



Device Remote Control (DRC)

User manual

Version 1.5

**Moscow
2020**

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Introduction

The system is intended for remote control of devices manufactured by LLC "Navtelecom".

The brief description of the device operation with the system:

The user is registered in the system, gets access to the account and his own ID. Then it is necessary to set periodicity of device connection to DRC and the ID. Devices are connected to DRC with a user-defined period or on commands. Connecting to the server a device checks its task queue. If the task queue is empty, then the service disconnects the device, if there are tasks in the queue, then they one by one (in the order of creation) are executed. Tasks that are queued but the execution of which is not completed can be canceled (deleted) by the user. To see the devices in the system and be able to manage them, it is necessary to register them in your personal account (it is possible to register one or several devices at a time).

Supported functionality:

- Sending configuration files to one or several devices;
- Sending firmware files to one or more devices;
- Sending standard or arbitrary commands / requests to devices.

Supported device series:

- S-24xx
- S-26xx

1. Quick start

1. Register in your personal account as described in the corresponding section. To activate your account, send a free-form request indicating the ID received during registration in technical support by e-mail support@navtelecom.ru

2. Configure your terminals to work with the DRC service. You can make settings in one of the ways convenient for you:

- Using the configurator
- Sending SMS command
- Sending Online command

Below are detailed examples with test data:

Using the configurator

"Automatically connect to DRC server"

- **switch-on**

"Connection period"

- not to change

"Personal account number"

- **135** (the number you received during registration)

"Stream Control Transmission Protocol"

- not to change



The screenshot shows a web-based configurator for the DRC service. It includes a checkbox labeled "Automatically connect to DRC service" which is checked. Below this, there are three input fields for the "Connection period": "1 d", "0 h", and "0 min". To the right, there is a dropdown menu for "Stream Control Transmission Protocol" set to "TCP". At the bottom, there is a text input field for the "Personal account number" containing the value "135".

Sending SMS command

If a device does not have a password for SMS control

```
*!EDITS TRANS:DRC(1,,135)
```

If a password for SMS control is set on the terminal, for example, "1234"

```
1234 *!EDITS TRANS:DRC(1,,135)
```

Sending Online command

```
*!EDITS TRANS:DRC(1,,135)
```

3. The setup is complete. Next, you should carefully study this manual and start working with the devices.

2. Device operation with DRC

2.1. Server connection logic

Devices are connected to DRC under the following conditions:

- If periodic connection to the server is enabled in the settings, then the device connects with DRC after each switch-on with a specified periodicity.
- On commands (regardless of the periodic connection setting).

Internet commands format:

Command	<HEAD>*!CNCT_DRC[<s><time>]	
Reply	<HEAD>*@CNCT_DRC<s><ack>	
Designations	Description	Data format
<HEAD>	16 byte NTCB packet header	U8[16]
*!CNCT_DRC	0x2A 0x21 0x43 0x4E 0x43 0x54 0x5F 0x44 0x52 0x43	char[10]
*@CNCT_DRC	0x2A 0x40 0x43 0x4E 0x43 0x54 0x5F 0x44 0x52 0x43	char[10]
<s>	Parameter delimiter - space (0x20)	char
<time>	Time in seconds for which a device is connected	char[]
<ack>	Confirmation of receiving a command: OK FAIL	char[]

SMS commands format:

Command text	Reply
*!CNCT_DRC[<s><time>] where: <s> - parameter delimiter - space <time> - time in seconds for which a device is connected. The parameter is optional. It is possible to send the command *!CNCT_DRC and a device will connect without delay on the server, if there is no assigned tasks. Otherwise, if the time is assigned, then device connects to the server for assigned time even if there no tasks in the queue.	*@CNCT_DRC<s><ack> where: <s> - Parameter delimiter – space. <ack> - Confirmation of receiving a command: <ul style="list-style-type: none"> - OK - FAIL

If a device is connected to DRC and it is necessary to break the connection untimely, it should be used the appropriate command:

Online commands format:

Command	<HEAD>*!DRC<s>0	
Reply	<HEAD>*@DRC<s><ack>	
Designations	Decryption	Data format
<HEAD>	16 byte NTCB packet header	U8[16]
*!DRC	0x2A 0x21 0x44 0x52 0x43	char[5]
*@DRC	0x2A 0x40 0x44 0x52 0x43	char[5]
<s>	Parameter delimiter - space (0x20)	char
<ack>	Confirmation of receiving a command: OK FAIL	char[]

*It is possible to send on SMS.

SMS commands format:

Command text	Reply
*!DRC<s>0 where: <s> - parameter delimiter - space	*@CNCT_DRC<s><ack> where: <s> - Parameter delimiter – space. <ack> - Confirmation of receiving a command: - OK -FAIL

2.2. Devices configuration with DRC operation

For devices operation with DRC it is necessary to make settings in the Configurator on the tab Data Transmission:

☒ Automatically connect to DRC service

Connection period

1 d

0 h

0 min

Stream Control Transmission Protocol

TCP

Personal account number

1

“Automatically connect to DRC server” - if the flag is set, the device independently connects to the system every time it switches on (after changing settings, resetting, etc.), as well as at assigned periodicity.

“Connection period” - the parameter determines the periodicity of device independently perform attempts to connect with the server.

"Personal account number" – ID received when registering an account on the server. The ID on DRC must coincide with ID on Configurator, otherwise, device management and viewing of its characteristics will be impossible from the server.

"Stream Control Transmission Protocol" – the service parameter that allows to define the type of transport layer protocol for exchanging data between the device and the system.

The UDP protocol allows you to reduce the traffic consumption with the server operation, but it highly depends on the quality of the Internet connection.

The TCP protocol consumes more traffic, but it is more sustainable in poor Internet connections.

It should be mentioned, that if there is the assigned password for USB and GPRS control in the device configuration on the tab "System settings", it is necessary to select it in the monitoring system settings. Otherwise, device control will be impossible.

Changing the settings is possible not only using the configurator, but also using commands.

SMS format commands for connection to DRC:

Nº	Command text	Command description	Reply
1	*!EDITS<s><p>:<t>(<a1>,<a2>,...<aX>)	<p>Command for editing settings with saving. Causes a reboot.</p> <p><s> - parameter delimiter – space <p> - name of the page with the tag. Must end symbol ':' <t> - name of the tag that needs to be edit. Must end symbol '('. <aX> - parameter values recorded into the device. The order is determined by the configuration structure.</p>	<p>*@EDITS<s><result></p> <p><s> - parameter delimiter – space <result> - command running result</p> <ul style="list-style-type: none"> - OK - FAIL
2	*!READ<s><p>:<t>	<p>Request for current parameter values.</p> <p><s> - parameter delimiter – space <p> - name of the page with the tag. Must end symbol ':' <t> - name of the tag that needs to be read.</p>	<p>*@READ<s><result>,<p>:<t>(<a1>,<a2>,...<aX>)</p> <p><result> - command running result</p> <ul style="list-style-type: none"> - OK - FAIL <p><p> - name of the page with the tag <t> - name of the tag read <aX> - parameter values read from the device. The order is determined by the configuration structure.</p>

Internet format commands:

Command	<HEAD><cmd>	
Reply	HEAD><cmd_ans>	
Designations	Decryption	Data format
<HEAD>	16 byte NTCB packet header with preamble	16*U8
<cmd>	Command text (see the table "SMS format commands")	char[]
<cmd_ans>	Reply (see the table "SMS format commands")	char[]

Configuration structure:

Parameter	Meaning	Type
Page: TRANS	Parameters that determine the order of data transfer	
Tag: DRC	DRC Parameters of connection with DRC	
use	Use auto connection to DRC: - 0 – not use - 1 – use "1" by default	bool
cnctTimer	Period of automatically connection to DRC (in seconds) From 60 to 31622340 "86400 sec" by default	U32
idDRC	ID Account number in DRC From 1 to 4294967295 "1" by default	U32
transProto	Stream Control Transmission Protocol for operation with DRC: - UDP - TCP TCP by default	Char[3]

SMS format commands examples:

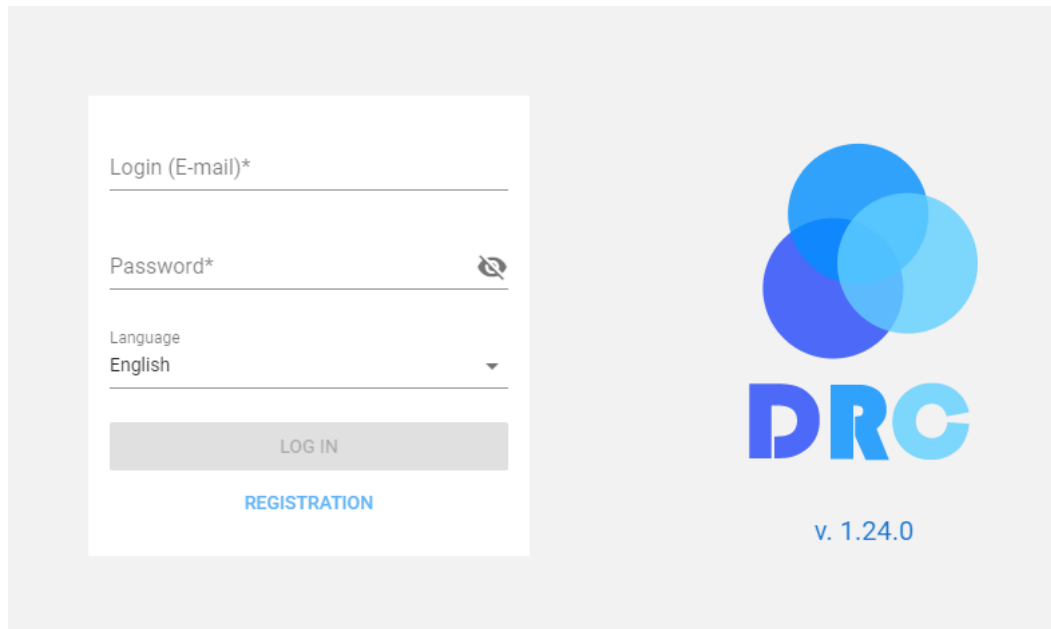
```
*!READ.TRANS:DRC                                     // Settings reading
*@READ OK,TRANS:DRC(1,86400,1,UDP)                   // Device reply

*!EDITS TRANS:DRC(,3600,36,TCP)                       //Settings recording
*@EDITS OK,TRANS:DRC(1,3600,36,TCP)                   // Device reply
```


3. Users working with server

3.1. Login page

Clicking on the link <https://drc.navtelecom.ru> will open the login page:



On the login page it is possible:

- to log into your account
- to choose one of the available languages for the DRC system.

By default, the browser language is selected if supported by the system. If a language is not supported - "Russian" is selected. The selected language is saved for current browser;

- to register a new account by going to the registration page (for this
- you must press the button "Register").

Note:

Fields marked with "*" are required.

The current version is indicated under the system logo.

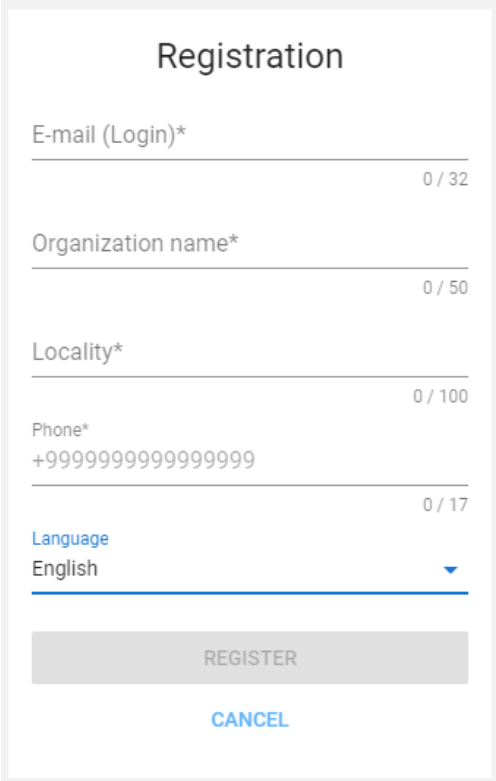
3.2. Registration page

To register a new account, you must fill in all the fields and click the "Register" button.

ATTENTION!

The email address must be unique, i.e. it's impossible to create a new account if an email address is already in use for it.

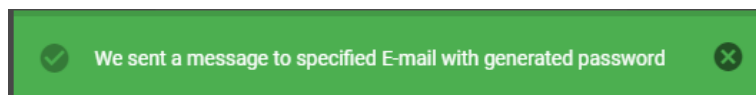
The email address must be valid, as a letter will be sent to it with data for entering your personal account.



The registration form is titled "Registration". It contains the following fields and controls:

- E-mail (Login)***: A text input field with a character count of "0 / 32".
- Organization name***: A text input field with a character count of "0 / 50".
- Locality***: A text input field with a character count of "0 / 100".
- Phone***: A text input field with a character count of "0 / 17". The placeholder text is "+9999999999999999".
- Language**: A dropdown menu currently showing "English".
- REGISTER**: A grey button.
- CANCEL**: A blue text link.

After clicking the "Register" button, if all data has been checked for correctness, you will see a message:



The information sent to the assigned email address will contain the following:

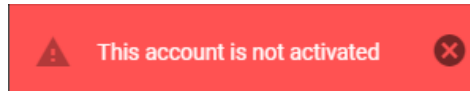


1. Users ID in the system. Used when setting up;
2. Login to enter (this is the E-mail specified during account registration);
3. System generated login password;

ATTENTION!

After receiving the letter, you need to contact a technical support specialist to activate your account sending the request to support@navtelecom.ru with your User ID.

By default, the account is not activated. When you try to enter such an account, you will receive a message:



3.3. The main page

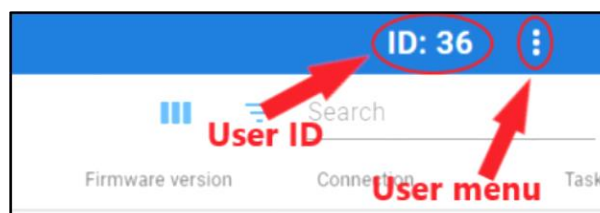
After a successful login, you will see the main page of the server:

Name	IMEI	Model	Firmware	Connection	Task
	866795036038725	S-2435			
YP_D	866795032177386	S-2430	02.00.38		
YP_345678901234567	345678901234567	Not specified			
YP_234567890123456	234567890123456	Not specified			
YP_123456789012345	123456789012345	S-2430			
S-2435_YP_V19_TEST	866795031151614	S-2435			

Task	Type	Activation time	Execution time	Lifetime	Initiator	Status	Result
Audi A3 [>2013] / ID:9 / v0.1 / 11.07.2018 / Не проверен	CAN decoding file	Dec 25, 2020, 2:23:05 PM	Dec 25, 2020, 2:23:12 PM	1 d. 0 h. 0 m.	User	✓	100%
Установка длительности соединения с DRC: 3600	Standard command	Dec 25, 2020, 2:21:25 PM	Dec 25, 2020, 2:22:40 PM	1 d. 0 h. 0 m.	User	✓	wait_3600
	Servers unlock	Aug 14, 2020, 12:32:59 PM	Aug 14, 2020, 1:40:12 PM	7 d. 0 h. 0 m.	User	✓	OK
	Servers lock	Aug 14, 2020, 12:20:20 PM	Aug 14, 2020, 12:28:58 PM	7 d. 0 h. 0 m.	User	✓	OK

At the top is the "App header" (1), on the left is the "Main menu" (2), the middle part is the "Work area" (3).

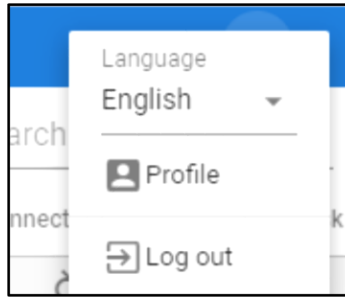
3.3.1. App header



The unique user identifier coincides to the same parameter contained in the registration confirmation letter. It is also used as a simple and convenient way for you to identify yourself when contacting the technical support service on any issue.

In the user menu it is possible to:

- change the system language;
- open the profile window;
- log out of your account.



The profile window contains the information you specified during registration and the number of devices in the system that are registered with your ID:

Profile

Devices number: 2

E-mail (Login)
piskarev@navtelecom.ru

Organization name
Navtelecom

Locality
Moscow

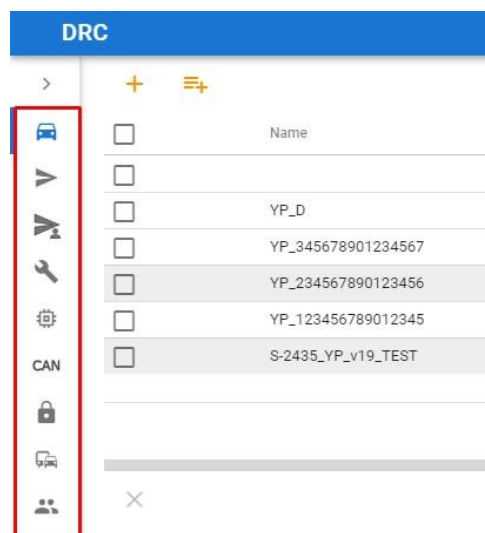
Phone
+79998845048

CLOSE

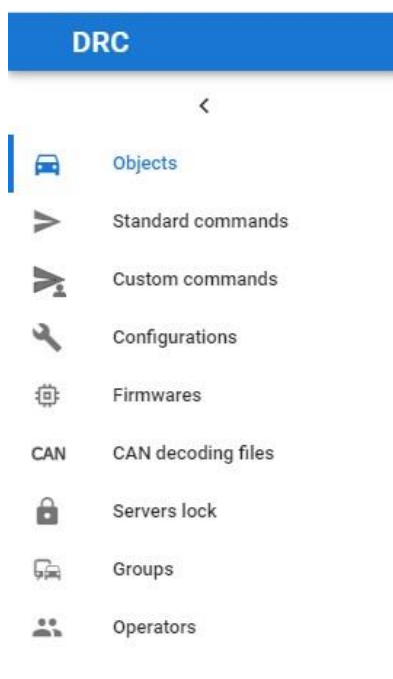
3.3.2. Main menu

The menu serves to move between the thematic tabs of the app. The currently active tab is highlighted.

By default, the menu is minimized and all tabs are shown as icons.



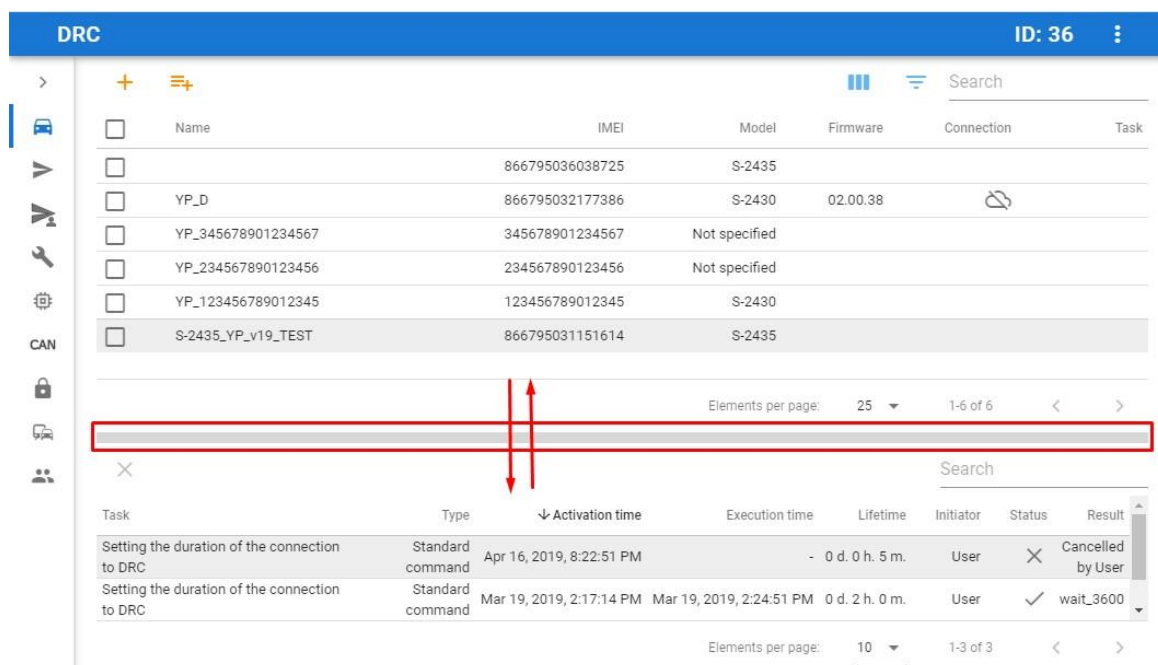
Pressing the button ➤, the menu expands and the name of the appropriate section appears in front of each icon.



To reduce the menu, press the < button.

3.3.3. Work area

The content of the work area depends on the active tab. The tab can be divided into several sections. The aspect ratio of the sections can be changed by moving the dividers.



To do this, move the mouse over the required delimiter, hold down the LMB and move it to the left or right (up or down).

Note:

The delimiter positions are saved for the current browser.

3.3.3.1. "Objects" tab

3.3.3.1.1. List of objects

The upper section contains the "List of objects".

Note:

Because it is impossible to directly interact with the device, for it there is a virtual representation in DRC called an object. All operation in the system takes place with objects. Therefore, you can create objects and assign the necessary tasks in advance, without waiting for the devices to communicate with the DRC. As soon as the device connects, the server checks if the object associated with the device has any task. If it is present, the task is automatically launched for execution.

"List of objects" includes two fields:

- Menu bar;
- Table of objects.

DRC		ID: 36																																																					
		+ ≡ ≡ Search																																																					
		<table><thead><tr><th><input type="checkbox"/></th><th>Name</th><th>IMEI</th><th>Model</th><th>Firmware</th><th>Connection</th><th>Task</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td></td><td>866795036038725</td><td>S-2435</td><td></td><td></td><td></td></tr><tr><td><input type="checkbox"/></td><td>YP_D</td><td>866795032177386</td><td>S-2430</td><td>02.00.38</td><td></td><td></td></tr><tr><td><input type="checkbox"/></td><td>YP_345678901234567</td><td>345678901234567</td><td>Not specified</td><td></td><td></td><td></td></tr><tr><td><input type="checkbox"/></td><td>YP_234567890123456</td><td>234567890123456</td><td>Not specified</td><td></td><td></td><td></td></tr><tr><td><input type="checkbox"/></td><td>YP_123456789012345</td><td>123456789012345</td><td>S-2430</td><td></td><td></td><td></td></tr><tr><td><input type="checkbox"/></td><td>S-2435_YP_V19_TEST</td><td>866795031151614</td><td>S-2435</td><td></td><td></td><td></td></tr></tbody></table>					<input type="checkbox"/>	Name	IMEI	Model	Firmware	Connection	Task	<input type="checkbox"/>		866795036038725	S-2435				<input type="checkbox"/>	YP_D	866795032177386	S-2430	02.00.38			<input type="checkbox"/>	YP_345678901234567	345678901234567	Not specified				<input type="checkbox"/>	YP_234567890123456	234567890123456	Not specified				<input type="checkbox"/>	YP_123456789012345	123456789012345	S-2430				<input type="checkbox"/>	S-2435_YP_V19_TEST	866795031151614	S-2435			
<input type="checkbox"/>	Name	IMEI	Model	Firmware	Connection	Task																																																	
<input type="checkbox"/>		866795036038725	S-2435																																																				
<input type="checkbox"/>	YP_D	866795032177386	S-2430	02.00.38																																																			
<input type="checkbox"/>	YP_345678901234567	345678901234567	Not specified																																																				
<input type="checkbox"/>	YP_234567890123456	234567890123456	Not specified																																																				
<input type="checkbox"/>	YP_123456789012345	123456789012345	S-2430																																																				
<input type="checkbox"/>	S-2435_YP_V19_TEST	866795031151614	S-2435																																																				

"Menu bar" area

Clicking the "Create object" button will open a window:

The window contains 2 tabs – “Main” and “Groups selection”.

In the “Main” tab there are input fields describing the object.

The “IMEI” field is obligatory for filling (there is a “*”).

Note:

IMEI is a unique identifier for an object. Therefore, you cannot set one IMEI for two or more objects.

ATTENTION!

If the device has a password for USB / GPRS control, the same password must be entered in the matching field. Otherwise, access to remote control of the device will be denied.

The model indication is optional. When a device contacts the DRC server and binds it to an object, the model will be detected and set automatically.

The “Firmware auto updating” flag allows to enable or disable this function for the object. When automatic update is enabled, the system itself (in real time) monitors the available “Release” firmware. If a “Release” firmware with a version newer than that of the device appears, then when it establishes communication and completes all available tasks for the object, a task to update the firmware to the latest version is automatically added to the queue. The mode state is displayed for each object in the table of the “List of objects” section:

Id	Status	Firmware auto updating	Phone	Groups	Model	Firmware version	Connection	Task
	Device is bound	✗			S-2435	02.01.50		
	Device is bound	✓			S-2430	02.00.30		

The “GROUPS SELECTION” tab displays a list of all existing groups and a field for searching by their name.

In this tab, you can select which groups the object will belong to (one object can be in several groups at the same time). If no group is selected, the object is considered to be outside the groups.

The created object can have one of three statuses:

- "Device is not bound"
The object has this status immediately after creation, if a device with the same IMEI has never connected with the DRC server.
- "Device is bound"
When the device first connects with the DRC server, if there is an object with the IMEI equal to the device IMEI, then it is bound to this object. Its status changes to "The device is bound".
- "Device password verification"
The status is set immediately after connecting the device, if, when connecting with the server, the device informs that a password is required to access it.

Note

If the device is not online and it has the "Device password verification" status, it means that the server lost connection with the device before the password verification procedure was completed. This is possible in case of unstable communication in the place of operation of the device or in the case of traffic restrictions from the mobile operator of device.

- The set password does not match the device password"
The status sets if:
 - a password is set in the device, but this password is not set in the same name field in the object;
 - a password is set in the device, and it does not match the password set in the same name field in the object.

ATTENTION!

If in the account, during the device connection, there is no object with the matching IMEI, then access to the device will not be possible (the object for this device will not be created automatically).

If you need to add more than one object, the most convenient way is to use the function of adding a list of objects.

Firstly, it is necessary to create a file with the extension ".txt". The file should contain a list of objects in the format:

<IMEI>, <Object_name>, <Device_Model>, <Phone_Number>, <Password>

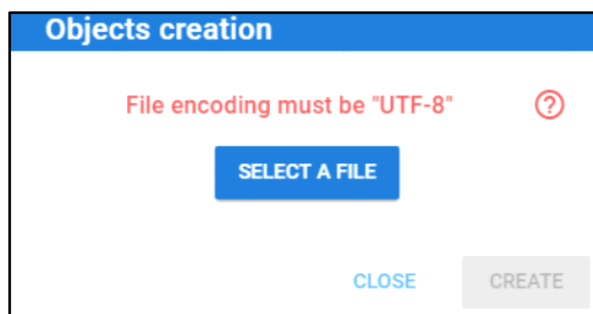
For example:

```
123456789012345,Object 1,,,  
234567890123456,Object 2,,,73ynfsdndsf  
345678901234567,Object 3,S-2430,+74992130490,pass123  
456789012345678,Object 4,S-2435,,73ynf
```

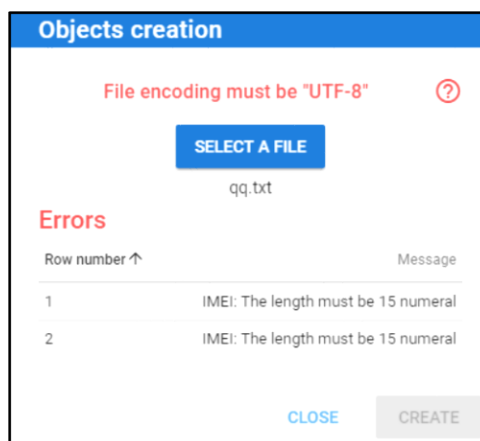
ATTENTION!

Also adding one object, the IMEI is obligatory to indicate.

Clicking the "Create objects from a file" , a window opens:



After clicking the "Select a file" button in the explorer window you need to find and select a previously created file with a list of objects. After the file is loaded, there is verification of correctness and compliance with the restrictions of parameters of each object. If any error is found, a table with its description will appear:



If the verification is successful, a list of all groups existing in the account and a field for searching by their name will be displayed under the name of the uploaded file. Using the list, you can select which groups the created objects will belong to.

To complete the process of adding a group of objects, click the “Create” button.

If there are two or more marked objects in the table, then after the button “Create objects from a file” appears the button “Edit marked objects”.

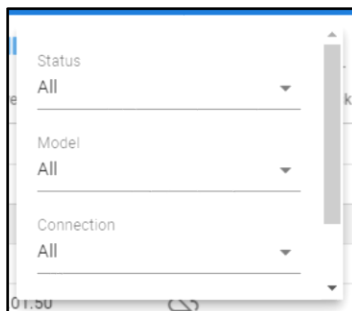
Clicking on it, a window opens:


Here you can edit the general fields of the marked objects:

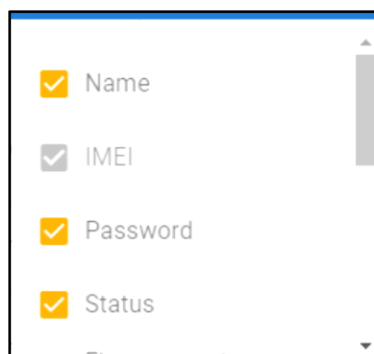
- “Device password”
- “Model”
- “Firmware auto updating”

All fields are optional. The field becomes available for editing after setting the flag to the left of the field.

Clicking the button , a menu with parameters for filtering the list of objects is available:



Clicking the button , there is a menu that allows to hide unnecessary columns in the object list:



The flags for those columns that cannot be hidden shown in gray color.

Note:






Selected filtering options and hidden columns are retained for the current browser.

Menu bar has a search field. The table can be searched by "Name", "IMEI", "Phone", "Firmware version" columns.


"Table of objects" area

The table displays all created objects and the results of searching or filtering by the list of objects.

Sorting by the columns "Name", "IMEI", "Status", "Firmware auto updating", "Phone", "Model" is available for this table. For each command in the table the following buttons are available:

Model	Firmware version	Connection	Task
S-2435	02.01.50		  
S-2430	02.00.30		

Clicking the "Delete" button  will open a confirmation window. It allows to prevent accidental deletion of the required object.

Clicking the "Edit" button  will open an editing window with the settings chosen when created the object.

The "Information" button  allows to open a field with additional information under the object:

<input type="checkbox"/>	Name	IMEI	Password	Status
<input type="checkbox"/>		866795036038725	—	Device is bound
	Duration of the last connection	0 d. 0 h. 0 m.		
	Date of the last connection	Fri, Aug 14, 2020, 1:42:17 PM		
	Date of the next connection	Sat, Aug 15, 2020, 1:42:17 PM		
	Firmware release date	30.04.20		
	BHR	00000000000189A9		

3.3.3.1.2. Object tasks

The main tool for interacting with an object is a task statement. Each new task is added to the execution queue for the object. Tasks start to be executed in accordance with the order of creation (the first task is considered the one that was created first).

Depending on its function, the task can have one of five types:

- "Standard command" - sending to the device one of the available standard commands
- "Custom command" - sending an arbitrary command you created to the device
- "Configuration" - remote modification of the device configuration file
- "Firmware" - remote firmware of the device.
- "Decoding file CAN" – remote loading of the decoding file to the device.

Each task has a "Lifetime" parameter. It sets the time interval during which the task will be in the queue for execution.

"Lifetime" interval is counted from the time the task was created. The task creation time is stored in the "Activation time" parameter.


The creation task initiator can be the user who owns the object or the administrator (specialist of the technical support of Navtelecom LLC).

The section includes two areas:

- Menu bar;
- Table of tasks.

"Menu bar" area

Task	Type	Activation time	Execution time	Lifetime	Initiator	Status	Reset
Server's unlock		Fri, Aug 14, 2020, 12:52:59 PM	Fri, Aug 14, 2020, 1:40:12 PM	7 d. 0 h. 0 m.	User	✓	OK

On the left is a button to cancel the selected task . You can only cancel a task that is in the queue or in progress. Otherwise, the button is inactive.

The search field is located on the right side. The table can be searched by the "Task" column.






"Table of tasks" area

Below the menu there is a table that displays all tasks assigned to the selected object.

Task	Type	↓ Activation time	Execution time	Lifetime	Initiator	Status
Setting the duration of the connection to DRC	Standard command	Tue, Apr 16, 2019, 6:22:51 PM	-	0 d. 0 h. 5 m.	User	×
Setting the duration of the connection to DRC	Standard command	Tue, Mar 19, 2019, 2:17:14 PM	Tue, Mar 19, 2019, 2:24:51 PM	0 d. 2 h. 0 m.	User	✓
Команда_1	Configuration	Fri, Jan 25, 2019, 7:00:05 PM	-	0 d. 1 h. 0 m.	User	×

The table can be sorted by columns: "Task", "Activation date", "Execution date", "Lifetime" and "Initiator".



Possible task statuses:

	in the queue for execution
	in progress
	runtime error
	not executed
	completed

The column "Result" may contain additional information for the current status of the task.

3.3.3.1.3. Window for working with tasks


There is a special window designed to create and cancel tasks in the system interface. This window allows step-by-step create or cancel the desired type of the task (or several tasks). The window is displayed by pressing the corresponding buttons in the system interface:

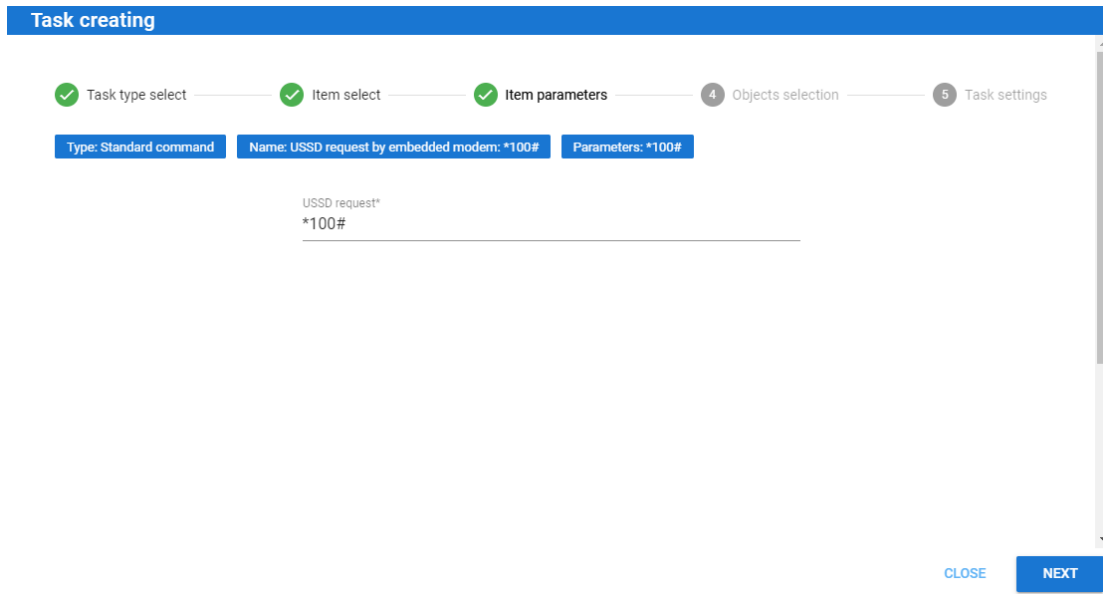
	task creating
	task canceling

Note:

In some cases, when canceling a task, the window for working with tasks will not be displayed unless additional clarifications from the user are provided for the operation.

3.3.3.1.3.1. Window for task creating

Clicking on the button "Task creating" , the window appears:



The task creating process consists of 4 or 5 steps:

1. Task type select
2. Item select
3. Item parameters (optional)
4. Objects selection
5. Task settings

The transition to the next step is possible only if the conditions of the current step are correctly fulfilled.

In the task settings, the task lifetime is set (by default it is 1 day) - the time during which the task can be launched for execution. After this time has elapsed, the task is automatically excluded from the execution queue.

Lifetime	↑ Initiator	Status	Result
1 d 0 h 0 m	User	✓	100%

Note:

The minimum value is 1 minute.

The maximum value is 750 days, 0 hours, 0 minutes.

The created task is added to the end of the execution queue for each of the selected objects. The task queue of an object can be viewed in the task log of this object (see the [corresponding section](#)).

3.3.3.1.3.2. Window for task canceling

Clicking on the button "Task canceling" ✖, the window appears:

Task cancelling

✓ Task type select

Type: Standard command

⚠ Objects selection

Search

<input type="checkbox"/>	Name	IMEI	Password	Phone	Groups	Firmware	Firmware auto updating
<input type="checkbox"/>		866795036038725	—			03.00.24	—
<input type="checkbox"/>	YP_D	866795032177386	—			02.00.30	✓
<input type="checkbox"/>	YP_345678901234567	345678901234567			Группа 1; Группа 2;		✓
<input type="checkbox"/>	YP_234567890123456	234567890123456			Группа 2;		—
<input type="checkbox"/>	YP_123456789012345	123456789012345			Группа 1;		✓
<input type="checkbox"/>	S-2435_YP_v19_TEST	866795031151614					—

CLOSE

CANCEL

Task canceling process consists of 2 steps:

1. Task type selection
2. Object selection

After the completion of all the stages in the task canceling window, the system will check the task log of each of the selected objects and cancel the earliest task of the selected type if its status is:

- "in the queue of execution"
- "in process of execution"

3.3.3.2. "Standard commands" tab

This tab displays a list of all available mostly used standard commands. Based on any of them it is possible to create a task to send a command to devices.


The tab content consists of one section including two areas:


- Menu bar;
- Table of standard commands.

Name	Parameters
Arbitrary command	✓
USSD request by embedded modem	✓
Connecting to the RFU service	✓

"Menu bar" area

Menu bar allows to create or cancel a task for selected command sending.

Clicking the "Create task" button  will open the corresponding window and there you can step by step configure the task for the selected command.

Clicking the "Cancel task" button  will open the corresponding window and there you can cancel the last task of the type "Standard command".

Note:

A detailed description of the windows for task creating and canceling is given in this section.

"Table of standard commands" area

This table displays all the loaded standard commands. "Parameters" column shows whether the command has configurable parameters.

3.3.3.3. "Custom commands" tab

This tab allows to create your own commands. It displays a list of all the created commands. Based on any of them it is possible to create a task to send a command to devices.

The tab content consists of one section including two areas:

- Menu bar;
- Table of custom commands.


Name ↑	Command
Запрос баланса SIM (*100#)	*?USSD *100#
Запрос идентификатора SIM	*?ICCID


"Menu bar" area

Clicking the "Creating a custom command" button  will open the window:

"Name" field can contain any text. After creating a task, the task column will display the text of this field.

The "Command" field must contain an exact description of the command according to the documentation. Commands description supported by devices is given in the data exchange protocol (the document with the description is available [here](#)).

Clicking the "Create task" button  will open the corresponding window and there you can step by step configure the task for the selected command.

Clicking the "Cancel task" button  will open the corresponding window and there you can cancel the last task of the type "Custom command".

Note:

A detailed description of the windows for task creating and canceling is given in this section.


Menu bar has a search field. The table can be searched by the "Name" and "Command" columns.

"Table of custom commands" area

This table displays all the created custom commands and search results in the commands list.

Sorting by the columns "Name" and "Command" is available for this table. For each command in the table the following buttons are available:

Clicking the "Delete" button  will open a confirmation window. It allows to prevent accidental deletion of the required command.

Clicking the "Edit" button  will open an editing window for the selected command. The contents of the window correspond to the command creation window.

3.3.3.4. "Configurations" tab

This tab allows to load a list of all loaded configurations to the system and display it there.

The tab content consists of one section including two areas:

- Menu bar;
- Table of configurations.

<div> + ↺ × <div>Search</div> </div>			
Name ↑	Model	Description	Creator
Конфигурация_1	S-2435	Описание 1	config

"Menu bar" area

Clicking the "Add Configuration" button + will open the window:

Configuration adding

Name

0 / 30

Description

0 / 300

SELECT A FILE

CLOSE

SAVE

"Name" and "Description" fields are optional. A configuration file is required.

Note

If the "Name" field is not indicated, then the name of the loaded file will be assigned to it when saving the configuration. If necessary, the file name will be automatically being cut to the maximum length.

After clicking the "Select a file" button in the explorer window that opens, you need to find and select the required configuration. To add the selected file to the server, click "Save".

Clicking the "Create task" button ↺ will open the corresponding window and there you can step by step configure the task of the type "Configuration".

Clicking the "Cancel task" button × will open the corresponding window and there you can cancel the last task of the type "Configuration".

Note:

A detailed description of the windows for task creating and canceling is given in this section.

Note:



The task is created based on the selected configuration, so the window will open at the step of selecting objects. The list of objects will contain only objects whose model matches the model of the selected configuration.

Menu bar has a search field. The table can be searched by the "Name" and "Description" columns.


"Table of configurations" area

The table displays all loaded configurations and the results of searching or filtering by the list of configurations.

Sorting by columns "Model", "Name", "Description", "Creator" is available for the table. For each command in the table the following buttons are available:

Name	Description	Creator
Конфигурация_1	Описание 1	 

Clicking the "Delete" button  will open a confirmation window. It allows to prevent accidental deletion of the required configuration.

Clicking the "Edit" button  will open a window with the settings specified when loading the configuration.

Note

When editing, you can change the name or description of the configuration, but you cannot load a new file.

3.3.3.5. "Firmwares" tab

The tab displays a list of all available firmwares. On the base of any of them it is possible to create a task to load a firmware to devices.

There are three types of firmware available:


- "Release" - firmware that has passed long testing and is recommended for installation on all devices of a certain model. This type of firmware is available to all users.
- "Test" - firmware containing the newest functions and fixes, but has not passed long-term testing. This type of firmware is available to all users. Recommended for installation only for advanced users, because some of the functionality may be unstable.
- "Special" - firmware containing specific test features. It is prepared separately and provided by specialists of Navtelecom LLC for individual testing only to certain users.


The tab content consists of one section including two areas:

- Menu bar;
- Table of firmwares.

Search				
Model	Version	Release date	Type	↓ Addition date
S-2653	01.00.70	Apr 30, 2020	Release firmware	Wed, Jul 15, 2020, 10:35:47 AM
S-2651	01.00.72	May 13, 2020	Release firmware	Wed, Jul 15, 2020, 10:35:07 AM
S-2435	02.01.50	Apr 30, 2020	Release firmware	Wed, Jul 15, 2020, 10:34:30 AM
Elements per page: 10 1-10 of 68 < >				

"Menu bar" area

Clicking the "Create task" button  will open the corresponding window and there you can step by step configure the task of the type "Firmware".

Clicking the "Cancel task" button  will open the corresponding window and there you can cancel the last task of the type "Firmware".

Note:

A detailed description of the windows for task creating and canceling is given in this section.


Note:

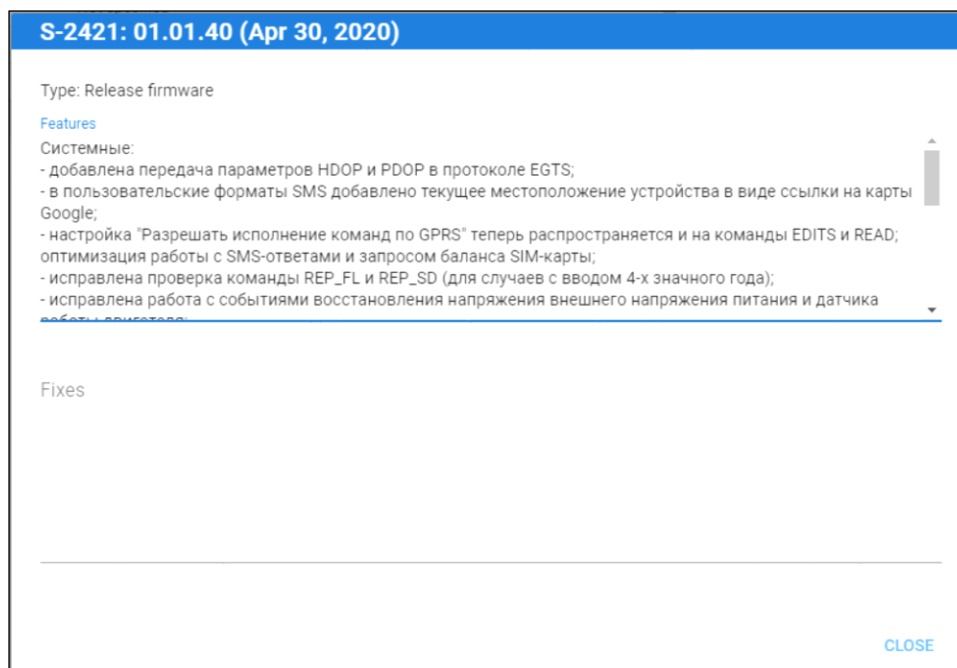
The task is created based on the selected firmware, so the window will open at the step of selecting objects. The list of objects will contain only objects whose model matches the model of selected firmware.

Menu bar has a search field. The table can be searched by the column "Version".

"Table of firmwares" area

Sorting by columns "Model", "Version", "Type", "Release date" and "Addition date" is available for the table.

For any firmware, you can find out the list of improvements and fixes that it contains. To do this, press the button  in the "Actions" column (it appears when you hover the cursor over the line with the required firmware). Then a window will open:



3.3.3.6. "CAN decoding files" tab


This tab displays a list of all available CAN decoding files. On the base of any of them it is possible to create a task to load a decoding file to devices.


The tab content consists of one section including two areas:

- Menu bar;
- Table of CAN decoding files.

		Search				
	Model	Years	↑ ID	Version	Creation date	Test status
<input type="checkbox"/>	J1939 (FMS) 250 kb/s		0	0.5	Dec 29, 2018	OK
<input type="checkbox"/>	J1939 (FMS) 250 kb/s		0	0.6	May 7, 2020	BETA
<input type="checkbox"/>	J1939 (FMS) 500 kb/s		1	0.1	Dec 29, 2018	OK
<input type="checkbox"/>	J1939 (FMS) 500 kb/s		1	0.2	May 7, 2020	BETA
<input type="checkbox"/>	Mercedes Benz S W222		2	0.1	Jul 11, 2018	OK
<input type="checkbox"/>	Mercedes Benz S W222		2	0.2	Nov 26, 2019	BETA
<input type="checkbox"/>	Opel Insignia	>2014	3	0.1	Jul 11, 2018	Not tested

"Menu bar" area

Clicking the "Create task" button  will open the corresponding window and there you can step by step configure the task of the type "CAN decoding file".

Clicking the "Cancel task" button  will open the corresponding window and there you can cancel the last task of the type "CAN decoding file".

Note:

A detailed description of the windows for task creating and canceling is given in this section.

Note:

The task is created based on the selected decoding file, so the window will open at the step of selecting objects. The list of objects will contain only objects whose model has CAN interface.

Menu bar has a search field. The table can be searched by the columns "Model", "Years", "ID", "Version".

"Table of CAN decoding files" area

Sorting by columns "Model", "ID", "Version", "Creation date" and "Test status" is available for the table.

3.3.3.7. "Groups" tab

The tab is intended for:

- creating groups;
- managing of group objects.

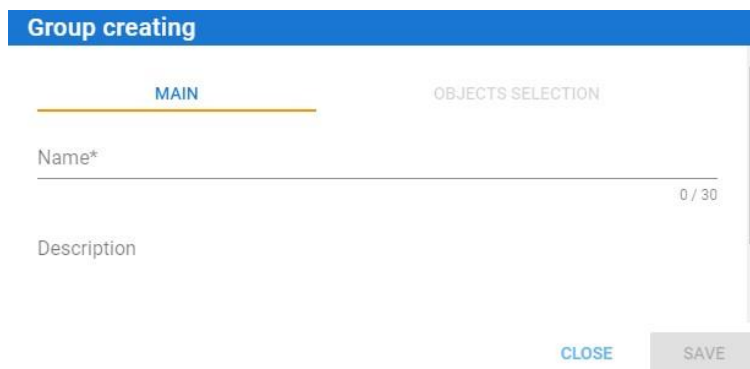
The tab content consists of one section including two areas:

- Menu bar;
- Table of groups.

+			Search
Name ↑	Description	Objects number	
Група 1		2	
Група 2		2	

"Menu bar" area

Clicking the "Create group" button  will open a window:



The window contains the tabs "Main" and "Objects selection".

"Main" tab provides general information about the group. The field "Name" is required.

When creating a group, the "Objects selection" tab is not available. It becomes available only when editing a group.

Menu bar has a search field. The table can be searched by the columns "Name" and "Description".

"Table of groups" area

The table displays all created groups and search results in the group list.


Sorting by columns "Name", "Description" and "Objects" is available for the table. For each command in the table the following buttons are available:



Clicking the "Delete" button  will open a confirmation window. It allows to prevent accidental deletion of the required group.

Note:

When you delete a group containing objects, the objects are automatically excluded from it.

The "Edit" button  allows to open the editing window for the selected group.

The content of the window matches to the window for creating a group.

"Object selection" tab is available, it provides an easy and convenient way to add objects to a group or remove them from a group.

Group editing

MAIN | **OBJECTS SELECTION**

Objects which are not owned by group

Search

<input type="checkbox"/>	Name ↑	IMEI
<input type="checkbox"/>	S-2435_YP_V19_TEST	866795036038725
<input type="checkbox"/>	YP_234567890123456	866795031151614
<input type="checkbox"/>	YP_D	234567890123456
<input type="checkbox"/>		866795032177386

→

←

Objects which are owned by group

Search

<input type="checkbox"/>	Name ↑	IMEI
<input type="checkbox"/>	YP_123456789012345	123456789012345
<input type="checkbox"/>	YP_345678901234567	345678901234567

Elements per page: 5 1-4 of 4 < >

Elements per page: 5 1-2 of 2 < >

CLOSE **SAVE**

For each of the two lists of objects ("Objects which are not owned by group" and "Objects which are owned by group"), a separate search is available by the name of the object or its IMEI.

Sorting by columns "Name" and "IMEI" is available for the table.

Between the lists there are the following buttons: "Add" →, "Remove" ←. With the help of these buttons the objects selected by flags are moved from one list to another. Movements of objects will be saved only after clicking the button "Save".

Note:

"Add" button will be available for clicking if at least one object is selected in the "Objects which are not owned by group" list. Accordingly, the "Remove" button will become available if at least one object is selected in the "Objects which are owned by group" list.

3.3.3.8. "Operators" tab

The tab is intended for:

- creating operators;
- editing access rights for operators.

"Operator" is a new type of account. Operator can enter the DRC system using the login and password mentioned when creating / editing the operator.

All changes made by one operator are synchronously displayed to the user and all other operators of this user. And vice versa - all changes made by the user will be seen by all his operators.

In the list of tasks for the selected object, you can see which tasks were created by the operator. However, there is currently no way to determine which operator made the change.

ATTENTION!

Each user can create **a maximum of 25 operators**.

The app header for the operator almost completely copies the functionality and content of the app header for the user. Only the content of the profile window is different. It contains the name and login of the operator and information about the user who created this operator: the name of the organization, its email and phone number.


The tab content consists of one section including two areas:

- Menu bar;
- Table of operators.

+ Search		
Name ↑	Status	Login
Onepartop 1	Activated	operator_1
Onepartop 2	Not activated	operator_2
Onepartop 3	Not activated	operator_3

"Menu bar" area

Menu bar has a search field. The table can be searched by the columns "Name" and "Description".

Clicking the "Create operator" button  will open the window:

Operator creating

MAIN

ACCESS RIGHTS

☐ Not activated


Name*

0 / 50

Login*

0 / 32

Password*

0 / 16

Description

0 / 300

CLOSE

SAVE

The window contains two tabs – "Main" and "Access rights".

The "Status" switch is for changing the state of the operator's account. If it is not activated, the operator cannot log into his account.

Fields "Name", "Login", "Password" are required.

In the "Access rights" tab you can restrict the operator's access rights to any functionality of the DRC service.

Operator creating

MAIN ACCESS RIGHTS





- ☒ Object (-s) create
- ☒ Object edit
- ☒ Object delete
- ☒ Create, edit, delete a group
- ☒ Work with tasks
 - ☒ Task cancel
 - ☒ Device password change
 - ☒ Access to custom commands
 - ☒ Access to the section 'Configurations'
 - ☒ Access to the section 'Firmwares'
- ☒ Servers lock





CLOSE SAVE

There are two types of rights:

- Independent
Enabling/disabling such rights does not affect other rights;
- Dependent
When enabled/disabled, all related dependent rights are automatically changed in the same way.
The dependency relationship is displayed using a tree data structure.

Table describing the scope of rights:


Name	Type	Subsidiary	Description
Object creation	Independent		<p>The right allows you to close access to the functionality of creating an object and creating a list of objects.</p> <p>If you uncheck, the buttons will not be available in the object table: , </p>
Editing an object	Independent		<p>The right allows you to deny access to the object's settings window.</p> <p>If you uncheck, the button will be unavailable: </p>
Deleting an Object	Independent		<p>The right allows you to prohibit the deletion of an object.</p> <p>If you uncheck, the button will be disabled: </p>


Creating, editing, deleting a group	Independent		The right allows the operator to deny any changes to the list of groups, as well as to deny adding or removing objects from existing groups. In this case, sorting by groups will be available. If you uncheck, the buttons on the "Groups" tab will be unavailable:  ,  , 
Working with tasks	Dependent	1) Canceling the task; 2) Change device password; 3) Access to the "Firmware" section.	The right allows you to deny any actions with objects that lead to the creation of tasks. When limiting this right, all related rights will also be disabled. If you uncheck, then: - the "Commands" tab will be completely hidden; - the window with the list of tasks on the "Objects" tab will be blocked.
Canceling a task	Dependent		The right allows you to prevent cancellation of tasks that are in the queue for execution. If you uncheck, the button will not be available: 
Change device password	Dependent	1) Access to custom commands; 2) Access to the section "Configurations".	The right allows you to restrict all methods of changing and viewing the device password through the DRC system. If you uncheck, the "Device password" field will be hidden in the object editing window.
Accessing custom commands	Dependent		The right allows you to restrict access to sending custom commands, as well as to creating, editing and deleting them. If you uncheck the flag, the "Custom command" item will be hidden on the "Commands" tab.
Access to the section "Configurations"	Dependent		The right allows you to restrict access to the "Configuration" section. If you uncheck, the "Configurations" tab will be completely hidden.
Access to the "Firmware" section	Dependent		The right allows you to restrict access to the "Firmware" section. If you uncheck, the "Configurations" tab will be completely hidden.

"Table of operators" area

The table displays all created operators and the search results in the operator list.

Sorting by columns "Name", "Status", "Login" is available for the table. For each operator in the table the following buttons are available:

Clicking the "Delete" button  will open a confirmation window. It allows to prevent accidental deletion of the required operator.

Clicking the "Edit" button  will open a window for editing of the selected operator. The content of the window corresponds to the window for creating an operator.