CS (Conventional System) Dispatch Configuration Guide

Version: V1.5

Revision record

Edition	Date	Remarks
V1.0	2019.05.01	Manual is released for the first time
V1.5	2019.12.24	1.Add chapter 5.1.1 2.Modify the description in chapter 5.1.2, 5.1.4 3. Modify the description of IP interconnection ID in chapter 5.2.4 4. Modify content of chapter 7.5 and 7.6, delete chapter 7.7 5. Update the index

INDEX

Figure Index

Table Index

1 Overview

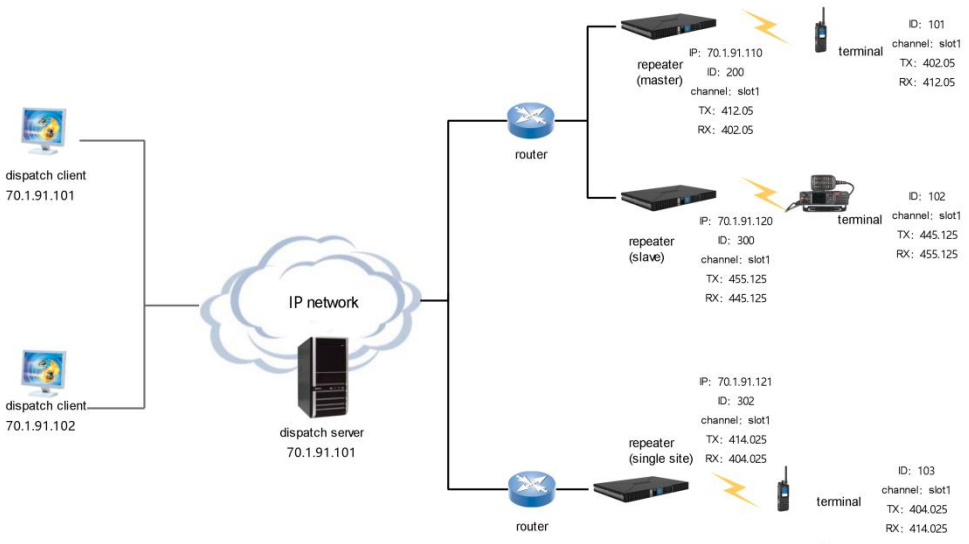
The PD200 dispatching system is a DMR T2 dispatching system self-developed by Caltta. The PD200 can realize command & dispatch services through access of the repeater PR900 and corresponding DMR radios, build communication network for users, and realize digital conventional dispatching services.

The PD200 dispatching system adopts C/S architecture and modular design, and is composed of functional modules such as voice dispatch, positioning, short message, and report generation, It is realized based on the standard SIP protocol.

2 Configuration planning

The following planning data is used as sample data. Please replace it with actual data during configuration.

Figure 2-1 Sample diagram of IP interconnection and single station configuration



2.1 IP planning

The following planning data is used as sample data. Please replace it with actual data during configuration.

Table 2-1 IP planning

Unit	IP	Subnet mask
Dispatch sever	70.1.91.101	255.255.255.0
Dispatch client	70.1.91.102	255.255.255.0
Repeater 1 (master)	70.1.91.110	255.255.255.0
Repeater 2 (slave)	70.1.91.120	255.255.255.0
Repeater 3 (single site)	70.1.91.121	255.255.255.0

2.2 Radio planning

The following planning data is used as sample data. Please replace it with actual data during configuration.

Note: One group can only be bound to time slot 1 or time slot 2 of a repeater, and cannot be bound to two time slots at the same time.

Table 2-2 Radio planning

Unit	ID	Name	Rx frequency (MHz)	Tx frequency (MHz)	Time slot	Colour code	Contract ID
Repeater 1	200	PR900	402.05	412.05	slot1/slot2	1	101/102 (group)
Repeater 2	300	PR900-1	445.125	455.125	slot1/slot2	1	101/102 (group)
Repeater 3	302	PR900-A	404.025	414.025	slot1/slot2	1	103 (group)
Radio 1	101	P101	412.05	402.05	slot1	1	101 (group)
Radio 2	102	P102	455.125	445.125	slot1	1	101 (group)
Radio 3	103	P103	414.025	404.025	slot1	1	103 (group)

2.3 Port planning

The following planning data is used as the default data. It is generally not recommended to modify the ports.

Table 2-3 Port planning

Unit	Master UDP Port	IP interconnection UDP Port	IP interconnection RTP port (slot 1)	IP interconnection RTP port (slot 2)	Service port	Voice service port (slot 1)	Voice service port (slot 2)
Repeater 1	50000	50001	50002	50003	19888	30000	30001
Repeater 2	50000	50001	50002	50003	19888	30000	30001
Repeater 3	/	/	/	/	19888	30000	30001

2.4 Operating system planning

Table 2-4 Operating system

Unit	System Requirement
Dispatcher server（MySQL）	Windows 64bit OS
Dispatcher client	Windows 32/64 bit OS
Repeater CPS	Windows 32/64 bit OS
Radio CPS	Windows 32/64 bit OS
NMS server	Windows 32/64 bit OS
NMS client	Windows 32/64 bit OS

The above software supports Windows 7, Windows 10.

2.5 Repeater authentication planning

The following planning data is used as sample data. Please replace it with actual data during configuration.

Table 2-5 Repeater authentication planning

Unit	Password setting
Repeater 1	111111
Dispatcher (repeater 1)	111111
Repeater 2	111111
Dispatcher (repeater 2)	111111
Repeater 3	333333
Dispatcher (repeater 3)	333333

The password registered by the repeater to the dispatcher should be the same as the password filled in when the repeater is added to the dispatcher. Different repeaters' passwords can be set as the same.

2.6 Account planning

The following planning data is used as sample data. Please replace it with actual data during configuration.

Table 2-6 Account planning

Unit	ID	Account name	Password
Administrator	16775904	admin	111111
Dispatcher	16775905	shenzhen	07552019

The administrator account is set to "admin" and the password is set to "111111" as default.

2.7 Network authentication code planning

The following planning data is used as sample data. Please replace it with actual data during configuration.

Table 2-7 Network authentication code planning

Unit	Network authentication code

Repeater 1 (master)	A1B2C3
Repeater 2 (slave)	A1B2C3

The authentication code of master must be the same as the authentication code of slave in order to connect successfully.

3 Configuration check

3.1 IP check

According to chapter 2.1 IP planning, run the PING command to check whether the IP addresses are occupied. If the IP address is already occupied, you need to re-plan the IP address.

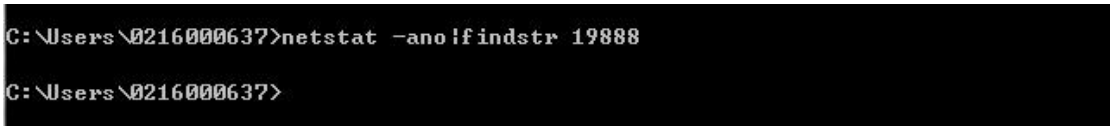
3.2 Frequency check

According to chapter 2.2 Radio planning, check if the Rx frequency and the Tx frequency are already in use by other devices. If you have already used it, you need to re-plan the frequency.

3.3 Port check

According to the chapter 2.3 Port planning, check whether the port of the dispatcher server PC is occupied. Enter the "netstat -ano|findstr port number" in the command window to check if there is any content. As shown in the following figure, the port 19888 has no content, indicate that the port is idle and can be used.

Figure 3-1 Port check -1



As shown in the following figure, there is a displayed content, indicate that port 4000 is already occupied, and the port number needs to be re-planned.

Figure 3-2 Port check -2

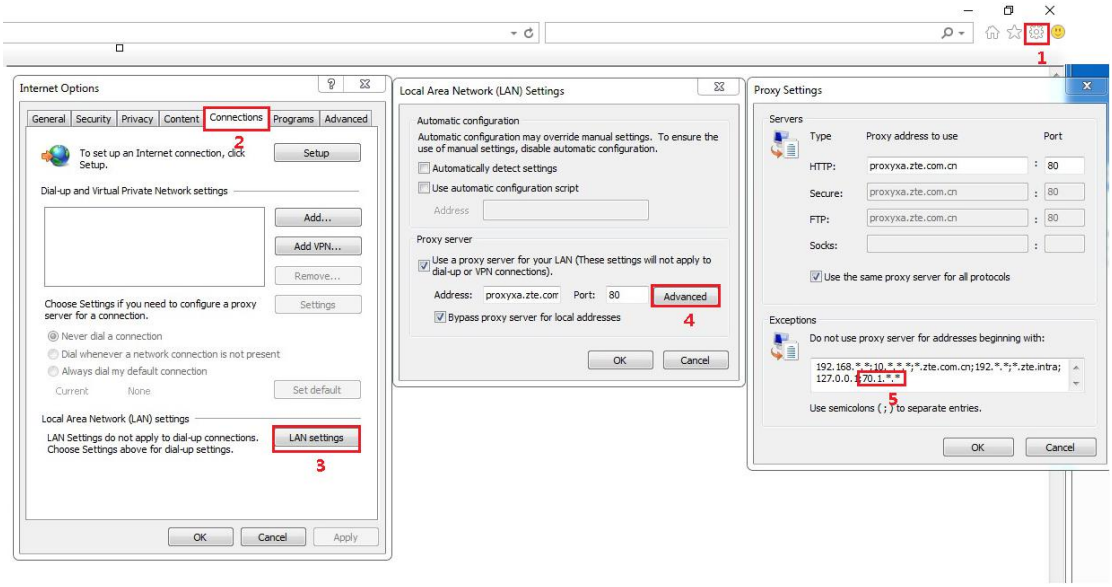
```
C:\Users\0216000637>netstat -ano|findstr 4000
  TCP    127.0.0.1:4000         0.0.0.0:0              LISTENING       2216
  UDP    127.0.0.1:40000        *:*                                    2644

C:\Users\0216000637>
```

3.4 IE browser check

If the PC where the dispatch server is installed uses a proxy server to connect internet, the IP segment where the dispatch server is located needs to be added to the unused proxy server. The specific setting is to open Internet Explorer, select "Internet Options" - "Connection" - "LAN settings" - "Advanced", and add an IP segment to the content of "Exceptions", such as "70.1.91. *", as shown in the following figure. If your PC is not using a proxy server, you do not need to operate this chapter.

Figure 3-3 IE browser check

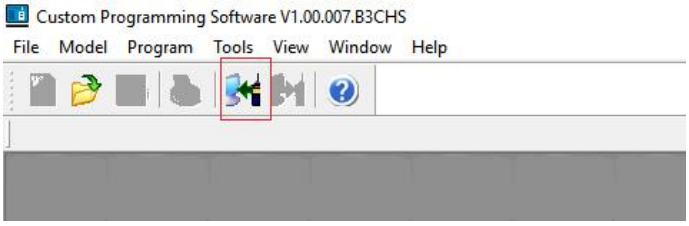


4 Repeater configuration

4.1 CPS reading

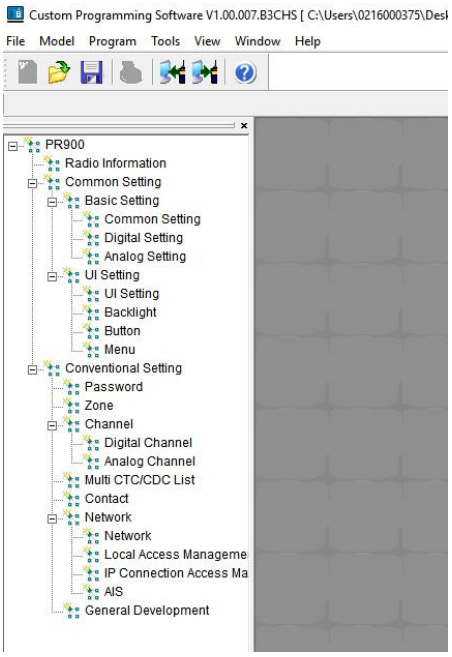
Connect the repeater with PC, open CPS software on the PC, as shown in the following figure.

Figure 4-1 Repeater CPS reading



Click the "Read" icon  on the toolbar and click "OK" to read. After the reading is successful, the corresponding list is displayed on the left side of the CPS, as shown in the following figure.

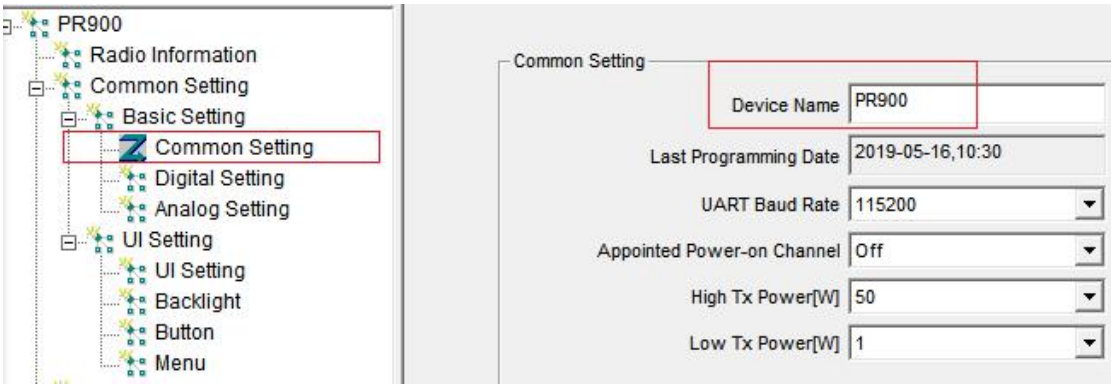
Figure 4-2 CPS reading success



4.2 Common setting

Double-click the "Common Setting" option under "Common Setting" - "Basic Setting". on the pop-up page "Device Name" option, you can modify the name of the repeater, such as "PR900", as shown in the following figure.

Figure 4-3 Repeater common setting

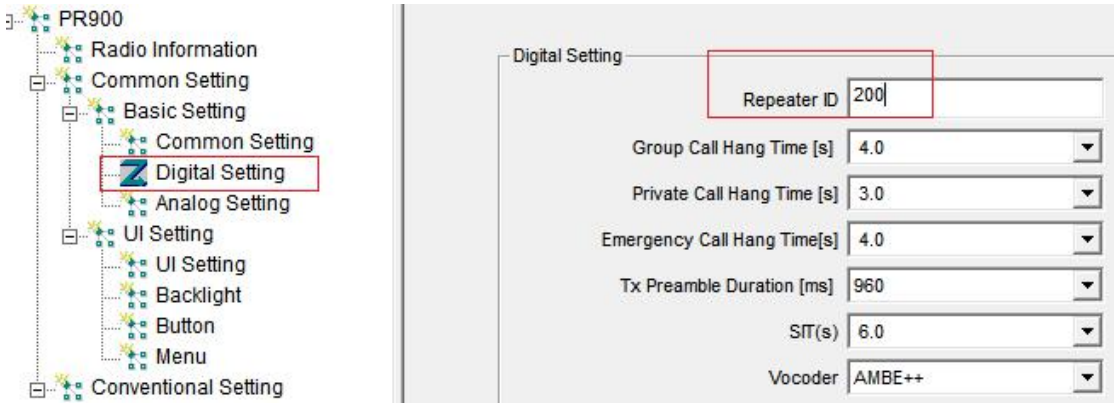


.

Double-click the "Digital Setting" option under "Common Setting" - "Basic Setting". on the pop-up page "Repeater ID" option, you can set the repeater ID, ranging from 1 to 16775903. For

example, repeater 1 ID is 200, repeater 2 ID is 300, and repeater 3 is 302, as shown in the following figure.

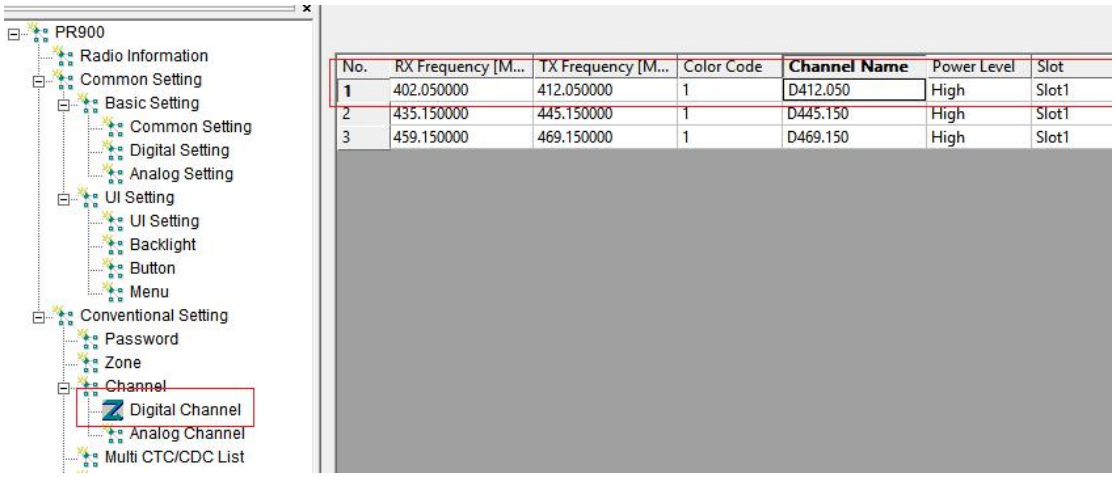
Figure 4-4 Repeater ID setting



4.3 Channel setting

Double-click the "Digital Channel" option under "Conventional Setting" - "Channel". on the pop-up page, the frequency value can be modified, added, or deleted. According to the chapter 2.2 Terminal planning, the Rx frequency of repeater 1 is 402.05MHz, the Tx frequency of repeater 1 is 412.05MHz, the color code is 1, and the channel name is D412.05. Set the power level and time slot. As shown in the following figure.

Figure 4-5 Repeater channel setting

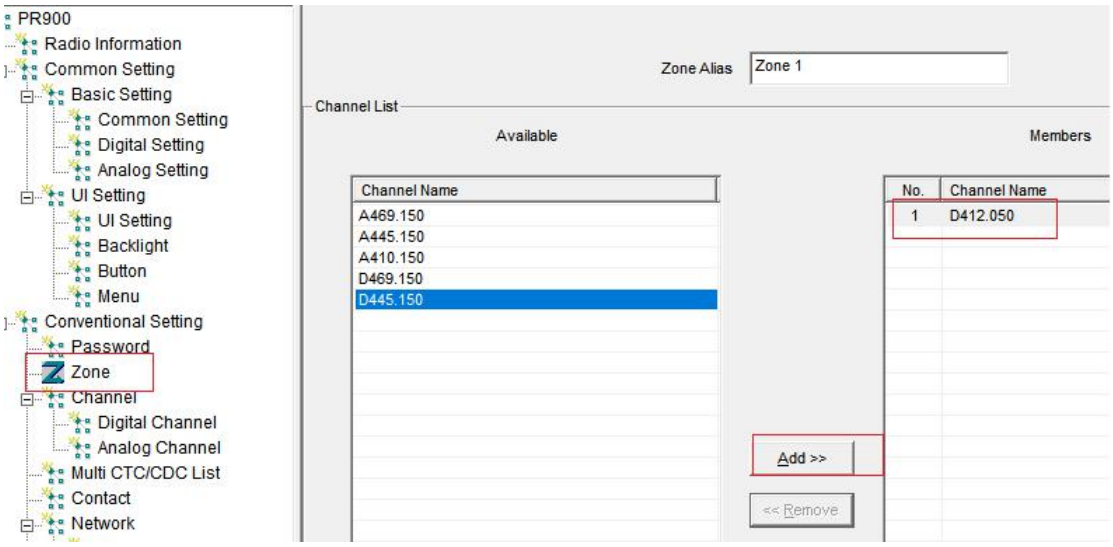


4.4 Zone setting

Double-click the "Zone" option under "Conventional Setting". Select the Channel under "Available" on the left and click the "Add>>" button in the middle to add to the right "Members",

as shown in the following figure.

Figure 4-6 Repeater zone setting



4.5 Network setting

4.5.1 Single site

Double-click the "Network" option under "Conventional Setting" - "Network". Under the "Basic Setting", "DHCP" is not checked. The IP address is set to "70.1.91.121" according to chapter 2.1 IP planning, and the netmask is set to "255.255.255.0". The "Gateway" is configured according to the actual router gateway. Under the "IP Interconnection Configuration", the "Repeater Type" is set the type to "Single Site". Under the "Network Management", the network management "Server IP" is filled with the IP address of the network management server, as shown in the following figure.

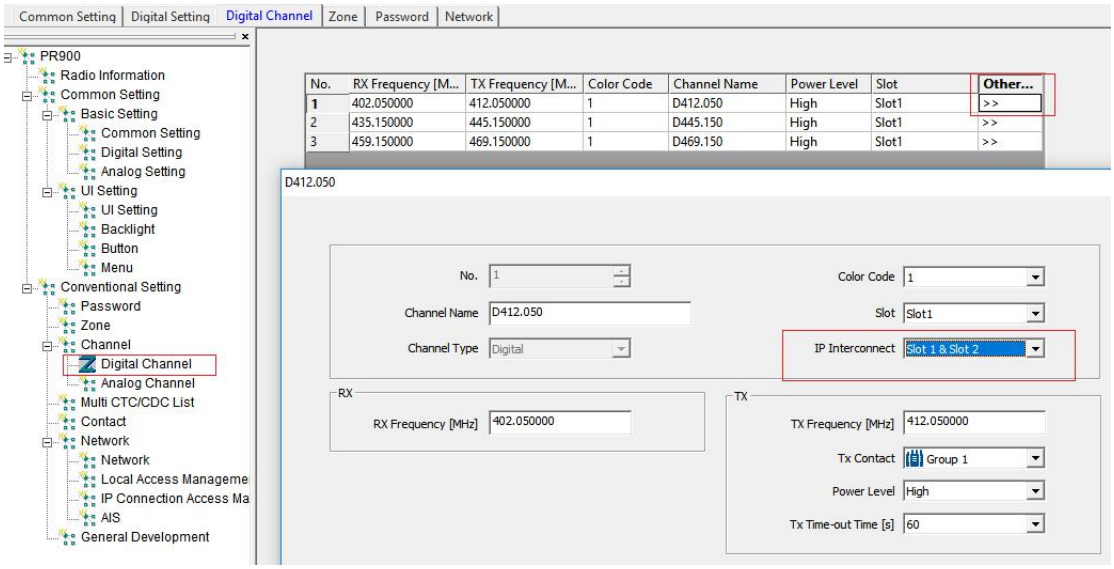
Figure 4-7 Single site network setting

4.5.2 Master site

Double-click the "Digital Channel" option under "Conventional Setting" - "Channel". Select

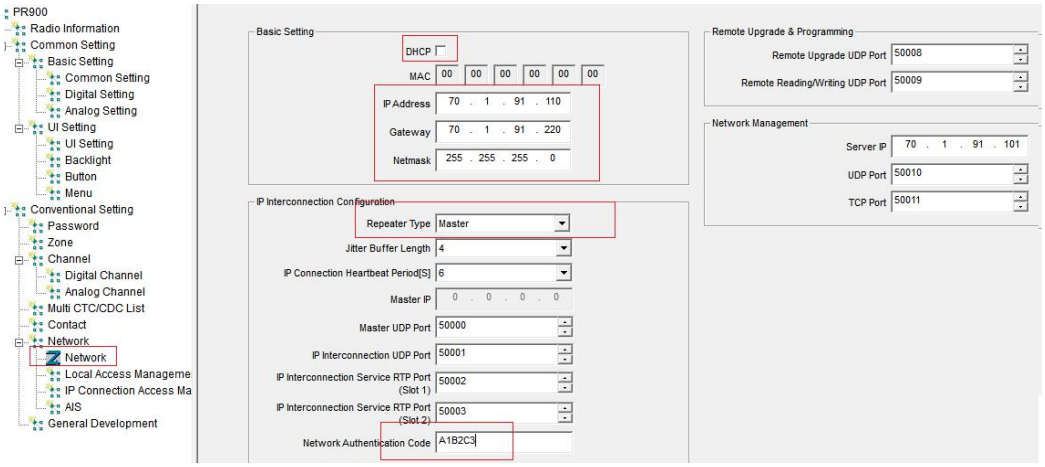
the "Other " - ">>" button, the "IP Interconnect " selects "Slot 1 & Slot 2", as shown in the following figure.

Figure 4-8 Master site IP interconnection setting



Double-click the "Network" option under "Conventional Setting" - "Network". Under the "Basic Setting", "DHCP" is not checked. The IP address is set to "70.1.91.110" according to chapter 2.1 IP planning, and the netmask is set to "255.255.255.0". The "Gateway " is configured according to the actual router gateway. Under the "IP Interconnection Configuration", the "Repeater type" is set to "Master". The port is configured according to chapter 2.3 Port planning. The "Network Authentication Code" is configured with "A1B2C3" according to chapter 2.7 Authentication code planning, as shown in the following figure.

Figure 4-9 Master site network setting

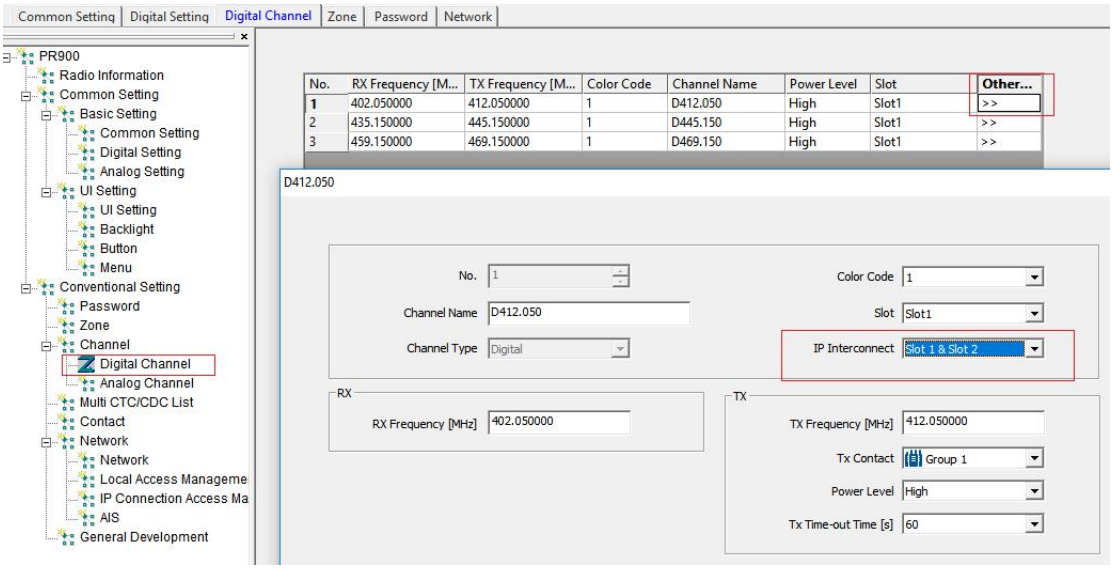


4.5.3 Slave site

Double-click the "Digital Channel" option under "Conventional Setting" - "Channel". Select

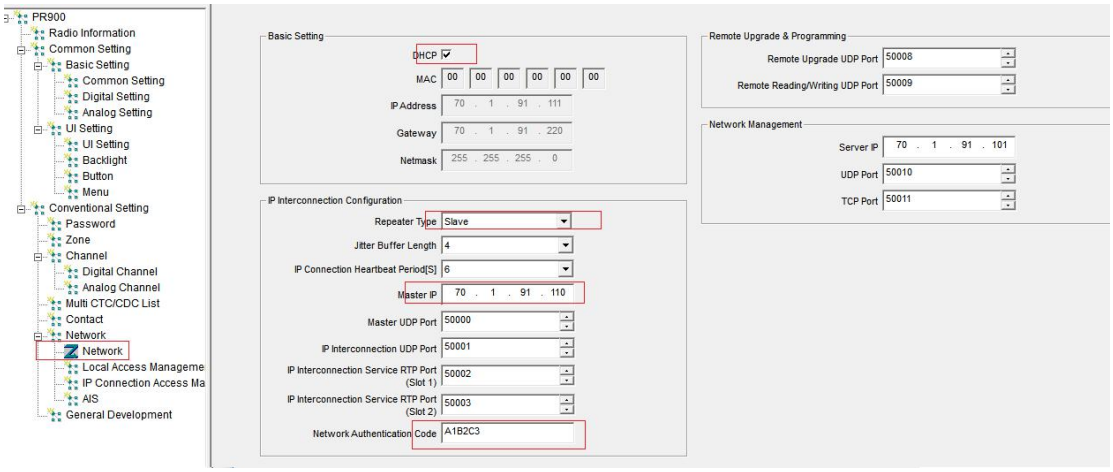
the "Other" - ">>" button, the "IP Interconnect" selects "Slot 1 & Slot 2", as shown in the following figure.

Figure 4-10 Slave site IP interconnection setting



Double-click the "Network" option under "Conventional Setting" - "Network". Under the "Basic Setting", "DHCP" is checked. Under the "IP Interconnection Configuration". The "Repeater type" is set to "Slave". The IP address is set to "70.1.91.110" according to chapter 2.1. The port is configured according to chapter 2.3 Port planning. The "Network Authentication Code " is configured with "A1B2C3 " according to chapter 2.7 Authentication code planning, as shown in the following figure.

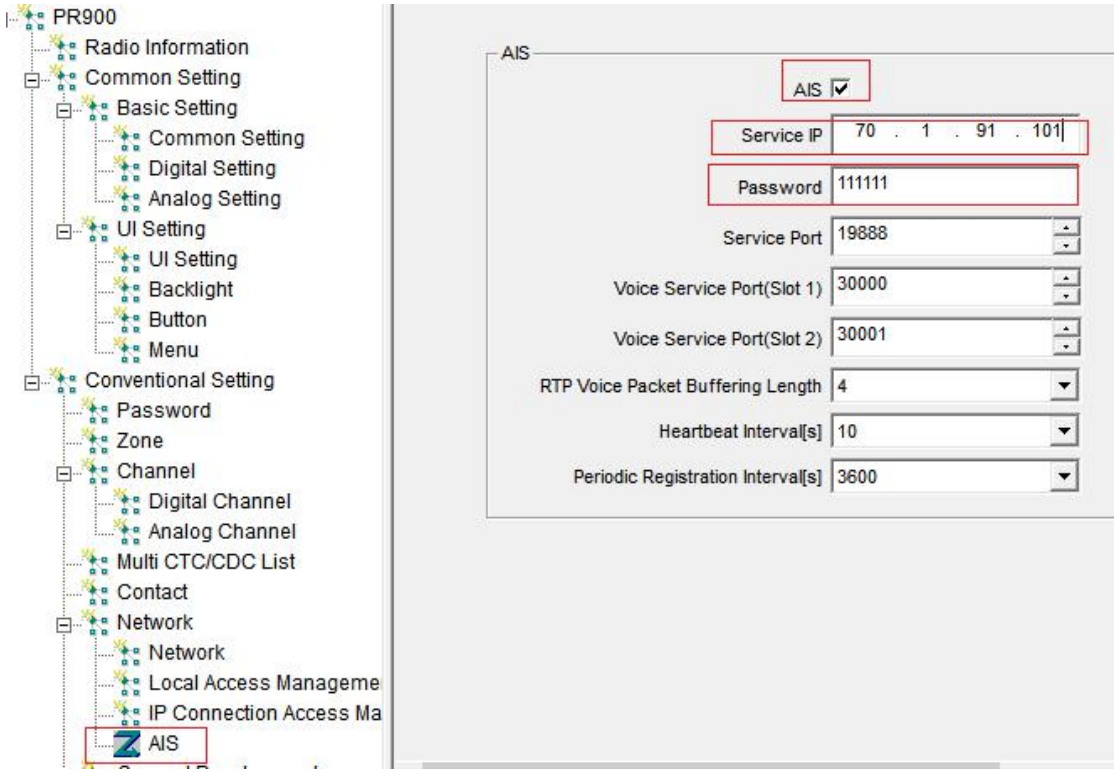
Figure 4-11 Slave site network setting



4.5.4 AIS setting

Double-click the "AIS" option under "Conventional Setting" - "Network". Check "AIS" and fill in the IP "70.1.91.101" of the dispatch server according to chapter 2.1 IP planning. According to chapter 2.5 Repeater authentication planning, set the password registered from repeater 1 and repeater 2 to the dispatcher server as "111111", the repeater 3 password is set as"333333". The port is set according to chapter 2.3 Port planning, as shown in the following figure.

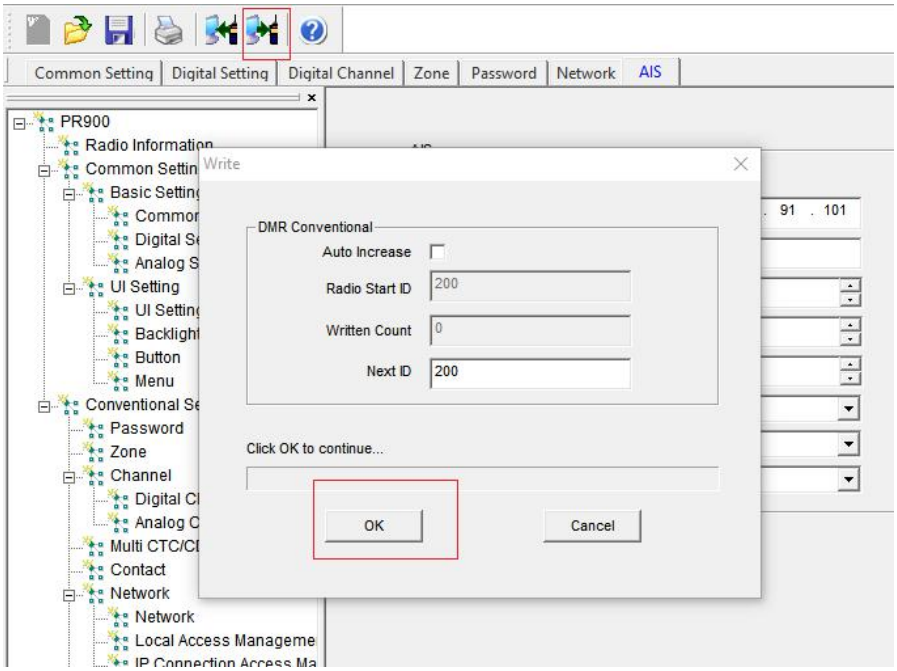
Figure 4-12 AIS setting



4.6 CPS writing

After performing the above steps, click the "Write" icon  on the toolbar, and click the "OK" button on the pop-up page. After the writing is successful, the repeater will restart, as shown in the following figure.

Figure 4-13 Repeater CPS writing



5 Dispatcher setting

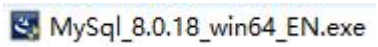
5.1 Dispatcher installation

5.1.1 Dispatcher version and repeater version check

Check if repeater version matches dispatcher version. The repeater version and dispatcher version must be matching. For the repeater, click the front panel menu—device information, and check the firmware version. For the dispatcher, check the suffix of installation package name.

- Repeater version: Repeater_V*.*.*
- Dispatcher server version: PD200Server_C_V*.*.*
- Dispatcher client version: PD200Client_C_V*.*.*

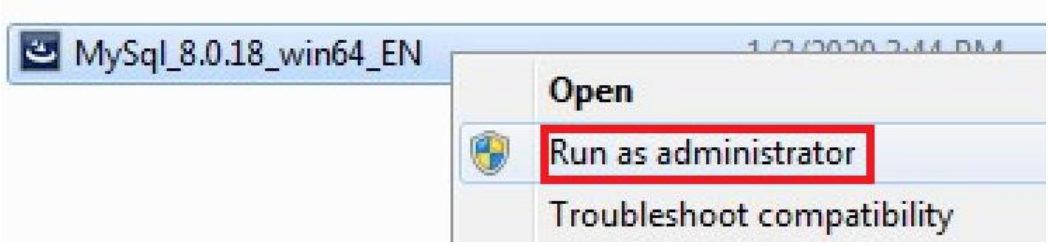
5.1.2 MySQL installation

According to chapter 2.4 Operating system planning, MySQL and the dispatcher server are installed on the same PC with 64-bit operating system. First find the "MySql_8.0.18_win64_EN.exe" installation package 

(**You need to use the installation package that comes with the version package for installation. If the version you downloaded doesn't come with the version package, you will not be able to connect**), then right click on the installation package and select "**Run as administrator**" to install, as shown in the following figure.

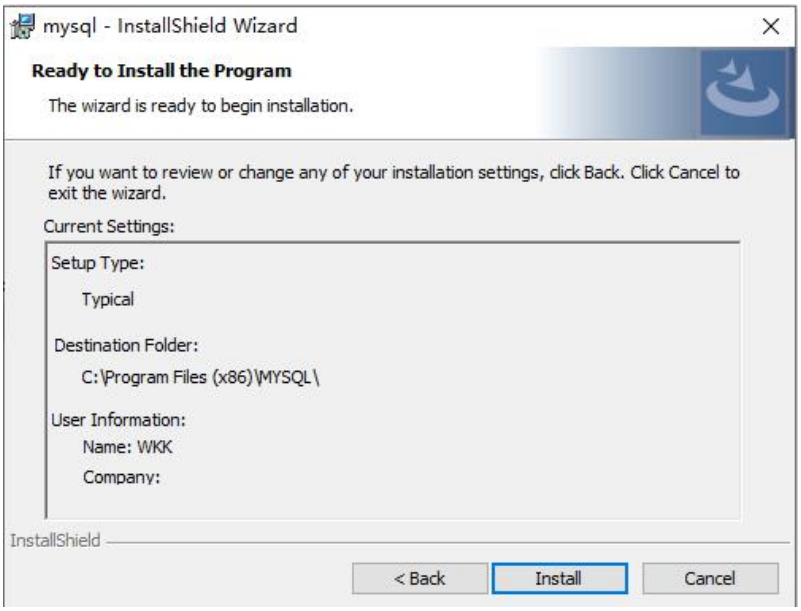
Note: After MySQL is installed for the first time, there is no need to reinstall for the dispatcher upgrade afterwards without special instruction.

Figure 5-1 Right-click the installation package to run as administrator



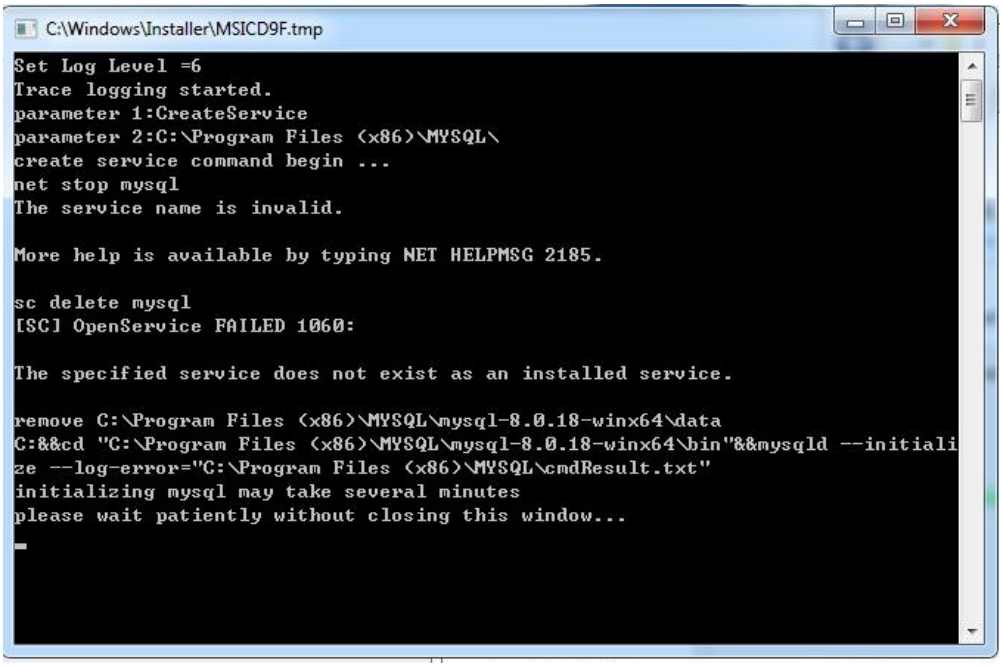
In the pop-up installation interface, click "Install" to select every option and perform installation, as shown in the following figure.

Figure 5-2 MySQL installation



After clicking the "Install" button, the command prompt will pop up during the installation process. Do not manually close the window, as shown in the following figure.

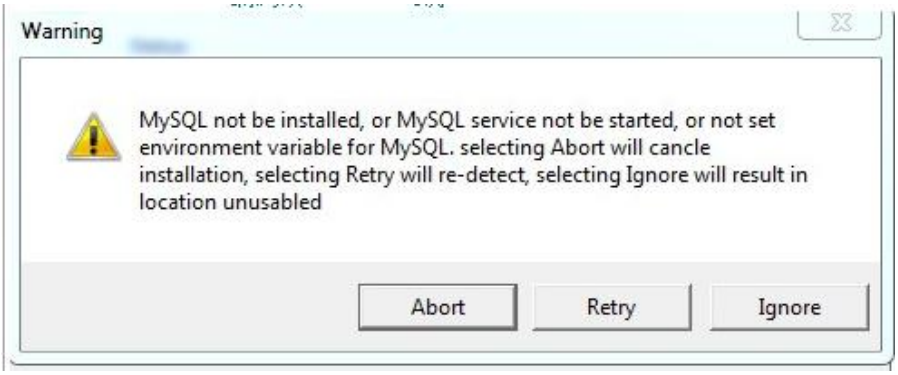
Figure 5-3 Command prompt during MySQL installation



5.1.3 Dispatcher server installation

If MySQL is not installed successfully, there will be a pop-up telling that MySQL is not installed. Please install MySQL first, as shown in the following figure.

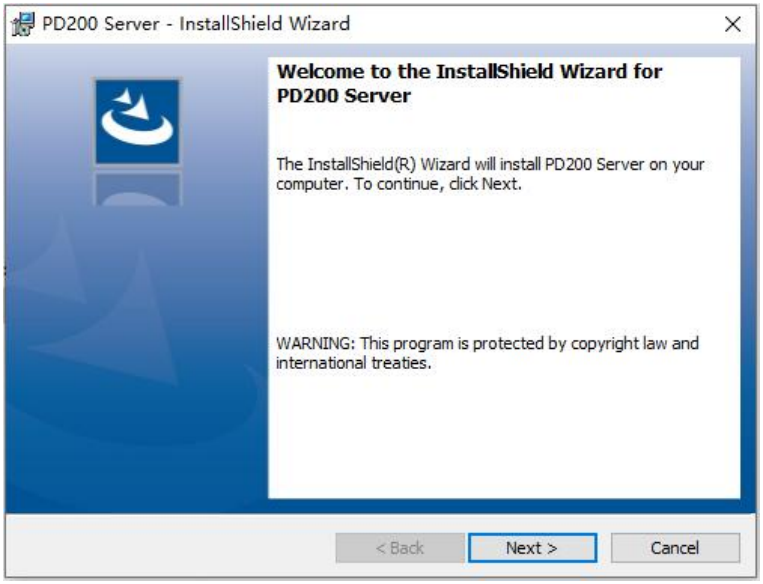
Figure 5-4 Pop-up of MySQL is not installed when installing the dispatcher server



Please select "Abort", and install MySQL before installing the dispatcher server.

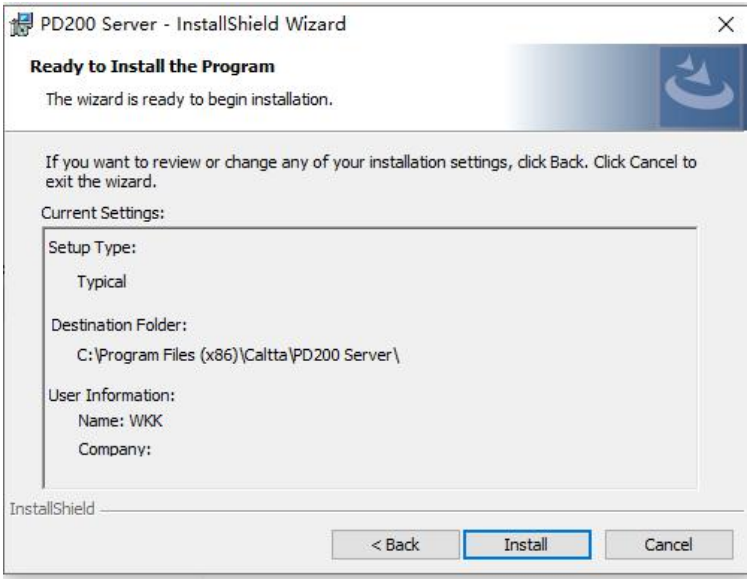
According to chapter 2.4 Operating system planning, the PD200 server and MySQL must be installed on the same PC. After the steps in chapter 5.1.3 are completed, unzip the server installation package, right click on the installation package "PD200Server_C_V*.*.*.exe" and double-click to install, then the following figure will be shown.

Figure 5-5 PD200 server installation - 1



In the pop-up window, click "Next" until the installation path appears, select corresponding installation path, for example, "D:\Program Files (x86)\Caltta\PD200 Server\", as shown in the following figure, click "Install" button. The appearance of black command prompt pop-up window is normal during the process, please do not manually close it.

Figure 5-6 PD200 server installation - 2



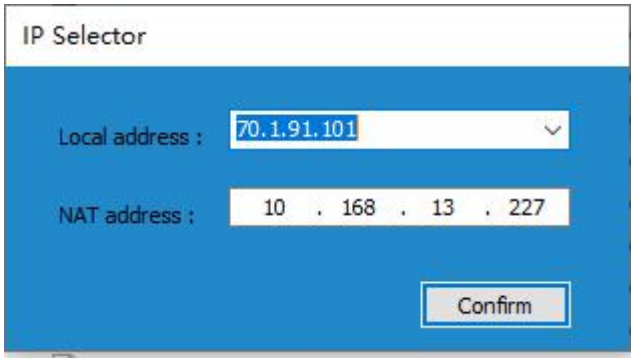
After the installation is complete, the PD200 Server shortcut appears on the desktop. Double-click the shortcut icon to start the software, as shown in the following figure.

Note: The version upgrade of dispatcher server is overwrite installation, and retain the configuration file. Please choose to install by default after running the file.

Figure 5-7 PD200 server shortcut

Double-click the desktop icon to start PD200 Server. Select the local address in the pop-up window that appears, select "70.1.91.101" according to Chapter 2.1 IP planning. Fill in the NAT address when the dispatcher server is on the local area network, and the dispatcher client and / or the repeater need to be traversed by the private network when they are on the external network. When all the repeater, server and clients are in the same network segment, the NAT address does not need to be configured. Then click OK to start, as shown in the following figure.

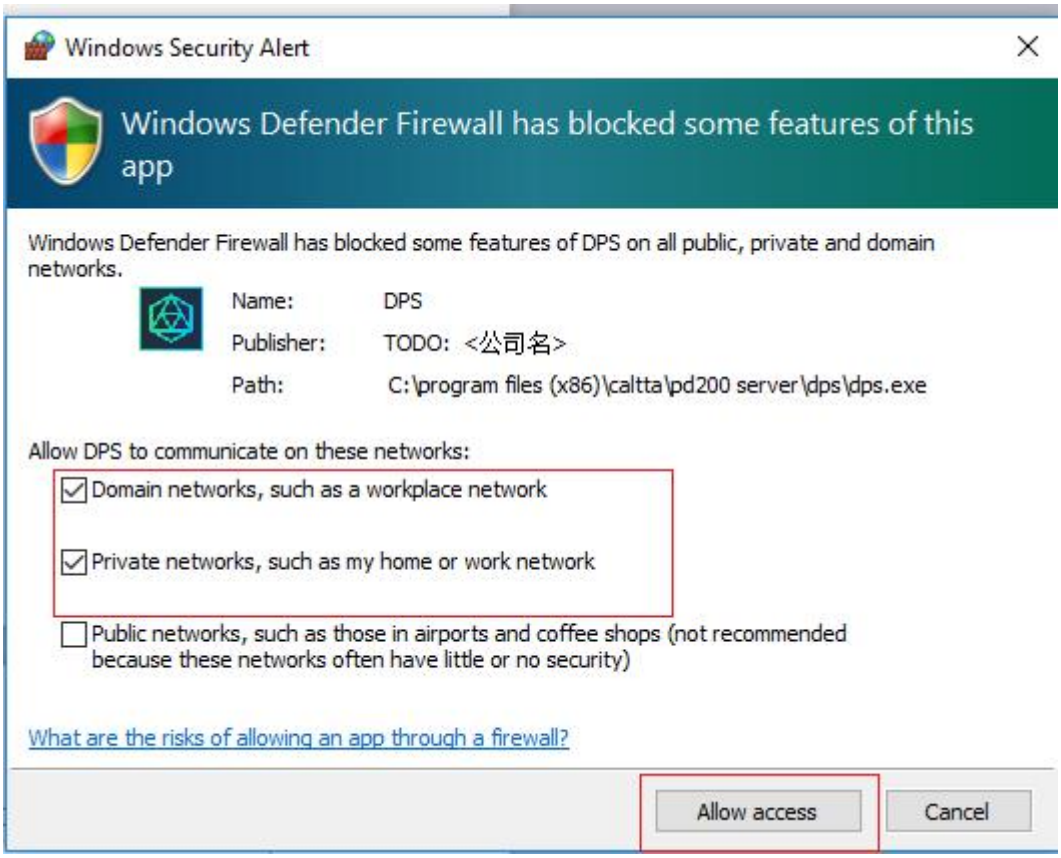
Figure 5-8 PD200 server IP setting



After startup, the firewall will pop up window to display the network that allows communication. Check the network option and click "Allow access" button.

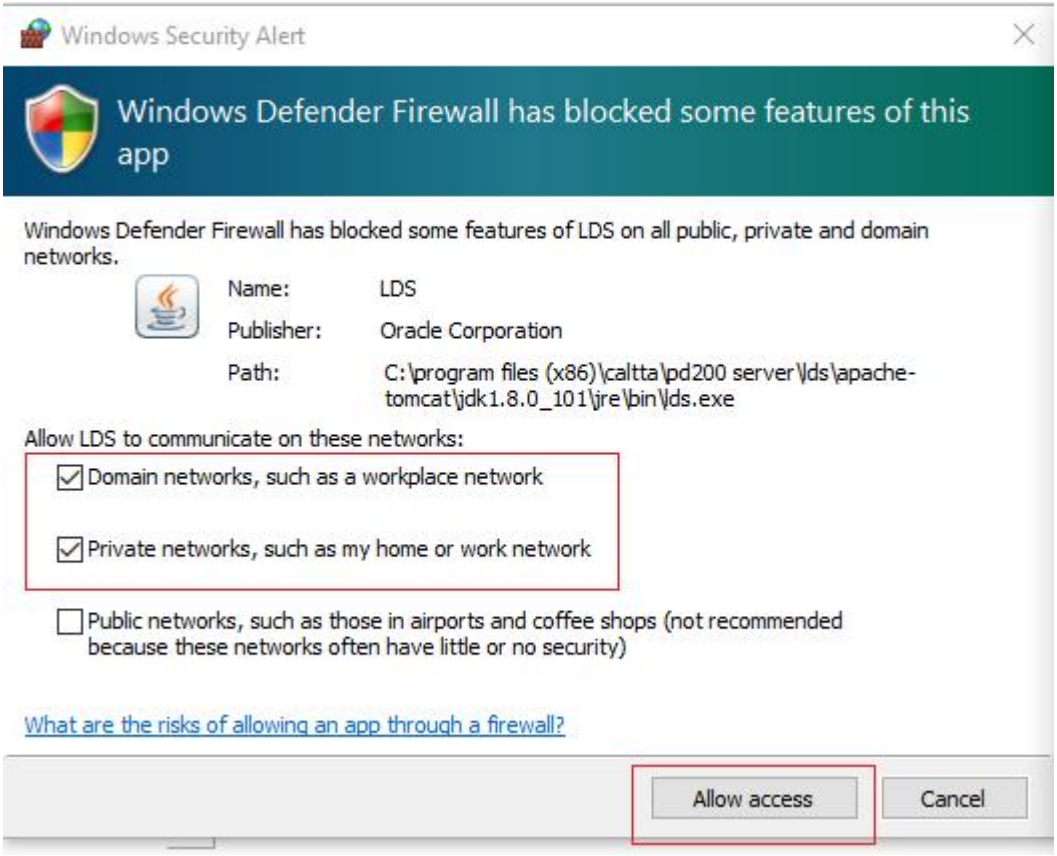
The following figure allows the DPS process to communicate.

Figure 5-9 Firewall allows DPS process communication



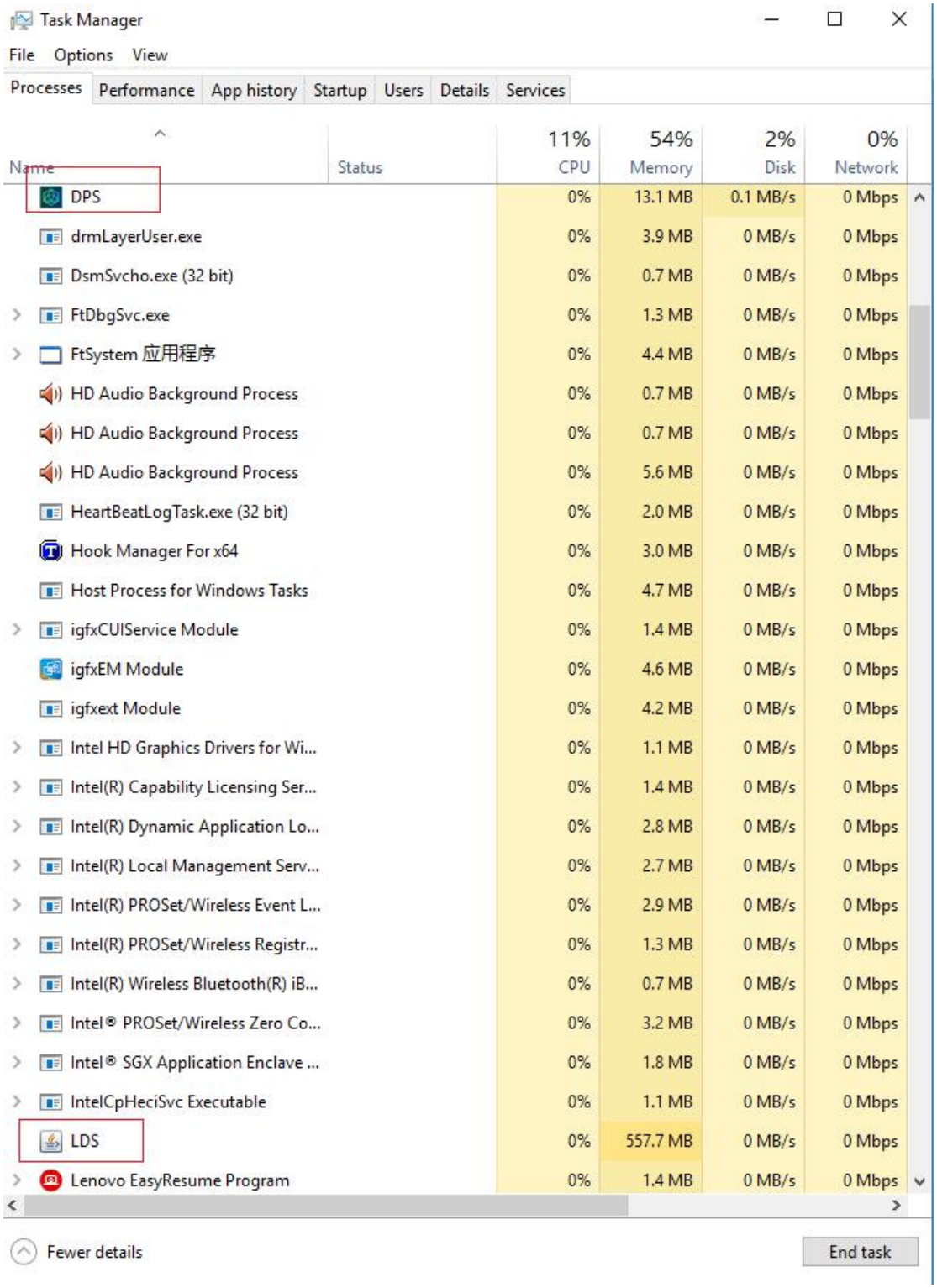
The following figure shows the LDS process is allowed (or displays "Java (TM) Platform SE). Binary" on Windows 10).

Figure 5-10 Firewall allows LDS process communication



After the startup is successful, check the "Processes" option in the task manager, if DPS and LDS (or display "Java (TM) Platform SE binary") processes are included, it indicates that the startup is successful, as shown in the following figure.

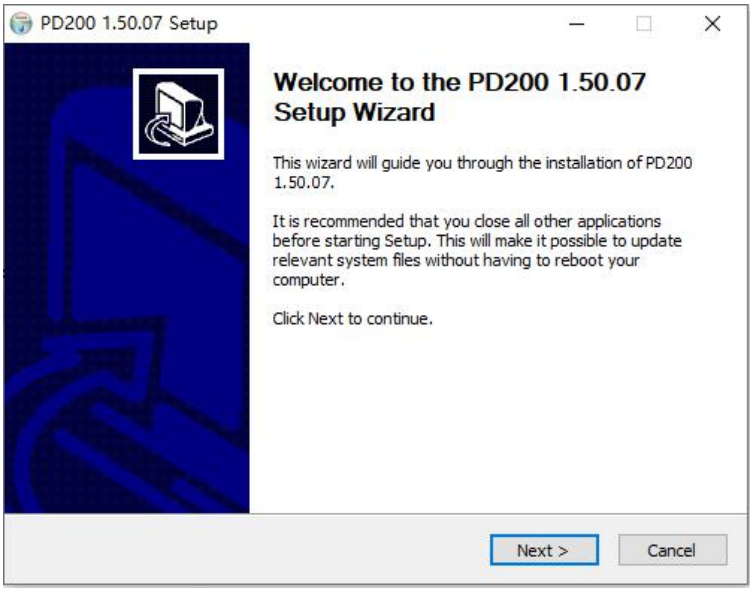
Figure 5-11 Server's processes displayed in task management



5.1.4 Dispatcher client installation

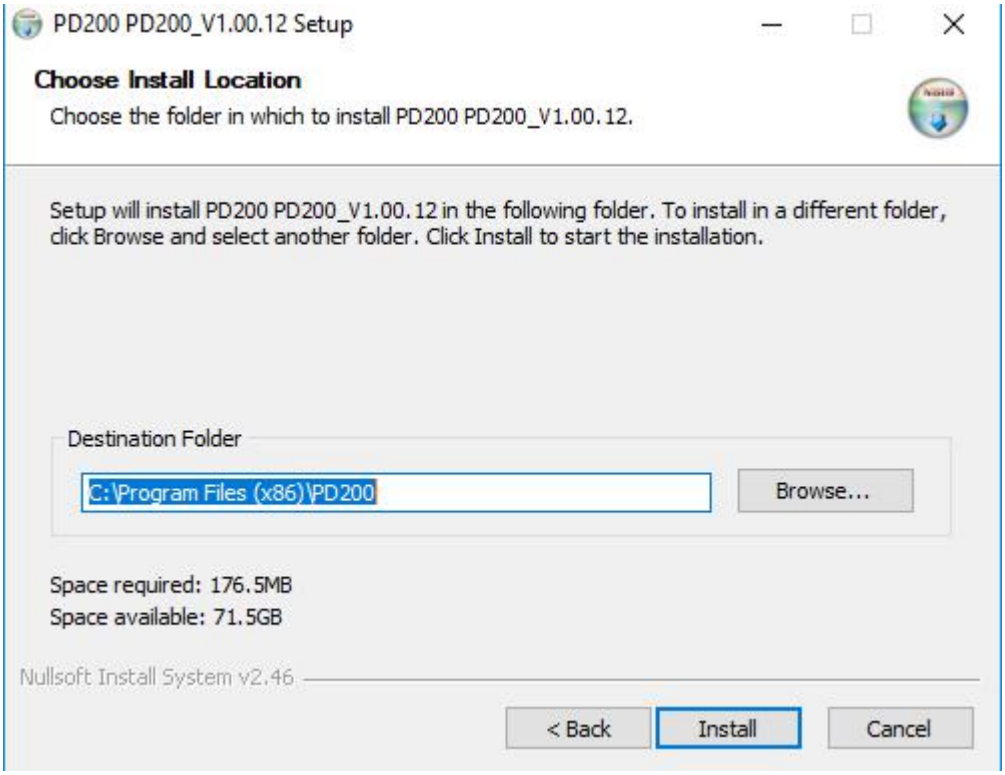
Double-click the PD200 client installation package "PD200Client_C_V*.*.*.exe" to install, as shown in the following figure.

Figure 5-12 PD200 client installation - 1



Select the installation path and click the "Install" button to install PD200 client, as shown in the following figure.

Figure 5-13 PD200 client installation - 2



After the installation is complete, double-click the PD200 client shortcut on the desktop to start the client.

Note: The version upgrade of dispatcher client is overwrite installation. Please choose to install by default

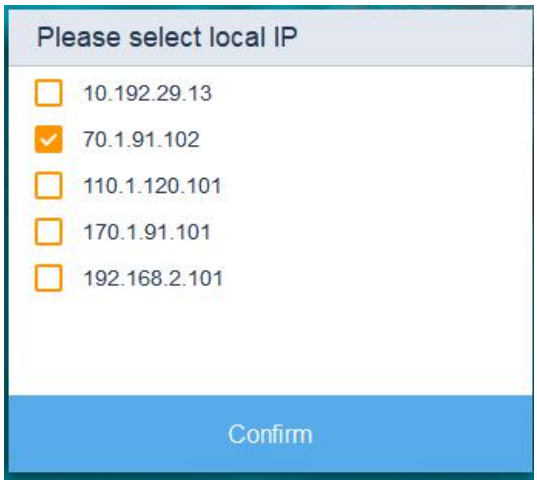
after running the file.

5.2 Dispatcher client setting

5.2.1 Dispatcher client login

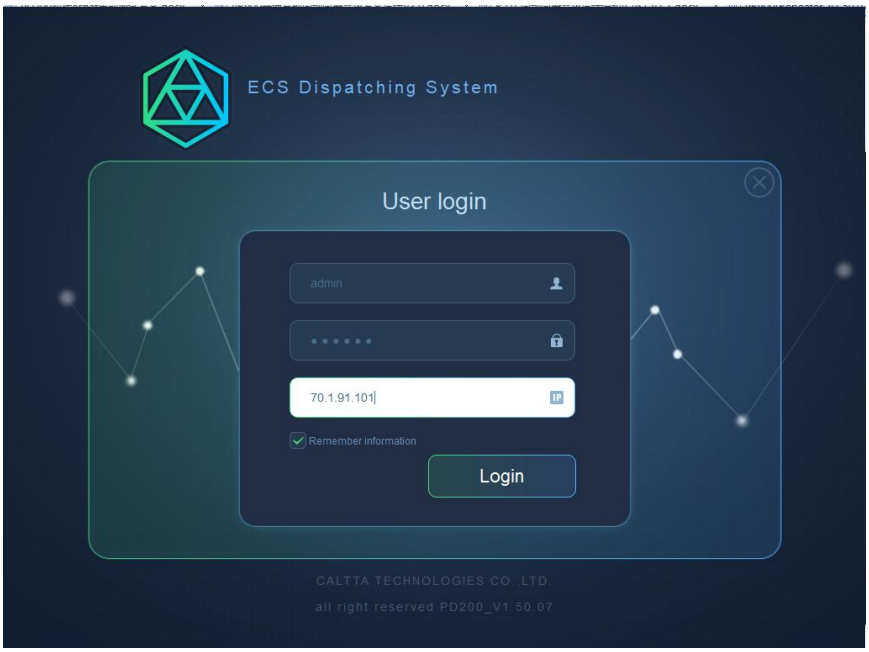
When you start the PD200 client by double-clicking the icon, you will be prompted to select an IP address when the PC is configured with multiple IP addresses. Select "70.1.91.102" according to chapter 2.1 IP planning and click "Confirm" to enter the login page, as shown in the following figure.

Figure 5-14 Dispatcher client IP address selection



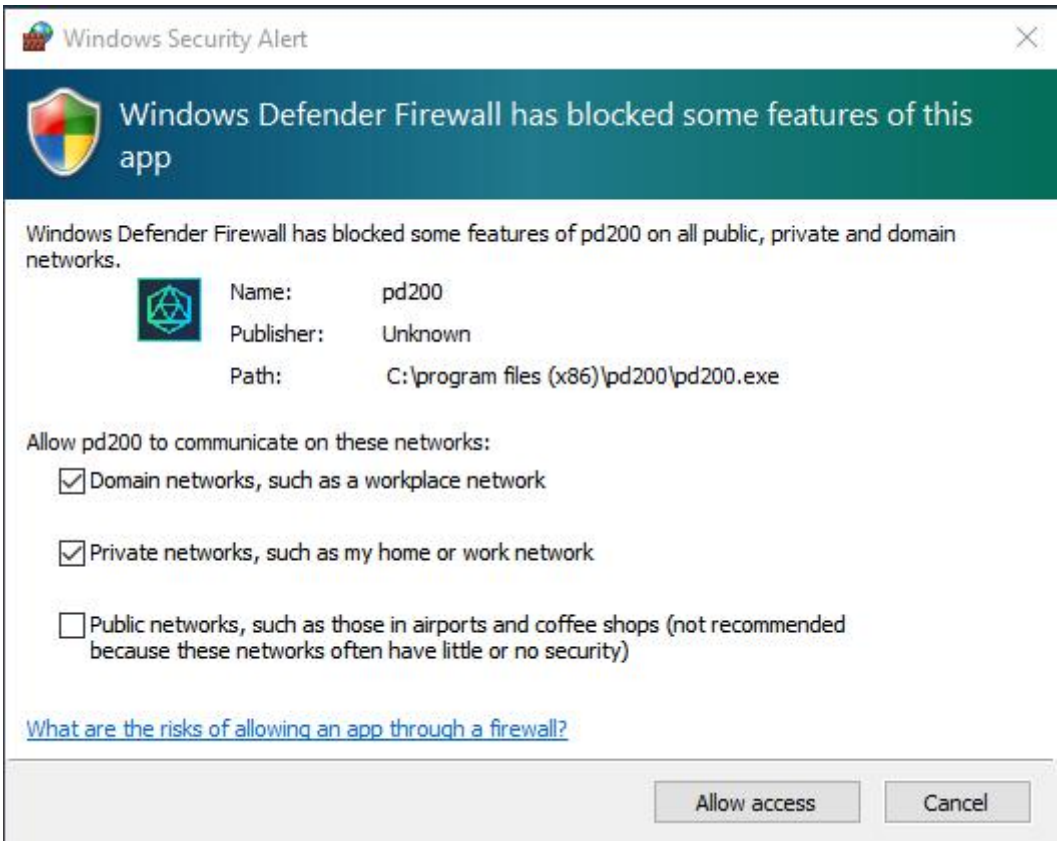
The login interface uses the "admin" account to log in. According to chapter 2.6 Account planning, the password is 111111, and the server IP is filled in "70.1.91.101", click the "Login" button to log in, as shown in the following figure.

Figure 5-15 Dispatcher client login



When logging in, the firewall pop-up window is displayed. Check the network option to allow the PD200 client to communicate. Click the "Allow access" button, as shown in the following figure.

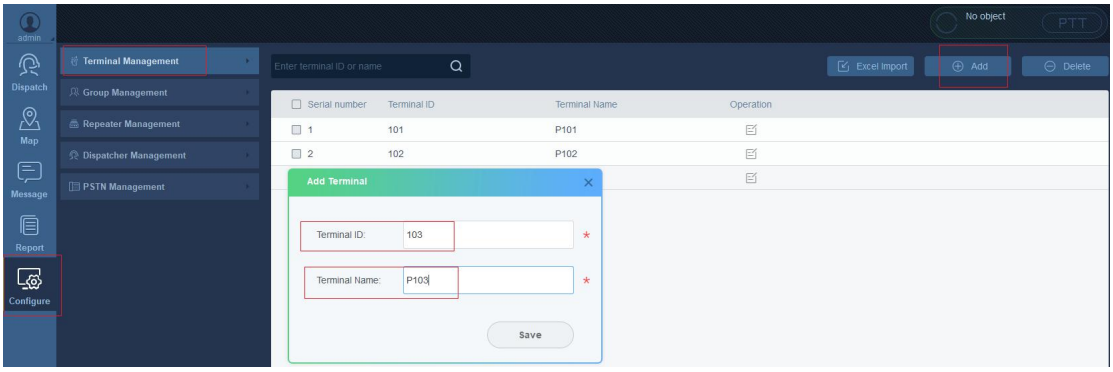
Figure 5-16 Firewall allows dispatcher client communication



5.2.2 Add radio

Select the "Configure" menu on the left, click "Radio Management" on the page that pops up on the right, click the "Add" button in the upper right corner, and fill in the "Radio ID" and "Radio Name" in the pop-up interface, as shown in the following figure. Add Radio 1, Radio 2 and Radio 3 according to chapter 2.2 Radio planning.

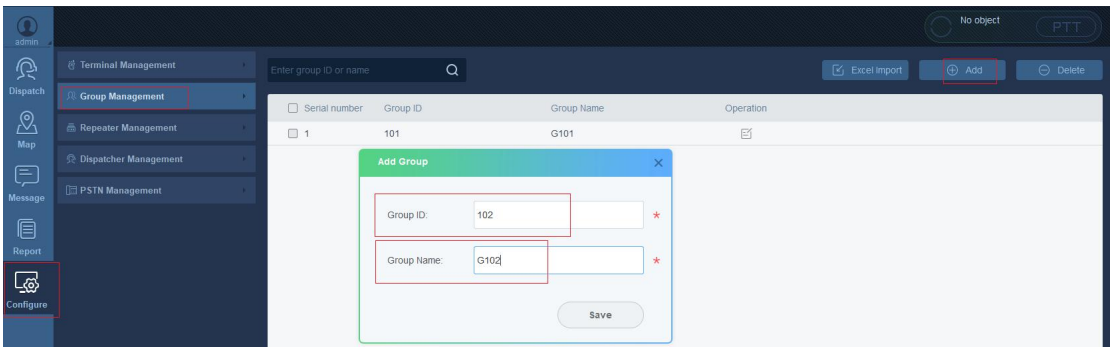
Figure 5-17 Add radio



5.2.3 Add group

Select the "Configure" menu on the left, click "Group Management" on the page that pops up on the right, click the "Add" button in the upper right corner, and fill in the "Group ID" and "Group Name" in the pop-up interface, as shown in the following figure. Add group 101, 102 and 103 according to chapter 2.2 Radio planning.

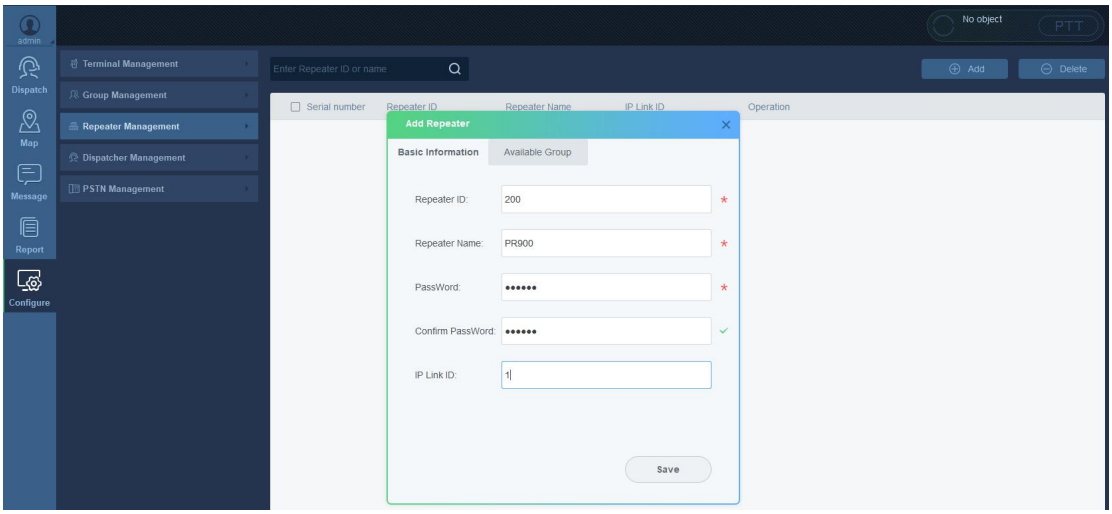
Figure 5-18 Add group



5.2.4 Add repeater and bind group

Select the "Configure" option on the left, click "Repeater Management" on the page that pops up on the right, click the "Add" button in the upper right corner, and fill in the "Repeater ID" as 200, "Repeater Name" with "PR900" in the pop-up interface. Fill in the "Password" as "111111" according to chapter 2.5 Repeater authentication planning. "IP Link ID" of master site and slave site must keep the same (default as "1"), then click "Save" button, as shown in the following figure. Add repeater 2 and repeater 3 in the same way, where repeater 3 is a single station and there is no need to configure "IP Link ID".

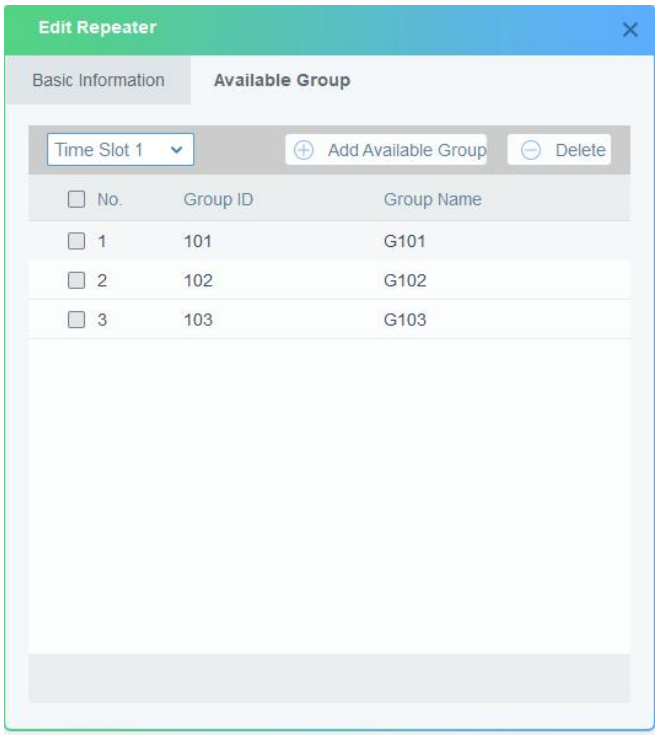
Figure 5-19 Add repeater



Click on the "Available Group" page in the pop-up window, repeater1 and repeater2 select time slot 1, click the "Add Available Group" button, select group G101 in the pop-up window and click "Save"; also for the time slot 2, click the "Add Available Group" button, select group G102 in the pop-up window and click "Save", as shown in the following figure. The repeater 3 selects group G103 in the same way.

Note: One group can only be bound to either time slot 1 or time slot 2 of a repeater, and cannot be bound to both two time slots at the same time. The group under the IP interconnect master and slave sites can only be bound to either time slot 1 or time slot 2, it cannot be bound to time slot 1 of master site and bound to time slot 2 of slave site, and vice versa.

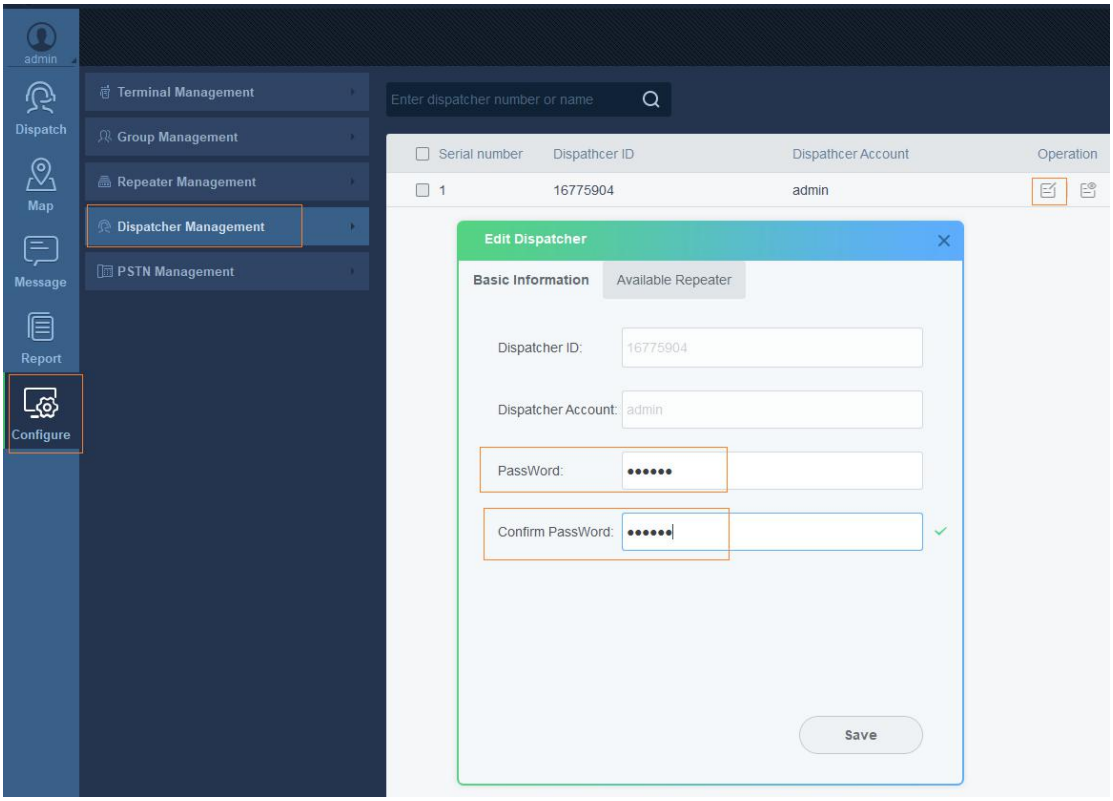
Figure 5-20 Repeater slot bind group



5.2.5 Modify "admin" password

Select "Configure" - "Dispatcher Management" on the left. The currently logged "admin" account already exists on the pop-up page. Click the "Edit" button below the "Operation" column, you can set the new password in the pop-up window. The "Password" and the "Confirm Password" must be filled in as the same. Click the "Save" button, as shown in the following figure.

Figure 5-21 Modify "admin" password

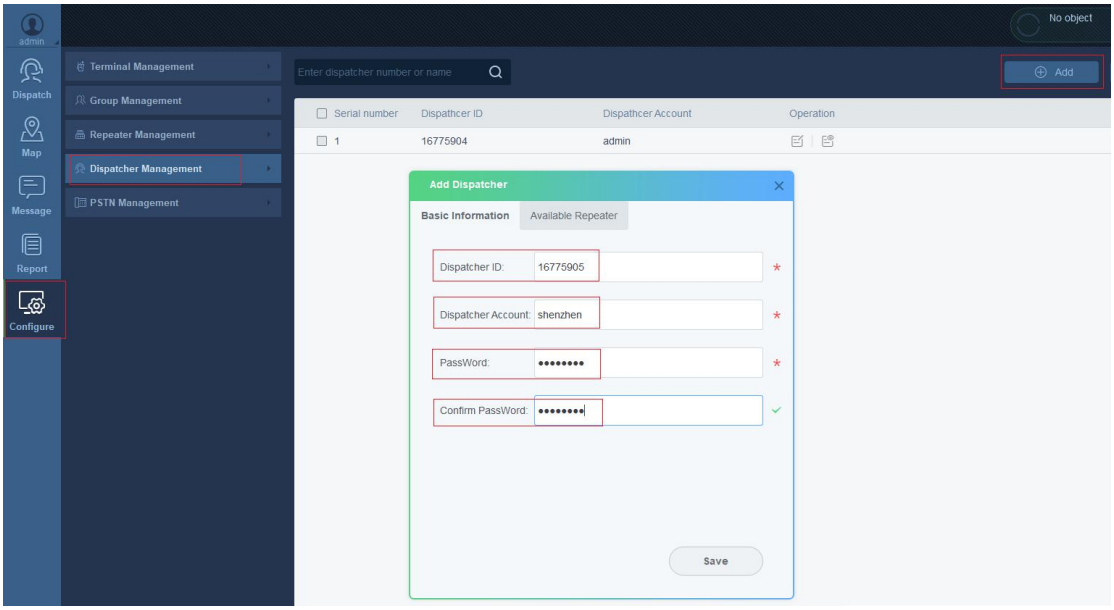


On the "Available Repeater" page, you can add or delete the repeater that the account can manage.

5.2.6 Add dispatcher account

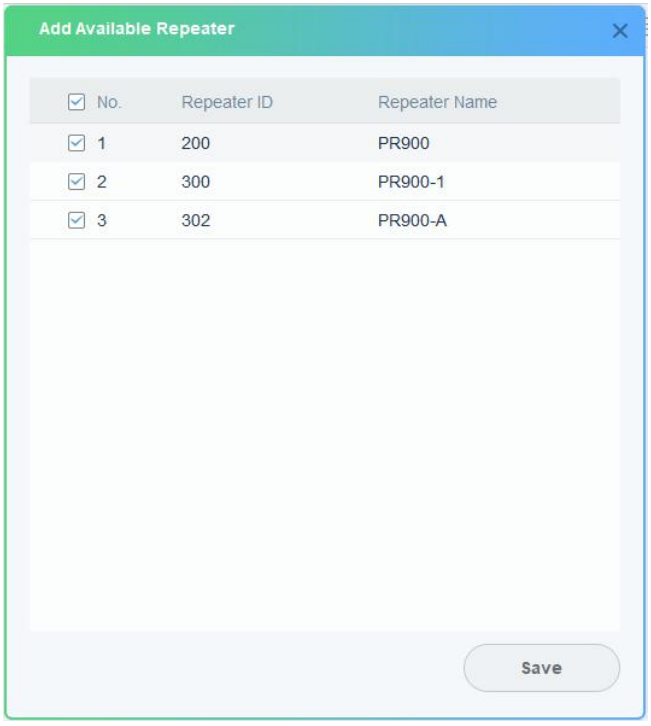
Select "Configure" - "Dispatcher Management" on the left, click the "Add" button in the upper right corner of the pop-up page, and fill in the "Dispatcher ID" as "16775905" in the pop-up window according to chapter 2.6 Account planning (ID range 16775904~16776159, where 16775904 is the "admin" account ID), fill in the "Dispatcher Account" as "shenzhen", fill in the dispatcher "Password" as "07552019", the "Password" and the "Confirm Password" must be filled in as the same, click the "Save" button, as shown in the following figure.

Figure 5-22 Add dispatcher account



On the "Available Repeater" page, you can add available repeaters that the account can manage. On the new page, select the repeater with the ID 200, 300, and 302 and save it, as shown in the following figure.

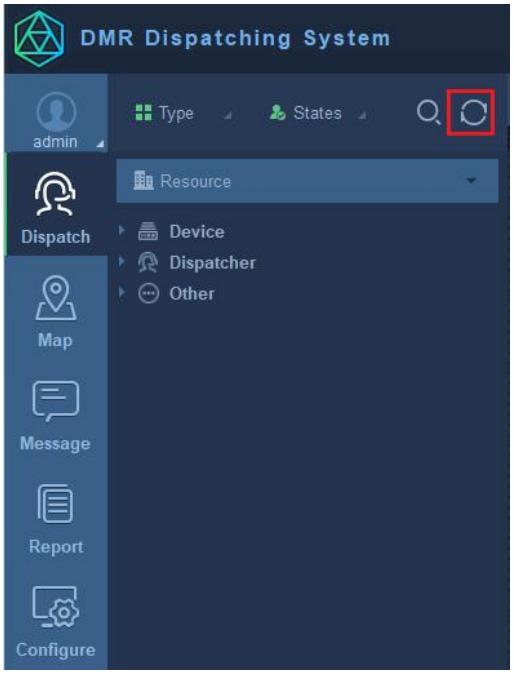
Figure 5-23 Dispatcher add available repeater



After the addition is complete, click the "Dispatch" menu on the left, and click the "Refresh" icon in the upper right corner of the pop-up page, and we can view the latest data, as shown in the

following figure. Click on the "Device" directory to view the information of the added repeaters and the bound group.

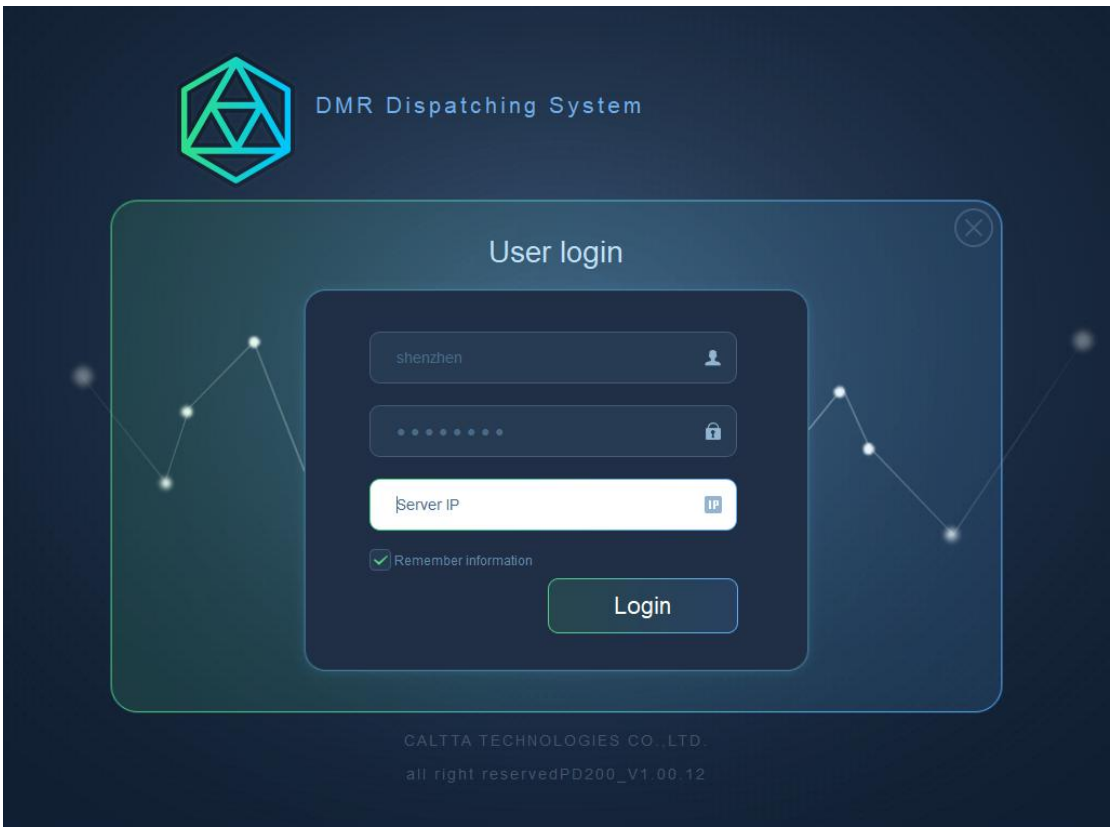
Figure 5-24 "Dispatch" page resource display



5.2.7 New dispatcher account login

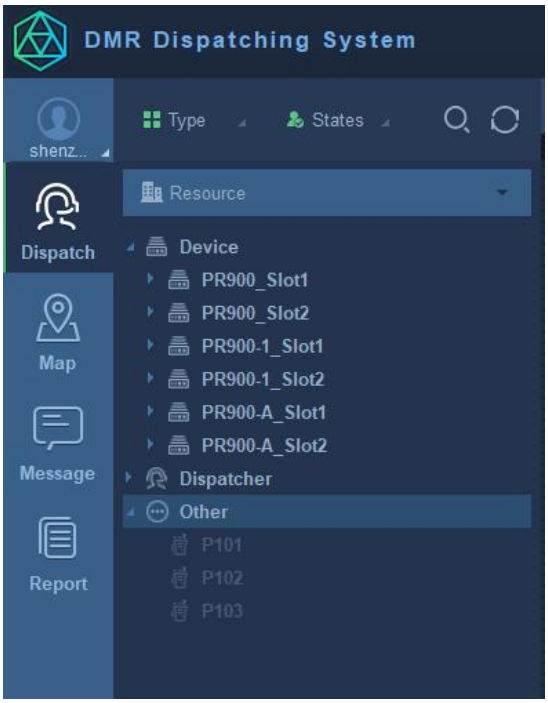
Exit the current admin account login interface, re-open the PD200 client, log in with dispatcher account "shenzhen", input password "07552019", and server IP address "70.1.91.101", as shown in the following figure.

Figure 5-25 New dispatcher account login



After the login is successful, select the left "Dispatch" menu, click on the "Device" list in the "Resource" tree, you can view the added repeaters. When the font of the repeater is highlighted, it indicates that the repeater has been registered successfully, as shown in the following figure.

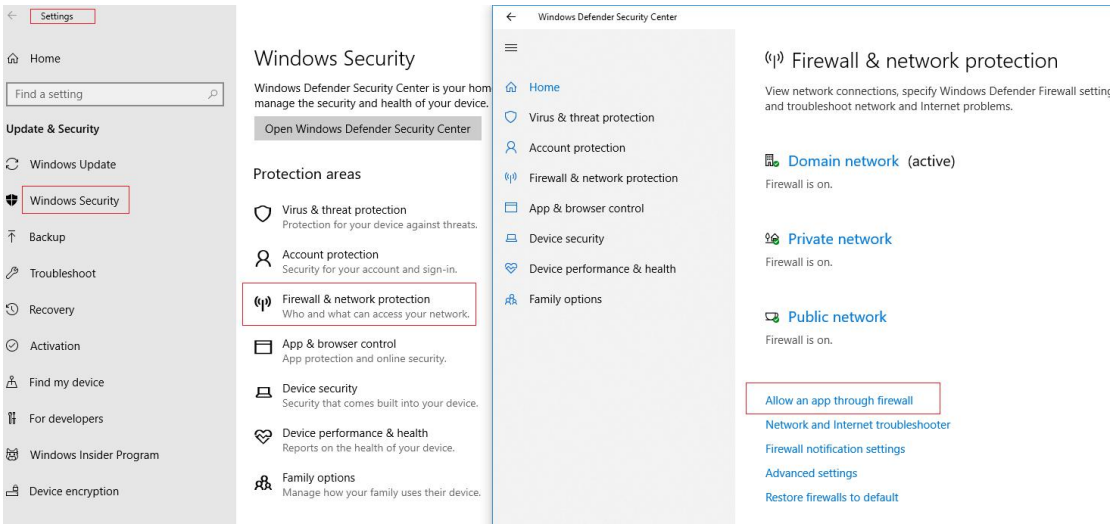
Figure 5-26 Repeater login successful to dispatcher



If the font of the repeater is gray, it indicates that the repeater is not registered successfully,

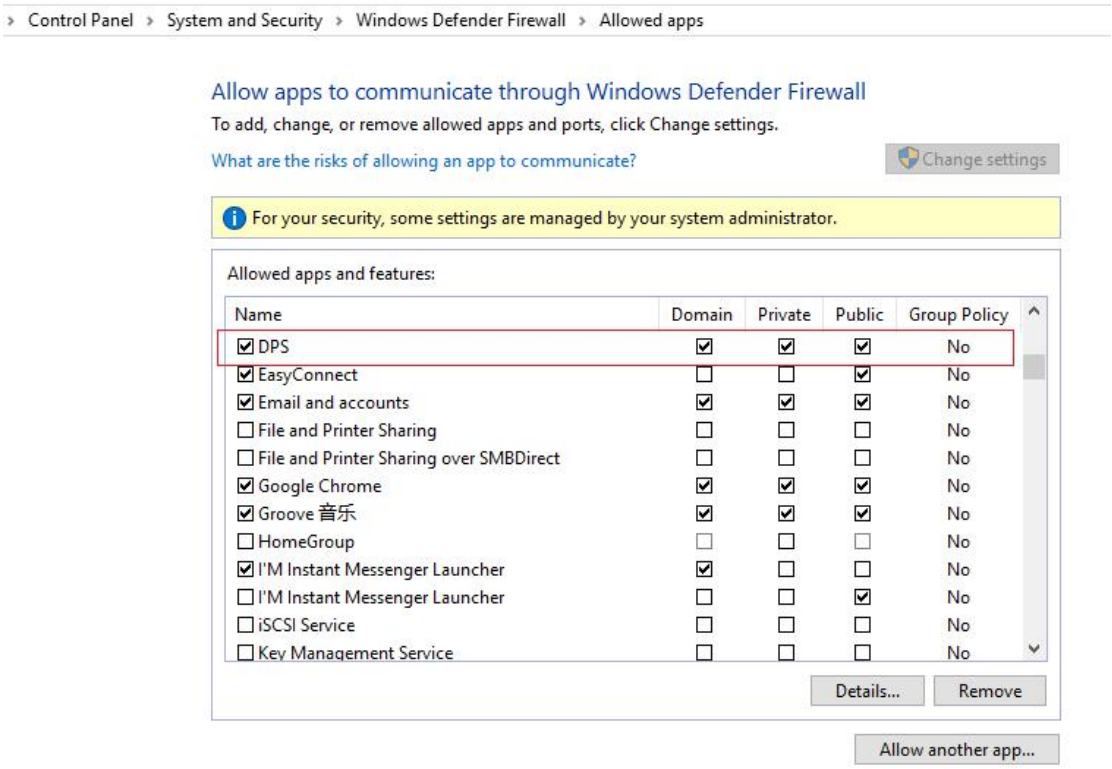
please check if the configuration is correct, and check whether the PC firewall of the PD200 has added DPS, LDS (or displays "Java (TM) Platform SE). Binary"), PD200 to the list of "allowed apps and features", as shown in the following figure.

Figure 5-27 Windows defender firewall setting -1



Make sure that DPS, LDS (or displays "Java (TM) Platform SE). Binary"), and PD200 have been added and checked in the list, as shown in the following figure.

Figure 5-28 Windows defender firewall setting -2

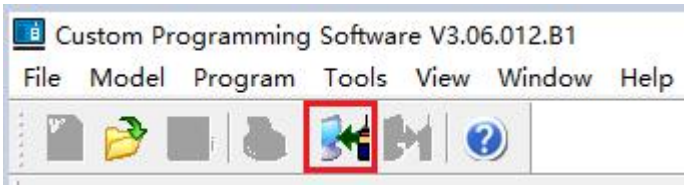


6 Radio configuration

6.1 Radio CPS read

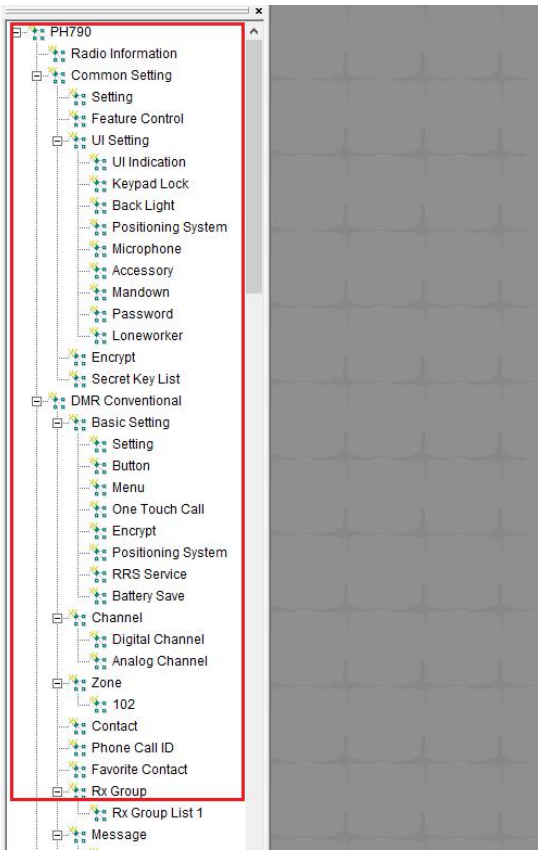
The radio 1 connects to the PC through the programming cable and opens the corresponding radio CPS software (If it is an installation version, please install it first), as shown in the following figure.

Figure 6-1 Radio CPS read



Click the "Read" icon  on the toolbar and click "OK" to read. After the successful reading, the list is displayed on the left side of the CPS, as shown in the following figure.

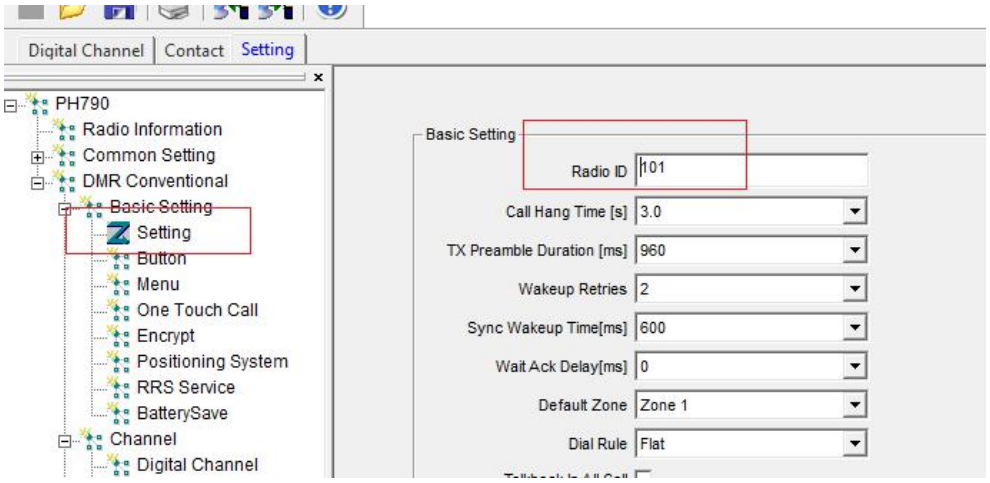
Figure 6-2 Radio reading successful



6.2 Basic setting

Double-click the "Settings" option under "DMR Conventional" - "Basic Setting". on the pop-up page "Radio ID" parameter, radio 1 is filled in as "101" according to chapter 2.2 Radio planning, as shown in the following figure. Configure radio 2 and 3 fill in according to chapter 2.2.

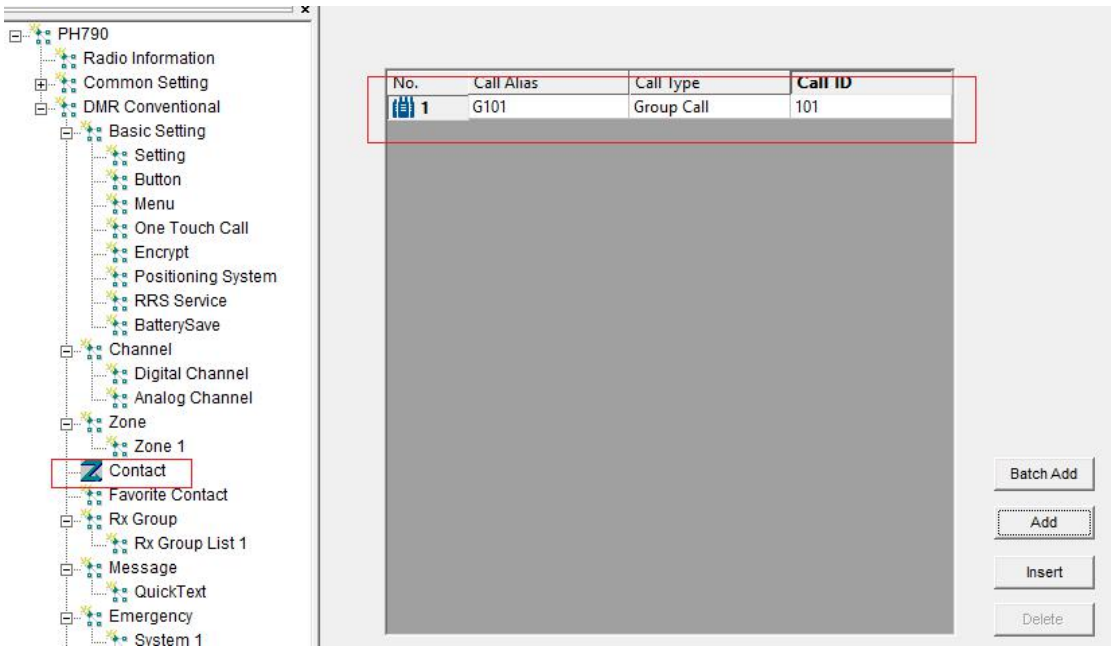
Figure 6-3 Radio basic setting



6.3 Contact setting

Double-click the "Contact" option under "DMR Conventional". You can modify, add, or delete contacts on the pop-up page. According to chapter 2.2 Radio planning, the radio 1 is configured with group call "101" as the contact, the "Call Alias" is "G101", the call type is "Group Call", and the "Call ID" is "101", as shown in the following figure.

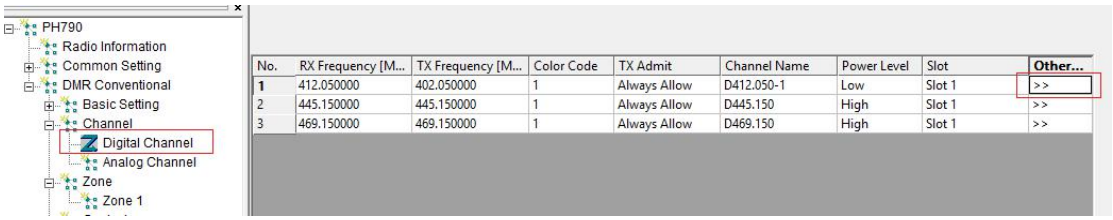
Figure 6-4 Contact setting



6.4 Channel setting

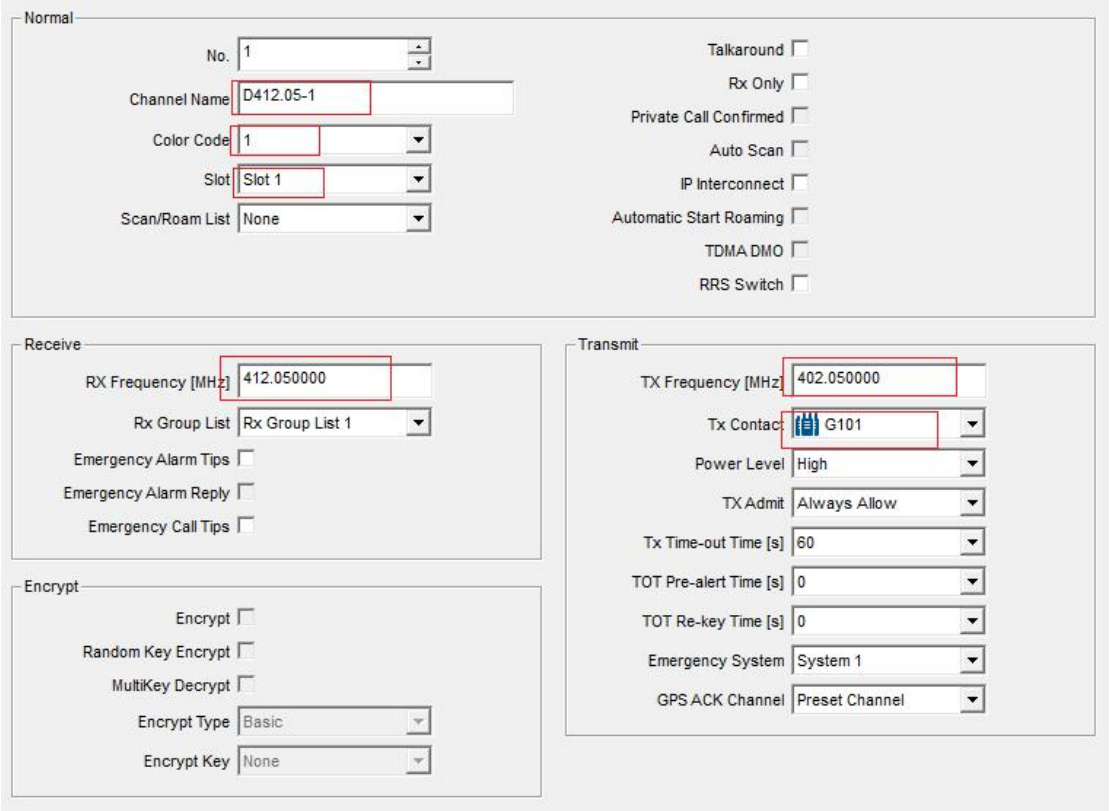
Double-click the "Digital Channel" option under "DMR Conventional" - "Channel". Click ">>" under "Other" Column, the frequency value can be modified, added or deleted on the pop-up page.

Figure 6-5 Radio add channel



According to the chapter 2.2 Radio planning, the "RX frequency" of radio 1 is 412.05Mhz, the "TX frequency" is 402.05Mhz, the color code is 1, and the time slot is 1, the channel name is D412.05-1, and the "TX contact" selects G101, as shown in the following figure.

Figure 6-6 Radio 1 channel configuration



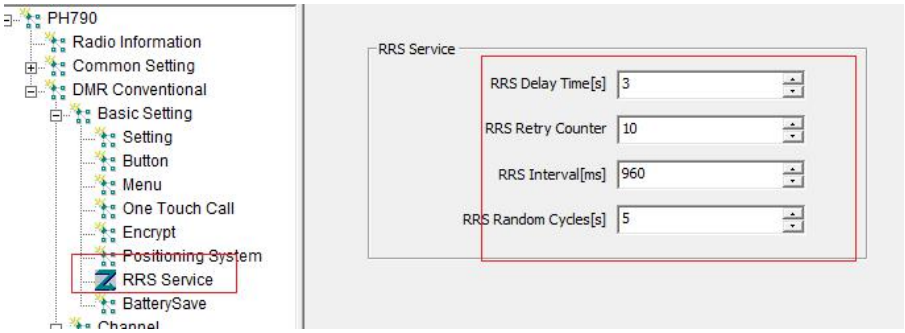
Click the Add button to configure the same frequency, color code, contact, time slot selection time slot 2, and the name is changed to D412.05-2.

6.5 Radio RRS setting

Double-click "RRS Service" under "DMR Conventional" - "Basic Setting", and the radio registration parameters can be set on the pop-up page, as shown in the following figure.

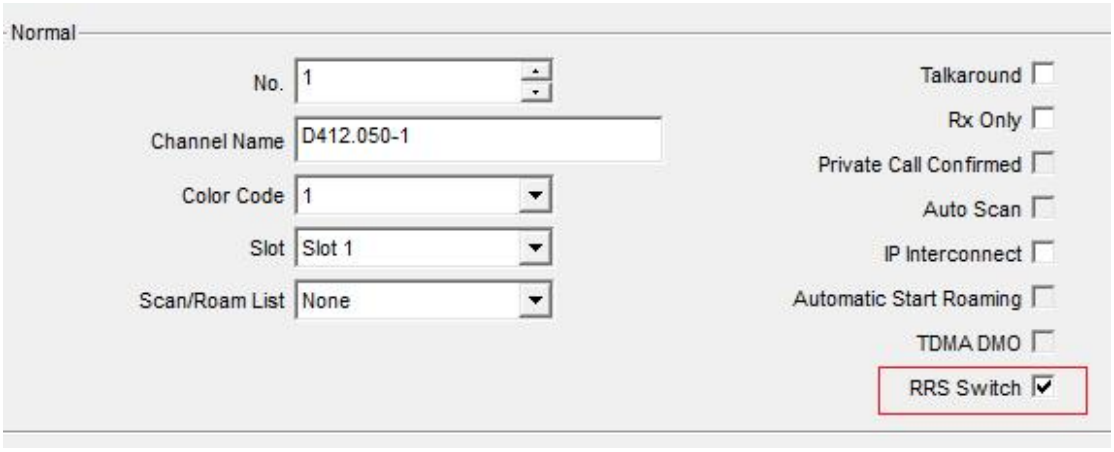
On the pop-up page, you can set the number of repetitions and the time interval for repeated registration when the radio registration fails.

Figure 6-7 Radio RRS setting - 1



After RRS service is set, click "Digital Channel" under "Channel", click "Other", and check RRS switch on the pop-up page. When the radio powers on, it will send a registration message in the channel, and will send a de-registeration message when it is turned off, as shown in the following figure.

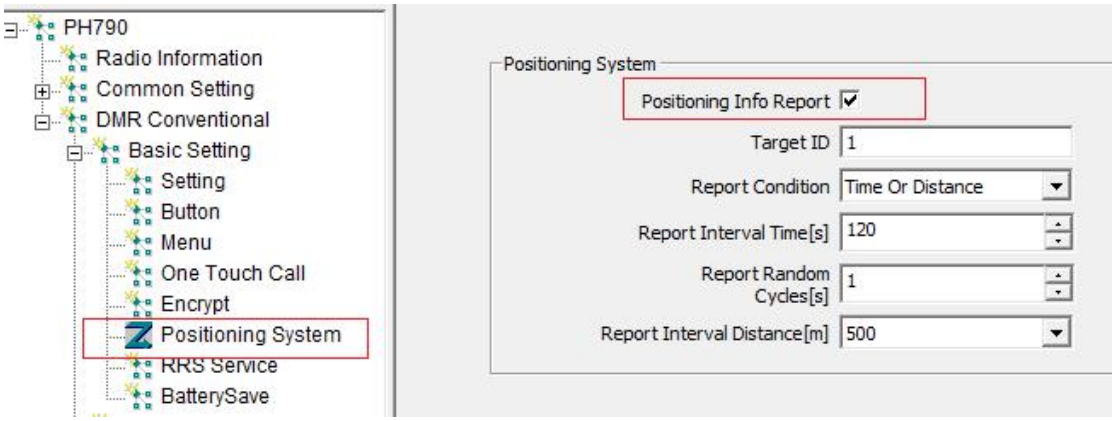
Figure 6-8 Radio RRS setting - 2



6.6 Radio positioning information report

Double-click "Positioning System" under "DMR Conventional" - "Basic Setting", check the "Position Info Report" on the pop-up page, and configure "Report Condition", "Report Interval Time", "Report Random Cycles" and "Report Interval Distance" ("Target ID" is not used right now). The radio will report the GPS information according to the corresponding period or distance, as shown in the following figure.

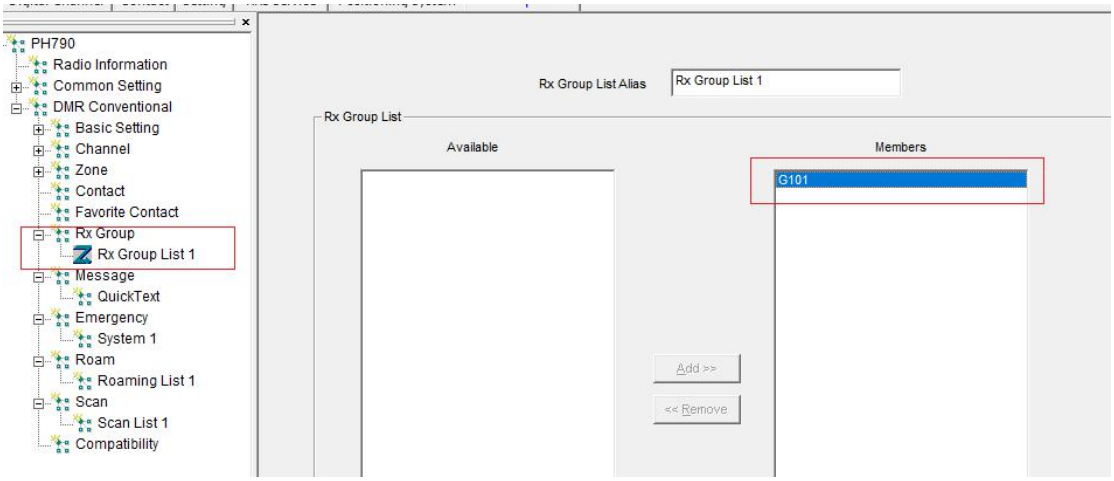
Figure 6-9 Radio positioning system setting



6.7 Rx group setting

Double-click "RX Group" under "DMR Conventional", select "G101" under "Available" on the left, and click the "Add>>" button, add "G101" to the right "Members" , as shown in the following figure

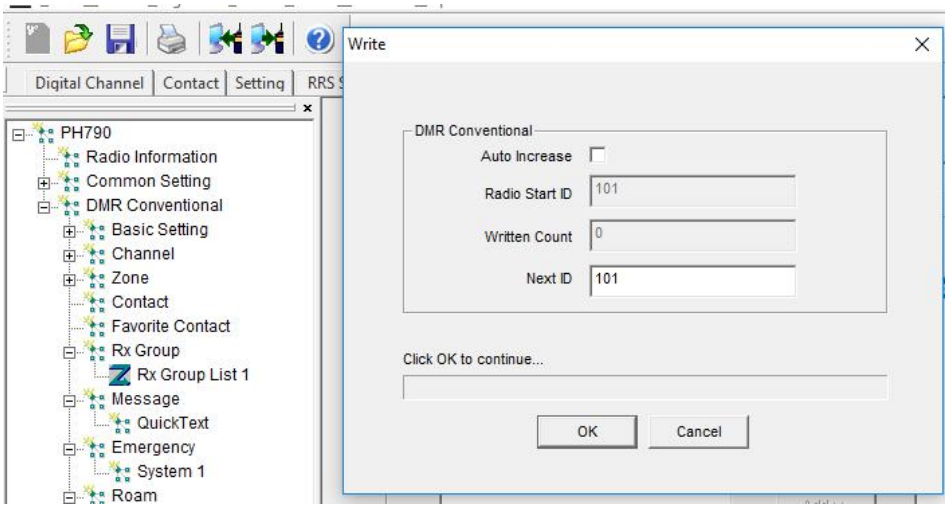
Figure 6-10 Radio Rx group setting



6.8 Radio CPS write

After setting the above steps, click the "Write" icon  on the toolbar, click "OK" button on the pop-up interface to write, the radio will restart after the successful writing, as shown in the following figure.

Figure 6-11 Radio CPS write



According to chapter 2.2 Radio planning, perform CPS writing operations on radio 2 and radio 3 in the same way.

7 Commissioning system

7.1 Radio registration

➢ Precondition:

1. Repeater1 is connected to the PD200 server and the PD200 client is logged in.

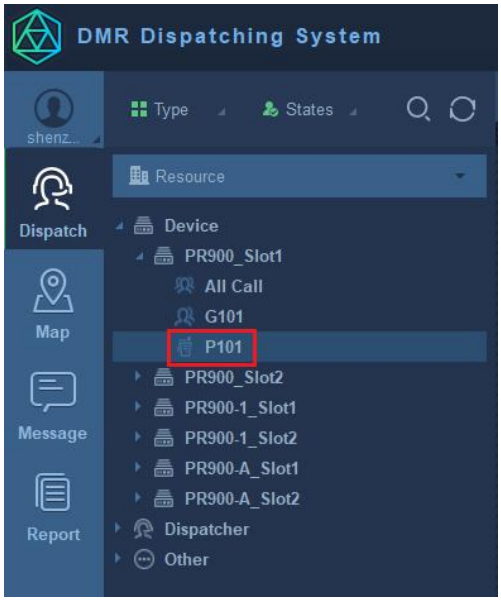
- Operation step:

  1. Radio 1 powers on

- Expected result:

  1. P101 (radio 1) is displayed under the time slot 1 of PR900, and the font is highlighted, as shown in the following figure.

Figure 7-1 Radio registration check



7.2 Radio de-registration

- Precondition:

  1. The repeater1 is connected to the PD200 server and the PD200 client is logged in. The radio has successfully registered in the corresponding time slot.

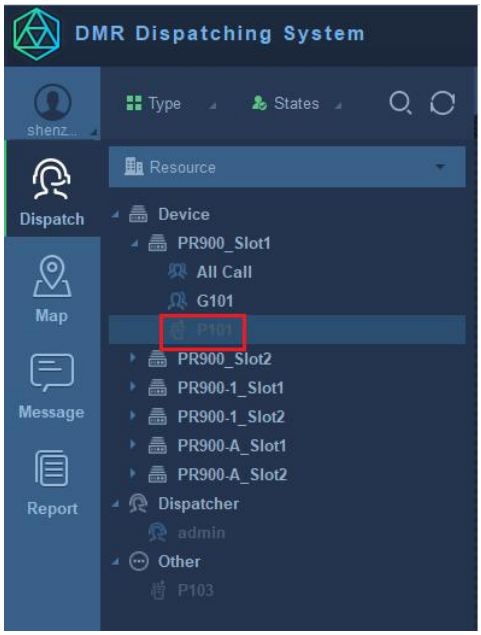
- Operation step:

  1. Radio 1 power off.

- Expected result:

  1. P101 (radio 1) is offline, and the font is gray. As shown in the following figure.

Figure 7-2 Radio de-registration check



7.3 Voice call

- Precondition:

  1. The repeater1 and repeater 2 are connected to the PD200 server successfully, the PD200 client is logged in. Radio 1 & 2 are online in the corresponding time slots.

- Operation steps:

  1. Radio 1 initiates group call G101.
  2. After the radio 1 releases the PTT button, click the PTT button of the PR900-1 time slot 1 on the PD200 client interface to initiate the group call G101.

- Expected result:

  1. Radio 2 receives the G101 group call initiated by radio 1 and can hear radio 1 speaking. PD200 client can receive the G101 group call initiated by radio 1 and can hear radio 1 speaking (PD200 client PC is connected with headset), the dispatching interface is shown in figure 7-3.
  2. Both radio 1 and radio 2 receive the group call G101 initiated by the PD200 client. The dispatching interface is shown in figure 7-4.

Figure 7-3 Radio 1 initiates group call G101

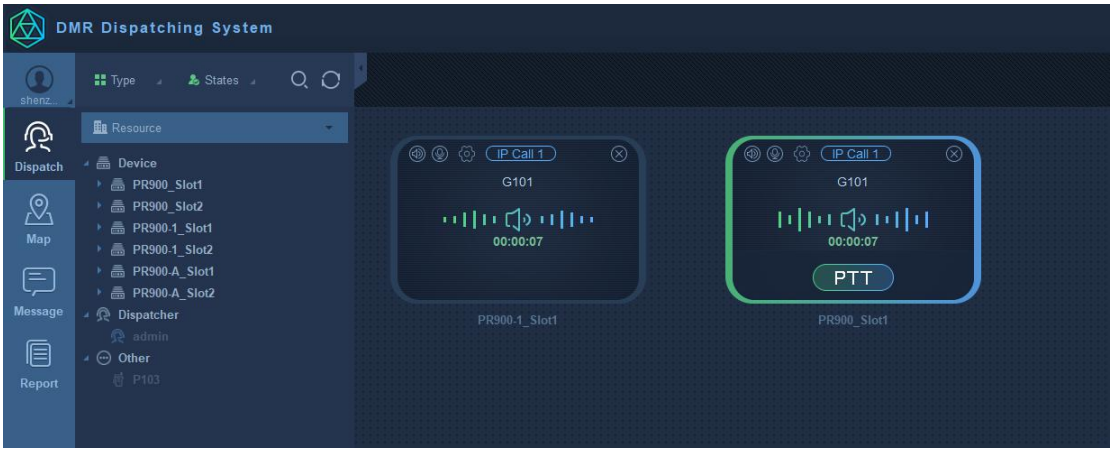
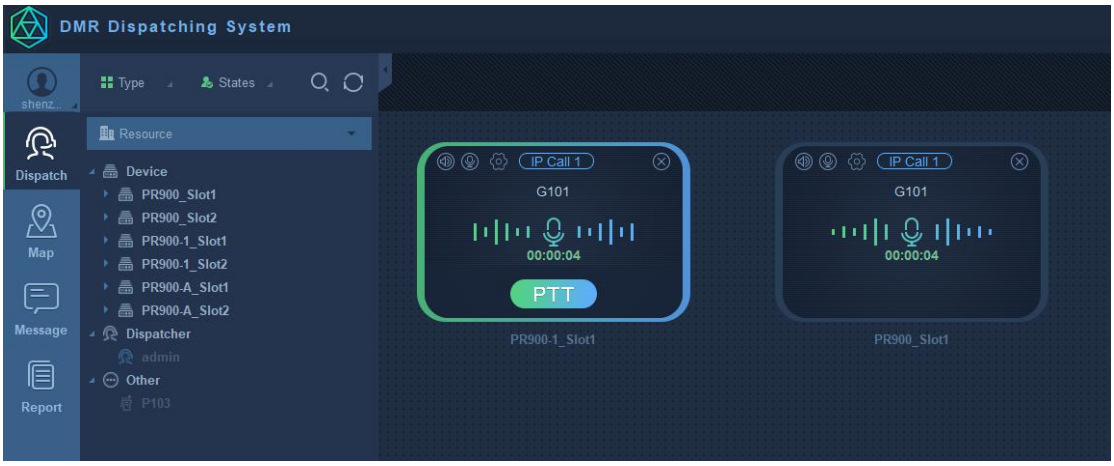


Figure 7-4 Dispatcher initiates group call G101



7.4 Send message

- Precondition:

1. The repeater is connected to the PD200 server successfully, the PD200 client is logged in. Radio 1 & 2 are online in the corresponding time slots.

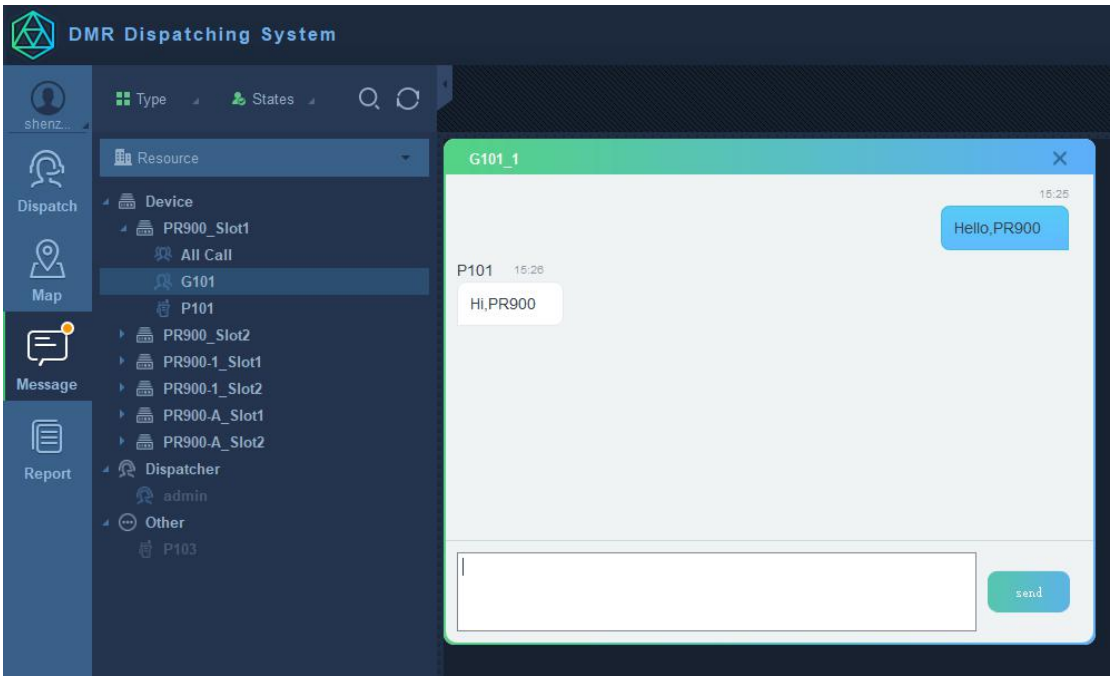
- Operation steps:

1. On PD200 client PC, select "Message" - "Resource", right click group G101, select "Send Message", enter "Hello, PR900" in the pop-up window, and click "Send".
2. Radio 1 sends a group message "Hi, PR900" to group G101.

- Expected result:

1. Radio 1 and radio 2 receive the message "Hello, PR900" sent from PD200 client.
2. Radio 2 and PD200 client receive the message "Hi, PR900" from radio 1, as shown in the following figure.

Figure 7-5 Message display on dispatcher interface



7.5 GPS Location

- Precondition:

1. The repeater is connected to the PD200 server and the PD200 client is logged in. Radio 1 is configured with positioning information report on according to chapter 6.6 Radio

positioning information report.

- Operation step:

1. Select "Map" - "Resource", right click P101, select "Location", as shown in figure 7-6.

- Expected result:

1. The PD200 interface switches to the map interface, and the location of radio 1 will be displayed on the map, which is consistent with the actual location, as shown in figure 7-7.

Figure 7-6 Map display on dispatcher interface - 1

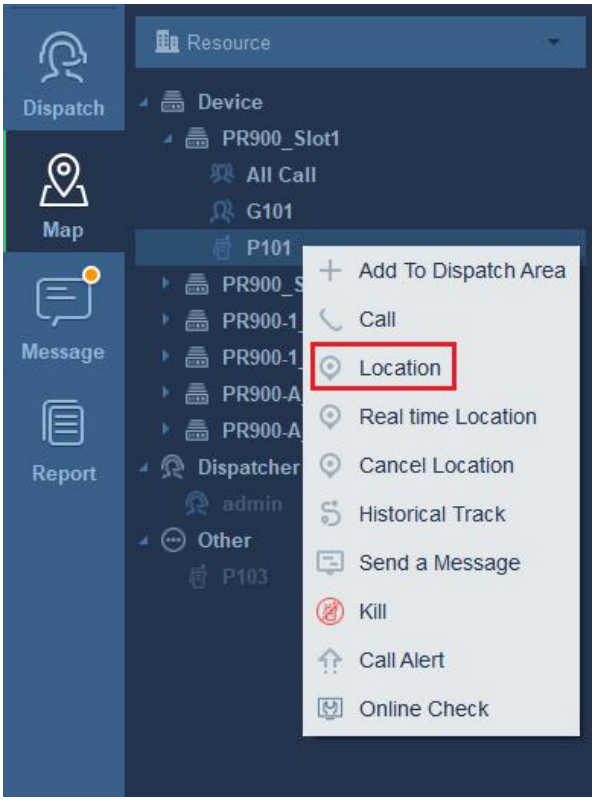
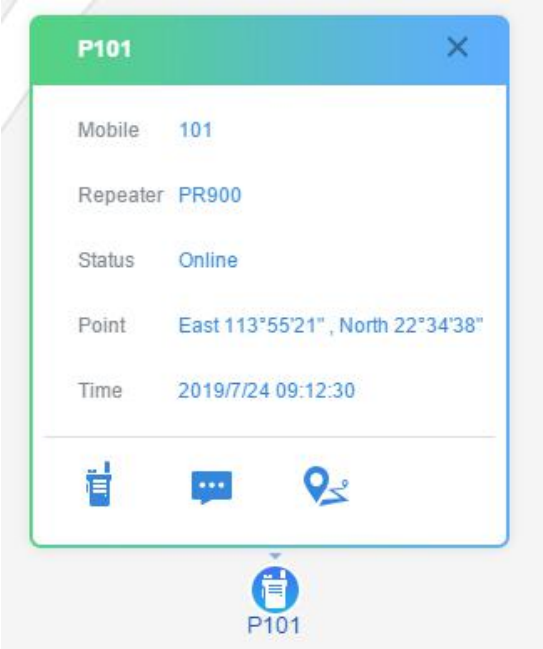


Figure 7-7 Map display on dispatcher interface - 2



7.6 Real-time GPS location

- Precondition:

  1. The repeater is connected to the PD200 server and the PD200 client is logged in. Radio 1 is configured with positioning information report on according to chapter 6.6 Radio positioning information report, and the automatic report has been chosen and periodic report has been selected.

- Operation steps:

  1. Select "Map" - "Resource", right click P101, select "Real Time Location", as shown in figure 7-8.
  2. Select "Map" - "Resource", right click P101, select "Cancel Location", as shown in figure 7-8.

- Expected result:

  1. The PD200 interface switches to the map interface. The icon of radio 1 is centered on the map interface, and there is a highlighted display around the icon. Radio 1 location can be automatically refreshed periodically, as shown in figure 7-9.
  2. After "Cancel Location" operation, the highlighted display around the radio icon disappears.

Figure 7-8 Real-time location display on dispatcher interface - 1

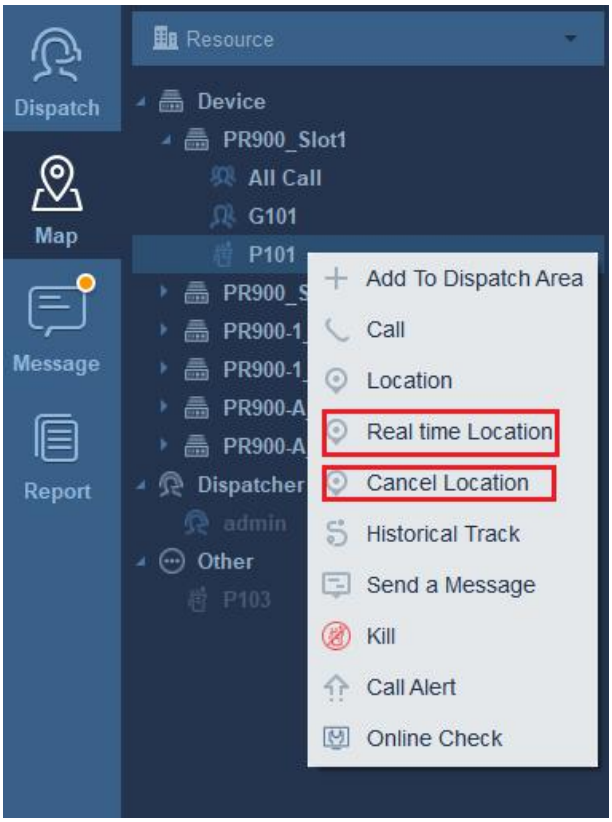


Figure 7-9 Real-time location display on dispatcher interface - 2