REALPTT

Network Trunking Dispatcher System

Technology Solutions

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Overview

Realptt dispatcher, which is based on multifunctional and visualization dispatching system,It includes inviting dynamic group, group calls, call call, force to join, message, disconnecting,stunning,monitoring, GPS tracking,lone worker time,sos,patrol,etc. It can provide timely dispatching function for company. Operation environment of Realptt pc dispatcher is Windows system, it is recommended to use 1024 x768 screen resolution.

Function Description

1:Group Call: After entering the group, you can make calls to all online users in this group, and you can also receive calls from other users in the group.

2:Dynamic group: The dispatcher can select one or more online users to make a private call or establish a dynamic group call.

3:Private call: The user can make one to one private call.

4:Force to join: The dispatcher can force a certain user to enter the group.

5:Disconnect: The dispatcher can force a user to leave the group.

6:Stun: The dispatcher can force a user to go offline and pause this user.

7:Monitoring: The dispatcher can monitor the calls of multiple groups, the call of monitored groups can be heard by the dispatching user.

8:Call logs:It can view these recent call logs, calls logs can be displayed,double-click the audio record, the call logs are saved on the computer folder, the folder for the call logs can be found in the folder where the dispatcher is installed.

9: All call: Make calls to all users, which belong to group list on the pc dispatcher.

1: PC dispatcher Interface

1.1: Interface partition

After the user has successfully logged dispatcher station, the system automatically displays the main interface dispatch operations
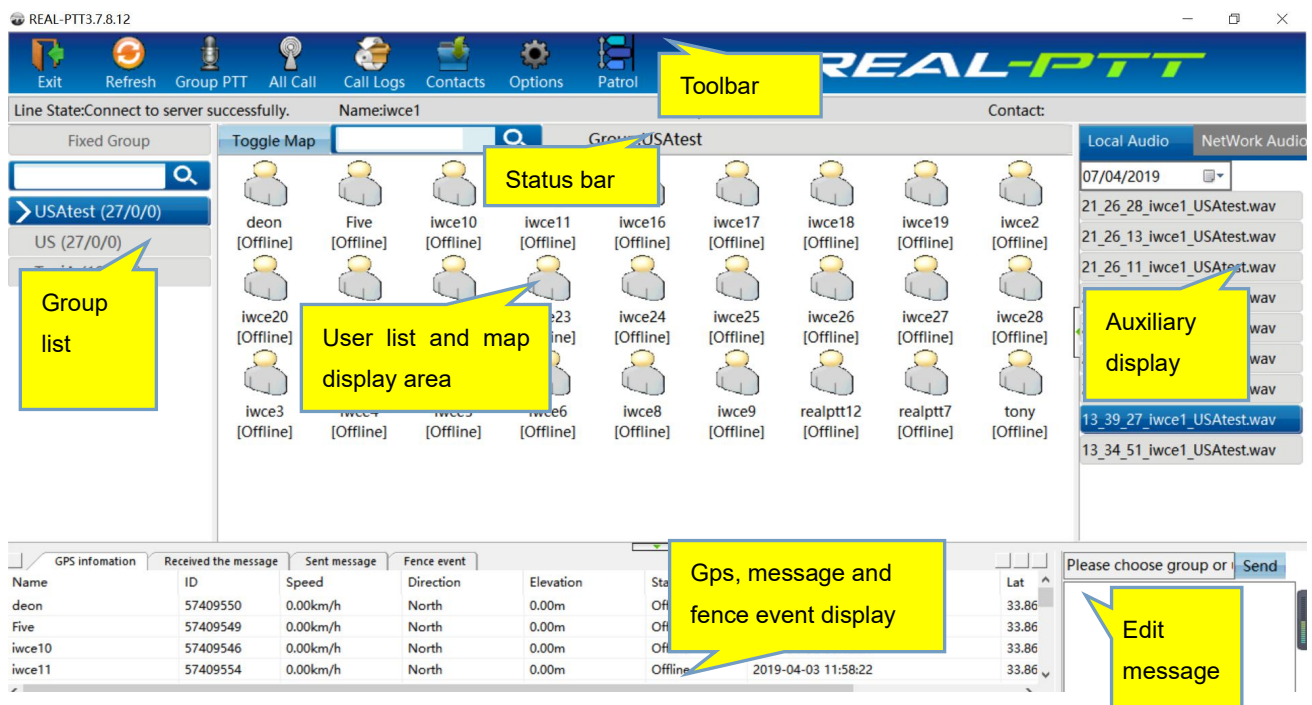
Dispatcher main interface

As shown above, main interface of dispatcher consists of the following components:

➢ **Toolbar**:It provides"exit","refresh","group ptt","all call", "call logs", "Call logs","contacts", "Options","Patrol", etc, it can help users to quickly view.

➢ **Status bar**: It can display the network state of dispatcher, the group info, the name of login in and the call info, etc.

➢ **Group list**: It is on the left side on the main interface, it can display all groups and group information.

➢ **User list and map display:** It is in the middle of of the main interface,displaying the user status information of the selected group, user gps information in the map.

➢ **Auxiliary display area**: it is right side of user display area, It is mainly assist dispatcher functions display, such as viewing contacts list, viewing call audios, etc.

➢ **Gps, message and fence event display:** It is in the below the main interface, display sent messages, received messages, and user location information and fence event activity.

➢ **Edit Message**: It is on the lower right corner, It can edit the message to be sent.

1.2: Icon description

User status can be displayed by icons, the meaning is as follows:

User status icon

 User online

User status icon：It shows that user is online but not in the current group，so he can't hear current group calls, at the same time he can't make calls in the current group.

Users in the group

User status icon：the user is in the currently selected group, he can make calls directly to the group.

Offline status

User status icon: the user is not online, he can't hear calls of current group.

User location status icon

Users in the group

The user have GPS information and the user is in the current group.

User online

The user have GPS information and the user is not in the current group.

User offline

Use are offline in the map.

Tracking icon

:Start location icon

:Stop point icon

:End location icon

   After run the dispatcher, you can enter login interface of client program,as shown below. When you login in,you need to input account and password, select area and also you can save the password. The account used to log in to the dispatcher is a user account that is added in the company management platform. This account can not be accessed simultaneously with the radio device. You can open a user account for logging in to the dispatcher for dispatching management.
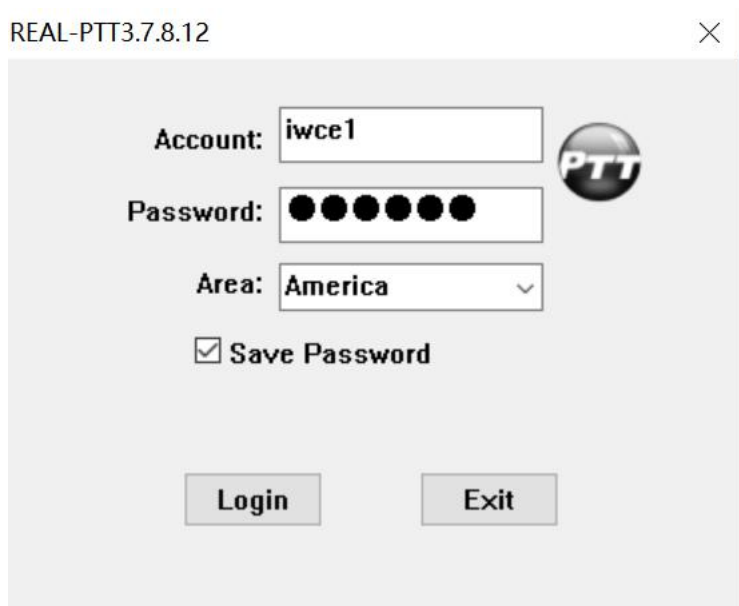
2.2:Tool Bar

- ➢ **Exit**: logout this dispatcher.
- ➢ **Refresh**: refresh the user and group info.
- ➢ **Group PTT**: make calls to all members in this group, if the dispatcher is on the dynamic group, it shows dynamic group calls.
- ➢ **All call**: Make calls to all users, which belong to group list on the pc dispatcher
- ➢ **Call logs**: It can view these recent call logs, calls logs can be displayed in the right auxiliary

display area, double-click the audio record, it can play the audio record. The call logs are saved on the computer folder,the folder for the call logs can be found in the folder where the dispatcher is installed.It is shown in figure 1,It can show these call logs when you double-click each record.

➢ **Contacts**: It shows contacts and status of the dispatcher, It is shown in figure 2. You can make private call to the user when double-click this user. When you open right menu, it can operate "send a message" and "stun" operation and so on for the selected user.

➢ **Options**:You can set any group ptt, call call hotkey, time zone,voice codec,map popup,etc
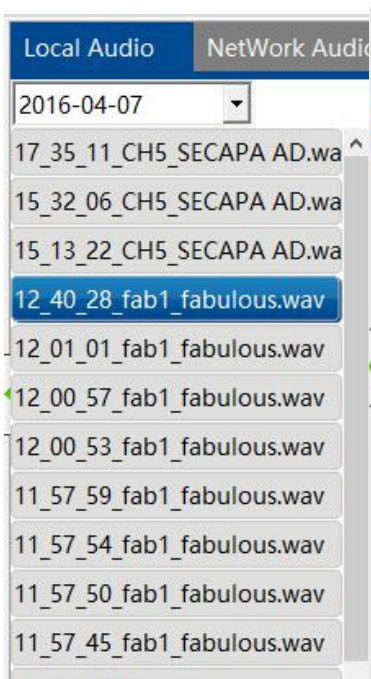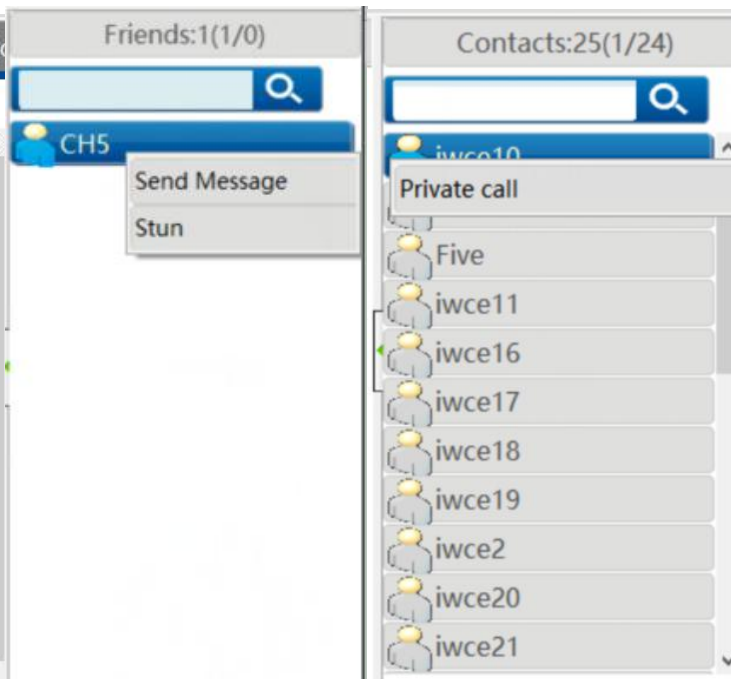
Figure 1   Figure 2

2.2.1: All call

Click "All call", make calls to all users, which belong to group list on the pc dispatcher.
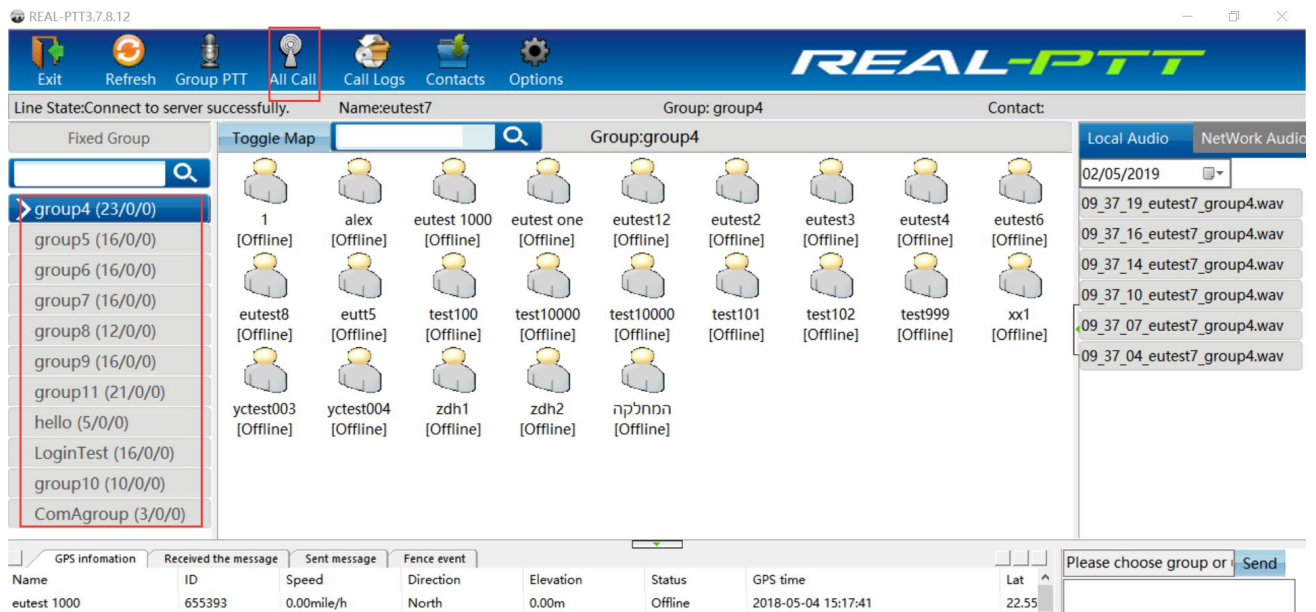
2.2.2: Call logs

The call logs consist of local audio and network audio, double click on each audio to play.

Local audio

Local audio is saved in the computer folder, which can be found in the folder where the dispatcher is installed, these audios can be recorded only the pc dispatcher is online.
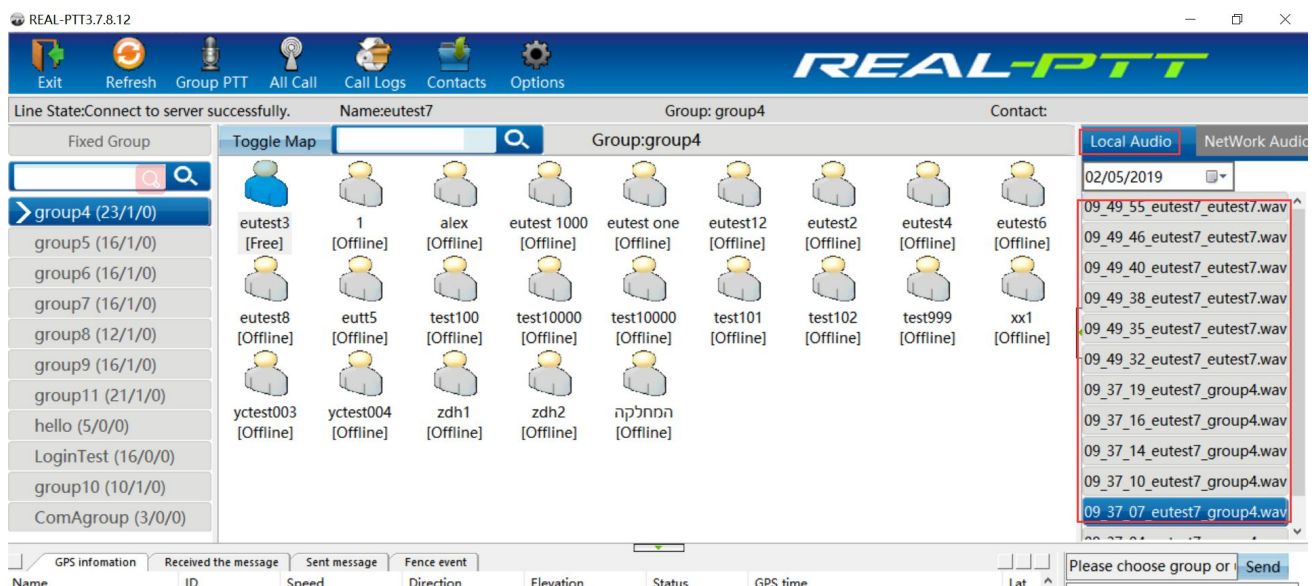
Network audio

Network audios are saved in the our server, all audio of users and group can be inquired.
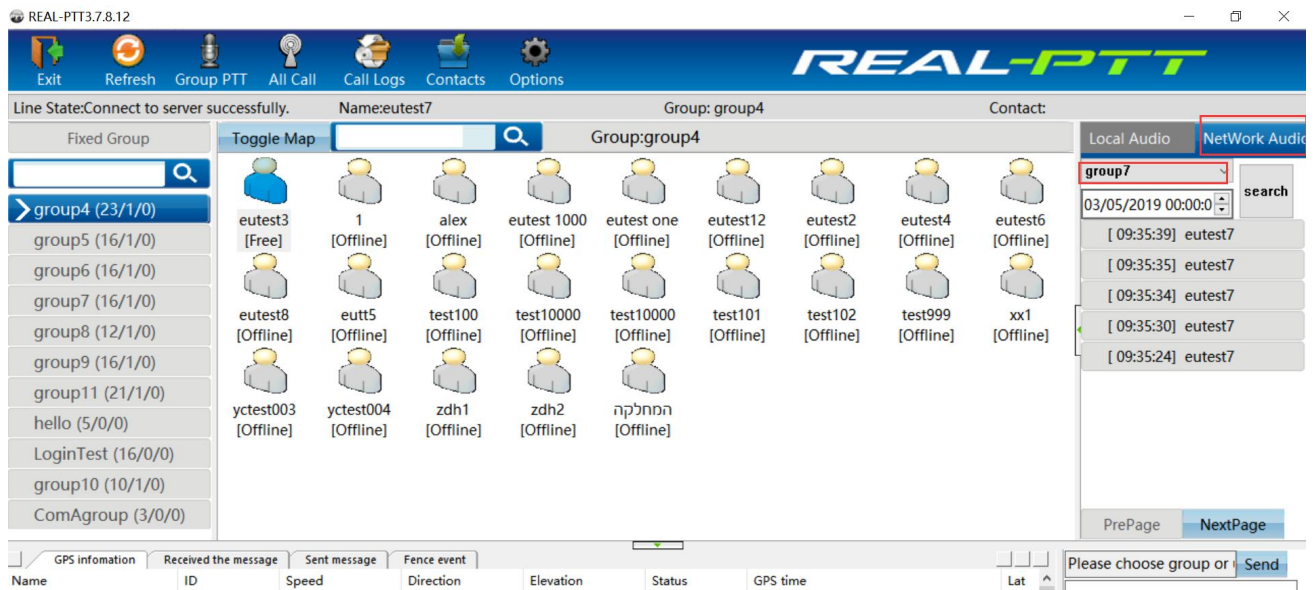
<mark>**2.2.3: Contacts**</mark>

The contacts is used to display the account's friends. You need to add a contact to the account in web platform,also need to select contact function to display it. Selecting an online contact to double-click will pop up the "private call" option, which can make private call .Select contact on the right button, it will show "send message" and "stun" operations.
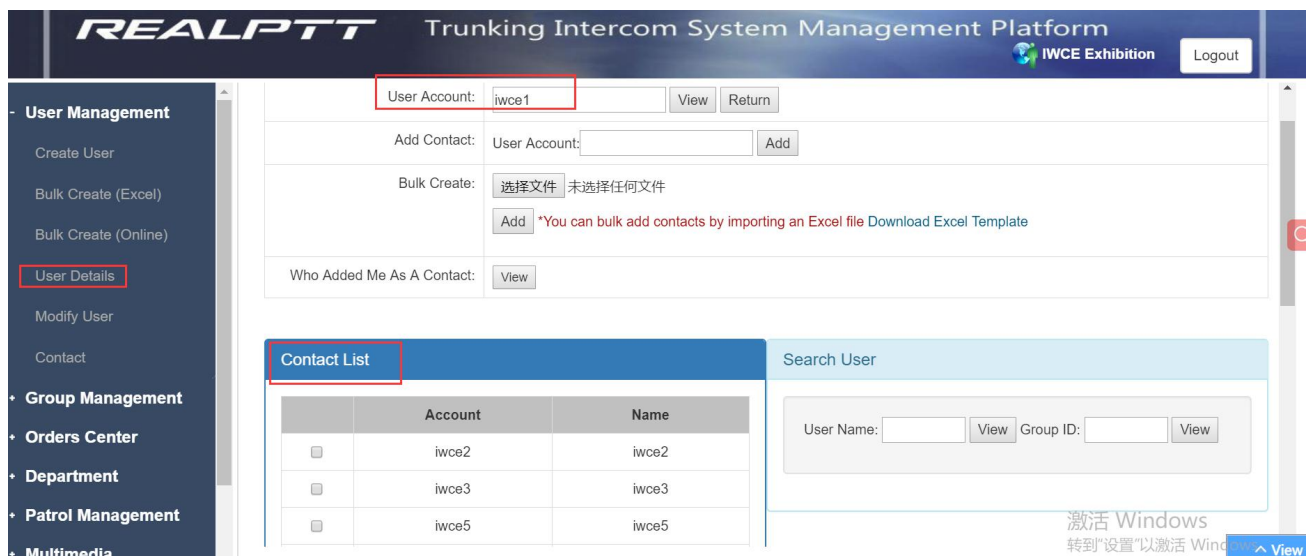
Add contact for one account

Contact function

Private call

Send message and stun

2.2.4: Options

Group PTT hotkey: Set the group ptt button according to your own needs, press customized hotkey to make group call.

All call hotkey:Set the all call button according to your own needs, press customized hotkey to make all call.

Global hotkey:Select this one, which can make group call or all call even the pc dispatcher is in the background.

Time zone: Selecting different time zone according to your own local time,which can affect the display of the GPS location time on the map.

Distant unit:there are km and mile,

8kb voice codec: After setting 8k voice codec, the voice can be better, and the voice codec of the other terminals(like radio or app) is required to be same(8kb), otherwise the voice will be garbled.

Map popup: The map interface pops up independently and can be full screen.

Open bluetooth communication:Open your computer bluetooth, and connect blutooth microphone,it can make calls through bluetooth microphone.
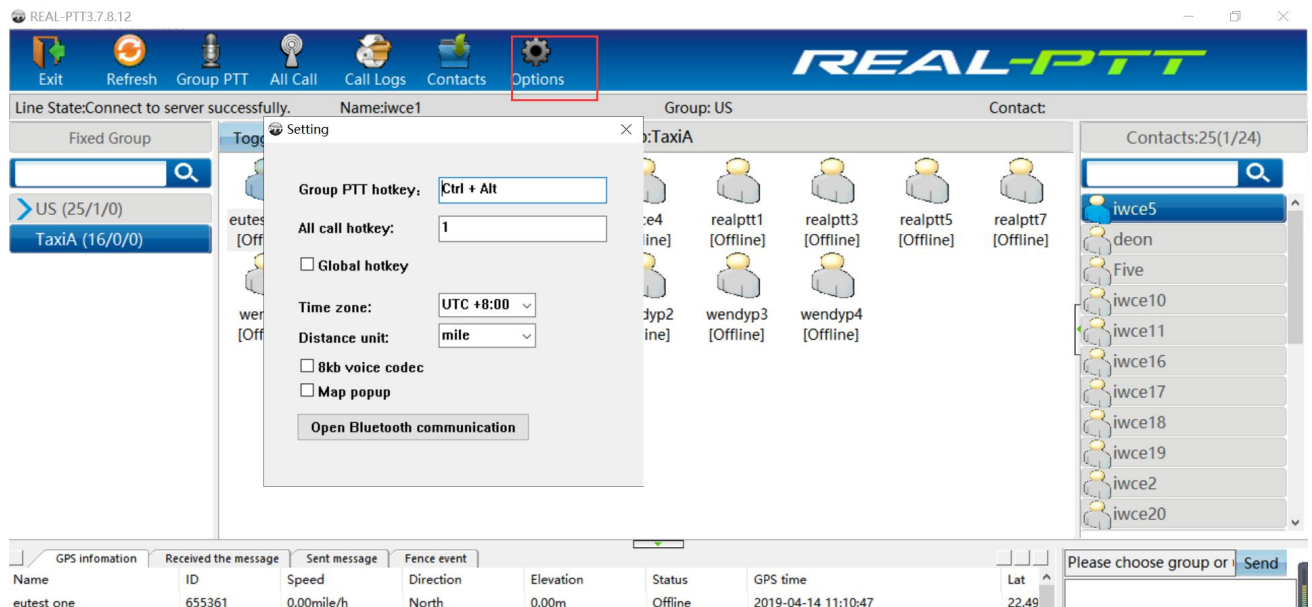
2.3: Status bar

The status bar display: network connection status, the dispatcher name, dispatcher group, speaker user info, etc.

Status bar

2.4: Group operation

The group list will list all the group information, which is added by this user account.The blue arrow mean pc dispatcher user account is in this group, the purple arrow mean that the pc dispatcher user monitor these group.
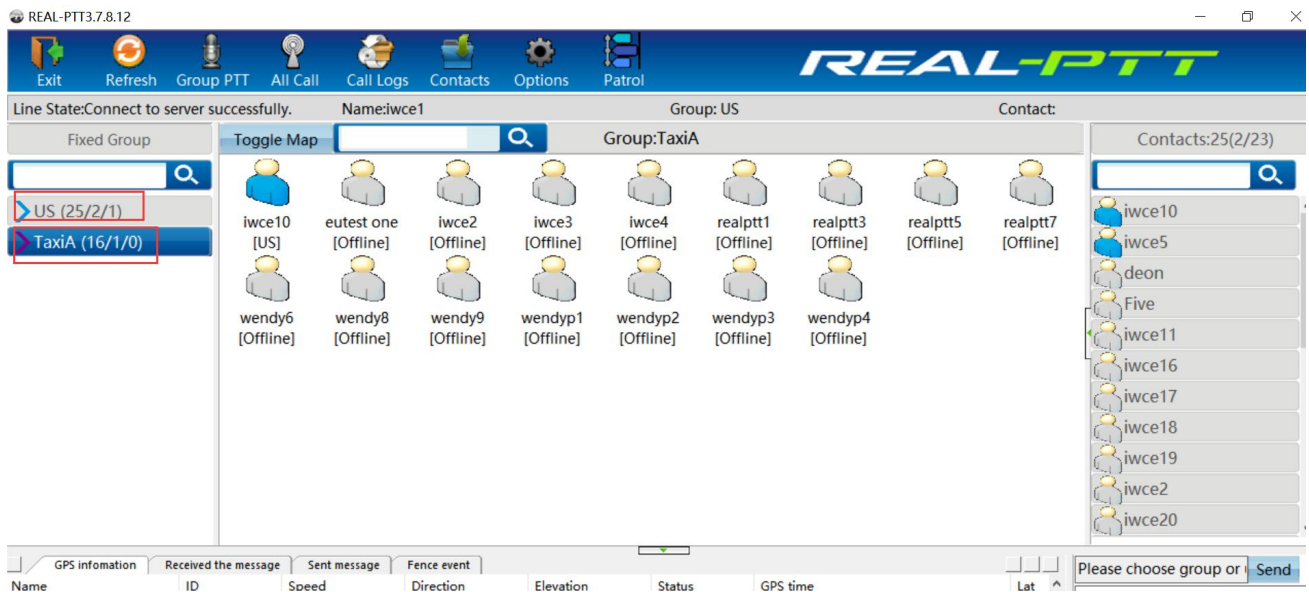
Blue arrow and purple arrow of group

Select a group and double click to enter this group, right click on the group to do the following operation for this group:

Send message: send message to all users of this group.

Leave conversation: leave the current group, no longer enter this group to make calls.

Force to join: force all users of this group to make calls.

Disconnect: force all users of this group to leave this group and no longer enter this group to make calls.
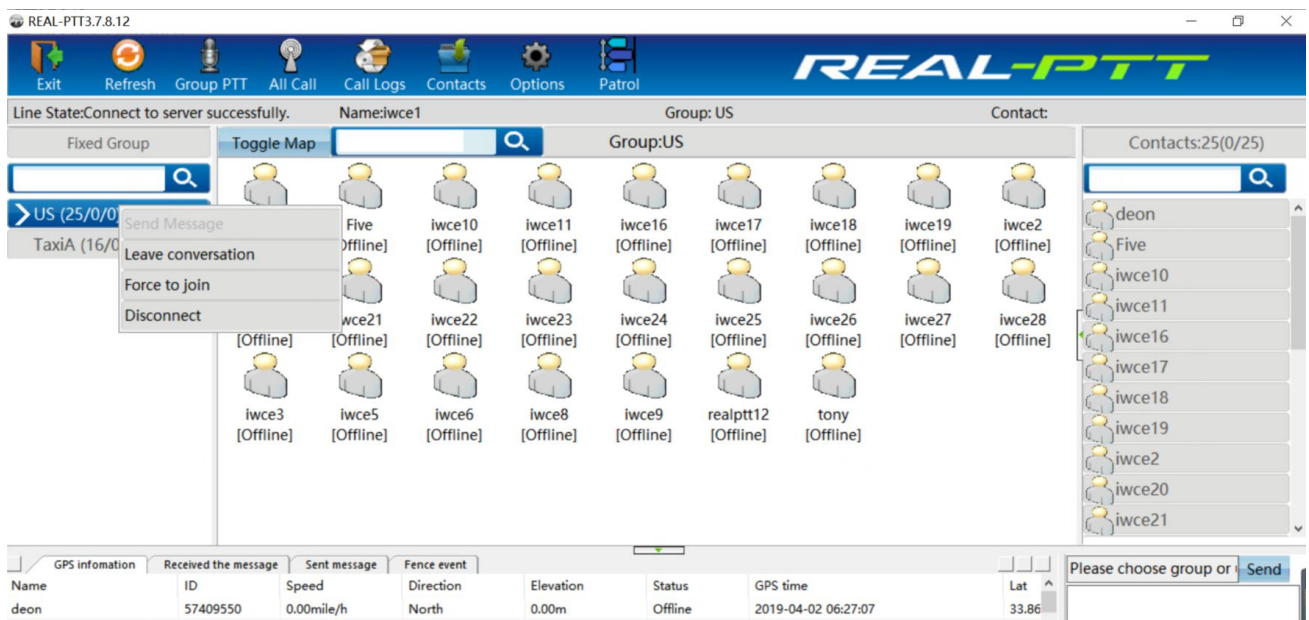
Enter into group: enter the currently selected group.

Monitor group: listen to the conversation of the currently selected group.
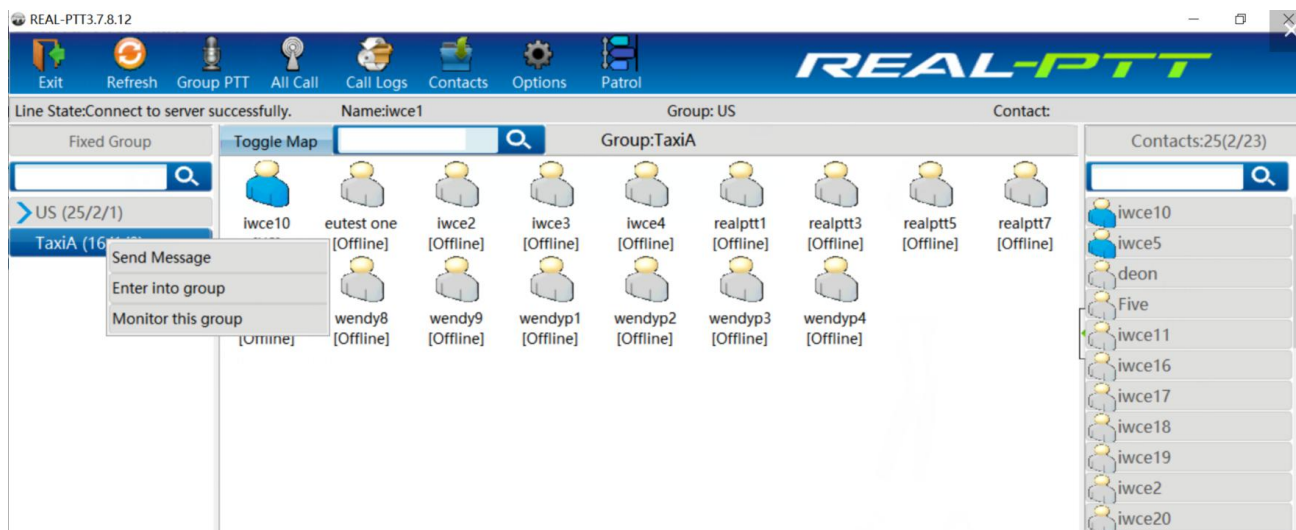
2.5: User function

Select user and operate user through the right-click menu, including"send message", "invite dynamic group", "force to join/disconnect", "stun" "lone worker time", ,"view on map".
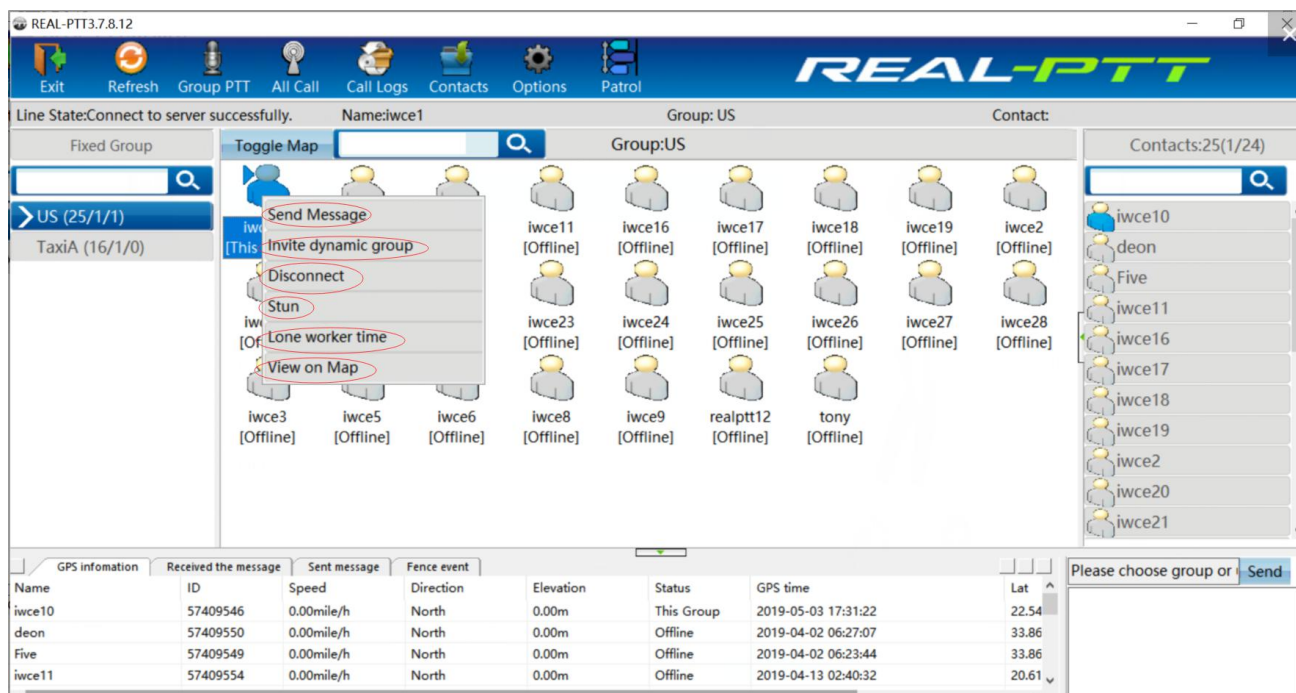
User search bar, input user name or character can search out the user. As shown in Figure
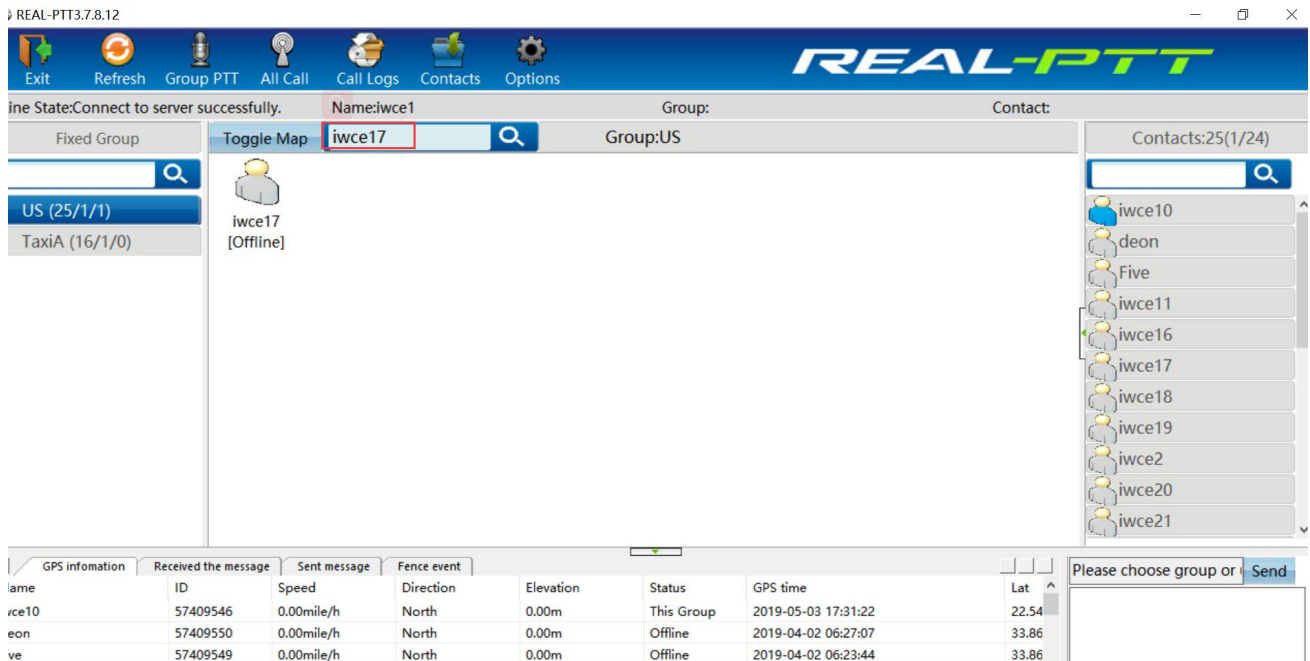
2.5.1: Send message

Select online user on the right button, select "send message", input characters, and click"Send Message", Messages sent and received can be viewed in the information display area below.

2.5.2: Invite dynamic group

There are two situation, one is that one user can be forced to enter this group, and make private call.
The other one is create a dynamic group, press shift key to select multiple online users, then right click on "invite dynamic group".The group name of this dynamic group is the user name who create this dynamic group.Double click to enter other groups and the dynamic group is missed.

Private call

Dynamic group

2.5.3: Force to join

This user can be forced to enter this group when this user are in the other group.

2.5.4: Disconnect

This user can be forced to leave this group when this user are in this group.

2.5.5: Stun

After clicking "stun", the user is forced to be offline, the user status is also offline, and the account status become paused. It needs to be activated on the web platform.

2.5.6: Lone worker time

Select the user, right click "Lone worker time", add monitoring time,after set monitoring time, the monitored users will be showed green icon.

If the user does not make calls during the monitoring time, an alarm prompt box will be pop up on the pc dispatcher, It mean that the user has no call activity during monitoring time, and the user icon will display red.

Set lone worker time

Finished set monitoring time

Not make calls during the monitoring time

2.5.7: View on map

You can check online or offline user GPS track. as showed below:

User search bar, input user name or character can search out the user. As shown in figure
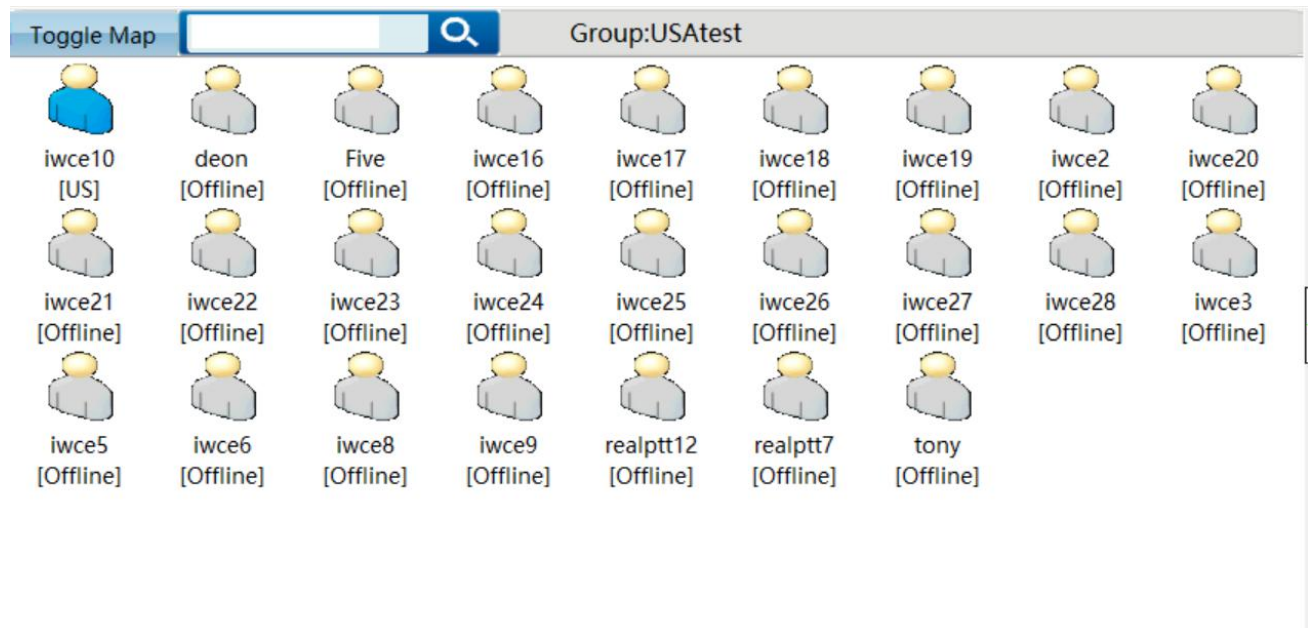

Search user

2.6:Two display modes

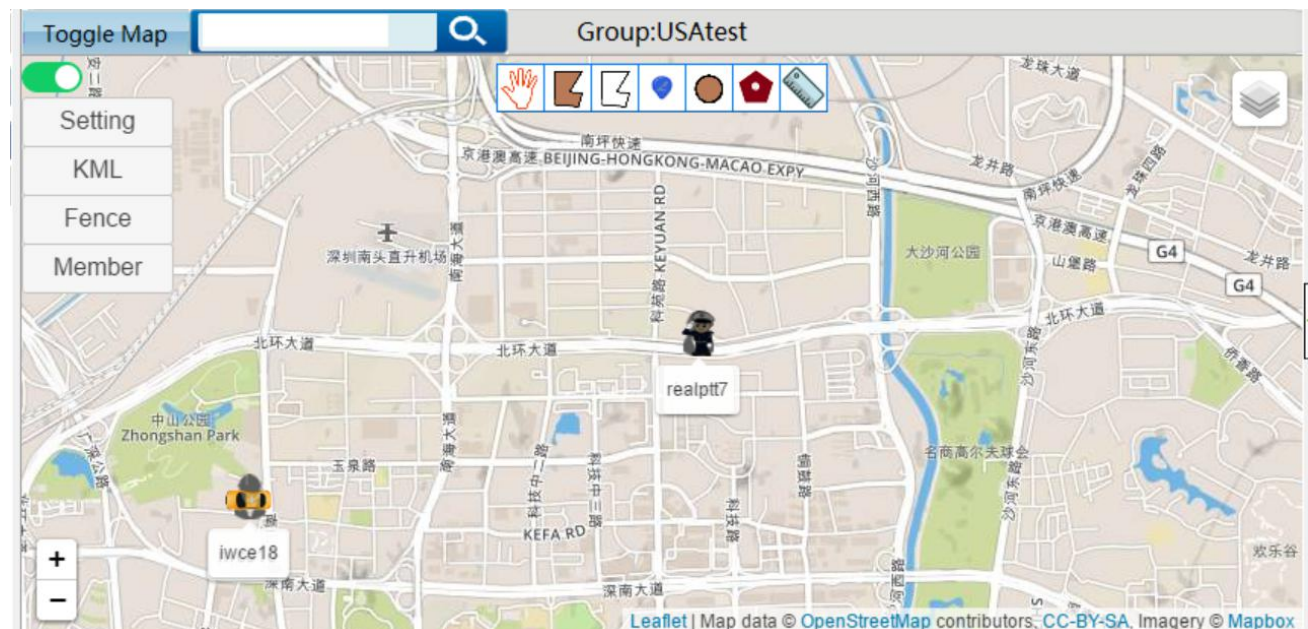The middle area is divided into user list mode and map mode.

User list mode

The user list mode is used to display user group information, including user status, user name and the user group, which belong to.

Map Mode

Map mode is for displaying user location and gps track information.

3: Map function

To see the user's location in map mode, the following settings are required:

For company platform

1:GPS positioning and view location should be checked in the radio id account in the company platform,which login pc dispatcher

2:Set GPS,it should be more than 0 in the company platform

3:Radio device settings:If there are GPS options in the radio programming, gps should be checked in the programming software.

4:The radio needs to be positioned outdoors, For rainy days,as poor positioning situation, it take more time to get gps data.

The map function is mainly used to view user gps positioning and location, and can also set geo-fence, route mark, multiple selection ptt call, polygon selection ptt call,distance measurement etc., and can also customize user icons. The map interface is mainly divided into function setting area, function operation area, location and gps tracking display area, and GPS, message and fence event area.

Map interface

3.1: Location and GPS tracking display area

3.1.1: Check location

Place your mouse on the user ico, can check location details, including user name, online status, location time, latitude, longitude, speed, direction and elevation.The location details of the group users can be viewed in the location information.

3.1.2: GPS tracking

Select"view on map"on the user on the right button or select member than select"show track", than set the corresponding time according to last location, click the display to play the track information of the user in the selected time period,the query a track time period should less than 24 hours.

View on map

Show track

GPS tracking

The last time location: you should search gps tracking according to last time location, the last time location is showed in the GPS and message area, which is below.

Export GPS: You can export CSV or KML files for GPS tracking

4: Functional operation area

The functional operation area includes geo-fence, drawing line, line mark, multiple selection ptt call, polygon selection ptt call,distance measurement,etc.

4.1: Geo-fencing

Click "draw fences", input name, click"stop drawing", than can draw some geo-fence on the map interface, all fences can be displayed, than can set all or some users have alarms.
At the same time, you can delete and let some fence into map center, the fence, route line and mark information can be showed

Drawing Geo-fencing

Set alarm users for fences

All users have alarms by default, also can select fence and set some certain users have alarms, and some users not alarm.

Delete or let fence into map center

Import fence

Import local computer fence files and display it on the map.
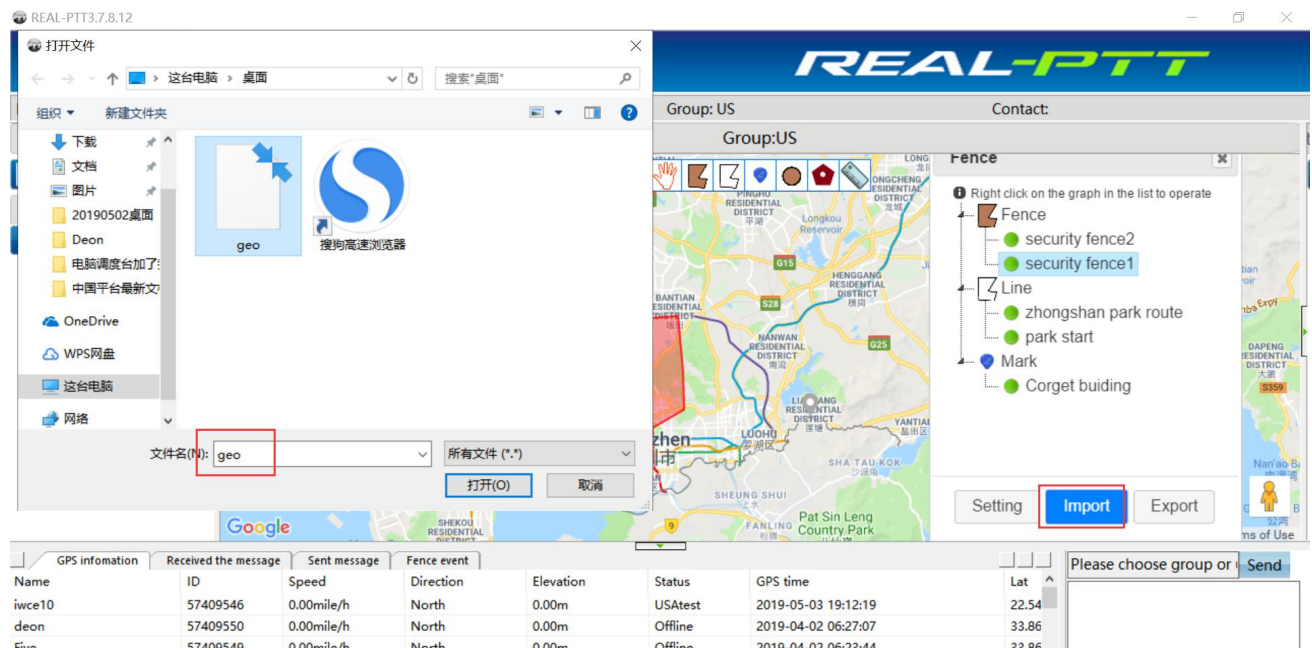
Export fence

Export drawn fences, and save these fences files on your local computer
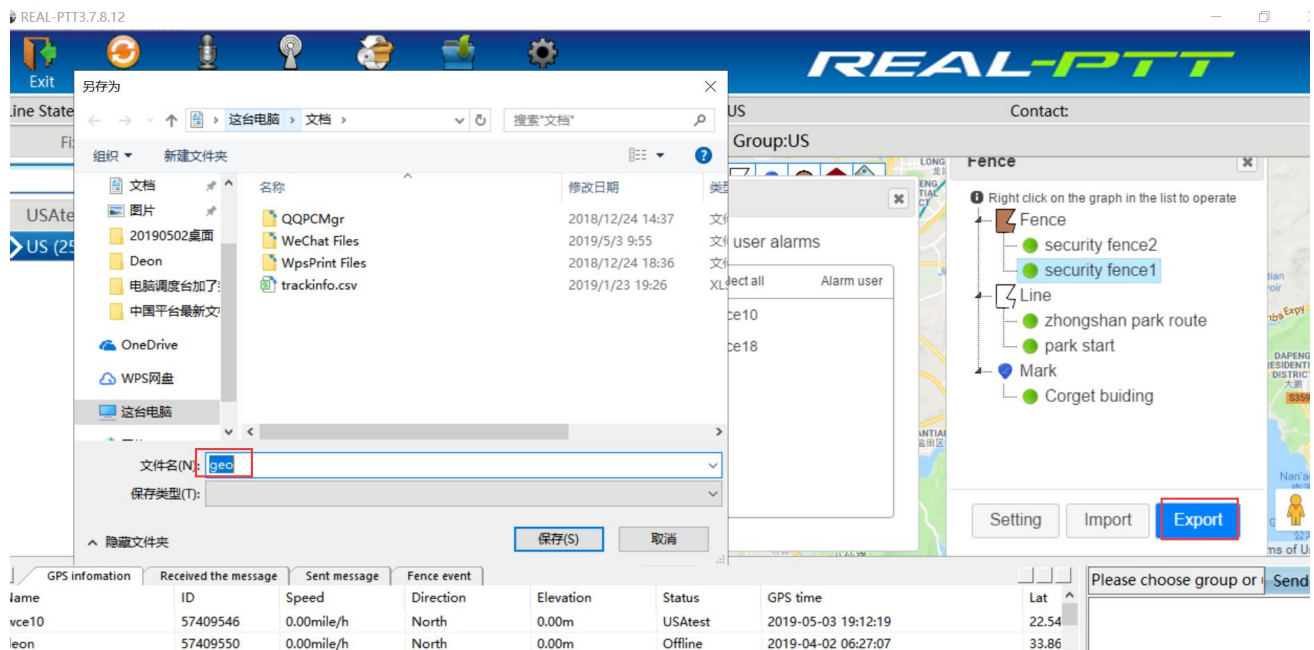
Click fences, the fence, route line and mark information can be showed

When users are entering or out an fences, some out and enter fence event will be displayed in the below. The displayed content includes the user ID, the user name, the event (enter or out), the fence name, the GPS time, longitude and latitude.

4.2: Drawing line

Click "draw line", input name, click "stop drawing", than can draw some line on the map interface, all lines can be displayed. you can delete and let some line into map center
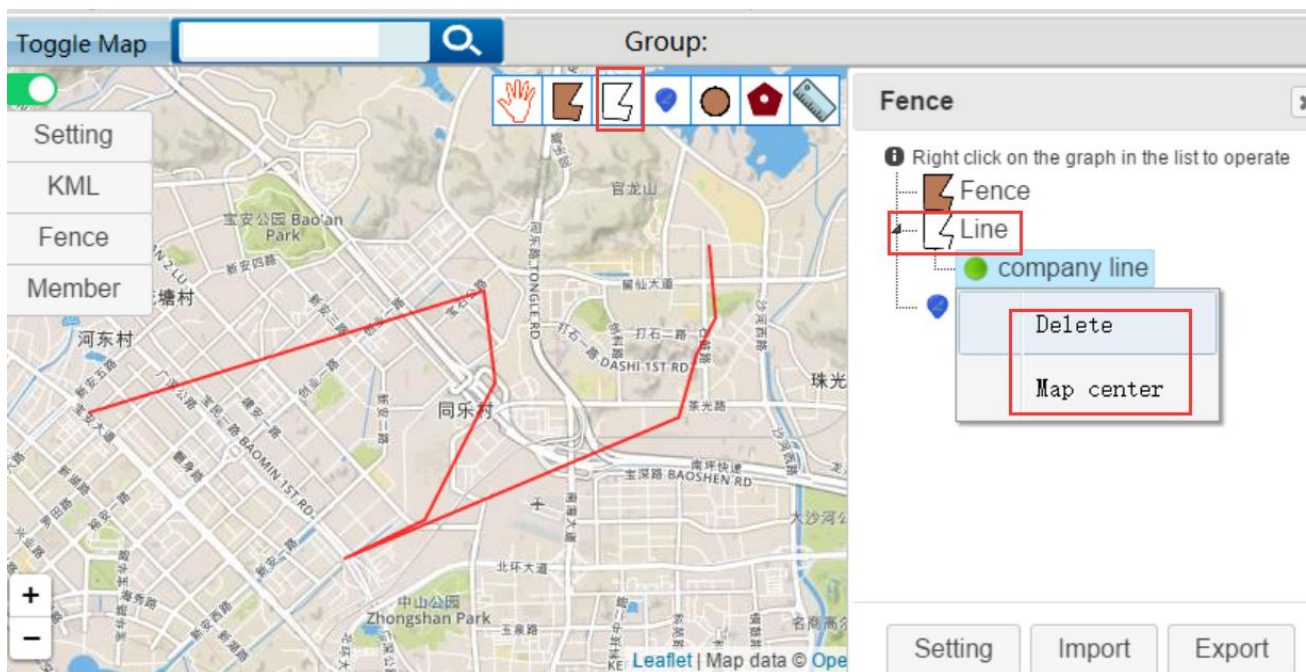
4.3: Drawing mark

Click "mark", input name, click"stop drawing", than can draw some mark on the map interface, all mark can be displayed. you can delete and let some mark into map center.
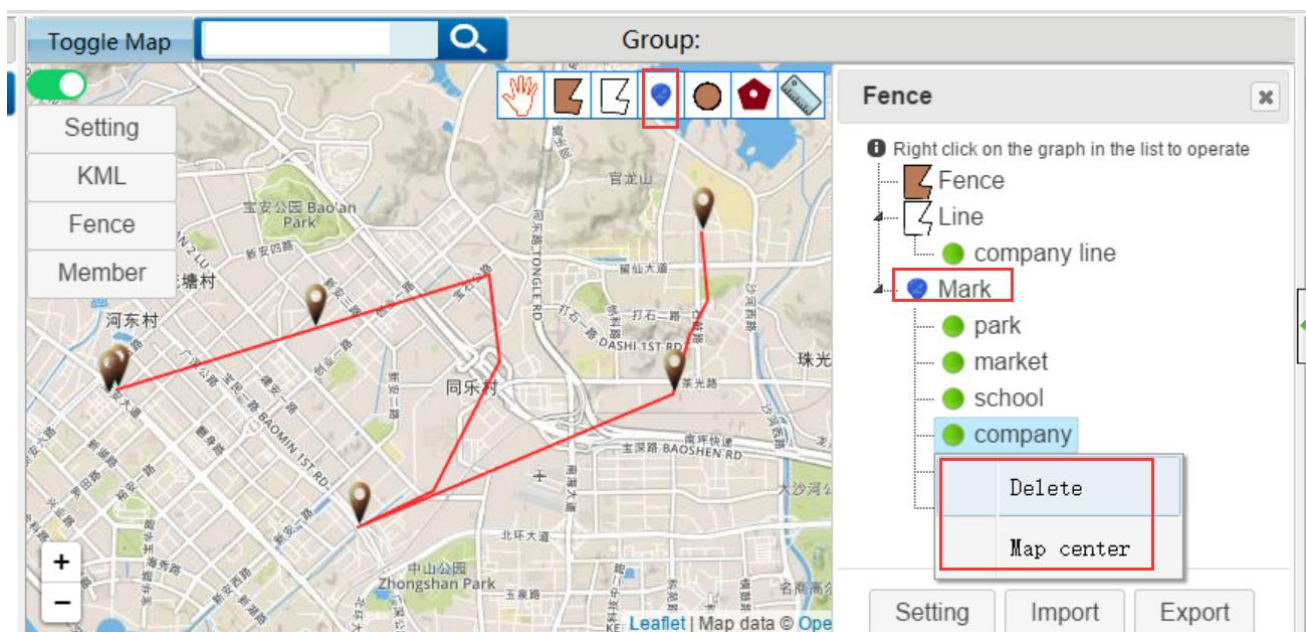
4.4: Multiple selection and polygon selection ptt call

It is used to select a user or some users on the map to create a dynamic group to make calls. Click "multiple selection" or "polygon selection" on the map. After selecting the user, click"PTT Call" to create a dynamic group.
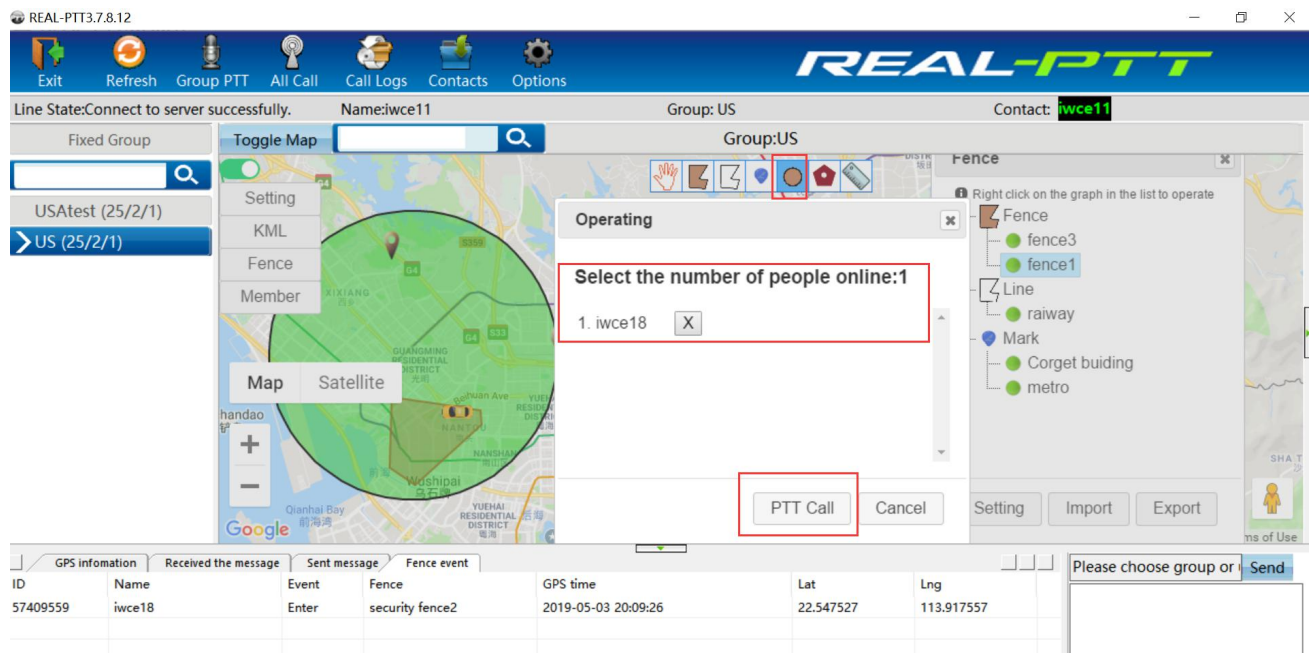
Multiple selection PTT call
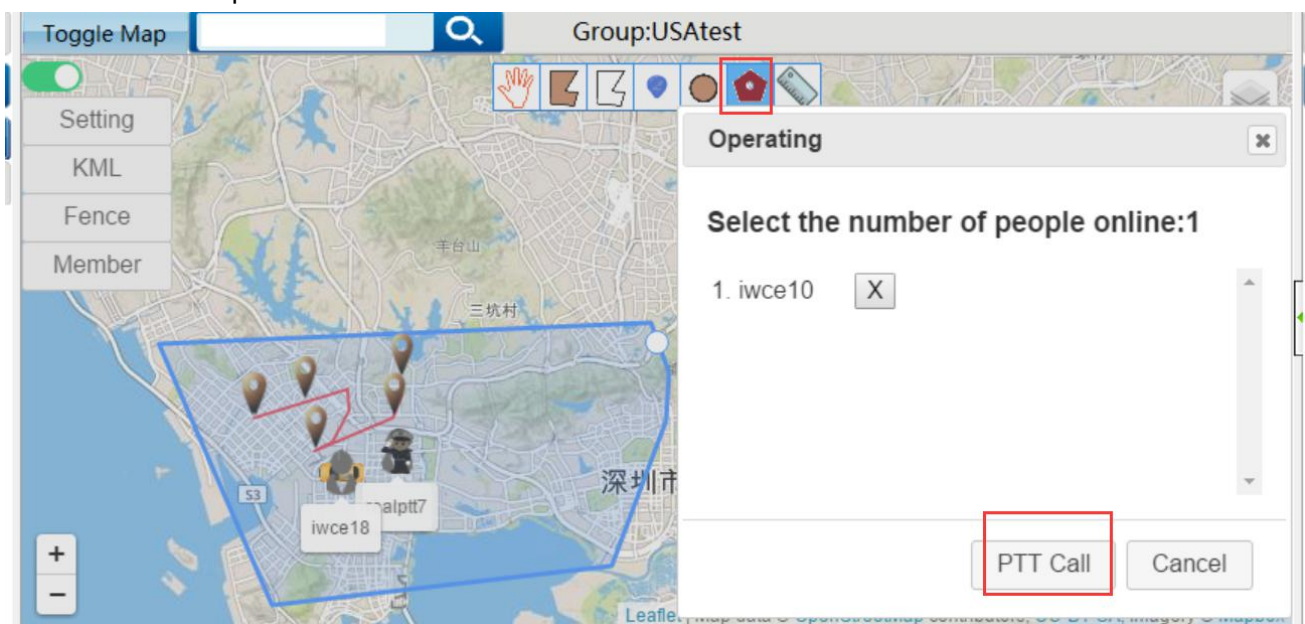
Polygon selection PTT call

4.5: Distance measurement

It is a tool to make straight line measurements on a map
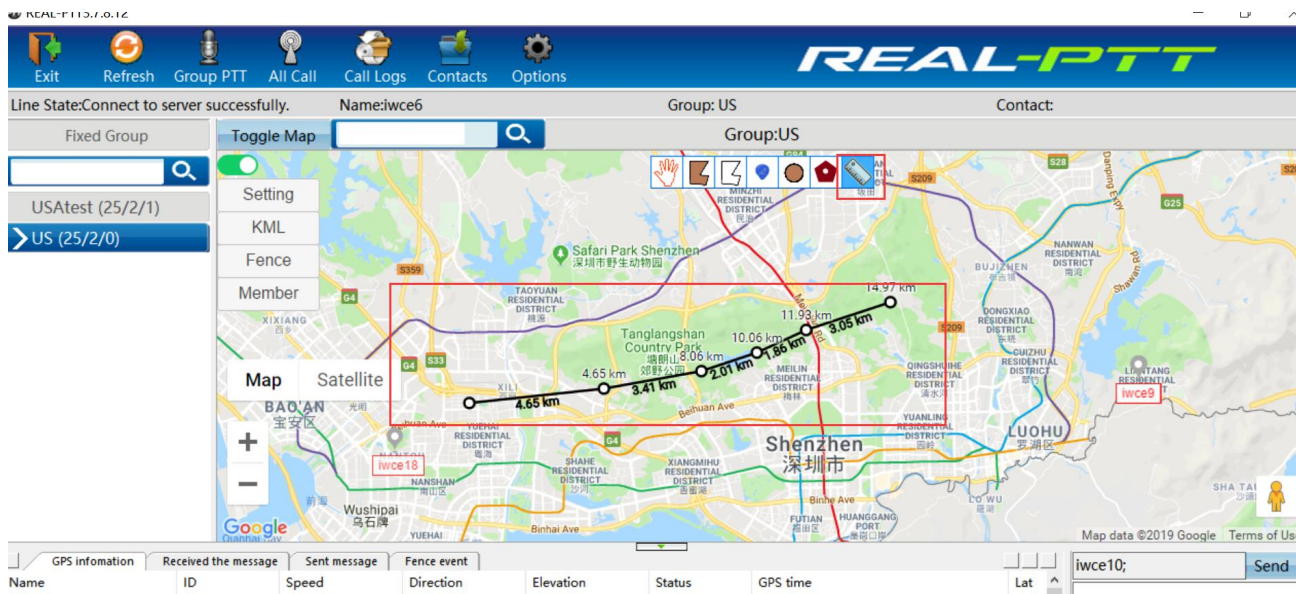
5: Function setting area

5.1: Setting

It include user name show setting, latched calling position setting, beyond the range hint, only one alarm outside the fence,base color setting,location display setting, track speed setting, users icon setting, map display setting.
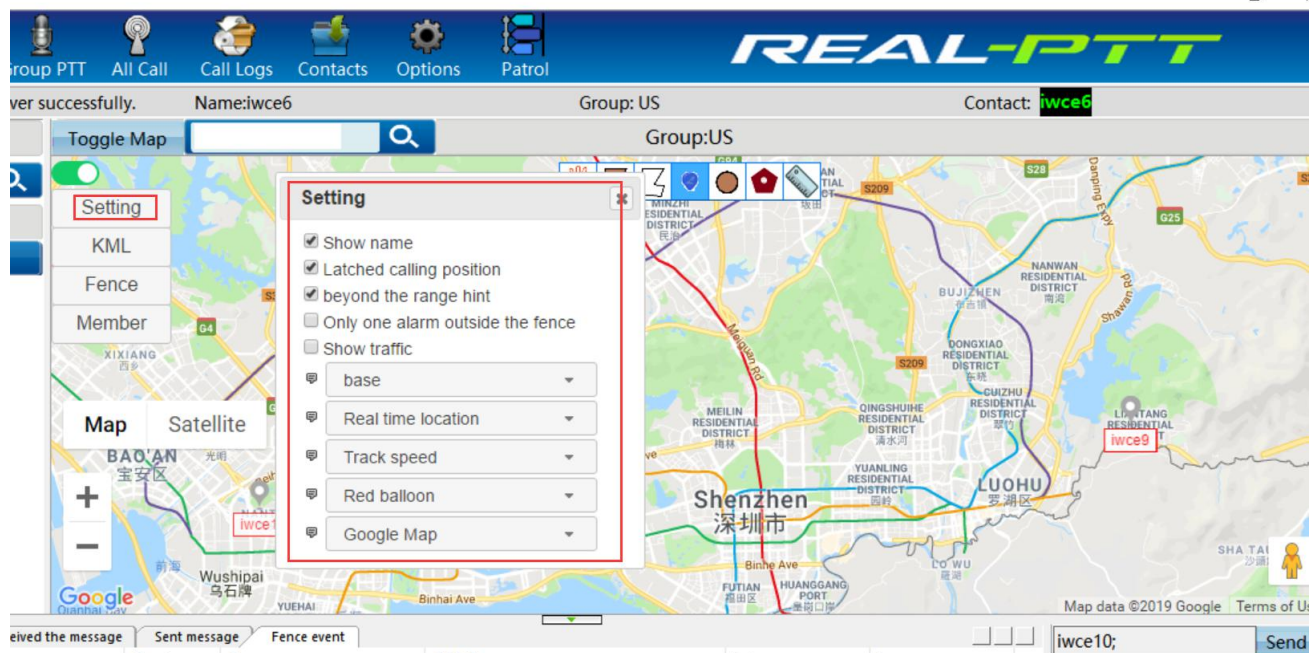
Show name

Select "show name", the location user name will be displayed,don,t select"show name", the location user name will not be displayed, as below
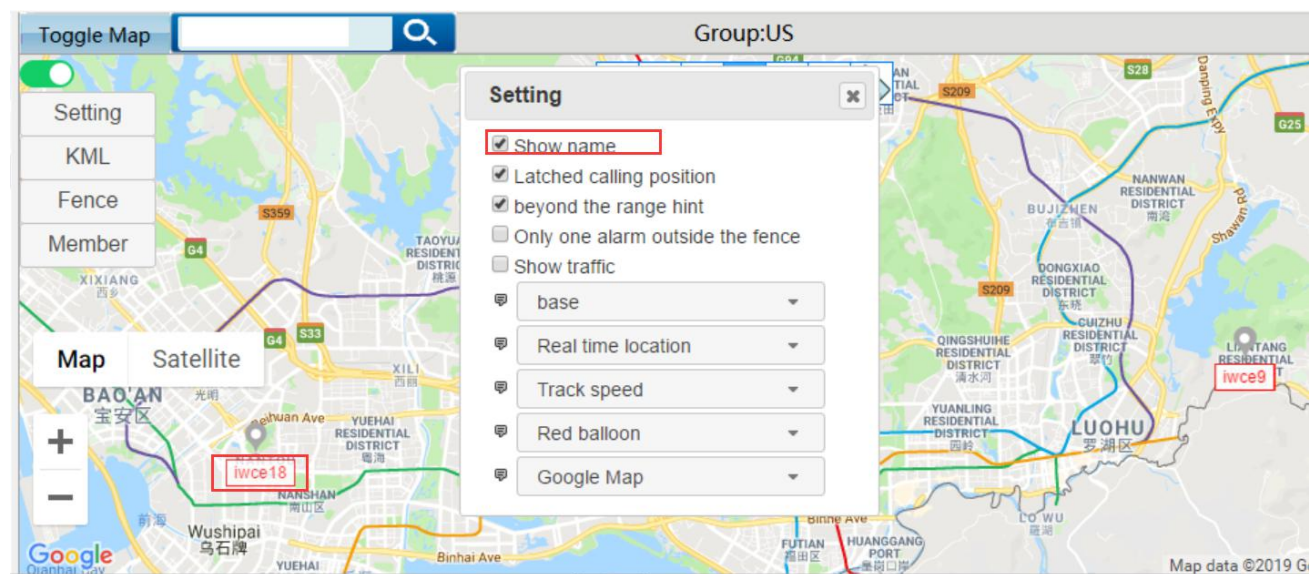
Selecting show name
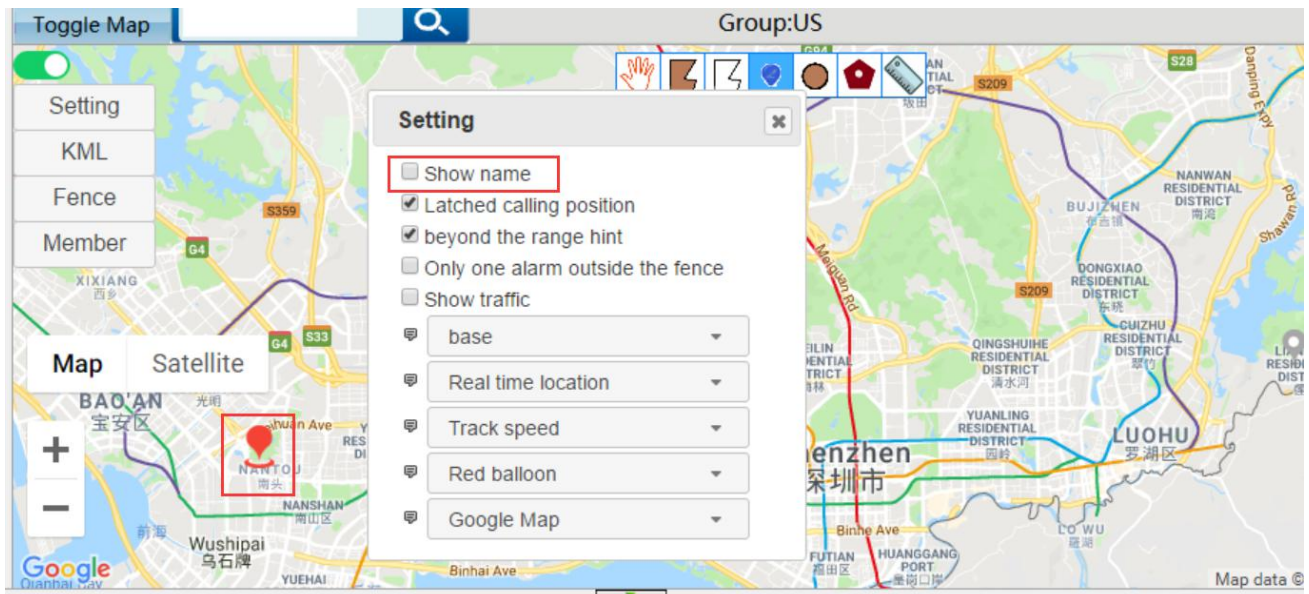
Not selecting show name

Latched calling position

In the map mode, click "Latched calling position",the system can lock the speaker location automatically, and the speaker location will be displayed in the center of the map.As shown below.
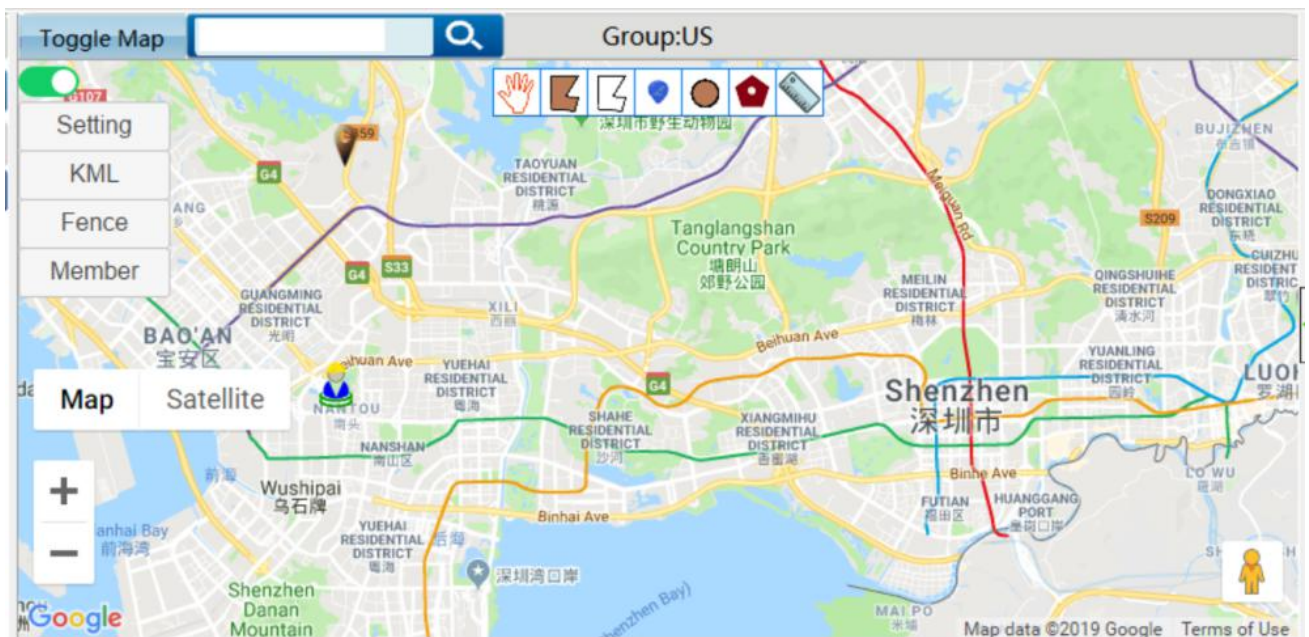
No select"Latched calling position"
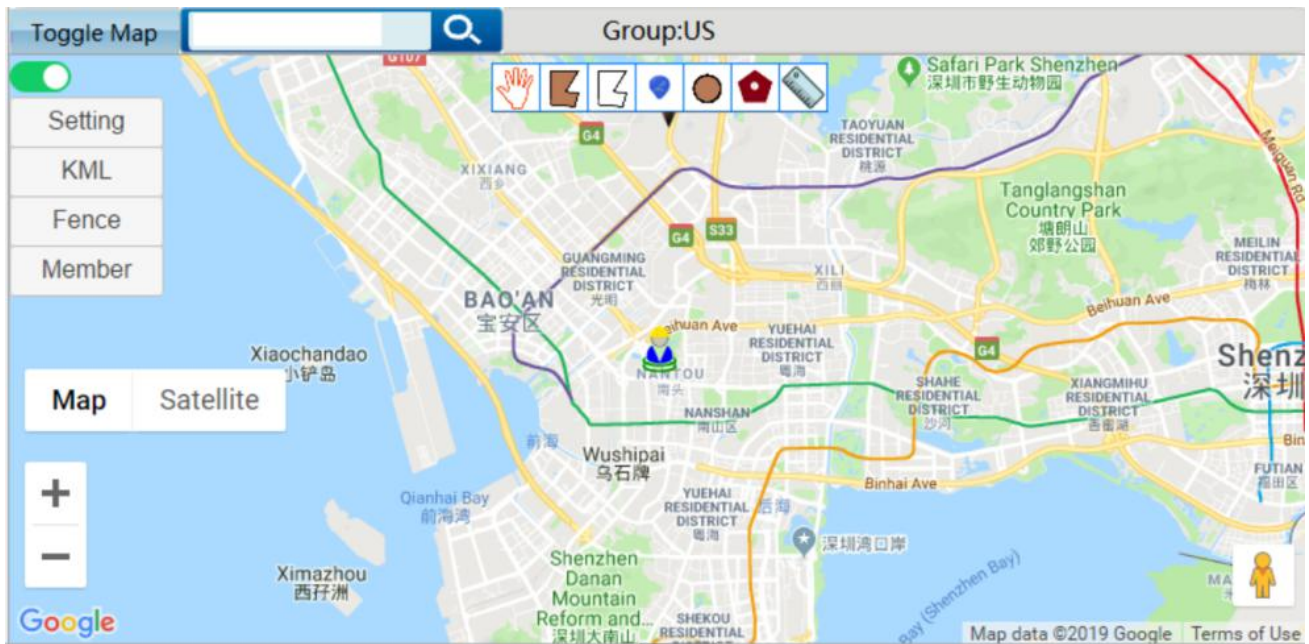
Selecting "Latched calling position"

Beyond the range hint

Select it, there will be alerts after the users location are beyond the fence range.
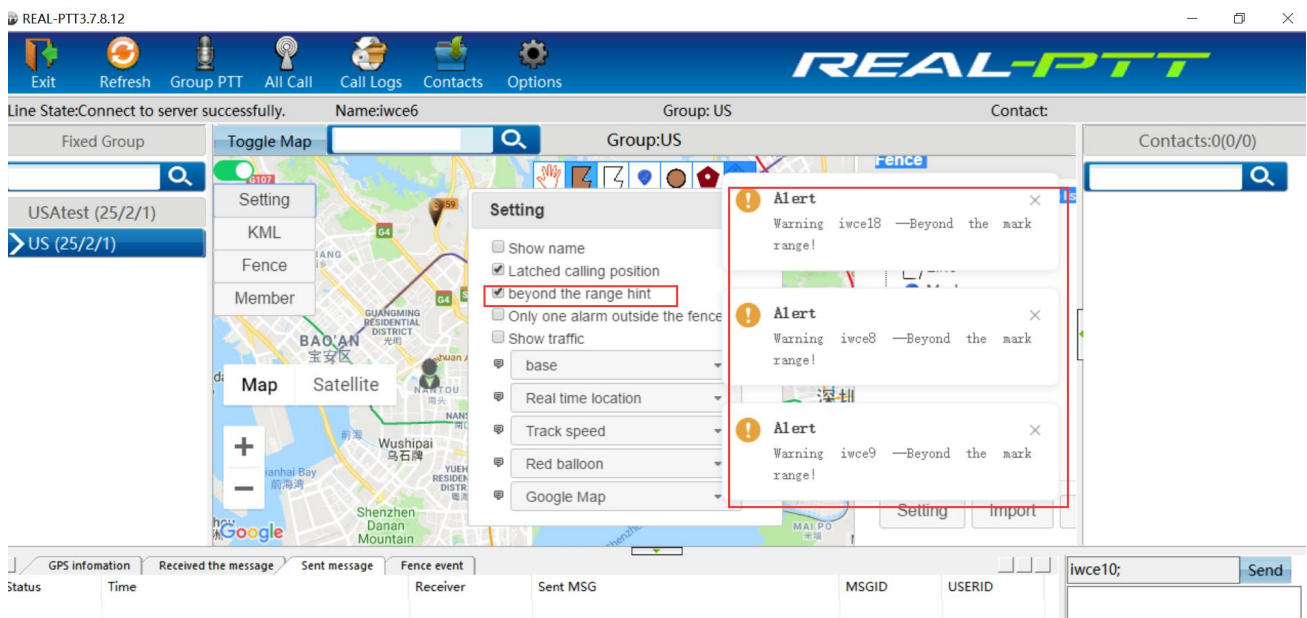
Only one alarm outside the fence

Select it, there will be only an alert after some users location are beyond the fence range

Show traffic

Click traffic map, than it will show road traffic situation.
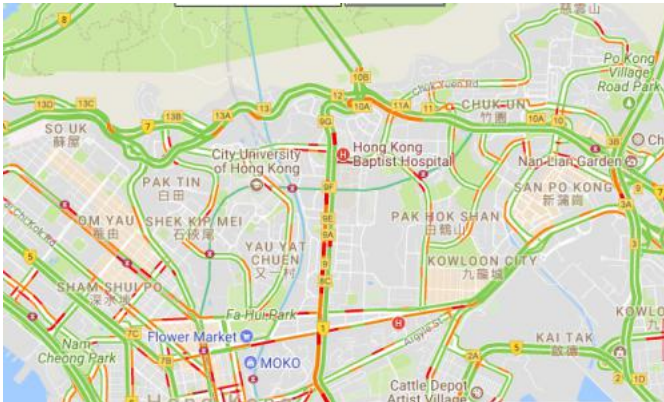
Base

It can select different interface color
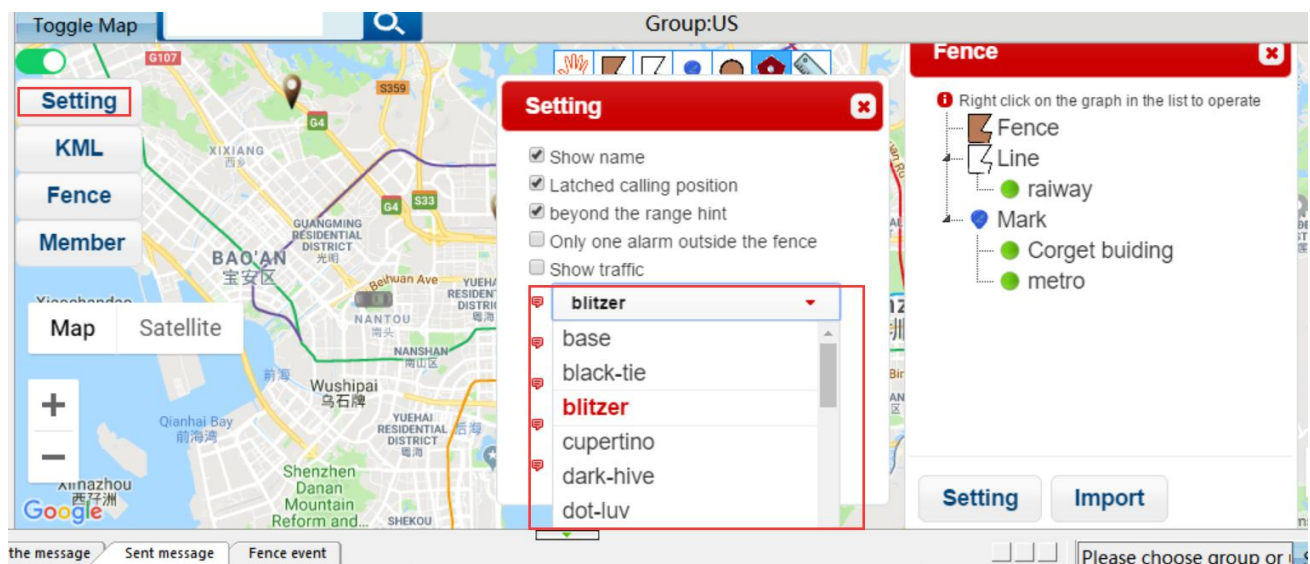
Online users, real time location, last location

Online users: Displays online user location, When the online user has no real time location, it will display last location.

Real time location: Displays users who have location information during 5 minutes

Last location: Displays information for last location of all users.
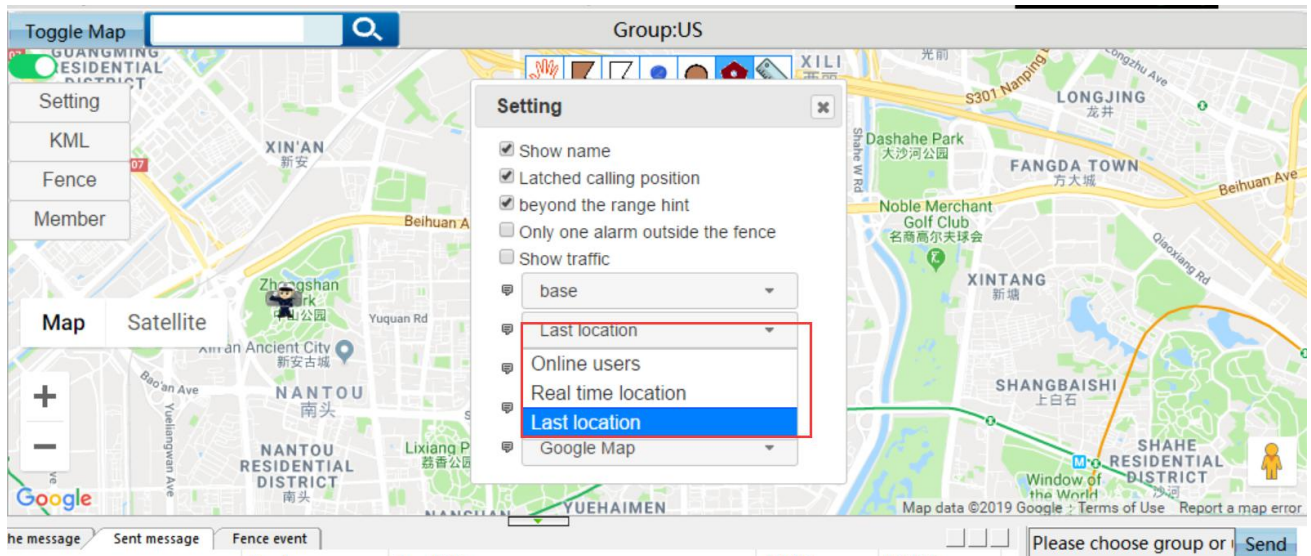
Track speed

Setting the playback speed of the user track. When checking the user gps tracking,track speed can be used to simulate the user's tracking process. There are five kinds of playback track speed.
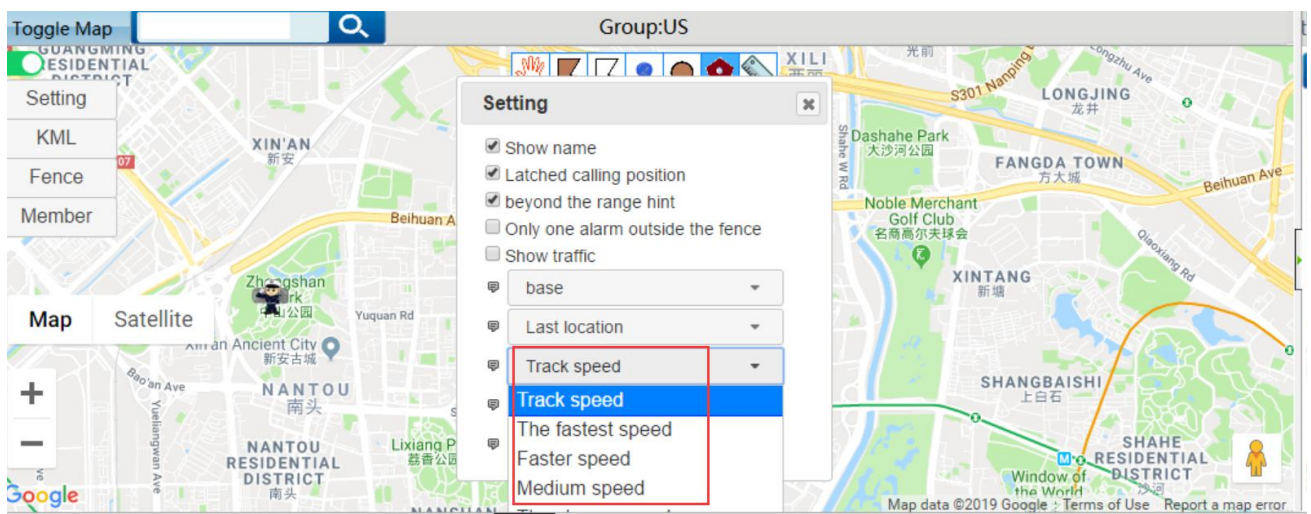
Track speed

Location user display icon

The location user can be set different icon, like yellow cap, small man,blue balloon,red balloon,police, vehicle, select different icon, and the user location icon can be different in the map
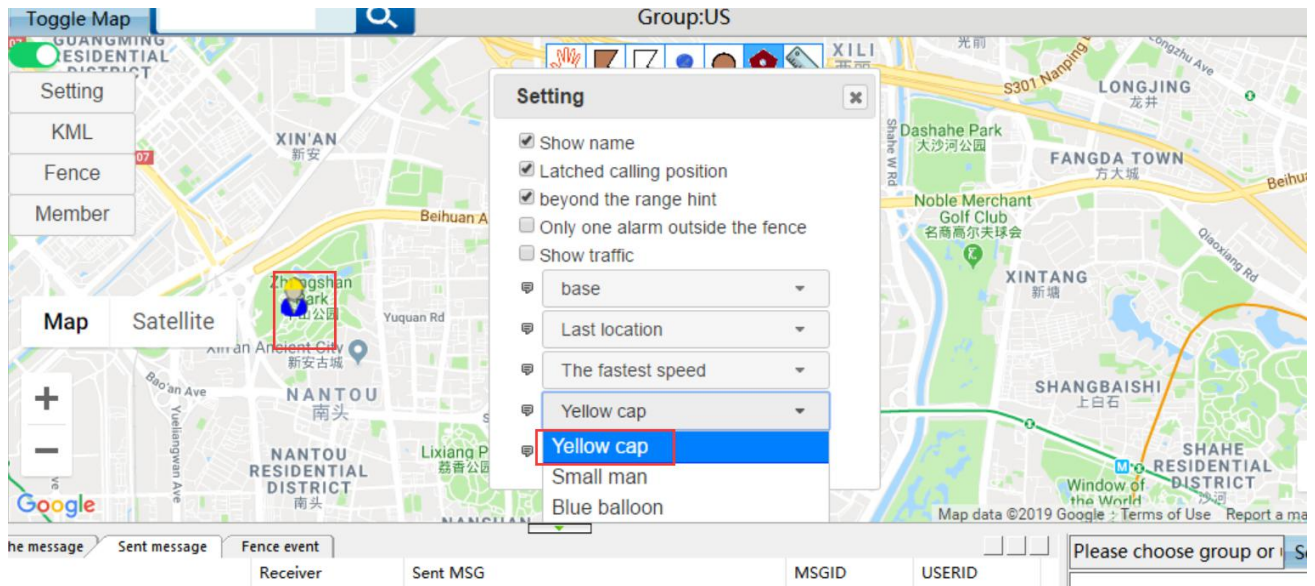
Map mode
There are Google and Map box map.
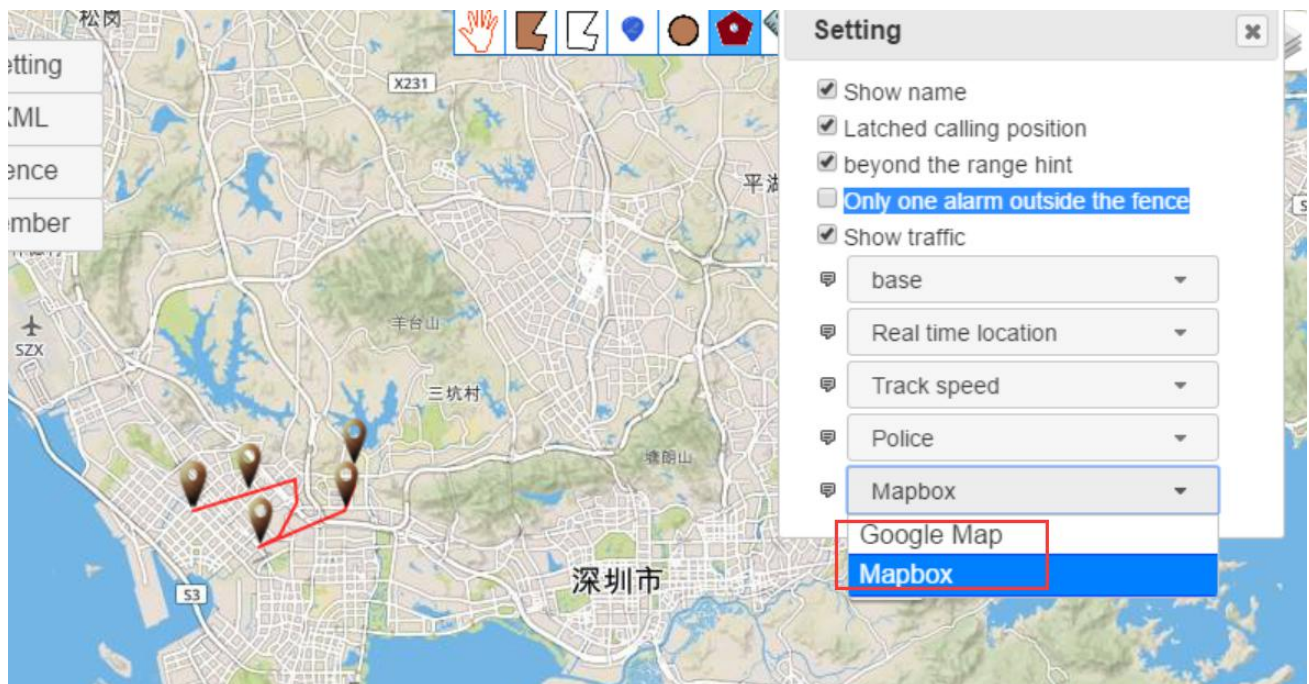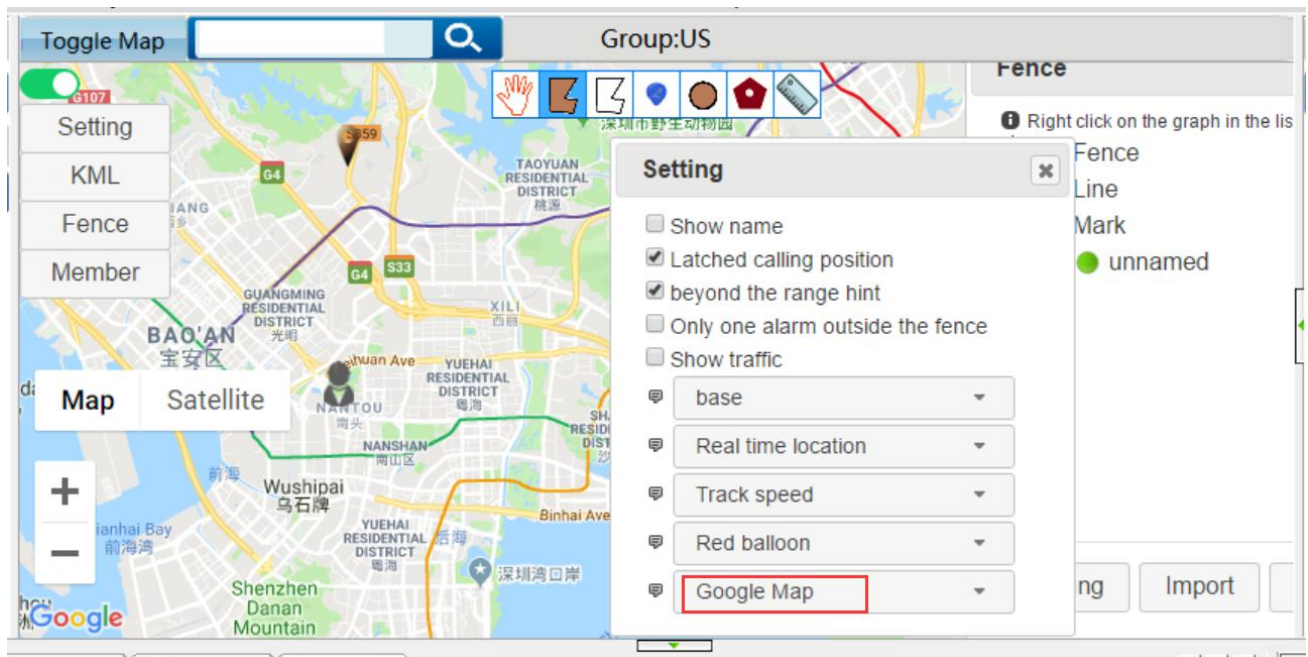
Google map
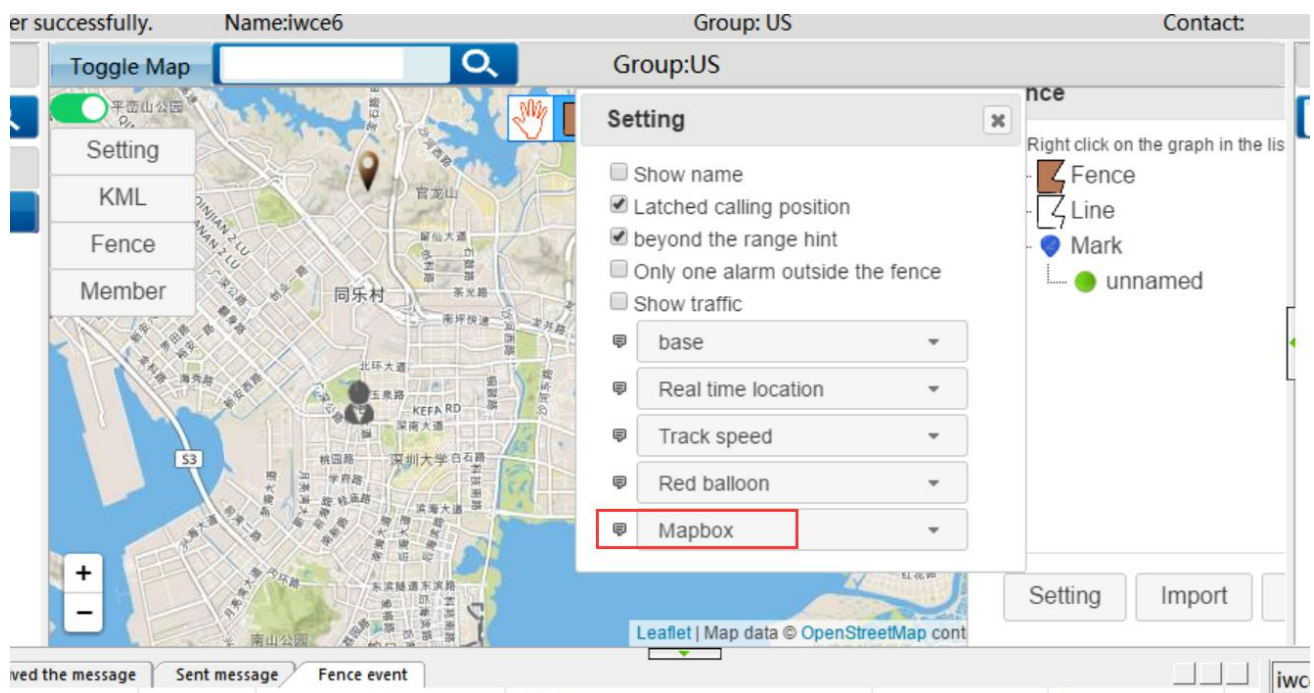
Map box

5.2: KML

KML file is a kind of geographic information file created by Google company to describe and save track information, such as time, place, latitude and longitude, elevation,etc.
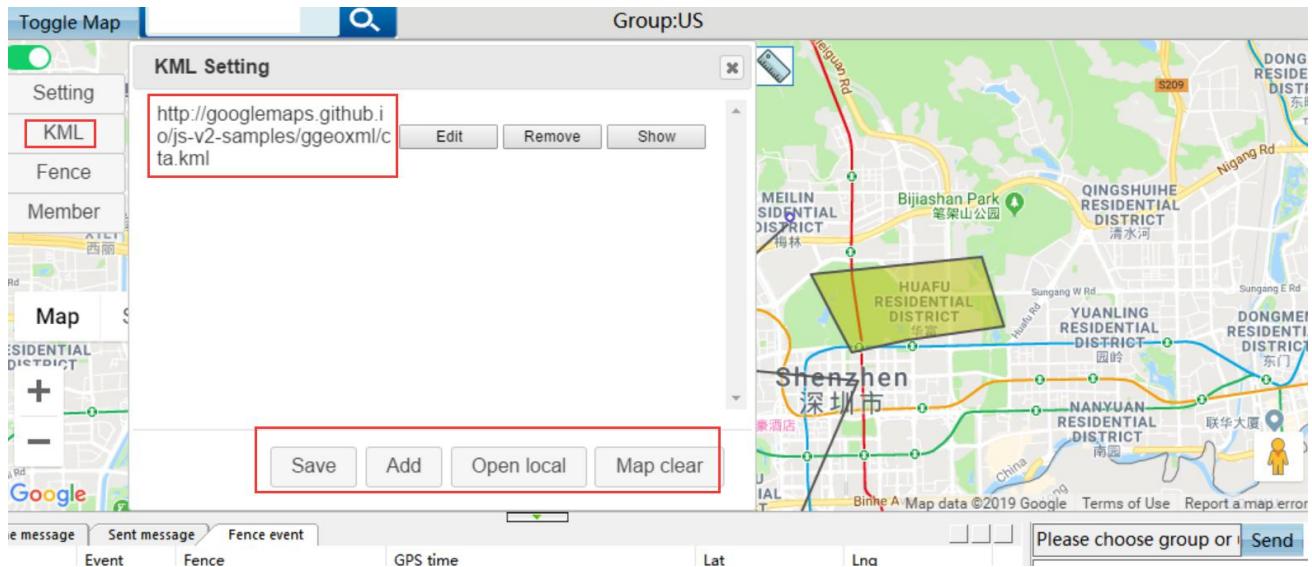
Add: Add a KML link

Open local: select local KML file and import into map

Map Clear: Clearly save the KML mark in the map

Save: Save KML file

Edit: Modify the current KML file

show: Display KML mark in the map interface

5.3: Fence

Click fences, the fence, route line and mark information can be showed
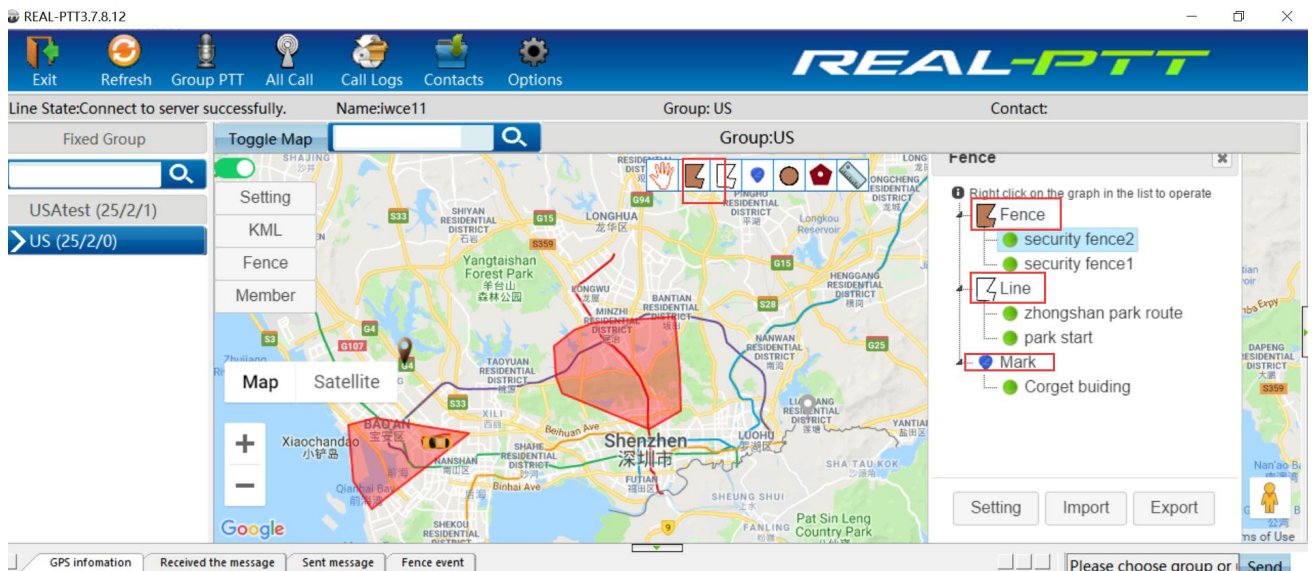
5.4: Member

Each user member can be customized one icon in the map interface. Select one user on the right and click one on the left,than can set the corresponding icon for this user.
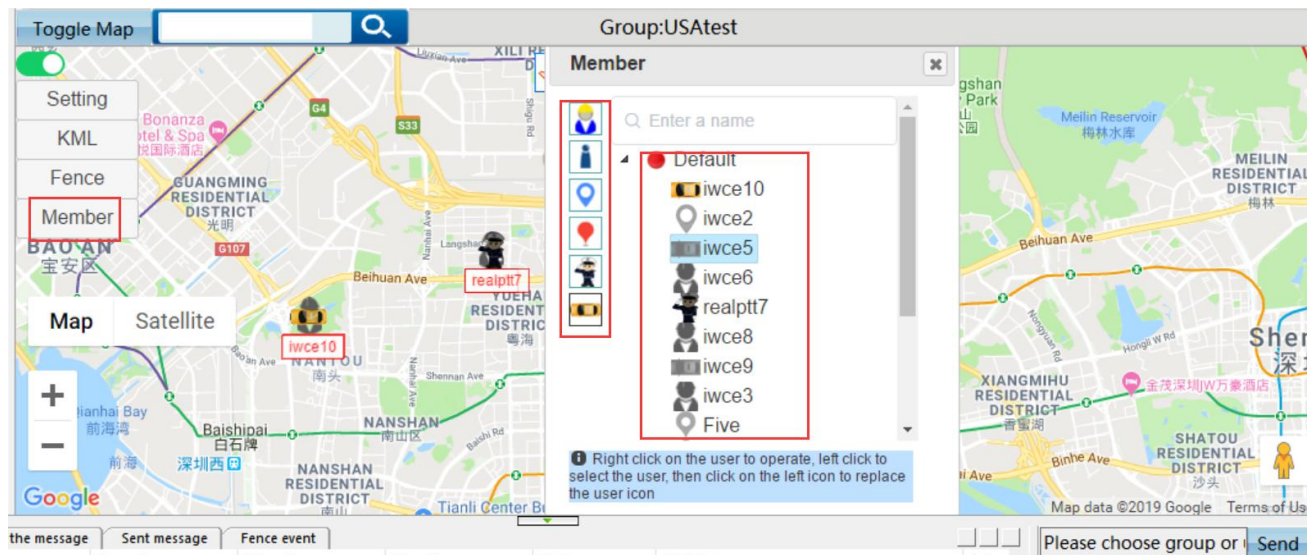
6: GPS, message and fence event display area

6.1: GPS information

Gps information, including user name,user ID, speed, direction, elevation,status, GPS time, and latitude and longitude,etc.

6.2: Sent and received message

Messages sent and received can be viewed in the information display area, it is below.

Status	Time	Receiver	Sent MSG		MSGID	USERID
25-0	5-3 17:56:32	US:Group	SOS		4	3017
1-0	5-3 17:56:26	iwce10	SOS		3	57409546
0-1	5-3 17:56:20	iwce10	Have a meeting		2	57409546
25-0	5-3 17:55:45	US:Group	Hello, are you ok?		1	3017

iwce10; Send
SOS

6.3: Fence event

A fence event is a record for some user entering or out an fence after adding some fence. The displayed content includes the user ID, the user name, the event (enter or out), the fence name, the GPS time, longitude and latitude.

ID	Name	Event	Fence	GPS time	Lat	Lng
57409559	iwce18	Enter	fence2	2019-05-04 12:15:57	22.547518	113.917587
57409559	iwce18	Out		2019-05-04 11:05:16	22.547522	113.917564
57409559	iwce18	Enter	security fence2	2019-05-03 20:09:26	22.547527	113.917557

7: SOS

When the user send SOS , the dispatcher will receive the user sos information and display the user's location on the map interface. The sos information can be viewed in the received message area.

REAL-PTT3.7.8.12

Exit   Refresh   Group PTT   All Call   Call Logs   Contacts   Options

Line State:Connect to server successfully.   Name:iwce11   Group: USAtest   Contact:

Fixed Group

Toggle Map   Group:USAtest

USAtest (25/2/1)
US (25/2/1)

Setting
KML
Fence
Member

Alarm   ×

iwce18 : SOS!

Display on the map

iwce18

Leaflet | Map data © OpenStreetMap contributors, CC-BY-SA, Imagery © Mapbo

Status	Time	sender	Received MSG	MSGID	USERID
*	5-4 15:1:3	iwce18	SOS;iwce18	0	57409559
*	5-4 15:1:3	iwce18	sos	0	57409559