



- ADSL
- VDSL
- SHDSL
- ETH
- ISDN
- POTS
- Cu
- TDR
- Data  
101101011011
- IP TV
- Vo IP
- MOS
- PESQ
- PC
- USB

# ARGUS<sup>®</sup> 145<sup>PLUS</sup>

» Overview of menu  
and test leads

valid from firmware version R2.60.00



Cross reference:

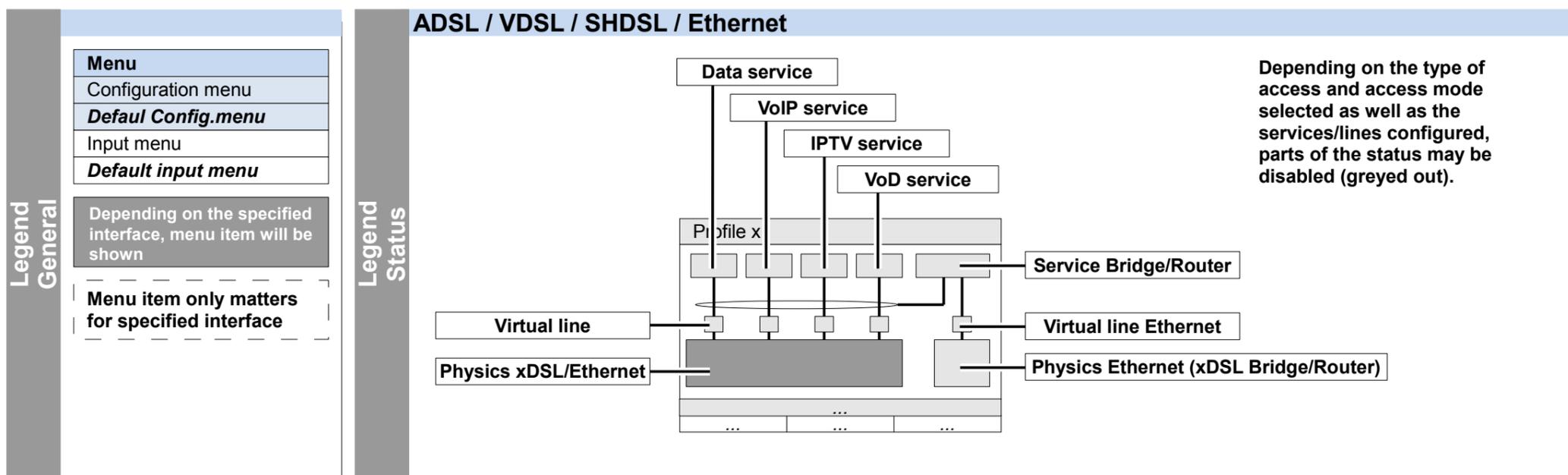
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| ADSL / VDSL / SHDSL / Ethernet |              |         | ADSL / VDSL / SHDSL / Ethernet |      |     |      |      |     |       |      |     |      |      |     |      |      |     |      |      |      |      |      |      |      |      |      |   |
|--------------------------------|--------------|---------|--------------------------------|------|-----|------|------|-----|-------|------|-----|------|------|-----|------|------|-----|------|------|------|------|------|------|------|------|------|---|
| Access                         | Mode         | Socket  | ADSL                           |      |     | VDSL |      |     | SHDSL |      |     |      |      |     |      |      | ETH |      |      |      |      |      |      |      |      |      |   |
|                                |              |         | Line                           | Line | LAN | Line | Line | LAN | ATM   |      |     |      | EFM  |     |      |      |     | TDM  | ITC  | HDLC |      |      |      |      |      |      |   |
| Protocol                       | ATM/Ethernet |         | Line                           | Line | LAN | Line | Line | LAN | Line  | Line | LAN | Line | Line | LAN | Line | Line | LAN | Line |   |
| without                        | -            | without |                                | a    | a   |      |      |     |       |      |     |      |      |     |      |      |     |      |      |      |      |      |      |      |      |      |   |
|                                | -            | IP      |                                |      |     | a    | •    |     | •     | a    |     |      |      |     | •    |      |     | •    | a    |      |      |      |      |      |      |      | • |
| IP                             | Yes          | EoA     | •                              |      |     |      |      |     |       | •    |     |      |      | •   |      |      |     |      |      |      |      |      |      |      |      |      |   |
|                                | No           | IPoA    | •                              |      |     |      |      |     |       |      |     |      |      |     |      |      |     |      |      |      |      |      |      |      |      |      |   |
| PPP                            | Yes          | PPPoE   | •                              |      |     | •    |      |     | •     |      |     |      |      | •   |      |      |     | •    |      |      |      |      |      |      |      |      | • |
|                                | No           | PPPoA   | •                              |      |     |      |      |     |       |      |     |      |      |     |      |      |     |      |      |      |      |      |      |      |      |      |   |
| PPTP                           | -            | PPTP    |                                |      |     |      |      |     |       |      |     |      |      |     |      |      |     |      |      |      |      |      |      |      |      |      | • |

• – Protocol configurable (see page 16)  
a – Protocol set automatically

**Note** The basic ARGUS 145plus package includes support for at least one DSL interface (ADSL, VDSL or SHDSL) 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

Cross reference:

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| IPTV / passive /scan   | 24    |
| Video on Demand  | 25    |
| VoIP call / wait   | 26    |
| ISDN tests   | page  |
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| Supp. Serv. test<br>Service check                                      | 30    |
| X.31   | 31    |
| CF-Tests<br>Connection   | 32    |
| Time measuring<br>Auto. Test   | 33    |
| Other tests  | page  |
| Loop   | 27    |
| Connection (POTS)  | 10    |
| Monitor (POTS)   | 33    |
| PESQ   | 34    |
| RC measurement   | 7     |
| Line scope<br>DMT analysis<br>TDR                                      | 35    |
| ETH cable tests  | 28    |
| Others   | page  |
| Legend<br>Protocol-overview  | 3     |
| Hotkeys  | 4     |
| Test leads   | 36-39 |

| Menu Hotkeys | ADSL / VDSL / SHDSL / Ethernet |                  |                             | BRI S / BRI U / PRI / POTS |                  |           |                   | Copper tests |              |                 |
|--------------|--------------------------------|------------------|-----------------------------|----------------------------|------------------|-----------|-------------------|--------------|--------------|-----------------|
|              | Key                            | ADSL / SHDSL ATM | VDSL / SHDSL EFM / Ethernet | Key                        | BRI S / BRI U    | PRI       | POTS              | Key          | Copper tests |                 |
|              | 0                              | ARGUS status     |                             | 0                          | ARGUS status     |           |                   |              | 0            | ARGUS status    |
|              | 1                              | Help hotkeys     |                             | 1                          | Help hotkeys     |           |                   |              | 1            | Help hotkeys    |
|              | 2                              | VPI/VCI scan     | -                           | 2                          | Service check    |           | -                 | 2            | -            |                 |
|              | 3                              | IP ping          |                             | 3                          | Supp. Serv. test |           | -                 | 3            | -            |                 |
|              | 4                              | Trace route      |                             | 4                          | Auto. Test       |           | -                 | 4            | -            |                 |
|              | 5                              | HTTP download    |                             | 5                          | Test data to PC  |           |                   |              | 5            | Test data to PC |
|              | 6                              | -                |                             | 6                          | Test manager     |           | -                 | 6            | -            |                 |
|              | 7                              | FTP download     |                             | 7                          | Numbers          |           |                   |              | 7            | -               |
|              | 9                              | IPTV             |                             | 9                          | BERT start       |           | -                 | 9            | -            |                 |
|              | ⌂                              | Status           |                             | ⌂                          | Level measuring  | L1 status | Voltage measuring | ⌂            | -            |                 |
|              | ⓞ                              | VoIP call        |                             | ⓞ                          | Connection       |           |                   |              | ⓞ            | -               |
|              | * then 0                       | Access           |                             | * then 0                   | Access           |           |                   |              | * then 0     | Access          |
|              | * then 1                       | ARGUS info       |                             | * then 1                   | ARGUS info       |           |                   |              | * then 1     | ARGUS info      |
|              | * then 2                       | Restore config.  |                             | * then 2                   | Restore config.  |           |                   |              | * then 2     | Restore config. |
|              | * then 3                       | Factory setting  |                             | * then 3                   | Factory setting  |           |                   |              | * then 3     | Factory setting |
|              | * then 6                       | -                |                             | * then 6                   | Test manager     |           | -                 | * then 6     | -            |                 |
|              | * then 7                       | Store            |                             | * then 7                   | -                |           |                   |              | * then 7     | -               |

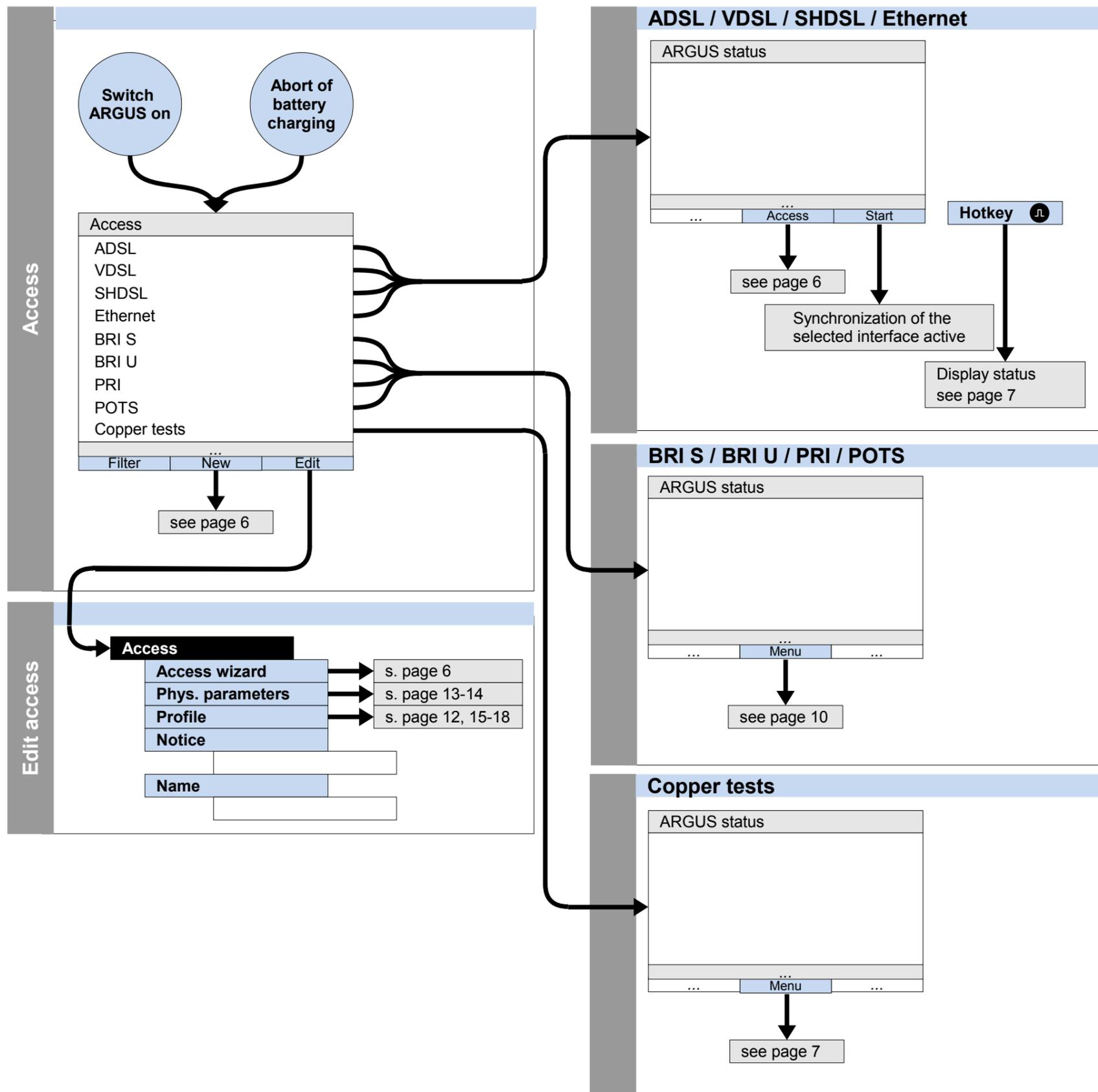
| Graphic hotkeys | ADSL / VDSL |                |
|-----------------|-------------|----------------|
|                 | Key         | ADSL / VDSL    |
|                 | 0           | -              |
|                 | 1           | -              |
|                 | 2           | Zoom           |
|                 | 3           | Cursor         |
|                 | 4           | -              |
|                 | 5           | -              |
|                 | 6           | -              |
|                 | 7           | -              |
|                 | 8           | -              |
|                 | 9           | x-axis setting |
|                 | ✓           | Continue       |
|                 | ⌂           | -              |
|                 | * then 7    | Store          |

| Test hotkeys | Copper tests |                               |                          |              |                    |
|--------------|--------------|-------------------------------|--------------------------|--------------|--------------------|
|              | Key          | Line scope (Frequency domain) | Line scope (Time domain) | DMT analysis | TDR                |
|              | 0            | -                             | -                        | -            | -                  |
|              | 1            | -                             | -                        | -            | -                  |
|              | 2            | Zoom                          | -                        | Zoom         |                    |
|              | 3            | Cursor                        |                          |              |                    |
|              | 4            | Measurement range             |                          | Tones        | Measurement range  |
|              | 5            | -                             | -                        | Mode         | Pulse width/height |
|              | 6            | -                             | -                        | -            | Wire type/VoP      |
|              | 7            | Probe                         |                          |              |                    |
|              | 8            | Symmetry                      |                          | -            | -                  |
|              | 9            | Time domain                   | Frequency domain         | -            | -                  |
|              | ✓            | -                             | -                        | New          | -                  |
|              | ⌂            | Run/Hold                      |                          | -            | Run/Hold           |
|              | * then 7     | Store                         |                          |              |                    |

# Switch on and access menu

## Cross reference:

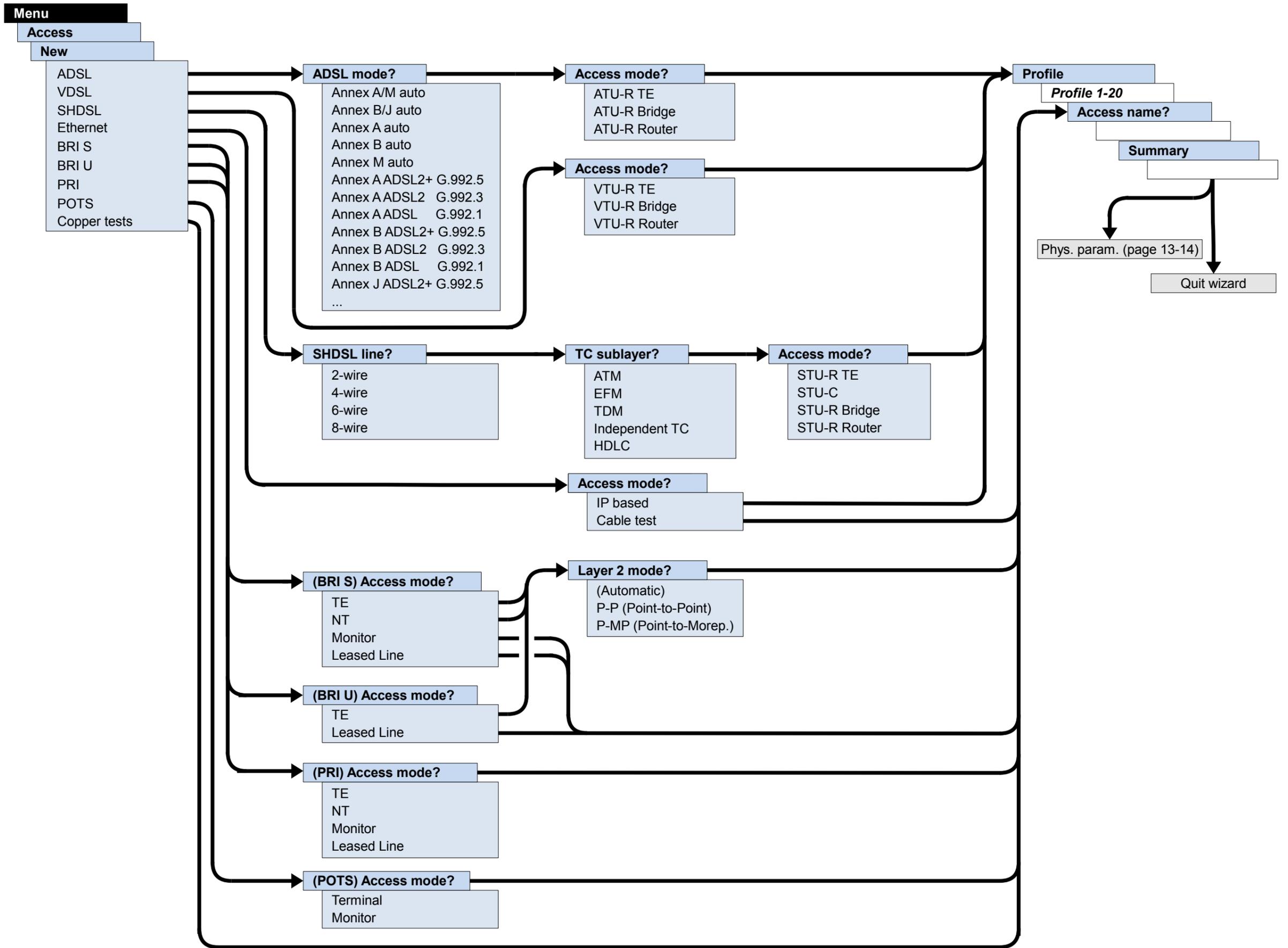
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| IP and ATM tests   | page  |
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| HTTP / FTP downl.<br>FTP upload<br>FTP server                          | 22    |
| VPI/VCI scan<br>ATM OAM ping   | 23    |
| IPTV / passive /scan   | 24    |
| Video on Demand  | 25    |
| VoIP call / wait   | 26    |
| ISDN tests   | page  |
| BERT   | 29    |
| Supp. Serv. test<br>Service check                                      | 30    |
| X.31   | 31    |
| CF-Tests<br>Connection   | 32    |
| Time measuring<br>Auto. Test   | 33    |
| Other tests  | page  |
| Loop   | 27    |
| Connection (POTS)  | 10    |
| Monitor (POTS)   | 33    |
| PESQ   | 34    |
| RC measurement   | 7     |
| Line scope<br>DMT analysis<br>TDR                                      | 35    |
| ETH cable tests  | 28    |
| Others   | page  |
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**Cross reference:**

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| HTTP / FTP downl.                                |       |
| FTP upload                                       | 22    |
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| VPI/VCI scan                                     |       |
| ATM OAM ping                                     | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
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| Supp. Serv. test                                 |       |
| Service check                                    | 30    |
| X.31   | 31    |
| CF-Tests   |       |
| Connection                                       | 32    |
| Time measuring                                   |       |
| Auto. Test                                       | 33    |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend   |       |
| Protocol-overview                                | 3     |
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Access wizard



# Main menu, Single tests, Test results, Status

(Access: ADSL, VDSL, SHDSL, Ethernet, Copper tests)

**Cross reference:**

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| Parallel tests                                   | 9     |
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| VoIP-Account                                     |       |
| ISDN / POTS                                      | 19-20 |
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| IP and ATM tests      | page |
|-----------------------|------|
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| HTTP / FTP downl.     |      |
| FTP upload            | 22   |
| FTP server            |      |
| VPI/VCI scan          |      |
| ATM OAM ping          | 23   |
| IPTV / passive / scan | 24   |
| Video on Demand       | 25   |
| VoIP call / wait      | 26   |

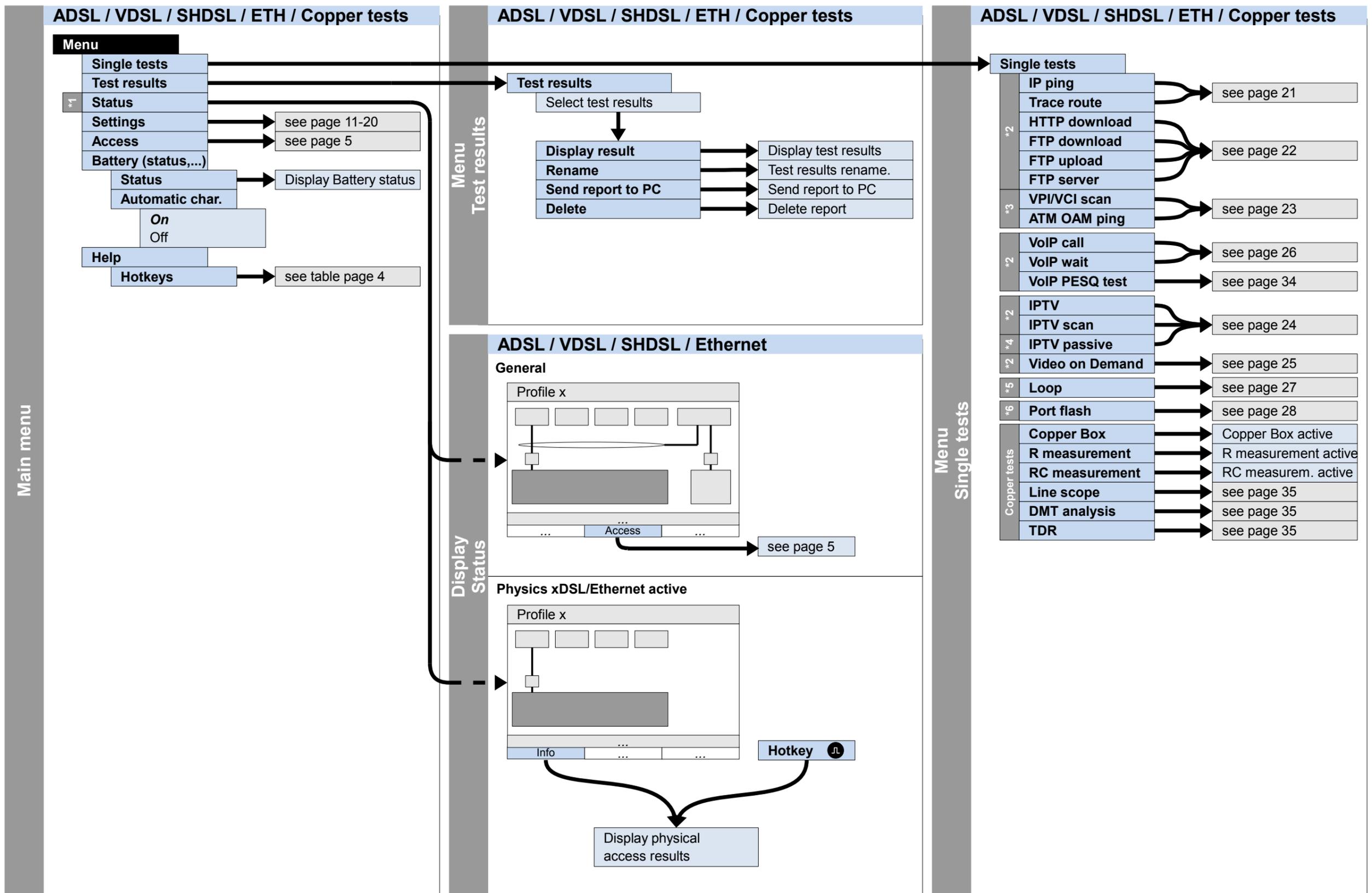
| ISDN tests       | page |
|------------------|------|
| BERT             | 29   |
| Supp. Serv. test |      |
| Service check    | 30   |
| X.31             | 31   |
| CF-Tests         |      |
| Connection       | 32   |
| Time measuring   |      |
| Auto. Test       | 33   |

| Other tests       | page |
|-------------------|------|
| Loop              | 27   |
| Connection (POTS) | 10   |
| Monitor (POTS)    | 33   |
| PESQ              | 34   |
| RC measurement    | 7    |
| Line scope        |      |
| DMT analysis      | 35   |
| TDR               |      |
| ETH cable tests   | 28   |

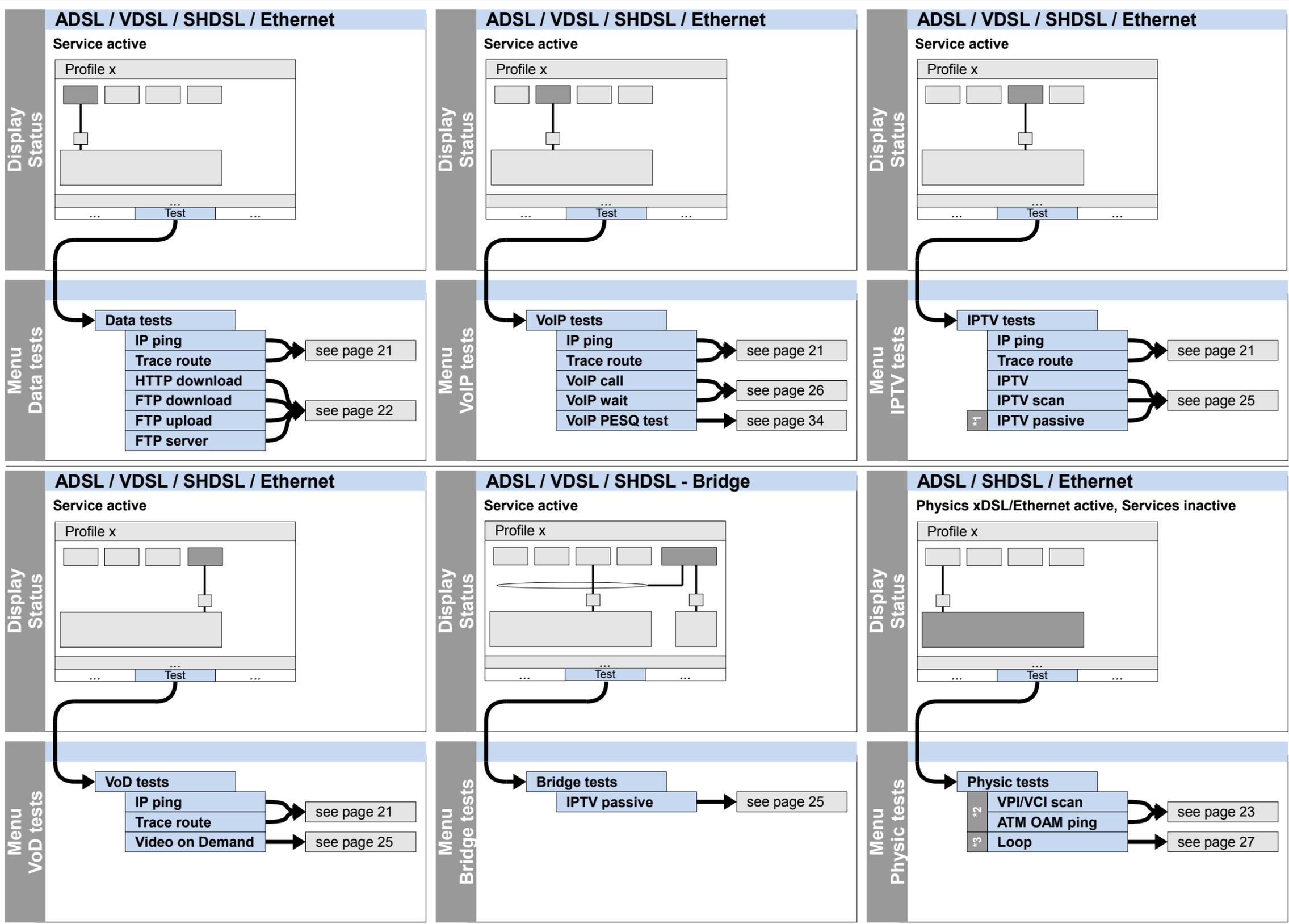
| Others            | page  |
|-------------------|-------|
| Legend            |       |
| Protocol-overview | 3     |
| Hotkeys           | 4     |
| Test leads        | 36-39 |



| Note |   |                                   |
|------|---|-----------------------------------|
| *1   | = ADSL, VDSL, SHDSL, Ethernet           | *4 = xDSL-Bridge/Router, Ethernet |
| *2   | = ADSL, VDSL, SHDSL ATM / EFM, Ethernet | *5 = SHDSL EFM, Ethernet          |
| *3   | = ADSL, SHDSL ATM                       | *6 = Ethernet cable tests         |

**Cross reference:**

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| <b>IP and ATM tests</b>  |       |
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| HTTP / FTP downl.<br>FTP upload<br>FTP server                          | 22    |
| VPI/VCI scan<br>ATM OAM ping   | 23    |
| IPTV / passive / scan  | 24    |
| Video on Demand  | 25    |
| VoIP call / wait   | 26    |
| <b>ISDN tests</b>  |       |
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| Supp. Serv. test<br>Service check                                      | 30    |
| X.31   | 31    |
| CF-Tests<br>Connection   | 32    |
| Time measuring<br>Auto. Test   | 33    |
| <b>Other tests</b>   |       |
| Loop   | 27    |
| Connection (POTS)  | 10    |
| Monitor (POTS)   | 33    |
| PESQ   | 34    |
| RC measurement   | 7     |
| Line scope<br>DMT analysis<br>TDR                                      | 35    |
| ETH cable tests  | 28    |
| <b>Others</b>  |       |
| Legend   | 3     |
| Protocol-overview  | 3     |
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**Note**

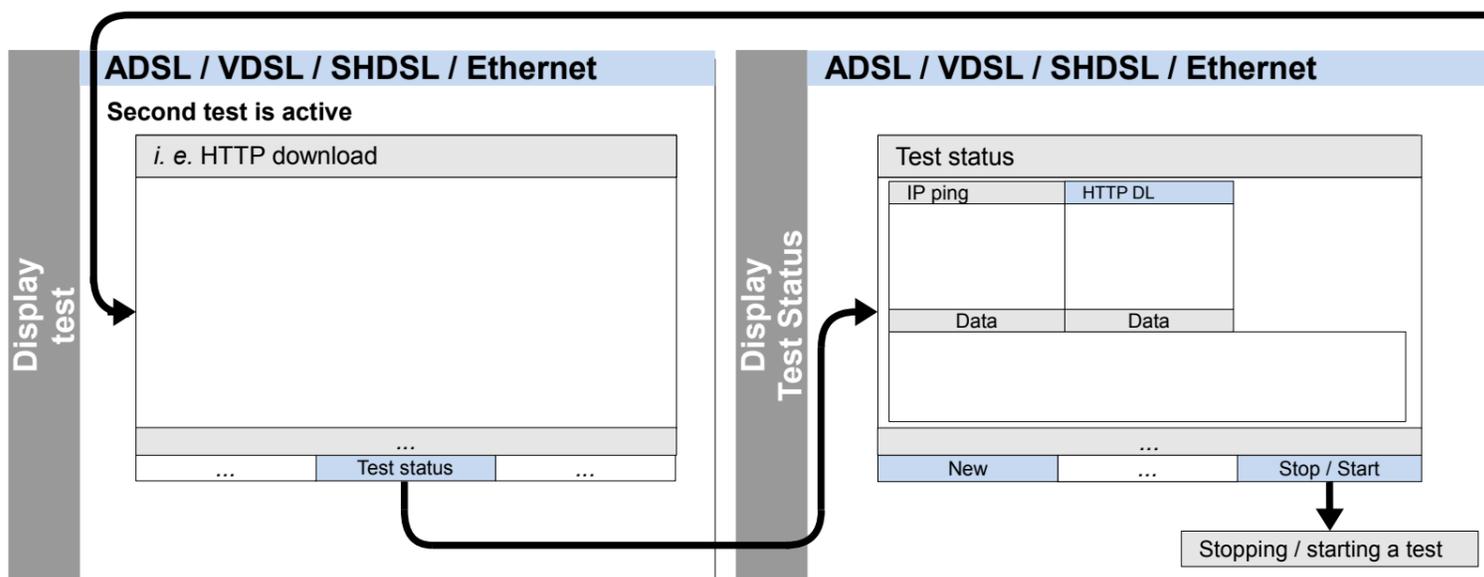
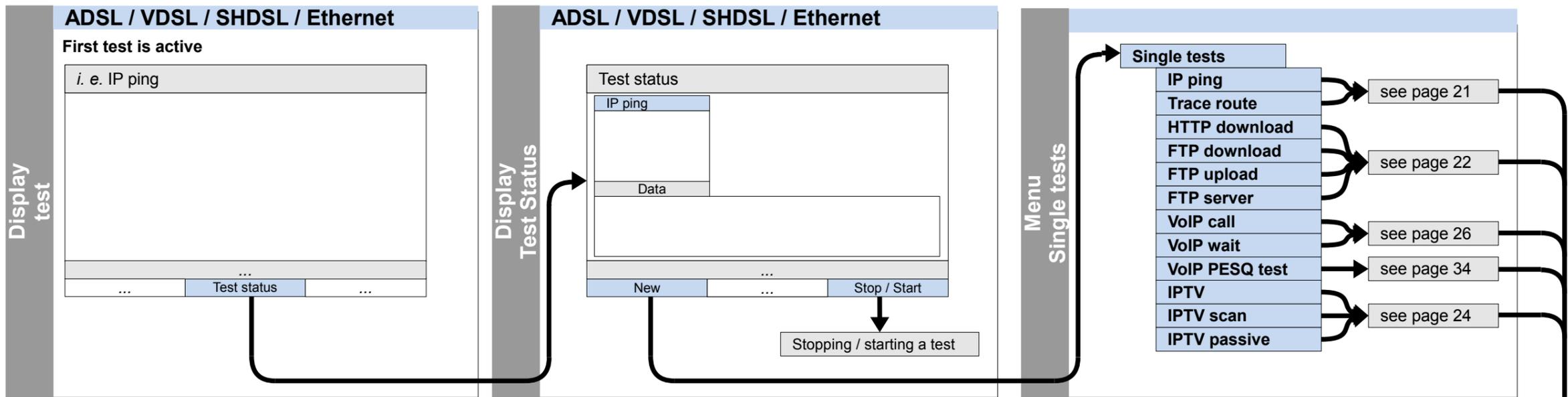
- \*1 = xDSL-Router
- \*2 = ADSL, SHDSL ATM
- \*3 = SHDSL EFM, Ethernet

# Service tests: Parallel tests

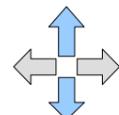
## Test status

### Cross reference:

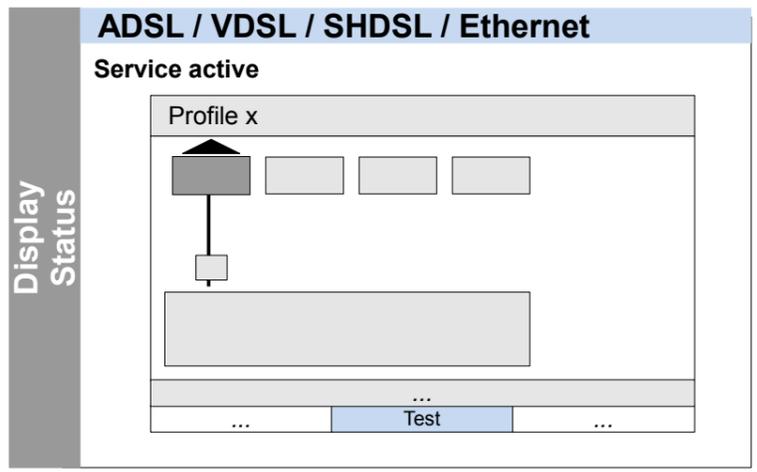
| Menu   | page  |
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| Single tests                                     |       |
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| Test results                                     | 7, 9  |
| Status   | 7     |
| Parallel tests                                   | 9     |
| Settings   | 11-20 |
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| Profile, Virt.-Profile                           |       |
| VoIP-Account                                     | 12-18 |
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| Battery (status,...)                             | 7, 10 |
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| <b>IP and ATM tests</b>                          |       |
| IP ping / Trace route                            | 21    |
| HTTP / FTP downl.                                |       |
| FTP upload                                       | 22    |
| FTP server                                       |       |
| VPI/VCI scan                                     |       |
| ATM OAM ping                                     | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
| BERT   | 29    |
| Supp. Serv. test                                 |       |
| Service check                                    | 30    |
| X.31   | 31    |
| CF-Tests   |       |
| Connection                                       | 32    |
| Time measuring                                   |       |
| Auto. Test                                       | 33    |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend   |       |
| Protocol-overview                                | 3     |
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| Test leads                                       | 36-39 |



**Note** The Display and operation of VoIP and IPTV tests are like those of Data tests.



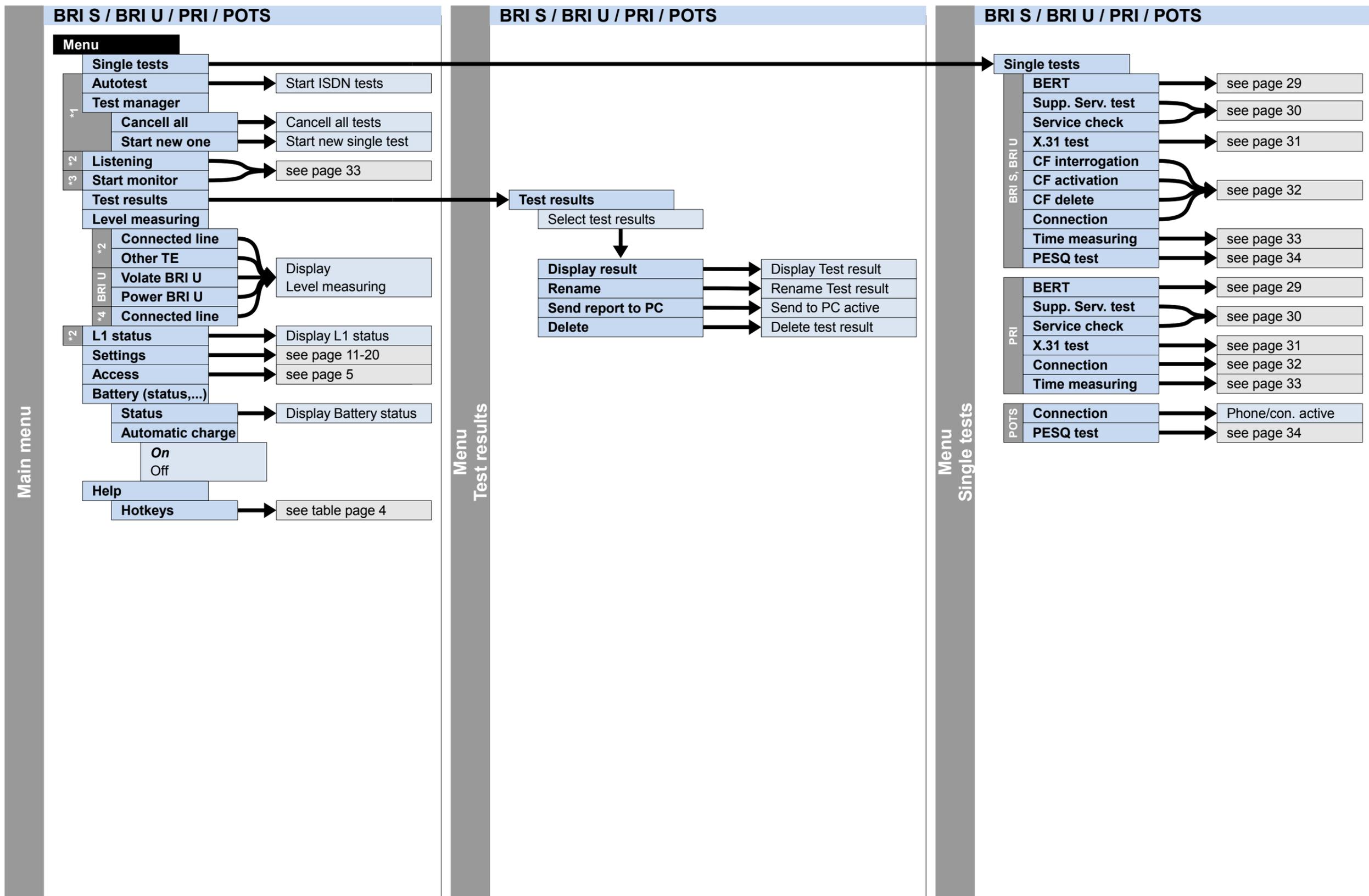
Using the cursor keys for switching between status and Test status.



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

Cross reference:

| Menu   | page  |
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| Access wizard                                    | 6     |
| Main menu  | 7, 10 |
| Single tests                                     |       |
| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
| Test results                                     | 7, 9  |
| Status   | 7     |
| Parallel tests                                   | 9     |
| Settings   | 11-20 |
| Device   | 11    |
| Profile, Virt.-Profile                           |       |
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| ISDN / POTS                                      | 19-20 |
| Battery (status,...)                             | 7, 10 |
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| <b>IP and ATM tests</b>                          |       |
| IP ping / Trace route                            | 21    |
| HTTP / FTP downl.                                |       |
| FTP upload                                       | 22    |
| FTP server                                       |       |
| VPI/VCI scan                                     |       |
| ATM OAM ping                                     | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
| BERT   | 29    |
| Supp. Serv. test                                 | 30    |
| Service check                                    |       |
| X.31   | 31    |
| CF-Tests   |       |
| Connection                                       | 32    |
| Time measuring                                   |       |
| Auto. Test                                       | 33    |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend   | 3     |
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Note

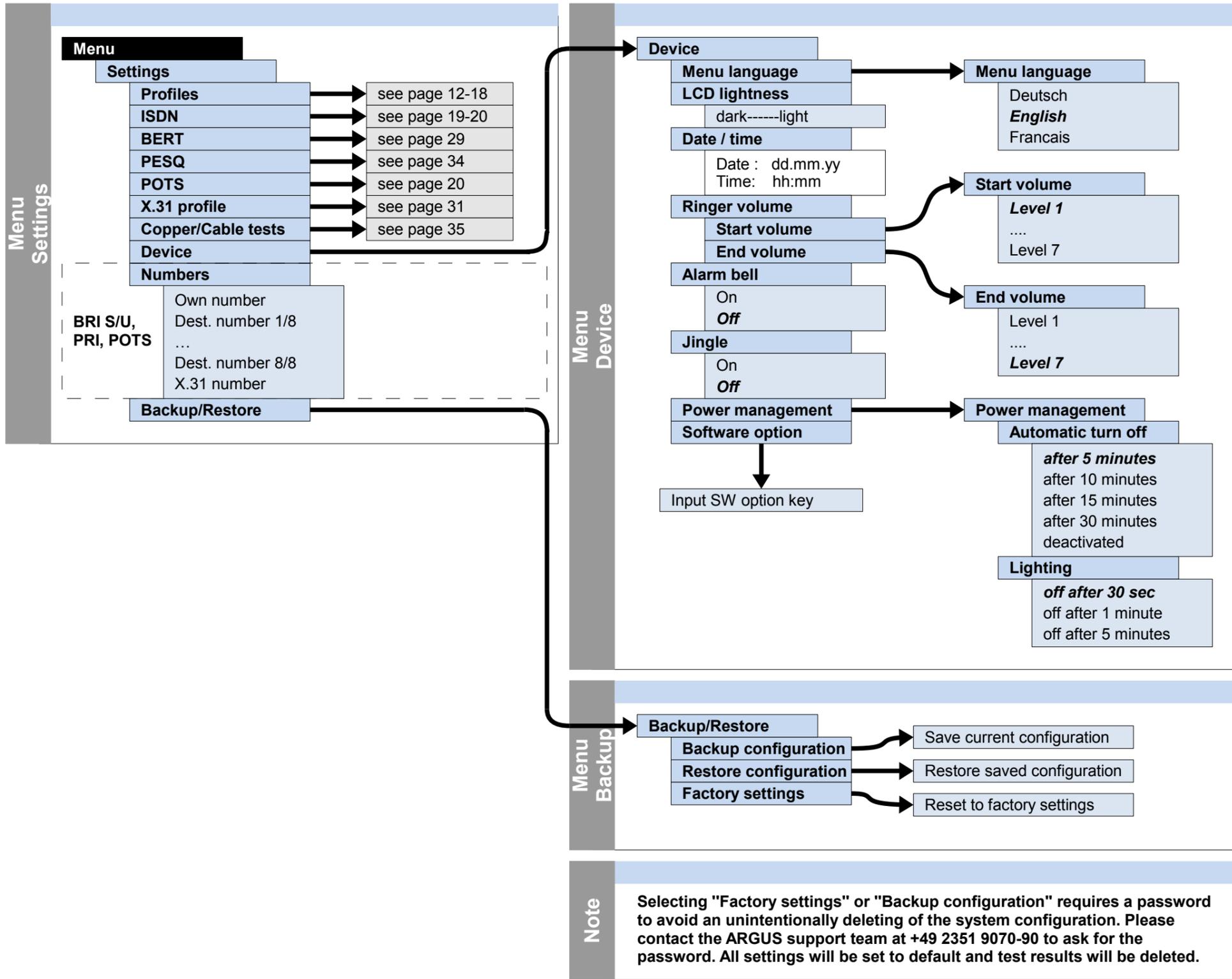
\*1 = BRI S, BRI U, PRI    \*4 = POTS  
 \*2 = BRI S, PRI  
 \*3 = BRI S, PRI, POTS

# Settings and reset

## Trace/remote, Device, Numbers, Backup/Restore

### Cross reference:

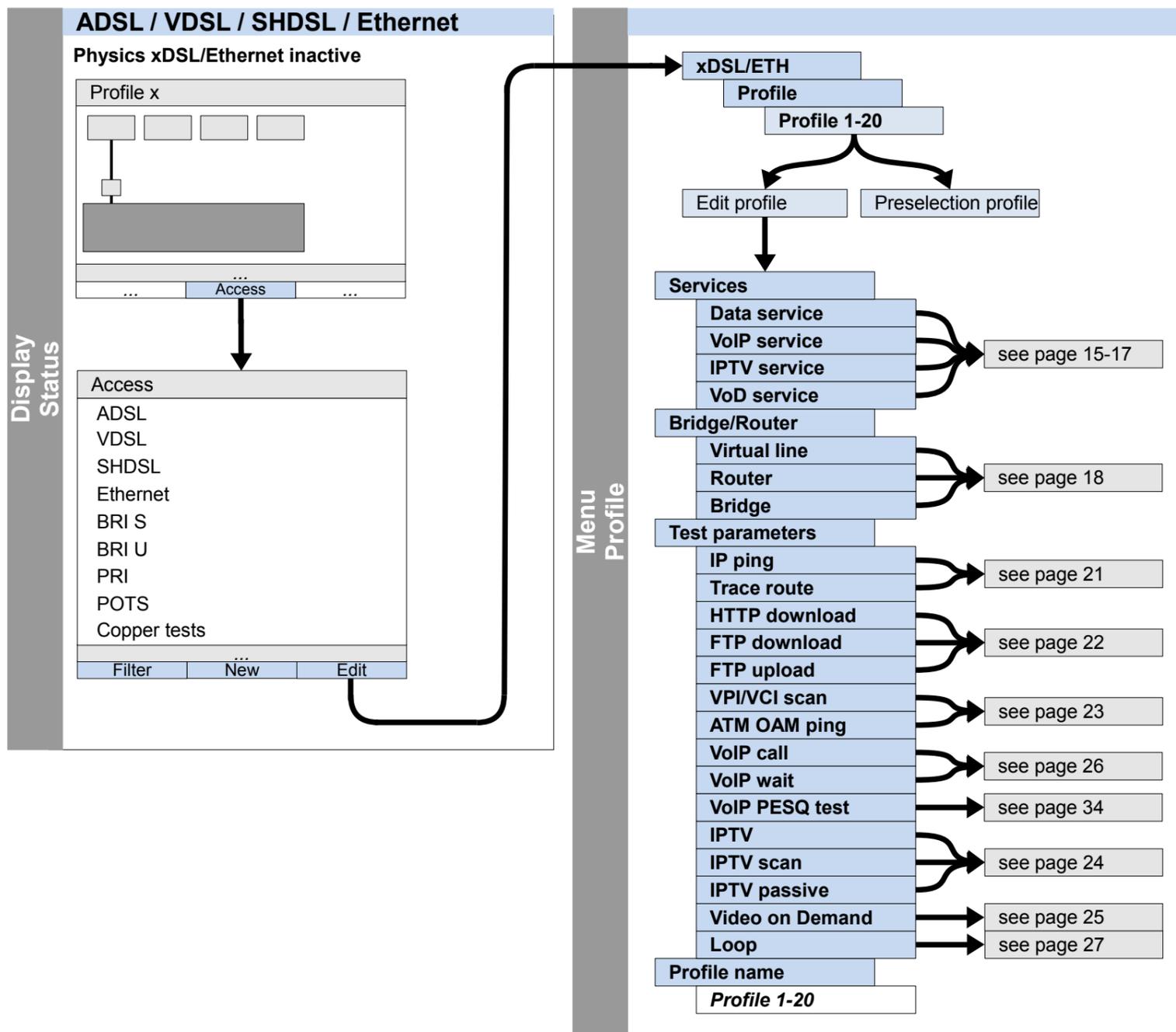
| Menu   | page  |
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| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
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| VoIP-Account                                     | 12-18 |
| ISDN / POTS                                      | 19-20 |
| Battery (status,...)                             | 7, 10 |
| Help   | 7, 10 |
| <b>IP and ATM tests</b>                          |       |
| IP ping / Trace route                            | 21    |
| HTTP / FTP downl.                                |       |
| FTP upload                                       | 22    |
| FTP server                                       |       |
| VPI/VCI scan                                     |       |
| ATM OAM ping                                     | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
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| Supp. Serv. test                                 |       |
| Service check                                    | 30    |
| X.31   | 31    |
| CF-Tests   |       |
| Connection                                       | 32    |
| Time measuring                                   |       |
| Auto. Test                                       | 33    |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend   |       |
| Protocol-overview                                | 3     |
| Hotkeys  | 4     |
| Test leads                                       | 36-39 |



# Settings Profile

## Cross reference:

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|--|-------|
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| Single tests<br>Data-, VoIP-, IPTV-,<br>VoD-, Bridge-,<br>Physic tests | 7-8   |
| Test results   | 7, 9  |
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| Settings   | 11-20 |
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| VPI/VCI scan<br>ATM OAM ping   | 23    |
| IPTV / passive /scan   | 24    |
| Video on Demand  | 25    |
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| ISDN tests   | page  |
| BERT   | 29    |
| Supp. Serv. test<br>Service check                                      | 30    |
| X.31   | 31    |
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| Time measuring<br>Auto. Test   | 33    |
| Other tests  | page  |
| Loop   | 27    |
| Connection (POTS)  | 10    |
| Monitor (POTS)   | 33    |
| PESQ   | 34    |
| RC measurement   | 7     |
| Line scope<br>DMT analysis<br>TDR                                      | 35    |
| ETH cable tests  | 28    |
| Others   | page  |
| Legend   | 3     |
| Protocol-overview  | 3     |
| Hotkeys  | 4     |
| Test leads   | 36-39 |

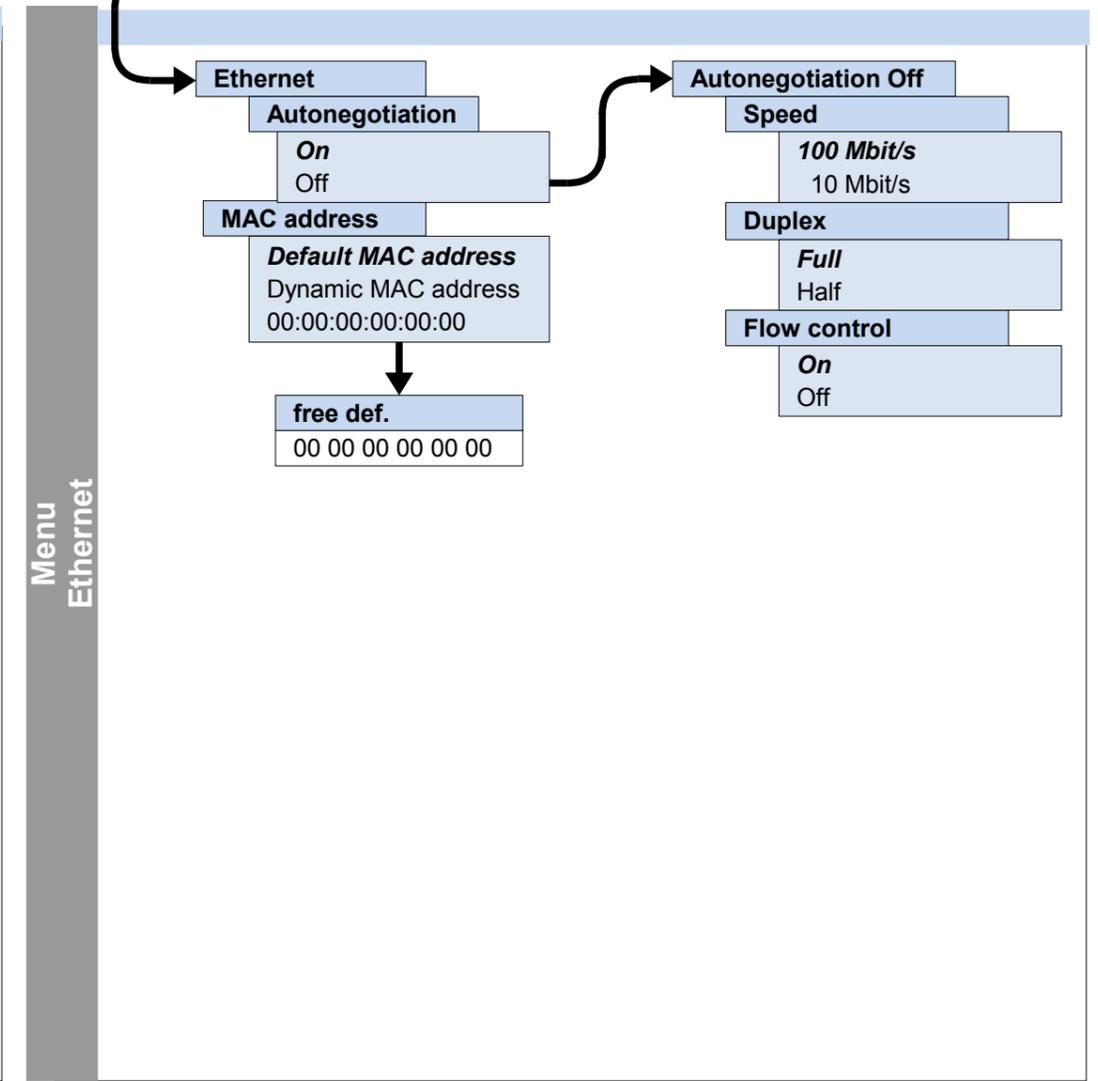
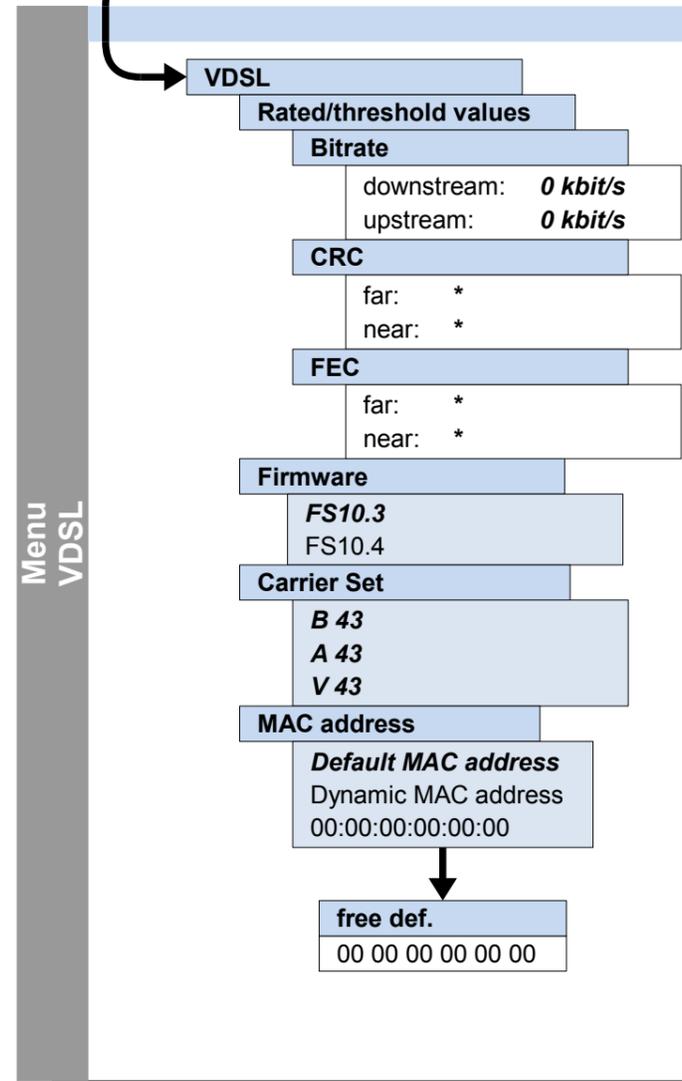
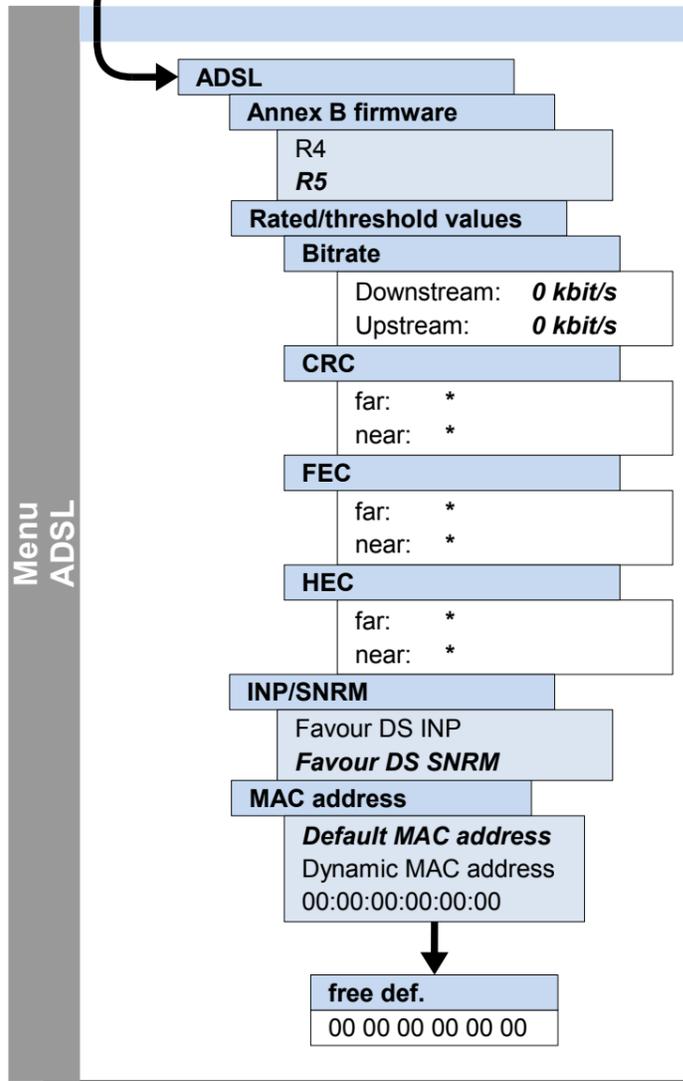
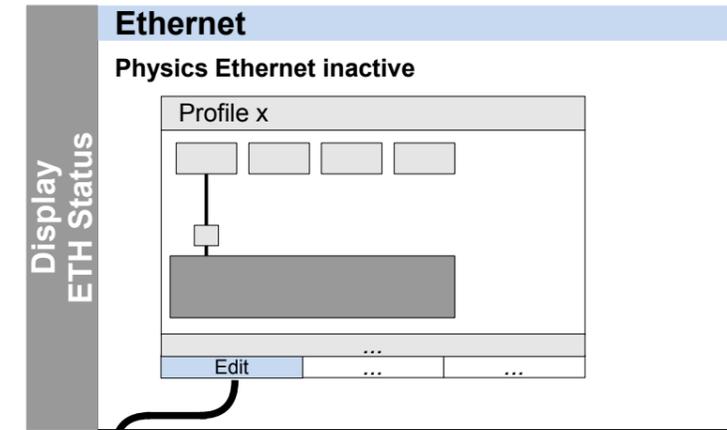
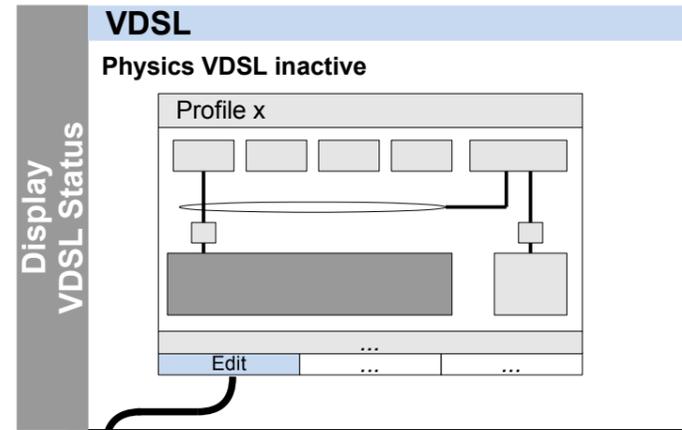
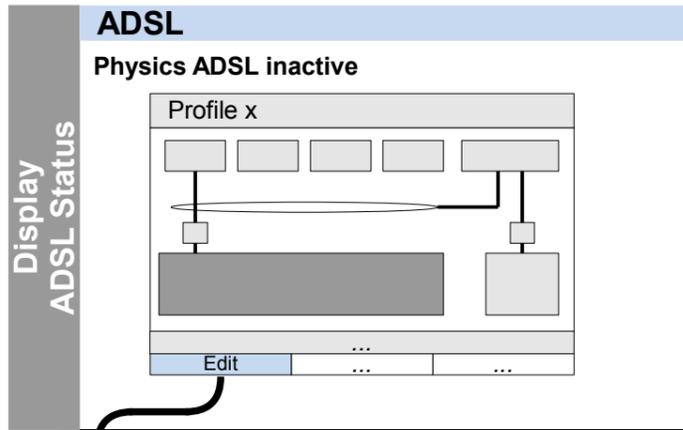


# Settings

## Phys. parameters: ADSL, VDSL, Ethernet

### Cross reference:

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|--|-------|
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| Access wizard  | 6     |
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| Parallel tests   | 9     |
| Settings   | 11-20 |
| Device   | 11    |
| Profile, Virt.-Profile<br>VoIP-Account                                 | 12-18 |
| ISDN / POTS  | 19-20 |
| Battery (status,...)   | 7, 10 |
| Help   | 7, 10 |
| IP and ATM tests   | page  |
| IP ping / Trace route  | 21    |
| HTTP / FTP downl.<br>FTP upload<br>FTP server                          | 22    |
| VPI/VCI scan<br>ATM OAM ping   | 23    |
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| BERT   | 29    |
| Supp. Serv. test<br>Service check                                      | 30    |
| X.31   | 31    |
| CF-Tests<br>Connection   | 32    |
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| Other tests  | page  |
| Loop   | 27    |
| Connection (POTS)  | 10    |
| Monitor (POTS)   | 33    |
| PESQ   | 34    |
| RC measurement   | 7     |
| Line scope<br>DMT analysis<br>TDR                                      | 35    |
| ETH cable tests  | 28    |
| Others   | page  |
| Legend   | 3     |
| Protocol-overview  |       |
| Hotkeys  | 4     |
| Test leads   | 36-39 |

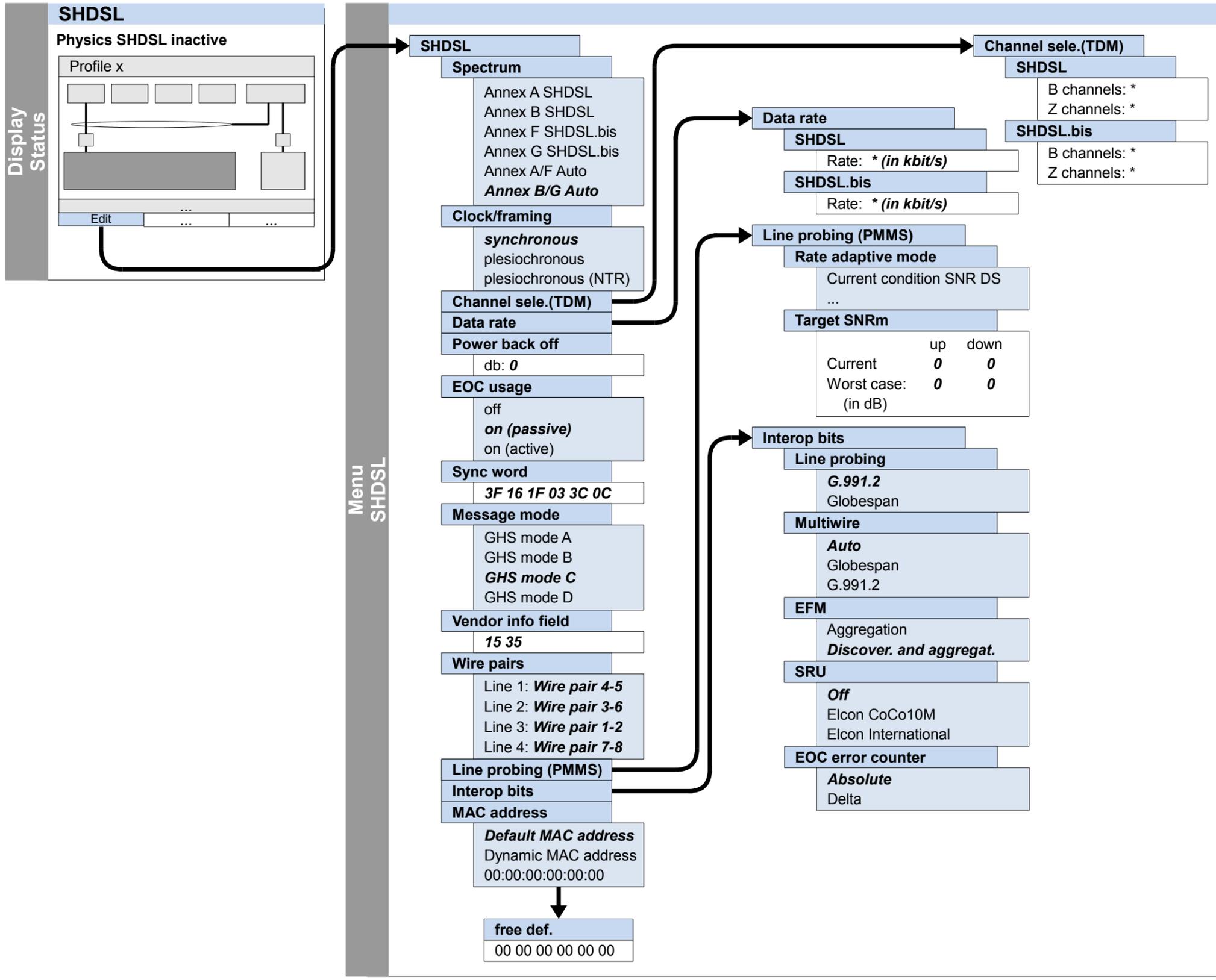


# Settings

## Phys. parameters: SHDSL

### Cross reference:

| Menu   | page  |
|--|-------|
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| Access wizard                                    | 6     |
| Main menu  | 7, 10 |
| Single tests                                     |       |
| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
| Test results                                     | 7, 9  |
| Status   | 7     |
| Parallel tests                                   | 9     |
| Settings   | 11-20 |
| Device   | 11    |
| Profile, Virt.-Profile                           |       |
| VoIP-Account                                     | 12-18 |
| ISDN / POTS                                      | 19-20 |
| Battery (status,...)                             | 7, 10 |
| Help   | 7, 10 |
| <b>IP and ATM tests</b>                          |       |
| IP ping / Trace route                            | 21    |
| HTTP / FTP downl.                                |       |
| FTP upload                                       | 22    |
| FTP server                                       |       |
| VPI/VCI scan                                     |       |
| ATM OAM ping                                     | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
| BERT   | 29    |
| Supp. Serv. test                                 |       |
| Service check                                    | 30    |
| X.31   | 31    |
| CF-Tests   |       |
| Connection                                       | 32    |
| Time measuring                                   |       |
| Auto. Test                                       | 33    |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend   |       |
| Protocol-overview                                | 3     |
| Hotkeys  | 4     |
| Test leads                                       | 36-39 |

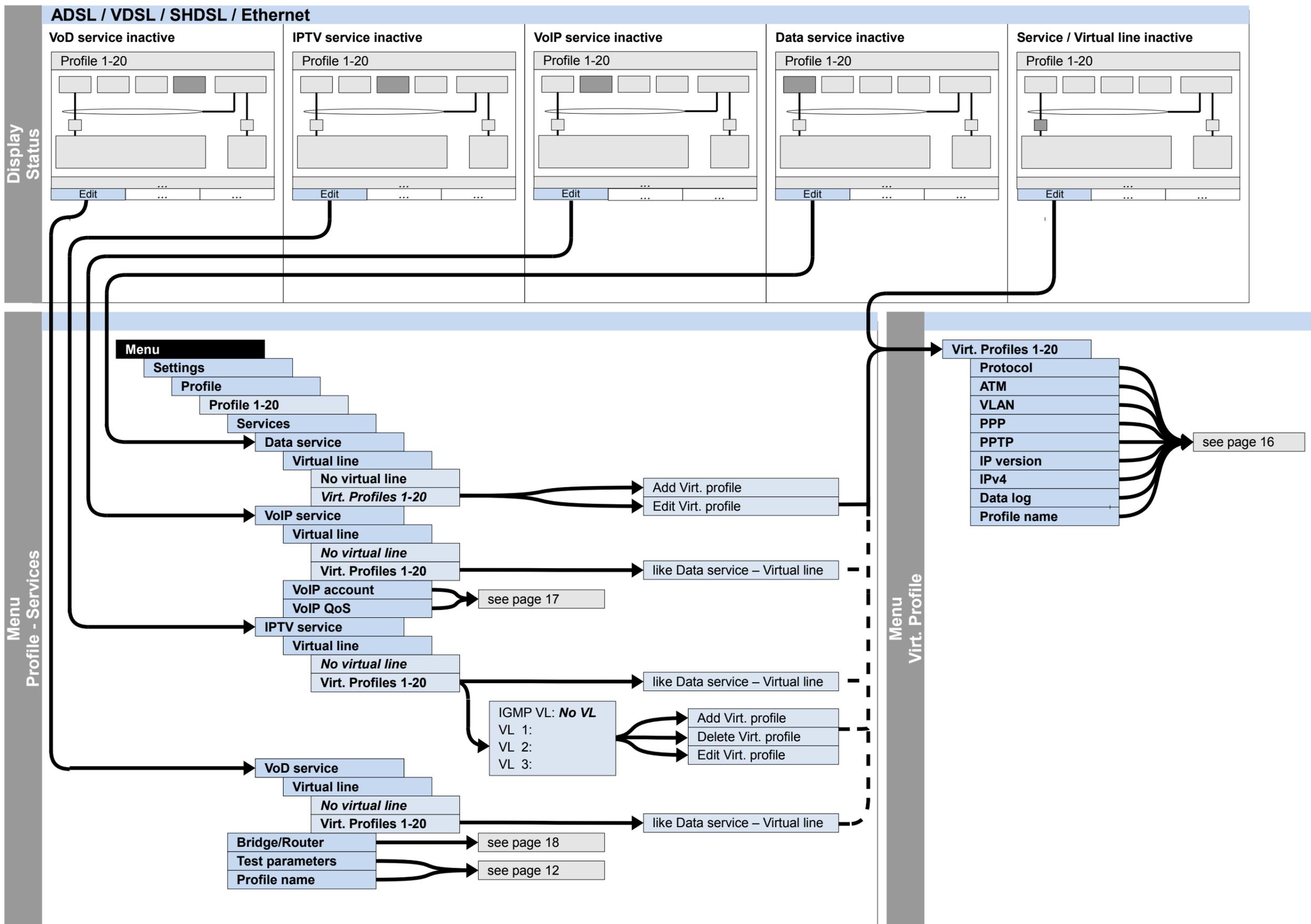


# Settings

## Profile – Services (Data service, VoIP service, IPTV service, VoD service), Virt. Profile

### Cross reference:

| Menu   | page  |
|--|-------|
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| Main menu  | 7, 10 |
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| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
| Test results                                     | 7, 9  |
| Status   | 7     |
| Parallel tests                                   | 9     |
| Settings   | 11-20 |
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| VoIP-Account                                     |       |
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| Battery (status,...)                             | 7, 10 |
| Help   | 7, 10 |
| <b>IP and ATM tests</b>                          |       |
| IP ping / Trace route                            | 21    |
| HTTP / FTP downl.                                |       |
| FTP upload                                       | 22    |
| FTP server                                       |       |
| VPI/VCI scan                                     | 23    |
| ATM OAM ping                                     |       |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
| BERT   | 29    |
| Supp. Serv. test                                 | 30    |
| Service check                                    |       |
| X.31   | 31    |
| CF-Tests   | 32    |
| Connection                                       |       |
| Time measuring                                   | 33    |
| Auto. Test                                       |       |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend   | 3     |
| Protocol-overview                                |       |
| Hotkeys  | 4     |
| Test leads                                       | 36-39 |

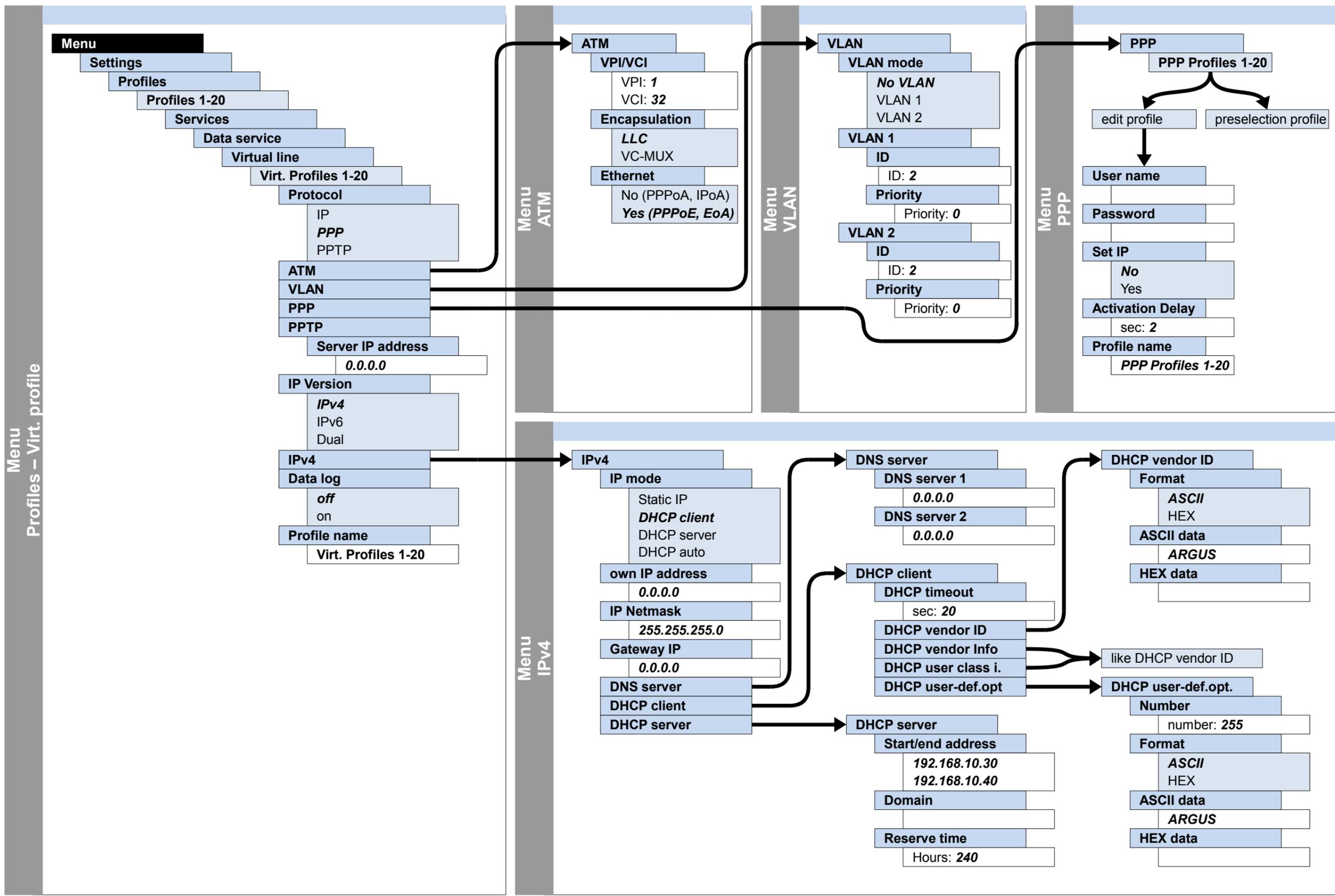


# Settings

## Profiles – Virt. profile (Protocol, ATM, VLAN, PPP, PPTP, IP, Data log)

### Cross reference:

| Menu   | page  |
|--|-------|
| Access   | 5     |
| Access wizard                                    | 6     |
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| Single tests                                     |       |
| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
| Test results                                     | 7, 9  |
| Status   | 7     |
| Parallel tests                                   | 9     |
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| Device   | 11    |
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| ISDN / POTS                                      | 19-20 |
| Battery (status,...)                             | 7, 10 |
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| <b>IP and ATM tests</b>                          |       |
| IP ping / Trace route                            | 21    |
| HTTP / FTP downl. FTP upload FTP server          | 22    |
| VPI/VCI scan ATM OAM ping                        | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
| BERT   | 29    |
| Supp. Serv. test Service check                   | 30    |
| X.31   | 31    |
| CF-Tests Connection                              | 32    |
| Time measuring Auto. Test                        | 33    |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope DMT analysis TDR                      | 35    |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend Protocol-overview                         | 3     |
| Hotkeys  | 4     |
| Test leads                                       | 36-39 |



Menu Profiles – Virt. profile

Note

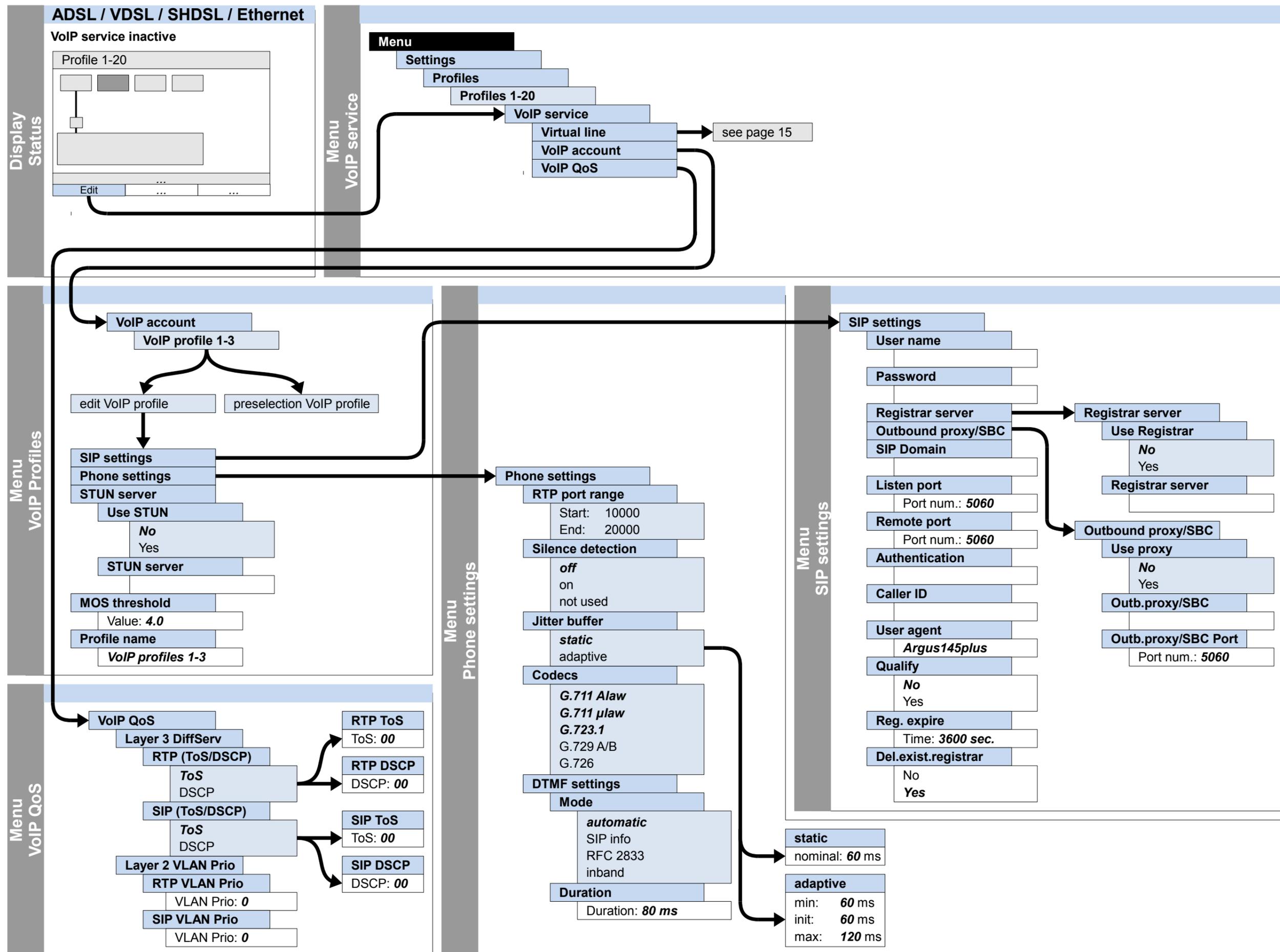
On page 3 you get a survey on the protocols, which are supported on the various interfaces.

# Settings

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

### Cross reference:

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| Access wizard  | 6     |
| Main menu  | 7, 10 |
| Single tests<br>Data-, VoIP-, IPTV-,<br>VoD-, Bridge-,<br>Physic tests | 7-8   |
| Test results   | 7, 9  |
| Status   | 7     |
| Parallel tests   | 9     |
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| Device   | 11    |
| Profile, Virt.-Profile<br>VoIP-Account                                 | 12-18 |
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| <b>IP and ATM tests</b>  |       |
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| HTTP / FTP downl.<br>FTP upload<br>FTP server                          | 22    |
| VPI/VCI scan<br>ATM OAM ping   | 23    |
| IPTV / passive /scan   | 24    |
| Video on Demand  | 25    |
| VoIP call / wait   | 26    |
| <b>ISDN tests</b>  |       |
| BERT   | 29    |
| Supp. Serv. test<br>Service check                                      | 30    |
| X.31   | 31    |
| CF-Tests<br>Connection   | 32    |
| Time measuring<br>Auto. Test   | 33    |
| <b>Other tests</b>   |       |
| Loop   | 27    |
| Connection (POTS)  | 10    |
| Monitor (POTS)   | 33    |
| PESQ   | 34    |
| RC measurement   | 7     |
| Line scope<br>DMT analysis<br>TDR                                      | 35    |
| ETH cable tests  | 28    |
| <b>Others</b>  |       |
| Legend   | 3     |
| Protocol-overview  | 3     |
| Hotkeys  | 4     |
| Test leads   | 36-39 |

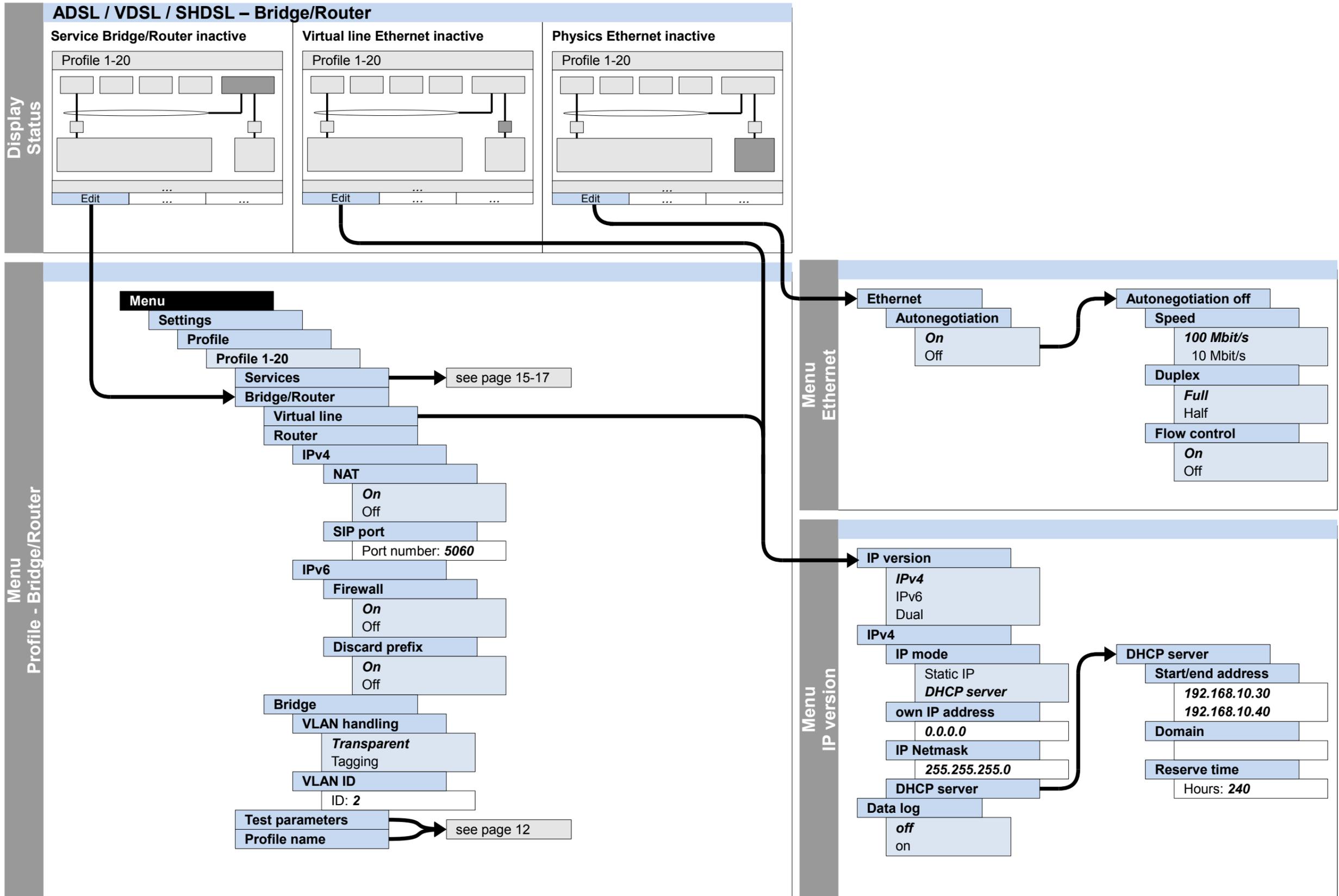


# Settings

## Profile – Bridge/Router (Ethernet, Virtual line, Router)

### Cross reference:

| Menu   | page  |
|--|-------|
| Access   | 5     |
| Access wizard                                    | 6     |
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| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
| Test results                                     | 7, 9  |
| Status   | 7     |
| Parallel tests                                   | 9     |
| Settings   | 11-20 |
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| Profile, Virt.-Profile                           |       |
| VoIP-Account                                     | 12-18 |
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| IP and ATM tests                                 | page  |
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| HTTP / FTP downl.                                |       |
| FTP upload                                       | 22    |
| FTP server                                       |       |
| VPI/VCI scan                                     |       |
| ATM OAM ping                                     | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| ISDN tests                                       | page  |
| BERT   | 29    |
| Supp. Serv. test                                 |       |
| Service check                                    | 30    |
| X.31   | 31    |
| CF-Tests   |       |
| Connection                                       | 32    |
| Time measuring                                   |       |
| Auto. Test                                       | 33    |
| Other tests                                      | page  |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| Others   | page  |
| Legend   | 3     |
| Protocol-overview                                |       |
| Hotkeys  | 4     |
| Test leads                                       | 36-39 |

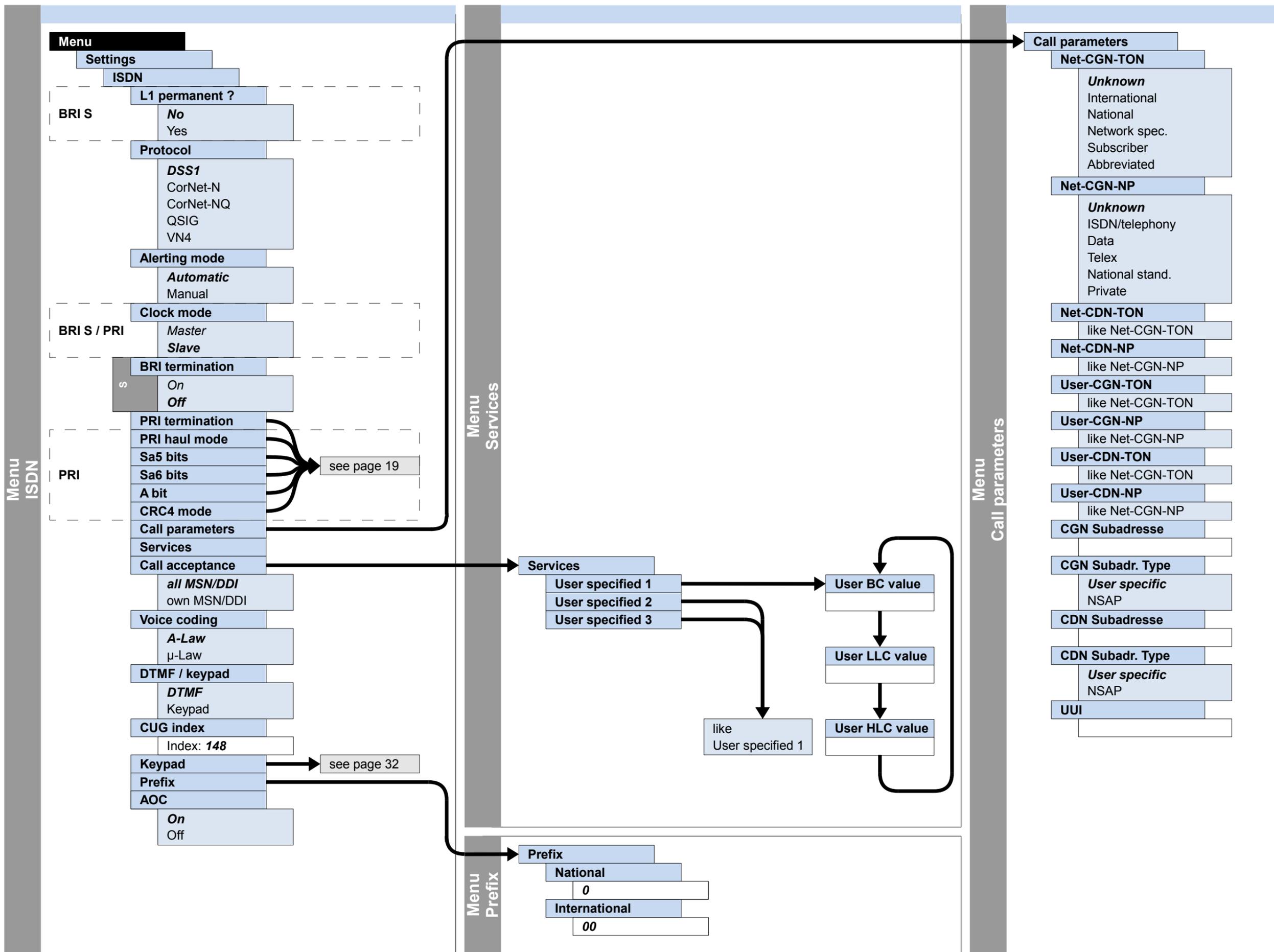


# Settings

## ISDN (General, BRI S, BRI U)

### Cross reference:

| Menu   | page  |
|--|-------|
| Access   | 5     |
| Access wizard                                    | 6     |
| Main menu  | 7, 10 |
| Single tests                                     |       |
| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
| Test results                                     | 7, 9  |
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| Parallel tests                                   | 9     |
| Settings   | 11-20 |
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| Profile, Virt.-Profile                           |       |
| VoIP-Account                                     | 12-18 |
| ISDN / POTS                                      | 19-20 |
| Battery (status,...)                             | 7, 10 |
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| <b>IP and ATM tests</b>                          |       |
| IP ping / Trace route                            | 21    |
| HTTP / FTP downl.                                |       |
| FTP upload                                       |       |
| FTP server                                       | 22    |
| VPI/VCI scan                                     |       |
| ATM OAM ping                                     | 23    |
| IPTV / passive /scan                             | 24    |
| Video on Demand                                  | 25    |
| VoIP call / wait                                 | 26    |
| <b>ISDN tests</b>                                |       |
| BERT   | 29    |
| Supp. Serv. test                                 |       |
| Service check                                    | 30    |
| X.31   | 31    |
| CF-Tests   |       |
| Connection                                       | 32    |
| Time measuring                                   |       |
| Auto. Test                                       | 33    |
| <b>Other tests</b>                               |       |
| Loop   | 27    |
| Connection (POTS)                                | 10    |
| Monitor (POTS)                                   | 33    |
| PESQ   | 34    |
| RC measurement                                   | 7     |
| Line scope                                       |       |
| DMT analysis                                     | 35    |
| TDR  |       |
| ETH cable tests                                  | 28    |
| <b>Others</b>                                    |       |
| Legend   |       |
| Protocol-overview                                | 3     |
| Hotkeys  | 4     |
| Test leads                                       | 36-39 |



# Settings ISDN (PRI), POTS

### Cross reference:

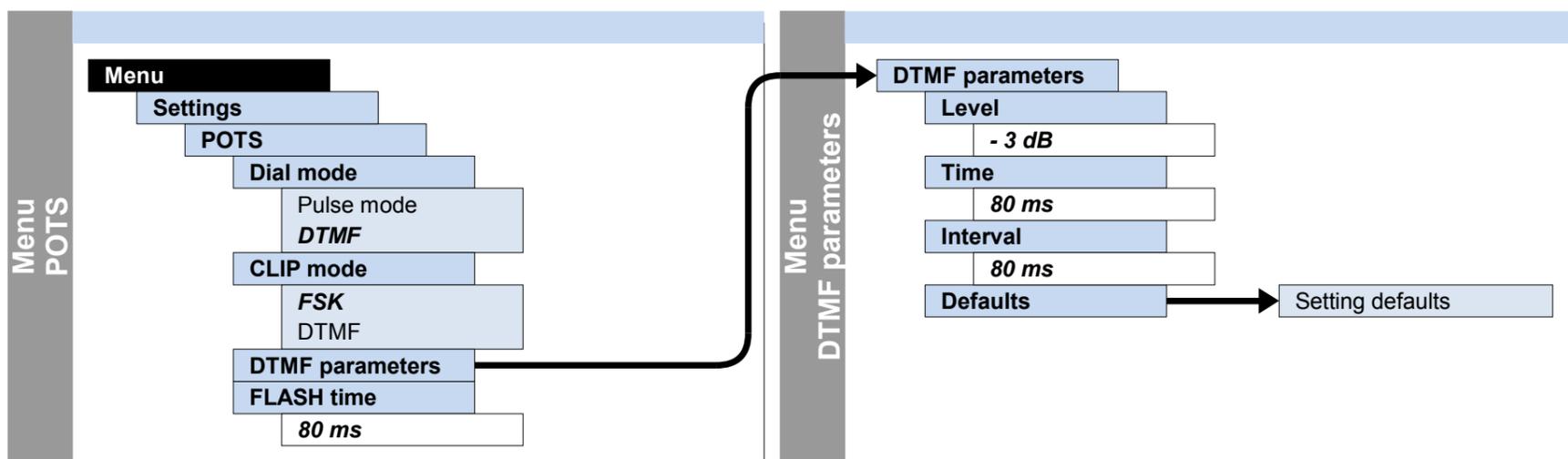
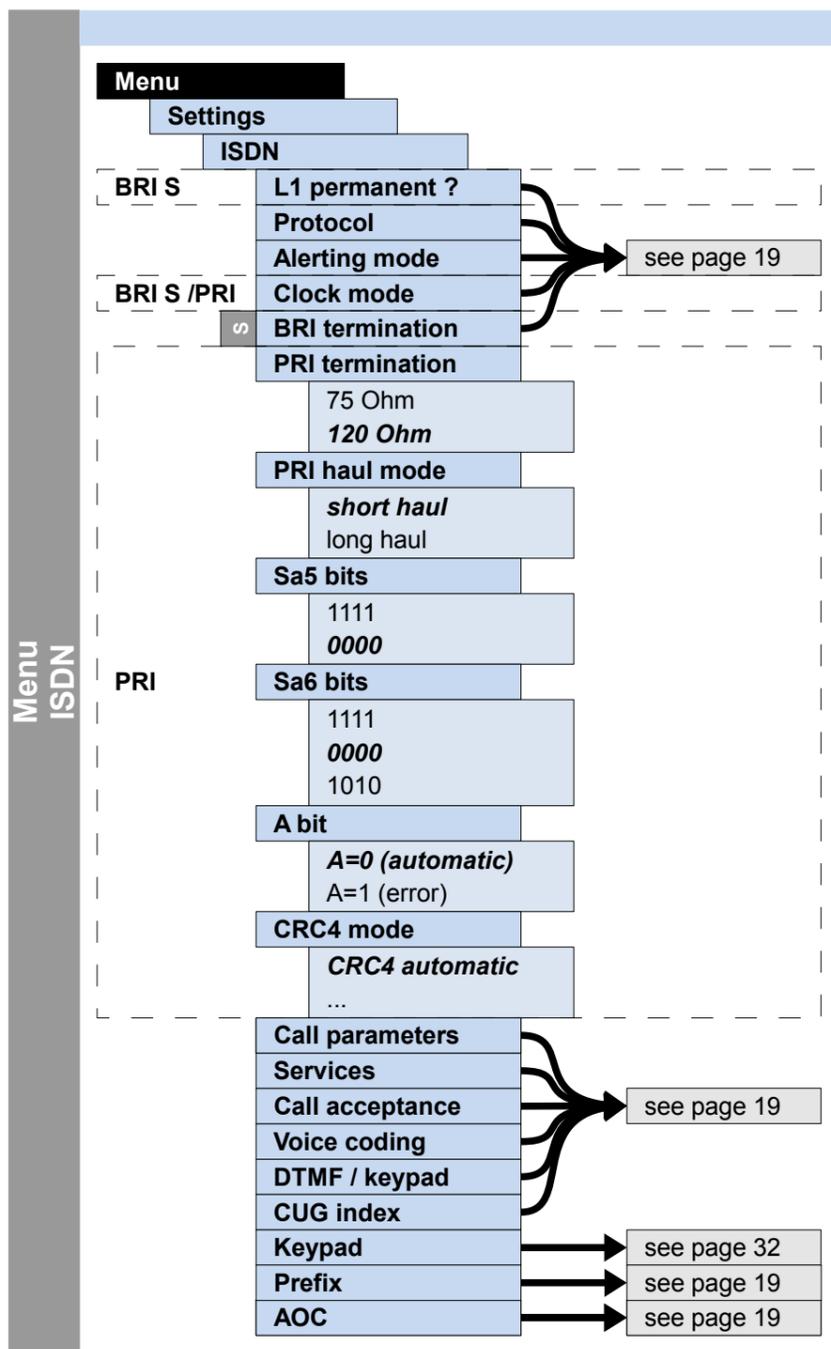
| Menu   | page  |
|--|-------|
| Access   | 5     |
| Access wizard  | 6     |
| Main menu  | 7, 10 |
| Single tests<br>Data-, VoIP-, IPTV-,<br>VoD-, Bridge-,<br>Physic tests | 7-8   |
| Test results   | 7, 9  |
| Status   | 7     |
| Parallel tests   | 9     |
| Settings   | 11-20 |
| Device   | 11    |
| Profile, Virt.-Profile<br>VoIP-Account                                 | 12-18 |
| ISDN / POTS  | 19-20 |
| Battery (status,...)   | 7, 10 |
| Help   | 7, 10 |

| IP and ATM tests                              | page |
|---|------|
| IP ping / Trace route                         | 21   |
| HTTP / FTP downl.<br>FTP upload<br>FTP server | 22   |
| VPI/VCI scan<br>ATM OAM ping                  | 23   |
| IPTV / passive /scan                          | 24   |
| Video on Demand                               | 25   |
| VoIP call / wait                              | 26   |

| ISDN tests                        | page |
|-----------------------------------|------|
| BERT                              | 29   |
| Supp. Serv. test<br>Service check | 30   |
| X.31                              | 31   |
| CF-Tests<br>Connection            | 32   |
| Time measuring<br>Auto. Test      | 33   |

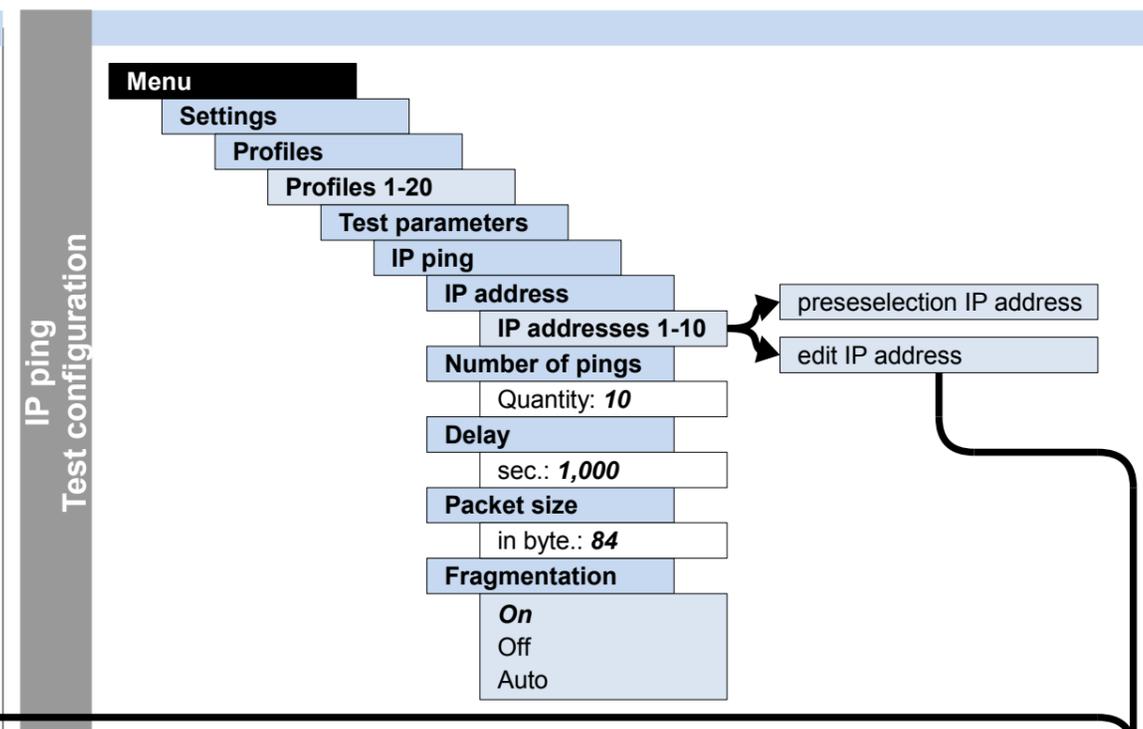
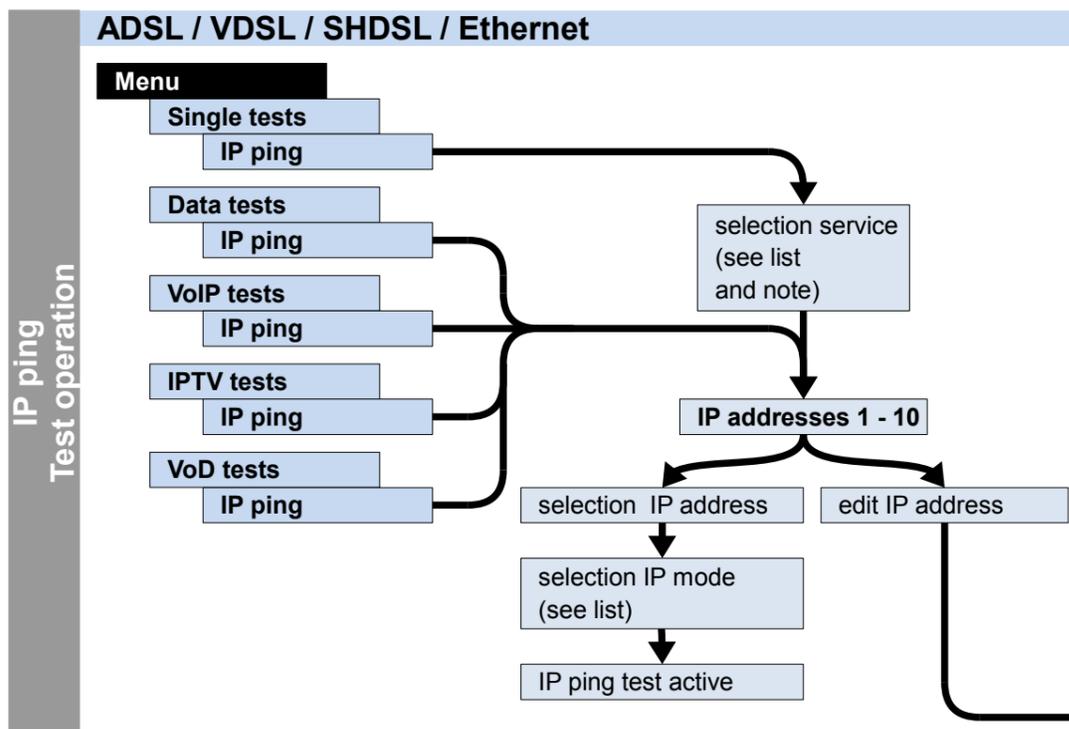
| Other tests                       | page |
|-----------------------------------|------|
| Loop                              | 27   |
| Connection (POTS)                 | 10   |
| Monitor (POTS)                    | 33   |
| PESQ                              | 34   |
| RC measurement                    | 7    |
| Line scope<br>DMT analysis<br>TDR | 35   |
| ETH cable tests                   | 28   |

| Others                      | page  |
|-----------------------------|-------|
| Legend<br>Protocol-overview | 3     |
| Hotkeys                     | 4     |
| Test leads                  | 36-39 |



### Cross reference:

| Menu   | page  |
|--|-------|
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| Main menu  | 7, 10 |
| Single tests                                     |       |
| Data-, VoIP-, IPTV-, VoD-, Bridge-, Physic tests | 7-8   |
| Test results                                     | 7, 9  |
| Status   | 7     |
| Parallel tests                                   | 9     |
| Settings   | 11-20 |
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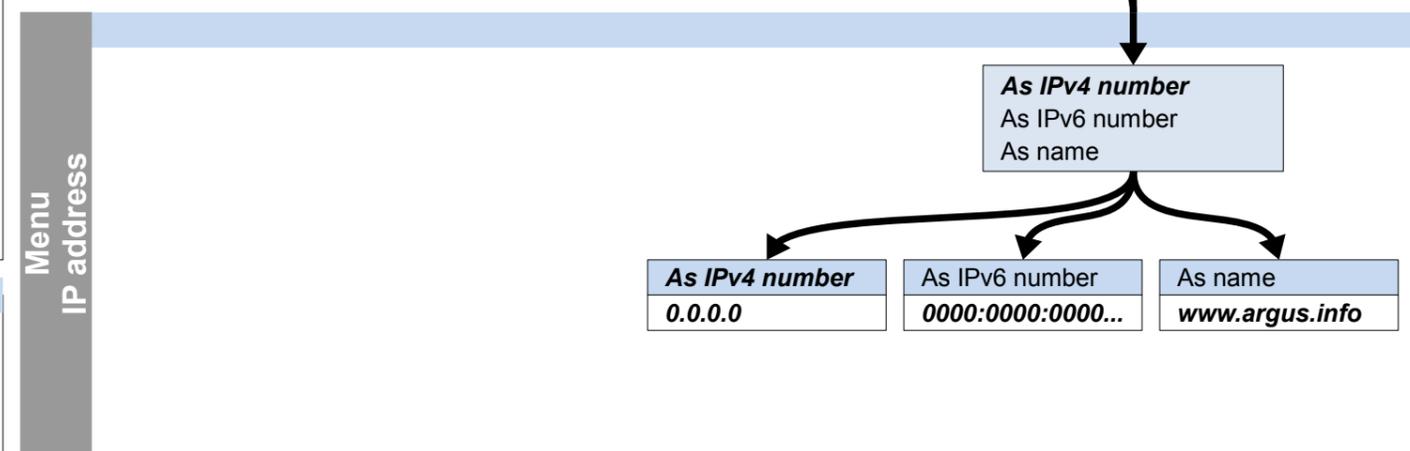
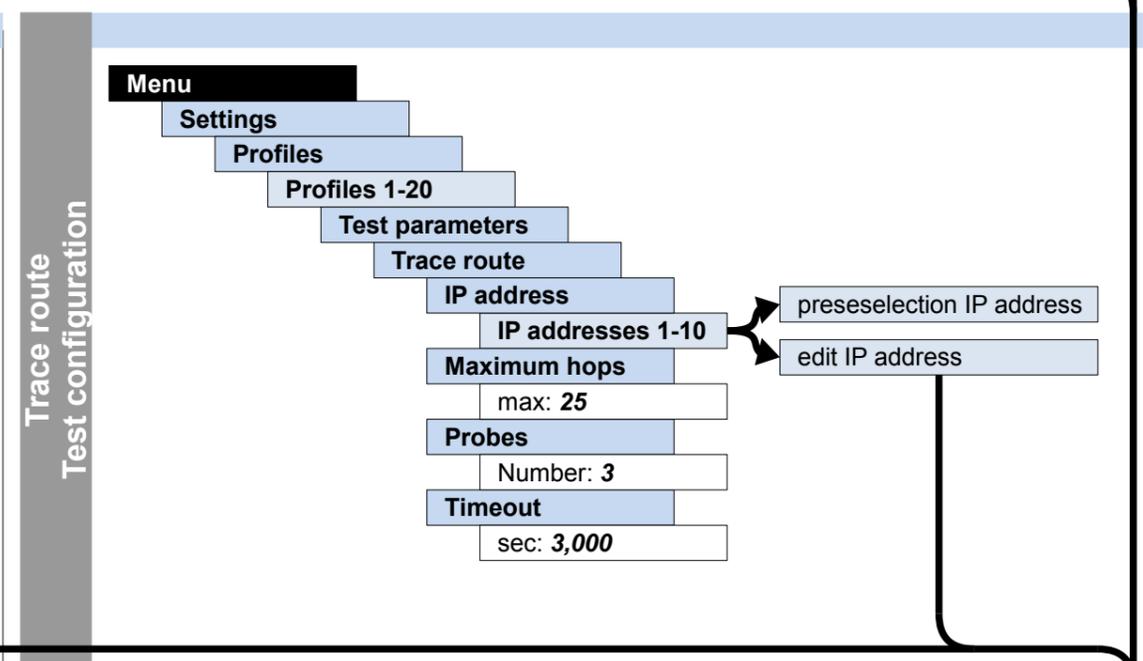
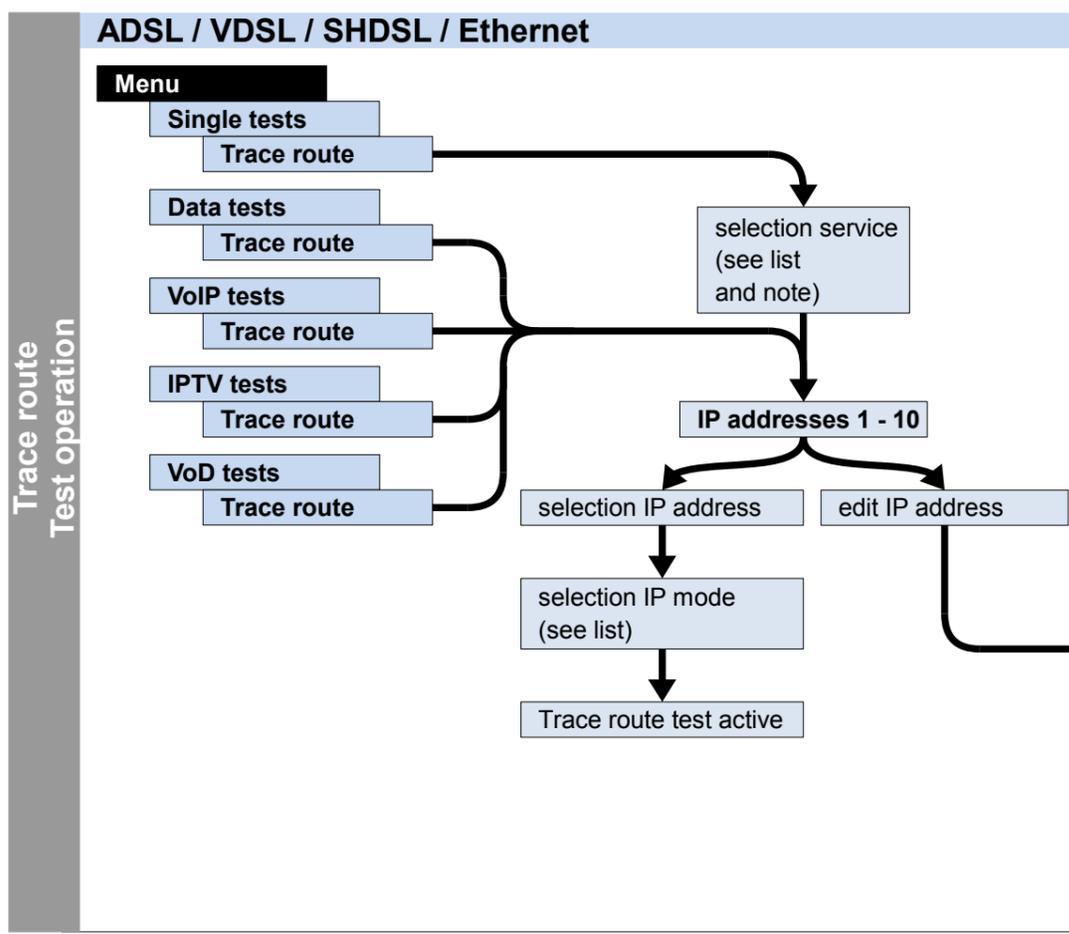


**Lists**

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| Data     |
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| IPTV     |
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|----------|
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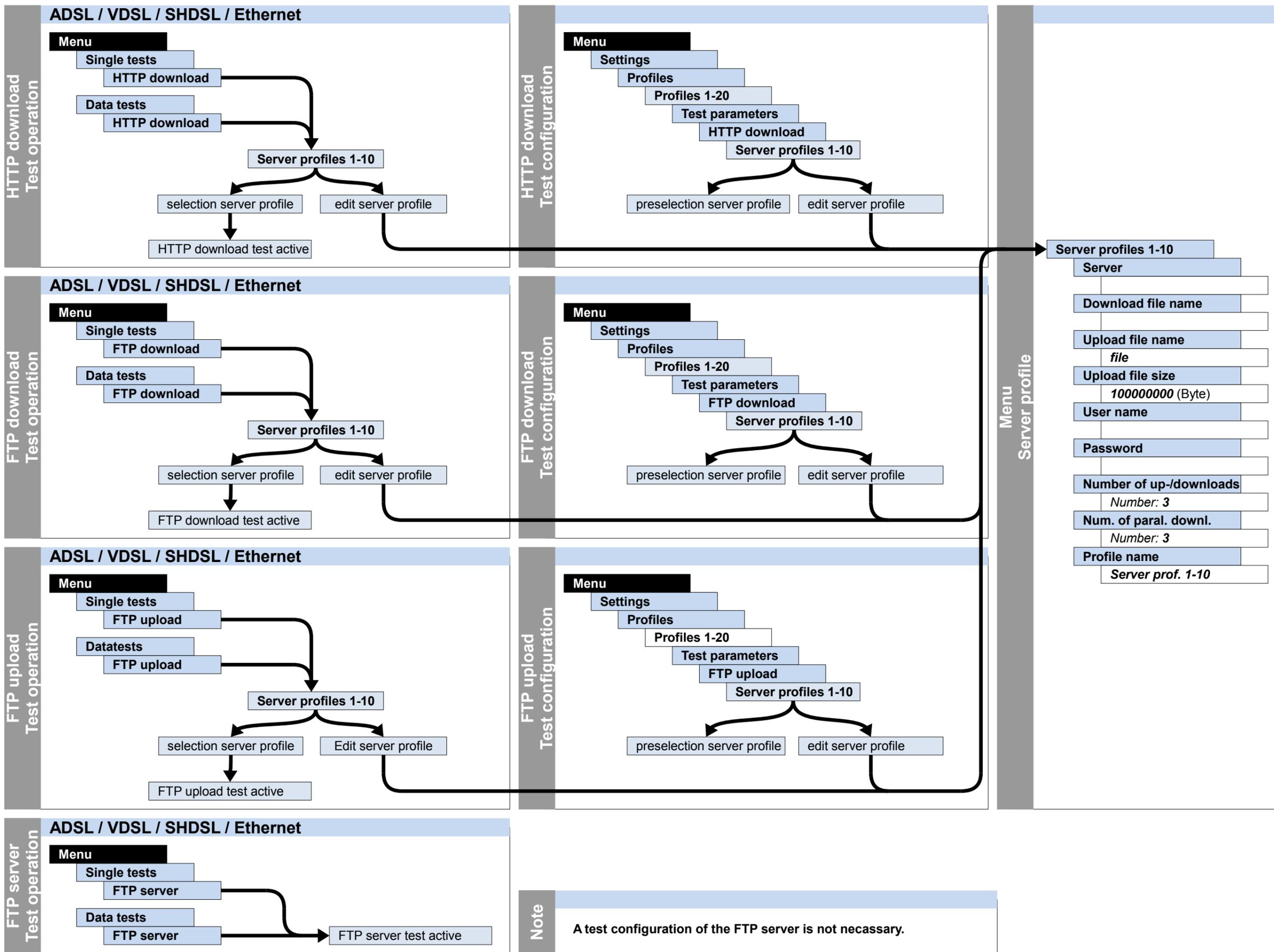


**Note**

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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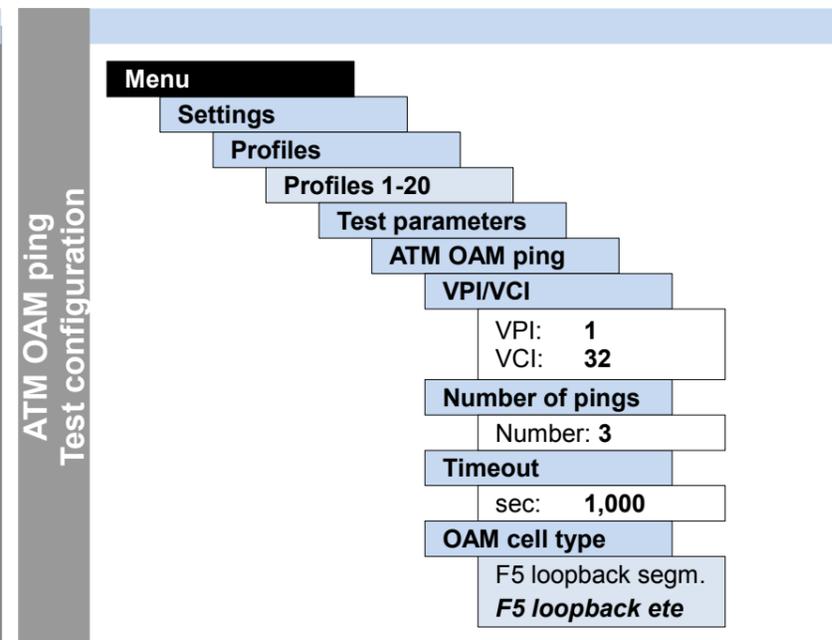
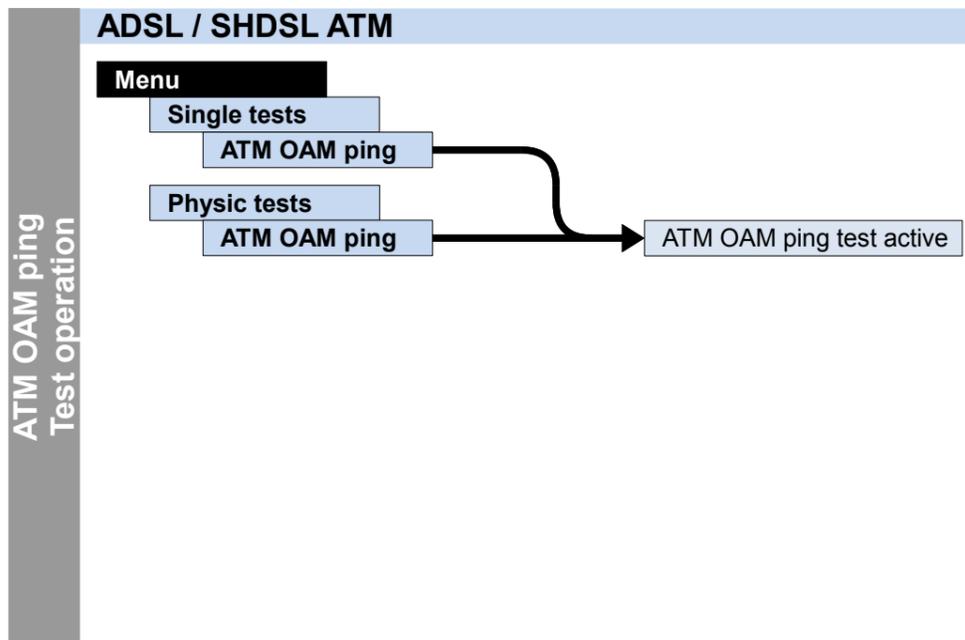
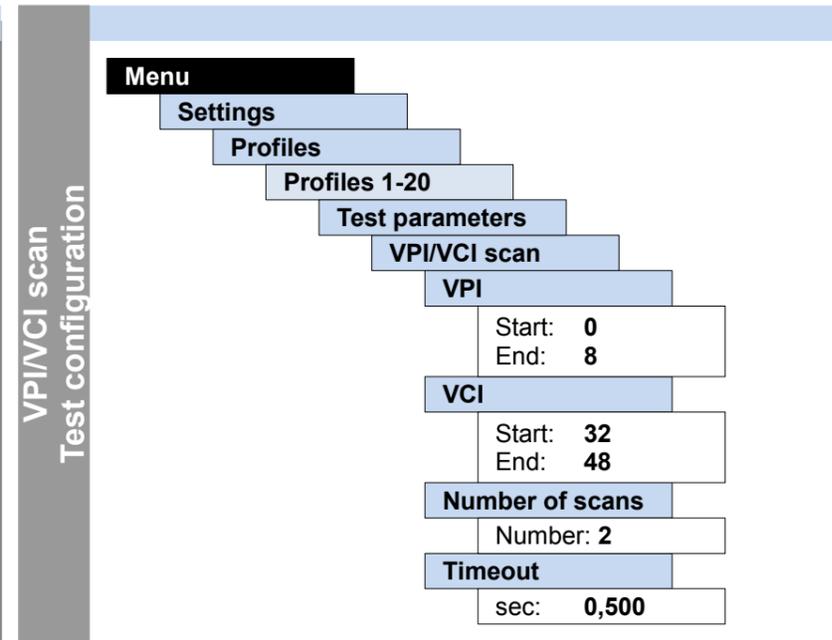
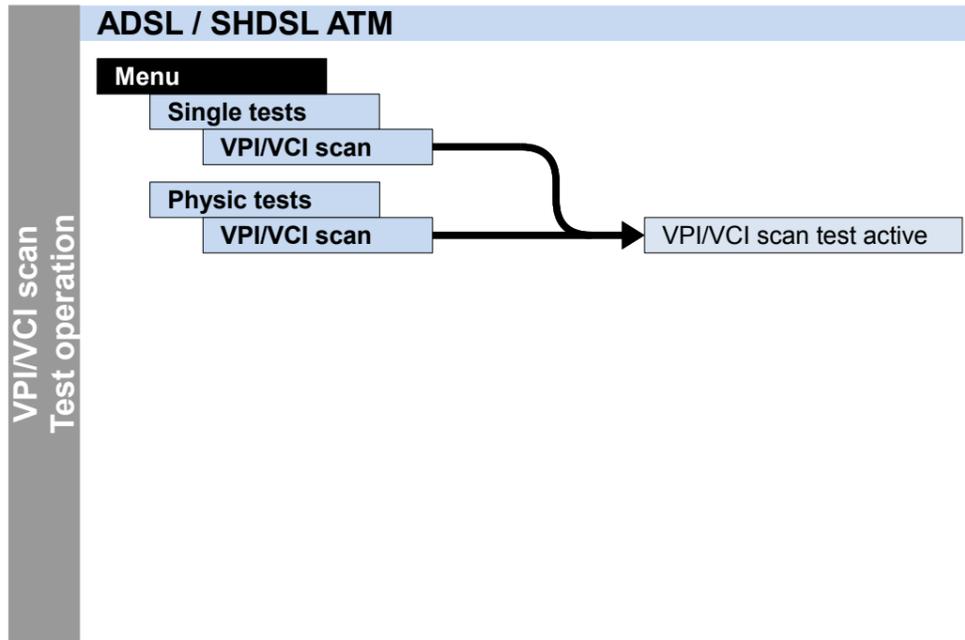
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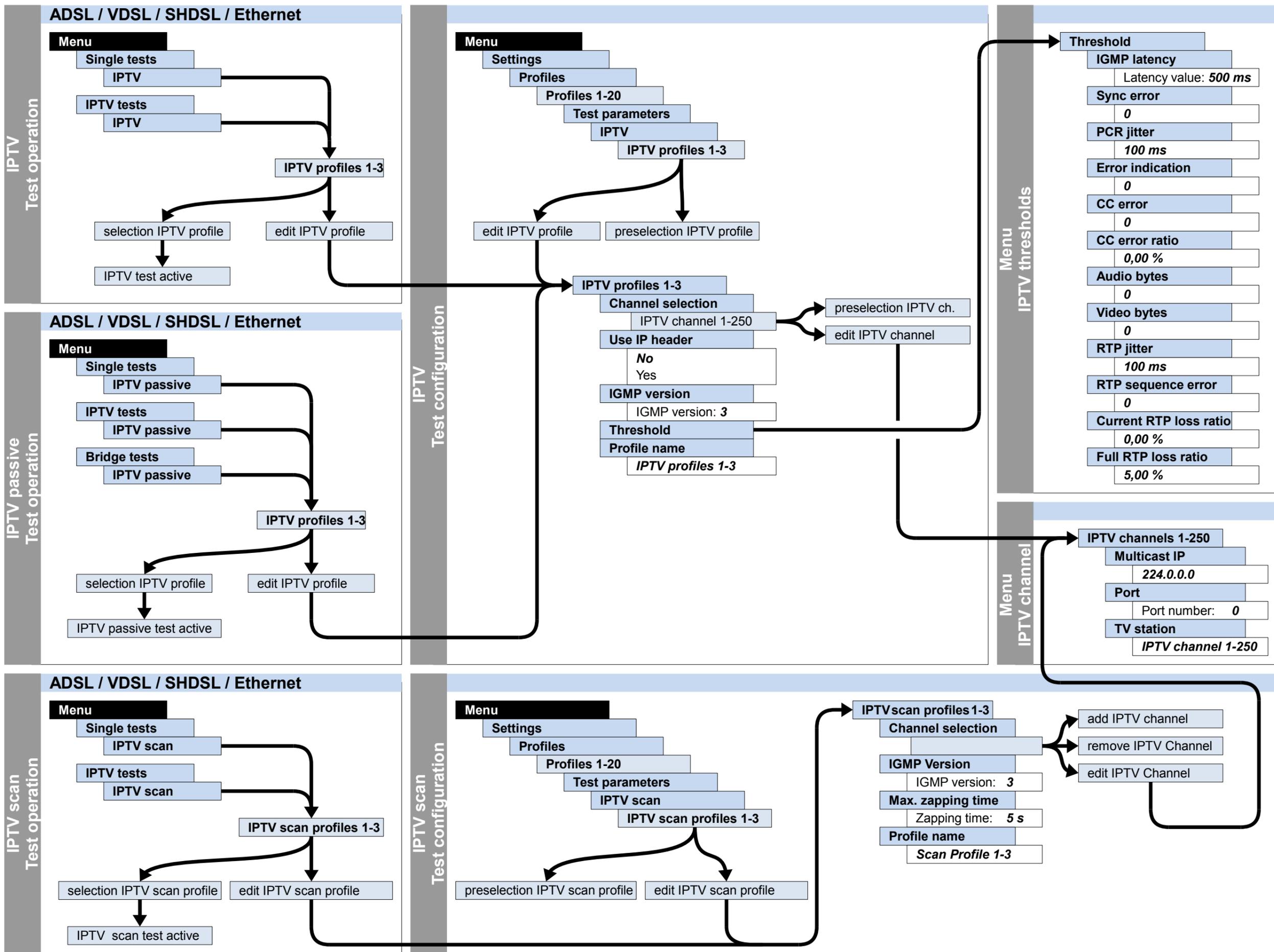
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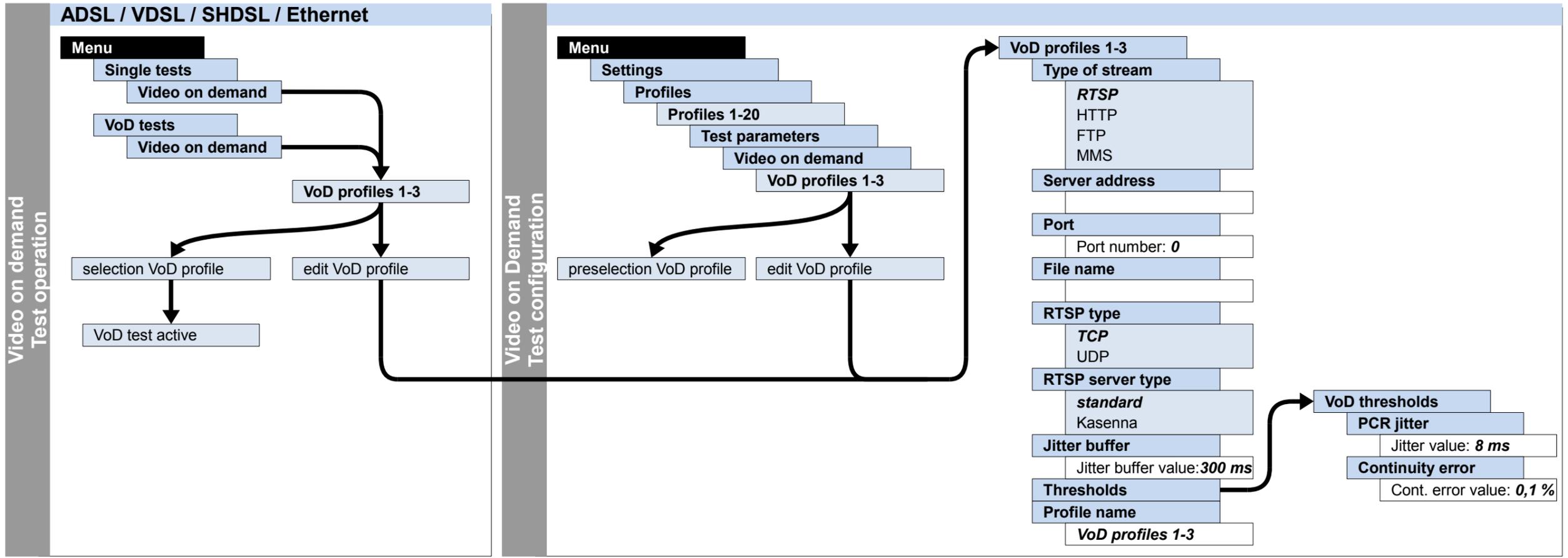
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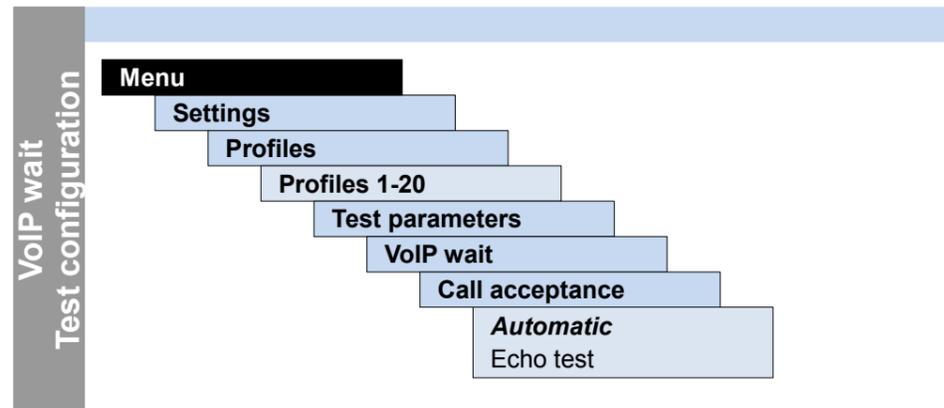
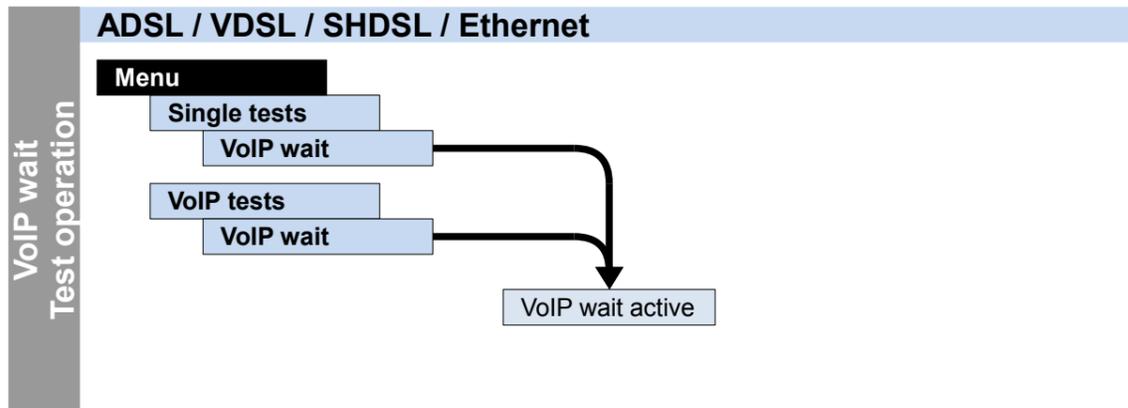
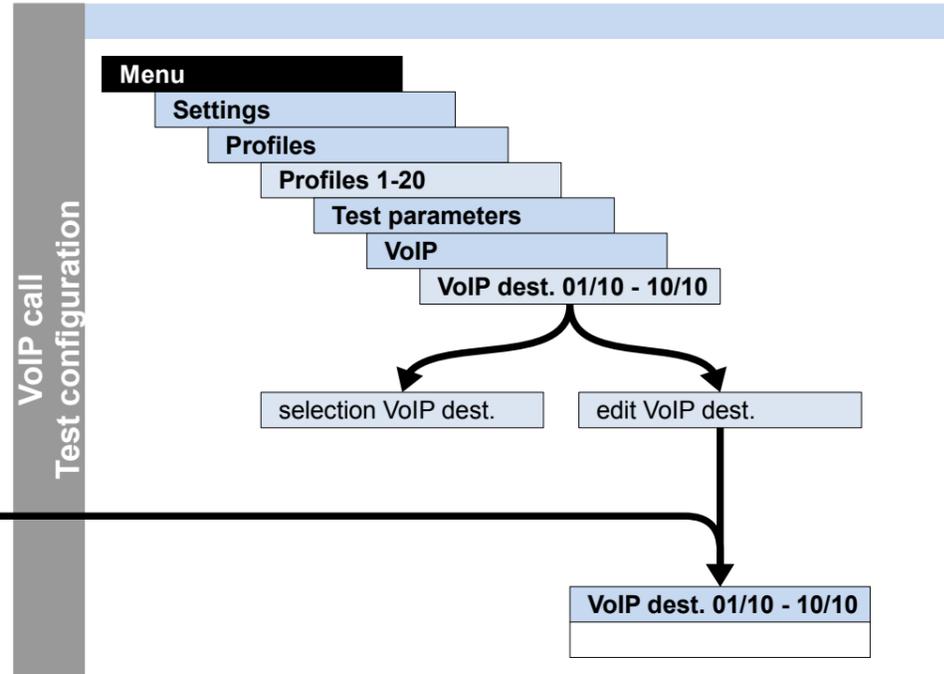
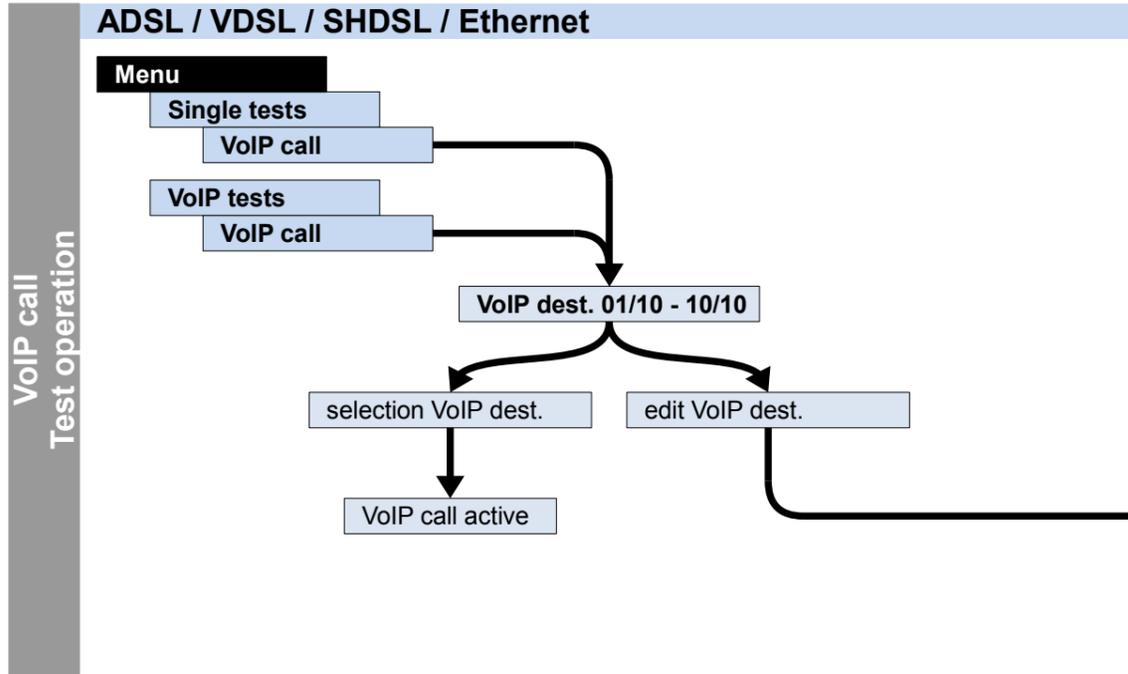
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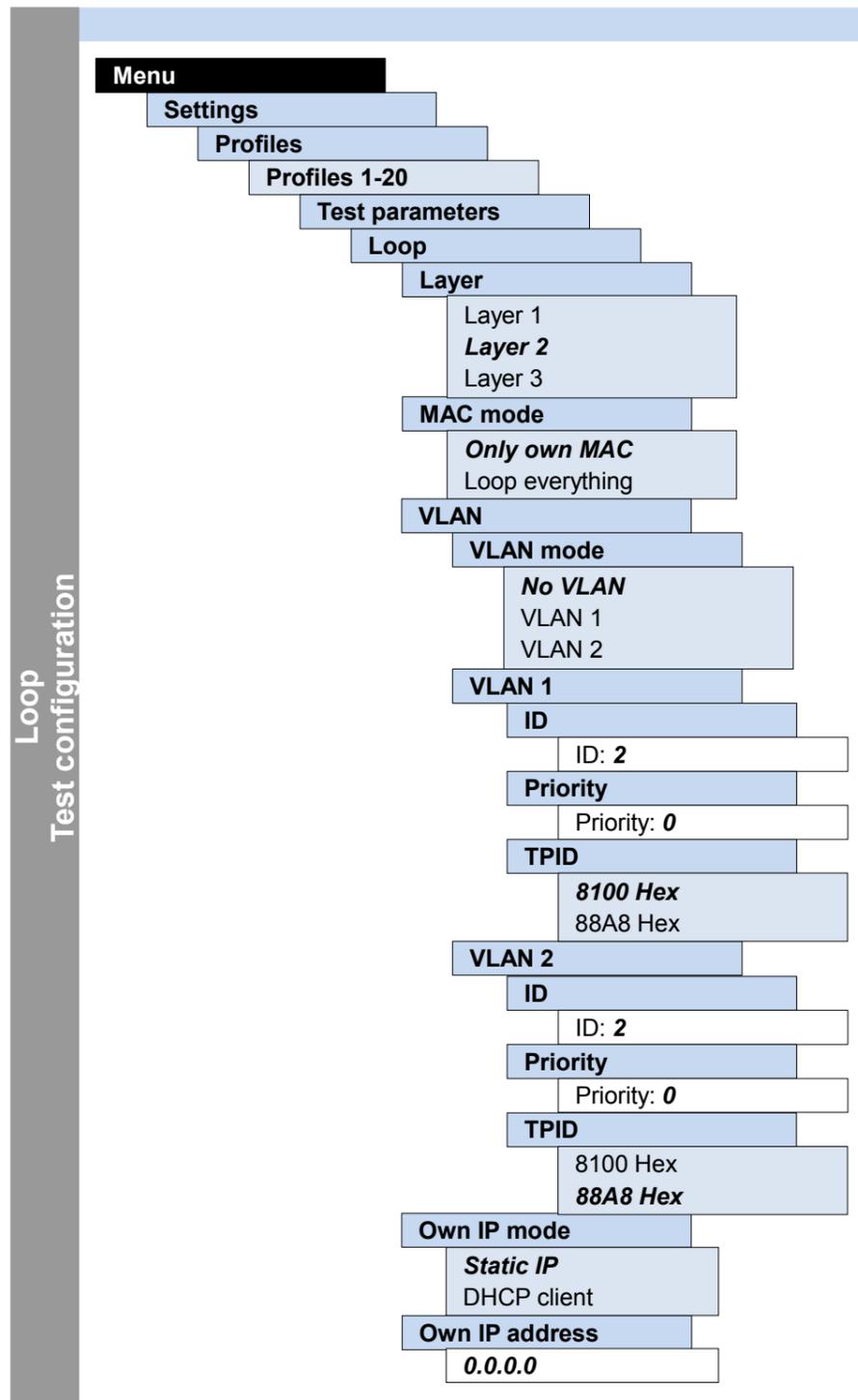
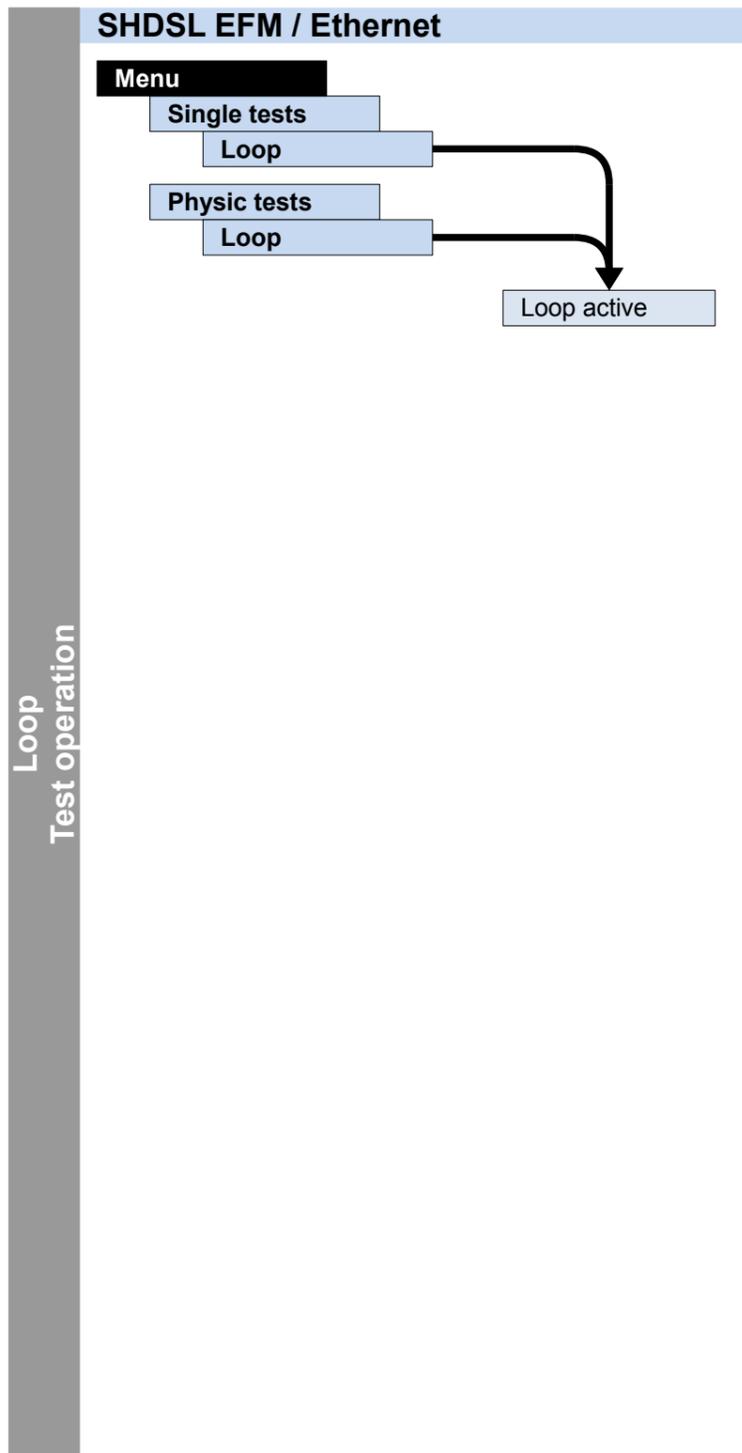
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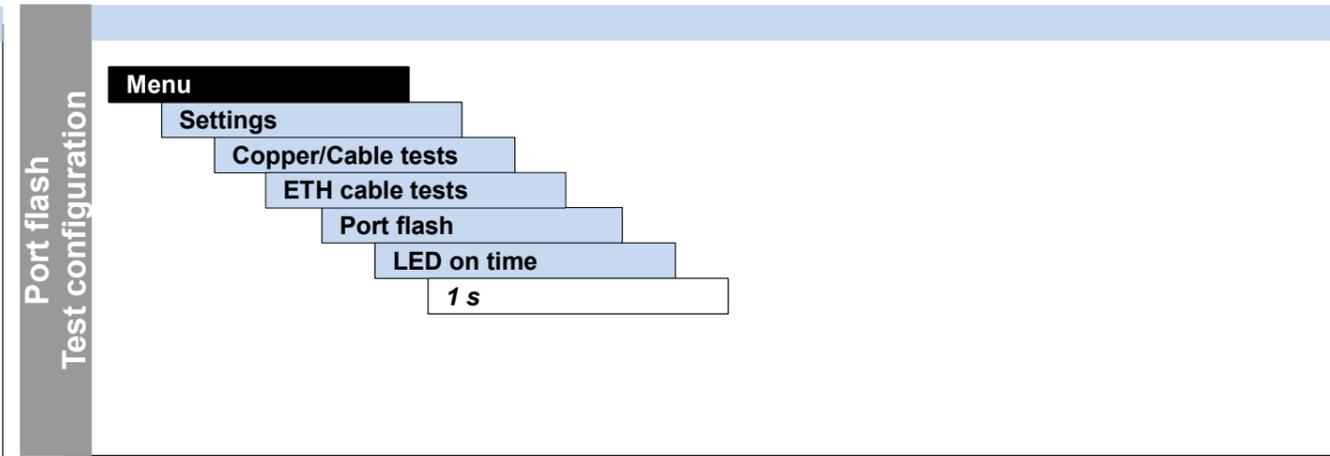
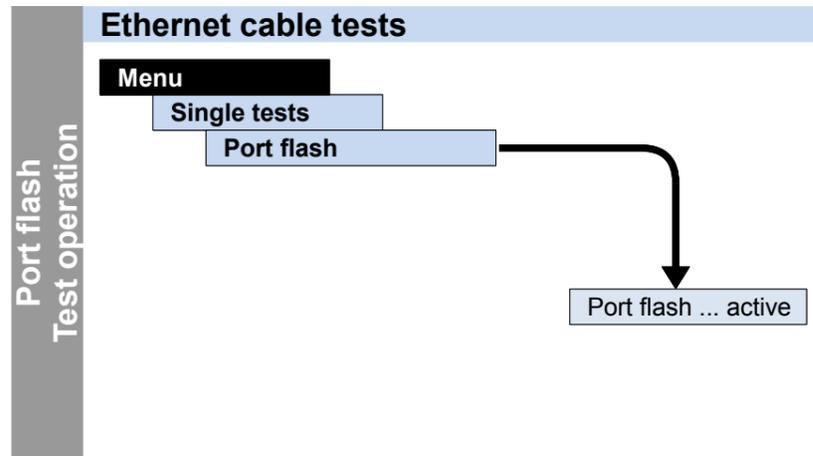
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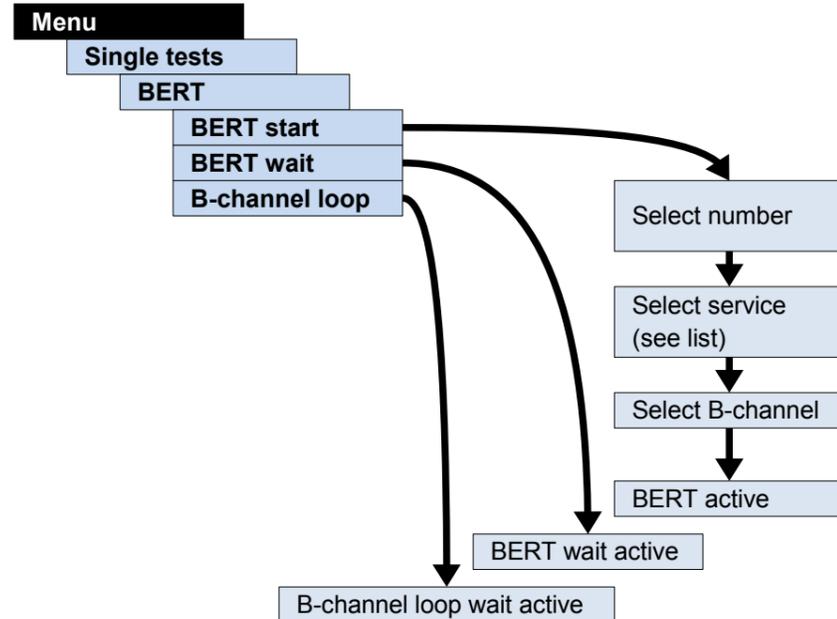


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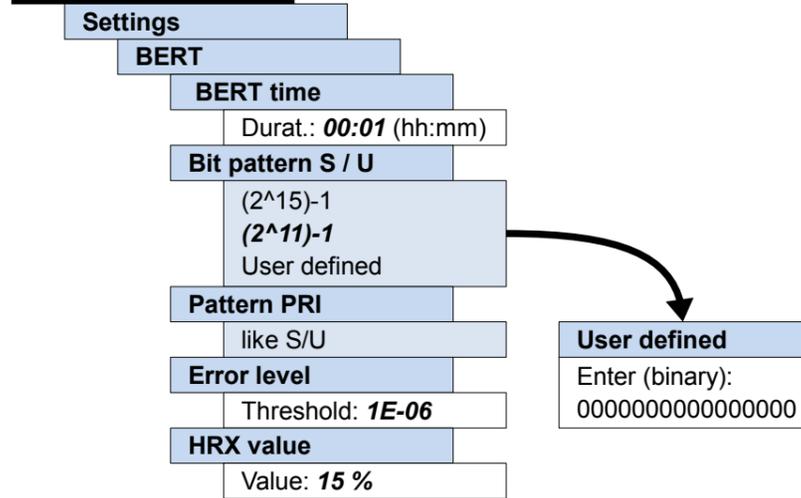
### BRI S/U / PRI

TE ... / NT ...



BERT configuration

Menu

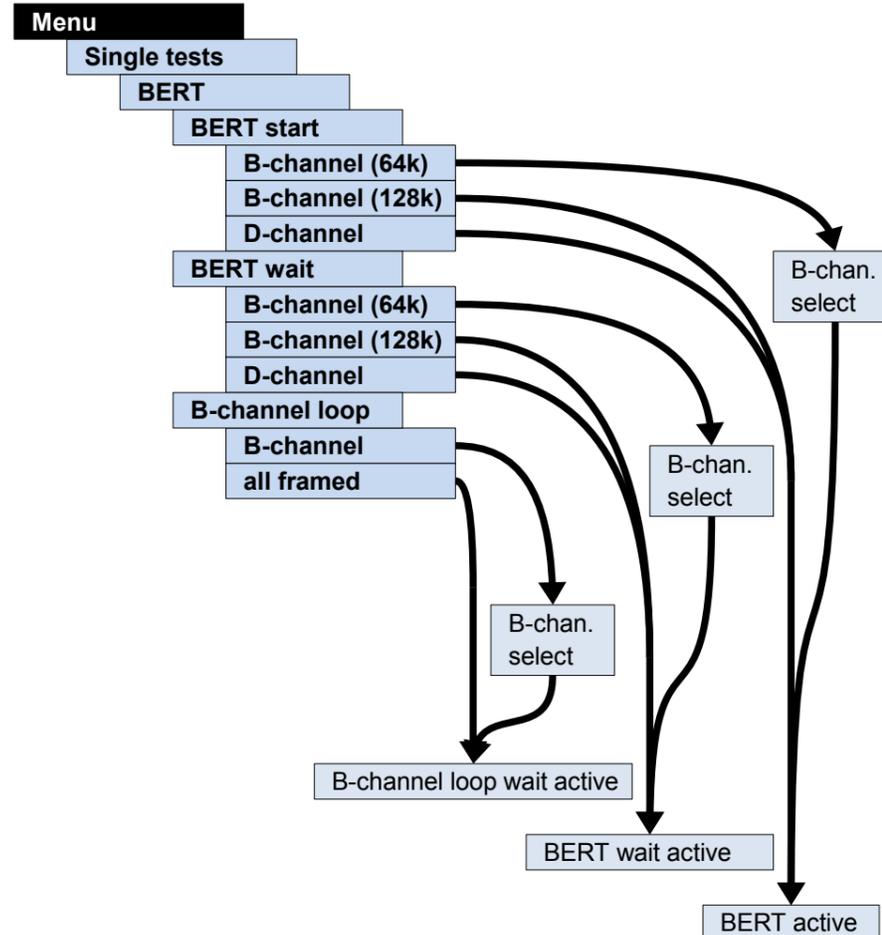


Lists

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| UDI 64 kBit       | 2^15-1 inverse    |
| 3.1 kHz audio     | 2^20/QRSS         |
| 7 kHz audio       | 2^20/QRSS/inverse |
| DFU-TA            | Space (0000)      |
| Telephony ISDN    | Mark (1111)       |
| Fax G3            |                   |
| Fax G4            |                   |
| Mixed Mode        |                   |
| Teletex           |                   |
| Videotex          |                   |
| Telex             |                   |
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| Telephony 7 kHz   |                   |
| Video telephony 1 |                   |
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| User specified 1  |                   |
| User specified 2  |                   |
| User specified 3  |                   |

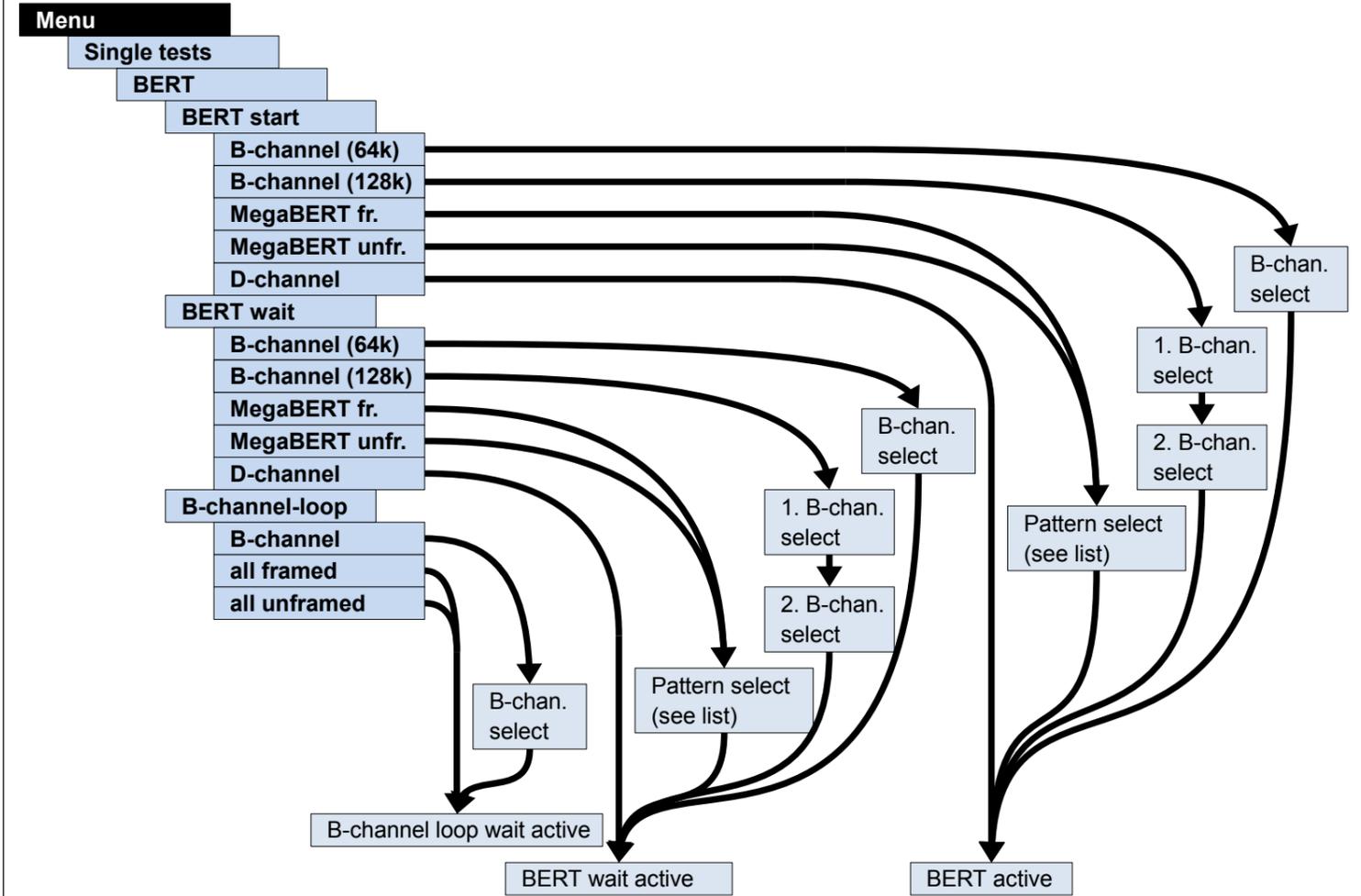
### BRI S/U

Leased line



### PRI

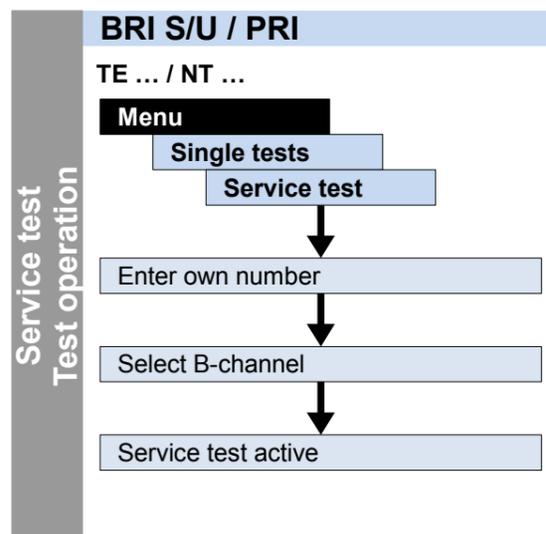
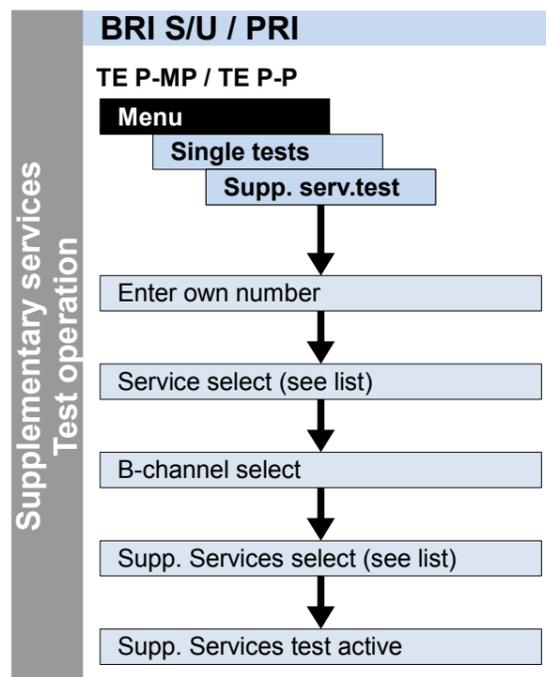
Leased line



BERT Test operation

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- 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

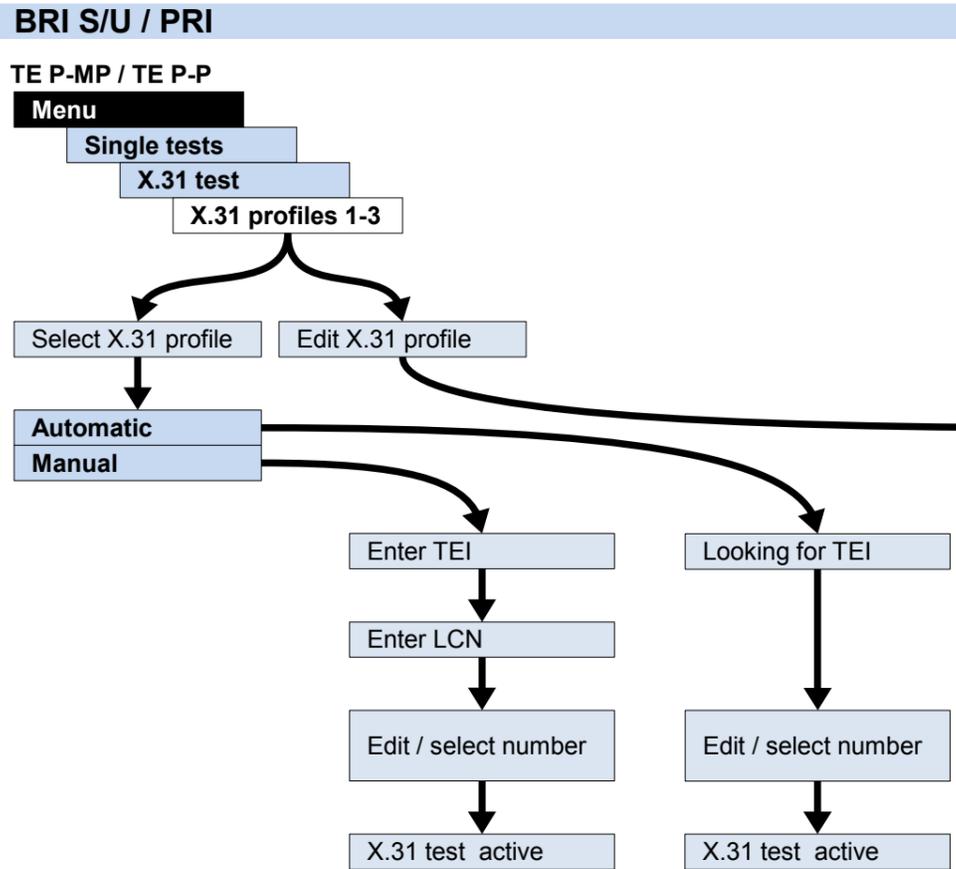
#### Supp. services

- 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

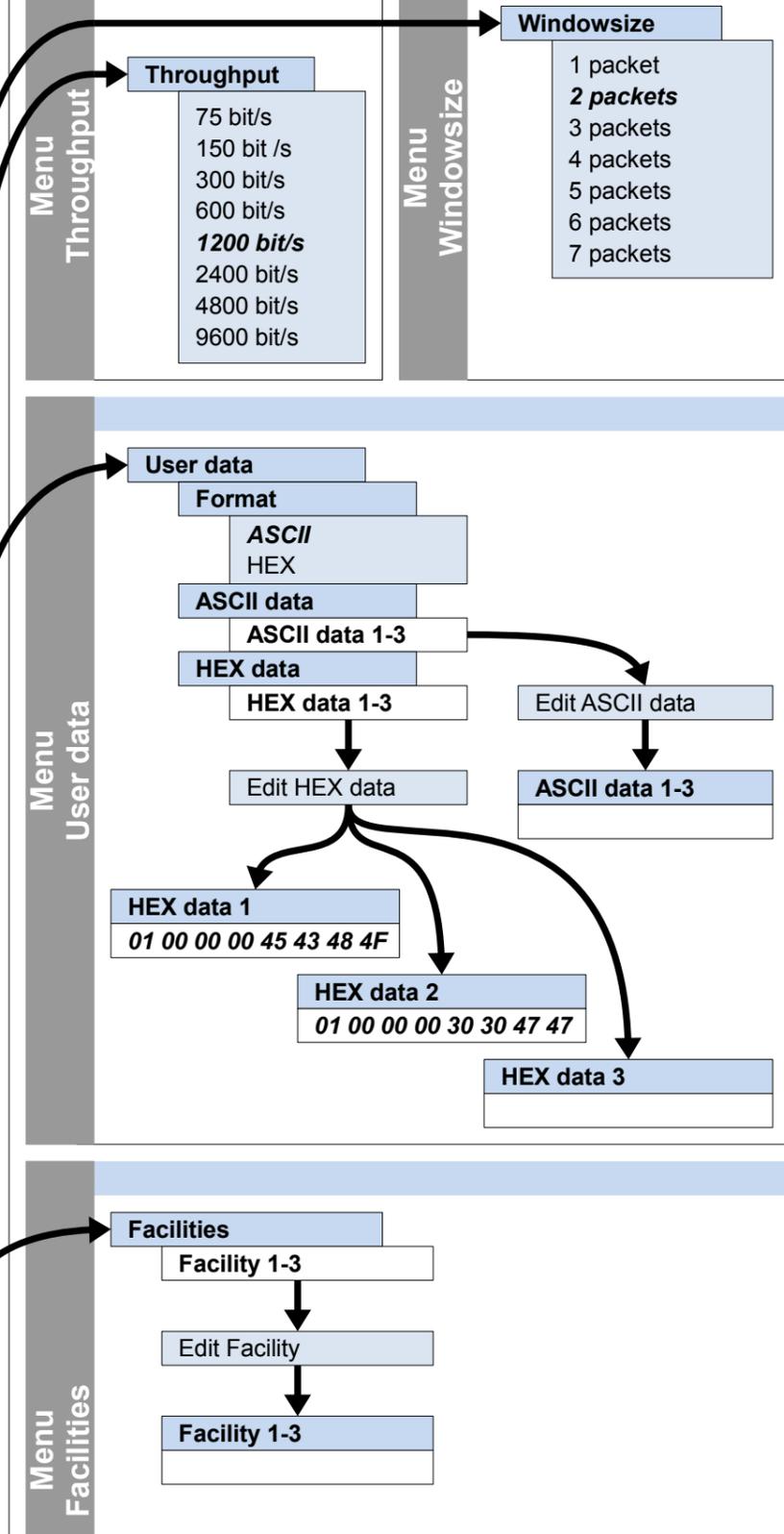
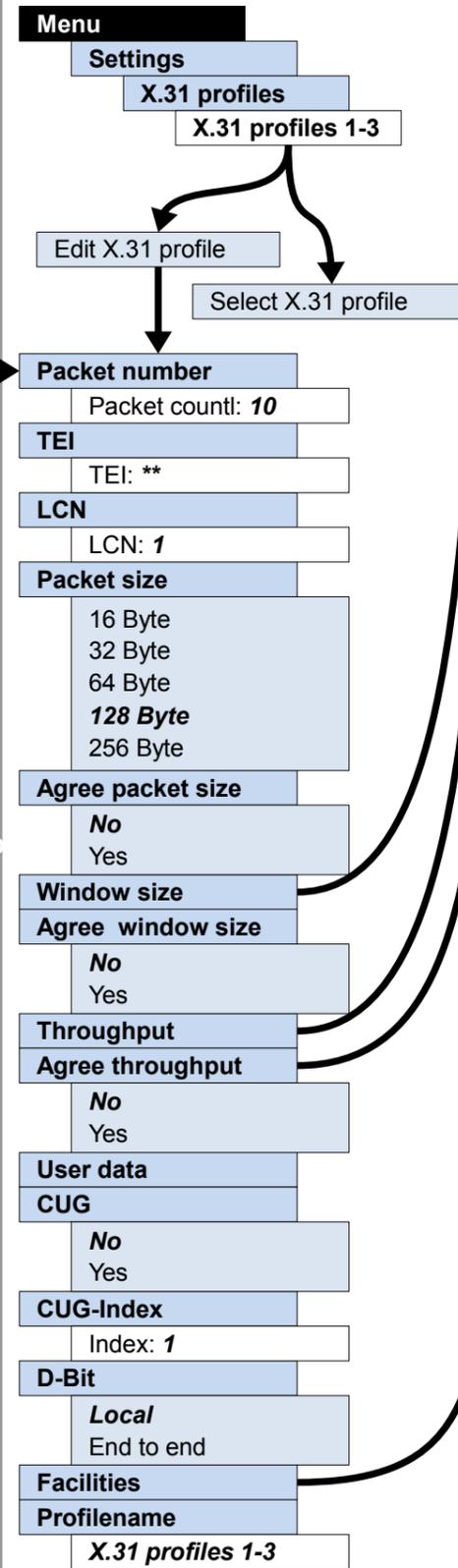
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| ETH cable tests                                  | 28    |
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| Test leads                                       | 36-39 |

X.31 test  
Test operation

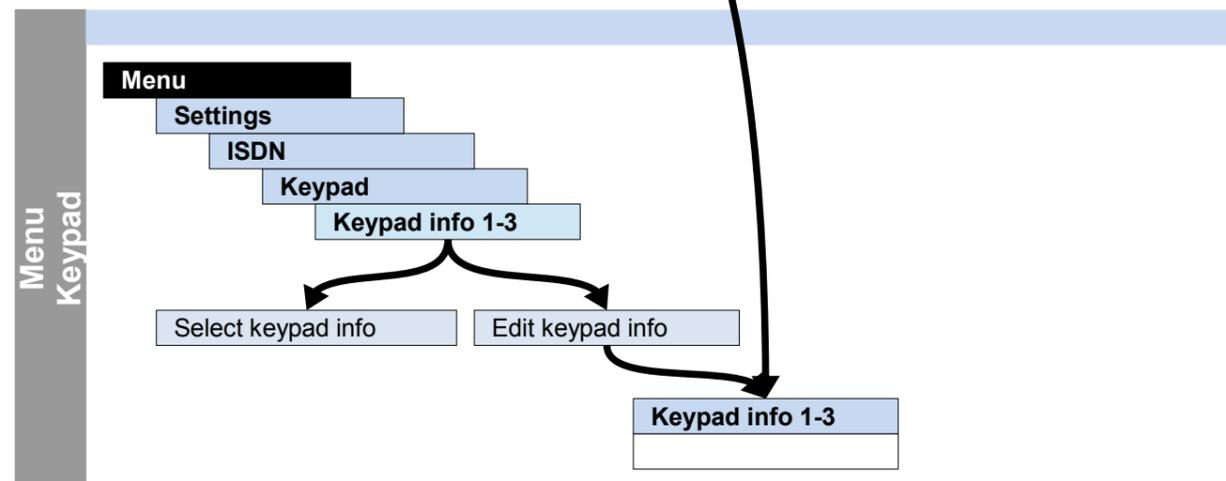
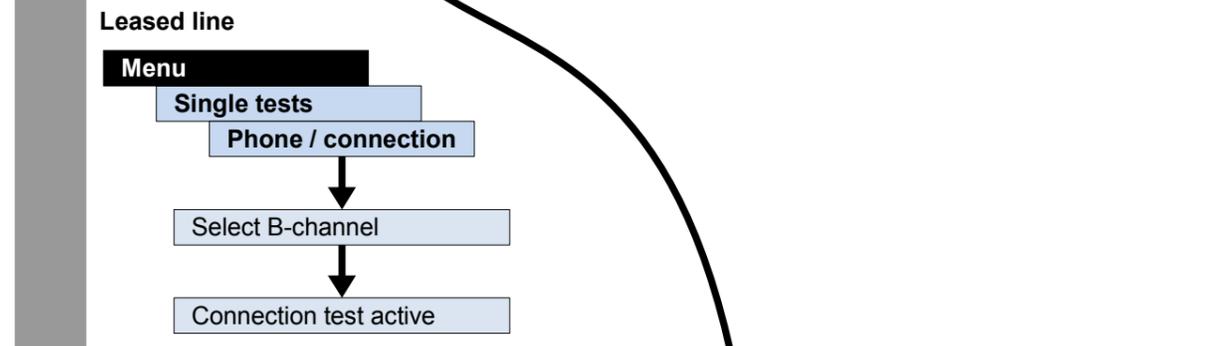
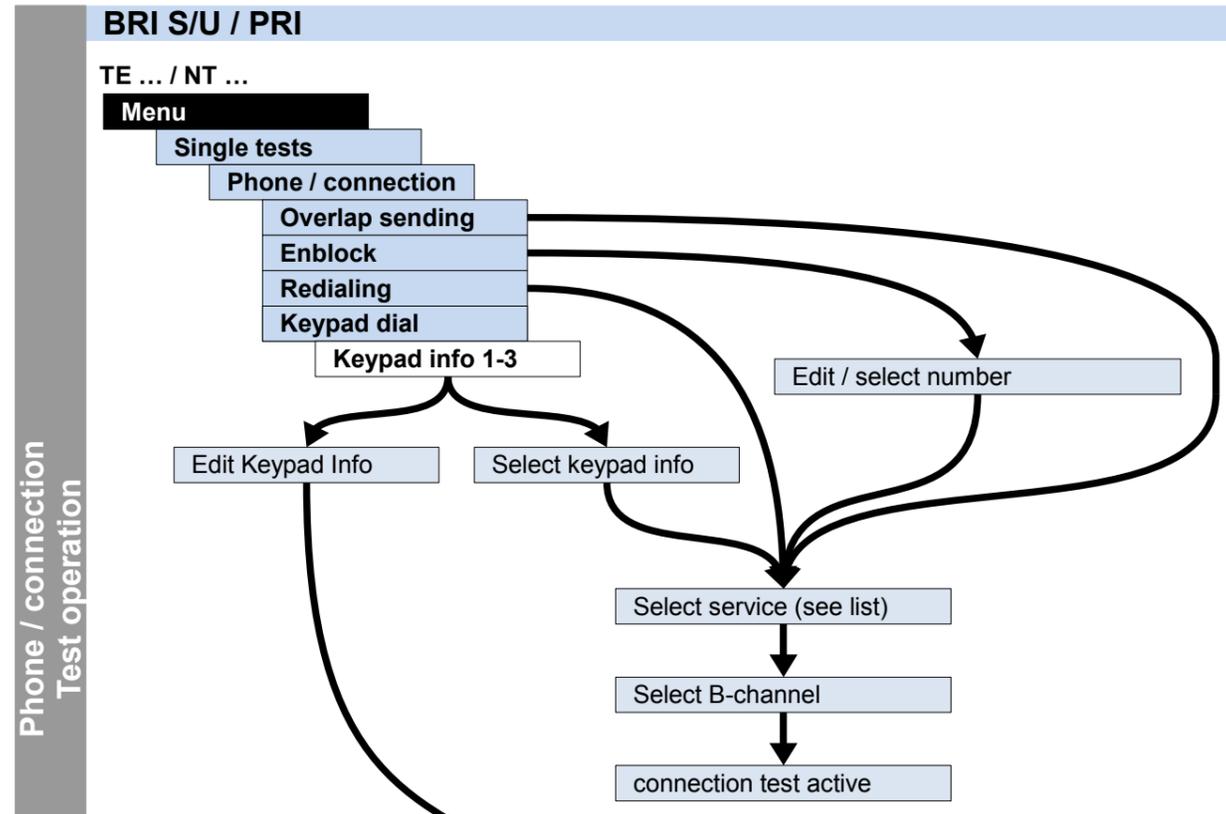
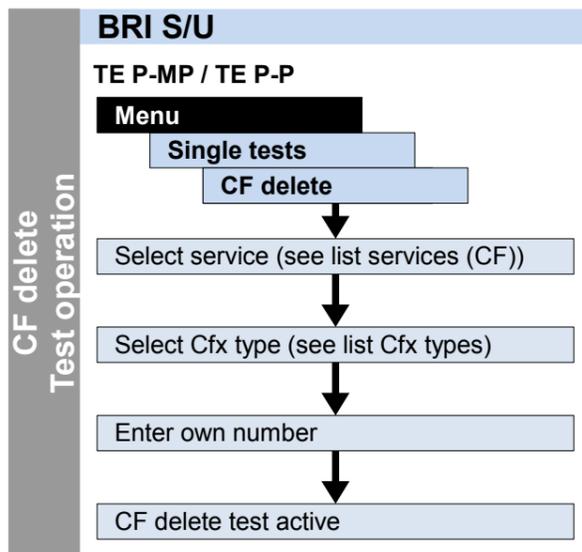
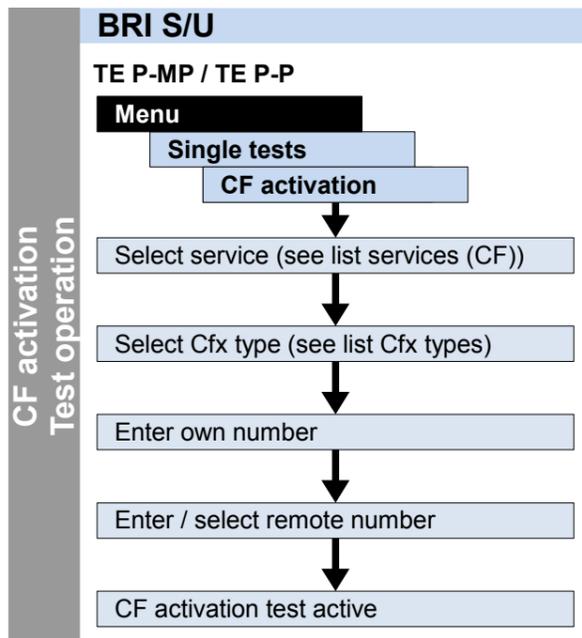
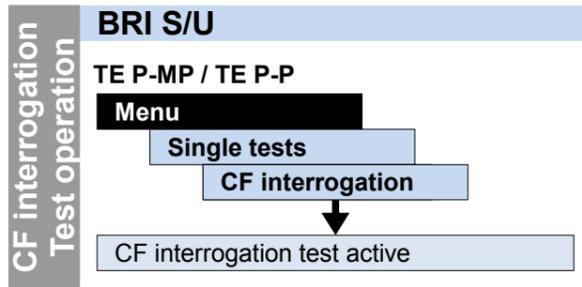


X.31 test  
Test configuration



#### Cross reference:

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| Test leads                                       | 36-39 |



#### Lists

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- 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)

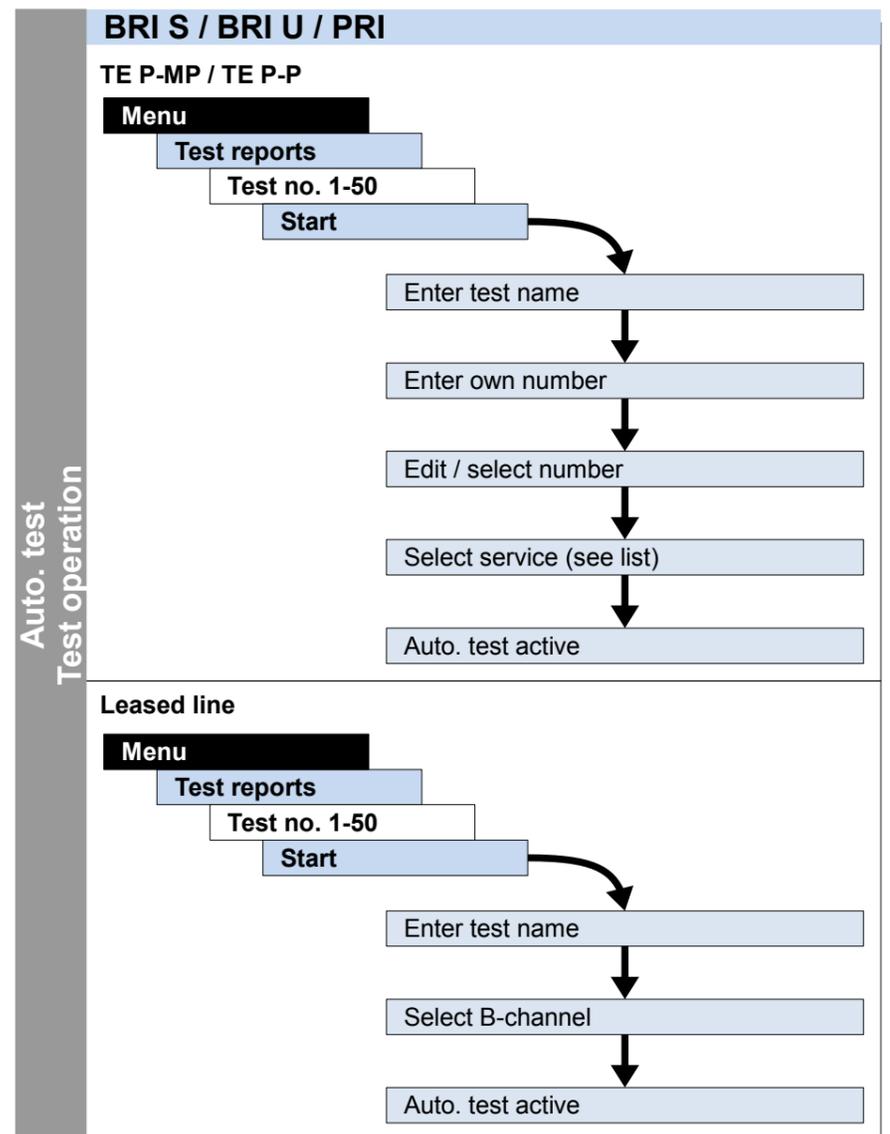
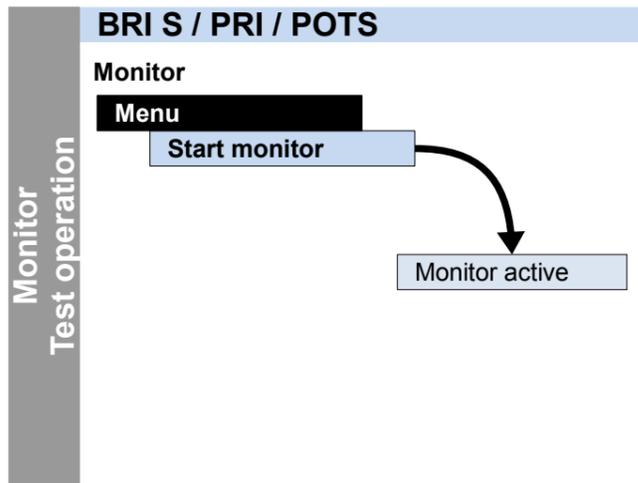
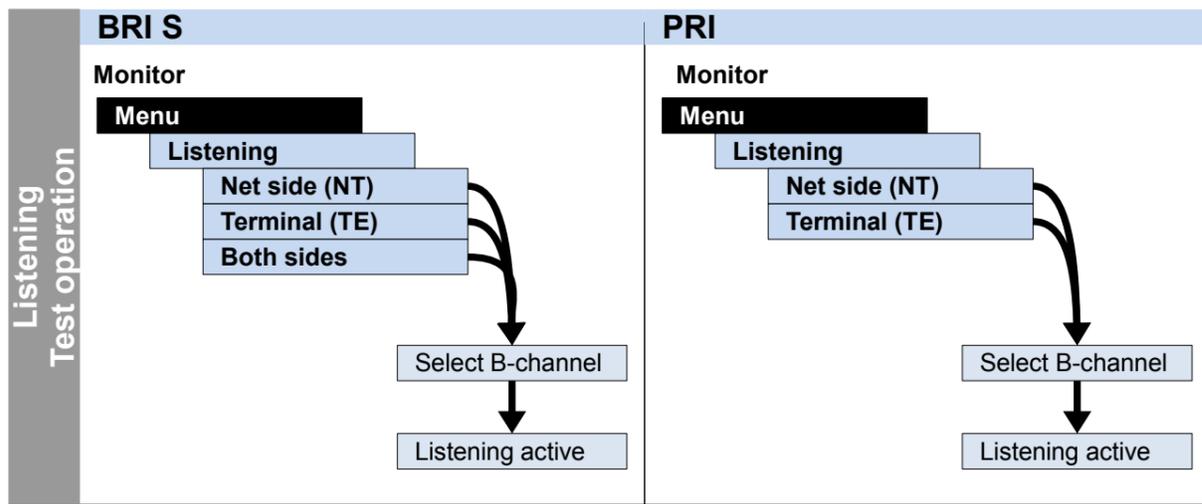
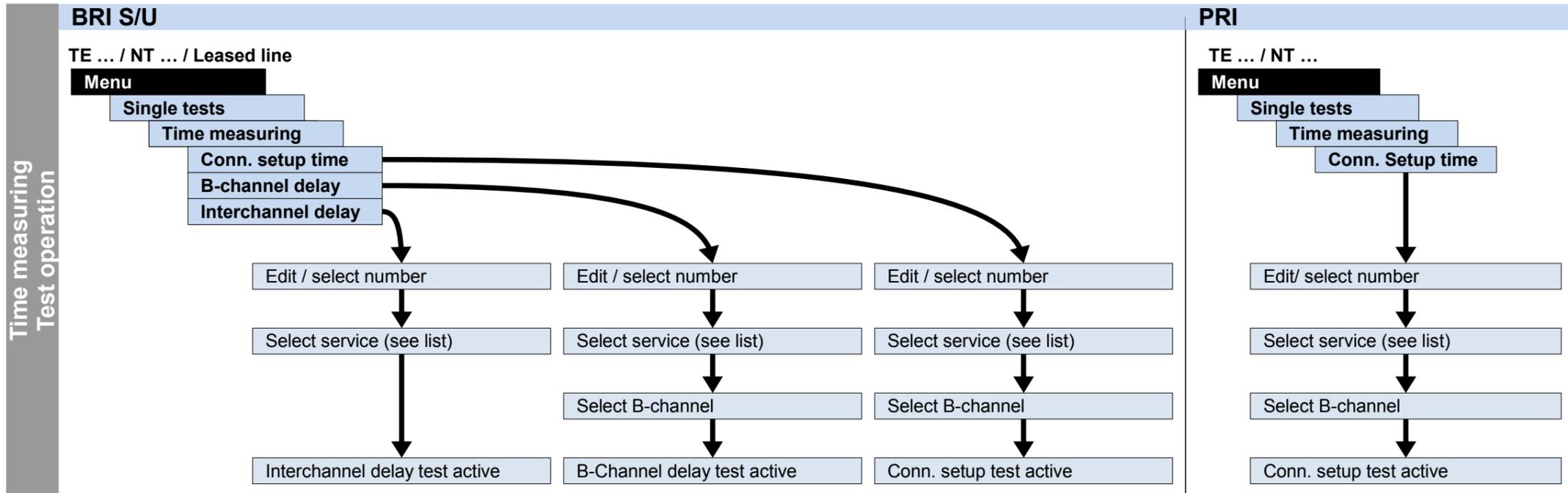
- All
- Spch
- DFU
- A3K1H
- A7kHz
- Tel31
- TTX
- FaxG4
- ViSyB
- ViTel
- FaxG3
- Tel7k

##### Cfx types

- CFU
- CFB
- CFNR

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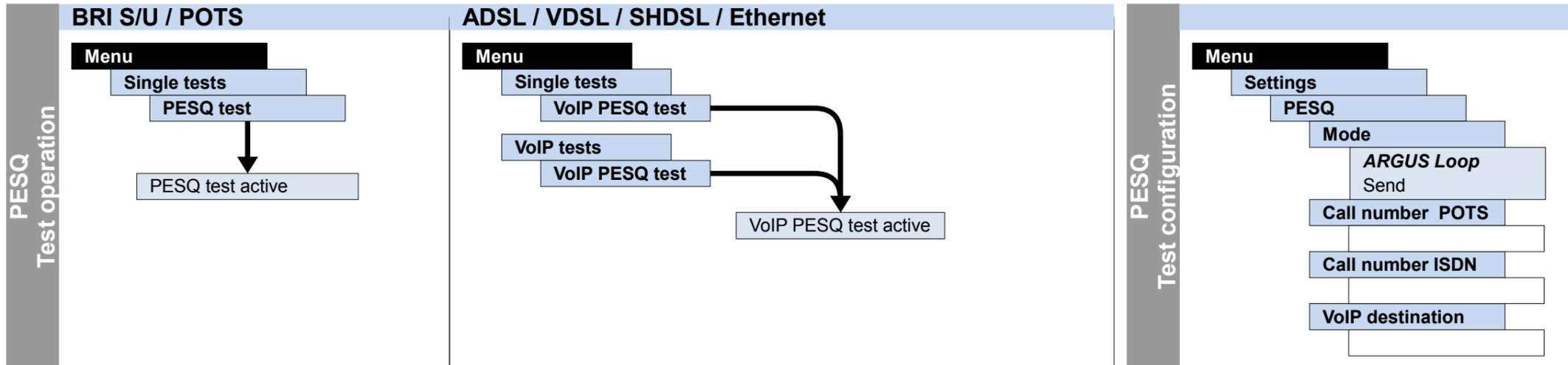


**List**

| 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 |

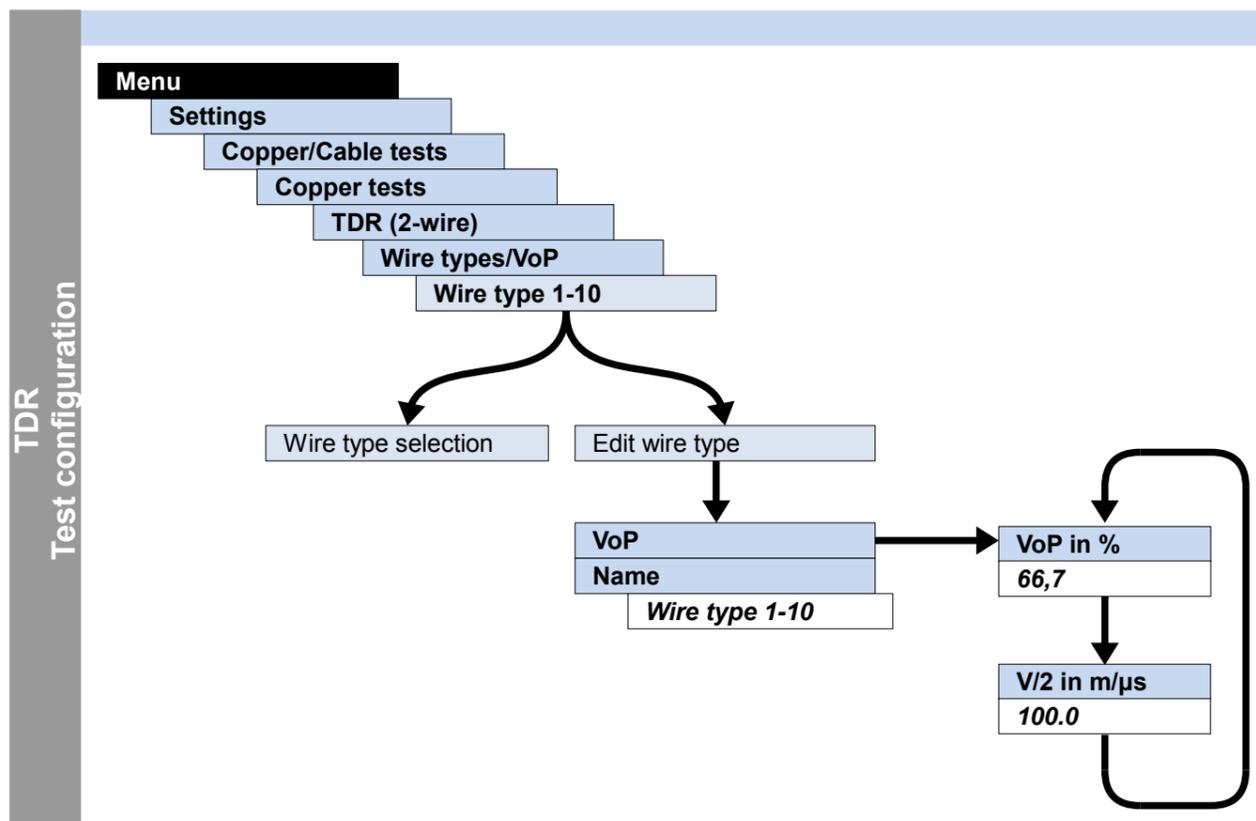
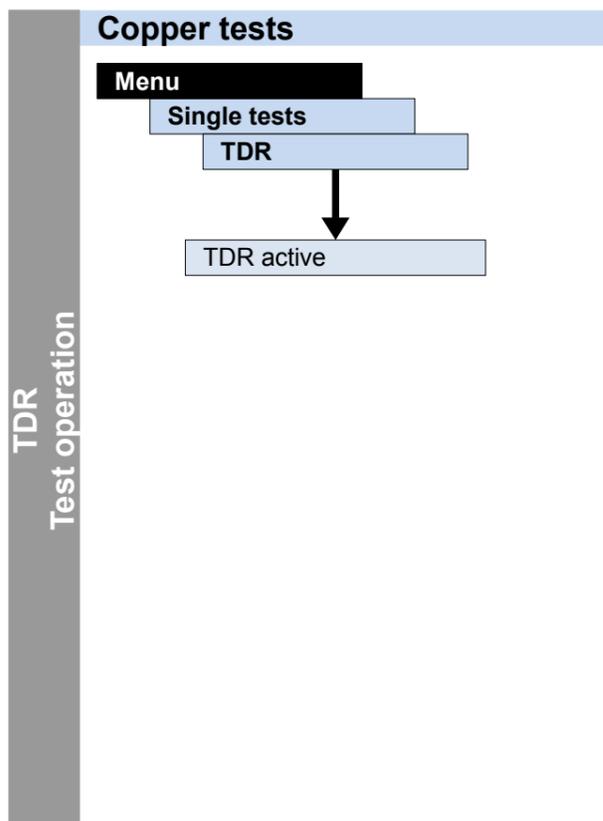
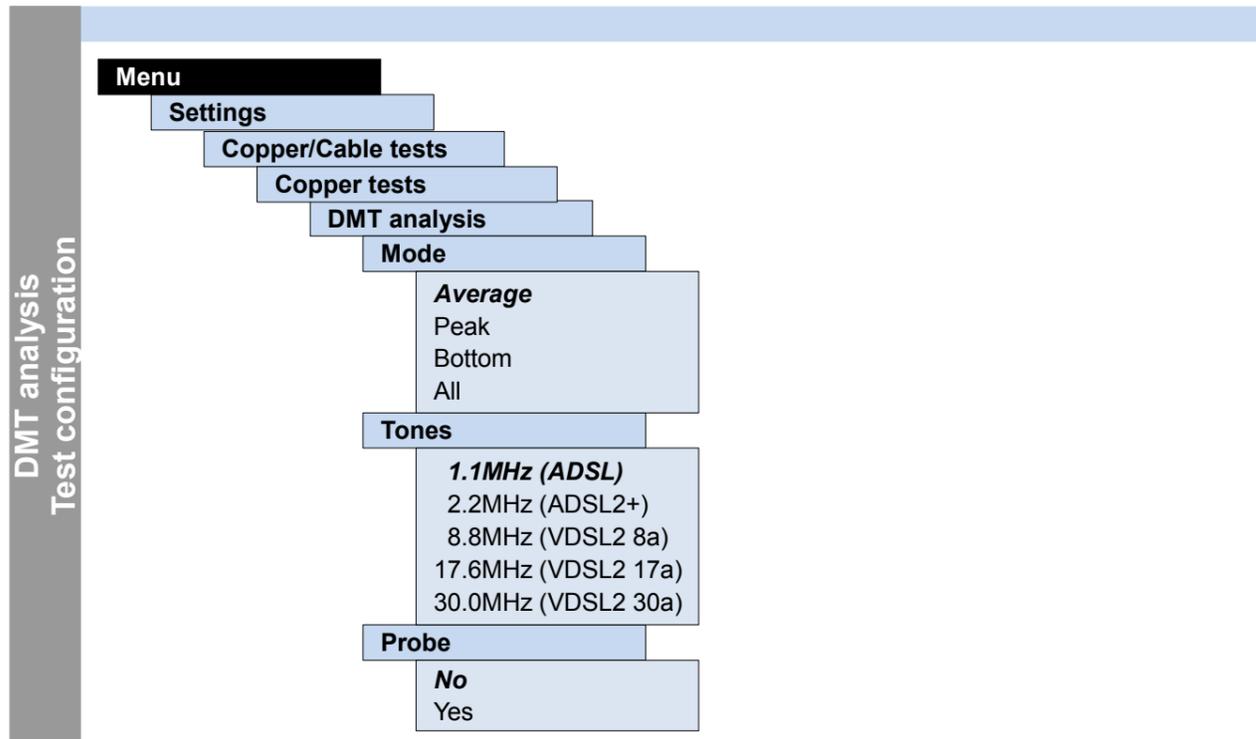
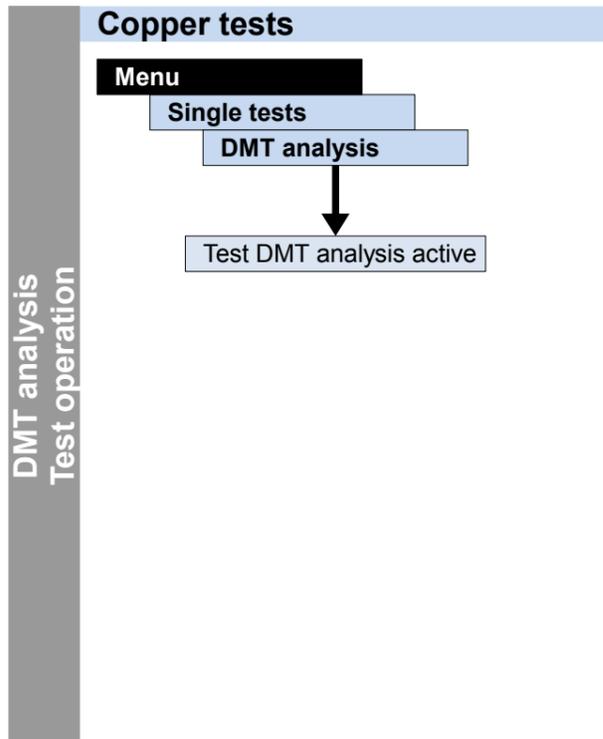
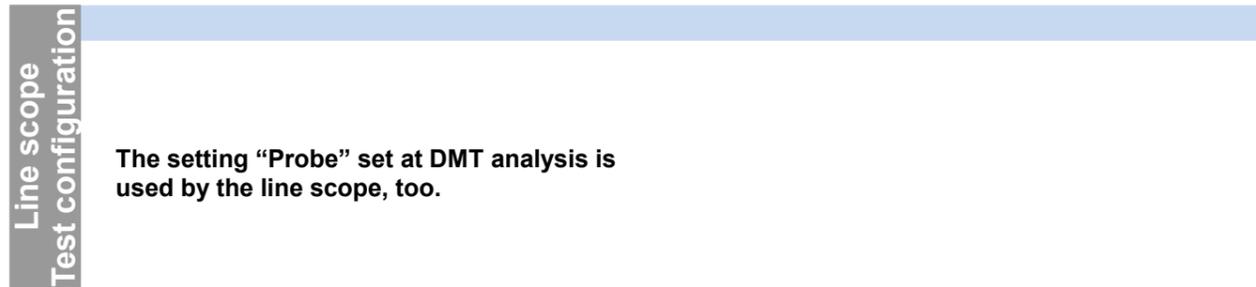
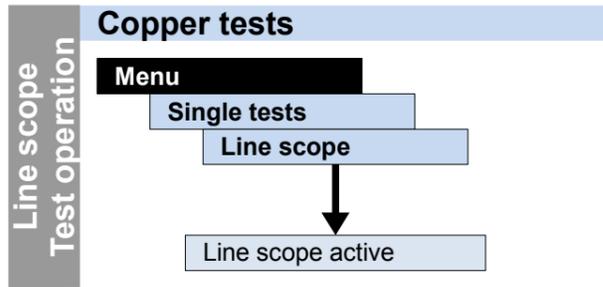
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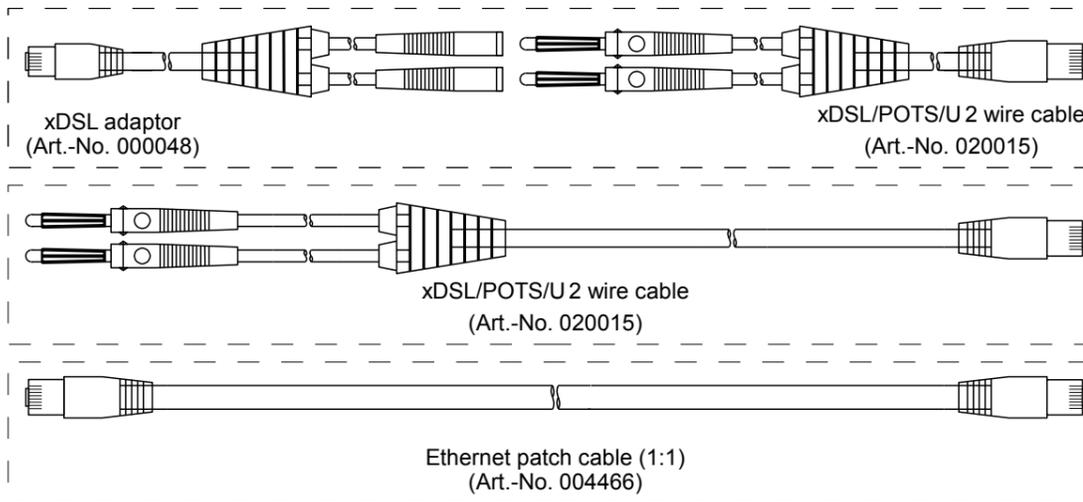
# Test leads and pin assignments

## ADSL, VDSL

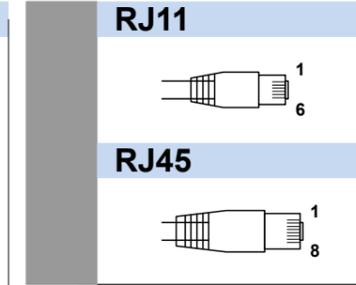
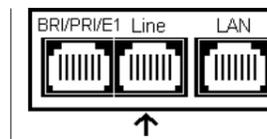
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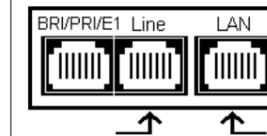
### ADSL / VDSL



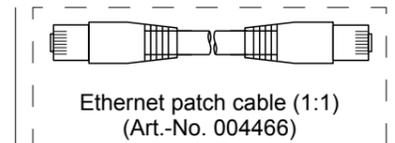
| RJ11 | Ban. | RJ45 |
|------|------|------|
| 3    | rd   | 4    |
| 4    | blk  | 5    |
| Ban. |      | RJ45 |
| rd   |      | 4    |
| blk  |      | 5    |
| RJ45 |      | RJ45 |
| 1-8  |      | 1-8  |



### ADSL / VDSL – Bridge / Router



| RJ45 | RJ45 |
|------|------|
| 1-8  | 1-8  |

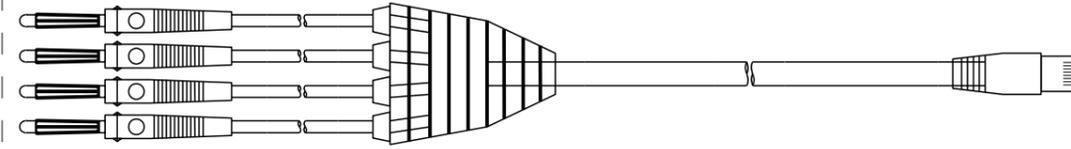


## Test leads and pin assignments SHDSL, Ethernet

### Cross reference:

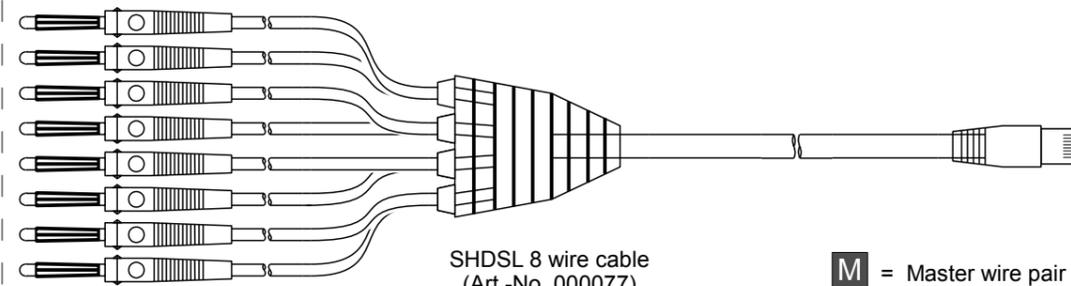
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### SHDSL 2 / 4 wire



SHDSL 4 wire cable  
(Art.-No. 000076)

### SHDSL 2 / 4 / 6 / 8 wire



SHDSL 8 wire cable  
(Art.-No. 000077)

M = Master wire pair

### SHDSL 8 wire



ARGUS 8 wire Crossover cable  
(Art.-No. 000083)



Ethernet patch cable 1:1  
(Art.-No. 004466)

### Ethernet



Ethernet patch cable 1:1  
(Art.-No. 004466)

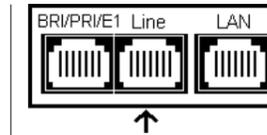
| Ban.     | RJ45 |
|----------|------|
| rd (L2)  | 3    |
| rd (L1)  | 4    |
| blk (L1) | 5    |
| blk (L2) | 6    |

| Ban.  | Line  | RJ45 |
|-------|-------|------|
| M rd  | Pin 4 | 4/5  |
| M blk | Pin 5 | 4/5  |
| rd    | Pin 3 | 3/6  |
| blk   | Pin 6 | 3/6  |
| rd    | Pin 1 | 1/2  |
| blk   | Pin 2 | 1/2  |
| rd    | Pin 7 | 7/8  |
| blk   | Pin 8 | 7/8  |

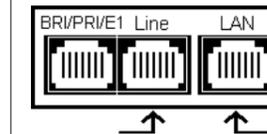
| Line | RJ45 | RJ45 |
|------|------|------|
| 1    | 1/2  | 4/5  |
| 2    | 4/5  | 1/2  |
| 3    | 3/6  | 3/6  |
| 4    | 7/8  | 7/8  |

| RJ45 | RJ45 |
|------|------|
| 1-8  | 1-8  |

| RJ45 | RJ45 |
|------|------|
| 1-8  | 1-8  |



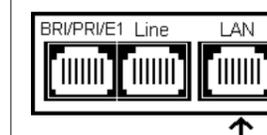
### SHDSL 2 / 4 / 6 / 8 wire – Bridge / Router



| RJ45 | RJ45 |
|------|------|
| 1-8  | 1-8  |



Ethernet patch cable 1:1  
(Art.-No. 004466)



| RJ45 | RJ45 |
|------|------|
| 1-8  | 1-8  |

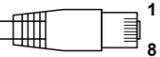


Ethernet patch cable 1:1  
(Art.-No. 004466)

### TAE



### RJ45

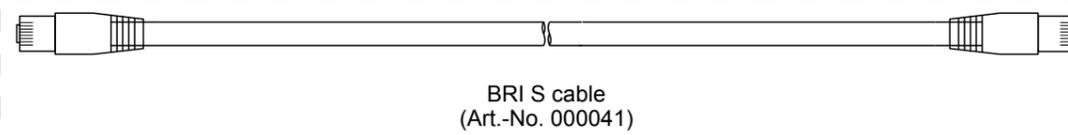


## Test leads and pin assignments BRI S, BRI U, PRI, POTS

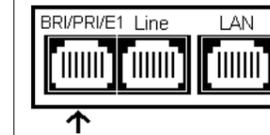
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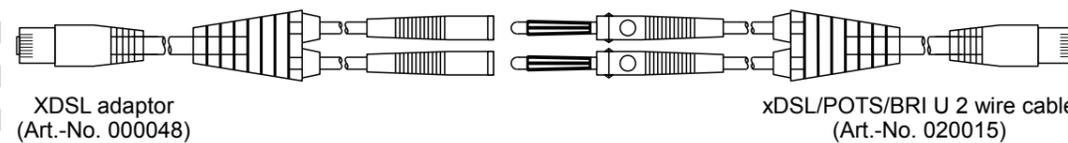
### BRI S



| RJ45 | RJ45 |
|------|------|
| 3/6  | 3/6  |
| 4/5  | 4/5  |



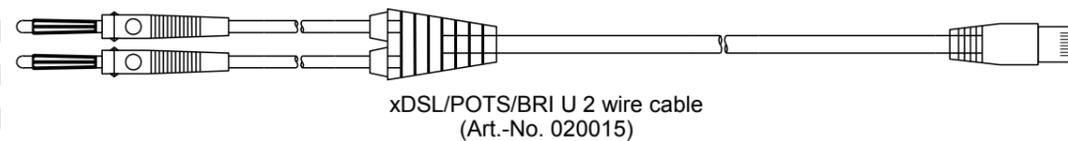
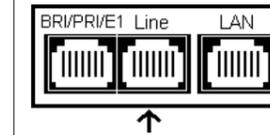
### BRI U / POTS



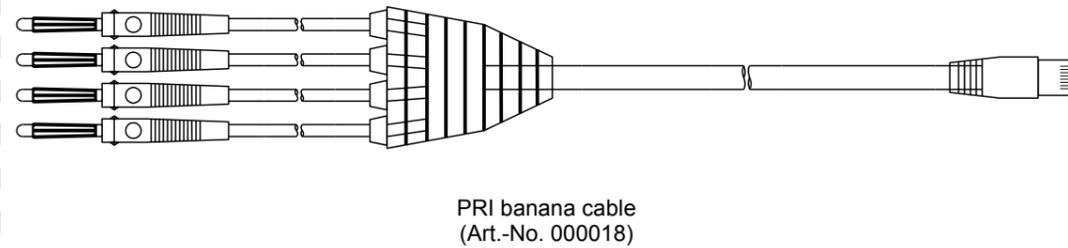
| RJ11 | Ban. | RJ45 |
|------|------|------|
| 3    | rd   | 4    |
| 4    | blk  | 5    |

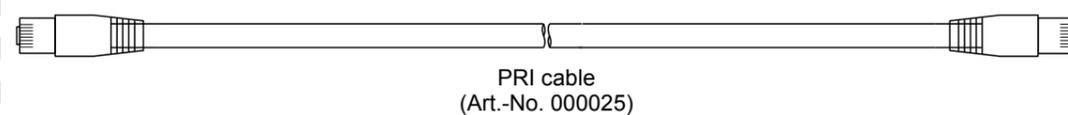
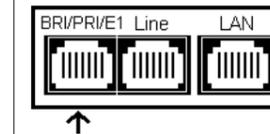
| Ban. | RJ45 |
|------|------|
| rd   | 4    |
| blk  | 5    |



### PRI



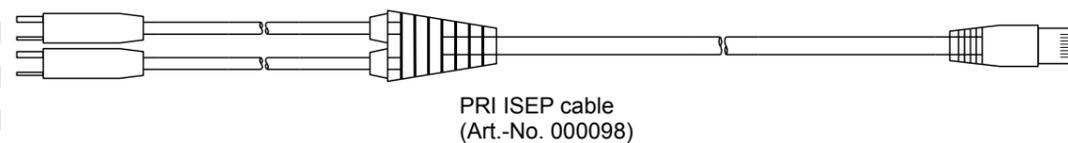
| Ban.  | RJ45 |
|-------|------|
| rd 1  | 8    |
| rd 2  | 1    |
| blk 1 | 7    |
| blk 2 | 2    |



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

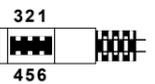


| BNC    | RJ45 | RJ45 |
|--------|------|------|
| TX Out | 1/2  | 1/8  |
| RX In  | 4/5  | 2/7  |

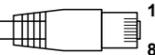


| ISEP | RJ45 |
|------|------|
| 1/2  | 1/8  |
| 4/5  | 2/7  |

### TAE



### RJ45



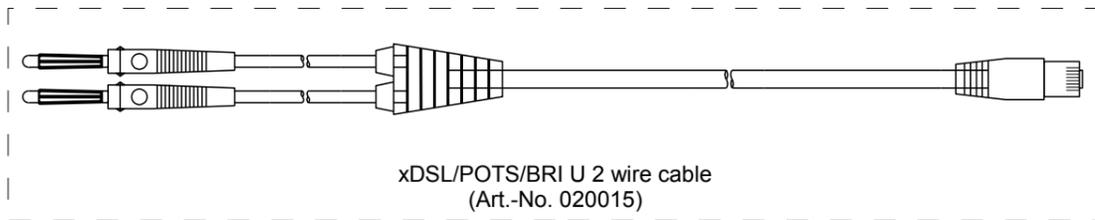
## Test leads and pin assignments

### Copper tests

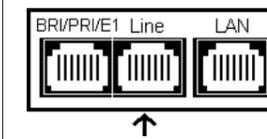
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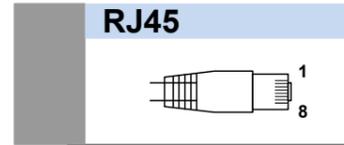
#### Copper tests: R measurement / RC measurement / Line scope / DMT analysis / TDR



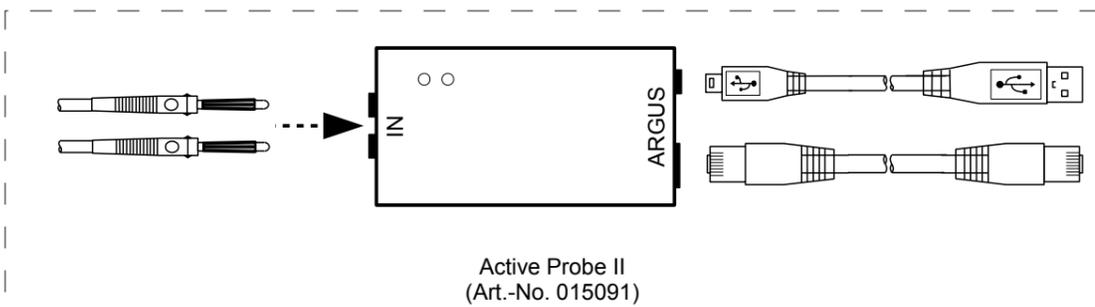
| Ban. | RJ45 |
|------|------|
| rd   | 4    |
| blk  | 5    |



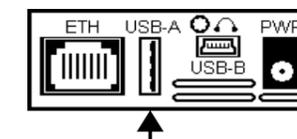
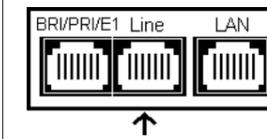
The copper tests are performed using pin 4/5 of the line interface. Alternatively, the test can be carried out with every other test leads that is using pin 4/5.



#### Copper tests: Line scope / DMT analysis



| 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.

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