_3" // List 1 item 3
"vst1_4" // List 1 item 4
"vst1_5" // List 1 item 5
"vst1_6" // List 1 item 6
"vst1_7" // List 1 item 7
"vst1_8" // List 1 item 8
"vst1_9" // List 1 item 9
"vst1_10" // List 1 item 10
"vst2" // Variable list 2
"vst2_1" // List 2 item 1
"vst2_2" // List 2 item 2
"vst2_3" // List 2 item 3
"vst2_4" // List 2 item 4
"vst2_5" // List 2 item 5
"vst2_6" // List 2 item 6
"vst2_7" // List 2 item 7
"vst2_8" // List 2 item 8
"vst2_9" // List 2 item 9
"vst2_10" // List 2 item 10

// functions available in DIAL state
"nop" // <no functions>
"sk_dyn1" // <dynamic soft-key>
"caller" // Caller list
```

394

```

"redial" // Redial list
"get_name" // Get name from personal directory
"book_req" // Personal directory
"gappp_directory" // Central directory (obsolete)
"pbx_directory" // Central directory(*)
"vip" // VIP list
"add_to" // Add to... (VIP-, Filter-list, Personal directory)
"gappp_pickup_select" // Pickup select
"gappp_vip_call" // VIP call
"gappp_announcement" // Announcement
"gappp_intercom" // Intercom
"vstx" // Variable lists
"vst1" // Variable list 1
"vst1_1" // List 1 item 1
"vst1_2" // List 1 item 2
"vst1_3" // List 1 item 3
"vst1_4" // List 1 item 4
"vst1_5" // List 1 item 5
"vst1_6" // List 1 item 6
"vst1_7" // List 1 item 7
"vst1_8" // List 1 item 8
"vst1_9" // List 1 item 9
"vst1_10" // List 1 item 10
"vst2" // Variable list 2
"vst2_1" // List 2 item 1
"vst2_2" // List 2 item 2
"vst2_3" // List 2 item 3
"vst2_4" // List 2 item 4
"vst2_5" // List 2 item 5
"vst2_6" // List 2 item 6
"vst2_7" // List 2 item 7
"vst2_8" // List 2 item 8
"vst2_9" // List 2 item 9
"vst2_10" // List 2 item 10

// functions available in ALERTING state
"nop" // <no function>
"sk_dyn1" // <dynamic soft-key>
"opt" // >>>Call options
"acc" // Accept call / Hook off
"rej" // Reject call / Hook on
"ring_off" // Ringing off
"add_to" // Add to... (VIP-, Filter-list, Personal directory)

```

395

```

"opt_ccbs" // Callback CCBS
"opt_ccnr" // Callback CCNR
"opt_mcid" // Intercept MCID
"opt_pickup" // Pickup call
"opt_pickup_select" // Pickup select
"opt_park" // Park call/unpark call
"opt_take" // Take call
"vstx" // Variable lists
"vst1" // Variable list 1
"vst1_1" // List 1 item 1
"vst1_2" // List 1 item 2
"vst1_3" // List 1 item 3
"vst1_4" // List 1 item 4
"vst1_5" // List 1 item 5
"vst1_6" // List 1 item 6
"vst1_7" // List 1 item 7
"vst1_8" // List 1 item 8
"vst1_9" // List 1 item 9
"vst1_10" // List 1 item 10
"vst2" // Variable list 2
"vst2_1" // List 2 item 1
"vst2_2" // List 2 item 2
"vst2_3" // List 2 item 3
"vst2_4" // List 2 item 4
"vst2_5" // List 2 item 5
"vst2_6" // List 2 item 6
"vst2_7" // List 2 item 7
"vst2_8" // List 2 item 8
"vst2_9" // List 2 item 9
"vst2_10" // List 2 item 10

// functions available in ACTIVE state
"nop" // <no function>
"sk_dyn1" // <dynamic soft-key>
"opt" // >>>Call options
"pbx_server_menu" // >>>Server menu(*)
"feature_access_code" // >>>Feature access codes(*)
"dial_r" // (R) Register recall
"opt_ect" // Transfer call
"opt_brokering" // Brokering
"opt_hold" // Hold call
"opt_pty" // Conference start/stopp
"opt_park" // Park call/unpark call

```

396

```

"rel" // Release call / Hook on
"add_to" // Add to... (VIP-, Filter-list, Personal directory)
"book" // Personal directory
"gappp_directory" // Central directory (obsolete)
"pbx_directory" // Central directory(*)
"vip" // VIP list
"quick0" // Quick call list
"filter" // Call filter list
"caller" // Caller list
"redial" // Redial list
"txt_send" // Send new text message
"vol_ok" // Volume settings
"vol_up" // Volume +
"vol_down" // Volume -
"mute" // Microphone on/off
"audio_hd" // HiQ audio on/off
"bt_toggle" // Transfer BT <-> Handset
"opt_ccbs" // Callback CCBS
"opt_ccnr" // Callback CCNR
"opt_mcid" // Intercept MCID
"opt_pickup" // Pickup
"opt_pickup_select" // Pickup select
"opt_take" // Take call
"vlist1" // Variable lists
"vlist1_1" // List 1 item 1
"vlist1_2" // List 1 item 2
"vlist1_3" // List 1 item 3
"vlist1_4" // List 1 item 4
"vlist1_5" // List 1 item 5
"vlist1_6" // List 1 item 6
"vlist1_7" // List 1 item 7
"vlist1_8" // List 1 item 8
"vlist1_9" // List 1 item 9
"vlist1_10" // List 1 item 10
"vlist2" // Variable list 2
"vlist2_1" // List 2 item 1
"vlist2_2" // List 2 item 2
"vlist2_3" // List 2 item 3
"vlist2_4" // List 2 item 4
"vlist2_5" // List 2 item 5
"vlist2_6" // List 2 item 6
"vlist2_7" // List 2 item 7

```

397

```

"vlist2_8" // List 2 item 8
"vlist2_9" // List 2 item 9
"vlist2_10" // List 2 item 10

// Functions available in ACTIVE_SOS state
"nop" // <no function>
"sk_dyn1" // <dynamic soft-key>
"opt" // >>>Call options
"pbx_server_menu" // >>>Server menu(*)
"feature_access_code" // >>>Feature access codes(*)
"dial_r" // (R) Register recall
"opt_ect" // Transfer call
"opt_brokering" // Brokering
"opt_hold" // Hold call
"opt_3ply" // Conference start/stop
"opt_park" // Park call/unpark call
"rel" // Release call / Hook on
"add_to" // Add to... (VIP-, Filter-list, Personal directory)
"book" // Personal directory
"gappp_directory" // Central directory (obsolete)
"pbx_directory" // Central directory(*)
"vip" // VIP list
"quick0" // Quick call list
"filter" // Call filter list
"caller" // Caller list
"redial" // Redial list
"txt_send" // Send new text message
"vol_ok" // Volume settings
"vol_up" // Volume +
"vol_down" // Volume -
"mute" // Microphone on/off
"audio_hd" // HiQ audio on/off
"bt_toggle" // Transfer BT <-> Handset
"opt_ccbs" // Callback CCBS
"opt_ccnr" // Callback CCNR
"opt_mcid" // Intercept MCID
"opt_pickup" // Pickup
"opt_pickup_select" // Pickup select
"opt_take" // Take call
"predial_hook_dyn" // Dial editor
"dial_0" // Dial 0
"dial_1" // Dial 1
"dial_2" // Dial 2

```

398

```

"dial_3" // Dial 3
"dial_4" // Dial 4
"dial_5" // Dial 5
"dial_6" // Dial 6
"dial_7" // Dial 7
"dial_8" // Dial 8
"dial_9" // Dial 9
"dial_star" // Dial *
"dial_hash" // Dial #
"dial_dtmf" // Dial DTMF
"vstx" // Variable lists
"vst1" // Variable list 1
"vst1_1" // List 1 item 1
"vst1_2" // List 1 item 2
"vst1_3" // List 1 item 3
"vst1_4" // List 1 item 4
"vst1_5" // List 1 item 5
"vst1_6" // List 1 item 6
"vst1_7" // List 1 item 7
"vst1_8" // List 1 item 8
"vst1_9" // List 1 item 9
"vst1_10" // List 1 item 10
"vst2" // Variable list 2
"vst2_1" // List 2 item 1
"vst2_2" // List 2 item 2
"vst2_3" // List 2 item 3
"vst2_4" // List 2 item 4
"vst2_5" // List 2 item 5
"vst2_6" // List 2 item 6
"vst2_7" // List 2 item 7
"vst2_8" // List 2 item 8
"vst2_9" // List 2 item 9
"vst2_10" // List 2 item 10

"UD_VListName" // <list-index 1.2> <utf8-string>
"UD_VListShortName" // <list-index 1.2> <utf8-string>
"UD_VListSubItems" // <list-index 1.2> <boolean>

// list-index item-index number-to-dial longname function-id
shortname/icon handstree visible(idle,dial,alert,active) true/false/1/0
// 1.1.2 1.10 VAL_FKT_VLIST_xxx
<string> // <string> <string> <utf8-string> <utf8-string>
<string> <utf8-string> <boolean> <4-digit-string-of(0,1)>

```

```

// Functions available in VLIST
"x" // Dummy-Function-ID
"vst1" // Variable list 1
"vst2" // Variable list 2
"menu" // Menu
"active_features" // Active Handset features
"alarm" // Alarm clock
"appointment" // Appointment
"tea_timer" // Timer
"show_time_date" // Date/Time
"bt" // Bluetooth settings
"bt_state" // BT status (on/off)
"datamanagment" // Data managment
"keylock" // Key lock
"pinlock" // Pin/Phone lock
"profile" // Profile
"predial" // Please dial editor
"off" // Power off
"off_menu" // Off menu
"ring_off" // Ringer on/off
"audio_hd" // HiQ audio on/off
"vol_ok" // Volume settings
"light_toggle" // Light on/off
"version" // Version info
"navi" // Navigation key
"info" // (I) Info menu
"MenuInfNew" // (I) New infos
"voice_box" // Voice box
"caller" // Caller list
"redial" // Redial list
"pbx_email" // Email list
"pbx_fax" // Fax list
"omni_jobs" // Job list
"BestMsg" // Text messages
"omni_inbox" // Inbox/Text messages
"omni_outbox" // Outbox/Text messages
"omni_def_msg" // Pre-defined messages
"txt_send" // Send new text message
"gapp_cost" // Cost infos
"pbx_feature" // Active PBX features
"filter_menu" // Call filter
"filter_state" // Call filter state

```

```
"filter_list" // Call filter list
"directories" // Directories (Personal/Central/VIP-list)
"get_name" // Get name from personal directory
"book" // Personal directory
"gappp_intern" // Internal directory
"pbx_directory" // Central directory
"vip" // VIP list
"feature_access_code" // Feature access codes
"pbx_reception" // Hotel reception
"quick0" // Quick call list
"sos_menu" // SOS call: with confirmation
"sos" // SOS call
"sos_loc" // Localisation alarm
"shock" // Shock detection
"alarm_call" // Alarm call
"sensor_menu" // Alarm sensor
"dyn_pbx_option" // System options / Main menu
"pbx_server_menu" // Server menu
"pbx_options" // System Options
"gappp_call_forward" // Call diversion
"pbx_call_routing" // Call routing
"pbx_dnd" // Call protection
"pbx_presence" // Presence
"locating_aditor" // Locating
"pbx_take" // Take call
"pbx_unpark" // Unpark call
"pbx_park" // Park/Pickup
"gappp_pickup" // Pickup call
"pbx_fkeys" // XML Applications
"f_1" // App 1
"f_2" // App 2
"f_3" // App 3
"f_4" // App 4
"f_5" // App 5
"f_6" // App 6
"f_7" // App 7
"f_8" // App 8
"f_9" // App 9
"f_10" // App 10
"gappp_door" // Door opener
"gappp_door1" // Door 1
"gappp_door2" // Door 2
"gappp_pickup_select" // Pickup select
```

401

```
"gappp_announcement" // Announcement
"gappp_intercom" // Intercom
"gappp_vip_call" // VIP call
"suppress_no" // Suppress no on/off
"sel_line" // Select line
"line_1" // L1
"line_2" // L2
"line_3" // L3
"line_4" // L4
"line_5" // L5
"line_6" // L6
"line_7" // L7
"line_8" // L8
"line_9" // L9
"line_10" // L10
"sk_dyn1" // <dynamic soft-key>
"opt" // Call options
"add_to" // Add to... (VIP-, Filter-list, Personal directory)
"filter" // Call filter list
"opt_called_lines" // Called lines
"dial_r" // (R) Register recall
"opt_ect" // Transfer call
"opt_deflect" // Deflect call
"opt_ccbs" // Callback CCBS
"opt_ccnr" // Callback CCNR
"opt_mcid" // Intercept MCID
"opt_receive" // Receive call
"opt_reject" // Reject call
"opt_int" // DECT Intern
"opt_brokering" // Brokering
"opt_hold" // Hold call
"opt_3pty" // Conference start/stopp
"opt_record" // Recording start/stopp
"opt_retrieve" // Retrieve call in hold
"opt_privious" // Previous call
"opt_release" // Release call
"rel" // Release call / Hook on
"pbx_park" // Park call/unpark call
"opt_booking_no" // Booking no
"vol_up" // Volume +
"vol_down" // Volume -
"mute" // Microphone on/off
"bt_toggle" // Transfer BT <-> Handset
```

402

13.6 PROTOCOLS AND PORTS

Protocol	OpenMobility Manager		
	Server port	Client port	
HTTPS server	tcp server	443 or as configured	any
HTTP server (redirect to https)	tcp server	80 or as configured	any
HTTP/HTTPS client for the SIP-DECT XML terminal interface	tcp	80/443	> 1024
RFP control protocol	tcp server	16321	any
OMM Standby	tcp server	16322	any
OM AXI	tcp server	12622	any
DECTnet monitor	tcp server	8106	any
LDAP	tcp client	389 or as configured	>=1024 (see note)
TFTP client	udp	69 / given by server	>=1024 (see note)
HTTP client	tcp	80 or as configured	>=1024 (see note)
HTTPS client	tcp	443 or as configured	>=1024 (see note)
explicit FTPS client	tcp	21 or as configured	>=1024 (see note)
implicit FTPS client	tcp	990 or as configured	>=1024 (see note)
OM AXI server TCP	tcp server	12621	Any
OM AXI server TLS	tcp server	12622	Any
SIP	udp	5060	as configured
Integrated Conference Server (ICS)	udp	5062	as configured
Telnet (OMM console, Linux server based OMM only)	tcp server	localhost 8107	localhost any

Note: Unbound ports start at port 1024.

Protocol	IP-RFP		
	Server port	Client port	
HTTP/HTTPS client for the SIP-DECT XML terminal interface	tcp	80/443	> 1024
RFP control protocol	tcp client	16321	>=1024 (see note)
HTTP server (redirect to OMM web server (http))	tcp server	80 or as configured	Any
SSH server	tcp server	22	Any
DHCP client	udp	67	68

Protocol	IP-RFP	
	Server port	Client port
TFTP client	udp 69 / given by server	>=1024 (see note)
OMCFG server	udp 64000	64000
NTP client	udp 123	123
Syslog client	udp 514 or as configured	514
DNS client	udp 53	>=1024 (see note)
SNMP agent (server)	udp 161	Any
SNMP trap agent (client)	udp >=1024 (see note)	162
RSXport (debug only)	tcp server 38477	Any
RTP/RTCP (server)	udp	Any
		Range of [RTP port base + 71] even ports for RTP, odd ports for RTCP. Port base is 16320 or as configured.
RTP/RTCP (client)	udp	any
		Range of [RTP port base + 71] even ports for RTP, odd ports for RTCP. Port base is 16320 or as configured.
Integrated Conference Server (ICS) RTP/RTCP (server)		Any
		Range of [ICS RTP port base + 2 * no. conf. channels] even ports for RTP, odd ports for RTCP. ICS Port base is end of RTP range plus 1.
Integrated Conference Server (ICS) RTP/RTCP (client)		any
		Range of [ICS RTP port base + 2 * no. conf. channels] even ports for RTP, odd ports for RTCP. ICS Port base is end of RTP range plus 1.
Network Analysis Probe	tcp server	18215
		Any

Note: Unbound ports start at port 1024.

13.7 ABBREVIATIONS

AC	Authentication Code
ADPCM	Adaptive Differential Pulse Code Modulation
COA	Configuration Over Air
DECT	Digital Enhanced Cordless Telecommunication
DHCP	Dynamic Host Configuration Protocol
DSP	Digital Signal Processor
FCC	Federal Communications Commission
GAP	Generic Access Profile
IMA	Integrated Messaging and Alerting Service
IPBX	IP PBX, a telephony system using IP / VoIP
IPEI	International Portable Equipment Identity
OM	OpenMobility
OM AXI	OM Application XML Interface
OMC	OM Configurator
OML	OM Locating
OMM	OpenMobility Manager
OMP	OM Management Portal
PARK	Portable Access Rights Key
PBX	Private Branch Exchange, a customer premises telephony system
PP	Portable Part (DECT phone or device)
RCS	Redirection and Configuration Service
RFP	Radio Fixed Part (DECT base station)
RTCP	Real Time Control Protocol
RTP	Real Time Protocol
TFTP	Trivial File Transfer Protocol

13.8 DEFINITIONS

Asterisk	Asterisk is a complete Open Source PBX in software. It runs on Linux, BSD and MacOSX and provides many features. Asterisk supports voice over IP in many protocols, and can interoperate with almost all standards-based telephony equipment.
Base station	Please see: .RFP or Radio Fixed Part
DECT	Digital Enhanced Cordless Telecommunication The standard (ETS 300 175) essentially specifies the air interface, known as the radio interface. Voice and data can both be transmitted via this interface. Its technical key characteristics for Europe are: Frequency range: Approx. 1880 – 1900 MHz (approximately 20 MHz bandwidth) carrier frequencies (1728 kHz spacing) with 12 time slots each Doubling the number of time slots (to 24) using the TDMA process Net data rate per channel of 32 kbps (for voice transmission using ADPCM) Voice coding using the ADPCM method Its technical key characteristics for North American are: Frequency range: Approx. 1920 – 1930 MHz (approximately 10 MHz bandwidth) 5 carrier frequencies (1728 kHz spacing) with 12 time slots each Doubling the number of time slots (to 24) using the TDMA process Net data rate per channel of 32 kbps (for voice transmission using ADPCM) Voice coding using the ADPCM method
GAP	Generic Access Profile The GAP standard (ETS 300 444) is based on the same technology as DECT, but is limited to the most important basic features. This standard was created in order to allow telephones of different vendors to be used on any type of DECT system. It thus represents the smallest common denominator of all manufacturer-specific variants of the DECT standard. An important limitation in the GAP standard is that external handover is not possible. For this reason connection handover is used, which is supported by GAP terminals. The operation of GAP-capable telephones is comparable to that of analogue terminals. For example, features can be called up via "*" and "#" procedures.
Handover	A handover is similar to roaming, but occurs during an ongoing call. A handover normally takes place "in the background", without disrupting the call (seamless handover).

IPEI	International Portable Equipment Identify 13-digit identification code for DECT phones Example: 00019 0592015 3 (the final digit is the checksum). The code is represented in decimal form. This code is globally unique.
PARK	Portable Access Rights Key Access code for the Portable Part. This code determines whether a DECT phone can access a particular DECT system. Used for unique selection of a dedicated the system from a DECT phone at enrolment/subscription time. Provided via the PARK online service and unique to each SIP-DECT deployment.
Radio Fixed Part (RFP)	An RFP provides a DECT radio cell and terminates the radio link from the portable DECT device. One or more RFPs build the area of radio coverage.
Roaming	While in motion, the DECT phone performs ongoing measurements to determine which RFP is best received. The one that can be best received is defined as the active RFP. To prevent the DECT phone from rapidly switching back and forth between two RFPs that have similar signal strength, certain threshold values are in effect.

13.9 REFERENCES

- /1/ RFC 1350, The TFTP Protocol, Revision 2, July 1992
- /2/ RFC 2090, TFTP Multicast Option, February 1997
- /3/ RFC 2347, TFTP Option Extension, May 1998
- /4/ RFC 2348, TFTP Block size Option, May 1998
- /5/ RFC 2349, TFTP Timeout Interval and Transfer Size Options, May 1998
- /6/ RFC 2236, Internet Group Management Protocol, Version 2, November 1997
- /7/ RFC 1889, RTP: A Transport Protocol for Real-Time Applications, January 1996
- /8/ RFC 2030, Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI, October 1996
- /9/ RFC 2131, Dynamic Host Configuration Protocol, March 1997
- /10/ RFC 2327, SDP: Session Description Protocol, April 1998
- /11/ RFC 2474, Definition of the Differentiated Service Field (DS Field) in the IPv4 and IPv6 Headers, December 1998
- /12/ RFC 2617, HTTP Authentication: Basic and Digest Access Authentication, June 1999
- /13/ RFC 3164, The BSD Sys Log Protocol, August 2001
- /14/ RFC 2833, RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals, May 2000
- /15/ RFC 3261, Session Initiation Protocol (SIP), June 2002
- /16/ RFC 3264, An Offer/Answer Model with Session Description Protocol (SDP), June 2002
- /17/ RFC 3326, The Reason Header Field for SIP, December 2002
- /18/ RFC 3420, Internet Media Type message/sipfrag, November 2002
- /19/ RFC 3515, The Session Initiation Protocol (SIP) Refer method, April 2003
- /20/ RFC 3665, The Session Initiation Protocol (SIP) Basic Call Flow Examples, December 2003
- /21/ RFC 3842, A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP), August 2004
- /22/ RFC 3891, The Session Initiation Protocol (SIP) "Replaces" Header, September 2004
- /23/ RFC 3892, The Session Initiation Protocol (SIP) Relferred-By Mechanism, September 2004
- /24/ RFC 4566, SDP: Session Description Protocol
- /25/ RFC 5806, Diversion Indication in SIP, March 2010
- /26/ Compendium "OpenMobility SIP-DECT 4.0 Solution: Installation & Administration"
- /27/ SIP-DECT: OM Locating Application: Installation, Administration & User Guide
- /28/ SIP-DECT: OM Integrated Messaging & Alerting Application: Installation, Administration & User Guide
- /29/ SIP-DECT: OM Handset Sharing & Provisioning: User Guide
- /30/ SIP-DECT: OM User Monitoring: User Guide
- /31/ SIP-DECT: Mitel 600 : Messaging & Alerting Applications: User Guide
- /32/ Mitel 600 series SIP-DECT User's Guide
- /33/ aad-0384 SIP_DECT OM Application XML Interface
- /34/ RFC 2782, A DNS RR for specifying the location of services (DNS SRV)
- /35/ RFC 3262, Reliability of Provisional Responses in the Session Initiation Protocol (SIP)

- /36/ RFC 3311, The Session Initiation Protocol (SIP) UPDATE Method
- /37/ reg-0175 SIP-DECT XML Terminal Interface for Mitel 600 DECT Phone Family
- /38/ RFC 4579, Session Initiation Protocol (SIP) Call Control - Conferencing for User Agents
- /39/ RFC 5589, Session Initiation Protocol (SIP) Call Control – Transfer
- /40/ RFC 2246, The TLS Protocol Version 1.0
- /41/ RFC 2459, Internet X.509 Public Key Infrastructure certificate
- /42/ RFC 3711, The Secure Real-Time Transport Protocol (SRTP)
- /43/ RFC 4346, The Transport Layer Security (TLS) Protocol Version 1.1
- /44/ RFC 4568, Session Description Protocol (SDP): Security Description for Media Streams
- /45/ RFC 5246, The Transport Layer Security (TLS) Protocol Version 1.2
- /46/ RFC 5630, The Use of the SIPs URI Scheme in the Session Initiation Protocol (SIP)
- /47/ SIP-DECT_LinuxServerInstallation

