

DVB for ALL!

TROPHY



USER MANUAL

DVB-BILLING PRO

Billing SoftWare

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DVB-BILLING PRO Software and Statistics Server

The DVB-BILLING PRO software is designed to manage the subscriber's base and manage the decoders in large commercial DVB broadcasting networks using the TROPHY-ACCESS 3.0 Conditional Access System.

The DVB-BILLING PRO software is supplied with the Billing Server. Depending on the order, the Billing Server can be either the simplest (demo version) or the most complex, up to a group of servers assembled using cluster technology.

The main functions of the Statistics Server are:

- management of subscriber decoders;
- keeping records of subscriber payments;
- creating various reports on payments;
- integration of the Billing Server with the system of bank payment terminals and bank acquiring.
- sending of addressed messages and broadcast messages (watermarks etc.) to the subscriber's decoders.

TROPHY-ACCESS Conditional Access System (CAS) integrated into the modulator/multiplexer

The TROPHY-ACCESS 3.0 scrambler is built into the modulator/multiplexer FPGA. In order for the TROPHY-ACCESS 3.0 scrambling function to be available in the modulator, you must purchase a special license:

<http://dvb4all.com/?product=software-license-to-enable-trophy-access-scrambler-solution>

After confirmation of payment, the client is received an unique key, which is generated based on the serial number of your modulator/multiplexer. The **serial number** is indicated in the first line of the System menu of the modulator WEB interface.

The screenshot shows the 'System' menu of the DVB-BILLING PRO interface. The menu includes tabs for System, Network, Inputs, Programs, SI Generator, NIT Generator, and Output. The 'Serial No' field is highlighted with an orange circle and labeled '0x1C0000B0'. The 'Hardware ID' field is labeled '0x0401'. The 'FW / SW version' field is labeled '2.03 / 3.02 build 1134' with an 'Update' button. The 'Input mode' dropdown is set to 'IP-MUX'. The 'Scrambler TA-3/9' dropdown is set to 'Enabled'. The 'Billing server' field is labeled '10.10.20.250'. The 'PCR Restamping' dropdown is set to 'Enabled'. The 'System configuration' section includes buttons for 'Backup', 'Restore', 'Add key', and 'Change password'. The 'Add key' button is highlighted with an orange circle. An 'Accept' button is located below the 'System configuration' section. A temperature indicator 'T=30°C' is visible in the top right corner.

After receiving the key, you can enter its number in the System menu by clicking the **Add key** button.

Multiplexers (Transport Streams) and Groups (Ports)

Modulators/multiplexers are grouped depending on the broadcasting features. For example, it is necessary to transmit streams in different ranges or in different standards.



Or, for example, you want to create more than 3 paid packages, and the system has only 3 types of scrambling. For this, separate groups of modulator are created.

A group can have any number of modulators/multiplexers. All modulators with the same group number have the same subscription information. The system can have up to 10 groups with numbers 0...9. You assign the group number to which the modulator/multiplexer belongs based on the tariff plan scheme and channel viewing rights. When installing a Headend with several modulators/multiplexers, you will need to plan which programs will be included in the packages, then distribute them by streams (multiplexers), subscription groups, etc.

At the first stage, simply assign port "0" to all multiplexers. Each multiplexer must have an unique TSID (Transport Stream ID) number. You must pre-assign this ID in the SI GENERATOR menu of each multiplexer.

A screenshot of the 'SI Generator' menu in the DVB-BILLING PRO interface. The menu has tabs for 'System', 'Network', 'Inputs', 'Programs', 'SI Generator', and 'Modulator'. The 'SI Generator' tab is selected. The form contains the following fields: 'Transport Stream ID' (value 2, circled in red), 'Original Network ID' (value 4), 'Provider Name' (value Trophy), 'TDT generation' (value On), and 'Auxiliary SI Port' (value 901). There is an 'Accept' button at the bottom.

Example:

TSID 1: 0 # multiplexer TSID 1 belongs to the group 0

TSID 2: 0 # multiplexer TSID 2 belongs to the group 0

TSID 3: 1 # multiplexer TSID 3 belongs to the group 1

TSID 4: 2 # multiplexer TSID 4 belongs to the group 2

MUX → Group






















A table showing the mapping of MUX to Group. The table has two columns: 'MUX' and 'Group'. The rows are: 1 → 0, 2 → 0, 3 → 1, and 4 → 2. Each row has a blue 'X' button to the right of the mapping.

Enabling scrambling mode

The modulator/multiplexer can transmit programs in FTA or encrypted form. In order for the program to be encrypted, the scrambling function of the program(s) must be enabled.

In the **Programs** menu, in the line of each program, click the **Program Properties icon** and specify the scrambling type (Type 1, Type2, Type3).

The modulator sends subscription information to Decoders, which allows or denies viewing of encrypted programs.

System	Network	Inputs	Programs	SI Generator	Modulator
SID	Program name	Type	In Address:Port:SID		
10	GEOSAT radio	1 (TV)	0.0.0.0:1234:8509		
20	ITV	1 (TV)	0.0.0.0:1234:8507		
30	BBC One	1 (TV)	0.0.0.0:1234:8506		
40	DW	1 (TV)	0.0.0.0:1234:8505		
50	KAVKASIA	1 (TV)	0.0.0.0:1234:8504		
60	RUSTAVI2	1 (TV)	0.0.0.0:1234:8501		
70	COMEDY	1 (TV)	0.0.0.0:1234:8502		
80	MARAO	1 (TV)	0.0.0.0:1234:8503		
90	Nat Geo Wild Europe	1 (TV)	0.0.0.0:12345:101		
100	BNT World	1 (TV)	0.0.0.0:12345:102		
110	Lucky Balls	1 (TV)	0.0.0.0:12345:201		
120	Dog Racing	1 (TV)	0.0.0.0:12345:202		
130	Virtual Football	1 (TV)	0.0.0.0:12345:203		

Program properties

SID: 30

Name: RUSTAVI2

Type: 1 TV

Conditional Access: FTA

Type	PID	Enabled
MP4 Video (PCR)	121	<input checked="" type="checkbox"/>
MP1 Audio (geo)	122	<input checked="" type="checkbox"/>

FTA
Type 1
Type 2
Type 3

Accept Cancel

Mask and types of scrambling

The subscription allows the Decoder to decrypt programs depending on the specified mask. The mask is a binary number, the least significant bit of which corresponds to the first scrambling type, and the most significant bit of which corresponds to the third type. A one in the corresponding bit indicates that this Decoder is allowed to descramble this encoding type. For each Decoder, each group is assigned a mask. In this way, you can implement separate management of program viewing rights. Decoders are described in the decoders.txt file.

Each line describes one Decoder in the form: Decoder number: mask.

The line to the right of the # symbol is a comment. Spaces are ignored.

Example (we use only three groups of multiplexers)

Example of decoders.txt file.

```
# This is a comment
```

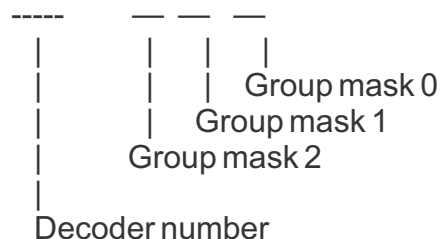
12345: 111 111 111

12346: 010 100 000

12347: 000 011 111

12348: 000 000 000

12348 : 000 000 000



- A subscriber with a 12345 decoder will be able to watch all programs on all streams.
- A subscriber with a 12346 decoder will be able to watch:
 - on modulators of group 0 (TSID 1 and TSID 2) only FTA programs;
 - on modulators of group 1 (TSID 3) programs with encoding type 3, as well as FTA;
 - on modulators of group 2 (TSID 4) programs with encoding type 2, as well as FTA.
- A subscriber with decoder 12347 will be able to watch:
 - on modulators of group 0 (TSID 1 and TSID 2) all programs;
 - on modulators of group 1 (TSID 3) programs with encoding types 1 and 2, as well as FTA;
 - on modulators of group 2 (TSID 4) only FTA programs.
- A subscriber with a 12348 decoder will be able to view only FTA programs on all streams.

Decoder number and geographic area

The full Decoder number consists of two parts:

- the Zone number and the Decoder number in this Zone. Each provider using TROPHY-ACCESS CAS receives a unique geographic area number. For example 42-12345 (Zone No. 42, Decoder No. 12345). The DVB-BILLING PRO program comes with a preset Zone number, and the Decoders.txt file contains the Decoder number without a Zone number (in this case - 12345).

Example 1

You have only one broadcasting method - satellite.
You have 3 multiplexers:



You have prepared a list of channels divided into 3 packages:

Package: Base

100 channels

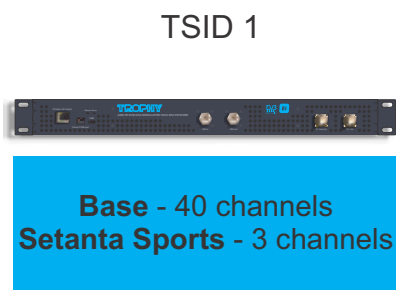
Package: Setanta Sports

3 channels

Package: Sport Plus

20 channels

- You decided to setup in the first multiplexer:
40 channels of the **Base** package, 3 channels of the **Setanta Sports** package;
- in the second multiplexer:
50 channels of the **Base** package;
- in the third multiplexer:
10 channels of the **Base** package, 20 channels of the **Sport Plus** package.



You can assign the same group to all multiplexers - **Group 0** and assign each packet an individual scrambling type (**Type 1, Type2, Type3**).
The **MUX -->Group** table of the package **Constructor** menu will look like this:

MUX → Group

1 → 0	X
2 → 0	X
3 → 0	X

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The package **Constructor** will look like this:

Packages	Group 0			Group 1			Group 2			Group 3		
	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
Base	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setanta Sports	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport Plus	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In the **Programs** menu of each multiplexer, in the line of each program, you need to click the **Program Properties** icon and specify the type of scrambling (Type 1, Type2, Type3).

System	Network	Inputs	Programs	SI Generator	Modulator
SID	Program name	Type	In Address:Port:SID		
10	GEOSAT radio	1 (TV)	0.0.0.0:1234:8509		
20	ITV	1 (TV)	0.0.0.0:1234:8507		
30	BBC One	1 (TV)	0.0.0.0:1234:8508		
40	DW	1 (TV)	0.0.0.0:1234:8505		
50	KAVKASIA	1 (TV)	0.0.0.0:1234:8504		
60	RUSTAVI2	1 (TV)	0.0.0.0:1234:8501		
70	COMEDY	1 (TV)	0.0.0.0:1234:8502		
80	MARAO	1 (TV)	0.0.0.0:1234:8503		
90	Nat Geo Wild Europe	1 (TV)	0.0.0.0:12345:101		
100	BNT World	1 (TV)	0.0.0.0:12345:102		
110	Lucky Balls	1 (TV)	0.0.0.0:12345:201		
120	Dog Racing	1 (TV)	0.0.0.0:12345:202		
130	Virtual Football	1 (TV)	0.0.0.0:12345:203		

- For all channels of the **Base** package **Type 1** (C1) must be specified.
- For all channels of the **Setanta Sports** package **Type 2** (C2) must be specified.
- For all channels of the **Sport Plus** package **Type 3** (C3) must be specified.

Program properties

SID: 30

Name: RUSTAVI2

Type: 1 TV

Conditional Access: FTA

Type	PID	Enabled
H.264 Video (PCR)	121	<input checked="" type="checkbox"/>
MP1 Audio (geo)	122	<input checked="" type="checkbox"/>

FTA
Type 1
Type 2
Type 3

Accept Cancel

Example 2

You have only one broadcasting method - satellite.
You have 3 multiplexers:

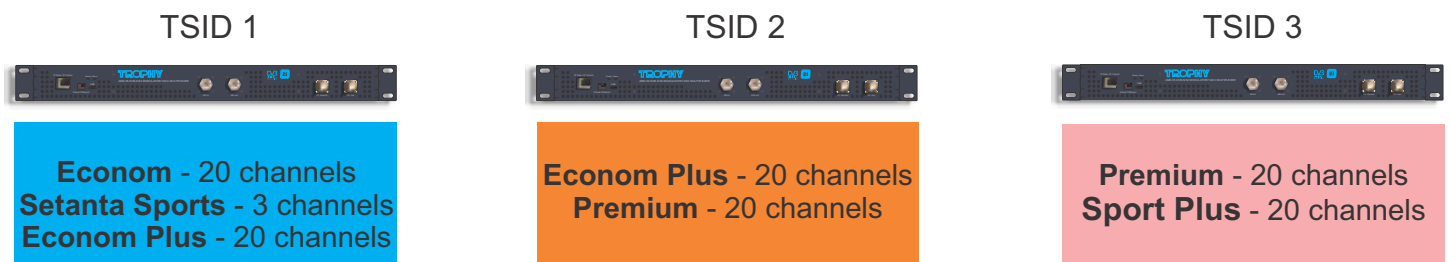


You have prepared a list of channels divided into 5 packages:

- Package: **Economy**
20 channels
- Package: **Economy Plus**
40 channels
- Package: **Premium**
40 channels
- Package: **Setanta Sports**
3 channels
- Package: **Sport Plus**
20 channels

You cannot place more than 3 packets in one multiplexer. Therefore, we arrange the channels this way:

- in the first multiplexer: 20 channels of the Econom package, 3 channels of the Setanta Sports package, 20 channels of the Econom Plus package;
- in the second multiplexer: 20 channels of the package, 20 channels of the Econom Plus package, 20 channels of the Premium package;
- in the third multiplexer: 20 channels of the Premium package, 20 channels of the Sport Plus package.



You can assign different groups to multiplexers - **Group 0, Group 1, Group 2**.
The **MUX -->Group** table will look like this:

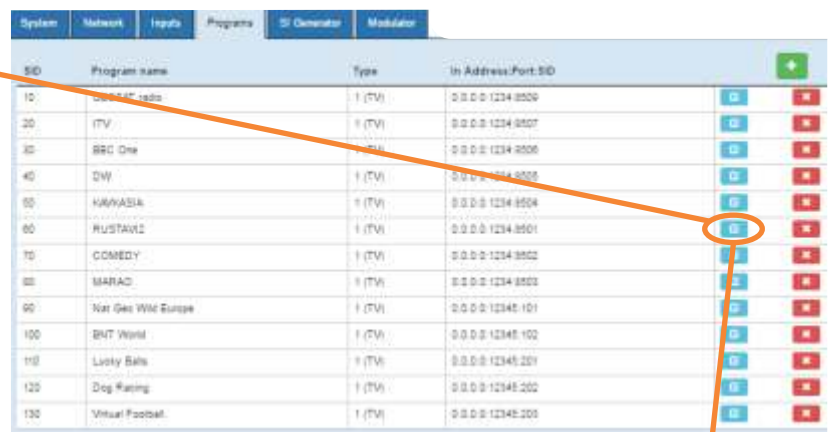
MUX → Group

1 → 0	X
2 → 1	X
3 → 2	X

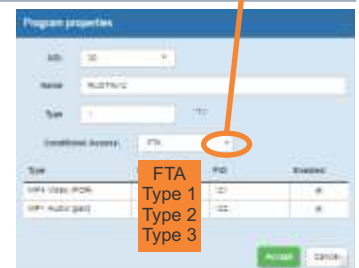
The package **Constructor** will look like this:

Packages	Group 0			Group 1			Group 2			Group 3		
	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
Econom	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Econom Plus	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Premium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setanta Sports	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport Plus	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In the **Programs** menu of each multiplexer, in the line of each program, you need to click the **Program Properties** icon and specify the type of scrambling (Type 1, Type2, Type3).



System	Network	Inputs	Programs	SI Generator	Modulator
SID	Program name	Type	In Address/Port/SID		
10	DISNEY	1 (TV)	0.0.0.0:1234:8506		
20	ITV	1 (TV)	0.0.0.0:1234:8507		
30	BBC One	1 (TV)	0.0.0.0:1234:8508		
40	DW	1 (TV)	0.0.0.0:1234:8509		
50	HAWAIIAN	1 (TV)	0.0.0.0:1234:8504		
60	RUSTAVI2	1 (TV)	0.0.0.0:1234:8501		
70	COMEDY	1 (TV)	0.0.0.0:1234:8502		
80	MARAC	1 (TV)	0.0.0.0:1234:8503		
90	Nat Geo Wm Europe	1 (TV)	0.0.0.0:12345:101		
100	BNT World	1 (TV)	0.0.0.0:12345:102		
110	Lucky Balls	1 (TV)	0.0.0.0:12345:201		
120	Dog Racing	1 (TV)	0.0.0.0:12345:202		
130	Virtual Football	1 (TV)	0.0.0.0:12345:203		



Program properties

SID: 30

Name: RUSSIA/C

Type: 1

Conditional Access: FTA

FTA Type 1 Type 2 Type 3

OK Cancel

In the multiplexer **TSID1** for all channels of the **Econom** package

Type 1 (**C1**) must be specified

For all **Setanta Sports** package channels

Type 2 (**C2**) must be specified

For all channels of the **Econom Plus** package

Type 3 (**C3**) must be specified

In the **TSID2** multiplexer for all channels of the **Econom Plus** package

Type 1 (**C1**) must be specified

For all channels of the **Premium** package

Type 2 (**C2**) must be specified

In the multiplexer **TSID3** for all channels of the **Premium** package

Type 1 (**C1**) must be specified

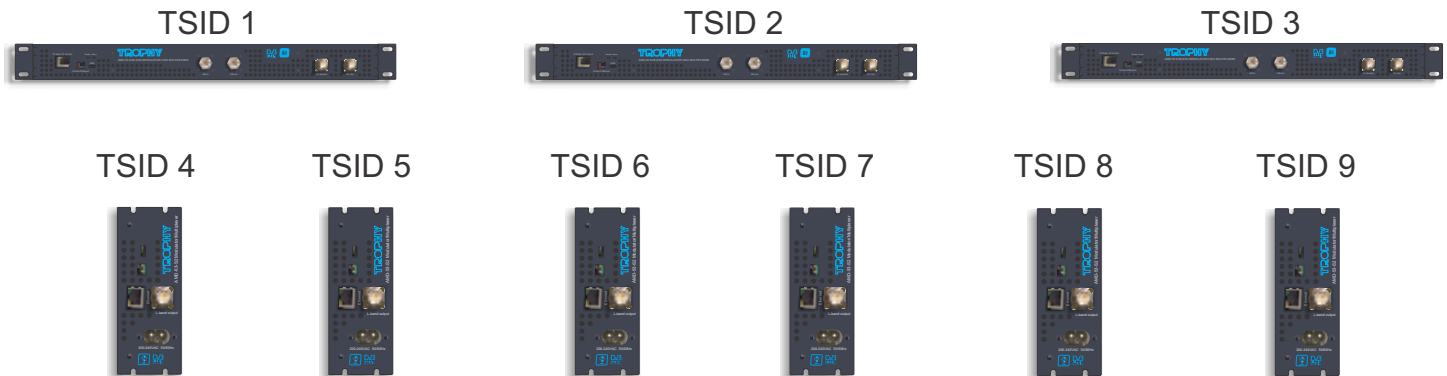
For all channels of the **Sport Plus** package

Type 2 (**C2**) must be specified

Example 3

You have two broadcasting methods - DVB-S2 and DVB-C:

You have 3 DVB-S2 multiplexers (TSID1-TSID3) and 6 DVB-C multiplexers (TSID4-TSID9), considering that the capacity of the DVB-C transponder is approximately 2 times less than the capacity of the DVB-S2 transponder:



You have prepared a list of channels divided into 5 packages:

- Package: **Economy**
20 channels
- Package: **Economy Plus**
40 channels
- Package: **Premium**
40 channels
- Package: **Setanta Sports**
3 channels
- Package: **Sport Plus**
20 channels

You cannot place more than 3 packets in one multiplexer. Therefore, we arrange the channels this way:

- in multiplexer TSID 1:
20 channels of the Econom package, 3 channels of the Setanta Sports package, 20 channels of the Econom Plus package;
- in multiplexer TSID 2:
20 channels of the package, 20 channels of the Econom Plus package, 20 channels of the Premium package;
- in multiplexer TSID 3:
20 channels of the Premium package, 20 channels of the Sport Plus package.
- in multiplexer TSID 4:
10 channels of the Econom package, 1 channel of the Setanta Sports package, 10 channels of the Econom Plus package;
- in multiplexer TSID 5:
10 channels of the Econom package, 2 channels of the Setanta Sports package, 10 channels of the Econom Plus package;
- in multiplexer TSID 6:
10 channels of the Econom Plus package, 10 channels of the Premium package;
- in multiplexer TSID 7:
10 channels of the Econom Plus package, 10 channels of the Premium package;
- in multiplexer TSID 8:
10 channels of the Premium package, 10 channels of the Sport Plus package.
- in multiplexer TSID 9:
10 channels of the Premium package, 10 channels of the Sport Plus package.

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TSID 1



Econom - 20 channels
Setanta Sports - 3 channels
Econom Plus - 20 channels

TSID 2



Econom Plus - 20 channels
Premium - 20 channels

TSID 3



Premium - 20 channels
Sport Plus - 20 channels

TSID 4



Econom - 10 channels
Setanta Sports - 1 channel
Econom Plus - 10 channels

TSID 5



Econom - 10 channels
Setanta Sports - 2 channels
Econom Plus - 10 channels

TSID 6



Econom Plus - 10 channels
Premium - 10 channels

TSID 7



Econom Plus - 10 channels
Premium - 10 channels

TSID 8



Premium - 10 channels
Sport Plus - 10 channels

TSID 9



Premium - 10 channels
Sport Plus - 10 channels

You can assign different groups to multiplexers - **Group 0, Group 1, Group 2**.
The **MUX --> Group** table will look like this:

MUX → Group

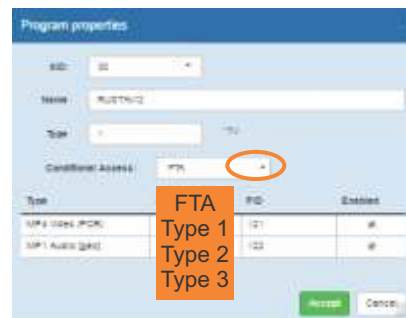
1 → 0	X
2 → 1	X
3 → 2	X
4 → 0	X
5 → 0	X
6 → 1	X
7 → 1	X
8 → 2	X
9 → 2	X

The package **Constructor** will look like this:

Packages	Group 0			Group 1			Group 2			Group 3		
	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
Econom	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Econom Plus	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Premium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setanta Sports	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport Plus	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In the **Programs** menu of each multiplexer, in the line of each program, you need to click the **Program Properties** icon and specify the type of scrambling (Type 1, Type2, Type3).

- In the multiplexer TSID1 for all channels of the Econom package
 - Type 1 (C1) must be specified
- For all Setanta Sports package channels
 - Type 2 (C2) must be specified
- For all channels of the Econom Plus package
 - Type 3 (C3) must be specified
- In the TSID2 multiplexer for all channels of the Econom Plus package
 - Type 1 (C1) must be specified
- For all Premium package channels Type 2 (C2) must be specified
- In the multiplexer TSID3 for all channels of the Premium package
 - Type 1 (C1) must be specified
- For all channels of the Sport Plus package
 - Type 2 (C2) must be specified
- In the TSID4 multiplexer for all channels of the Econom package
 - Type 1 (C1) must be specified
- For all Setanta Sports package channels
 - Type 2 (C2) must be specified
- For all channels of the Econom Plus package
 - Type 3 (C3) must be specified
- In the multiplexer TSID5 for all channels of the Econom package
 - Type 1 (C1) must be specified
- For all Setanta Sports package channels
 - Type 2 (C2) must be specified
- For all channels of the Econom Plus package
 - Type 3 (C3) must be specified
- In the multiplexer TSID6 for all channels of the Econom Plus package
 - Type 1 (C1) must be specified
- For all Premium package channels
 - Type 2 (C2) must be specified
- In the TSID7 multiplexer for all channels of the Econom Plus package
 - Type 1 (C1) must be specified
- For all channels of the Premium package
 - Type 2 (C2) must be specified
- In the TSID8 multiplexer for all channels of the Premium package
 - Type 1 (C1) must be specified
- For all channels of the Sport Plus package
 - Type 2 (C2) must be specified
- In the multiplexer TSID9 for all channels of the Premium package
 - Type 1 (C1) must be specified
- For all channels of the Sport Plus package
 - Type 2 (C2) must be specified



TROPHY-ACCESS CAS

The TROPHY-ACCESS 3.0 Conditional Access System does not use the CSA algorithm, which ensures high reliability and the absence of the possibility of pirated viewing, called Card-sharing.

The scrambler is integrated into the hardware of TROPHY brand modulators/multiplexers.

The Decoder is integrated into the hardware of TROPHY DVB Set-Top-Boxes.

The Billing Server and DVB-BILLING PRO software provide the ability to manage subscriptions. The Decoder automatically turns off if the subscriber account balance is insufficient.

Subscription data is transmitted to the MODULATOR/MULTIPLEXER via Ethernet.

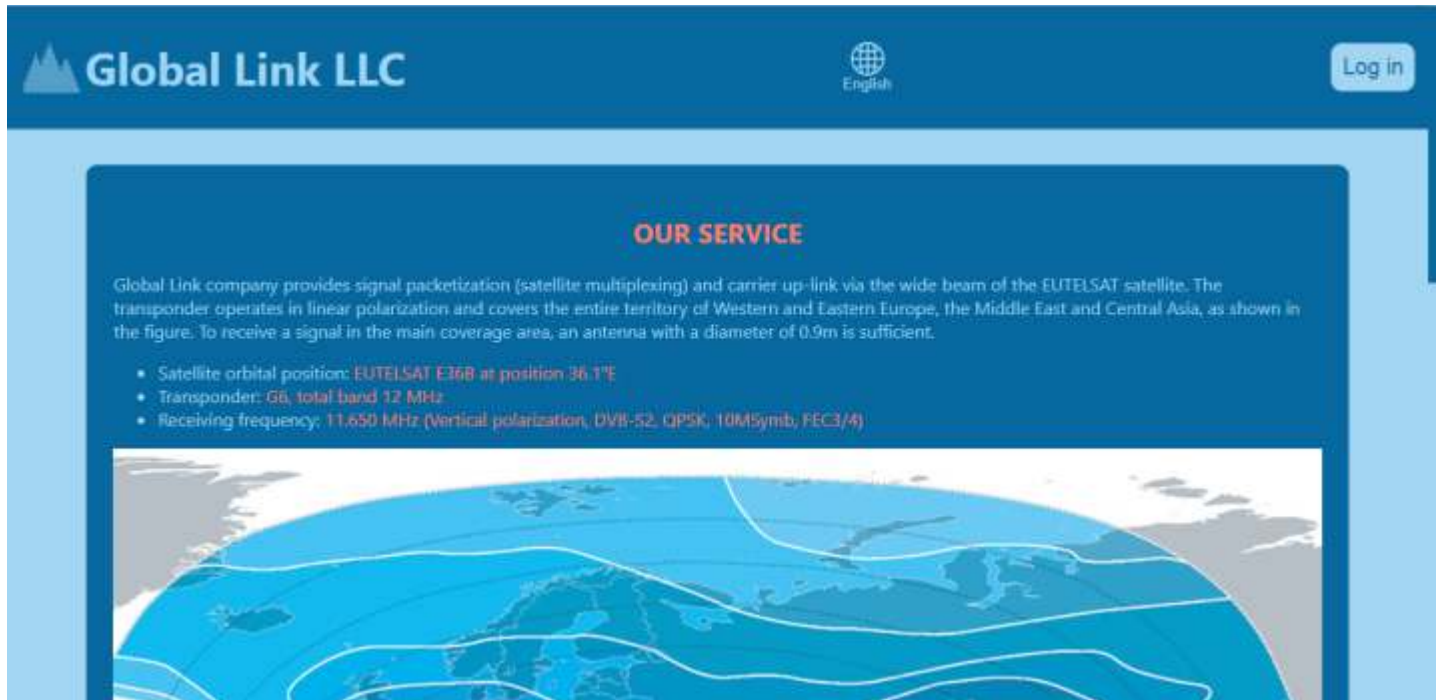
Options	
Type of CAS	Cardless, doesn't match CSA algorithm
Polynomial length	2048 bits
The size of the decoder address field	32 bits
Quantity of addressable decoders	16 millions
The number of serviced channels	without any restrictions
The number of packets serviced	without any restrictions
Automatic disconnection of the decoder	with zero balances in the account

Personal account of subscriber

Access to the site

Enter the **domain name** of the service provider in your browser.

The main page of the site will be displayed on the screen.



Language selection

Click the language selection button at the top of the page. In the drop-down menu, find the language that is convenient for you.



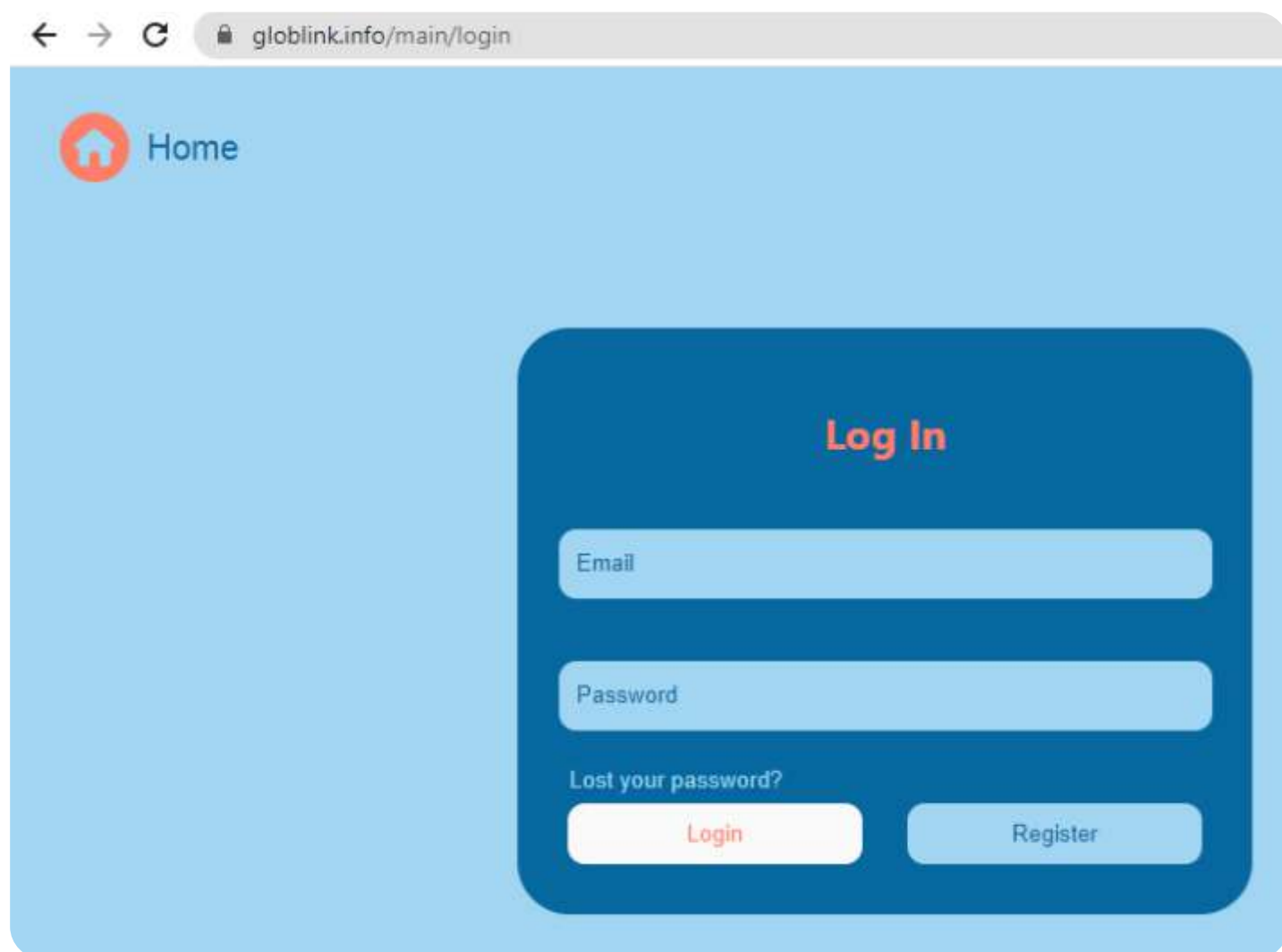
List of available languages:

Arab	Kyrgyz
Armenian	Russian
Azerbaijani	Tajik
English	Turkmen
French	Ukrainian
Georgian	Uzbek
Kazakh	

Access to your personal account

Click the **Login** button to go to the authorization page.

A registration menu will appear on the screen asking you to log into your account or register on the site. If your account is already registered, enter your email address and password, and click the **Login** button.



The screenshot shows a web browser window with the address bar displaying "globlink.info/main/login". The page has a light blue background. In the top left corner, there is a red house icon and the word "Home". On the right side, there is a dark blue rounded rectangle containing the "Log In" section. This section includes two light blue input fields labeled "Email" and "Password". Below these fields is a link that says "Lost your password?". At the bottom of the "Log In" section, there are two buttons: a white button with a red "Login" label and a light blue button with a dark blue "Register" label.

DVB-BILLING PRO

If your account has not yet been registered, click the **Register** button.

In the registration window, enter your email address and verification characters, confirm acceptance of the terms of service (after reading it first), and then click the **Send email** button.

The top screenshot shows a blue 'Register' form. It has a text input field for 'Enter email address', a verification image showing the number '8172', another text input field for 'Type the characters above', a checkbox for 'I have read Terms of Service of LTD Portal globlink.info and accept these terms', and two buttons: 'Send email' and 'Back'.

The bottom screenshot shows a 'Successful!' confirmation screen. It says 'The password was sent to your email address' and has a 'Go back to login' button. At the bottom, there are 'Send email' and 'Back' buttons.

Within a few seconds you will receive a message with your account password at this address

globlink.info - Registration Inbox x



Billing <noreply@globlink.info>

to me ▾

Hi,

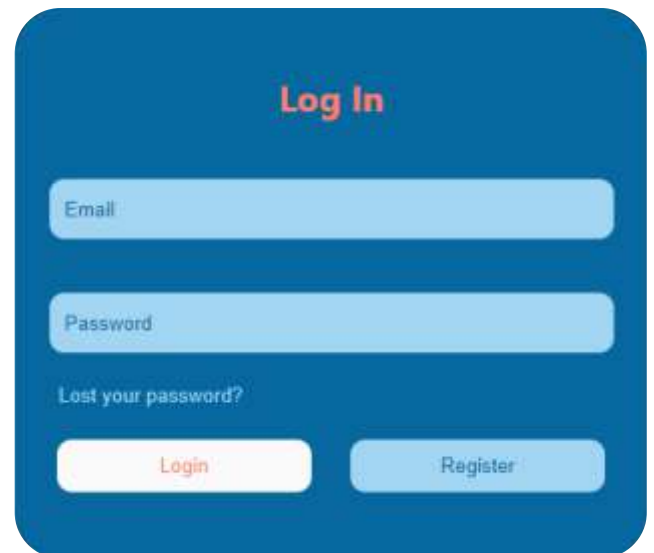
Thanks for creating an account on . Your username is XXXXXXXXXX
You can access your account area to view orders, change your password,
and more at: <https://globlink.info>

Your password has been automatically generated: oqabx1cr

We look forward to seeing you soon.

LOGIN TO YOUR PERSONAL ACCOUNT

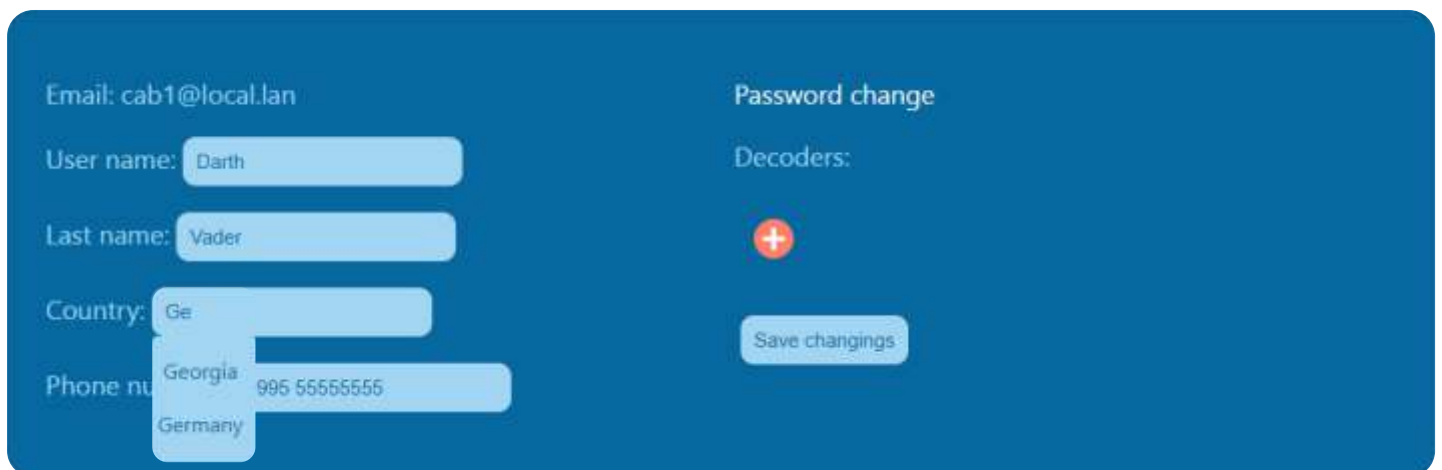
After receiving your password by email, enter your email address and the received generated password. Click the **Login** button to log in to the your account page.

A login form with a blue background. At the top, it says "Log In" in red. Below that are two input fields: "Email" and "Password". Under the password field is a link "Lost your password?". At the bottom are two buttons: "Login" (highlighted in orange) and "Register" (light blue).

The following pages will be available in your personal account:

- **Balance**
- **Profile**

You can log out of your account by clicking the **Logout** button.

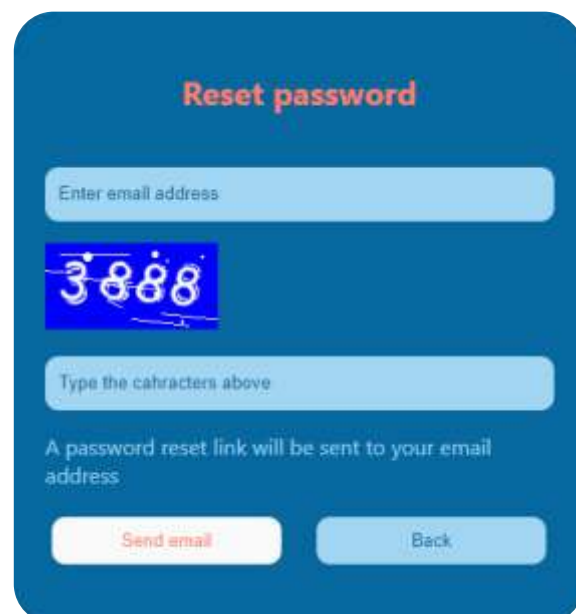
A profile editing form with a blue background. On the left, there are input fields for "Email: cab1@local.lan", "User name: Darth", "Last name: Vader", "Country: Ge" (with a dropdown menu showing "Georgia" and "Germany"), and "Phone number: 995 55555555". On the right, there is a "Password change" section with a "Decoders:" label, a red plus button, and a "Save changings" button.

Enter your first name, last name, country of residence and phone number.

When you enter the first letters of the country name, a list of countries appears from which you must select your country. The list is generated according to the ISO_3166-1 standard. The front-end displays the name of the country and the database receives a 2-digit country identifier. Please note that selecting a country is required. If this line is not filled in, you will not be able to assign program packages to your decoders in the **Balance** menu.

FORGOT YOUR PASSWORD? OBTAINING A NEW PASSWORD

Click the **Login** button. Click **Lost your password?** in the registration window. A password reset window will appear on the screen.



Reset password

Enter email address

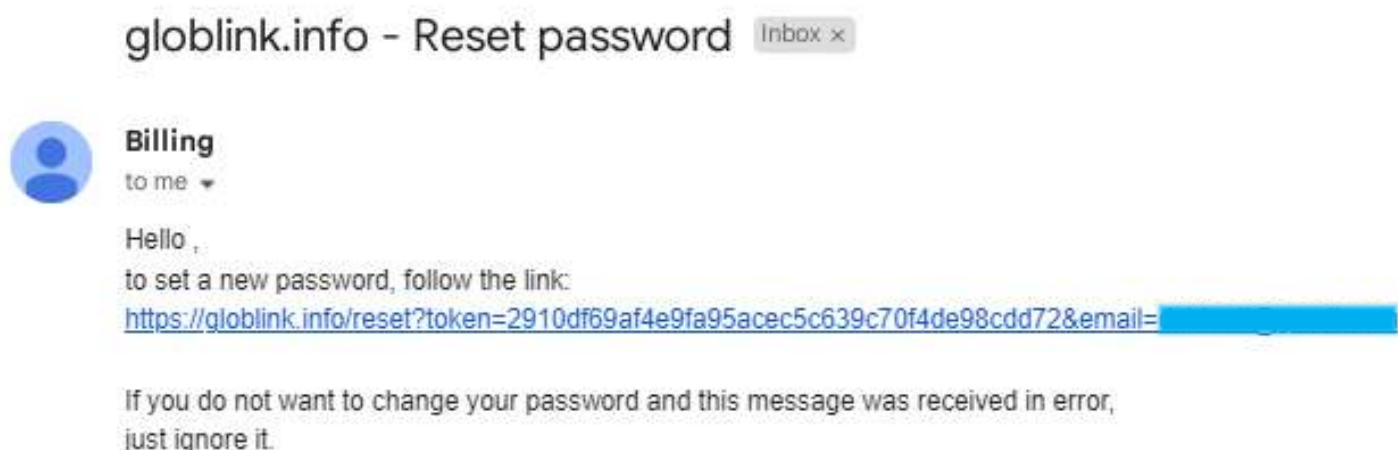
3888

Type the characters above

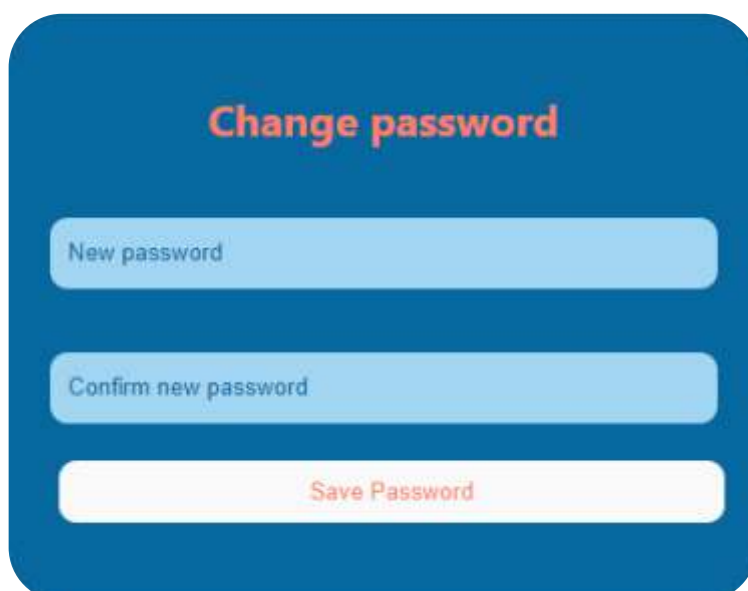
A password reset link will be sent to your email address

Send email **Back**

Enter your email and verification characters, then click the **Send email** button. Within a few seconds you will receive an email with your new account password:



Click to link into the letter text to open the **Change password** menu.



Change password

New password

Confirm new password

Save Password


Entering the decoder number on the PROFILE page

Enter the serial number of your Decoder (or Decoders).

The decoder serial number is located on a sticker on the bottom cover of the Set-Top-Box.



95 - 255543

You can add a new decoder serial number by clicking the  button.

The Billing Administrator must enter all decoder numbers into the database in advance. When the Subscriber enters a decoder on the **Profile** page, the following checks occur:

- checking the checksum to avoid number entry errors (checked on the front-end);
- the decoder number should not contain more than 12 characters (checked on the front-end);
- presence of the decoder number in the database;
- whether the decoder is free or already in use.

If you specified an incorrect decoder number, the program will display the following error message:

“There is no decoder with this number or it is already in use”

Here you can remove the decoder. Confirm decoder removal by clicking **OK**. If the decoder has a prepaid package, then disabling the decoder will take effect during the next tariff activation, which occurs every 30 days. You can see the next activation date on the **Balance** page.

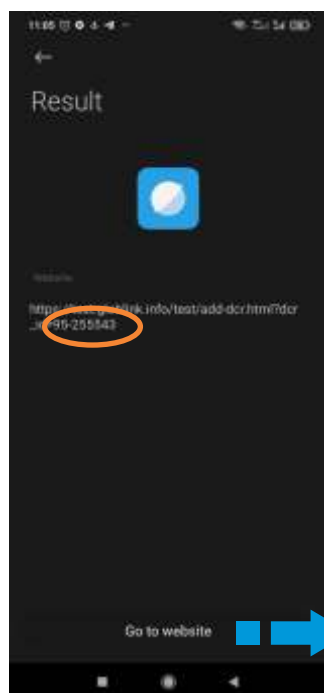


Entering a decoder using a QR code

Using your smartphone, scan the decoder number indicated on the Set-Top-Box sticker. Press the link to the login to the page of the personal account. Follow this link, enter your username and password. Next, you can select program packages for this decoder number on the **Balance** page.



95 - 255543



Log In

[Lost your password?](#)

Email:

User name:

Last name:

Country:

Phone number:

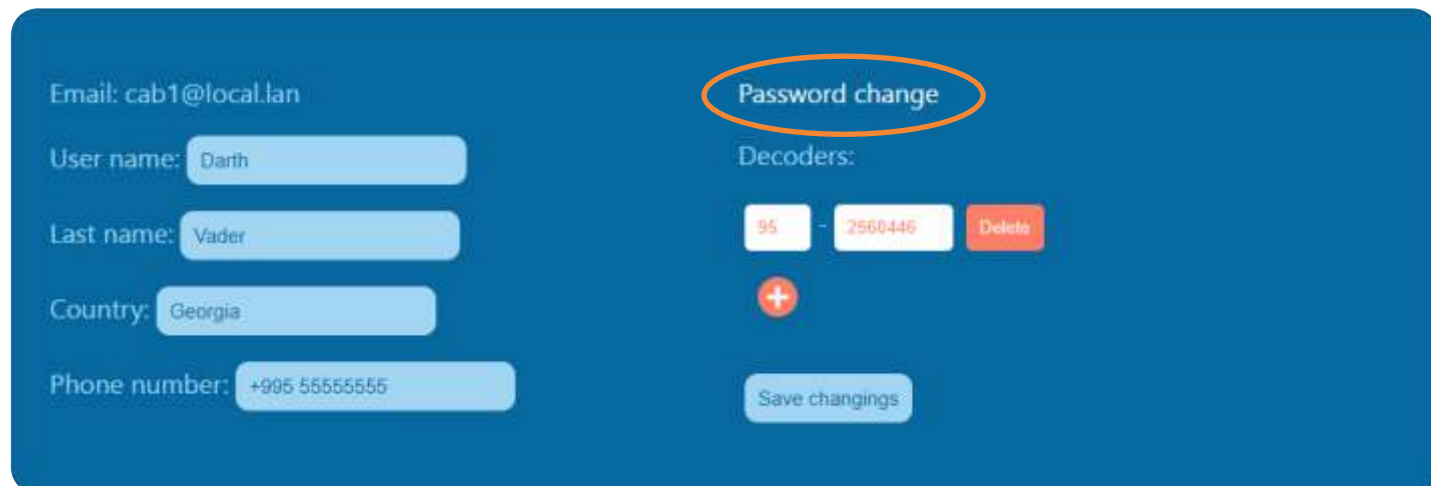
Password change

Decoders:

95	1113446	Delete
95	1113446	Delete
95	1113446	Delete
95	1113446	Delete
95	1113446	Delete
95	1113446	Delete
95	1113446	Delete
+		

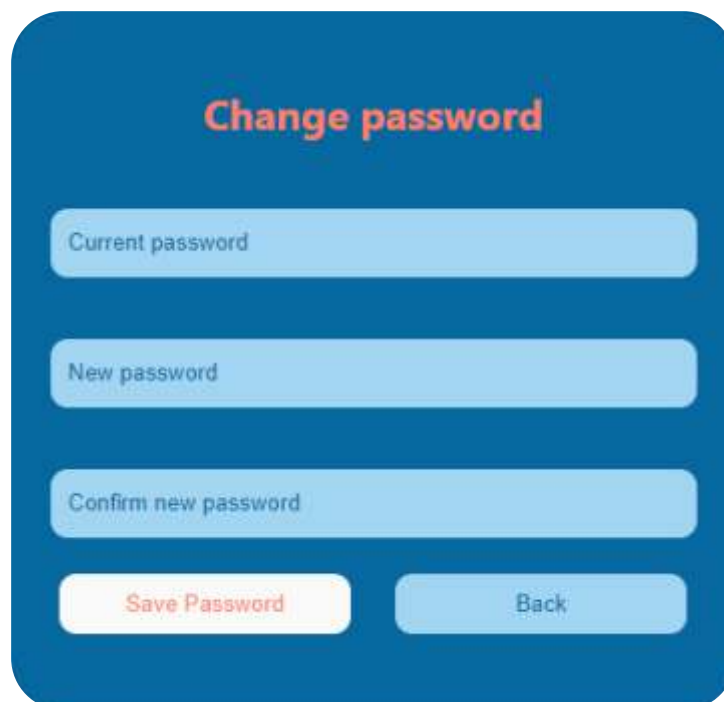
Changing your password on the PROFILE page

To change the password, click the **Password change** line.



The screenshot shows a user profile page with a blue background. On the left, there are input fields for 'Email: cab1@local.lan', 'User name: Darth', 'Last name: Vader', 'Country: Georgia', and 'Phone number: +905 55555555'. On the right, there is a 'Password change' link circled in orange. Below it, there is a 'Decoders:' section with two decoder cards: one with '95' and another with '2560446' and a 'Delete' button. There is also a red '+' button to add more decoders. At the bottom right, there is a 'Save changings' button.

Enter your current password and enter your new password twice. Click the **Save** button to save the new password.



The screenshot shows a 'Change password' form with a blue background. It has three input fields: 'Current password', 'New password', and 'Confirm new password'. At the bottom, there are two buttons: 'Save Password' and 'Back'.

BALANCE

On this page you can see the current balance of your account, current packages and the number of each Decoder. Here you can top up your balance, turn-on or turn-off the packages.

Current balance: 0 \$

Amount refill:

10 \$
20 \$
30 \$
40 \$

Minimal recommended amount
\$ 10.00

Decoder id: 95-27687 new

Packages:			
<input checked="" type="checkbox"/>	Sport4+	USD 7 per 30 days	Date of next activation: January 29, 2024
<input type="checkbox"/>	Sport3+	USD 1.2 per 30 days	Date of expiration: January 17, 2024
<input type="checkbox"/>	Sport1+	USD 2.8 per 30 days	Date of next activation: inactive
<input type="checkbox"/>	Sport2+	USD 3.3 per 30 days	Date of next activation: inactive

Deactivate all packages

Decoder id: 95-27481 new

Packages:			
<input checked="" type="checkbox"/>	Sport4+	USD 7 per 30 days	Date of next activation: January 14, 2024
<input type="checkbox"/>	Sport1+	USD 2.8 per 30 days	Date of next activation: inactive
<input type="checkbox"/>	Sport2+	USD 2.3 per 30 days	Date of next activation: inactive
<input type="checkbox"/>	Sport3+	USD 1.2 per 30 days	Date of next activation: inactive

Deactivate all packages

Decoder id: 95-27219 new

Packages:			
<input checked="" type="checkbox"/>	Sport3+	USD 1.2 per 30 days	Date of next activation: January 19, 2024
<input checked="" type="checkbox"/>	Sport4+	USD 7 per 30 days	Date of next activation: January 25, 2024
<input type="checkbox"/>	Sport1+	USD 2.8 per 30 days	Date of next activation: inactive
<input type="checkbox"/>	Sport2+	USD 3.3 per 30 days	Date of next activation: inactive

Deactivate all packages

Decoder id: 95-27993 new

Packages:			
<input checked="" type="checkbox"/>	Sport1	USD 3 per 30 days	Date of next activation: January 17, 2024
<input type="checkbox"/>	Sport1+	USD 2.8 per 30 days	Date of next activation: inactive
<input type="checkbox"/>	Sport2+	USD 3.3 per 30 days	Date of next activation: inactive
<input type="checkbox"/>	Sport3+	USD 1.2 per 30 days	Date of next activation: inactive
<input type="checkbox"/>	Sport4+	USD 7 per 30 days	Date of next activation: inactive

Deactivate all packages

The list of available packages is sent to the frontend from the billing database.

Various types of decoders are possible, both individual and corporate. For all types of decoders, the Administrator creates special packages, depending on the terms of the contract with subscribers. The Billing program offers only packages authorized by the Administrator for the decoder. Typically, only a single special package is available to a corporate subscriber.

Please note that selecting a country on the Profile page is required. If this line is not filled in, you will not be able to assign packages to your decoders.

The screenshot shows a blue interface with the following elements:

- Current balance:** 20 \$
- Payment options:** Two buttons, one for VISA/MasterCard (blue with logo) and one for Bank transfer (orange).
- Amount refill:** Four buttons labeled 30 days, 60 days, 90 days, and 360 days.
- Minimal recommended amount:** A label above a white input field containing the number 0.

In the top window you can see your current balance.

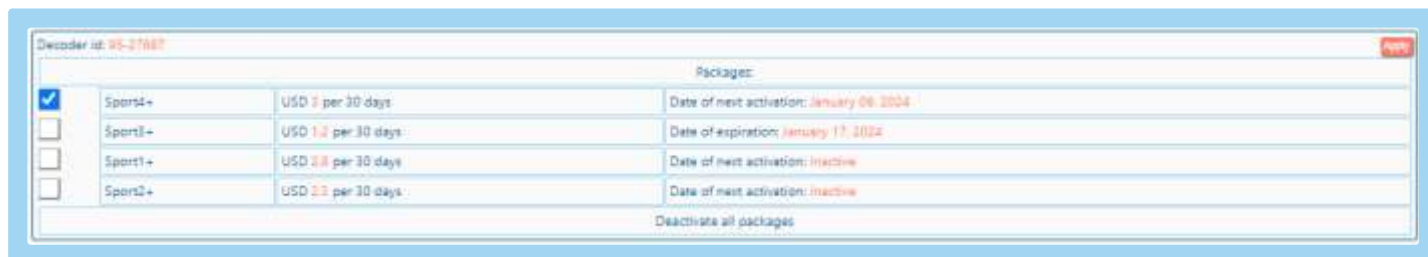
Here you can top up your balance for 30, 60, 90 or 360 days.

In addition, you can deposit any amount. Please note that the payment period is a multiple of 30 days. If the remaining amount is not enough to activate the next 30 days of the service, the service will be deactivated and the remaining amount will remain on the client's balance until the appropriate replenishment of the amount.

The front-end calculates the minimum replenishment amount for the next 30 days and this amount is displayed in the payment entry window. The recommended minimum payment amount is calculated using the formula:

- The current tariff is multiplied by the number of 30-day payment periods (1, 2, 3 or 12, depending on the choice of payment period) and the current balance is subtracted from this amount. The default period is 30 days.

You can pay for the service using a **Visa/Master card** by selecting the appropriate icon. When you click the **Bank Transfer** button, an Invoice is generated and will be sent to your email address.



In the following windows you can see information about the Decoders that you have registered in the **Profile** menu:

- Decoder serial number;
- Date of next activation or deactivation of packages;
- Current packages for this Decoder;
- List of available packets.
- Button for deactivating all packets (disabling the Decoder).
-

Note. The package is activated immediately if there is a sufficient balance. Deactivation of the package will take effect the next time the tariff is activated, which occurs every 30 days at 00:00 UTC. You can see the next activation date in the same window. Also, you have the opportunity to add packages. These changes take effect immediately and the cost of the new package will be debited from your balance. The programs in each package will be available for viewing until the next package activation date, which occurs every 30 days.

If, when adding a package, there are not enough funds on the balance, the front-end displays a message:

Attention. Please, fill your balance before next payment cycle

If the subscriber has turned-off one of the packages for the Decoder or pressed the **DELETE ALL PACKAGES** button, the text of the “**Date of next activation:**” line will change to “**Date of expiration:**”.

Pages available
the Administrator of the Billing

Initial system setup

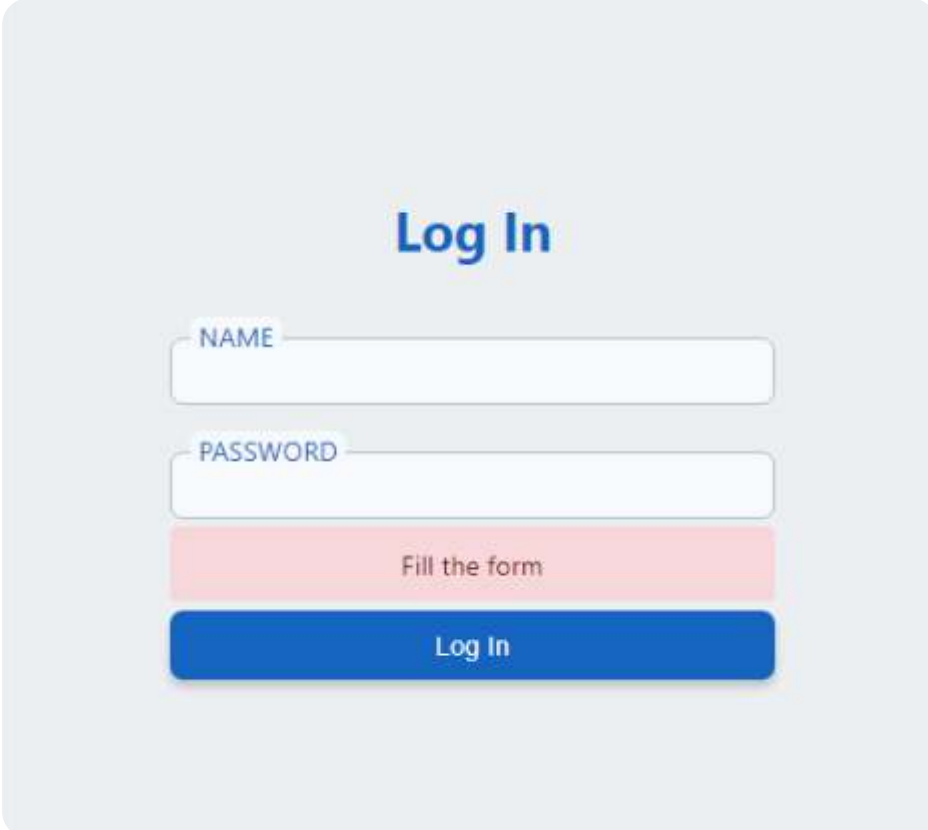
Work with the program is carried out using the WEB interface.

Launch any WEB browser and enter **https://billing.your_domain_name**

The Administrator enters Name and Password:

Name "*****"

Password "*****"



The image shows a web interface for logging in. It features a light gray background with a central white box containing the following elements:

- A title "Log In" in blue text.
- A text input field labeled "NAME" in blue text.
- A text input field labeled "PASSWORD" in blue text.
- A red rectangular button with the text "Fill the form" in black.
- A blue rectangular button with the text "Log In" in white.

SUBSCRIBERS menu

Press the **SUBSCRIBERS** button to enter the SUBSCRIBERS menu. The page shows a list of Subscribers. The list can be viewed using the scrolling engine and page switcher.

SubscribersRegionsPackagesDecodersPasswordConstructorCurrencyReportsOperatorsMessages

Log Out

Get Filtered list

EmailFind by Email

User NameFind by User Name

PhoneFind by Phone

an	An	55
b	B	+7
alt	Hus	
	Vu	+9
a	An	55
b	B	
	sime	+3
	გაბ	
g		
a	alexa	+9

1 2

You can also use filter search. Type all or only some characters of the Subscriber's Name or email, or phone number (without the + symbol). Click the button **Get Filtered list**.

SubscribersRegionsPackagesDecodersPasswordConstructorCurrencyReportsOperatorsMessages

Log Out

Get Filtered list

EmailFind by Email

User Nameand

PhoneFind by Phone

an	Andrii	55
a	Andrii	55
	alexandr	+9
br	Andrii	55

1 2

SUBSCRIBERS details

Click on a line in the list of Subscribers. Below you will see detailed information about the client. Please note that items cannot be edited by the Administrator.

SubscribersRegionsPackagesDecodersPasswordConstructorCurrencyReportsOperatorsMessages

Log Out

Get Filtered list

EmailFind by Email

User NameFind by User Name

PhoneFind by Phone

at@dvb4all.comDarth Vader555555551

111

NameDarth

SurnameVader

BalanceNone

Emailat@dvb4all.com

Number of devices1

CountryCameroon

Monthly tariffNone

Phone555555551

Last paymentNone

Date of Creating2025-02-25 09:48:13

Expiration dateNone

Decoder id: 95-26868355

Packages:

Show payments

Click on the **Show payments** button. The page with payments for this Subscriber will be displayed. Here the Administrator can view payments using the period filter.

DateXXXX-XX-XX

Last dateXXXX-XX-XX

Submit

User ID	Email	Name	Trans ID	Date	Amount in internal currency	Amount in payment currency	payment currency	payment currency rate	Document	
30	a.ni[REDACTED]o.com	TBC	42	2024-11-01 16:56:26	51.00	51	GEL	1	Oto5aL3pWtz24201133	
30	a.ni[REDACTED]o.com	TBC	32	2024-10-11 11:44:12	34.00	34	GEL	1	ULxOGQ20bT424151027	
30	a.ni[REDACTED]o.com	TBC	30	2024-10-11 10:05:00	17.00	17	GEL	1	fkVxHfh3OXT24141045	

1111

Add

The administrator has the right to make a payment manually or delete an erroneous payment.

Amount

Invoice Id

0

GEL

▼

Document

Add

Cancel

Confirm the action

Delete payment?

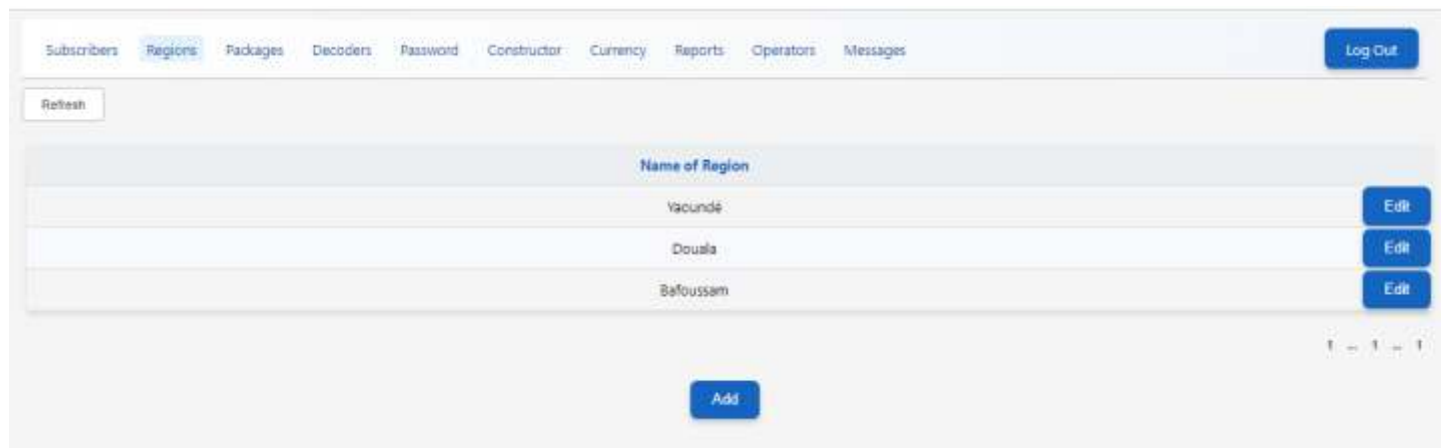
Delete

Cancel

REGIONS menu

Press the **REGIONS** button to enter the menu.

The Administrator has the right to add, delete and rename the regions. These are the regions that will be visible to the Subscriber in his account when filling out his profile.

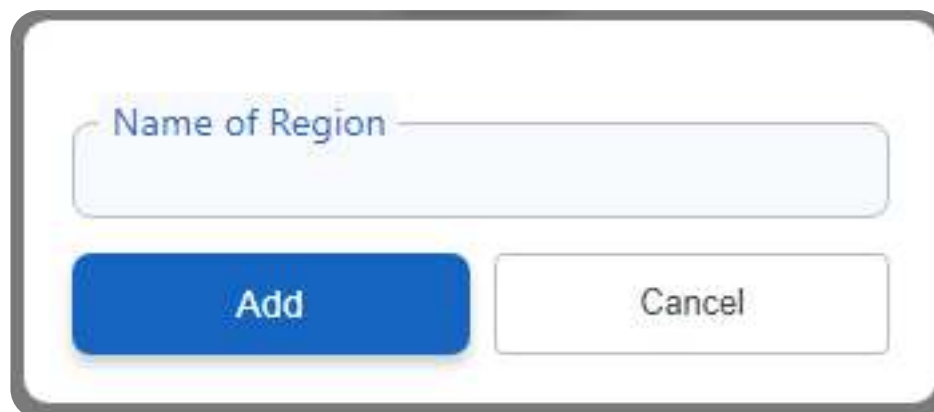


The screenshot shows the 'REGIONS' menu in the DVB-BILLING PRO system. The top navigation bar includes links for Subscribers, Regions (highlighted), Packages, Decoders, Password, Constructor, Currency, Reports, Operators, and Messages. A 'Log Out' button is in the top right corner. Below the navigation bar is a 'Refresh' button. The main area displays a table with the following data:

Name of Region	
Vacoundé	Edit
Douala	Edit
Befoussam	Edit

At the bottom center, there is an 'Add' button. In the bottom right corner, there are navigation icons: a left arrow, a right arrow, and a refresh icon.

Click the **ADD** button to add a new region.



The modal form for adding a new region is displayed. It features a text input field with the placeholder text 'Name of Region'. Below the input field are two buttons: a blue 'Add' button and a white 'Cancel' button with a grey border.

PACKAGES menu

Press the **PACKAGES** button to enter the menu.

The Administrator has the right to form the names of packages and types of packages, rename and change the cost of packages.. Package information is sent to the Package **Constructor** from this page. In the Package **Constructor**, you must assign the encoding types and the package group numbers. Only after this, the Billing program will generate a list of programs for each package.

SubscribersRegionsPackagesDecodersPasswordConstructorCurrencyReportsOperatorsMessages

Log Out

Find by name

Get Filtered list

Name of Package	Price	Type	Date of Creating	
Free tariff	0	Free	2024-06-15 14:04:51	Edit
Corporative1	59	Corporative	2024-06-15 12:53:02	Edit
Sport Plus	8	Individual	2024-06-15 12:34:00	Edit
Setanta Sports	17	Individual	2024-06-15 12:26:03	Edit

1 ... 1 ... 1

Add

Click the **ADD** button to add a new package.

The cost of packages is indicated in the internal currency of the billing program (see **CURRENCY** menu).

Select a package type from the list. You can add a new package type and press “**Enter new type and press this button**”.

Name of Package

Price

Individual

Add

Cancel

Name of Package

Price

Types

Individual

Yaounde

Douala

Bafoussam

Click the **EDIT** button to edit the package.

Here the Administrator can change the package name and package price. Here you can specify the package type from the list or add a new type - individual, corporate, free, etc. For packages of the “Free” type, you must assign a zero cost.

The screenshot displays two side-by-side panels for editing a package. The left panel shows a package named "Free tariff" with a price of 0. Below the price, there is a dropdown menu for "Types" with a list of options: "test2", "test", "test3", and "test4". The right panel shows a package named "Sport Plus" with a price of 8. Below the price, there is a dropdown menu for "Individual". Below this, there is a section titled "List of countries where the package is allowed" with a text input field containing "You have chosen all the countries x". Below the text input field, there is a checkbox labeled "All countries" which is checked. At the bottom of the right panel, there are "Save" and "Cancel" buttons. A blue arrow points from the "test2" type in the left panel to the "Individual" type in the right panel. Another blue arrow points from the "List of countries where the package is allowed" dropdown in the left panel to the "All countries" checkbox in the right panel.

From the drop-down list you need to select countries in which viewing programs of this package are allowed. If there are no restrictions, then you must select **All countries**.

The screenshot shows a list of countries selected for the package. The countries are listed in a box with a blue border. The countries are: Armenia (AM) x, Azerbaijan (AZ) x, and Bulgaria (BG) x. There is a vertical line next to the Bulgaria (BG) x entry.

DECODERS menu

Press the **DECODERS** button to enter the menu.

The Administrator has the right to add new decoders to the database and indicate the type of package available for this decoders.

The Administrator can enter either one decoder or a group of decoders of the same type.

SubscribersRegionsPackagesDecodersPasswordConstructorCurrencyReportsOperatorsMessages

Log Out

Find by decoder id

Get Filtered list

Decoder number	Type of package	Date of Creating	
95-25600006	Individual	2024-07-11 07:55:51	Edit
95-25600272	Individual	2024-07-11 07:56:13	Edit
95-25600554	Individual	2024-07-11 07:56:37	Edit
95-25600828	Individual	2024-07-11 08:17:36	Edit
95-25601118	Individual	2024-07-11 08:17:02	Edit
95-25601352	Individual	2024-07-11 08:16:46	Edit
95-25601650	Individual	2024-07-11 08:17:19	Edit
95-25601892	Individual	2024-07-11 08:31:15	Edit
95-25602230	Individual	2024-07-11 08:31:50	Edit
95-25602464	Individual	2024-07-11 08:30:48	Edit

11234...15

Add

Upload the file

Click **Upload the file** to add a list of new decoders.

Press the **ADD** button to add new decoder manually.

The operator can enter several decoders of the same type, separated by commas.

Decoder numbers

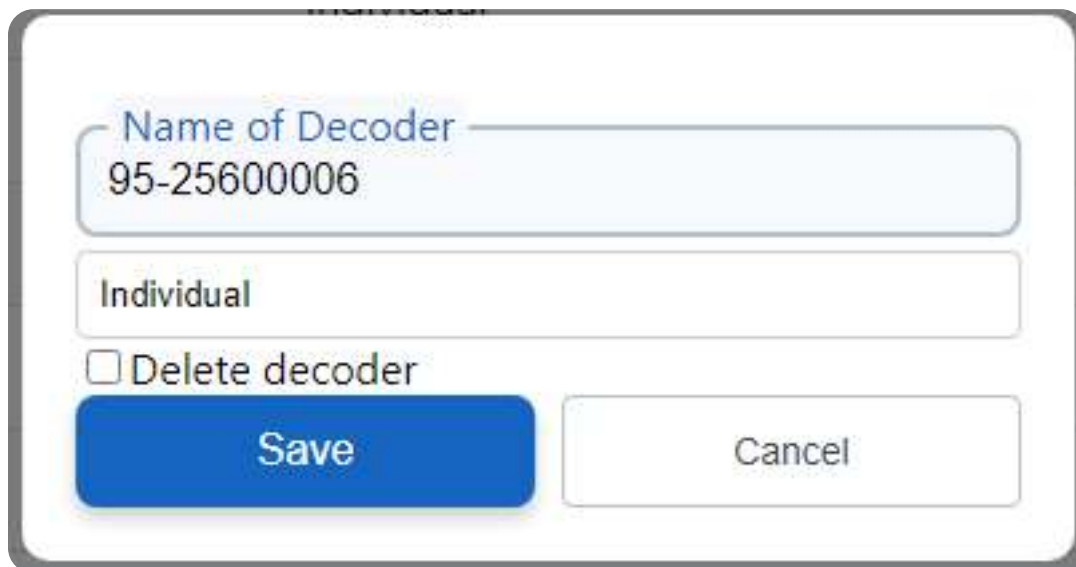
AddCancel

Press the **EDIT** button to edit the Packet Type available for this decoder.

Please note that the Decoder Number cannot be edited.

The Administrator can delete a decoder by activating the **Delete decoder** window.

Click **SAVE** to save your changes.



A screenshot of a 'Delete decoder' window. The window has a light gray border and a white background. At the top, the title 'Delete decoder' is partially visible. Below the title, there is a text input field labeled 'Name of Decoder' containing the text '95-25600006'. Below this is a dropdown menu currently showing 'Individual'. Under the dropdown is a checkbox labeled 'Delete decoder', which is currently unchecked. At the bottom of the window are two buttons: a blue 'Save' button and a white 'Cancel' button with a gray border.

Name of Decoder
95-25600006

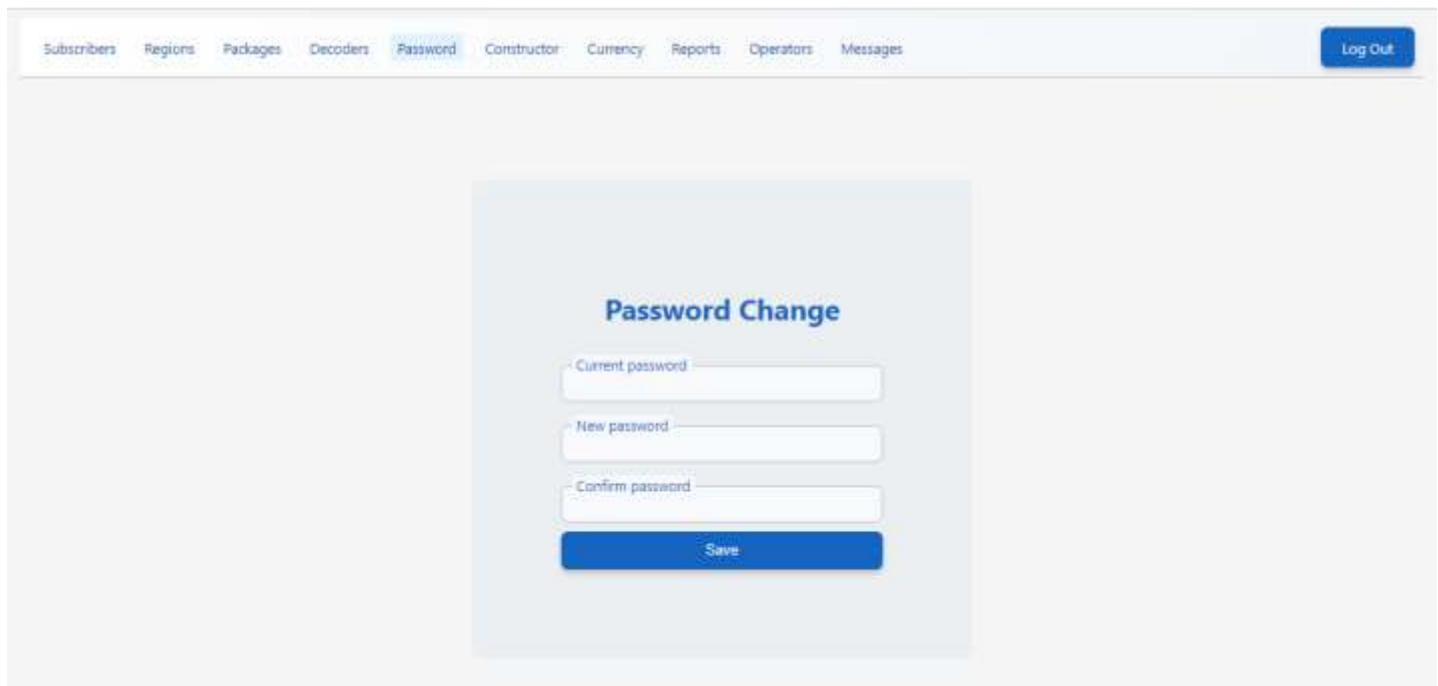
Individual

☐ Delete decoder

Save Cancel

PASSWORD menu

On this page the Administrator can change his password. Enter your current password and your new password twice. Click the **SAVE** button to save the new password.



The screenshot shows the 'Password Change' form within the DVB-BILLING PRO application. The top navigation bar includes links for Subscribers, Regions, Packages, Decoders, Password (highlighted), Constructor, Currency, Reports, Operators, and Messages. A 'Log Out' button is located in the top right corner. The main content area features a light blue box with the title 'Password Change'. Below the title are three input fields: 'Current password', 'New password', and 'Confirm password'. A blue 'Save' button is positioned at the bottom of the form.

Subscribers Regions Packages Decoders **Password** Constructor Currency Reports Operators Messages Log Out

Password Change

Current password

New password

Confirm password

Save

CONSTRUCTOR of Packages

Attention! Changes to the **Constructor** can only be made by the Administrator.
This page is hidden from Operators.

SubscribersRegionsPackagesDecodersPasswordConstructorCurrencyReportsOperatorsMessages

Log Out

Refresh

MUX → Group

11 → 0

+

Refresh

Press to receive actual data from multiplexers

Packages	Group 0			Group 1			Group 2			Group 3			Group 4			Group 5			Group 6			Group 7			Group 8			Group 9		
	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3			
Setanta Sports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Free tariff	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Sport Plus	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Corporative1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

1 → 1 → 1

Save

- The administrator, when installing the system, can perform the following actions:
- add a new multiplexer (MUX) by pressing the **+** button (the next Transport Stream ID value is automatically generated);
 - remove multiplexer;
 - indicate the group number for the new TS ID in the **Choose group** column:

MUX → Group

1 → 0

2 → 0

3 → 1

4 → 3

5 → 3

+

Choose group:

0

0

1

2

3

4

5

6

7

8

9

Administrator also:

- creates channel packages on the **PACKAGES** page, from where the list of packages is automatically sent to the **Package --> Group** table of the Package **Constructor**.
- in the **Package --> Group** table, the Administrator specifies the encoding type used for each packet in the multiplexers of each group.
- in the menu **PROGRAM-->PROGRAM PROPERTIES** of each multiplexer, the encoding type is set for each program (C0, C1, C2 or C3). See page 5.

Packages	Group 0			Group 1			Group 2			Group 3			Group 4			Group 5			Group 6			Group 7			Group 8			Group 9		
	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
SPORT2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SPORT4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SPORT2+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SPORT3+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SPORT4+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Номер бита	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

Each packet is assigned an encoding type (C1, C2 or C3) and a group number.
Several groups can be assigned to one package.
As a result, the bitmask of each packet in decimal form is transmitted to the Billing backend.

For example, for the SPORT2 package we select encoding C3 in group 0 and C2 in group 8.
The bit mask is equal to 10000000000000000000000000100.
In decimal form: $2^2 + 2^{25} = 4 + 33554432 = 33554436$.

For example, for the SPORT4 package we select coding C1 in group 0 and C2 in group 2.
Bit mask is 10000001.
In decimal form: $2^0 + 2^7 = 1 + 128 = 129$.

- After these steps, the correspondence of packages and programs is formed. The list of programs comes to the Billing Server from the multiplexers and now, when you move the cursor to the name of the package, a list of programs in this package appears.
- To get the current list, press the **REFRESH** button.
- Click the Package name to see **List of programs** of this package.

Refresh

Press to receive actual data from multiplexers

Packages	Group 0			Group 1			Group 2		
	C1	C2	C3	C1	C2	C3	C1	C2	C3
Setanta Sports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Free tariff	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sport Plus	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corporative1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Save

List of programs

Sport Plus
GMS Sport
Football TV
Rugby TV
1 Arkhi Sporti
Sport1
Sport2
Service01
Promo

Close

CURRENCY menu

Press the **CURRENCY** button to enter the menu.

The Administrator has the right to indicate the name of the payment currencies and the current exchange rate to the internal currency of the billing program.

The cost of packages is indicated in internal currency. Payment archive is stored in internal currency. If there is no new exchange rate for the payment currency to the internal currency on the current date, the program applies the last saved rate. If the exchange rate of the internal currency to any state currency is equal to 1.00, then, in fact, the billing program will keep records in this state currency.

Data	Name of currency	Rate to domestic currency
2025-02-27 06:55:00	USD	0.0016
2025-02-28 15:28:25	CFA	1

Add

The Administrator has the right to indicate the current exchange rate to the internal currency of the billing program

Name of currency

Rate to domestic currency

Add

Cancel

The list of the state currencies available to the Administrator is indicated in the **accn.conf** file.

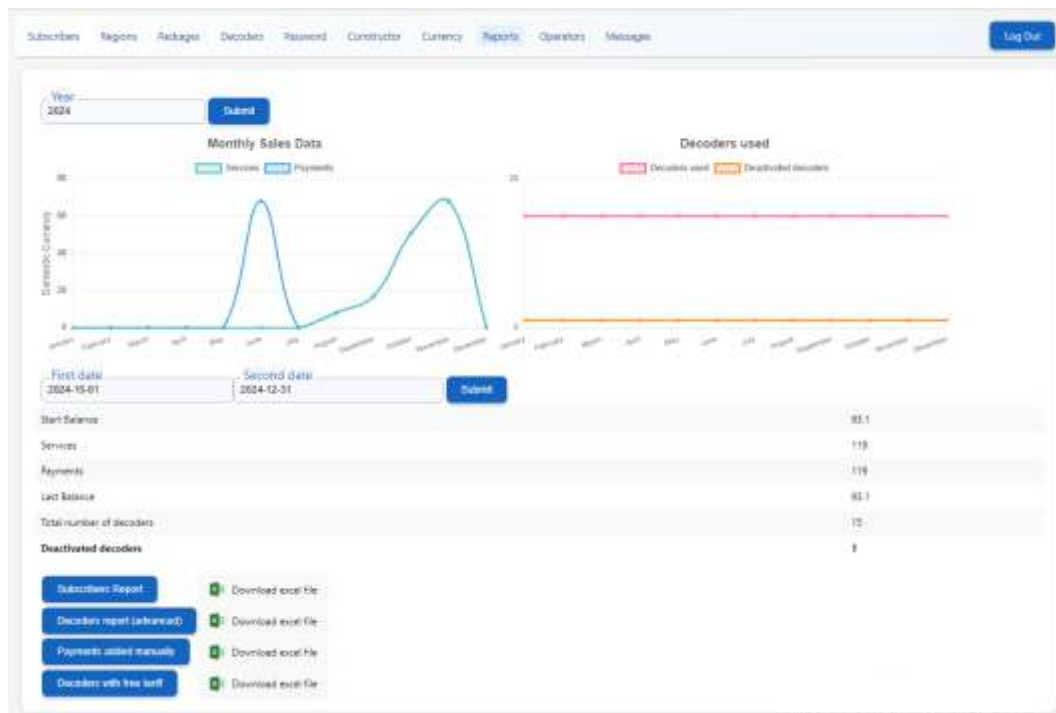
The names of currencies are entered separated by commas in the currencies line, for example:

currencies = USD, CFA

```
File Edit Search View Encoding Language Settings
accn.conf
1 http_listen = :8802
2
3
4 db_host = 127.0.0.1
5 db_name = accn
6 db_user = accn
7 db_password = masterkey
8 db_port = 5432
9 db_max_conn = 10
10
11 currencies = USD, GEL
12
13
```

REPORTS menu

Press the **REPORTS** button to enter the menu.



You can see the **Monthly Sales Data** and **Decoders Used** diagrams.

Select **Year** and press **Submit** button.

To generate a report, you need to select the start date and end date of the reporting period. Click the **Submit** button. The results are displayed in the corresponding menu fields:

- **Start Balance**,
- **Services** (funds withdrawn from subscriber accounts for the period),
- **Payments** (payments for the period),
- **Last Balance**,
- **Total numbers of decoders**,
- **Deactivated decoders**.

To generate reports, click one of the buttons:

- **Subscribers report**;
- **Decoders report** (full information about payments, decoders and subscribers);
- **Payments added manually**;
- **Decoders with free tariff** (information about service decoders).

After you have selected the period and type of report, the billing server will prepare the corresponding file in Excel format.

OPERATORS menu

Press the **OPERATORS** button to enter the menu. The administrator has the right to add operators and set Rights.

User Name	Name	Email	Phone	Rights	
Birkik	Birkik	None	None	63	Edit
Operator	Operator	None	None	3	Edit
Administrator	Administrator	None	None	63	Edit

1 2 3

Add

Click the **Add** button to add a new Operator.
The new operator will be displayed on the page within a few minutes, after the next database update.

User Name

Password

Name

Email

Phone

Save Cancel

Click the **Edit** button to edit Operator information.

User Name

Name

Email

Phone

View users (1)	View payments (2)	Add payments (4)	Add currencies rates (8)	View operators (16)	Administrator (all rights are included) (32)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Save Cancel

MESSAGES menu

Press the **MESSAGES** button to enter the menu. The Administrator and Operators has the right to:

- send addressed message to the decoder by number;
- send the broadcasting message to all decoders.

SubscribersRegionsPackagesDecodersPasswordConstructorCurrencyReportsOperatorsMessagesLog Out

Decoder ID
95-25733274

☐ All decoders

Display time (in seconds)
0

Time to live(in seconds)
36000

Message language
en

Message text
test test test test test test test

SendCancel

Delete message for Decoder ID

☐ All decoders

Ok

Decoder ID - you can insert the Decoder ID. Please note that this Decoder ID must be present in the database. You can use **All Decoders** "broadcast" method too. In order to send an individual message to a subscriber, you must delete the "broadcast" message if any are being send.

Display time - the time of showing the message on TV screen. If display time equal 0, the message should be displayed until the user presses a button on the remote control.

Time to live - the time of sending the message from the multiplexer output.

Message language - two-letter language abbreviation.

Message text - the text of the addressed message, up to 170 bytes

Delete message for Decoder ID - you can delete the individual message before **Time to live** done. Please note that this Decoder ID must be present in the database.

Delete message for all decoders - select **All decoders** to delete the “broadcast” message if you would like to send an individual messages.

Addressed messages supplied by the DVB-Billing PRO server.

TROPHY-ACCESS Set-Top-Boxes able to receive and show on the TV screen the addressed messages for Pay-TV subscribers. In addition, STB able to show ID number of embedded decoder (i.e. "watermarks") by "broadcast" message from Billing server.

Text information is coded using the character sets and methods described in Specification for Service Information (SI) in DVB systems (ETSI EN 300 468), annex A.

SMS table shall be mapped directly into TS packets. Sections may start at the beginning of the payload of a TS packet.

TS packet PID value must be set to 0x31.

SMS Table definition

```
-----  
sms_section(){  
    table_id                :8  
    section_syntax_indicator :1  
    reserved                :3  
  
    section_length          :12  
    decoder_id              :40  
    message_id              :32  
    display_time            :8  
    for (i=0;i<N;i++){  
        message_byte        :8  
    }  
}
```

- **table_id:** This is a 32-bit field and must be equal to 0x81.
- **section_syntax_indicator:** This is a one-bit indicator which shall be set to "0".
- **section_length:** It specifies the number of bytes of the section, starting immediately following the section_length field and up to the end of the section.
- **decoder_id:** This is a 40-bit field that contains the identifier of the destination decoder of the message. If decoder_id is 0xffffffff, it means the "broadcast" message which must be shown to everyone. In order to send an individual message to a subscriber, you must turn-off the "broadcast" message if any are being send.
- **message_id:** This is a 32-bit field that contains the unique message number.
- **display_time:** This is a 8-bit field contains message display time in seconds. If display_time equal 0, the message should be displayed until the user presses a key on the remote control.
- **message_byte:** This is an 8-bit field. A string of "char" fields specify the text of message.

dvb packet example:

```
char p[188];
    uint8_t packet_cnt = 0;

    p[0] = 0x47; //sync byte
    p[1] = 0x40; //pid MSB (most-significant bit)
    p[2] = 0x31; //pid LSB (least significant bit)
    p[3] = 0x10; //(0x10 | packet_cnt) - continuity counter
    p[4] = 0;

    p[5] = 0x81; //table_id
    p[6] = 0;
    p[7] = 16; //section length

    p[8] = 0x00; //msb decoder_id
    p[9] = 0x00;
    p[10] = 0x00;
    p[11] = 0x05;
    p[12] = 0x05; //lsb decoder_id, decoder_id = 0x555

    p[13] = 0x00; //msb message_id
    p[14] = 0x00;
    p[15] = 0x00;
    p[16] = 0x03; //lsb message_id, message_id = 3

    p[17] = 5; //display_time (5 seconds)

    // message_byte
    p[18] = 0x15; // UTF-8 encoding of ISO/IEC 10646
    p[19] = 'H'; // Hello
    p[20] = 'e';
    p[21] = 'l';
    p[22] = 'l';
    p[23] = 'o';
```

section_length:

It specifies the number of bytes of the section, starting immediately following the section_length field and up to the end of the section.

In this example, the section_length is **16** bytes where we are sending 5 characters "Hello" to decoder ID = **0x555**

dvb packet example:

```
char p[188];
uint8_t packet_cnt = 0;

p[0] = 0x47; //sync byte
p[1] = 0x40; //pid MSB
p[2] = 0x31; //pid LSB
p[3] = 0x10; //(0x10 | packet_cnt) - continuity counter
p[4] = 0;

p[5] = 0x81; //table_id
p[6] = 0;
p[7] = 16; //section length

p[8] = 0x00; //msb decoder_id
p[9] = 0x00;
p[10] = 0x00;
p[11] = 0x05;
p[12] = 0x05; //lsb decoder_id, decoder_id = 0x555

p[13] = 0x00; //msb message_id
p[14] = 0x00;
p[15] = 0x00;
p[16] = 0x03; //lsb message_id, message_id = 3

p[17] = 5; //display_time (5 seconds)

// message_byte
p[18] = 0x15; // UTF-8 encoding of ISO/IEC 10646
p[19] = 'H'; // Hello
p[20] = 'e';
p[21] = 'l';
p[22] = 'l';
p[23] = 'o';
```

Maximum message has **170** bytes and maximum section_length is **181** bytes.

dvb packet example:

```
char p[188];
uint8_t packet_cnt = 0;

p[0] = 0x47; //sync byte
p[1] = 0x40; //pid MSB
p[2] = 0x31; //pid LSB
p[3] = 0x10; //(0x10 | packet_cnt) - continuity counter
p[4] = 0;

p[5] = 0x81; //table_id
p[6] = 0;
p[7] = 181; //section length

p[8] = 0x00; //msb decoder_id
p[9] = 0x00;
p[10] = 0x00;
p[11] = 0x05;
p[12] = 0x05; //lsb decoder_id, decoder_id = 0x555

p[13] = 0x00; //msb message_id
p[14] = 0x00;
p[15] = 0x00;
p[16] = 0x03; //lsb message_id, message_id = 3

p[17] = 5; //display_time (5 seconds)

// message_byte
p[18] = 0x15; // UTF-8 encoding of ISO/IEC 10646
p[19] = 'byte1'; // <170 bytes max>
p[20] = 'byte2';
p[21] = 'byte3';
p[22] = 'byte4';
p[23] = 'byte5';
---
p[188] = 'byte170'
```

decoder_id

This is a 40-bit field that contains the identifier of the destination decoder of the message.

Set-Top-Box analyzes the decoder number and, if it matches its own number, displays a message on the screen. The decoder number is displayed at the footer of the window with a message. The decoder number consists 2 symbols of zone and 10 symbols of decimal number.

The subscriber can press any button on the remote control to remove this message.



If decoder_id is 0xffffffff, it means the “broadcast” message must be shown to everyone.

Set-Top-Box analyzes the decoder number and, if it number is 0xffffffff, displays the “broadcast” message on the screen. In case of “watermarks” it can be empty screen too. The decoder number is displayed at the footer of the window in any case.

The subscriber can not remove this message manually. See **display_time** option.

message_id:

This is a 32-bit field that contains the unique message number.

The Billing server stores the ID of the last message for each subscriber. In case of a new message being sent to the subscriber, the message ID is automatically incremented. The Set-Top-Box must remember the ID of the last received addressed message. When receiving a new message, the Set-Top-Box must compare this ID with the one stored in the memory. If the new message has a higher ID, then this message is displayed on the screen. Otherwise, the message is ignored.

When receiving a “broadcast” message, the Set-Top-Box must indicate it on the screen in any case without comparing of ID numbers .

display_time:

This is a 8-bit field contains the message display time in seconds.

If display_time equal 0, the message should be displayed until the user presses a key on the remote control.

Pages available
the operators of the Billing

Initial system setup

Work with the program is carried out using the WEB interface.

Launch any WEB browser and enter **https://billing.your_domain_name**

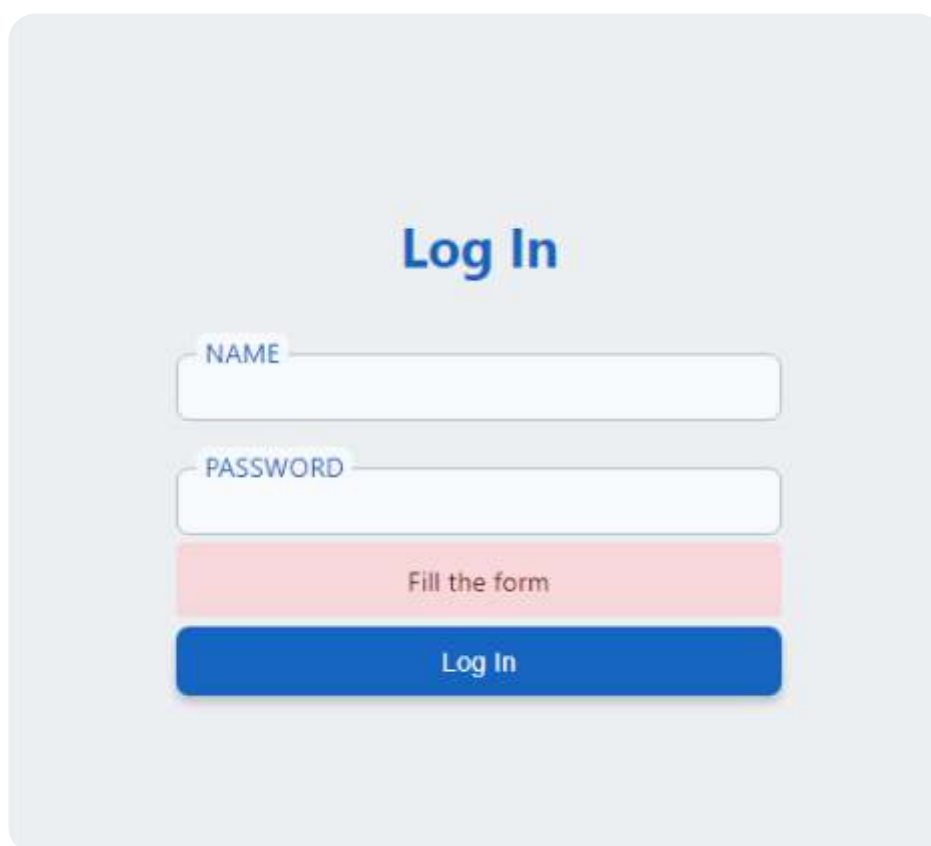
The Administrator sets the Operator Name, Password and Rights for each Operator who has the right to work on the server.

Enter your Login and Password:

Name "*****"

Password "*****"

We recommend changing your password to confidential.



The image shows a 'Log In' form interface. At the top, the text 'Log In' is displayed in a large, bold, blue font. Below this, there are two input fields: the first is labeled 'NAME' and the second is labeled 'PASSWORD'. Both fields are white with a light blue border. Below the 'PASSWORD' field, there is a red rectangular button with the text 'Fill the form' in white. At the bottom, there is a blue rectangular button with the text 'Log In' in white.

SUBSCRIBERS menu

Press the **SUBSCRIBERS** button to enter the SUBSCRIBERS menu. The page shows a list of Subscribers. The list can be viewed using the scrolling engine and page switcher.

SubscribersRegionsPackagesDecodersPasswordCurrencyMessages

Log Out

Get Filtered list

EmailFind by Email

User NameFind by User Name

PhoneFind by Phone

and[REDACTED].com	And[REDACTED]rov	555[REDACTED]55
bi[REDACTED].com	Bi[REDACTED]in	+7[REDACTED]39
alhe[REDACTED].com	Huss[REDACTED]adh	7[REDACTED]
v[REDACTED].m	Vug[REDACTED]ovi	+9[REDACTED]33
aer[REDACTED].com	And[REDACTED]rov	555[REDACTED]55
bi[REDACTED].com	Bi[REDACTED]in	87[REDACTED]9
si[REDACTED].bit	simon[REDACTED]ccia	+35[REDACTED]58
d[REDACTED].om	ლავა[REDACTED]ცილი	5[REDACTED]
gre[REDACTED].com	გ[REDACTED]	5[REDACTED]
a[REDACTED].om	alexan[REDACTED]adze	+9[REDACTED]97

1...12...2

You can also use filter search. Type all or only some characters of the Subscriber's Name or email, or phone number (without the + symbol). Click the button **Get Filtered list**.

SubscribersRegionsPackagesDecodersPasswordCurrencyMessages

Log Out

Get Filtered list

EmailFind by Email

User Nameand

PhoneFind by Phone

and[REDACTED].com	An[REDACTED]rov	55[REDACTED]555
aer[REDACTED].com	An[REDACTED]rov	55[REDACTED]555
a[REDACTED].om	alexan[REDACTED]adze	+9[REDACTED]297
broa[REDACTED].com	An[REDACTED]rov	55[REDACTED]555

1...1...1

[illegible]

Date
XXXX-XX-XX

Last date
XXXX-XX-XX

Submit

User ID	Email	Name	Trans ID	Date	Amount in internal currency	Amount in payment currency	payment currency	payment currency rate	Document
30	a.nik[REDACTED]@bo.com	TBC	42	2024-11-01 16:56:26	51.00	51	GEL	1	Oto5aL3pWtz24201133
30	a.nik[REDACTED]@bo.com	TBC	32	2024-10-11 11:44:12	34.00	34	GEL	1	ULxOGQ20bT424151027
30	a.nik[REDACTED]@bo.com	TBC	30	2024-10-11 10:05:00	17.00	17	GEL	1	fkVxHf3OXT24141045

1 1 1

REGIONS menu

Press the **REGIONS** button to enter the menu.

The Operator has the right to see the regions only. These are the regions that will be visible to the Subscriber in his account when filling out his profile.



Subscribers	Regions	Packages	Decoders	Password	Currency	Messages	Log Out
Refresh							
Name of Region							
Yaoundé							
Douala							
Bafoussam							
1 - 1 - 1							

PACKAGES menu

Press the **PACKAGES** button to enter the menu.

The Operator has the right to read this page only.

Subscribers	Regions	Packages	Decoders	Password	Currency	Messages	Log Out
Find by name		Get Filtered list					
Name of Package	Price	Type	Date of Creating				
Free tariff	0	Free	2024-06-15 14:04:51				
Corporative1	59	Corporative	2024-06-15 12:53:02				
Sport Plus	8	Individual	2024-06-15 12:34:00				
Setanta Sports	17	Individual	2024-06-15 12:26:03				
				1 ... 1 ... 1			

DECODERS menu

Press the **DECODERS** button to enter the menu.

The Operator has the right to read this page only.

Subscribers	Regions	Packages	Decoders	Password	Currency	Messages	Log Out
Find by decoder id		Get Filtered list					
Decoder number	Type of package	Date of Creating					
95-396	Free	2024-06-22 09:34:19					
95-694	Free	2024-07-11 06:45:40					
95-928	Free	2024-06-23 15:12:52					
95-1218	Individual	2024-07-11 06:52:10					
95-1492	Individual	2024-07-11 06:51:37					
95-1774	Free	2024-07-11 06:51:55					
95-2040	Individual	2024-07-11 06:52:29					
95-2090	Free	2024-07-11 06:52:44					
95-2364	Individual	2024-07-11 06:52:55					
95-2566	Individual	2024-07-11 07:55:28					
			1 ... 1 2 3 ... 15				

PASSWORD menu

On this page the Operator can change his password. Enter your current password and your new password twice. Click the **Save** button to save the new password.

SubscribersRegionsPackagesDecodersPasswordCurrencyMessages

Log Out

Password Change

Current password

New password

Confirm password

Save

CURRENCY menu

Press the **CURRENCY** button to enter the menu.
The Operator has the right to see the currency rates only.

← → ↺ billing.lowcosttv.net/currency

SubscribersRegionsPackagesDecodersPasswordCurrencyMessages

Log Out

Refresh

Date	Name of currency	Rate to domestic currency
2025-02-27 06:55:00	USD	0.0016
2025-02-28 15:28:25	CFA	1

MESSAGES menu

Press the **MESSAGES** button to enter the menu. The Operators has the right to:

- send addressed message to the decoder by number;
- send the broadcasting message to all decoders.

The screenshot shows the 'MESSAGES' menu interface. At the top, there is a navigation bar with tabs: Subscribers, Regions, Packages, Decoders, Password, Currency, and Messages (which is highlighted). A 'Log Out' button is in the top right corner. The main form contains the following fields and controls:

- Decoder ID**: A text input field containing '95-25733274'.
- All decoders**: A checkbox that is currently unchecked.
- Display time (in seconds)**: A text input field containing '0'.
- Time to live(in seconds)**: A text input field containing '36000'.
- Message language**: A text input field containing 'en'.
- Message text**: A text input field containing 'test test'.
- Buttons**: 'Send' and 'Cancel' buttons are located below the message text field.
- Delete message for Decoder ID**: A text input field.
- All decoders**: A checkbox that is currently checked.
- Ok**: A button located at the bottom center of the form.

Decoder ID - you can insert the Decoder ID or use **All Decoders** broadcast method.

Display time - the time of showing the message on TV screen. If display time equal 0, the message should be displayed until the user presses a button on the remote control.

Time to live - the time of sending the message from the multiplexer output.

Message language - two-letter language abbreviation.

Message text - the text of the addressed message, up to 170 bytes

Delete message for Decoder ID - you can delete the message before **Time to live** done.