MedTouch/MedSight

Operator’s Manual

(Android Version)

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1 System Overview

In the clinical department, MedTouch is mainly used to connect with the ultrasound device to operate the device remotely, view patient information and use iScanHelper.

The patient can view their exam information, images etc. through MedSight after the physician sending the patient information to it.

2 Environment

2.1 Installing/ Uninstalling

2.1.1 Configuration

MedTouch/ MedSight can be installed on mobile device meeting the following requirements.

Configuration	
Operating system	Android system (version 4.0.0 and later) only.
Screen size	Larger than 4.0 inch
Recommended Configuration	
Memory:	Larger than 512 MB
Free space	Larger than 1 G

2.1.2 Obtaining Installation App

Download MedTouch/ MedSight installation app on (Google) App store for mobile device, as shown in figure below.

MedTouch

MedSight

2.1.3 Installing

1. Open the mobile device, click and start the MedTouch/ MedSight installing app.
2. Click [Install] to install the MedTouch/MedSight.

NOTE: If both MedSight and MedTouch are installed on the same mobile device, only one of them is allowed to be connected with an ultrasound device, please refer to “2.4 Connecting MedTouch/MedSight with Ultrasound device” for detailed connecting method.

2.1.4 Uninstalling

You can uninstall the MedTouch/ MedSight app through the uninstalling function of the mobile device or by a third-part software.

2.2 Network Buildup

2.2.1 Recommended Network Connection Type

Connect the MedTouch/ MedSight mobile device and the ultrasound device with the wireless router into the wireless network (same network segment).

Note: if there is no W-LAN adapter configured in the ultrasound device, you need connect the ultrasound device and the wireless router (port LAN) with the network cable.

It's recommended that the wireless router you purchased can support:

- Wireless LAN
- DHCP address pool configuration
- 11N wireless technics

For a better wireless LAN transmission effect, please take the following settings:

- SSID>80% with stable WLAN network;
- Router setting:
  - Wireless standard 802.11 n
  - Maximum transmission speed ≥300 M
  - Use AP (access point) setting;
  - Number of the devices connected to the same router ≤5.

2.2.2 Network Configuration

There are two configuration methods for the W-LAN network:

- Connect the MedTouch/ MedSight mobile device and the ultrasound device with the wireless router into the wireless network (same network segment).
- Connect the MedTouch/ MedSight mobile device into the W-LAN network with the W-LAN adapter configured with the ultrasound device.

2.2.2.1 Wireless Router Configuration

For details, please refer to router accompanying manual by the manufacturer. Take the configuration of TP-LINK as an example.

1. Enter the configuration interface of the router.

   Type IP address of the router in the Internet Explorer address bar, and then enter the account, the password to log into the configuration interface of the router. Usually, the account and the password are written on the device or in the router accompanying manual guide.

2. Start wireless network

   Select [Wireless Settings] on the configuration interface of the router, and input SSID name, which is the name of the wireless network that the user joined.

   Select [Enable SSID Broadcast] and click [Save].

3. Security settings
   - No wireless network password

     Select [Disable Security] and click [Save], and no password is needed when a user joining this network.
   - Set up wireless network password

     Open wireless security option and set up the encryption and the password.Set up wireless password and click [Save], and the password is needed when joining network.

4. Start DHCP service
   a) Start DHCP service

      Set the status of DHCP to enable and click [Save].

   b) Set the range of DHCP address pool

      The number of DHCP address pool can be adjusted according to actual situation.

5. Restart the router

   Restart the router to enable the configuration.

2.2.2.2 W-LAN Network Configuration on Ultrasound System

1. Connect the ultrasound device to a W-LAN network referring to the steps in chapter Appendix Wireless LAN in Operator's Manual [Basic Volume].

   a) Click icon on task bar of the ultrasound device to open the Wireless Network Connection manager.

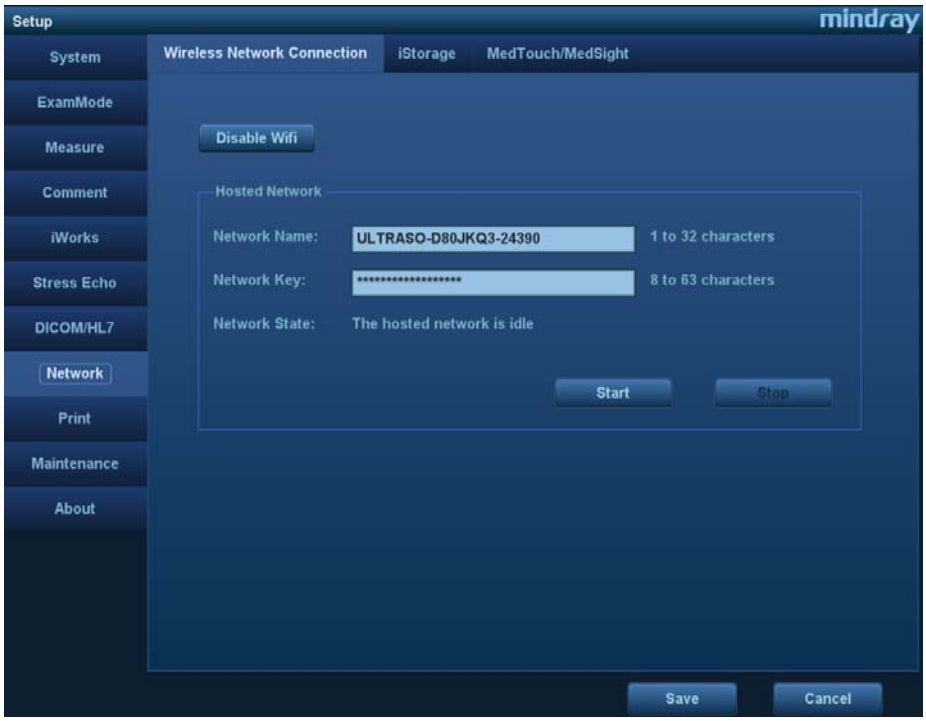
   b) Double-click the W-LAN network or select and click [Connect].

      Enter password and click [Connect] if the network you connecting is encrypted. You can select to show or hide the password characters.

c) The W-LAN network icon displays when the system is trying to connect and it changes to or when it's connected successfully. Click [Close] to close the Wireless Network Connection manager.

d) Click icon on the task bar to confirm if the network is connected.

2. Press <F10> on the ultrasound device to open Preset screen and click [Network]-> [Wireless Network Connection], as shown in figure below.



3. Check if the W-LAN is enabled: button [Disable Wifi] should be displayed.
4. Enter the name and password for this hotspot in the Hosted Network box.
5. Click [Start] to enable the function.
6. Open MedTouch/ MedSight mobile device to search and connect to this network.

2.3 Information Display of Wireless Network

It is recommended to notify the user of the following information by posting signs:

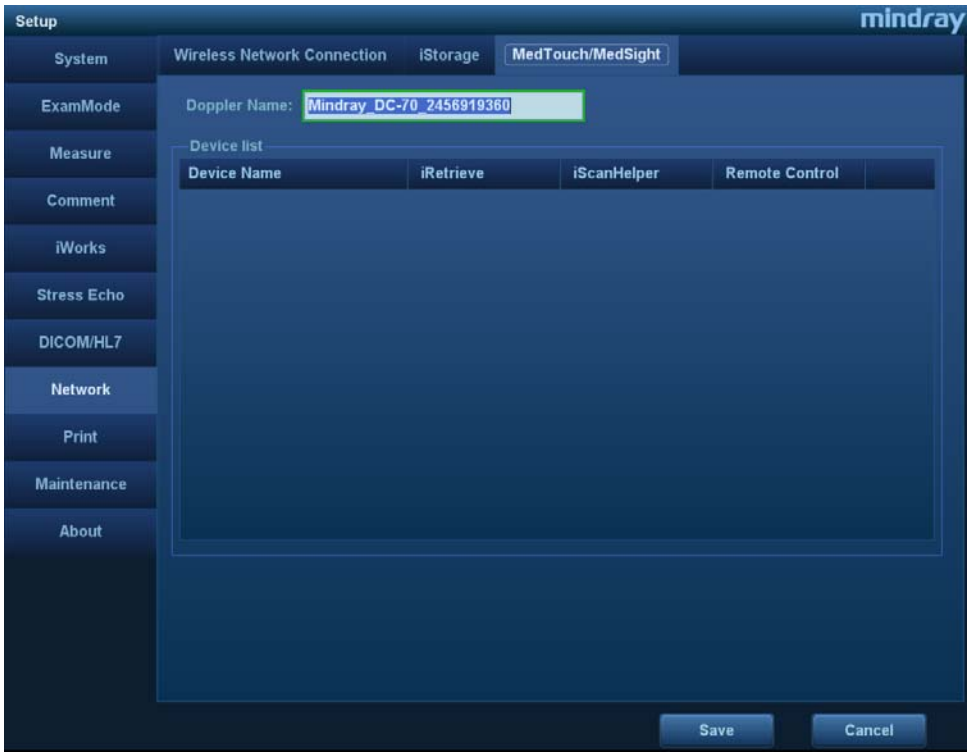
- Wireless router name, refers to the SSID name configured by wireless router
- Wireless router password
- Notify the patient to disable the network after using to avoid interfering with the using of other patients. For details, please refer to 4.2.2.3 Disconnecting Network after Receiving.

2.4 Connecting MedTouch/MedSight with Ultrasound device

NOTE:	Connect the MedTouch/ MedSight mobile device and the ultrasound device with the same wireless router into the same network segment in a wireless network, otherwise, the connecting between MedTouch/ MedSight and the ultrasound device will be failed.

1. Connect the ultrasound device into a Wireless network referring to steps in “2.2.2.2 W-LAN Network Configuration on Ultrasound System”.
2. Connect the mobile device to the wireless network (in the same network segment of the ultrasound device).
3. View the name of the ultrasound device.
   - Check the name of MedTouch/MedSight.

     Press <F10> on ultrasound device to enter Preset-> [Network]-> [MedTouch/MedSight], the name of ultrasound device displays in [Doppler Name].



- Edit the name of MedTouch/MedSight.

  You can edit the device name in [Machine Name] box and click [Save].

NOTE:	Make sure there won't be another ultrasound device with the same name in this segment; otherwise the MedTouch/MedSight can not be used after connecting with the ultrasound device.

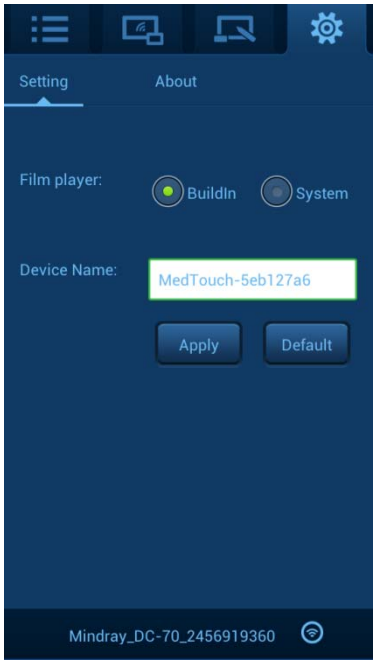
4. View the name of MedTouch/MedSight.
   - Check the name of MedTouch/MedSight.

     Click

or

on mobile device to open the MedTouch/MedSight.

     Click to view the name of MedTouch/MedSight.



- Edit the name of MedTouch/MedSight.

  You can edit the name in [Device name] box and click [Apply] to change the MedTouch/MedSight name.

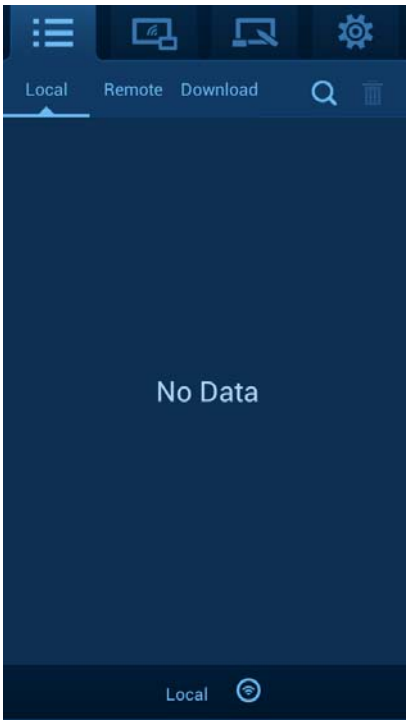
NOTE: If there is another mobile device with the same MedTouch/MedSight name in this network segment, sending patient data to MedTouch/MedSight will be failed with the following warning.

- MedTouch/MedSight will be restored to default name.

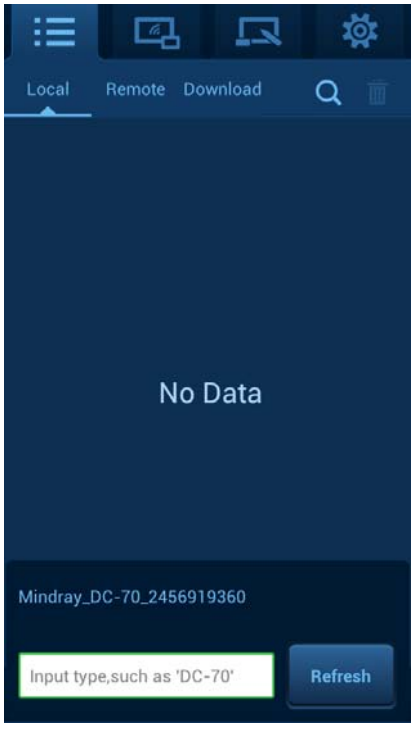
  Click [Default] to restore the MedTouch/MedSight name to factory default.

5. Connect MedTouch/MedSight with Ultrasound device.

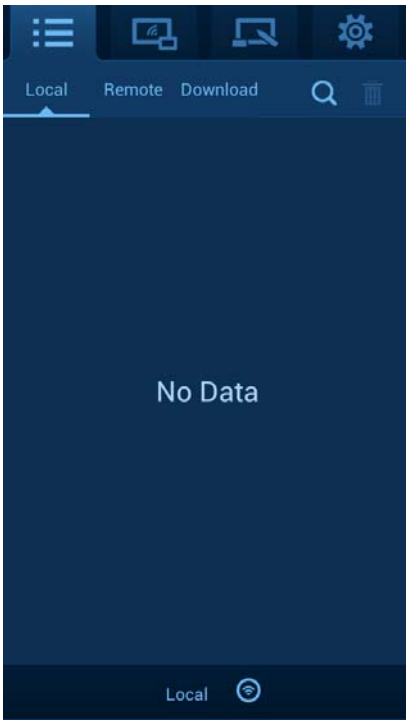
a) Click MedSight or MedTouch on mobile device to open the MedTouch/MedSight.



b) Click to enter patient management and click on the lower screen. Enter ultrasound device model, click [Refresh] to show the ultrasound device. As shown in figure below.



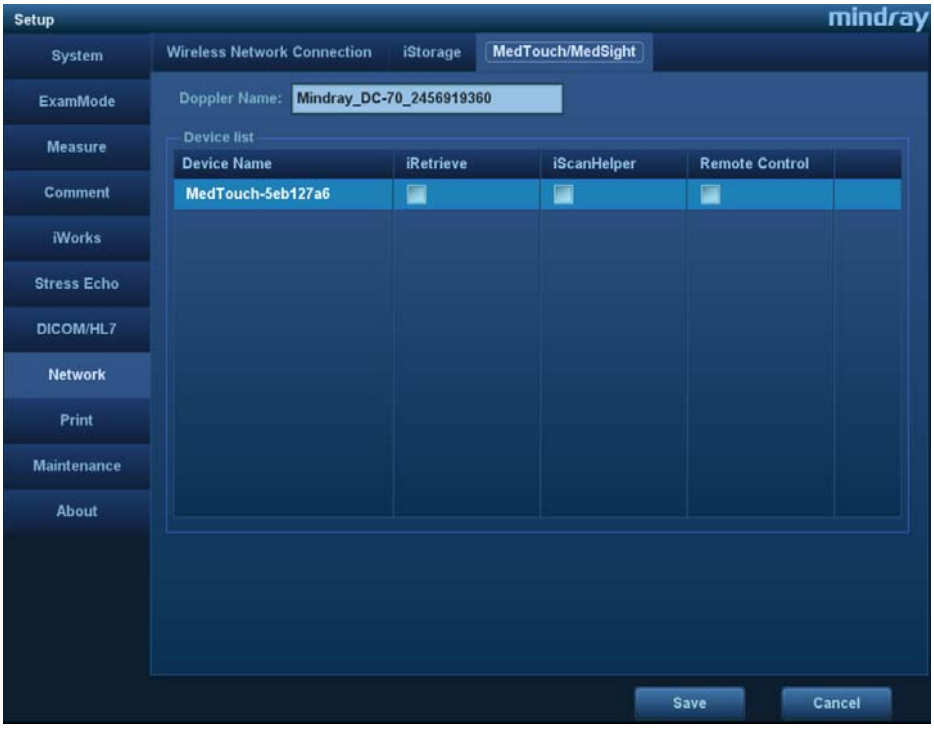
c) Select the desired ultrasound device to connect and the device will be displayed on the left of icon if it's connected successfully.



Click to enter remote control or click to enter iScanHelper to connect the desired ultrasound device as the same operation above.

6. Set authority for MedTouch/MedSight.

   a) Press <F10> on ultrasound device to enter Preset-> [Network]-> [MedTouch/MedSight] and the connected MedTouch/MedSight devices are displayed in [Device List].



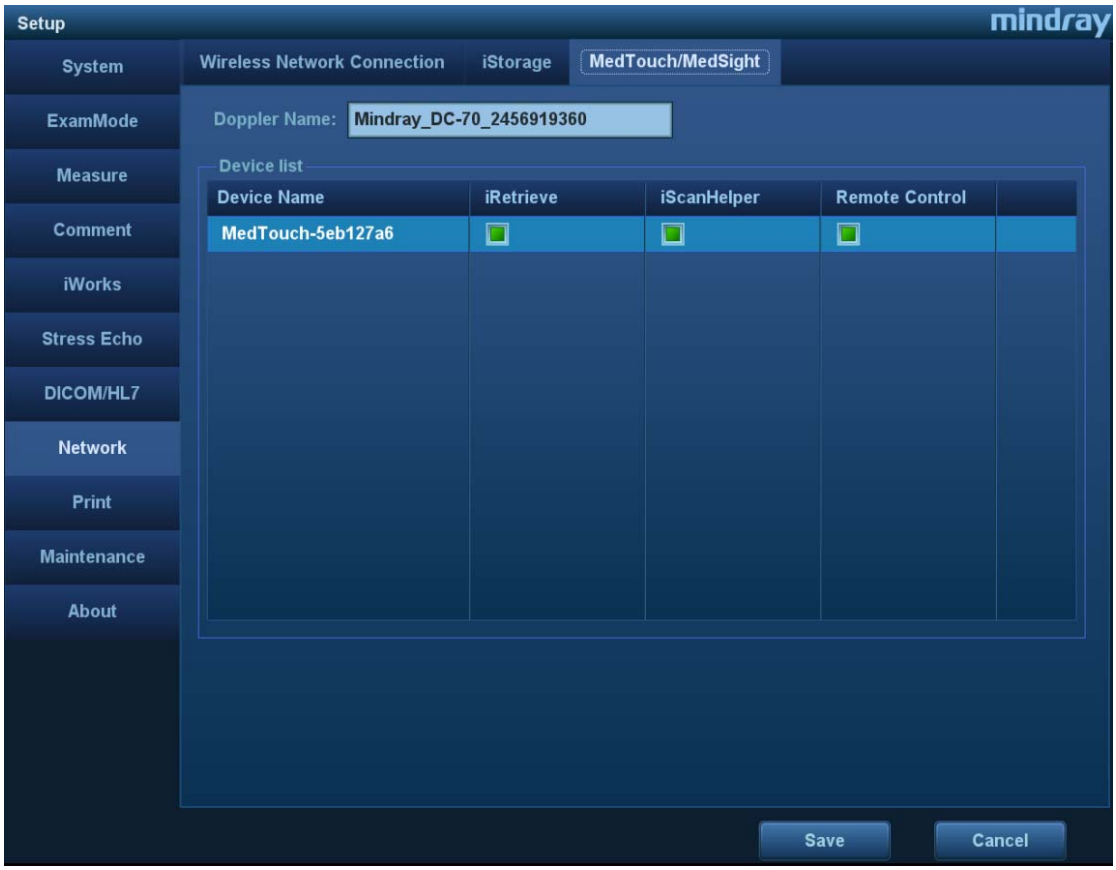
Authority descriptions:

Authority	Operations
iRetrieve	If selected, you can view remotely or download patient data on ultrasound device through MedTouch/MedSight, refer to “3.3 Patient Data Management” for detailed operations.
iScanHelper	If selected, you can view iScanHelper on ultrasound device remotely through MedTouch, refer to “3.5 iScanHelper” for detailed operations.
Remote Control	If selected, you can control the ultrasound device remotely through MedTouch, refer to “3.4 Remote control” for detailed operations.

NOTE:

- MedSight is allowed to select iRetrieve only.
- Settings in this table are not belonged to Factory Default data. Restoring factory will not change settings in this table.

b) Set up authority for desired MedTouch/MedSight device(s).



7. After building the network environment, MedTouch/MedSight can communicate with the ultrasound device, please refer to 3 MedTouch and 4 MedSight for detailed operations.

2.5 Language Setting

Language used in MedTouch/MedSight depends on the system language of the mobile device or the ultrasound device.

MedTouch/MedSight version 1.0 supports English and Chinese only.

2.5.1 Setting Language of Mobile Device

MedTouch/MedSight displays in system language of the mobile device when no ultrasound device is connected. For the language settings of the motile device, please refer to the manual provided by the manufacturer.

2.5.2 Setting Language of Ultrasound Device

After connecting with the ultrasound device, patient data and iScanHelper in tab and are displayed in language that is the system language of ultrasound device. Please refer to the Operator's Manual [Basic Volume] for language setting of the ultrasound device.

Note: Remote Control button in tab in MedTouch is always displayed in English.

2.6 Exiting MedTouch/MedSight

You can exit MedTouch/MedSight by exiting the app on mobile device.

Note: if you exit the MedTouch/MedSight screen only, it may still running in background.

3 MedTouch

MedTouch is mainly used by the doctor to help them operate remotely the ultrasound device, view patient information and use iScanHelper etc..

3.1 Installing MedTouch

Install the MedTouch by downloading the installing app from the App store on mobile device, please refer to “2.1 Installing/ Uninstalling” for detailed information.

3.2 Connecting Ultrasound Device

MedTouch should be connect with ultrasound device and be authorized, please refer to “2.4 Connecting MedTouch/MedSight with Ultrasound device” for detailed information.

3.3 Patient Data Management

MedTouch supports viewing, downloading and receiving remotely the exam data on ultrasound device.

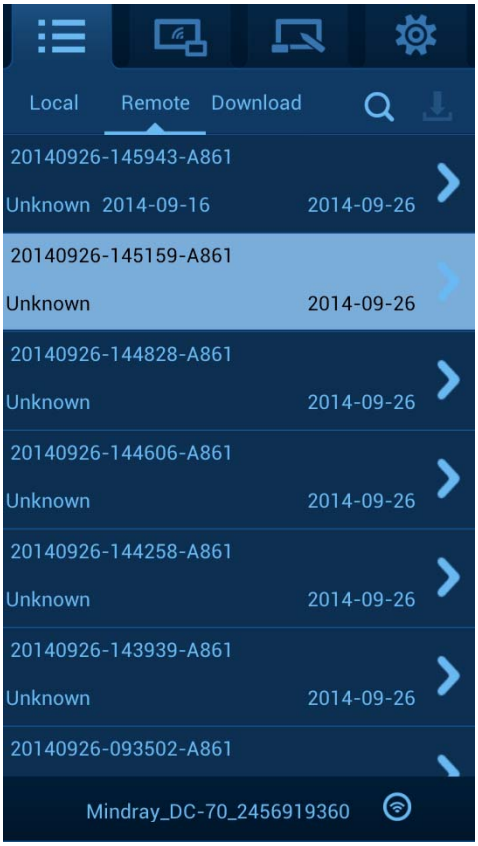
During downloading or receiving patient data, the MedTouch will be running with other application (such as other App, incoming call, message, earphone, charging, data cable) at the same time.

3.3.1 Viewing Patient Data Remotely

1. MedTouch should be connect with ultrasound device and be authorized, please refer to “2.4 Connecting MedTouch/MedSight with Ultrasound device” for detailed information.
2. Click

to open MedTouch and click to enter Patient Data Management screen.
3. Click tab Remote, and you can view all patient data in iStation on the ultrasound device remotely, as shown in figure below.

   Pull down the screen to refresh in real time the patient data on ultrasound device.



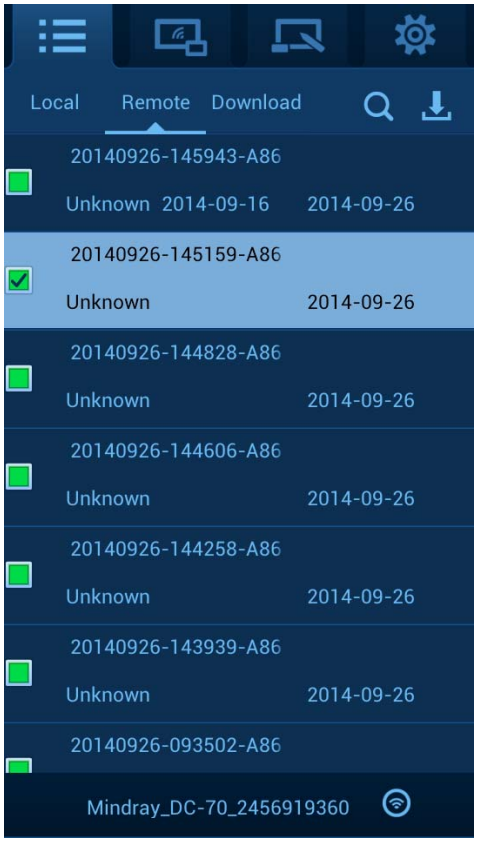
4. Click the patient data to view the basic information (patient name, ID, gender, DOB, exam date and exam remarks).

■ Searching patient data

Click on right upper corner of tab Remote, you can search the patient data by patient ID, Name, Exam start date or end date.

3.3.2 Downloading Patient Data Remotely

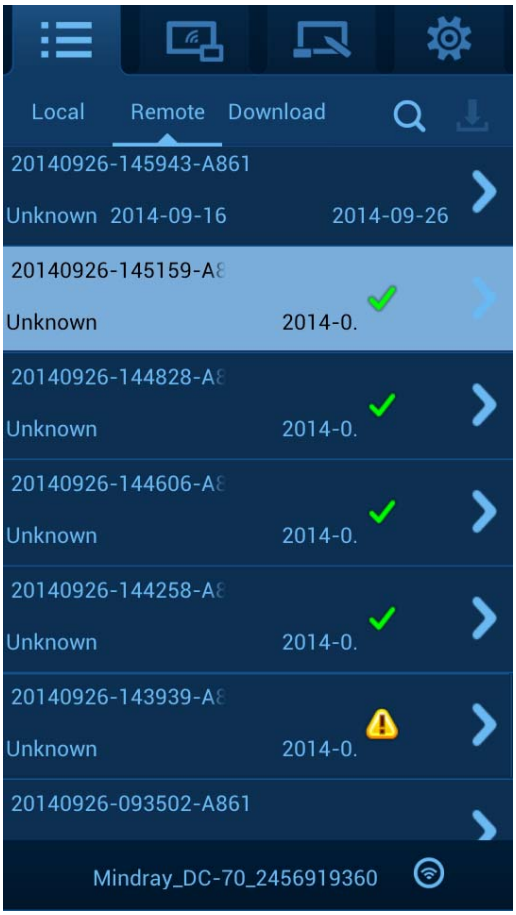
1. View patient data remotely, please refer to “3.3.1 Viewing Patient Data Remotely”.
2. Long press on the patient data and the information displays as shown in figure below.



3. Select the patient data you want to download, and click on the right upper corner to download, as shown in figure below.

- A downloaded patient data is marked with .

- A patient data in tab Remote or Download that is failed to download is marked with as shown in figure below.



Note: update the patient data in tab Remote, the and marks disappear.

Possible reasons for download failure:

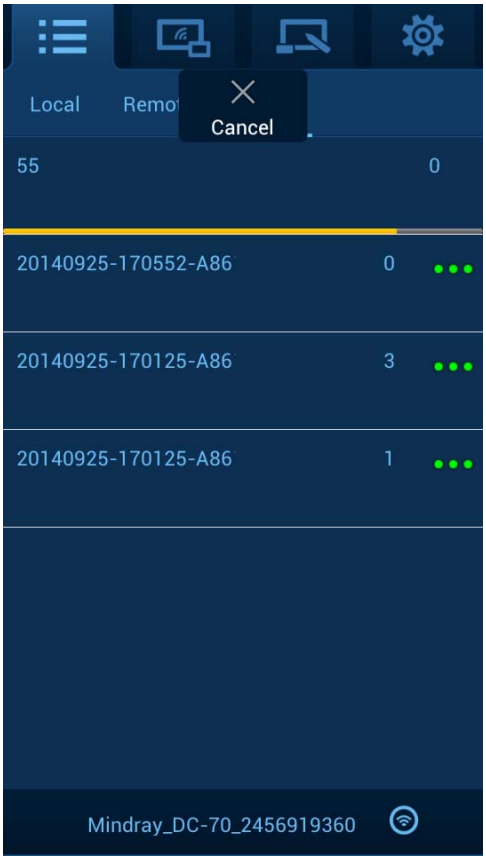
- The patient date being downloaded is cancelled or deleted on MedTouch;
- No free space for the HDD on mobile device;
- The patient data being downloaded is deleted from the task manager on ultrasound device;
- The ultrasound device is shut down or the MedTouch is exited.
- Network connection is interrupted for ultrasound device or MedTouch.

Note: you should download the patient data again if there is a download failure.

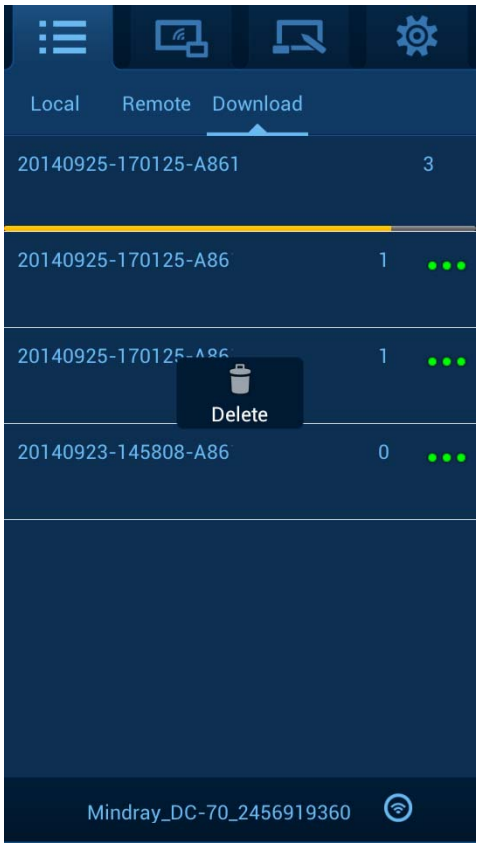
4. Click tab Local to view the downloaded patient exam information (Patient ID, Exam type, gender, patient name, exam date, images etc.).

■ Deleting un-downloaded patient data

- Deleting downloading patient data on MedTouch
  a) Click tab Download to view the downloading patient data.
  b) Click the downloading patient data and the button [Cancel] pops up, click the button to delete the downloading patient data.



c) Click the patient data in wait and the button [Delete] pops up, click the button to delete the patient data in wait.



- Deleting patient date in wait on ultrasound device

  Click in the task bar to open the task manager.

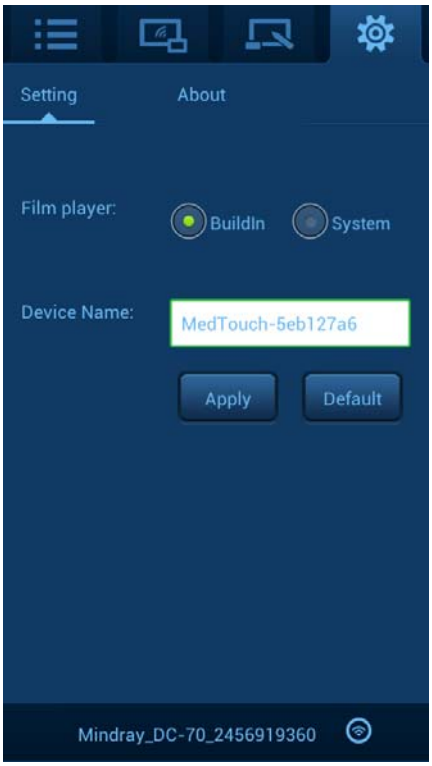
  Select the patient data in Wait or Processing, click [Delete] button to delete the data.

- Viewing downloaded patient data

  a) View downloaded patient data in tab Local. Click on right upper corner, you can search the patient data by patient ID, Name, Exam start date or end date.

b) Click the patient exam data to view the detailed information as shown in figure below:

Click and select a video player as shown in figure below. Wherein, Buidin means to play the video in the mode built in the ultrasound device, and System means to play the video in the mode provided by the mobile device.



- Deleting local patient data
  - Long press on the patient data in tab Local, and select the data to delete, click on the right upper corner to delete the data.
  - Click patient data from tab Local to view the patient images. Long press on the image and select the image to delete, click on the right upper corner to delete the image.
- Storage path of Local Patient Data

  The patient data downloaded to local is stored in HDD inside the mobile device.

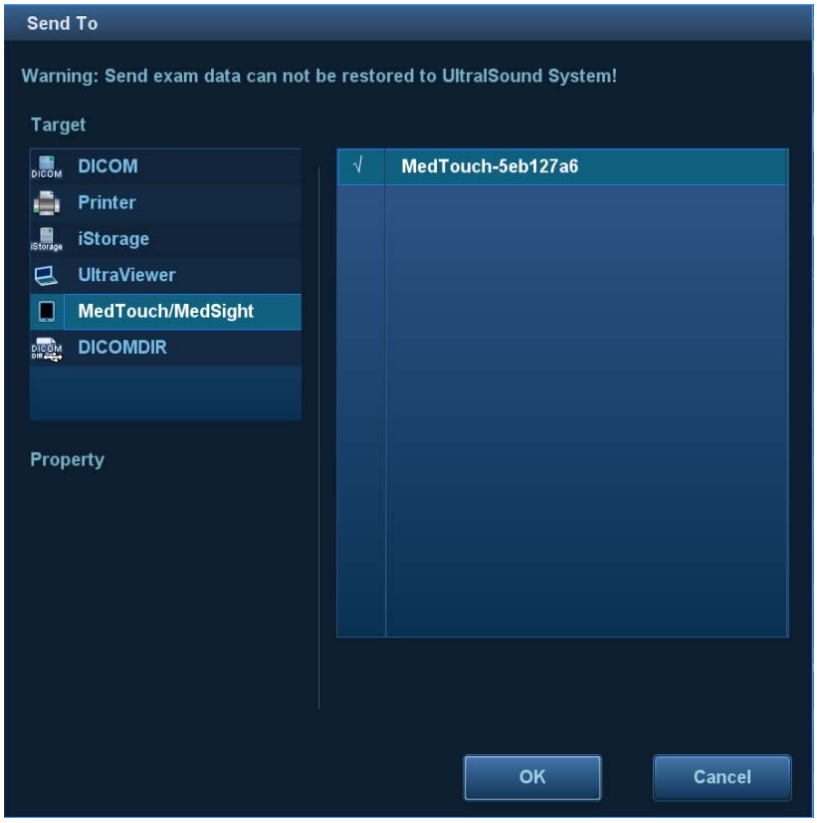
  Storage path: MedTouch/data/PATIENTDATA.

3.3.3 Receiving Patient Data Remotely

NOTE:	Only inactivated patient data (exam, image and cine) can be send to MedTouch.

1. Connect MedTouch to ultrasound device, refer to “2.4 Connecting MedTouch/MedSight with Ultrasound device” for detailed operations.

   Note: It needs not to be authorized as iRetrieve when MedTouch is receiving patient data sent by the ultrasound device.
2. Enter iStation screen by pressing <F2> on ultrasound device.
3. Select the patient data that is not activated and click [Send Exam] or select image and click , then select corresponding MedTouch. Please refer to the Operator’s Manual [Basic Volume] for detailed operations.



Possible reasons for receiving failure:

- The patient date being received is cancelled or deleted on MedTouch;
- No free space for the HDD on mobile device;
- The patient data being received is deleted from the task manager on ultrasound device;
- The ultrasound device is shut down or the MedTouch is exited.
- Network connection is interrupted for ultrasound device or MedTouch.

Note: you should receive the patient data again if there is a receiving failure.

4. On MedTouch, click tab Local to view the downloaded patient exam information (Patient ID, Exam type, gender, patient name, exam date, images etc.).

■ Other operations

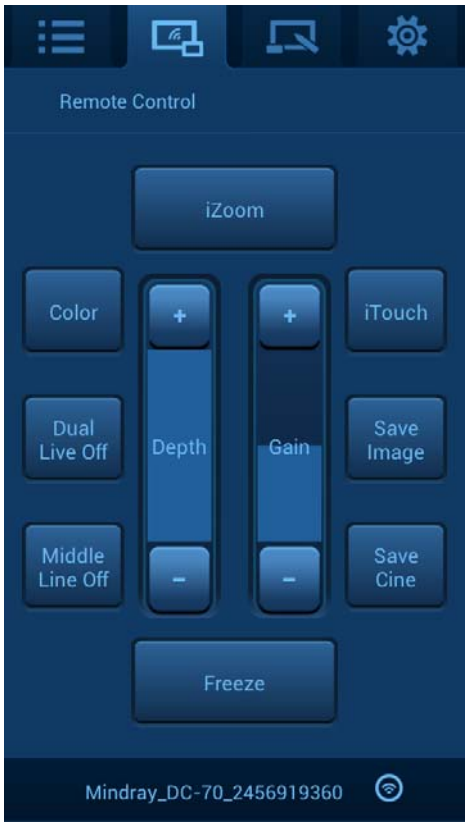
For deleting un-downloaded patient data, viewing received patient data, deleting local patient data and storage path of local patient data, please refer to “”3.3.2 Downloading Patient Data Remotely” for details.

3.4 Remote control

NOTE:	When controlling the ultrasound device remotely from MedTouch, you must operate on MedTouch according to the ultrasound device. An ultrasound device can only be operated remotely by one MedTouch with the authority of Remote Control.

1. MedTouch should be connect with ultrasound device and be authorized to Remote Control, please refer to “2.4 Connecting MedTouch/MedSight with Ultrasound device” for detailed information.
2. Click

to open MedTouch, and click to open Remote Control screen.



Button functions:

Button	Operations
Depth	Adjust the display depth of the image by clicking or . Long press or to adjust the depth continuously.
Gain	Adjust the total gain of the image by clicking or . Long press or to adjust the gain continuously.
iZoom	Click to zoom in the image to full screen.
Color	Click to enter Color mode.
Dual Live off	Click to turn on/off dual live mode.
Middle Line off	Click to turn on/off middle line.

Button	Operations
iTouch	Click to quickly optimize the image quality by pressing one button.
Save Image	Click to save single-frame image.
Save Cine	Click to save cine file retrospectively.
Freeze	Click to freeze/ unfreeze the image.

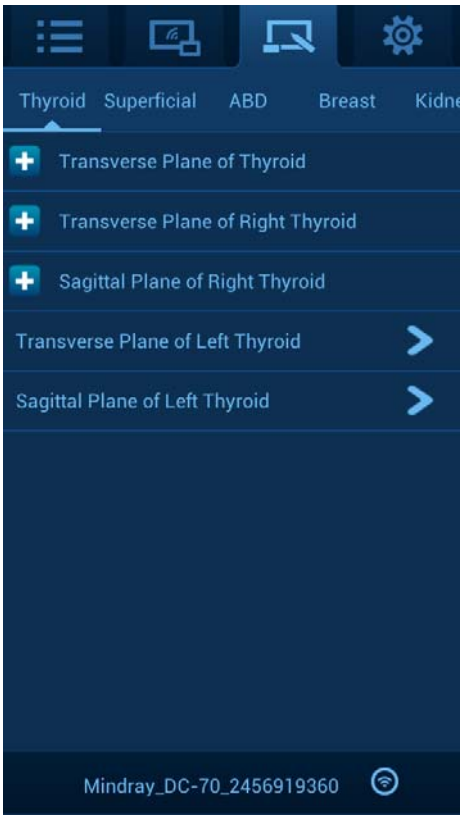
Click the buttons above to control the ultrasound device remotely while observing the ultrasound device, please refer to Operator's Manual [Basic Volume] for detailed operations.

3.5 iScanHelper

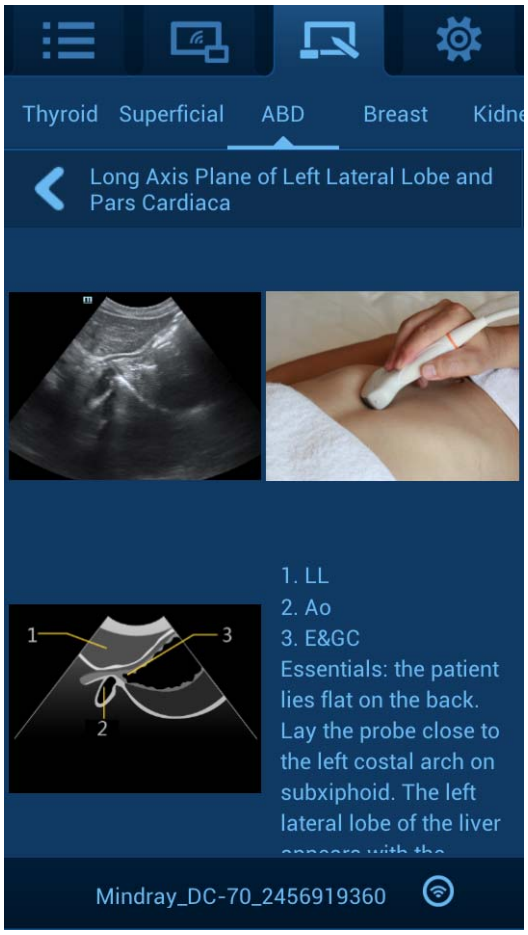
By providing the referential information, such as, the ultrasonic image, the anatomic graphic, scanning pictures/other scanning tips or diagnosis comments, MedTouch helps the doctors to operate the scanning by iScanHelper. Furthermore, it is a good platform for the self-learning and training of ultrasound scanning technique for doctors. The system also plays a role in the assistant software system in fulfilling training and education.

1. MedTouch should be connect with ultrasound device and be authorized to iScanhelper, please refer to "2.4 Connecting MedTouch/MedSight with Ultrasound device" for detailed information.
2. Click

to open MedTouch and click to view the iScanHelper on ultrasound device remotely.



3. Select your desired section in a proper exam mode, and operate according to the help information to obtain a satisfied image.



4 MedSight

MedSight is mainly used by the patient. The patient can view their exam information, images etc. through MedSight after the doctor sending the patient information to it.

4.1 For Doctor

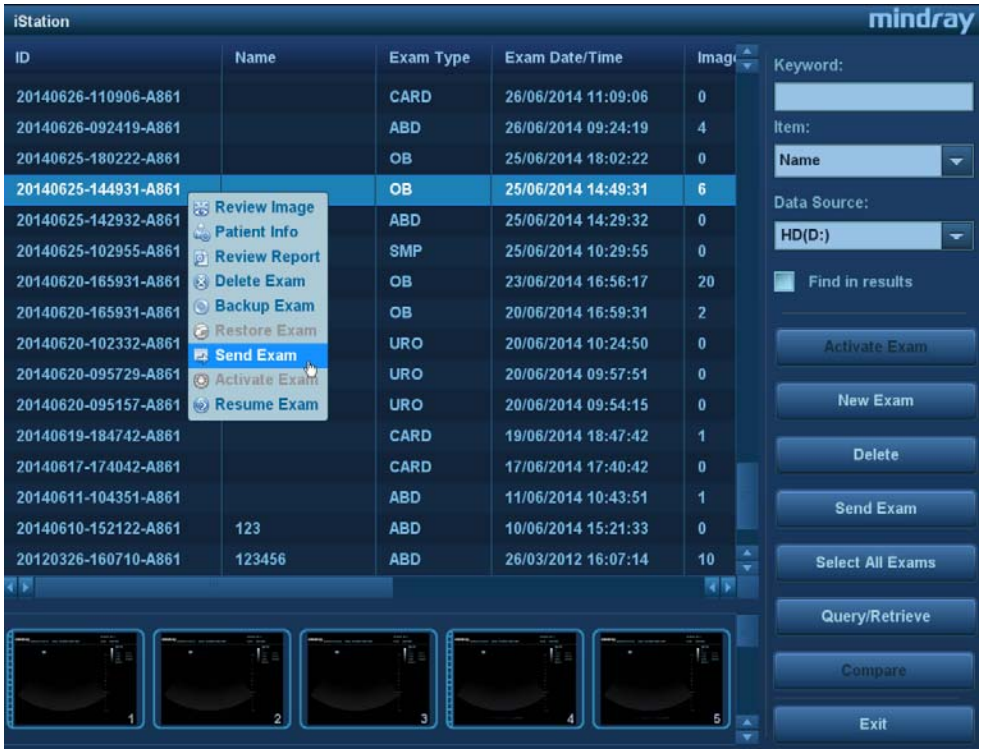
4.1.1 Reminding Patient to Prepare for Receiving

1. Notify the wireless network where the patient ultrasound device is, and remind the patient to connect MedSight mobile device into the same network and start up MedSight.
2. Notify patient the name of the ultrasound device, to which the MedSight will search and connect with, please refer to “2.4 Connecting MedTouch/MedSight with Ultrasound device” for detailed operations.

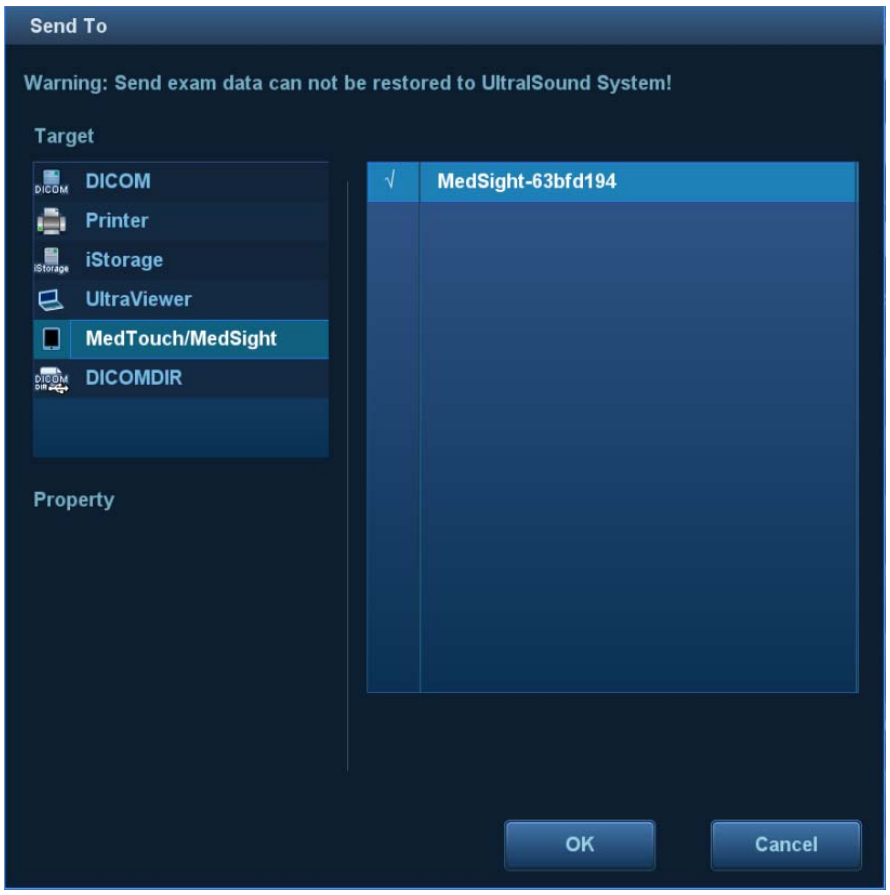
4.1.2 Doctor Sending the Image

1. The doctor enters iStation, and selects the exam that is not activated. Right-click to choose [Send Exam].

   Or select the image and click the send to button .



2. The doctor asks the MedSight name of the patient, select [MedTouch/MedSight] from the Send To page popped up, and select the corresponding MedSight and click [OK] to send.



4.1.3 Remind Patient to Disconnect after Sending

Remind the patient to disconnect the network after sending, please refer to “4.2.2.3 Disconnecting Network after Receiving” for detailed operations.

4.2 For Patient

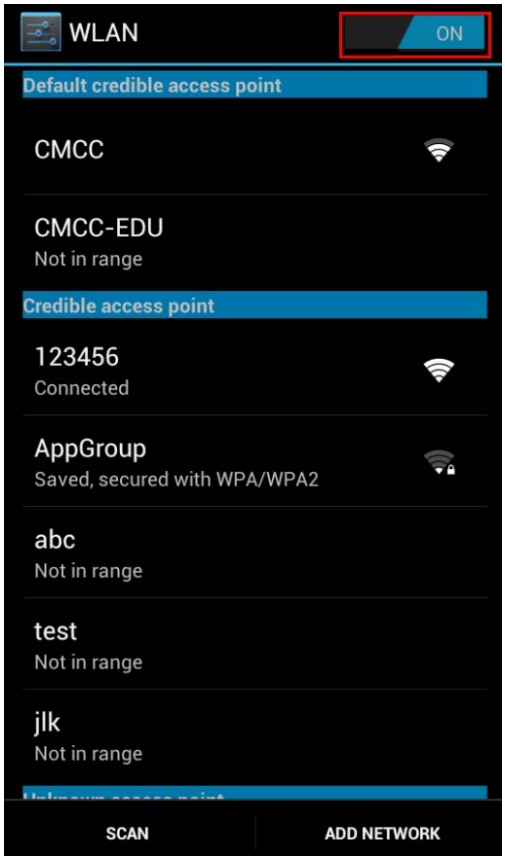
4.2.1 Installing MedSight

Install the MedSight by downloading the installing app from the App store on mobile device, please refer to “2.1 Installing/ Uninstalling” for detailed information.

4.2.2 Receiving Exam Information

4.2.2.1 Join Wireless Network

Before the patient preparing for receiving the image, the patient should finish the setting of the wireless LAN, please refer to the manual provided by the router manufacturer for detailed configurations. Take the configuration of general mobile device as an example. Select [Settings]/[WLAN], and enable [WLAN]. Choose the wireless network from the list which is set in Chapter 2.



4.2.2.2 Starting to Receive

1. Start MedSight, search and connect the ultrasound device the name of which is notified by the doctor, please refer to “2.4 Connecting MedTouch/MedSight with Ultrasound device”.
2. Notify doctor the name of MedSight, to which the doctor can send the exam data to.

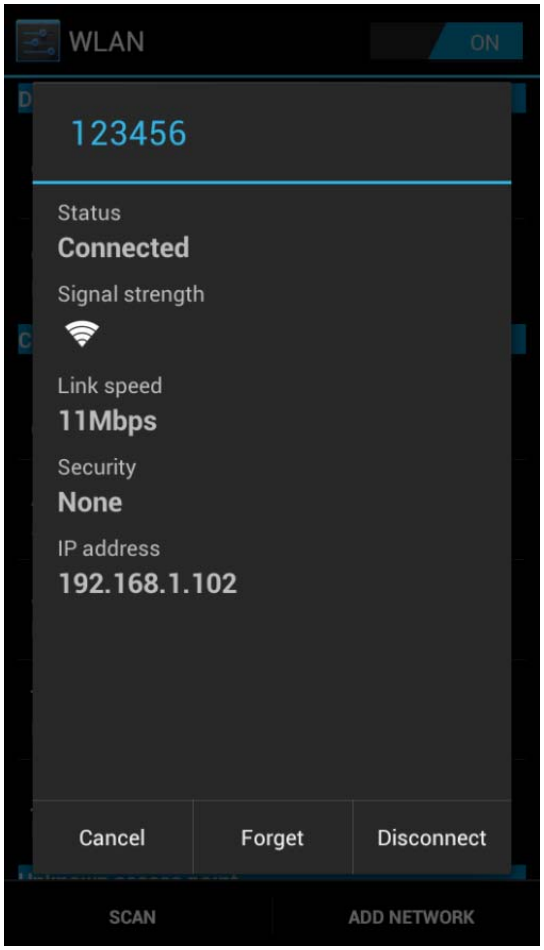
Possible reasons for receiving failure:

- The patient date being received is cancelled or deleted on MedTouch;
- No free space for the HDD on mobile device;
- The patient data being received is deleted from the task manager on ultrasound device;
- The ultrasound device is shut down or the MedTouch is exited.
- Network connection is interrupted for ultrasound device or MedTouch.

Note: you should receive the patient data again if there is a receiving failure.

4.2.2.3 Disconnecting Network after Receiving

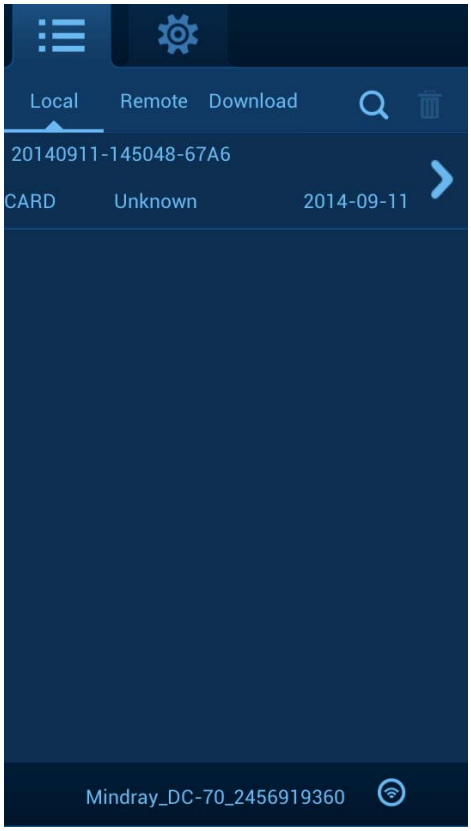
Enter [Settings]/[WLAN] to disconnect this wireless network.



4.2.3 Viewing Exam Information

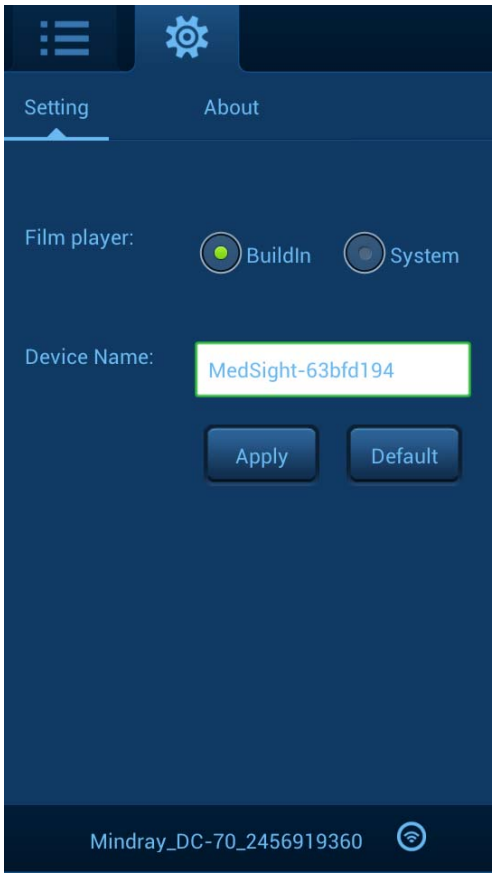
1. After receiving, the patient can view his(her) exam data in tab Local.

   Click on right upper corner, you can search the patient data by patient ID, Name, Exam start date or end date.



2. Click the patient exam data to view the detailed information as shown in figure below:

Click and select a video player as shown in figure below. Wherein, Buidin means to play the video in the mode built in the ultrasound device, and System means to play the video in the mode provided by the mobile device.



4.3 Viewing/Downloading Patient Data Remotely

After being authorized as iRetrieve on the ultrasound device, the MedSight supports reviewing and downloading patient exam data from the the ultrasound device remotely. Please refer to 2.4 Connecting MedTouch/MedSight with Ultrasound device, 3.3.1 Viewing Patient Data Remotely and 3.3.2 Downloading Patient Data Remotely for detailed operations.

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