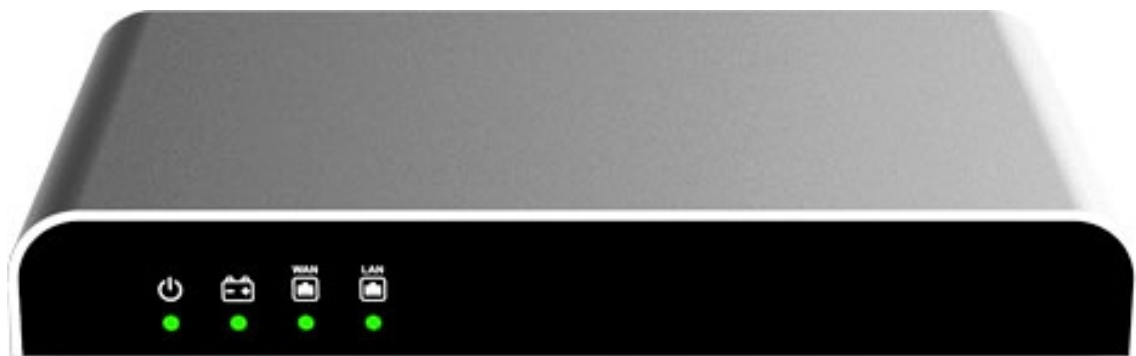# Priva-Net

Priva-Net Compact

Quick Start Guide

Welcome!

Thank you for choosing Priva-Net Compact Server. Priva-Net is POC (Push-to-talk Over Cellular) System Server, which allows you to communicate with a Group of Subscribers with one click of the PTT button.

This guide helps you to install your Priva-Net Compact Server and to get started using the web-based configuration.

Package Contents:

- Priva-Net Compact Server
- Power Adapter
- Quick Start Guide

Priva-Net Compact Server Features

- Function of setting up Subscribers and Groups via WEB-interface;
- Individual calls support;
- Groups calls support;
- Emergency call support;
- Priority calls support (10 priority levels);
- Broadcast call support;
- Maximum quantity of supported Subscribers - 200;
- Maximum quantity of supported Groups – 100;
- Maximum quantity of Dispatch - up to 5.

Priva-Net Compact Server Interfaces, buttons, indicators

Interface button indicator	Description
WAN PoE+	Priva-Net Compact Server interface for Internet (WAN) access and operation. In addition, this interface supports PoE+ technology and can be used for external power supply of the Priva-Net Compact Server. This is the main interface through which the Priva-Net Compact Server runs.
LAN	Priva-Net Compact Server interface for access, work on the local Ethernet network (LAN) and connect of the WEB - Configurator.
(reset)	Reset button of the Priva-Net Compact Server to factory settings. To reset the Priva-Net Compact Server to factory settings, press the button for more than 7 seconds.
(power)	Power-off button of built-in battery of Priva-Net Compact Server. If you need to completely shutdown the Priva-Net Compact Server, press this button and the Priva-Net Compact Server will be completely shutdown. We recommend that you fully shutdown the Priva-Net Compact Server during prolonged storage or transportation.
(connector)	Connector for external power supply (12V DC, 2A).
(battery)	Led of the built-in battery. If you shutdown the Priva-Net Compact Server with power-off button of built-in battery, this led is also turned off.
(battery)	Status led of build-in battery. Green led – battery is charged; Yellow led - battery discharged; Led is not active – the problem with battery (battery discharge, battery fault, etc.)
WAN	Led of the WAN interface of the Priva-Net Compact Server.
LAN	Led of the LAN interface of the Priva-Net Compact Server.

Priva-Net Compact Server Leds

Led	Description
(power)	Presence led of external power of Priva-Net Compact Server. When external power is available, the led is green. External power supply of the Priva-Net Compact Server can be provided either from an external power supply (12V DC, 2A) or through the WAN interface using PoE+ technology.

Other Hardware Features

Feature	Description
Industrial standard compliant	Metal body, Table/Wall mount
Operation system	Linux
Processor	Quad-core Cortex-A7 1,2 GHz
Memory	512MB DDR3 RAM
Storage	16GB eMMC
Weight	1050 g
Dimensions	220х140х30 мм
Source voltage	10 - 12V DC, 1A
Internal LiPo High Capacity Battery	Work without external power supply up to 12 hours
CODEC	
Bandwidth	54 кбps
Jitter	Up to 80 ms Recovery up to 50% of loss packets

Default Settings

| Parameter	Default Value
Server IP-address	192.168.1.2
Netmask	255.255.255.0
Login	admin
Password	admin

Connecting the Equipment

Connecting the WEB - Configurator to the Priva-Net Compact Server performed by connecting a standard Windows PC to the LAN port of the Priva-Net Compact Server and using a WEB browser.

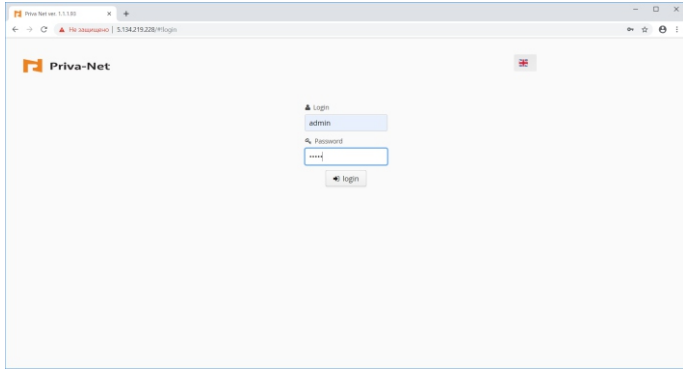## Getting Started with the Configuration

Step 1. Connect the standard Windows PC to the LAN port of the Priva-Net Compact Server.
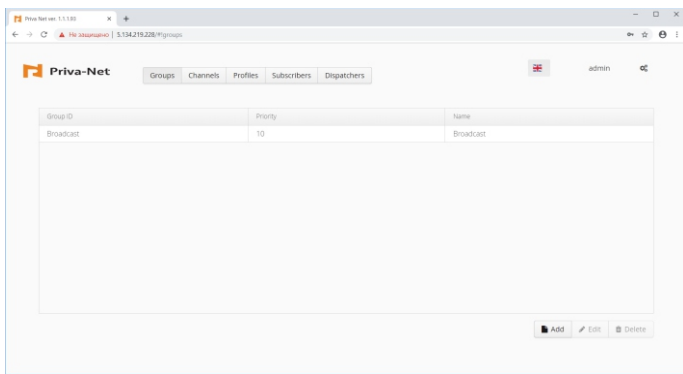
Step 2. Start a WEB browser.

Step 3. In the address bar, enter the default IP-address of the Priva-Net Compact Server: 192.168.1.2:
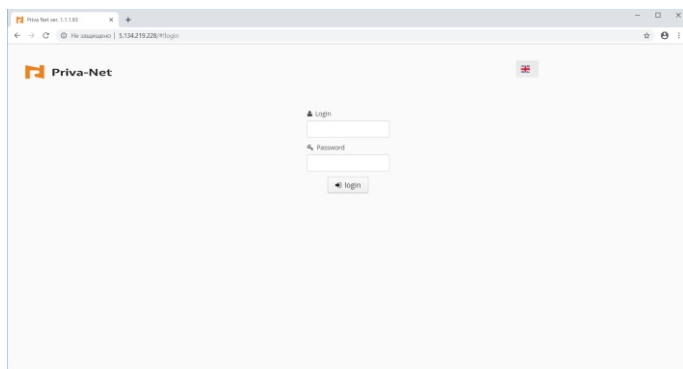
Step 4. When the login page appears, enter the default user name admin and the default password admin (lowercase).

*Step 5.* Click login button. The User Configuration page appears.

Step 6. It is recommended to change the password during the initial setup of the Priva-Net Compact Server by pressing the **admin** button. In the window that appears, enter the old password, the new password and re-enter the new password. A password can contain letters, numbers, and characters in any order. The password is also case sensitive.
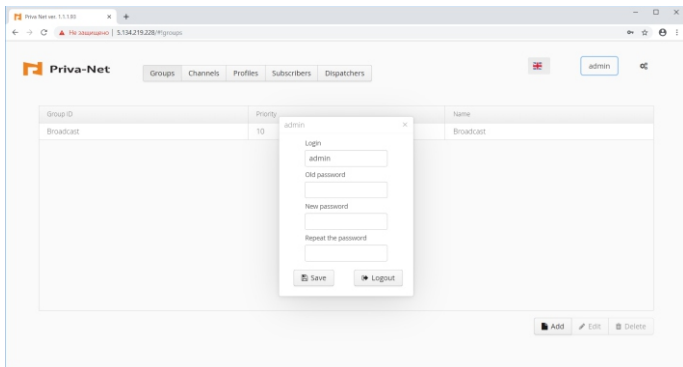
Step 7. Menu Settings:
This menu allows you to configure the physical interfaces and ports of the Priva-Net Compact Server.
For the initial setup of the Priva-Net Compact Server, you need to go to the Setup menu by clicking the symbol
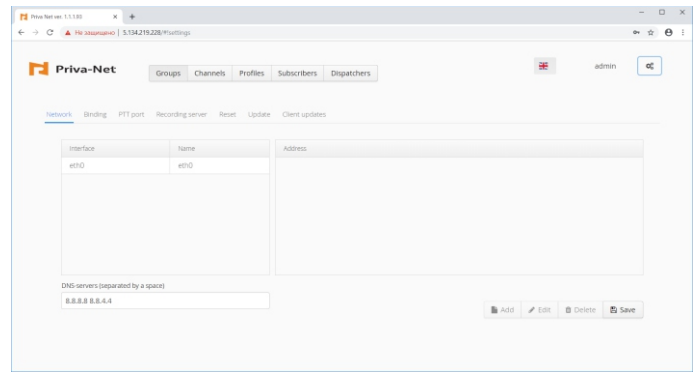

Step 8. Menu Settings – Network
The Network tab displays the Priva-Net Compact Server network interfaces and their settings.
Eth0 – is the interface of the Priva-Net Compact Server for access and operation in the Internet (WAN).
You need set the required IP addresses for each interface as well as the IP DNS server addresses (if necessary, you can specify multiple DNS server IP addresses separated by a space):
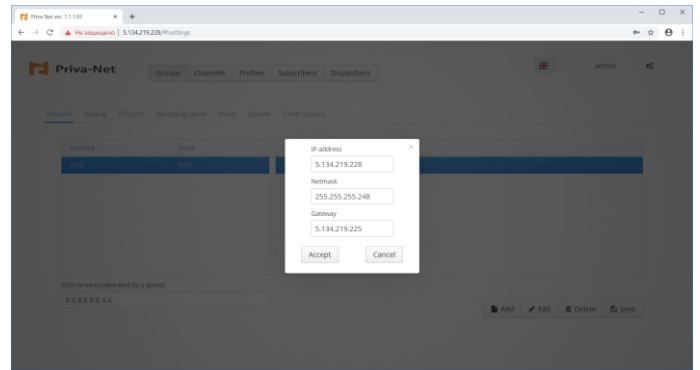

Step 9. Menu Settings – Binding
In this menu is the binding administrative resources (administration panel and registration interface) to the WAN port of the Priva-Net Compact Server.
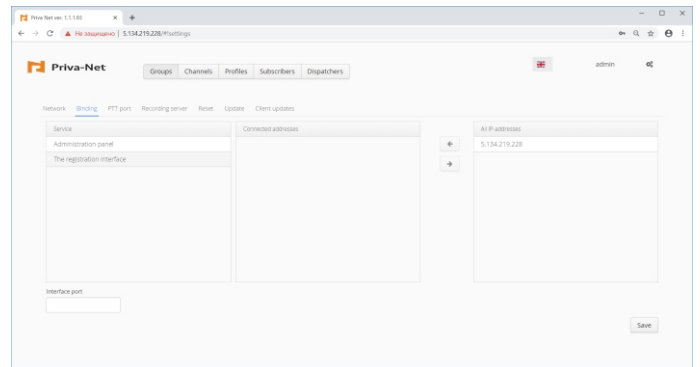
In order to make the administrative panel and registration interface on WAN port available, it is necessary to transfer the IP addresses of WAN port to the list of connected addresses by clicking on the movement arrows of the the IP address between the IP address lists.
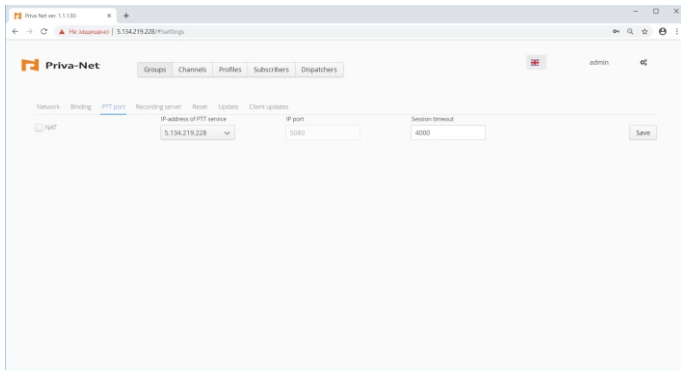You need save the changes by clicking Save.
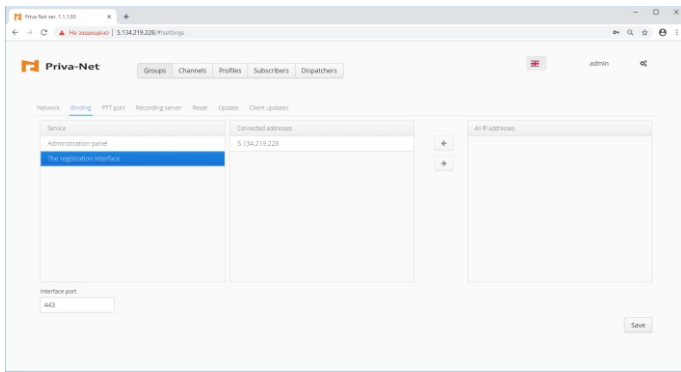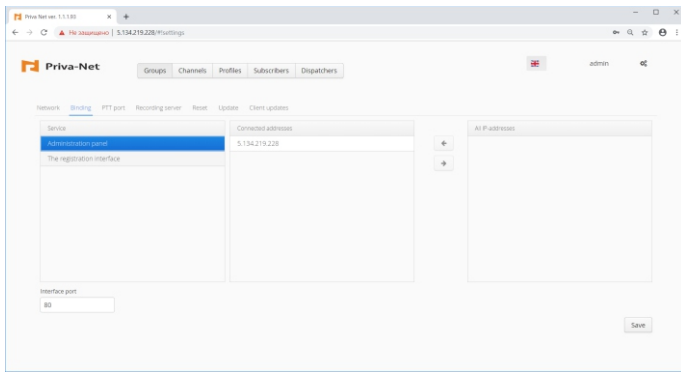
Step 10. Menu Settings – PTT Port
In this window, the static IP address of the PTT service (the IP address of the Priva-Net Compact Server on the Internet) is set to ensure the operation of the Priva-Net System (PTT Service).
Default settings:
IP port: 5080
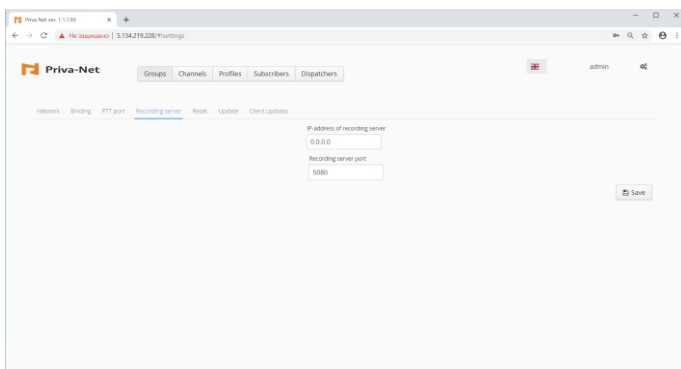Session timeout (PTT session lifetime): 4000 ms

Step 11. Menu Settings – Recording Server
A recording server can be connected to the Priva-Net Compact server.
This window sets the IP - address and port of the Recording Server.
These settings are intended for use in future releases of the Priva-Nenet Compact Server software.


Step 12. Menu Settings – Reset
Use this tab to reset or reboot the Priva-Net Compact server.
Reset the Priva-Net Compact Server to the factory default settings performs by pressing reset button.
Reboot the Priva-Net Compact Server performs by pressing reboot button.
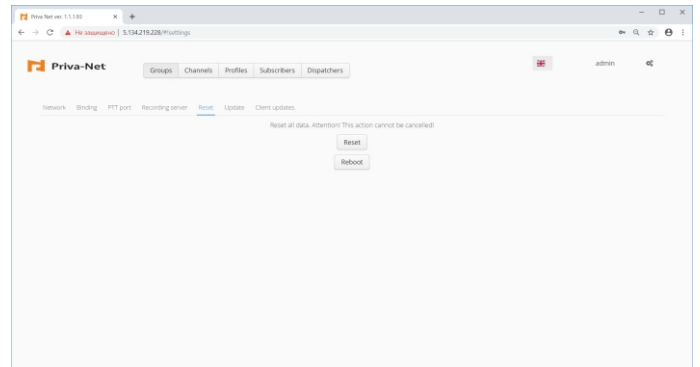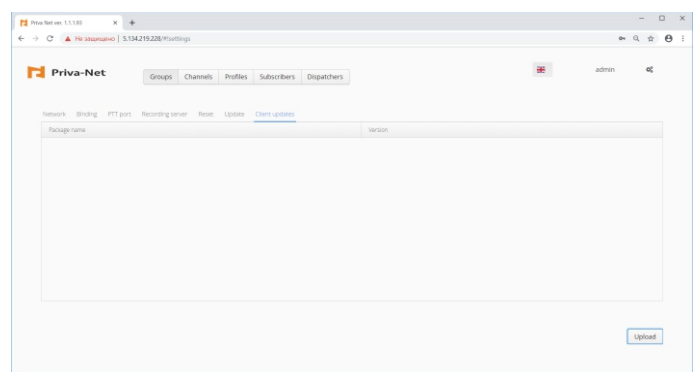

Step 13. Menu Settings – Update
Use this tab for̆ backup, update or restore the database of the Priva-Net Compact Server.
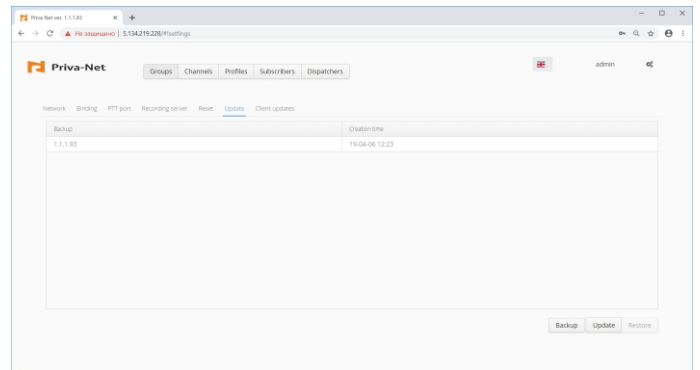
Step 14. Menu Settings – Client updates
Use this tab for update of Subscribers of the Priva-Net Compact Server.

Step 15. Menu Groups
To operate the Priva-Net Compact Server, the Administrator must define the Groups, assign the channels, organize the profiles, and create Subscribers and Dispatchers.
By default, the System already has one broadcast Group (Broadcast) defined.
You need define the Groups first.
To do this, click the Add button in the Groups tab:
You need to upload the new software packages and update the Subscribers.
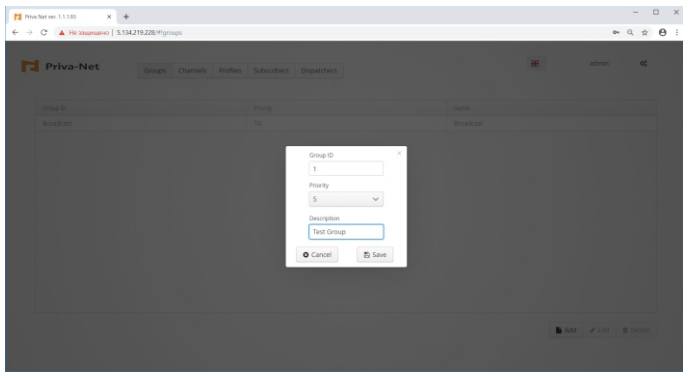
Group ID – unique ID of the Group;
Priority – Group priority (selected from 1 to 10, where 10, is the highest priority);
Description – description of the Group (Test Group in this case);
To save the Group, click Save.
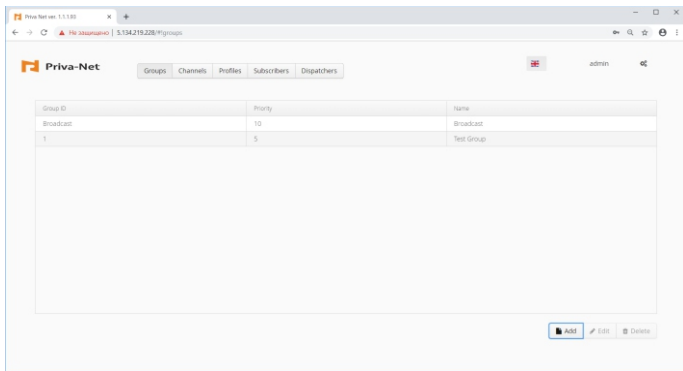
Step 16. Menu Channels
After you define the required Groups, you need to create channels that consist of sets of Groups.
To do this, click the Add button in the Channels column:
You need to upload the new software packages and update the Subscribers.
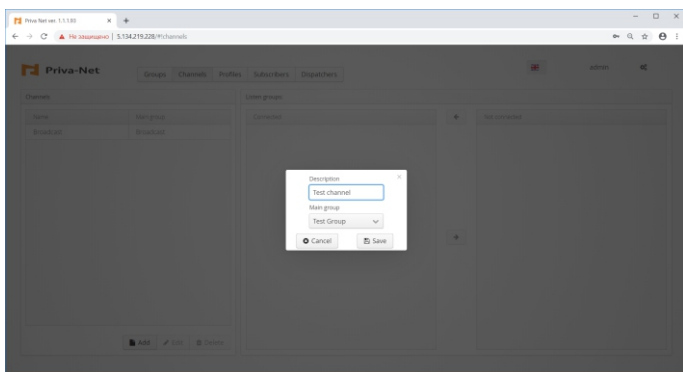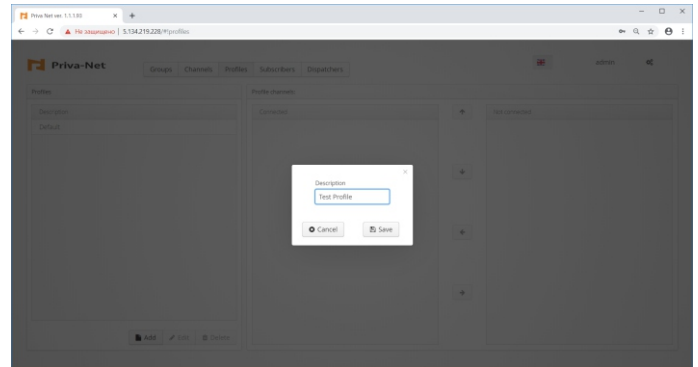

Description – description of the channel;
Main Group - the main Group selected from the drop-down list of Groups defined on the Priva-Net Compact Server.
On the main Group, the transmission is carried out when Subscribers work on this channel. In this case, the Subscriber constantly monitors the other Groups included in this channel.
Next, you need to put the required Groups in the list of connected to this channel Groups (connected) by selecting the desired Groups in the list of disconnected Groups (not connected) and transfer them to the list of connected to this channel Group by using the arrow to move Groups
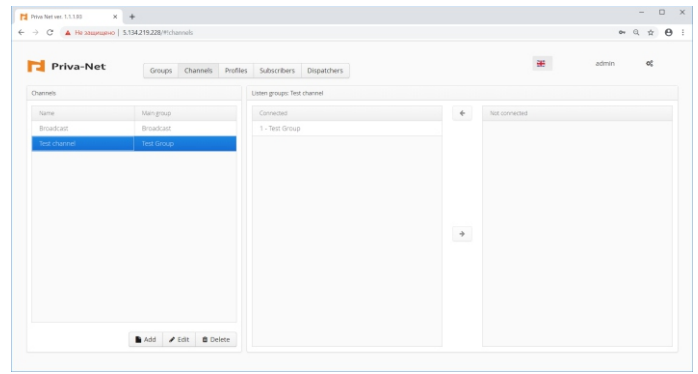

Step 17. Menu Profiles
After you create the channels, you need organize profiles that consist of sets of channels.
To do this, click the Add button in the Profiles column:

Description – description of the profile.
You need save the created profile by clicking Save.
Next, you need to put the required channels in the list of connected channels (connected) by selecting the desired channels in the list of unconnected channels (not connected) and transfer them to the list of connected channels using the arrow to move the channels between the lists:
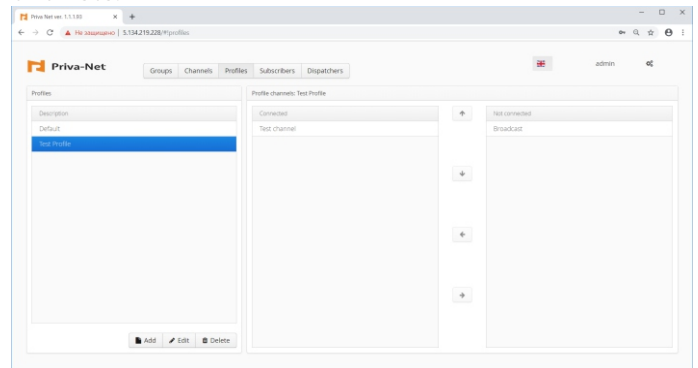
Step 18. Menu Subscribers
After the profiles are organized, you can start creating Subscribers.
To do this, go to the Subscribers tab:
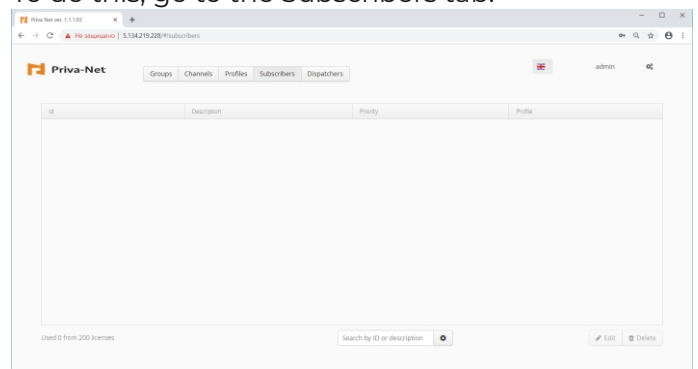
Direct addition of Subscribers to the configuration of the Priva-Net Compact Server is prohibited in order to ensure the confidentiality of Subscribers when working in the Priva-Net network, as well as to prevent unauthorized access of third-party Subscribers to the Priva-Net network.

The Priva-Net Compact Server bases the principle of adding Subscribers to the configuration of the Priva-Net Compact Server on two-factor identification of Subscriber devices when requesting Subscribers to register on the Priva-Net Compact Server and confirming the registration of Subscribers.
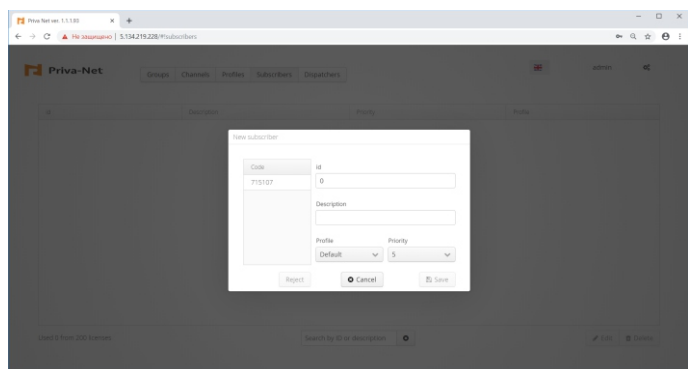
To register a Subscriber device on the Priva-Net Compact Server on the Subscriber device, it is necessary to create a PTT service profile, upon activation of which the Subscriber device automatically sends a registration request to the PTT service address.

The Subscriber device sends a registration request to the Priva-Net Compact Server in the form of a unique digital code, which must be accepted and confirmed by the Administrator of the Priva-Net Compact Server:
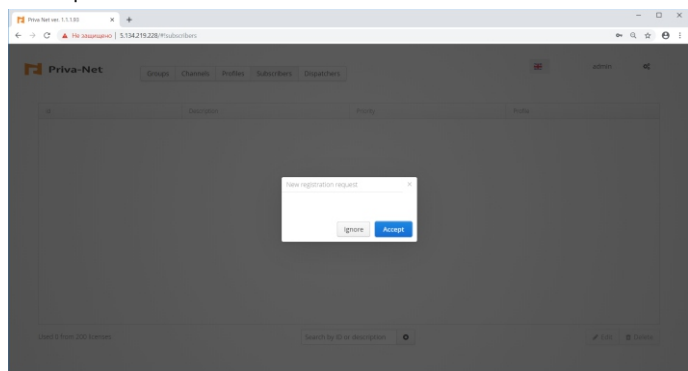
The Administrator need accept the request to register a new Subscriber by pressing the Accept key.

A window opens to input a new Subscriber details:

Code - a unique code sent by the Subscriber device to the Priva-Net Compact Server when registering a new Subscriber device on the Priva-Net Compact Server (the codes on the Subscriber device and on the Server must match);
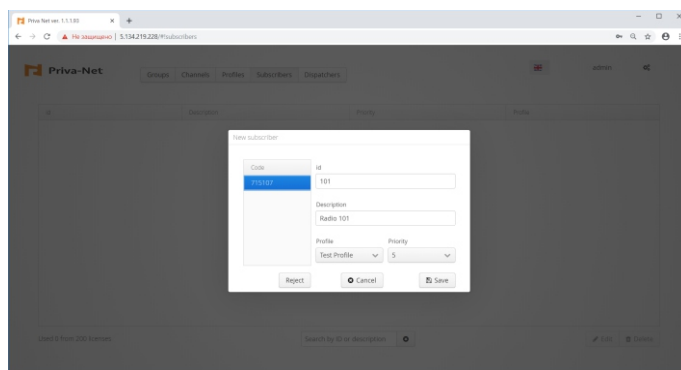ID – unique ID of the Subscriber;
Description – description of the Subscriber;

Profile - Subscriber profile selected from the drop - down list of profiles organized on the Priva-Net Compact Server;
Priority - priority of the Subscriber (selected from the range from 1 to 10, where 10 is the highest priority).

Next, click on the code from the Code column:

After the Administrator confirms the registration of a new Subscriber on the Priva-Net Compact Server by clicking the Save button, the registered Subscriber is moved to the list of registered Subscribers of the Priva-Net Compact Server.
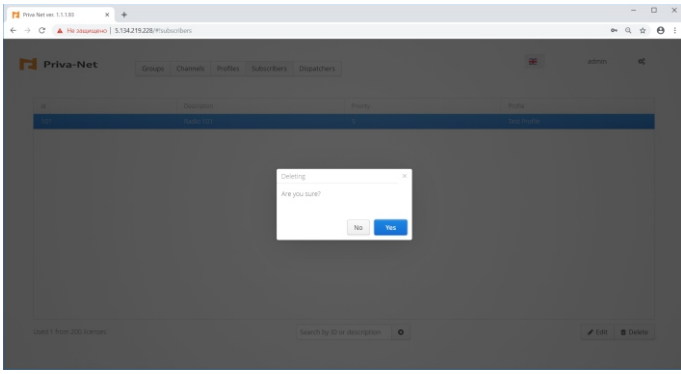
The number of Subscriber licenses already used by the Administrator is indicated in the lower left corner.
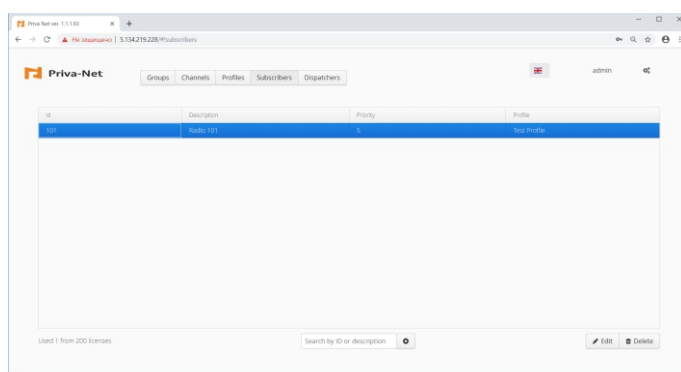
Next, the Administrator can edit the parameters of the registered Subscriber (except his ID) by clicking on the Edit button:
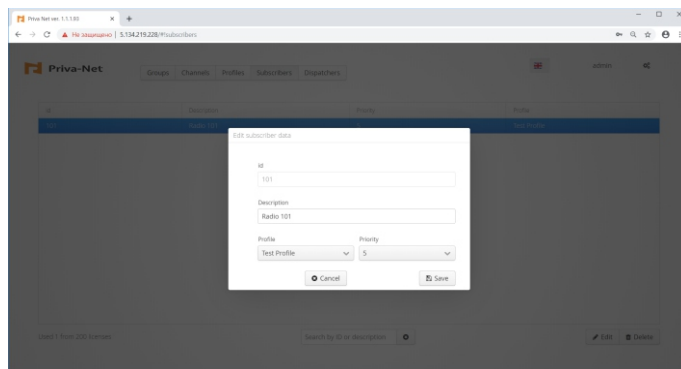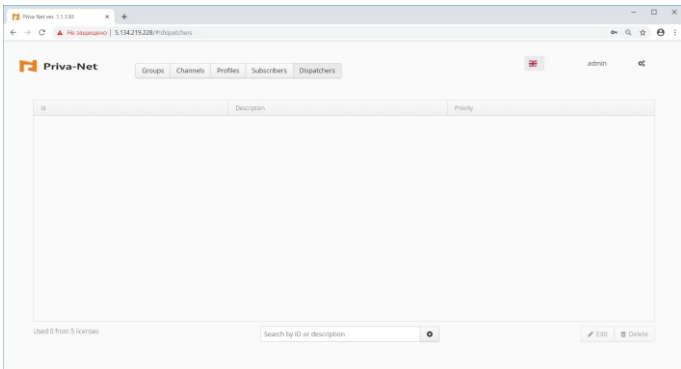

The Administrator can delete the registered Subscriber by pressing the Delete button:

Step 19. Menu Dispatchers
After the Subscribers are organized, you can start creating Dispatchers.
To do this, go to the Dispatchers tab:

Direct addition of Dispatchers to the configuration of the Priva-Net Compact Server is prohibited in order to ensure the confidentiality of Subscribers when working in the Priva-Net network, as well as to prevent unauthorized access of third-party Subscribers to the Priva-Net network.
The Priva-Net Compact Server bases the principle of adding Dispatchers to the configuration of the Priva-Net Compact Server on two-factor identification of Dispatchers console when requesting Dispatchers to register on the Priva-Net Compact Server and confirming the registration of Dispatchers.
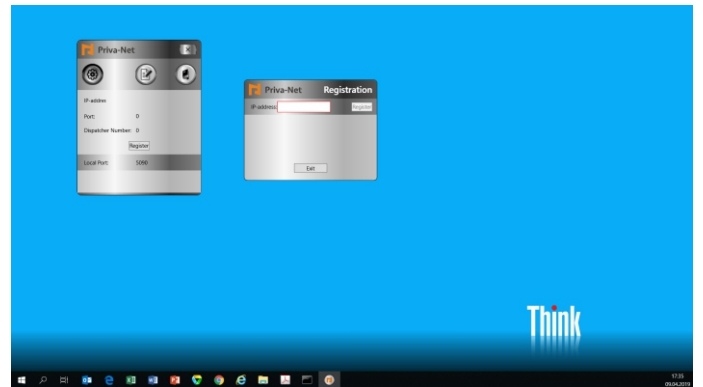To register Dispatchers on the Priva-Net Compact Server, it is necessary to make a registration via Dispatcher Console application installed on the Dispatcher Console computer.
You need to install Dispatcher Console software and start it:
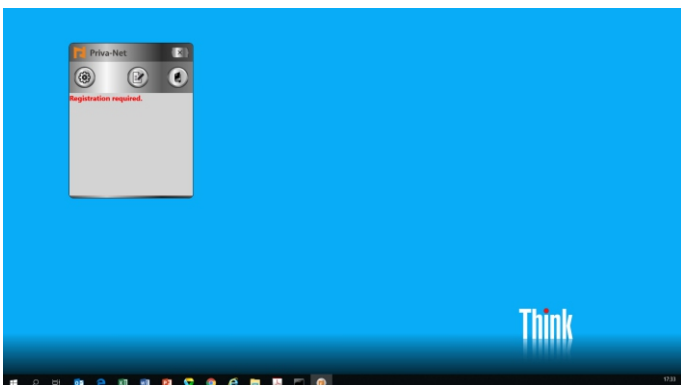
Press button Settings for the registration of the Dispatcher:
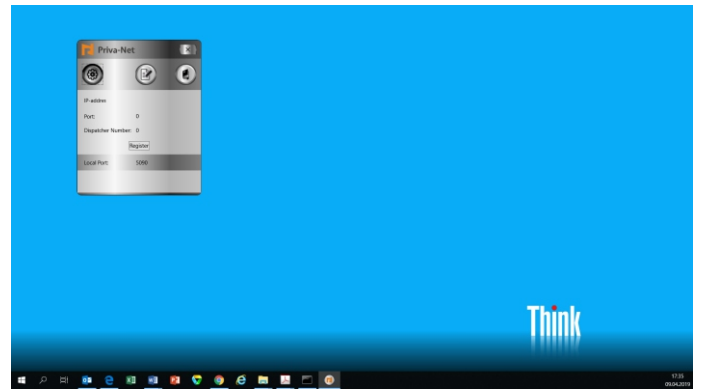
Press Register button:

Enter the IP-address of Priva-Net Compact Server and press Register.
The Dispatch Console send a registration request to the Priva-Net Compact Server in the form of a unique digital code, which must be accepted and confirmed by the Administrator of the Priva-Net Compact Server.
The new registration request will appear on Dispatchers tab:
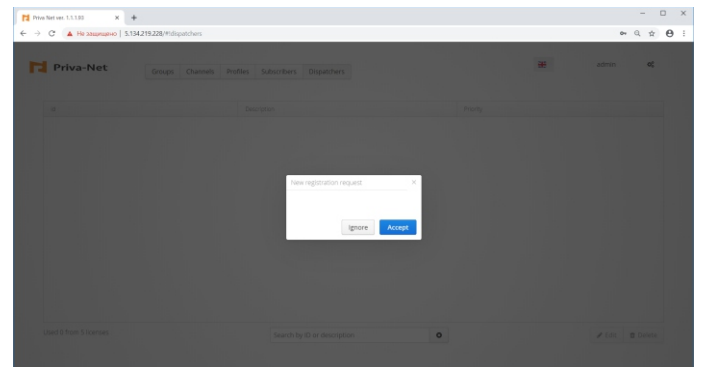
The Administrator need accept the request to register a new Dispatcher by pressing the Accept key.
A window opens to input a new Dispatcher details:
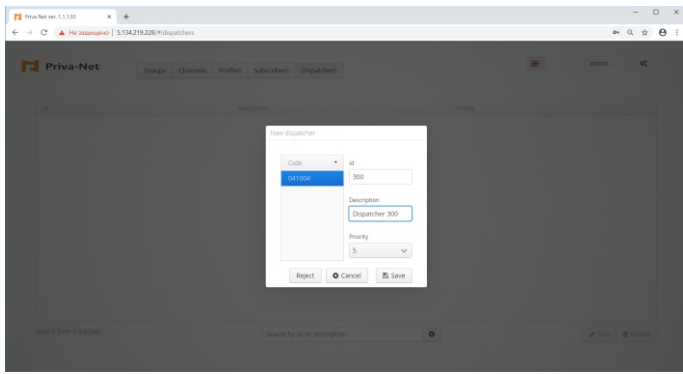
Code - a unique code sent by the Dispatch Console to the Priva-Net Compact Server when registering a new Dispatcher on the Priva-Net Compact Server (the codes on the Dispatch Console and on the Server must match);
ID – unique ID of the Dispatcher;
Description – description of the Dispatcher;
Priority - priority of the Dispatcher (selected from the range from 1 to 10, where 10 is the highest priority).
Next, click on the code from the Code column. After the Administrator confirms the registration of a new Dispatcher on the Priva-Net Compact Server by clicking the Save button, the registered Dispatcher is moved to the list of registered Dispatchers of the Priva-Net Compact Server. The number of Dispatcher licenses already used by the Administrator is indicated in the lower left corner.
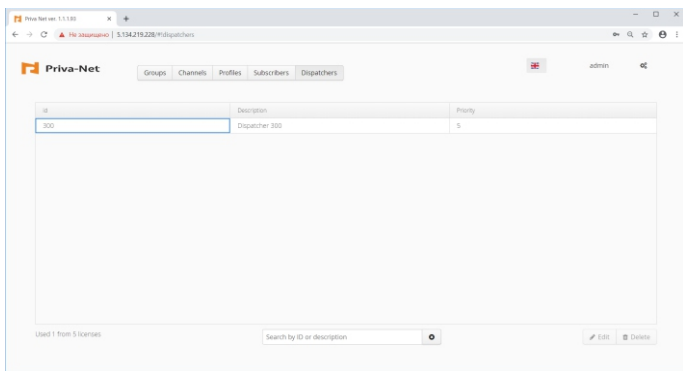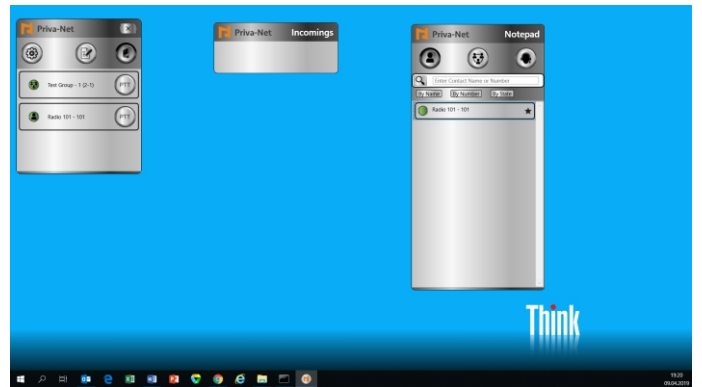

You need to restart the Dispatch Console application after registering of new Dispatcher:
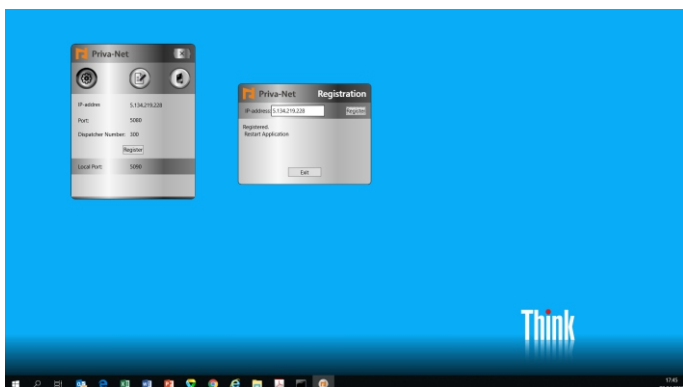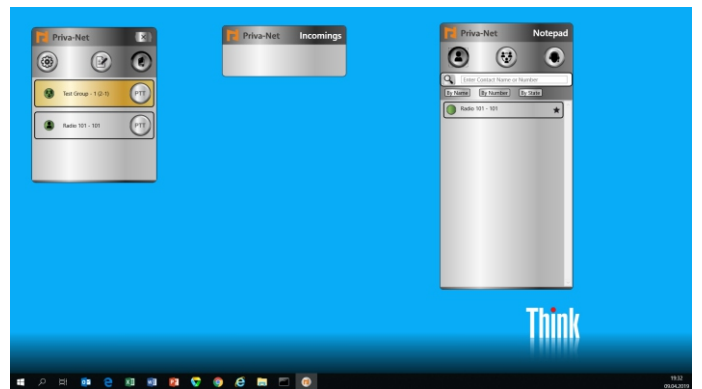

After restarting of Dispatcher Console Application the new Dispatcher is ready to operate:
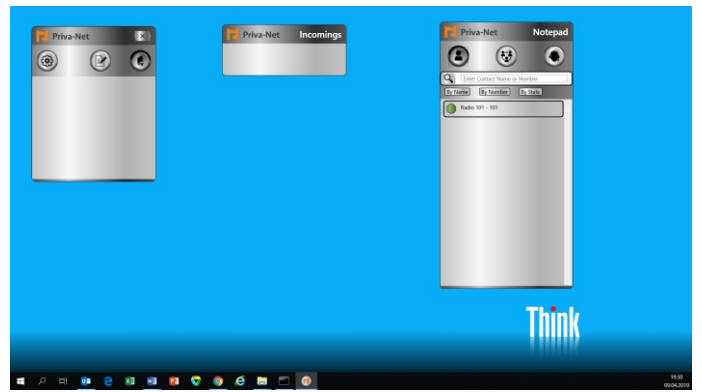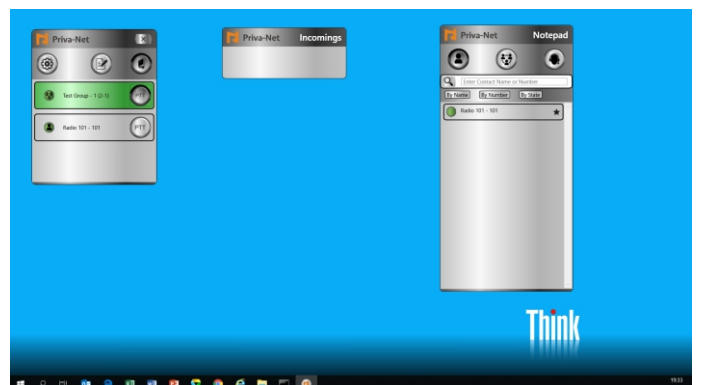
Dispatcher can add the Radio/Group in Favorites List by right-button pressing on the Subscriber/Group and pressing Add to favorites (the star will appear):

After that, the Dispatcher can control the favorite Subscriber/Group in the list of favorites:

In addition, Dispatcher can press PTT button and speak with favorite Subscriber/Group while session timeout is not expired:

Enjoy!