ARGUS®
testing the telecom network

G.fast
VDSL
ADSL
SFP
GigE
LTE
ISDN
POTS
Cu
TDR
Copper Box
LAN
Data 101101011011
IP TV
Vo IP
MOS
PESQ
USB
WLAN



ARGUS® 163

» Overview of menu and test leads

valid from firmware version R1.01.00

intec
GESELLSCHAFT FÜR INFORMATIONSTECHNIK mbH

Legend, Status, Protocol overview

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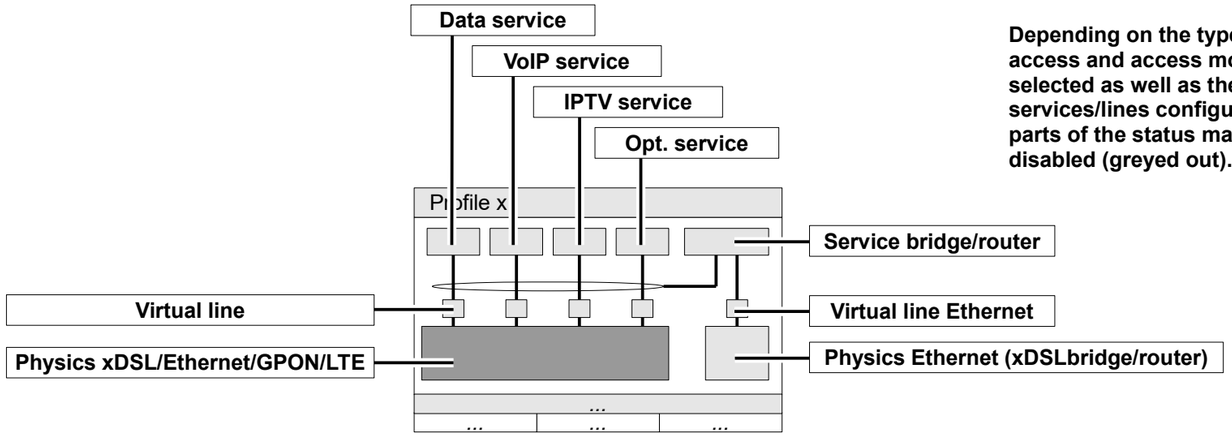
Legend General

Menu
Configuration menu
Defaul Config.menu
Input menu
Default input menu

Depending on the specified interface, menu item will be shown

Menu item only matters for specified interface

Legend Status



Depending on the type of access and access mode selected as well as the services/lines configured, parts of the status may be disabled (greyed out).

Protocol overview

ADSL / VDSL / G.fast / Ethernet / GPON / LTE

Access	ADSL					VDSL					G.fast					ETH	LTE	GPON
Mode	ATU-R	ATU-R bridge		ATU-R router		VTU-R	VTU-R bridge		VTU-R router		FTU-R	FTU-R bridge		FTU-R router				
Socket	Line	Line	LAN/SFP	Line	LAN/SFP	Line	Line	LAN*/SFP	Line	LAN*/SFP	Line	Line	LAN	Line	LAN	LAN 1	LAN 2	SFP	USB	SFP
Protocol / **ATM/Ethernet**																				
ohne / - / without		**a**	**a**				**a**	**a**				**a**	**a**							
IP / - / IP					**a**	●			●	**a**	●			●	**a**	●	●	●	●	●
IP / Yes / EoA	●			●																
IP / No / IPoA	●			●																
PPP / Yes / PPPoE	●			●		●			●		●			●		●	●	●	●	●
PPP / No / PPPoA	●			●																
PPTP / - / PPTP																●	●	●	●	●

● – Protocol configurable (see page 19)
a – Protocol set automatically
* – depends on scope of supply

Note

The basic ARGUS *163* package includes support for at least one DSL interface (VDSL) with a variety of functions and tests for the interface(s). Support for other interfaces and functions is optional (see the options in the data sheet). Consequently, depending on the scope of the functions delivered, certain menu items may be hidden. The type of access and access mode can affect this, too.

Hotkeys

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Menu Hotkeys

ADSL / VDSL / G.fast / Ethernet / GPON / LTE

Key	ADSL	G.fast / VDSL	Ethernet	GPON	LTE
0	ARGUS status				
1	Help hotkeys				
2	-				
3	IP ping				
4	Trace route				
5	HTTP download				
6	Test status				
7	FTP download				
8	Copper Box		-		
9	IPTV				-
⎍	Status				
✆	VoIP call				-
✳ then 0	Access				
✳ then 1	ARGUS info *1				
✳ then 2	Restore config.				
✳ then 3	Factory setting				
✳ then 5	Test result upload (FTP)				
✳ then 6	Test status				
✳ then 7	Store				
✳ then 8	Configuration import				
✳ then 9	Firmware update				

BRI S / BRI U / PRI / POTS

Key	BRI S / BRI U	PRI	POTS
0	ARGUS status		
1	Help hotkeys		
2	Service check		-
3	Supp. Serv. test		-
4	Auto. Test		-
5	Test data to PC		
6	Test manager		-
7	Numbers		
8	-		
9	BERT start		-
⎍	Level measuring	L1 status	Voltage measuring
✆	Connection		
✳ then 0	Access		
✳ then 1	ARGUS info		
✳ then 2	Restore config.		
✳ then 3	Factory setting		
✳ then 5	-		
✳ then 6	Test manager		-
✳ then 7	-		
✳ then 8	-		
✳ then 9	-		

Copper tests

Key	Copper tests	Copper Box autotest
0	ARGUS status	-
1	Help hotkeys	-
2	-	
3	-	
4	-	
5	Test data to PC	-
6	-	
7	-	QR code
8	Copper Box	-
9	-	
⎍	-	
✆	-	
✳ then 0	Access	-
✳ then 1	ARGUS info	-
✳ then 2	Restore config.	-
✳ then 3	Factory setting	-
✳ then 5	-	
✳ then 6	-	
✳ then 7	-	Store
✳ then 8	-	
✳ then 9	-	

Grafik Hotkeys

ADSL / VDSL / G.fast / xDSL trace

Key	ADSL / VDSL / G.fast	xDSL trace
0		
1	-	Legend
2	Zoom	-
3		
4	-	
5	-	
6	-	
7	-	
8	-	
9	x-axis setting	-
0	min/max	-
#	-	
✓	Continue	-
⎍	-	
✳ then 0	-	
✳ then 7	Store	-

Test hotkeys

Copper tests

Key	Line scope (Frequency domain)	Line scope (Time domain)	TDR
0	-	-	-
1	-	-	-
2	Zoom	-	Zoom
3	Cursor		
4	Measurement range		
5	Total power	-	Pulse width/height
6	-	-	Wire type/VoP
7	Probe		-
8	Symmetry		-
9	Time domain	Frequency domain	-
0	Peak hold (min/max)		-
#	100 Ohm Input resistance		-
✓	-	-	-
⎍	Run/Hold		
✳ then 0	Reference curve		
✳ then 7	Store		

User-Info / Inventarnummer

ARGUS info

*1

ARGUS info	
Type:	ARGUS163
SW:	…
Date:	…
Loader:	…
Ser.No.	…
...	

...		
User info	...	...

User info
...
Inv.: Delete 12>ab

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Single tests

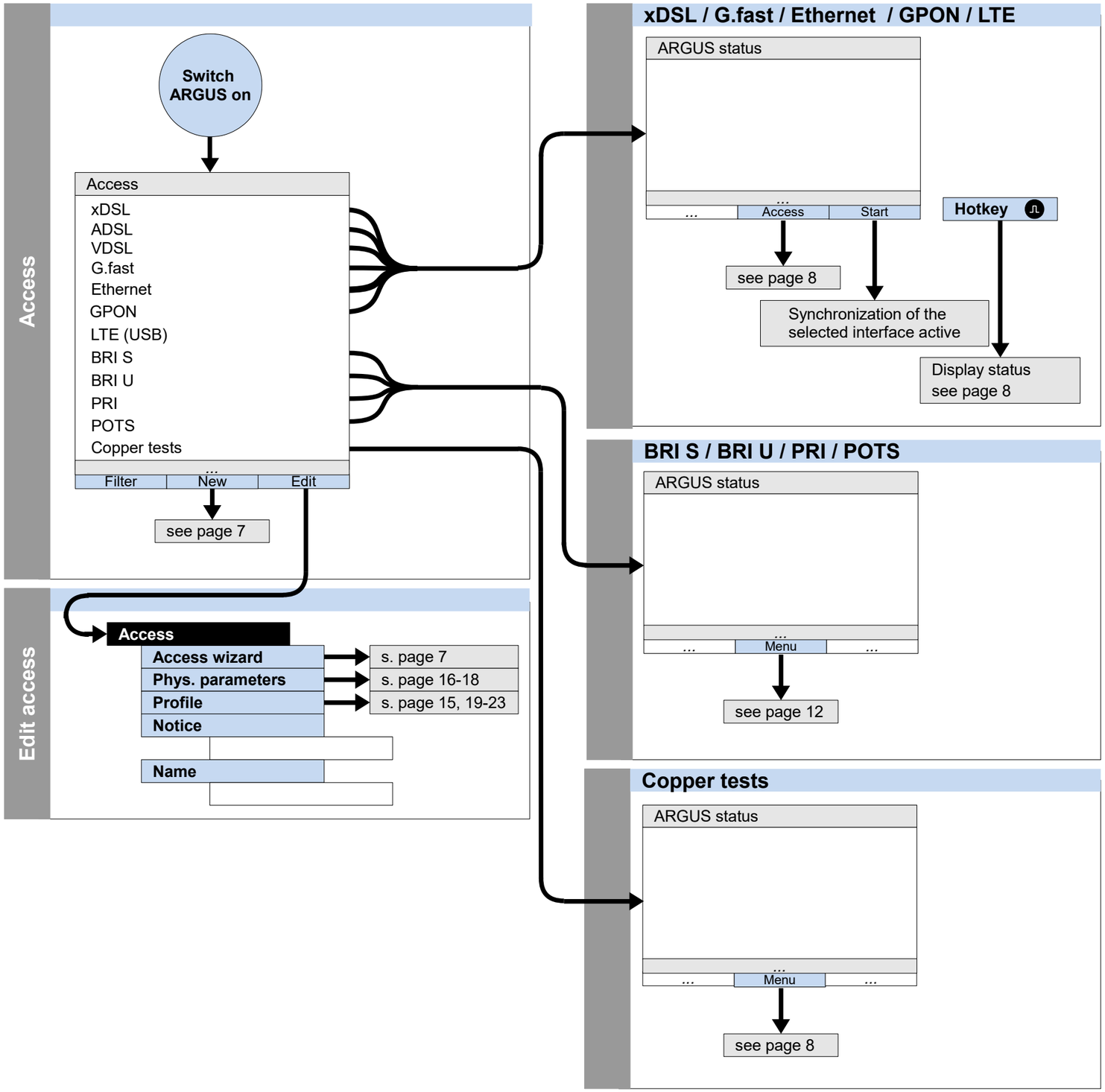
ADSL / VDSL / G.fast / Ethernet / GPON / LTE / Copper tests

	ADSL / VDSL / G.fast	ADSL- / VDSL- / G.fast- bridge	ADSL- / VDSL- / G.fast- router	Ethernet IP based / GPON	Ethernet cable test	LTE	Copper tests
IP ping	x	-	x	x	-	x	-
Trace route	x	-	x	x	-	x	-
HTTP downl./ upl.	x	-	x	x	-	x	-
FTP downl. / upl.	x	-	x	x	-	x	-
FTP server	x	-	x	**x**	-	-	-
Text browser	x	**-**	x	x	-	x	-
Network scan	-	-	-	only ETH-IP based	-	-	-
VoIP call / call generator / wait / PESQ test	x	-	x	x	-	-	-
IPTV / IPTV scan	x	-	x	x	-	-	-
IPTV passive	-	x	x	only ETH-IP based	-	-	-
Video on demand	x	-	x	x	-	-	-
LTE scan	-	-	-	-	-	x	-
Loop	-	**-**	not ADSL	only ETH-IP based	-	-	-
ETH cabling test	-	-	-	-	x	-	-
ETH PoE test	-	-	-	-	x	-	-
ETH TDR / cable test	-	-	-	-	x	-	-
Port flash	-	-	-	-	x	-	-
Copper Box	x	x	x	-	-	-	x
Line scope / TDR	-	-	-	-	-	-	x

Switch on and access menu

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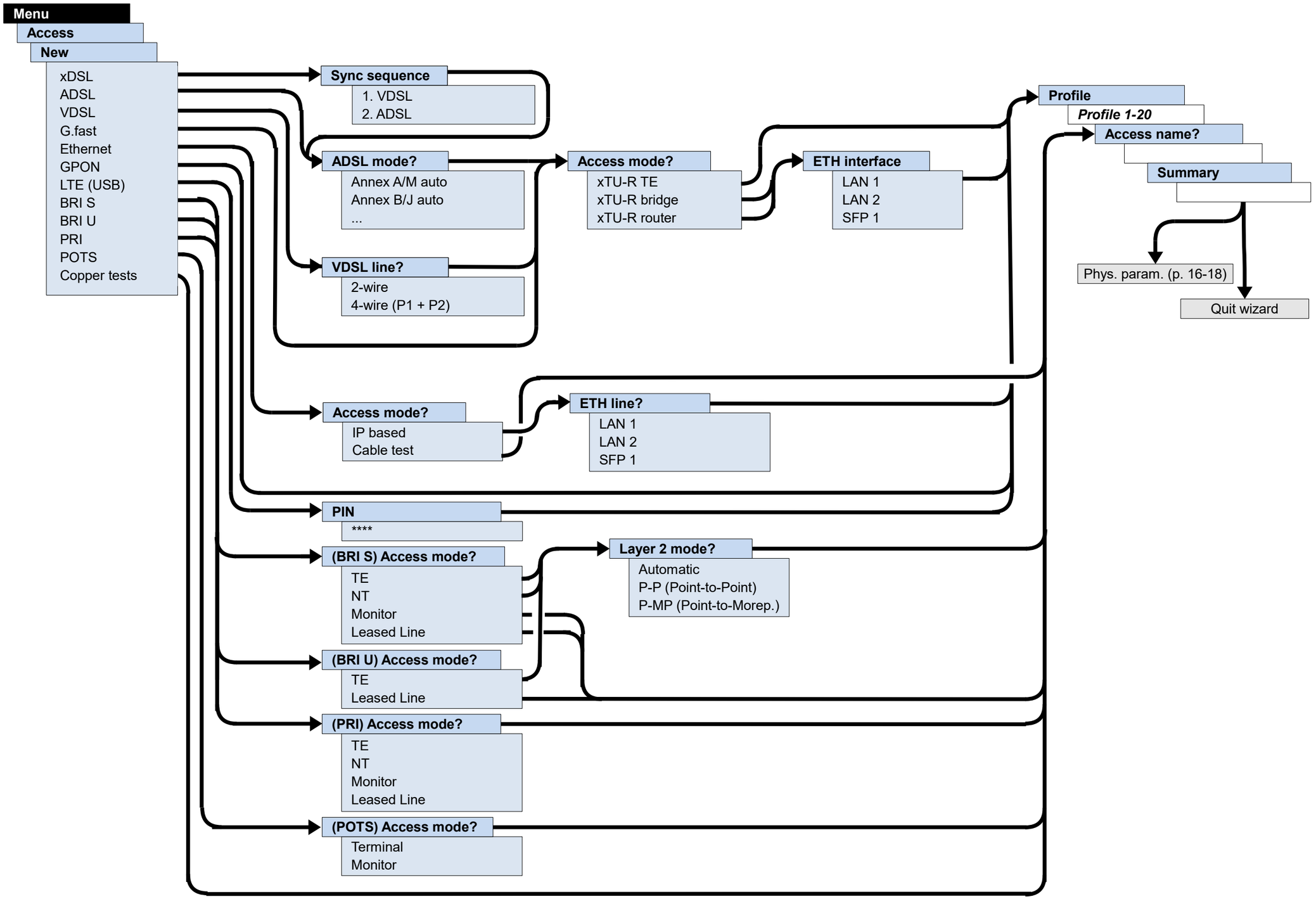


Access wizard

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Access wizard



Main menu, Single tests, Test results, Status
(Access: ADSL, VDSL, G.fast, GPON, LTE, Ethernet, Copper tests)

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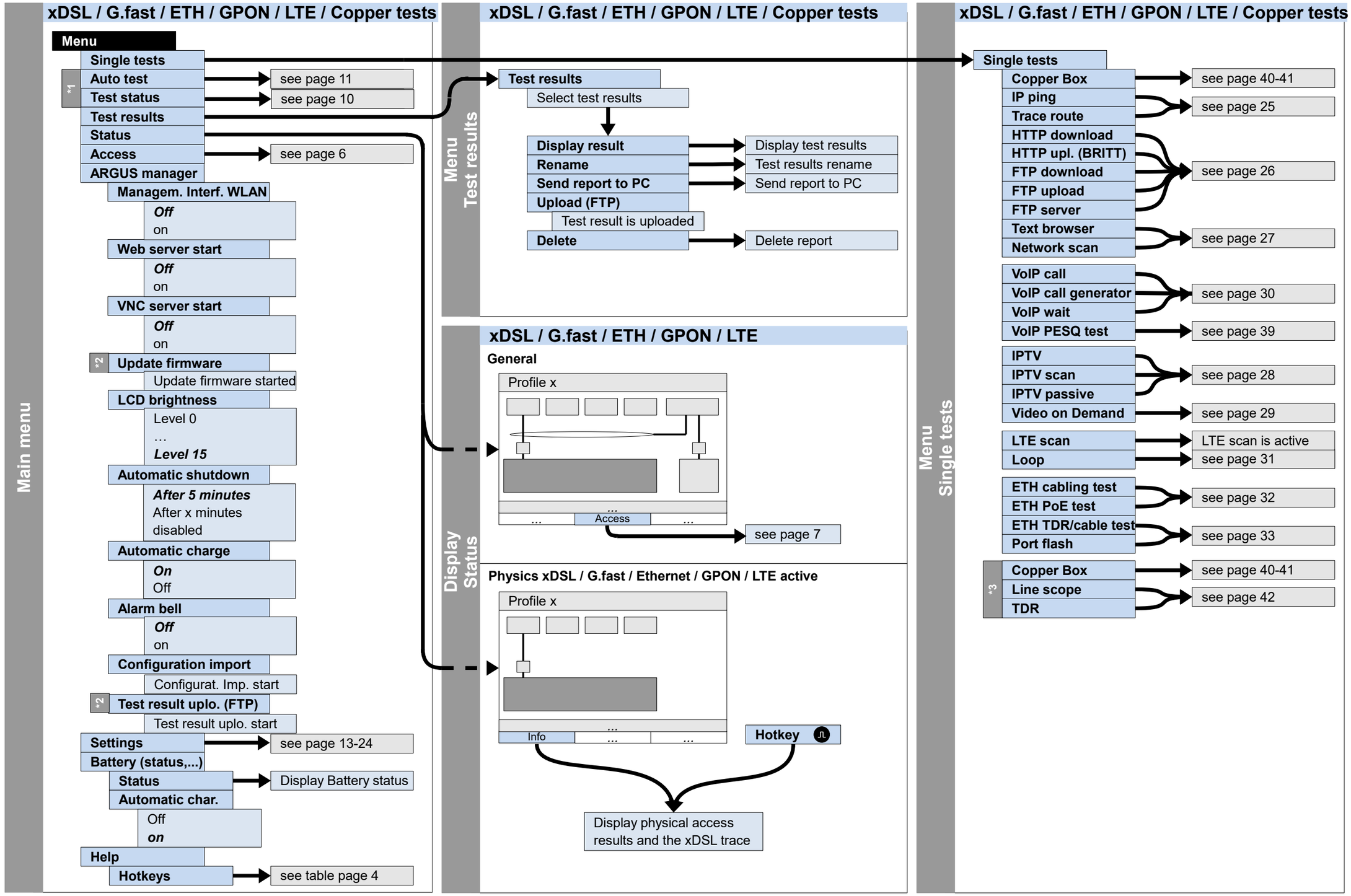
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Note

*1 = ADSL, VDSL, G.fast, Ethernet, GPON

*2 = not for Copper tests

*3 = Copper tests

Service tests: Data tests, VoIP tests, IPTV tests, Opt. tests, Bridge tests, Physic tests (Access: ADSL, VDSL, G.fast, Ethernet, GPON, LTE)

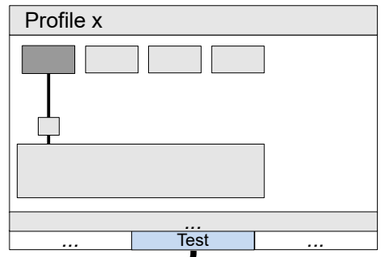
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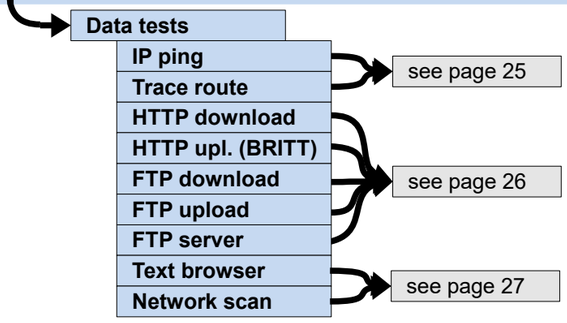
xDSL / G.fast / Ethernet / GPON / LTE

Service active

Display Status



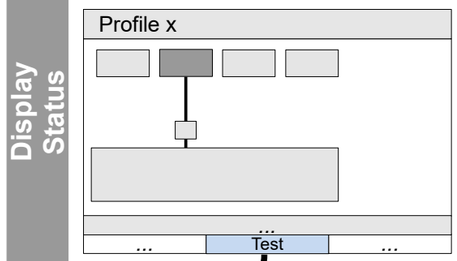
Menu Data tests



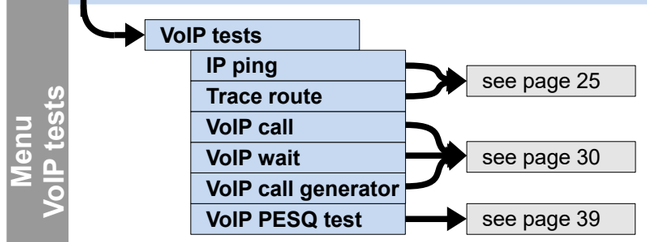
xDSL / G.fast / Ethernet / GPON

Service active

Display Status



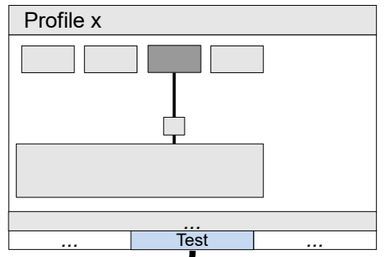
Menu VoIP tests



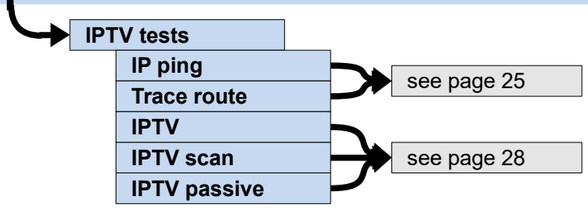
xDSL / Ethernet / GPON

Service active

Display Status



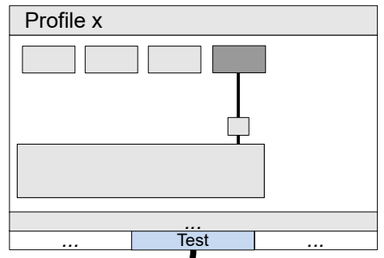
Menu IPTV tests



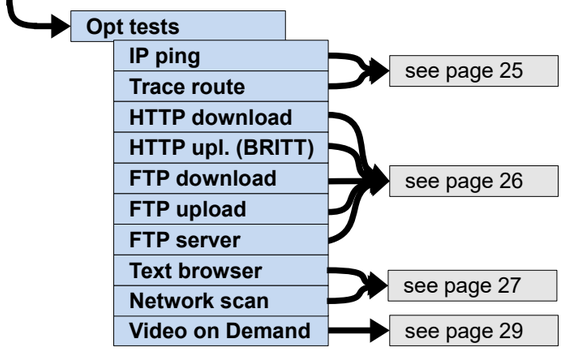
xDSL / G.fast / Ethernet / GPON

Service active

Display Status



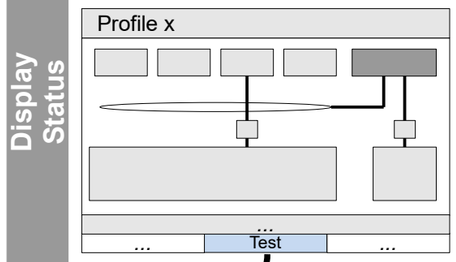
Menu Opt. tests



ADSL / VDSL / G.fast - Bridge

Service active

Display Status



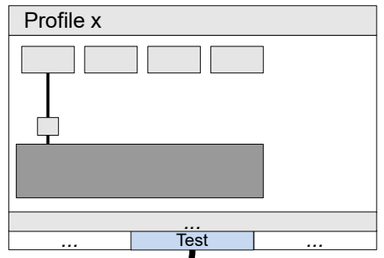
Menu Bridge tests



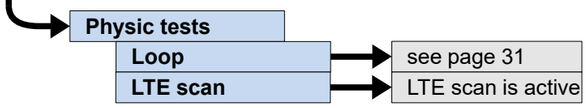
ADSL / Ethernet / GPON / LTE

Physics xDSL/Ethernet active, Services inactive

Display Status



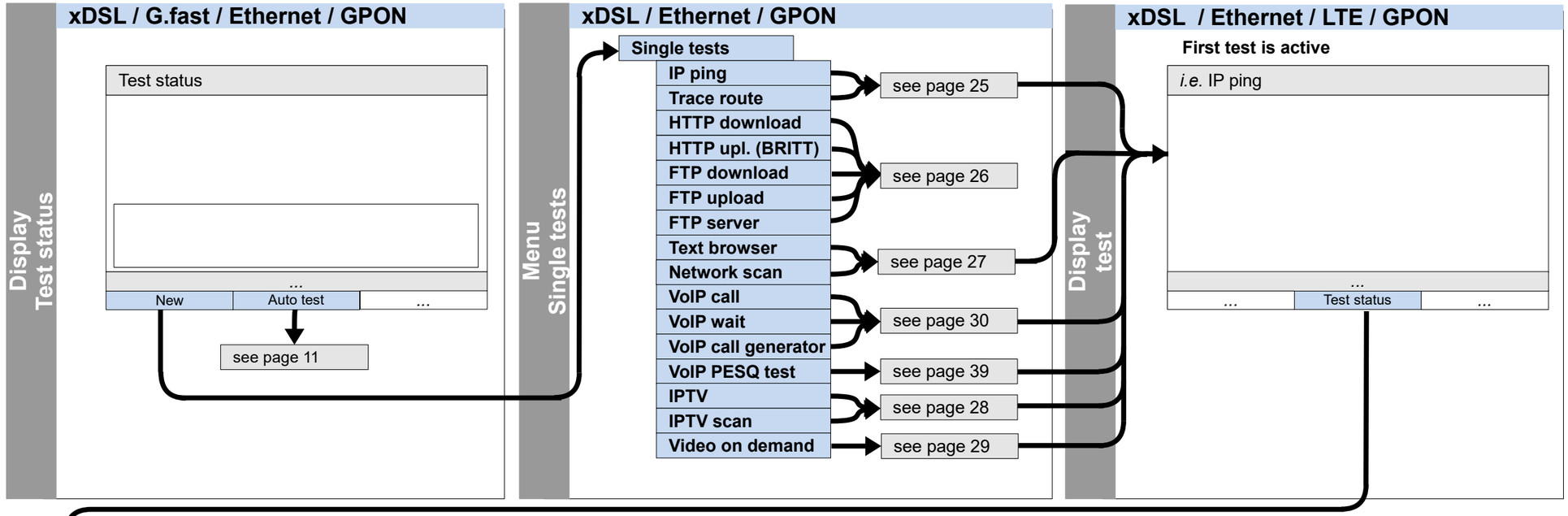
Menu Physic tests



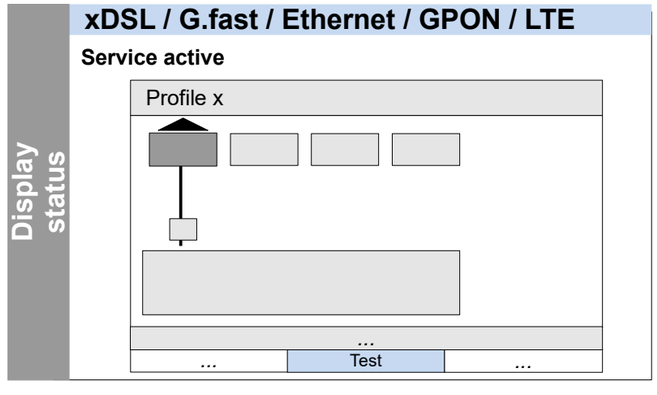
Service tests: Parallel tests
Test status

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Using the cursor keys for switching between status and Test status.



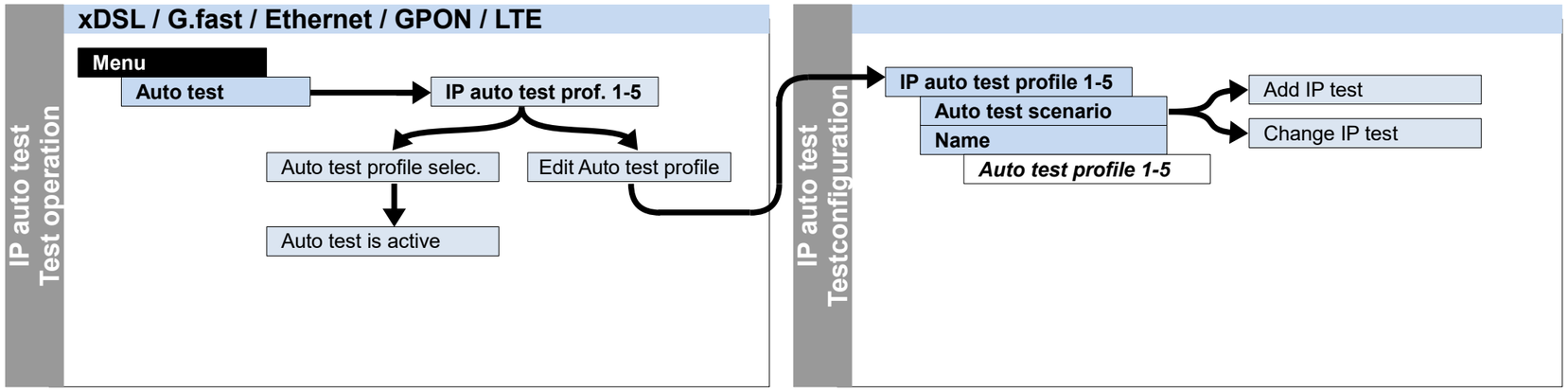
Note

The display and operation of VoIP and IPTV tests are presented in the same way as for Data tests.

Service tests: IP auto test

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Main menu, Single tests, Test results
(Access: BRI S, BRI U, PRI, POTS)

Cross reference:

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ISDN tests	page
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Others	page
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Main menu — BRI S / BRI U / PRI / POTS

- **Menu**
  - **Single tests** → Start ISDN tests
  - *1 **Auto test** → Start ISDN tests
  - *1 **Test manager** → Start ISDN tests
  - *1 **Cancell all** → Cancell all tests
  - *1 **Start new one** → Start new single test
  - *2 **Listen to** → see page 39
  - *3 **Start monitor** → see page 39
  - **Test results** → Test results
  - **Level measurem.**
    - *2 **Connected line**
    - **Other TE**
    - BRI U **Volate BRI U**
    - **Power BRI U**
    - *4 **Connected line**

    → Display Level measuring
  - *2 **L1 status** → Display L1 status
  - **Access** → see page 7
  - **ARGUS manager** → see page 8
  - **Settings** → see page 13-24
  - **Battery (status,...)**
    - **Status** → Display Battery status
    - **Automatic char.**
      - ***On***
      - Off
  - **Help**
    - **Hotkeys** → see table page 4

Menu Test results — BRI S / BRI U / PRI / POTS

- **Test results**
  - Select test results
    - **Display result** → Display Test result
    - **Rename** → Rename Test result
    - **Send report to PC** → Send to PC active
    - **Delete** → Delete test result

Menu Single tests — BRI S / BRI U / PRI / POTS

- **Single tests**
  - BRI S, BRI U
    - **BERT** → see page 34
    - **Supp. Serv. test** → see page 35
    - **Service test** → see page 35
    - **X.31 test** → see page 36
    - **CF interrogation** → see page 37
    - **CF activation** → see page 37
    - **CF delete** → see page 37
    - **Phone / connection** → see page 37
    - **Time measurement** → see page 38
    - **PESQ test** → see page 39
  - PRI
    - **BERT** → see page 34
    - **Supp. Serv. test** → see page 35
    - **Service test** → see page 35
    - **X.31 test** → see page 36
    - **CF interrogation** → see page 37
    - **CF activation** → see page 37
    - **CF delete** → see page 37
    - **Phone / connection** → see page 37
    - **Time measuring** → see page 38
  - POTS
    - **Phone / connection** → Phone/con. active
    - **PESQ test** → see page 39

Note

*1 = BRI S, BRI U, PRI
*2 = BRI S, PRI
*3 = BRI S, PRI, POTS
*4 = POTS

Settings and reset
Numbers, Backup/Restore, Cloud services

Cross reference:

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ISDN tests	page
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Menu Settings

- **Menu**
  - **Settings**
    - *1 **Profiles** → see page 15-22
    - **ISDN and POTS** → see page 23-24
    - **Copper/Cable tests** → see page 42
    - **PESQ** → see page 39
    - **Cloud services**
    - **Remote access** → see page 14
    - **Device**
    - **Company address**
      - **Company name**
      - **Street**
      - **ZIP/City**
      - **Phone number**
    - **Backup/Restore**
      - **Back up configuration**
        - Save current configuration
      - **Restore configuration**
        - Restore saved configuration
      - **Factory settings**
        - Reset to factory settings
      - **Configuration import**
        - Configuration import started

Menu Cloud services

- **Cloud services**
  - **Firmware update**
    - **Server**
    - **Update check**
      - ***off***
      - on
    - Update
  - **Configuration import**
    - **Server**
    - **Check**
      - ***off***
      - on
    - Import
    - **Import destination**
      - Current configuration
      - Cur. & backed up config.
    - **Import**
  - **Test result upload**

- **Server selection**
  - ***Firmware***
  - Configuration
  - Test result
- Select server
- Edit server
- **Server**
  - **Use FTPS**
    - ***No***
    - Yes
  - **FTP server address**
    - *2 ***Firmware.argus.info***
  - **Username**
    - *2 ***argus***
  - **Password**
    - *2 ***update***
  - **Profilename**
    - *2 ***Firmware***
    - *3 ***Configuration***
    - *4 ***Test result***

Note

A firmware update and a configuration import can only be performed successfully when a connection to the service „date“ exists.

Note

Selecting "Factory settings" or "Backup configuration" requires a password to avoid an unintentionally deleting of the system configuration. Please contact the ARGUS support team at +49 2351 9070-90 to ask for the password. All settings will be set to default and test results will be deleted.

Note

*1 = not for ISDN

Note

*2 = Default only for server „Firmware“

*3 = Default only for server „Configuration“

*4 = Default only for server „Test result“

Settings and reset
Remote access, Device

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Menu Remote access

- **Menu**
  - **Settings**
    - **Remote access**
      - **Management interface** → **Start manage. Interf.**: ***Off***, on
      - **Web server**
        - **Start web server**: ***Off***, on
        - **Password protection**: Off, ***on***
      - **VNC server**
        - **Start web server**: ***Off***, on
        - **Password protection**: Off, ***on***
        - **VNC zoom factor**: Factor 1, ***Factor 2***, Factor 3, Factor 4
      - **Interface selection**: ETH, ***WLAN***
      - **WLAN**
        - **SSID**: ***ARGUS163_SN01234***
        - **Password**: ***argus163***
        - **Channel**: ***Channel: 1***
        - **DHCP server**
          - **Start/end address**: ***192.168.20.30*** / ***192.168.20.40***
          - **Domain**
          - **Reserve time**: Hours: ***240***
        - **IP settings**
          - **IP address**: ***192.168.20.1***
          - **Netmask**: ***255.255.255.0***
          - **Gateway**: ***0.0.0.0***

Menu Device

- **Menu**
  - **Settings**
    - **Device**
      - **Menu language** → German, ***English***, Francais
      - **LC brightness** → dark------light
      - **Date/time setting**
        - **Time offset**: ***UTC+01:00***
        - **Daylight saving time**: off, ***Central europ. (CEST)***
        - **Date/time**: Manual, ***Automatic*** → ***Date:*** / ***Time:***
      - **Ringer volume**
        - **Start volume**: ***Level 1***, ..., Level 7
        - **End volume**: Level 1, ..., ***Level 7***
      - **Alarm bell**: On, ***Off***
      - **Einschaltton**: On, ***Off***
      - **Power management**
        - **Automatic shutdown**: ***after 5 minutes***, after x minutes deactivated
        - **Lighting**: ***Off after 30 sec***, Off after x minutes
      - **Company address**
        - **Company name**
        - **Street**
        - **ZIP/City**
        - **Phone number**
      - **Software option**: Input SW option key
      - **Licenses** → Displays all the licenses available in the device
      - **As IPv4 number**: ***0.0.0.0***
      - **As name**: ***0.de.pool.ntp.org***

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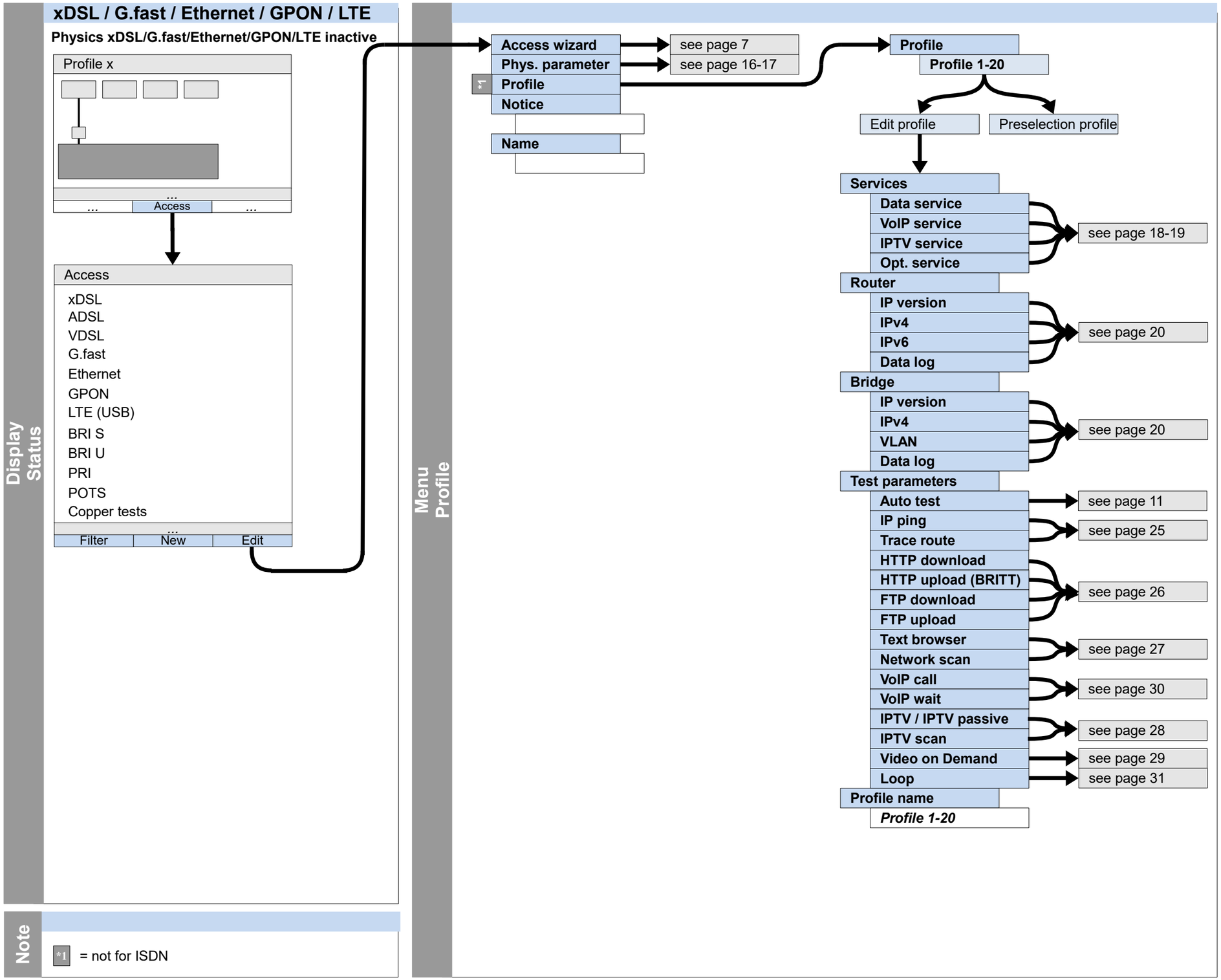
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Other tests	page
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Settings
Phys. parameters: ADSL, VDSL, G.fast, Ethernet

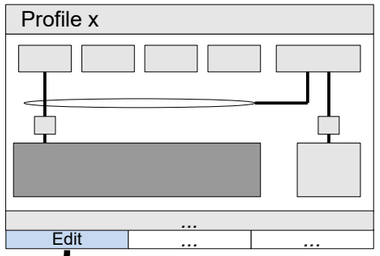
Cross reference:

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Display ADSL Status

ADSL

Physics ADSL inactive



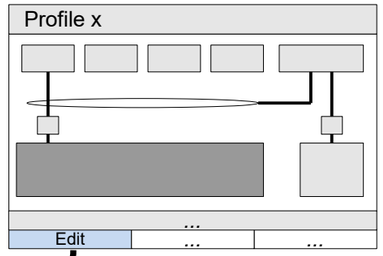
Menu ADSL

- **ADSL**
  - **Rated/threshold values**
    - **Bitrate**
      - Downstream: ***0 kbit/s***
      - Upstream: ***0 kbit/s***
    - **CRC**
      - far: *
      - near: *
    - **FEC**
      - far: *
      - near: *
    - **HEC**
      - far: *
      - near: *
  - **INP/SNRM**
    - Favour DS INP
    - ***Favour DS SNRM***
  - **Retransmission (G.INP)**
    - off
    - Downstream
    - Upstream
    - ***Down- & upstream***
  - **MAC address**
    - ***Default MAC address***
    - Dynamic MAC address
    - 00:00:00:00:00:00
  - **Gratuitous ARP**
    - ***Off***
    - On
  - **free definable**
    - 00 00 00 00 00 00

Display VDSL / G.fast Status

VDSL / G.fast

Physics VDSL / G.fast inactive



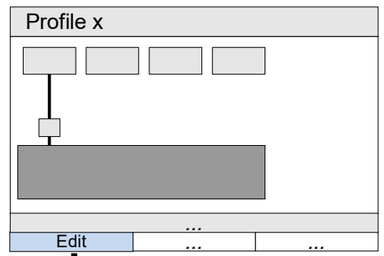
Menu VDSL / G.fast

- **VDSL / G.fast**
  - **Rated/threshold values**
    - **Bitrate**
      - downstream: ***0 kbit/s***
      - upstream: ***0 kbit/s***
    - **CRC**
      - far: *
      - near: *
    - **FEC**
      - far: *
      - near: *
  - *1 **Firmware**
    - ***A***
    - B
  - *1 **Carrier Set**
    - ***B 43***
    - ***A 43***
    - ***V 43***
  - *1 **Vectoring mode**
    - Off
    - ***Full vectoring***
  - *1 **Retransmission (G.INP)**
    - off
    - Downstream
    - Upstream
    - ***Down- & upstream***
  - **Suppress profile 30a**
    - ***No***
    - Yes
  - **MAC address**
    - ***Default MAC address***
    - Dynamic MAC address
    - 00:00:00:00:00:00
  - **Gratuitous ARP**
    - ***Off***
    - On
  - **free definable**
    - 00 00 00 00 00 00

Display ETH Status

Ethernet

Physics Ethernet inactive



Menu Ethernet

- **Ethernet**
  - **Autonegotiation**
    - ***On***
    - Off
  - **MAC address**
    - ***Default MAC address***
    - Dynamic MAC address
    - 00:00:00:00:00:00
  - **Gratuitous ARP**
    - ***Off***
    - On
  - **LACP mode**
    - ***Off***
    - On
  - **free definable**
    - 00 00 00 00 00 00
- **Autonegotiation Off**
  - **Speed**
    - ***1000 Mbit/s***
    - 100 Mbit/s
    - 10 Mbit/s
  - **Duplex**
    - ***Full***
    - Half
  - **Flow control**
    - ***On***
    - Off

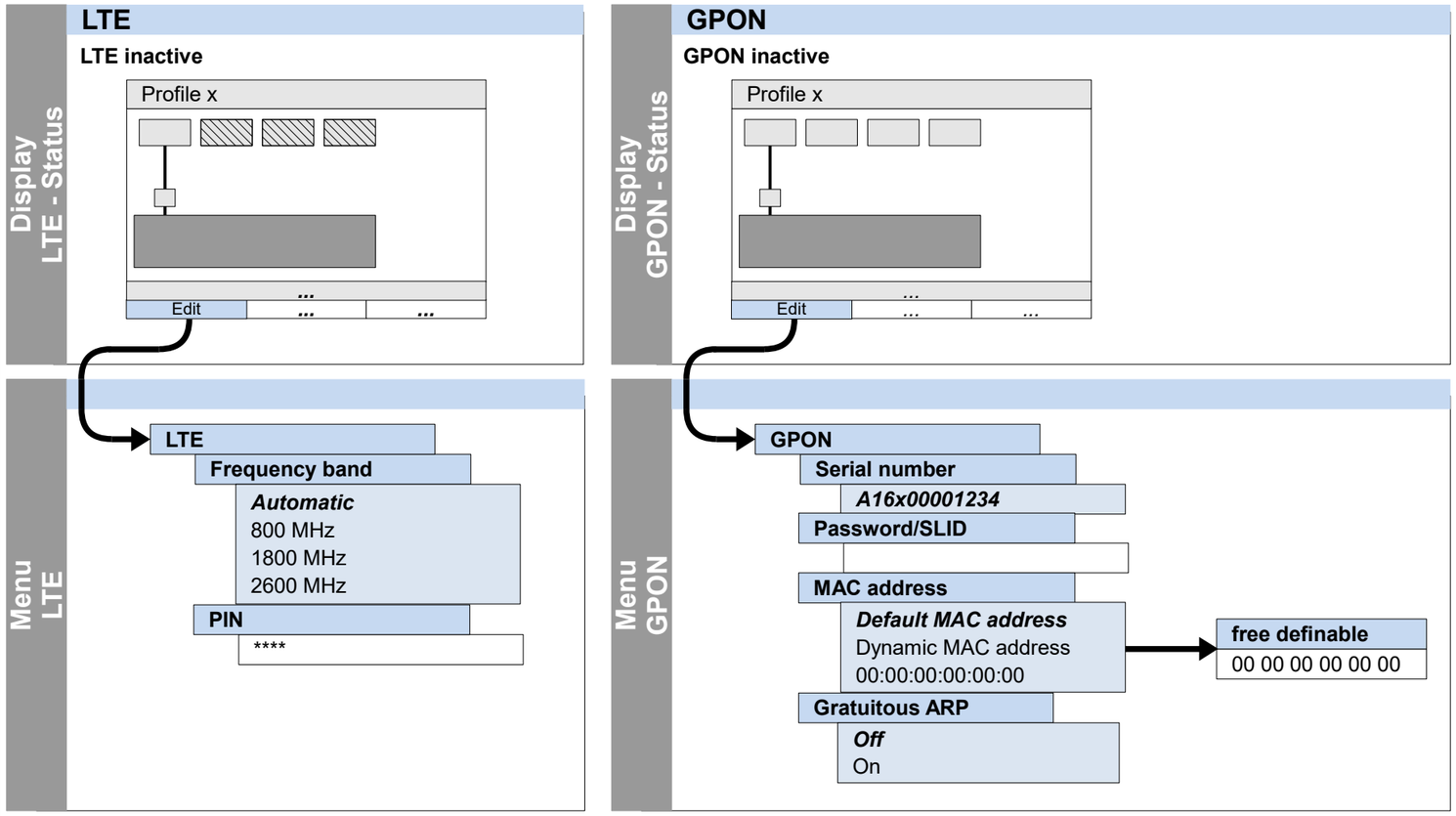
Note

*1 = only for VDSL

Settings
Phys. parameters: LTE, GPON

Cross reference:

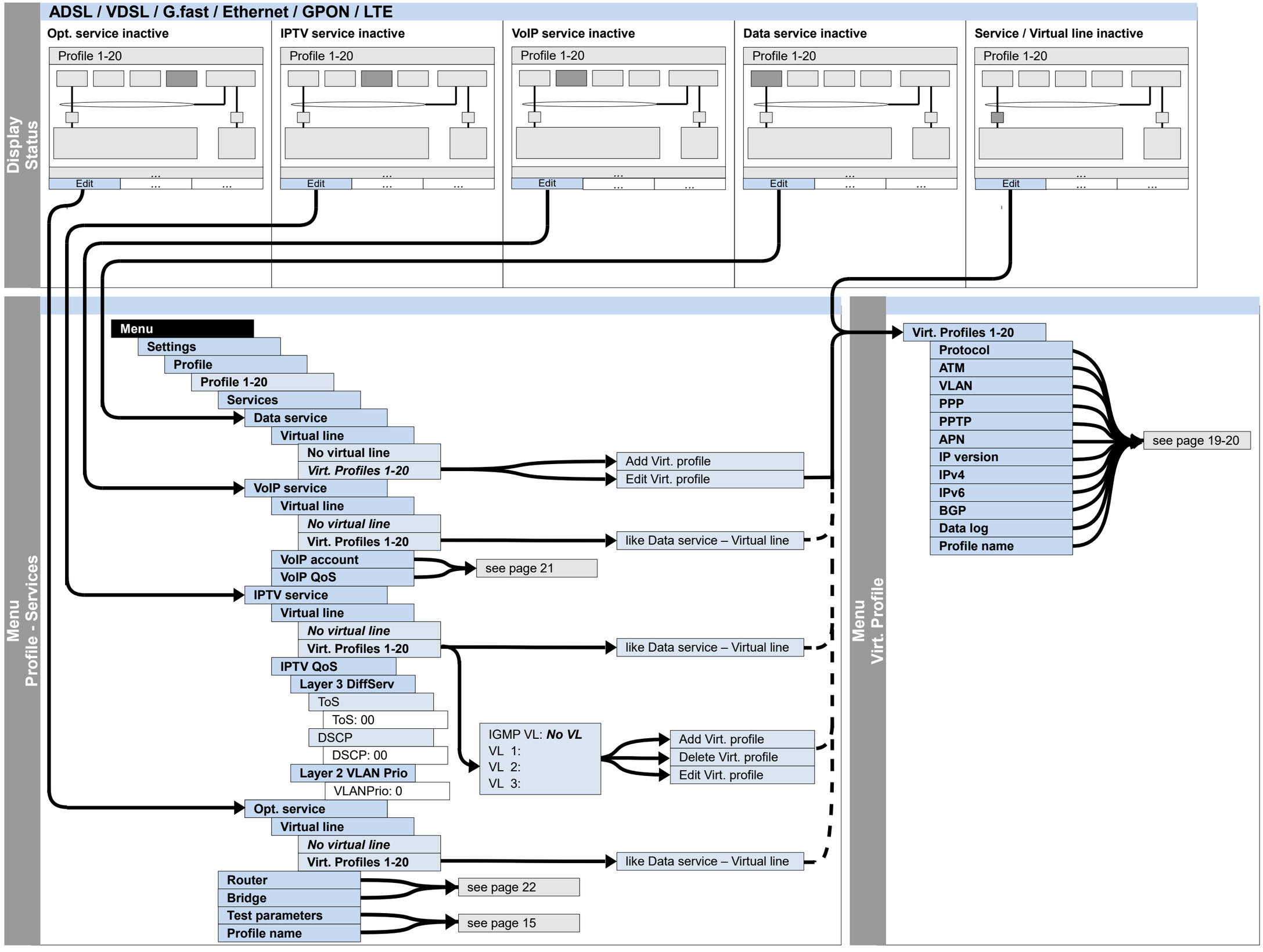
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Settings
Profile – Services (Data service, VoIP service, IPTV service, Opt. service), Virt. Profile

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Settings
Profiles – Virt. profile (Protocol, ATM, VLAN, PPP, PPTP, APN, Data log, Profile name)

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Menu Profiles – Virt. profile

- **Menu**
  - **Settings**
    - **Profiles**
      - **Profile 1-20**
        - **Services**
          - **Data service**
            - **Virtual line**
              - **Virt. Profiles 1-20**
                - **Protocol**: IP / ***PPP*** / PPTP
                - **ATM**
                  - **VPI/VCI**: VPI: ***1*** / VCI: ***32***
                  - **Encapsulation**: ***LLC*** / VC-MUX
                - **Ethernet**: No (PPPoA, ...) / ***Yes (PPPoE, EoA)***
                - **VLAN** → Menu VLAN
                - **PPP** → Menu PPP
                - **PPTP**
                  - **Server IP Adr.**: ***0.0.0.0***
                - **APN** → Menu APN
                - **IP Version**
                - **IPv4** → see page 20
                - **IPv6**
                - **BGP** → see page 20
                - **Data log**: ***Off*** / On
                - **Profile name**: **Virt. Profil 1-20**

Menu VLAN

- **VLAN**
  - **VLAN Mode**: **No VLAN** / 1 VLAN tag / 2 VLAN tags (QinQ)
  - **1. VLAN tag (C-VLAN)**
    - **ID**: ID: ***2***
    - **Priority**: Priority: ***0***
    - **TPID**: ***8100 Hex*** / 88A8 Hex
  - **2. VLAN tag (S-VLAN)**
    - **ID**: ID: ***2***
    - **Priority**: Priority: ***0***
    - **TPID**: 8100 Hex / ***88A8 Hex***

Menu PPP

- **PPP**
  - **PPP Profiles 1-20**
    - Edit profile
      - **User name**
      - **Password**
      - **Set IP**: ***no*** / yes
      - **Activation Delay**: sec: ***2***
      - **Profile name**: ***PPP Profiles 1-20***
    - Presel. profile

Menu APN

- **APN**
  - **APN Profiles 1-5**
    - Edit profile
      - **Access point**
      - **In-dialling nb.**: ****99#***
      - **Profile name**: ***APN Profile 1***
    - Presel. profile

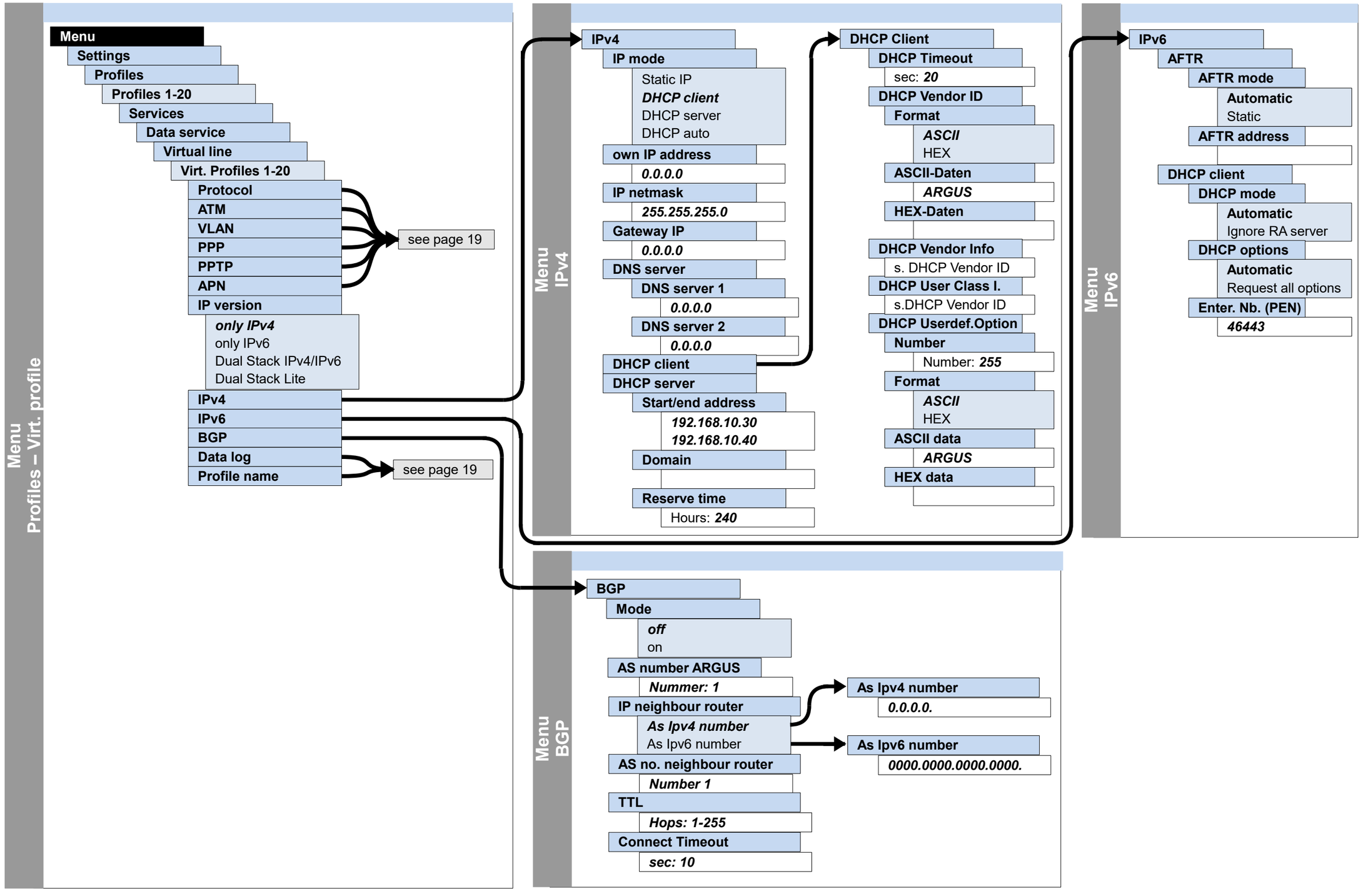
Note

On page 3 you get a survey on the protocols, which are supported on the various interfaces.

Settings
Profiles – Virt. profile (IP version, Ipv4, Ipv6, BGP)

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Settings
Profiles – Services – VoIP service – VoIP account, VoIP QoS

Cross reference:

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ISDN / POTS	23-24
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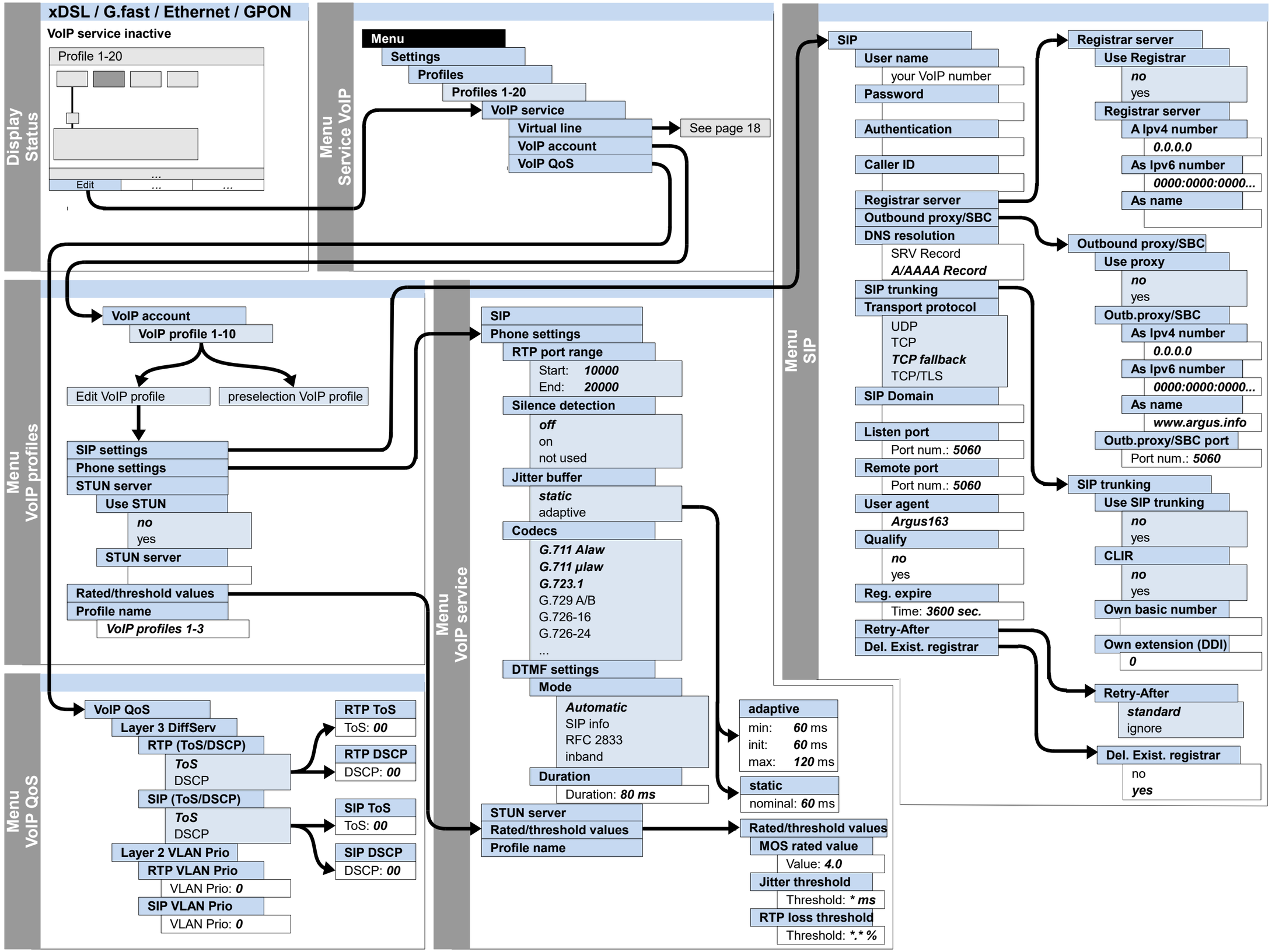
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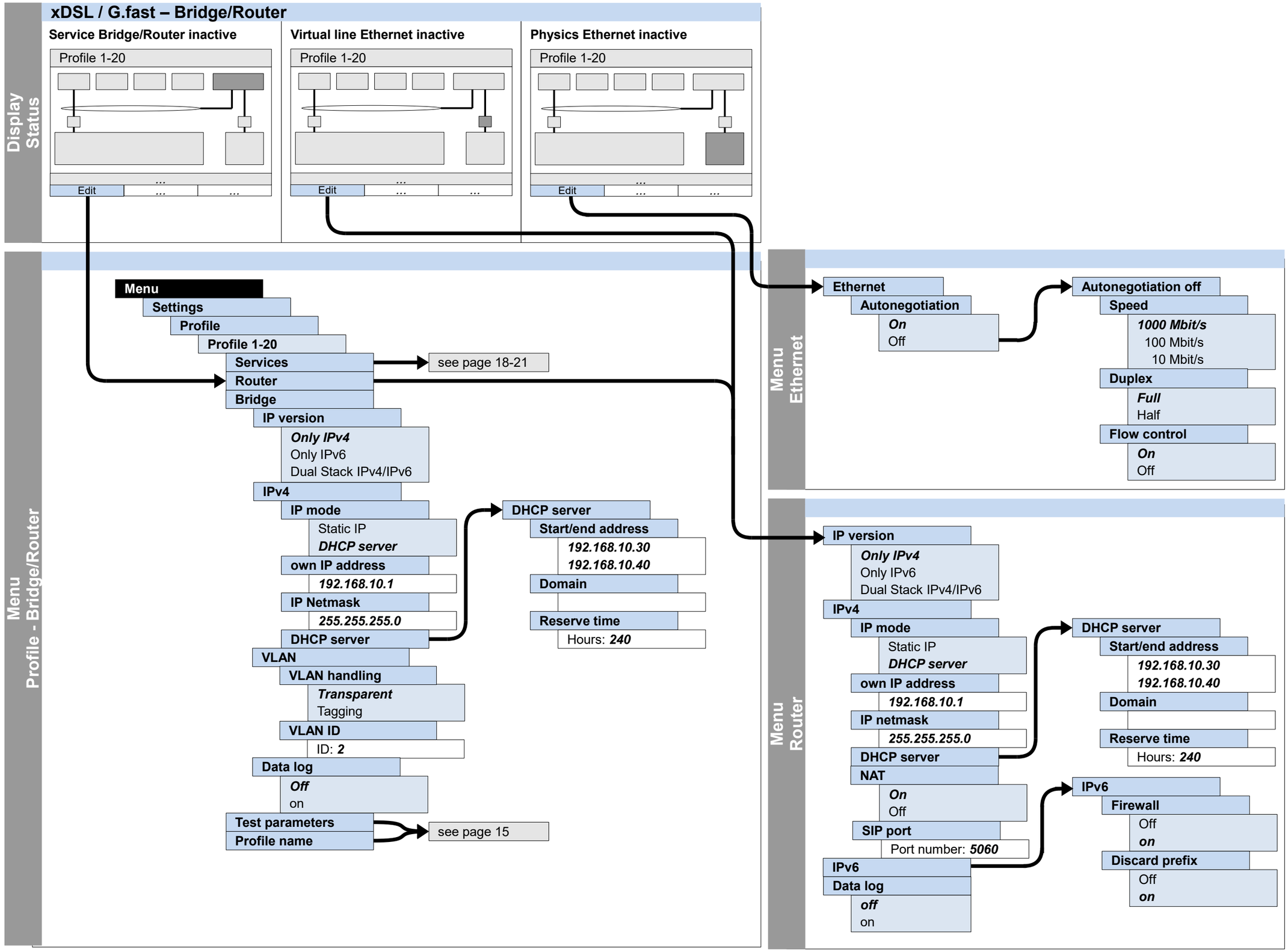
Others	page
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Settings
Profile – Bridge/Router (Ethernet, Router, Bridge)

Cross reference:

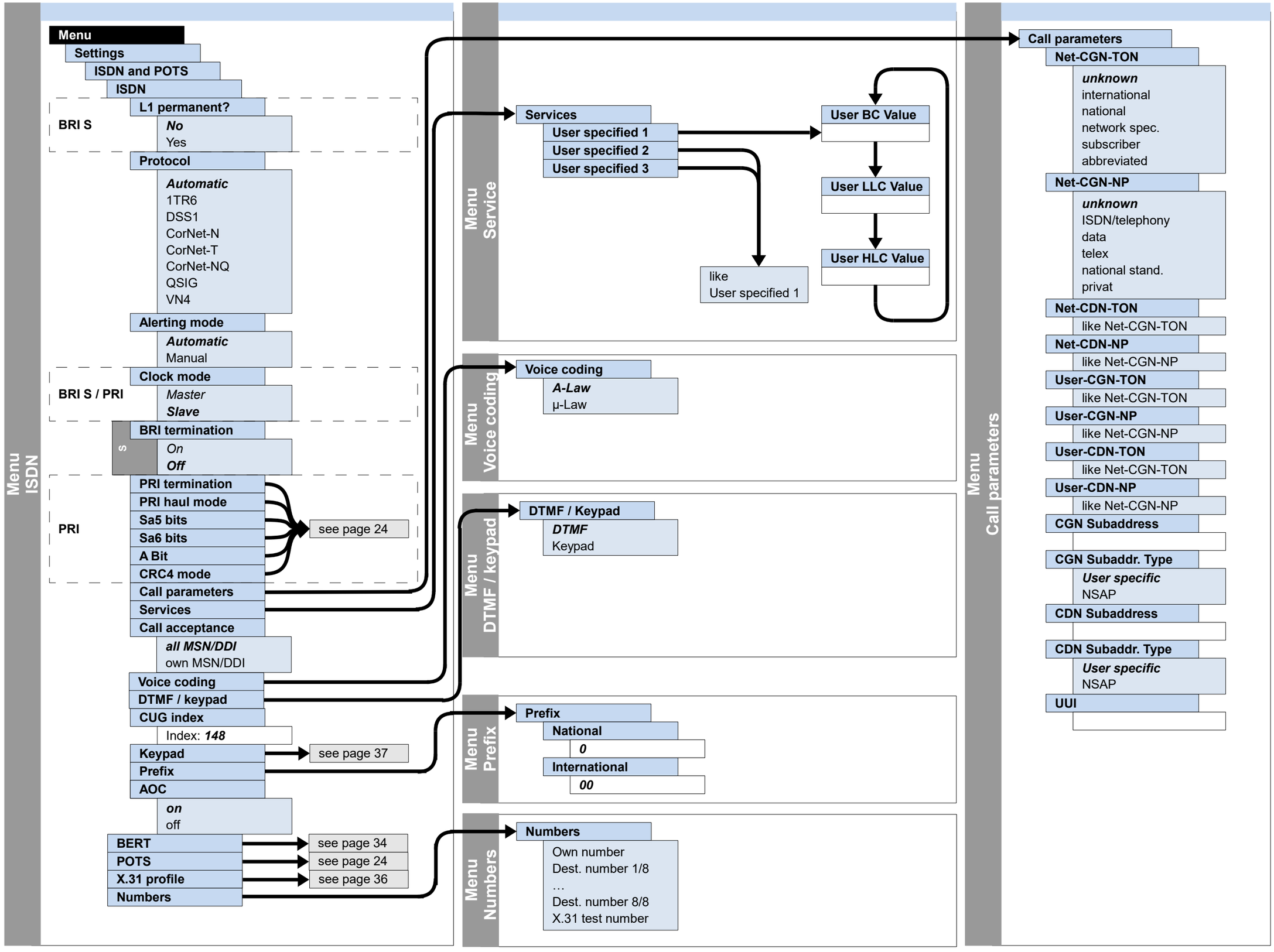
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Settings
ISDN (General, BRI S, BRI U)

Cross reference:

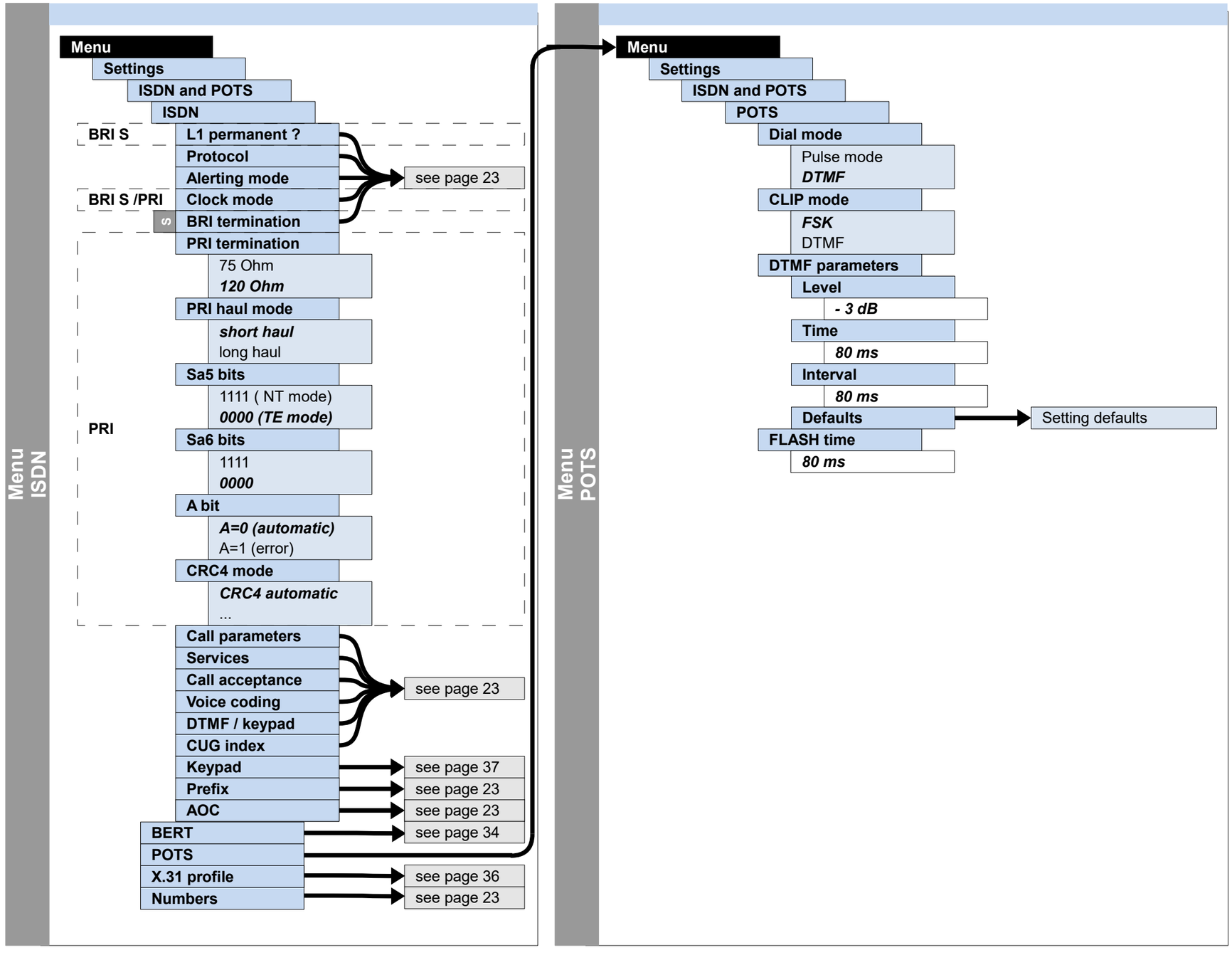
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Settings
ISDN (PRI), POTS

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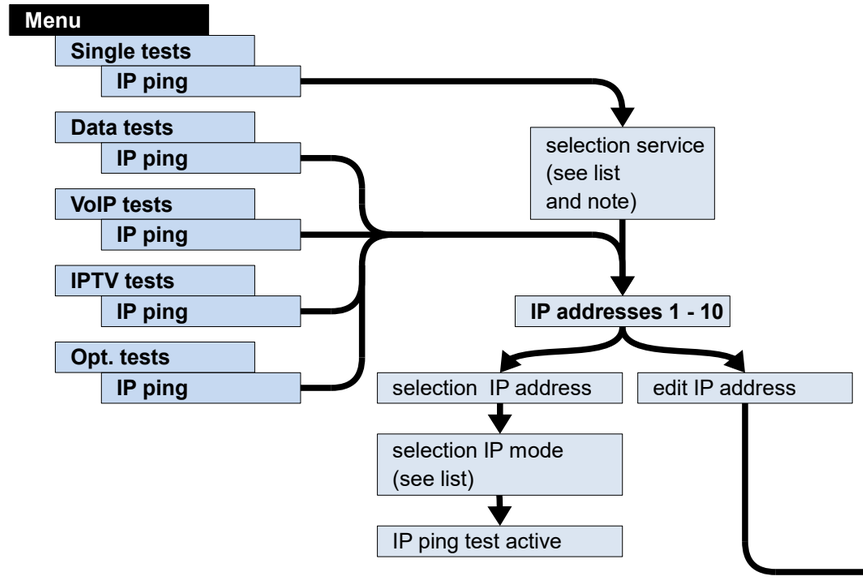
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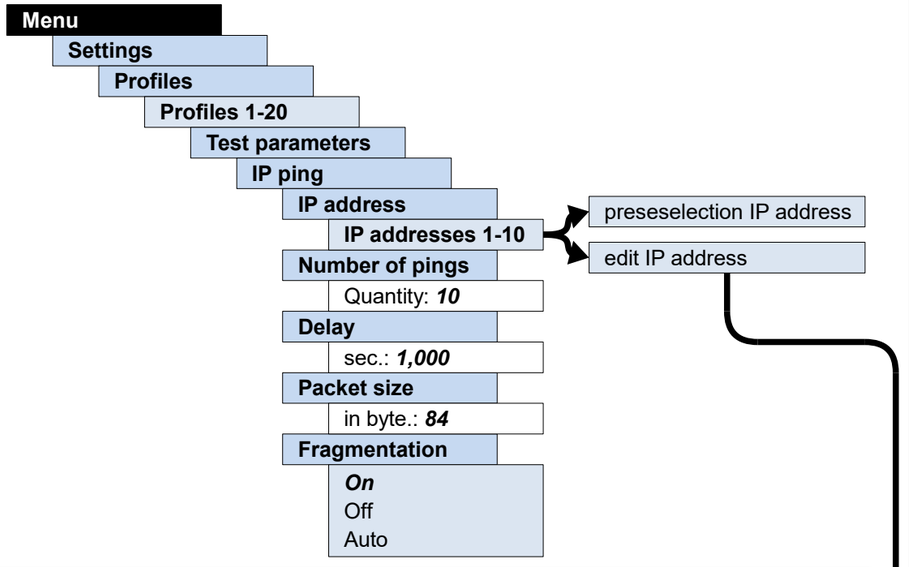
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IP ping – Test operation

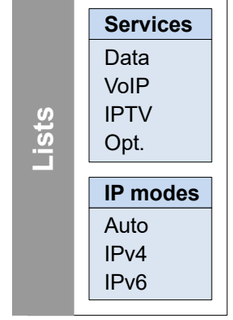
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IP ping – Test configuration

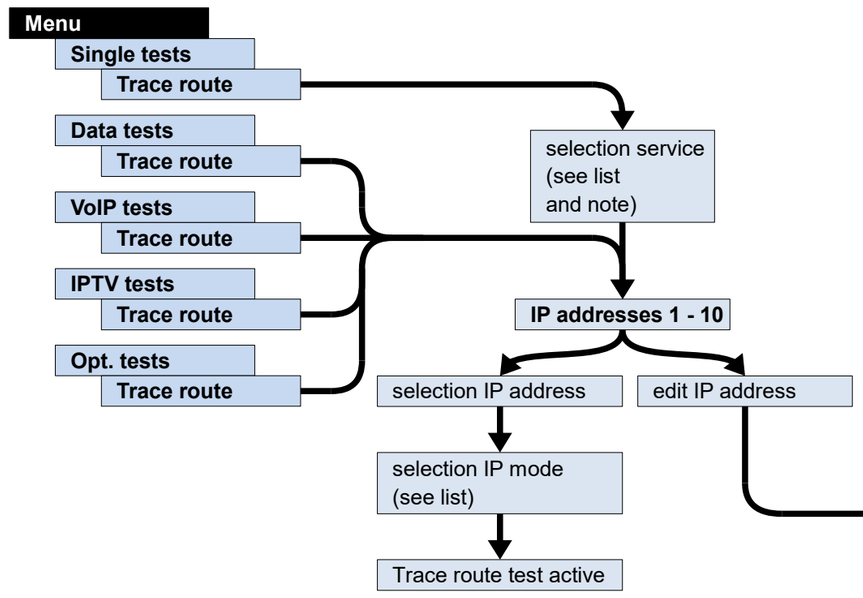


Lists

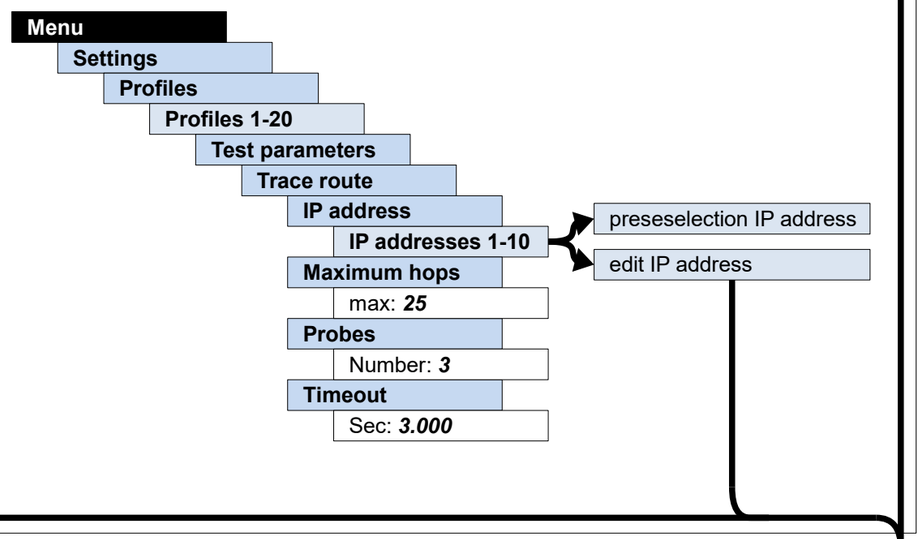


Trace route – Test operation

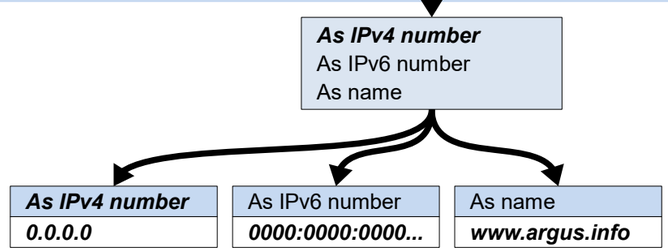
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Trace route – Test configuration



Menu – IP address



Note

The number of services may vary depending on the configuration of the Data, VoIP, IPTV, VoD services. If a single service has been configured, the selection will be skipped.

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HTTP download/-upload Test operation

ADSL / VDSL / G.fast / Ethernet / GPON / LTE

- Menu
  - Single tests → HTTP down-/upl.
  - Data tests → HTTP down-/upl.
  - Opt. tests → HTTP down-/upl.
  - → Server profiles 1-10
    - selection server profile → HTTP down-/upl. test active
    - edit server profile

HTTP download/-upload Test configuration

- Menu
  - Settings
    - Profiles
      - Profiles 1-20
        - Test parameters
          - HTTP down-/upl.
            - Server profiles 1-10
              - preselection server profile
              - edit server profile

FTP download Test operation

ADSL / VDSL / G.fast / Ethernet / GPON / LTE

- Menu
  - Single tests → FTP download
  - Data tests → FTP download
  - Opt. tests → FTP download
  - → Server profiles 1-10
    - selection server profile → FTP download test active
    - edit server profile

FTP download Test configuration

- Menu
  - Settings
    - Profiles
      - Profiles 1-20
        - Test parameters
          - FTP download
            - Server profiles 1-10
              - preselection server profile
              - edit server profile

FTP upload Test operation

ADSL / VDSL / G.fast / Ethernet / GPON / LTE

- Menu
  - Single tests → FTP upload
  - Datatests → FTP upload
  - Opt. tests → FTP upload
  - → Server profiles 1-10
    - selection server profile → FTP upload test active
    - Edit server profile

FTP upload Test configuration

- Menu
  - Settings
    - Profiles
      - Profiles 1-20
        - Test parameters
          - FTP upload
            - Server profiles 1-10
              - preselection server profile
              - edit server profile

FTP server Test operation

ADSL / VDSL / G.fast / Ethernet / GPON

- Menu
  - Single tests → FTP server
  - Data tests → FTP server
  - Opt. tests → FTP server
  - → FTP server test active

Menu Server profile

- Server profiles 1-10
  - Server
  - Download file name
  - Upload file name
    - *file*
  - Upload file size
    - ***100*** (MByte)
  - User name
  - Password
  - Number of up-/downloads
    - Number: ***3***
  - Num. of paral. downl.
    - Number: ***3***
  - Profile name
    - ***Server prof. 1-10***

Note

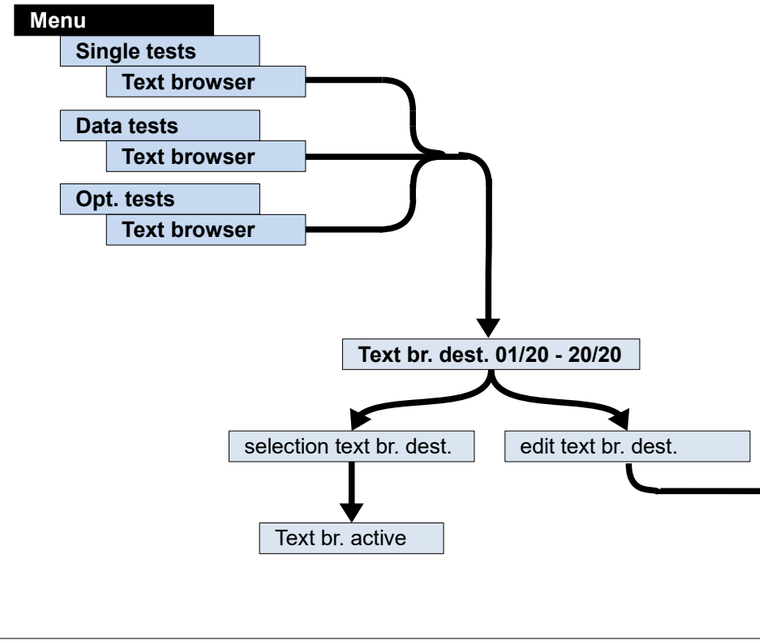
A test configuration of the FTP server is not necessary.

Cross reference:

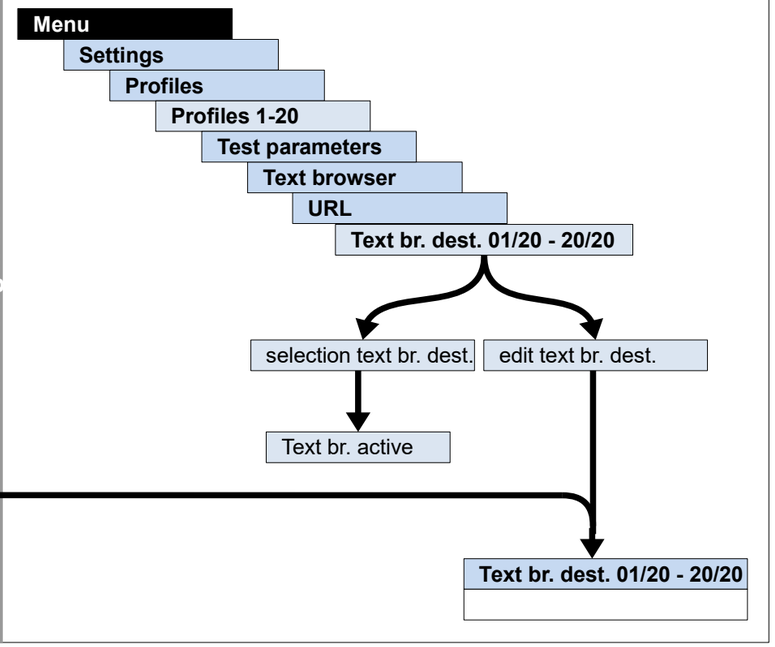
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ADSL / VDSL / G.fast / Ethernet / GPON / LTE

Text browser Test operation

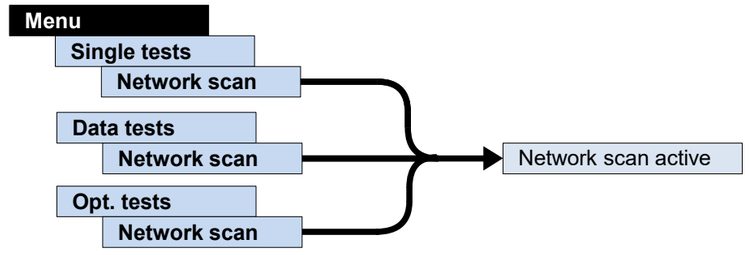


Text browser Test configuration

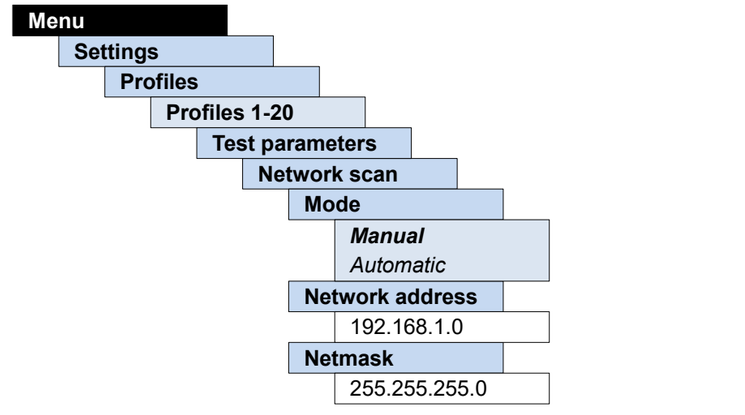


Ethernet

Network scan Test operation



Network scan Test configuration



IP

Configuration and operation
IPTV, IPTV passive, IPTV scan

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IPTV Test operation

xDSL / G.fast / Ethernet / GPON

- **Menu**
  - **Single tests** → **IPTV**
  - **IPTV tests** → **IPTV**
  - → **IPTV profiles 1-3**
    - selection IPTV profile → IPTV test active
    - edit IPTV profile

IPTV passive Test operation

xDSL / G.fast / Ethernet / GPON

- **Menu**
  - **Single tests** → **IPTV passive**
  - **IPTV tests** → **IPTV passive**
  - **Bridge tests** → **IPTV passive**
  - → **IPTV profiles 1-3**
    - selection IPTV profile → IPTV passive test active
    - edit IPTV profile

IPTV Test configuration

Menu

- **Settings**
  - **Profiles**
    - **Profiles 1-20**
      - **Test parameters**
        - **IPTV / IPTV passive**
          - **IPTV profiles 1-3**
            - edit IPTV profile
            - preselection IPTV profile

IPTV profiles 1-3

- **Channel selection** → IPTV channel 1-250 → preselection IPTV ch. / edit IPTV channel
- **IGMP version**: IGMP version: ***3***
- **Threshold**
- **Profile name**: ***IPTV profiles 1-3***

Menu IPTV thresholds

Threshold

- **IGMP latency**: Latency value: ***500 ms***
- **Sync error**: ***0***
- **PCR jitter**: ***100 ms***
- **Error indication**: ***0***
- **CC error**: ***0***
- **CC error ratio**: ***0,00 %***
- **Audio bytes**: ***0***
- **Video bytes**: ***0***
- **RTP jitter**: ***100 ms***
- **RTP sequence error**: ***0***
- **Current RTP loss ratio**: ***0.00 %***
- **Full RTP loss ratio**: ***5.00 %***

Menu IPTV channel

IPTV channels 1-250

- **Multicast address**: 224.0.0.0
- **Port**: Port number: ***0***
- **TV station**: ***IPTV channel 1-250***

IPTV scan Test operation

xDSL / G.fast / Ethernet / GPON

- **Menu**
  - **Single tests** → **IPTV scan**
  - **IPTV tests** → **IPTV scan**
  - → **IPTV scan profiles 1-3**
    - selection IPTV scan profile → IPTV scan test active
    - edit IPTV scan profile

IPTV scan Test configuration

Menu

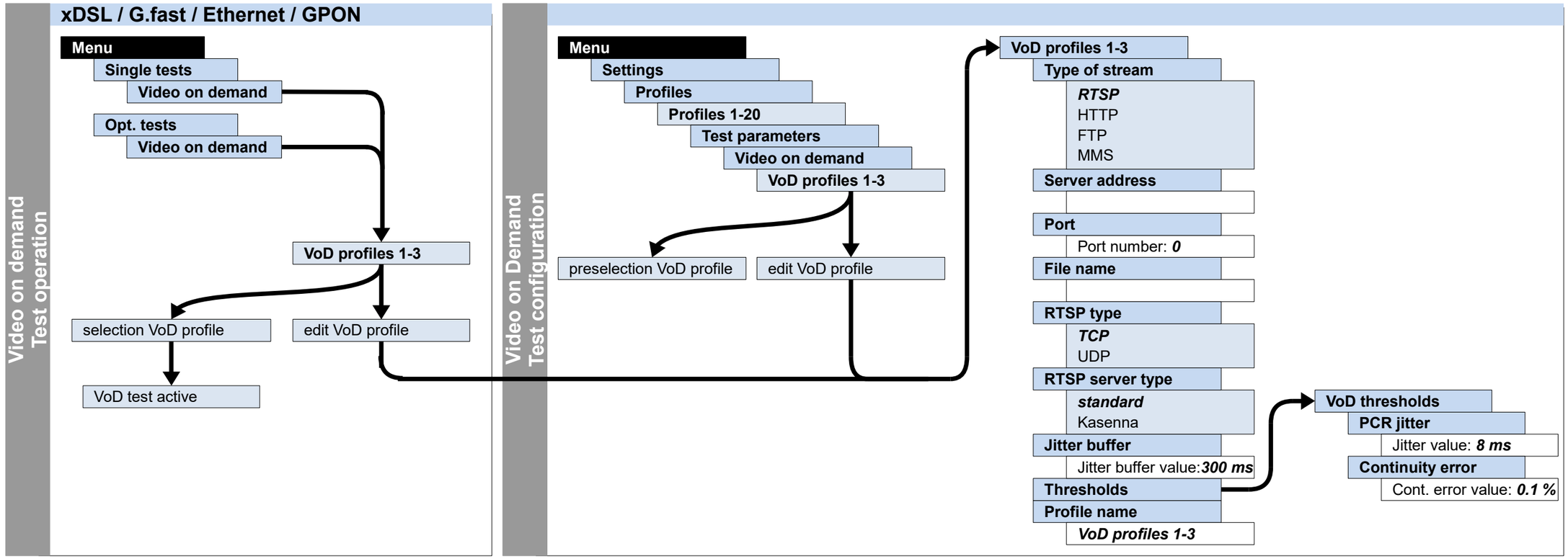
- **Settings**
  - **Profiles**
    - **Profiles 1-20**
      - **Test parameters**
        - **IPTV scan**
          - **IPTV scan profiles 1-3**
            - preselection IPTV scan profile
            - edit IPTV scan profile

IPTV scan profiles 1-3

- **Channel selection** → add IPTV channel / remove IPTV Channel / edit IPTV Channel
- **IGMP Version**: IGMP version: ***3***
- **Max. zapping time**: Zapping time: ***5 s***
- **Profile name**: ***Scan Profile 1-3***

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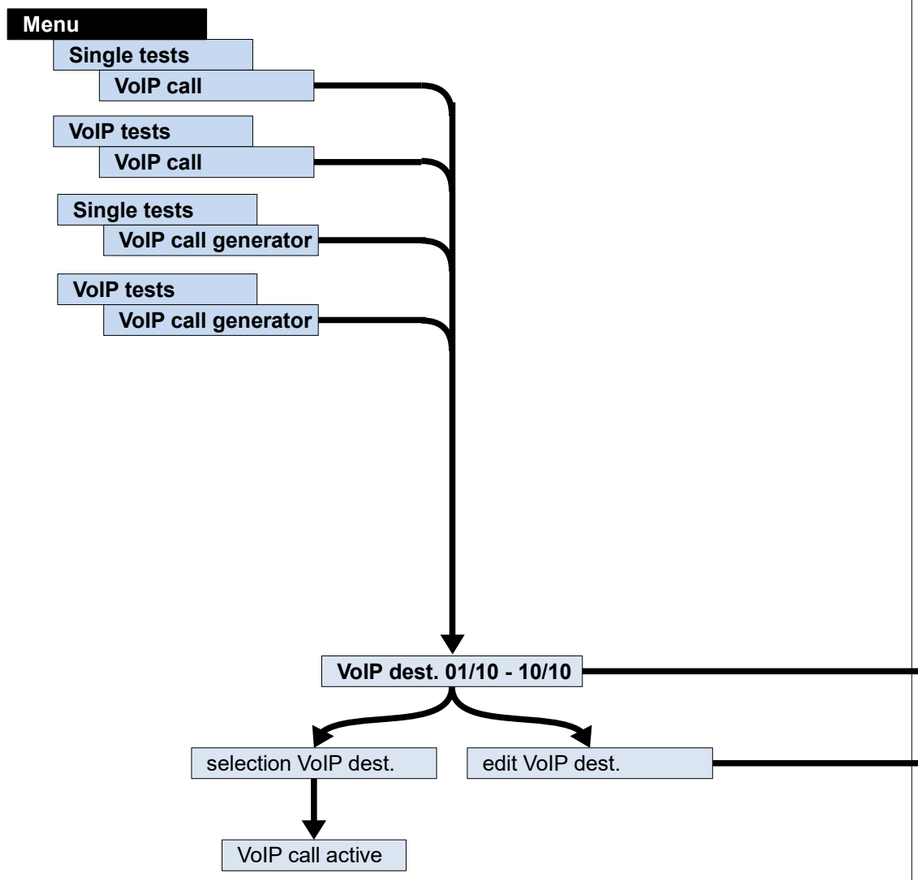


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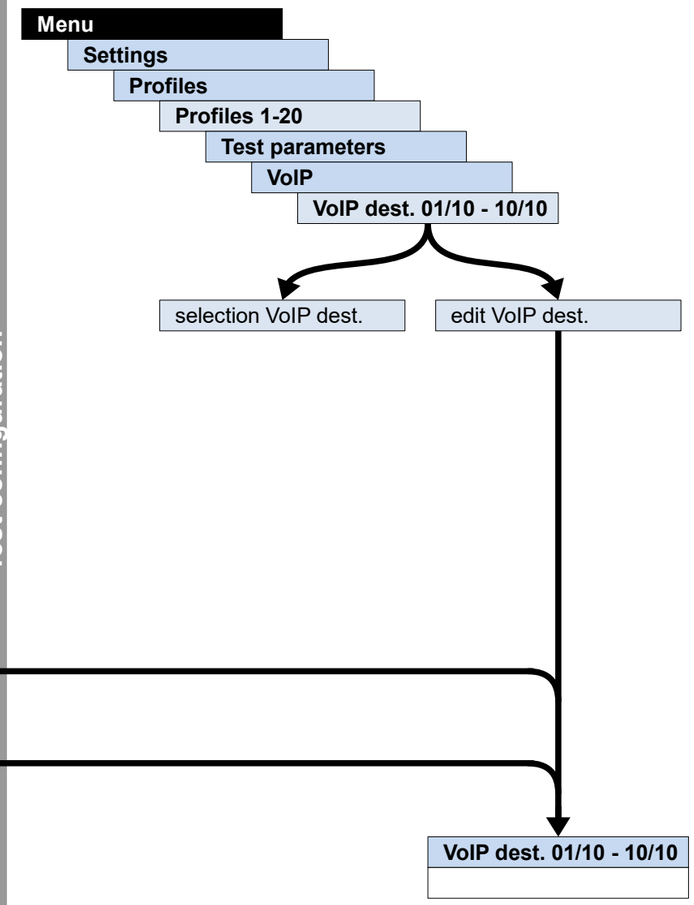
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VoIP call / VoIP call generator Test operation

ADSL / VDSL / G.fast / Ethernet / GPON

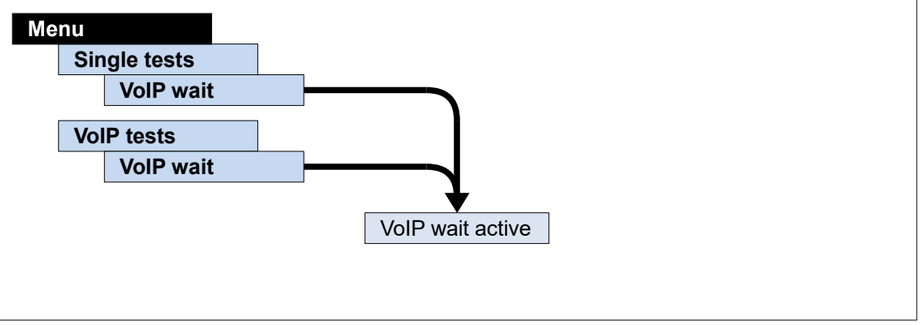


VoIP call / VoIP call generator Test configuration

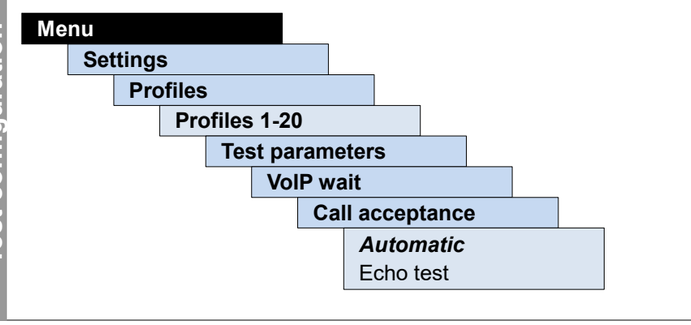


VoIP wait Test operation

ADSL / VDSL / G.fast / Ethernet / GPON



VoIP wait Test configuration



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Profiles, Virt. profiles VoIP account	15-22
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CF tests, Connect.	37
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Copper tests	**page**
Copper Box	40-41
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Others	**page**
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Ethernet IP based

Loop
Test operation

- **Menu**
  - **Single tests**
    - **Loop**
  - **Physic tests**
    - **Loop**

→ Loop active

Loop
Test configuration

- **Menu**
  - **Settings**
    - **Profiles**
      - **Profiles 1-20**
        - **Test parameters**
          - **Loop**
            - **Layer 1**
            - **Layer 2**
              - **MAC mode**
                - ***Only own MAC***
                - Loop everything
              - **Own VPI/VCI**
                - VPI: ***1***
                - VCI: ***32***
              - **Own VLAN**
                - **VLAN mode**
                - ***No VLAN***
                - 1 VLAN tag
                - 2 VLAn tags (QinQ)
                - **1. VLAN tag (C-VLAN)**
                - **ID**
                - ID: ***2***
                - **Priority**
                - Priority: ***0***
                - **TPID**
                - ***8100 Hex***
                - 88A8 Hex
                - **2. VLAN tag (S-VLAN)**
                - **ID**
                - ID: ***2***
                - **Priority**
                - Priority: ***0***
                - **TPID**
                - 8100 Hex
                - ***88A8 Hex***
            - **Layer 3**
              - **IP version**
                - ***only IPv4***
                - only IPv6
              - **Own IP mode**
                - ***Static IP***
                - DHCP client
              - **Own IP address**
                - ***0.0.0.0***

Cross reference:

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Video on Demand	29
VoIP call / call generator /wait	30
ISDN tests	**page**
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ETH Cabling test Test operation

Ethernet cable tests

Menu
Single tests
ETH cabling test
ETH cabl. test active

ETH Cabling test Test configuration

Menu
Settings
Copper/Cable tests
ETH cable tests
ETH cabling test
LAN Probe
Read a. config. ID

ETH PoE test Test operation

Ethernet cable tests

Menu
Single tests
ETH PoE test
ETH PoE test active

ETH PoE test Test configuration

Menu
Settings
Copper/Cable tests
ETH cable tests
ETH PoE test
Power class
Automatic
Class 0
..
Class 4

Cross reference:

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Others	**page**
Legend Protocol-overview	3
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ETH TDR/Cable tests
Test operation

Ethernet cable tests

Menu
Single tests
ETH TDR/Cable tests
→ ETH TDR/... active

ETH TDR/Cable tests
Test configuration

Menu
Settings
Copper/Cable tests
ETH cable tests
ETH TDR/Cable tests
Mode
First Peak
Maximum Peak
Wire types 1-20

preselection wire type
edit wire type

Speed of propagation
95.5
Line resistance
353 Ohm/km
Capacitance
48.0 nF/km
Name
0,35 A-2YF

V/2 in m/µs
VoP in %
63.7

Port flash
Test operation

Ethernet cable tests

Menu
Single tests
Port flash
→ Port flash ... active

Port flash
Test configuration

Menu
Settings
Copper/Cable tests
ETH cable tests
Port flash
LED on time
1 s

Note

The wire type settings are the same settings which are used for the copper tests.

Cross reference:

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BERT Test operation

BRI S/U / PRI

TE ... / NT ...

Menu
- **Single tests**
  - **BERT**
    - **BERT start**
    - **BERT wait**
    - **B-channel loop**

→ Select number → Select service (see list) → Select B-channel → BERT active

BERT start → BERT wait active

BERT wait → B-channel loop wait active

BERT Test configuration

Menu
- **Settings**
  - **BERT**
    - **BERT time**
      - Durat.: ***00:01*** (hh:mm)
    - **Bit pattern S / U**
      - (2^15)-1
      - ***(2^11)-1***
      - User defined
    - **Pattern PRI**
      - like S/U
    - **Error level**
      - Threshold: ***1E-06***
    - **HRX value**
      - Value: ***15 %***

Bit pattern S / U → **User defined**
- Enter (binary): 0000000000000000

Lists

Services
Speech
UDI 64 kBit
3.1 kHz audio
7 kHz audio
DFU-TA
Telephony ISDN
Fax G3
Fax G4
Mixed Mode
Teletex
Videotex
Telex
OSI
Telephony 7 kHz
Video telephony 1
Video telephony 2
User specified 1
User specified 2
User specified 3

MegaBERT pattern
2^15-1
2^15-1 inverse
2^20/QRSS
2^20/QRSS/inverse
Space (0000)
Mark (1111)

BRI S/U

Leased line

Menu
- **Single tests**
  - **BERT**
    - **BERT start**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **D-channel**
    - **BERT wait**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **D-channel**
    - **B-channel loop**
      - **B-channel**
      - **all framed**

B-channel → B-chan. select → B-channel loop wait active

B-channel (64k) / **B-channel (128k)** / **D-channel** → B-chan. select → BERT active

BERT wait → B-chan. select → BERT wait active

PRI

Leased line

Menu
- **Single tests**
  - **BERT**
    - **BERT start**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **MegaBERT fr.**
      - **MegaBERT unfr.**
      - **D-channel**
    - **BERT wait**
      - **B-channel (64k)**
      - **B-channel (128k)**
      - **MegaBERT fr.**
      - **MegaBERT unfr.**
      - **D-channel**
    - **B-channel-loop**
      - **B-channel**
      - **all framed**
      - **all unframed**

B-channel → B-chan. select → B-channel loop wait active

B-channel (64k) / **B-channel (128k)** / **MegaBERT fr.** / **MegaBERT unfr.** / **D-channel** → B-chan. select → BERT active

BERT wait → B-chan. select → BERT wait active

Pattern select (see list) → 1. B-chan. select → 2. B-chan. select → BERT wait active

Pattern select (see list) → 1. B-chan. select → 2. B-chan. select → BERT active

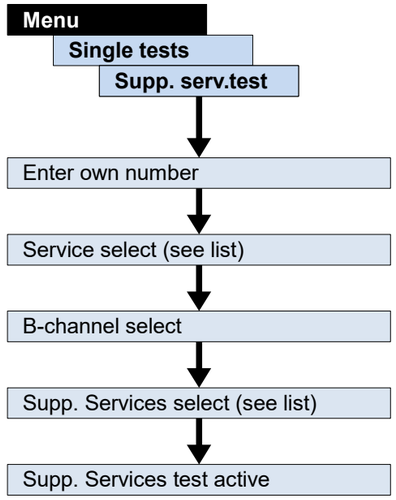
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Supplementary services Test operation

BRI S/U / PRI

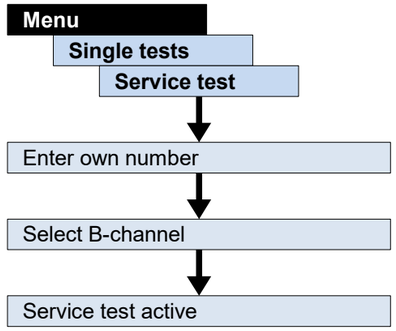
TE P-MP / TE P-P



Service test Test operation

BRI S/U / PRI

TE ... / NT ...



Lists

Services

- Speech
- UDI 64 kBit
- 3.1 kHz audio
- 7 kHz audio
- DFU-TA
- Telephony ISDN
- Fax G3
- Fax G4
- Mixed Mode
- Teletex
- Videotex
- Telex
- OSI
- Telephony 7 kHz
- Video telephony 1
- Video telephony 2
- User specified 1
- User specified 2
- User specified 3

Supp. services

- TP test
- HOLD test
- CLIP test
- CLIP / CLIR
- COLP/COLR
- DDI test
- MSN test
- CF test
- CFU
- CFB
- CFNR
- CW test
- CCBS test
- CCNR test
- MCID test
- 3PTY test
- ECTtest
- CUG test
- CD test
- AOC test
- SUB test
- UUS test

Cross reference:

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X.31 test – Test operation

BRI S/U / PRI

TE P-MP / TE P-P

Menu → Single tests → X.31 test → X.31 profiles 1-3

- Select X.31 profile
- Edit X.31 profile

Select X.31 profile:

- Automatic
- Manual
  - Enter TEI → Enter LCN → Edit / select number → X.31 test active
  - Looking for TEI → Edit / select number → X.31 test active

X.31 test – Test configuration

Menu → Settings → X.31 profiles → X.31 profiles 1-3

- Edit X.31 profile
- Select X.31 profile

Edit X.31 profile:

- **Packet number** — Packet countl: ***10***
- **TEI** — TEI: **
- **LCN** — LCN: ***1***
- **Packet size** — 16 Byte / 32 Byte / 64 Byte / ***128 Byte*** / 256 Byte
- **Agree packet size** — ***No*** / Yes
- **Window size**
- **Agree window size** — ***No*** / Yes
- **Throughput**
- **Agree throughput** — ***No*** / Yes
- **User data**
- **CUG** — ***No*** / Yes
- **CUG-Index** — Index: ***1***
- **D-Bit** — ***Local*** / End to end
- **Facilities**
- **Profilename** — ***X.31 profiles 1-3***

Menu Throughput

Throughput: 75 bit/s / 150 bit /s / 300 bit/s / 600 bit/s / ***1200 bit/s*** / 2400 bit/s / 4800 bit/s / 9600 bit/s

Menu Windowsize

Windowsize: 1 packet / ***2 packets*** / 3 packets / 4 packets / 5 packets / 6 packets / 7 packets

Menu User data

User data → **Format** — ***ASCII*** / HEX

- **ASCII data** → **ASCII data 1-3** → Edit ASCII data → **ASCII data 1-3**
- **HEX data** → **HEX data 1-3** → Edit HEX data
  - **HEX data 1** — *01 00 00 00 45 43 48 4F*
  - **HEX data 2** — *01 00 00 00 30 30 47 47*
  - **HEX data 3**

Menu Facilities

Facilities → **Facility 1-3** → Edit Facility → **Facility 1-3**

Cross reference:

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CF interrogation Test operation

BRI S/U

TE P-MP / TE P-P

Menu
→ Single tests
→ CF interrogation
→ CF interrogation test active

CF activation Test operation

BRI S/U

TE P-MP / TE P-P

Menu
→ Single tests
→ CF activation
→ Select service (see list services (CF))
→ Select Cfx type (see list Cfx types)
→ Enter own number
→ Enter / select remote number
→ CF activation test active

CF delete Test operation

BRI S/U

TE P-MP / TE P-P

Menu
→ Single tests
→ CF delete
→ Select service (see list services (CF))
→ Select Cfx type (see list Cfx types)
→ Enter own number
→ CF delete test active

Phone / connection Test operation

BRI S/U / PRI

TE … / NT …

Menu
→ Single tests
→ Phone / connection
→ Overlap sending / Enblock / Redialing / Keypad dial
→ Keypad info 1-3
→ Edit Keypad Info / Select keypad info
→ Edit / select number
→ Select service (see list)
→ Select B-channel
→ connection test active

Leased line

Menu
→ Single tests
→ Phone / connection
→ Select B-channel
→ Connection test active

Menu Keypad

Menu
→ Settings
→ ISDN
→ Keypad
→ Keypad info 1-3
→ Select keypad info / Edit keypad info
→ Keypad info 1-3

Lists

Services

speech
IDU 64 kBit
3.1 kHz audio
7 kHz audio
IDU TA
Telephony ISDN
Fax G3
Fax G4
Mixed Mode
Teletex
Videotex
Telex
OSI
Telephony7 kHz
Videotelephony 1
Videotelephony 2
User specified 1
User specified 2
User specified 3

Services (CF)

All
Spch
DFU
A3K1H
A7kHz
Tel31
TTX
FaxG4
ViSyB
ViTel
FaxG3
Tel7k

CFx types

CFU
CFB
CFNR

Cross reference:

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Time measuring Test operation

BRI S/U

TE ... / NT ... / Leased line

Menu → Single tests → Time measuring → Conn. setup time / B-channel delay / Interchannel delay

Conn. setup time	B-channel delay	Interchannel delay
Edit / select number	Edit / select number	Edit / select number
Select service (see list)	Select service (see list)	Select service (see list)
	Select B-channel	Select B-channel
Conn. setup test active	B-Channel delay test active	Interchannel delay test active

PRI

TE ... / NT ...

Menu → Single tests → Time measuring → Conn. Setup time

Edit/ select number → Select service (see list) → Select B-channel → Conn. setup test active

List

Services
Speech
IDU 64 kBit
3.1 kHz audio
7 kHz audio
IDU TA
Telephony ISDN
Fax G3
Fax G4
Mixed Mode
Teletex
Videotex
Telex
OSI
Telephony 7 kHz
Videotelephony 1
Videotelephony 2
User specified 1
User specified 2
User specified 3

Listening Test operation

BRI S

Monitor

Menu → Listening → Net side (NT) / Terminal (TE) / Both sides → Select B-channel → Listening active

PRI

Monitor

Menu → Listening → Net side (NT) / Terminal (TE) → Select B-channel → Listening active

Monitor Test operation

BRI S / PRI / POTS

Monitor

Menu → Start monitor → Monitor active

Auto test Test operation

BRI S / BRI U / PRI

TE P-MP / TE P-P

Menu → Test reports → Test no. 1-50 → Start

Enter test name → Enter own number → Edit / select number → Select service (see list) → Auto test active

Leased line

Menu → Test reports → Test no. 1-50 → Start

Enter test name → Select B-channel → Auto test active

Cross reference:

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PESQ Test operation

BRI S/U / POTS

Menu
Single tests
PESQ test
PESQ test active

ADSL / VDSL / G.fast / Ethernet / GPON

Menu
Single tests
VoIP PESQ test
VoIP tests
VoIP PESQ test
VoIP PESQ test active

PESQ Test configuration

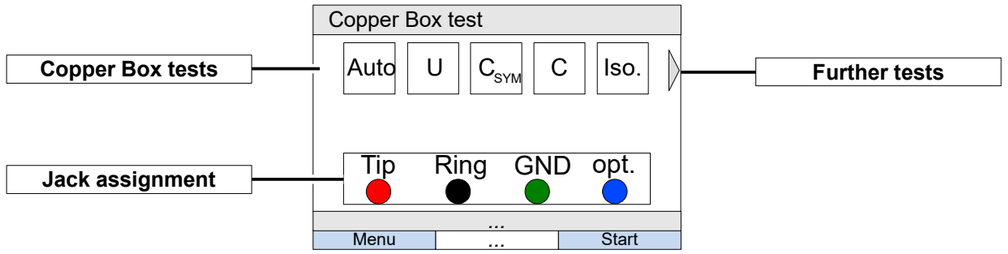
Menu
Settings
PESQ
Mode
ARGUS Loop
Send
Call number POTS
Call number ISDN
VoIP destination

Cross reference:

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IPTV / passive /scan	28
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VoIP call / call generator /wait	30
ISDN tests	**page**
BERT	34
Supp. Serv. test Service check	35
X.31	36
CF tests, Connect.	37
Time measuring Auto. Test	38
Copper tests	**page**
Copper Box	40-41
Line scope, TDR	42
Other tests	**page**
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Loop	31
Connection (POTS)	12
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PESQ	39
ETH cable tests	32-33
Others	**page**
Legend Protocol-overview	3
Hotkeys	4
Test leads	43-45

Legend status

ARGUS Copper Box



Menu hotkeys

ARGUS Copper Box

Key	Auto test	Voltage measurement	Capacitve symmetry measurement	Capacitance measurement	Isolation resistance measurement	Resistance symmetry measurement	Loop resistance measurement	DC current measurement	Unbalance	Near-end crosstalk	Termination detection	Fast cable check	Remote control of loop assistant
0	-	Reset	-	Reset		-	Reset				-		
1	Auto test prof.	-											
2	-												
3	-				Polarity	-							
4	-				Meas. range	-							
5	-				Meas. voltage	-							
6	Wire types	-	Wire types		-	Wire types	-						
7	QR code	-											
8	-		Susceptibility				-						
9	-	Display mode	-	Display mode		-	Display mode		-				
⎍	-												
#	-	Input resistance	-										
✆	Information bell												
✳ then 0	-												
✳ then 1	Copper Box info												
✳ then 2	-												
✳ then 3	-												
✳ then 6	-												
✳ then 7	Store	-											
✳ then #	Remote kit command	-											
	Remote kit												

Note

The hotkeys can vary depending on the selected sockets.

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Help	8, 12
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Copper Box

Copper Box Test operation

Menu
Single tests
Copper Box
Auto
U
CSym
C
Iso.
RSym
R
I=
LCL
NEXT
Sig.
Fast cable check
Rem.

→ Copper Box active

→ Select command

→ Send remote kit command and wait for response

Auto test

U | C | Iso. | R | ...

Tip | Ring | GND | opt.

...

Setting | Insert | Delete

→ Insert a new test and select the jack assignment

Lists

Commands
Short circuit a/T-b/R
Exchange connect
Short circ. A/T-b/R-GND
Open circuit
Tone mode
Port 1 loop 3 sec.
Port 1+3 connect
P1+2 & 3+4 connect
Port 1+4 connect
Port 1+4 loop
Port 4 loop 3 sec.
Port 2+4 connect
Port 3+4 connect

Copper Box
*1 **Auto test profiles** → **Auto test profile**
*2 **Polarity**
Standard
Invers
*2 **Measurement range**
Autom. (to 1 GΩ)
25 MΩ - 1 GΩ
2 MΩ - 500 MΩ
200 kΩ - 50 MΩ
100 Ω - 5 MΩ
*2 **Measurement voltage**
High voltage (105 V)
Low voltage (8 V)
*3 **Wire types** → see page 42
*4 **Susceptibility**
Robust for ext. voltage
Insecure (fast)
*5 **Display mode**
Normal display mode
Min/Max display mode
*8 **Input resistance** → see above
Remote kit command → see command
Remote kit
*5 **Information bell**
off
on

Autotest
Auto test sequence
Notice
Profile name
Autotest

*8 **Input resistance**
High-resistance
Low-resist. (200 kΩ Last)
*2 **Polarity**
*2 **Measurement range**
Measurement voltage
*4 **Susceptibility**
*6 **Start function**
Automatic start
Pause: manual loop
*7 **Command**
Short circuit a/T-b/R
Exchange connect
Short circ. a/T-b/R-GND
Open circuit
Tone mode
...
Waiting time
100 ms

Remote kit
TX91x + 900/905 Remote
TX91x (orange)
900/905 Remote (blue)

Copper Box Test configuration

Menu
Single tests
Copper Box
Auto
U
CSym
C
Iso.
RSym
R
I=
LCL
NEXT
Sig.
Fast cable check
Rem.

Hinweis

*1 = Auto test
*2 = Iso.
*3 = Autotest, CSym, C, RSym, R
*4 = CSym, C, Iso., RSym, R,
*5 = U, C, Iso., R, I=, LCL, NEXT
*6 = RSym, R
*7 = Rem.
*8 = U

Cross reference:

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Line scope Test operation

Copper tests

Menu
Single tests
Line scope
Line scope active

TDR Test operation

Copper tests

Menu
Single tests
TDR
TDR active

TDR Test configuration

Menu
Settings
Copper/Cable tests
Copper tests
Wire types

Selection wire type

Edit wire type

Speed of propagation
98.9
Line resistance
80 Ohm/km
Capacitance
39 nF/km
Name
PE 0.5 AWG24

V/2 in m/µs
98.9

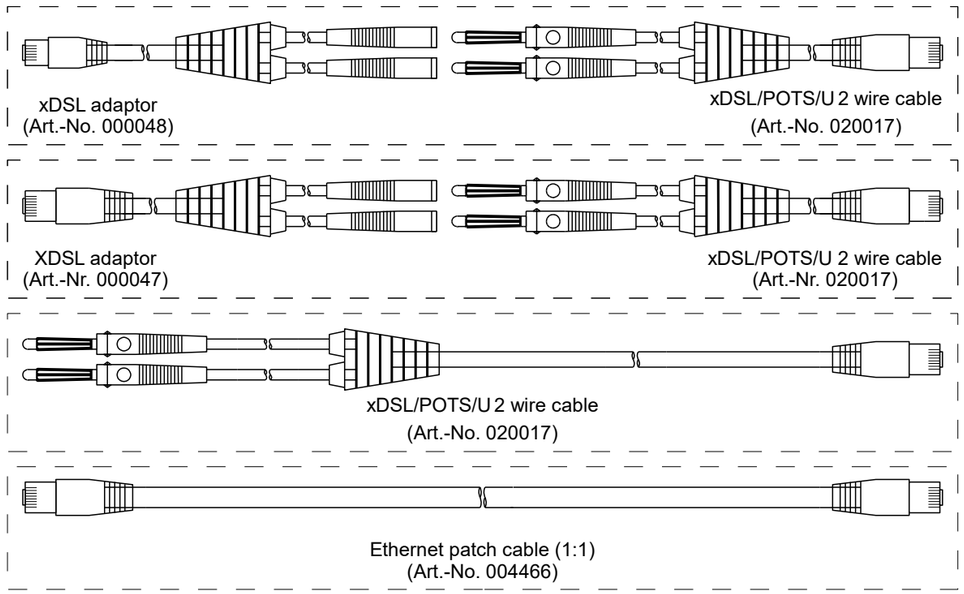
VoP in %
66.0

Test leads and pin assignments
ADSL, VDSL, G.fast, Ethernet, Ethernet cabling test

Cross reference:

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ADSL / VDSL / G.fast

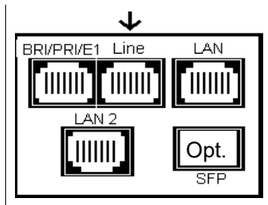


RJ11	Ban.	RJ45
3	rd	4
4	blk	5

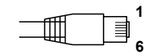
RJ45	Ban.	RJ45
4	rt	4
5	sw	5

Ban.	RJ45
rd	4
blk	5

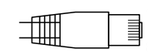
RJ45	RJ45
1-8	1-8



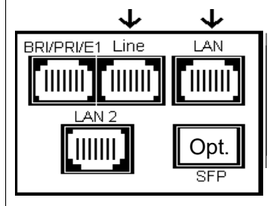
RJ11



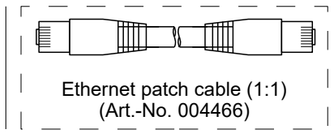
RJ45



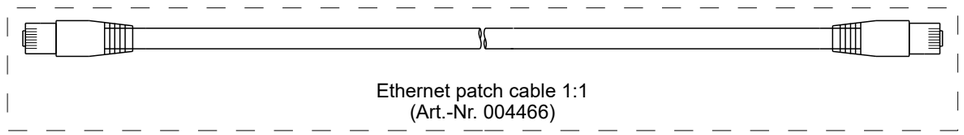
ADSL / VDSL / G.fast – Bridge / Router



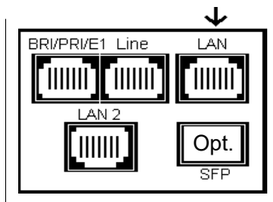
RJ45	RJ45
1-8	1-8



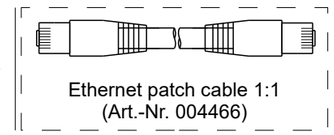
Ethernet



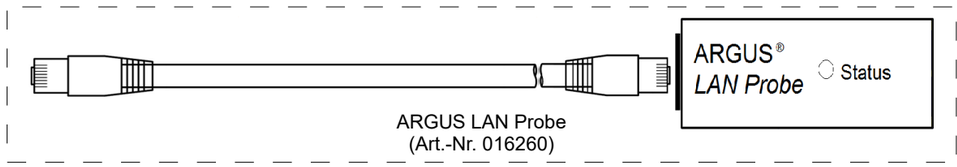
RJ45	RJ45
1-8	1-8



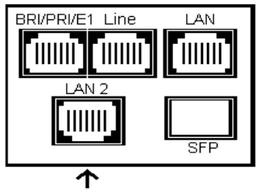
RJ45	RJ45
1-8	1-8



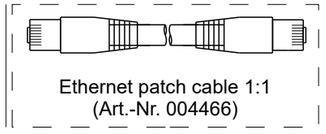
Ethernet cabling test



RJ45	RJ45
1-8	1-8



RJ45	RJ45
1-8	1-8

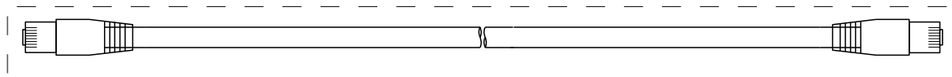


Test leads and pin assignments
BRI S, BRI U, PRI, POTS

Cross reference:

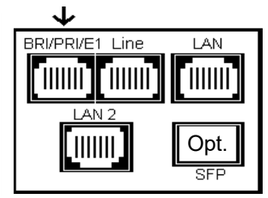
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BRI S

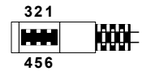


BRI S cable
(Art.-No. 000041)

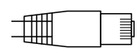
RJ45	RJ45
3/6	3/6
4/5	4/5



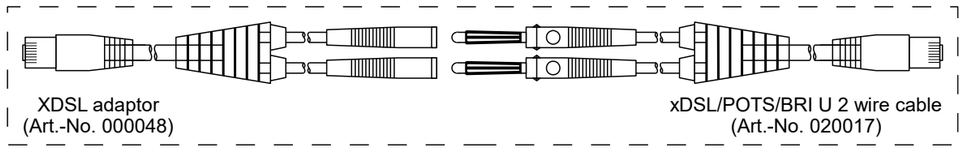
TAE



RJ45

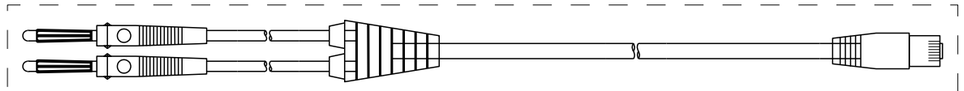


BRI U / POTS



XDSL adaptor
(Art.-No. 000048)

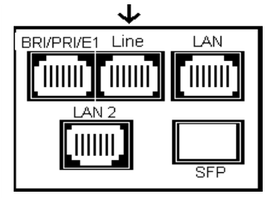
xDSL/POTS/BRI U 2 wire cable
(Art.-No. 020017)



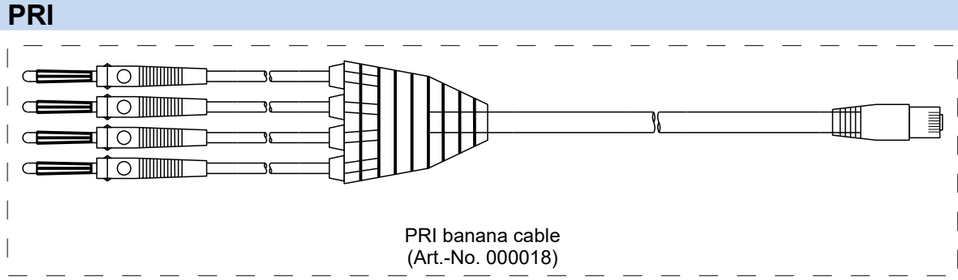
xDSL/POTS/BRI U 2 wire cable
(Art.-No. 020017)

RJ11	Ban.	RJ45
3	rd	4
4	blk	5

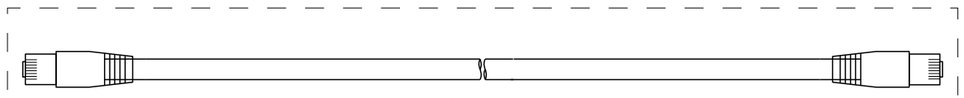
Ban.	RJ45
rd	4
blk	5



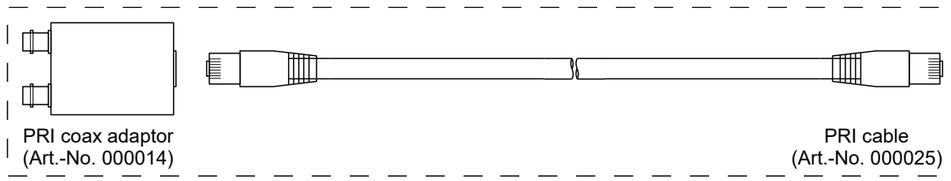
PRI



PRI banana cable
(Art.-No. 000018)

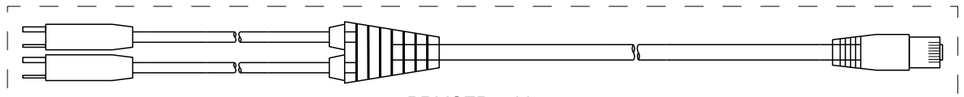


PRI cable
(Art.-No. 000025)



PRI coax adaptor
(Art.-No. 000014)

PRI cable
(Art.-No. 000025)



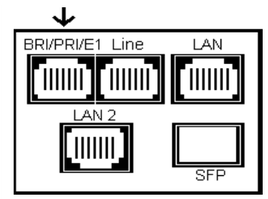
PRI ISEP cable
(Art.-No. 000098)

Ban.	RJ45
rd 1	8
rd 2	1
blk 1	7
blk 2	2

RJ45	RJ45
1/2	1/8
4/5	2/7

BNC	RJ45	RJ45
TX Out	1/2	1/8
RX In	4/5	2/7

ISEP	RJ45
1/2	1/8
4/5	2/7

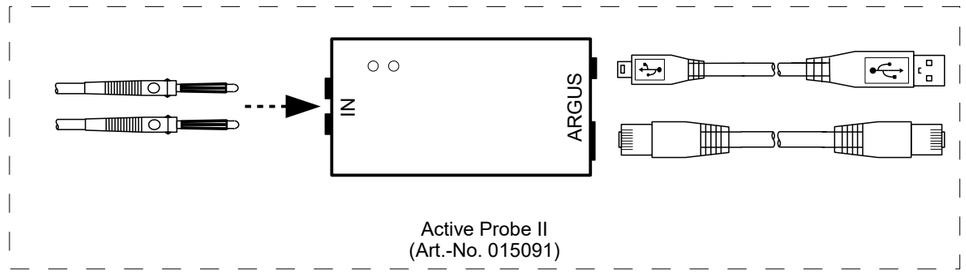


Test leads and pin assignments
Copper tests

Cross reference:

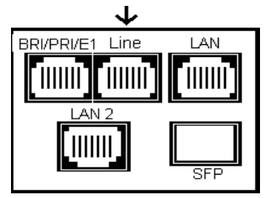
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PESQ	39
ETH cable tests	32-33
Others	**page**
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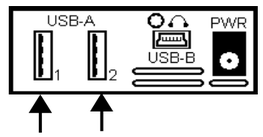
Copper tests: Line scope



Active Probe II
(Art.-No. 015091)

Ban.	RJ45
blk	4
blk	5





The Active Probe II needs to be powered by the USB-A interface. The power supply can be enabled in the settings or according tests.

Notes

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