Lechange App

User's Manual

V1.0.0

Mandatory actions to be taken towards cybersecurity

1. Change Passwords and Use Strong Passwords:

The number one reason systems get "hacked" is due to having weak or default passwords. It is recommended to change default passwords immediately and choose a strong password whenever possible. A strong password should be made up of at least 8 characters and a combination of special characters, numbers, and upper and lower case letters.

2. Update Firmware

As is standard procedure in the tech-industry, we recommend keeping NVR, DVR, and IP camera firmware up-to-date to ensure the system is current with the latest security patches and fixes.

"Nice to have" recommendations to improve your network security

1. Change Passwords Regularly

Regularly change the credentials to your devices to help ensure that only authorized users are able to access the system.

2. Change Default HTTP and TCP Ports:

● Change default HTTP and TCP ports for systems. These are the two ports used to communicate and to view video feeds remotely.

● These ports can be changed to any set of numbers between 1025-65535. Avoiding the default ports reduces the risk of outsiders being able to guess which ports you are using.

3. Enable HTTPS/SSL:

Set up an SSL Certificate to enable HTTPS. This will encrypt all communication between your devices and recorder.

4. Enable IP Filter:

Enabling your IP filter will prevent everyone, except those with specified IP addresses, from accessing the system.

5. Change ONVIF Password:

On older IP Camera firmware, the ONVIF password does not change when you change the system's credentials. You will need to either update the camera's firmware to the latest revision or manually change the ONVIF password.

6. Forward Only Ports You Need:

● Only forward the HTTP and TCP ports that you need to use. Do not forward a huge range of numbers to the device. Do not DMZ the device's IP address.

● You do not need to forward any ports for individual cameras if they are all connected to a recorder on site; just the NVR is needed.

7. Disable Auto-Login on SmartPSS:

Those using SmartPSS to view their system and on a computer that is used by multiple people should disable auto-login. This adds a layer of security to prevent users without the appropriate credentials from accessing the system.

8. Use a Different Username and Password for SmartPSS:

In the event that your social media, bank, email, etc. account is compromised, you would not want someone collecting those passwords and trying them out on your video surveillance system. Using a different username and password for your security system will make it more difficult for someone to guess their way into your system.

9. Limit Features of Guest Accounts:

If your system is set up for multiple users, ensure that each user only has rights to features and functions they need to use to perform their job.

10. UPnP:

● UPnP will automatically try to forward ports in your router or modem. Normally this would be a good thing. However, if your system automatically forwards the ports and you leave the credentials defaulted, you may end up with unwanted visitors.

● If you manually forwarded the HTTP and TCP ports in your router/modem, this feature should be turned off regardless. Disabling UPnP is recommended when the function is not used in real applications.

11. SNMP:

Disable SNMP if you are not using it. If you are using SNMP, you should do so only temporarily, for tracing and testing purposes only.

12. Multicast:

Multicast is used to share video streams between two recorders. Currently there are no known issues involving Multicast, but if you are not using this feature, deactivation can enhance your network security.

13. Check the Log:

If you suspect that someone has gained unauthorized access to your system, you can check the system log. The system log will show you which IP addresses were used to login to your system and what was accessed.

14. Physically Lock Down the Device:

Ideally, you want to prevent any unauthorized physical access to your system. The best way to achieve this is to install the recorder in a lockbox, locking server rack, or in a room that is behind a lock and key.

15. Connect IP Cameras to the PoE Ports on the Back of an NVR:

Cameras connected to the PoE ports on the back of an NVR are isolated from the outside world and cannot be accessed directly.

16. Isolate NVR and IP Camera Network

The network your NVR and IP camera resides on should not be the same network as your public computer network. This will prevent any visitors or unwanted guests from getting access to the same network the security system needs in order to function properly.

Table of Contents

Welcome

Thank you for purchasing our Lechange product.

This User's Manual (hereinafter referred to be "the Manual") will help you become familiar with our Lechange App in a short time.

Safety Instructions

The following categorized signal words with defined meaning might appear in the Manual.

Signal Words	Meaning
⚠ DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
⚠ CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
⚲ TIPS	Provides methods to help you solve a problem or save you time.
📖 NOTE	Provides additional information as the emphasis and supplement to the text.

Revision History

No.	Version	Revision Content	Release Time
1	V1.0.0	First Release.	April 24, 2018

Privacy Protection Notice

As the device user or data controller, you might collect personal data of others' such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures include but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area, providing data subject with proper access to their personal data and providing related contact.
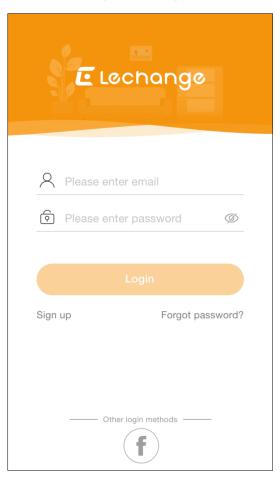
About this Manual

- The Manual is a general document for introducing the Lechange App (installed in iOS smartphone and Android smartphone). There might be some descriptions not apply to the device you added to Lechange account, or the interfaces might be different, or the operations might be different, or the appearances might be different, and in these cases the actual product and process shall govern.
- All the designs and software are subject to change without prior written notice.
- All trademarks and registered trademarks mentioned herein are the properties of their respective owners.
- Any loss caused by not complying with the operations described in the Manual should be borne by the user.
- Upgrade the reader software or try other mainstream reader software if the Manual cannot be opened.
- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.
- Please visit our website or contact your local service engineer for more information.

1 Basic Operations

The Manual introduces the operations of Lechange App, and some functions might associate with the operations on the device, in these cases, please refer to the manuals that come with the device.

1.1 Logging in Lechange

Step 1 Open the Lechange App on your smartphone.

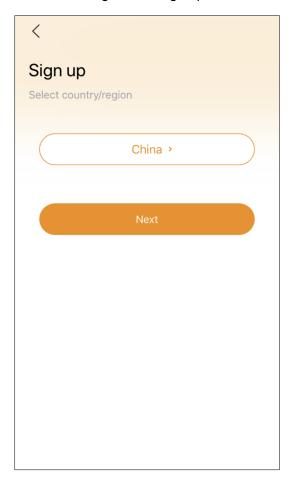The Login interface is displayed. See Figure 1-1.

Figure 1-1 Login

Step 2 For the first time to use Lechange App, tap **Sign up**.

The **Sign up** interface is displayed. See Figure 1-2.

NOTE

You can also login Lechange with other app account such as Facebook.
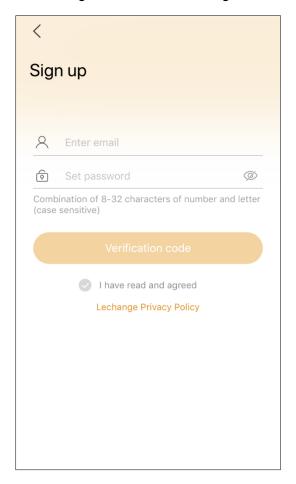
Figure 1-2 Sign up

Step 3 In the country/region list, select country or region where you are located, and then tap **Next**.
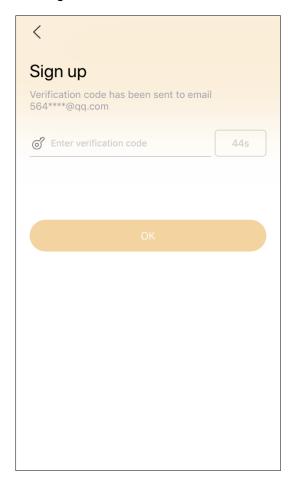
The account setting interface is displayed. See Figure 1-3.

Figure 1-3 Account setting

Step 4 Enter the email address for the account name and set the password, read *Lechange Privacy Policy* and tap **I have read and agreed**, and then tap **Verification code**.
The verification code entering interface is displayed. See Figure 1-4.

Figure 1-4 Enter verification code

Step 5 Get the verification code from your email box, enter the verification code, and then tap **OK**.

The Login interface is displayed and the system automatically logins Lechange App. You can start adding the device to your Lechange.

1.2 Adding a Device

You can add IP cameras, storage devices, doorbells, and wireless alarm devices such as wireless PIR detector to Lechange App.

□□ NOTE

The device adding procedure takes adding the uninitialized device as an example. If the device has been registered before, after scanning the device QR code or manually entering SN, the device login password interface is displayed.

1.2.1 Adding an IP Camera

You can add IP cameras to Lechange App through Wi-Fi connection or wired connection.

Step 1 On the **Device** interface, tap ＋ on the top right or tap ⊕ in the middle of screen.

The **Scan QR Code** interface is displayed.

Step 2 Add the device through either of the following ways.

- Scan the QR code on the device, the device image with SN appears on the screen. Tap **Next**.

● Tap **Manually enter SN**, enter the serial number of the device, and then tap **Next**.
The device network setting interface is displayed. See Figure 1-5.

Figure 1-5 Device network setting
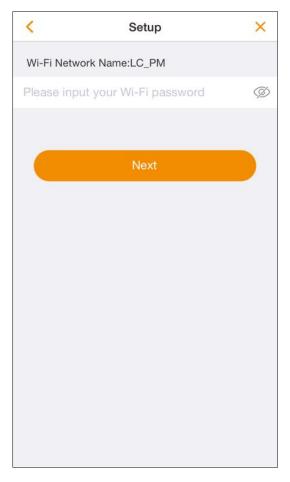

Step 3 Configure the device network setting.

● Set the device with Wi-Fi.

📖 NOTE

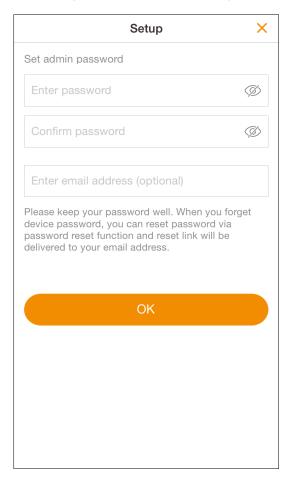Ensure your smartphone and the device connected to the same router or access point.

1) Tap **Yes, go to Wi-Fi settings**.
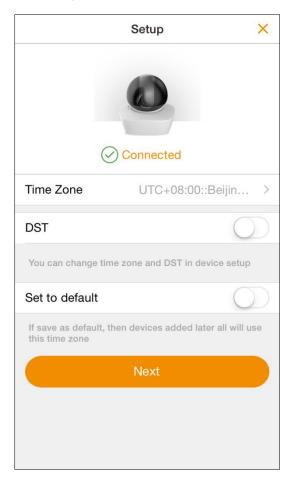2) Tap **Next** till the password entering interface is displayed. See Figure 1-6.

Figure 1-6 Enter password

3) Enter the password and then tap **Next**.
The network configuring interface is displayed. After the connection succeeded, the password setting interface is displayed. See Figure 1-7.

Figure 1-7 Password setting

4) Enter the password and email address, and then tap **OK**.
   The system starts adding device to your Lechange account. After the device is added, the connected status interface is displayed. See Figure 1-8.
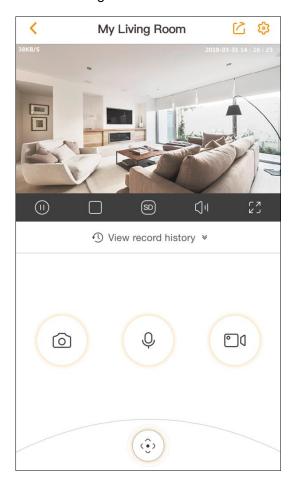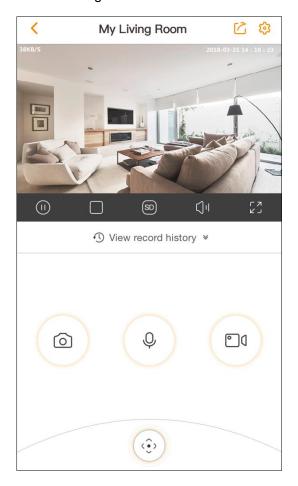
Figure 1-8 Device connected

5) Configure the time zone, DST, and default settings according to your requirement, and then tap **Next**.

The live view interface is displayed. See Figure 1-9.

📖 NOTE

The settings of time zone and DST will affect some functions uses of Lechange App. Please configure properly.

Figure 1-9 Live view

- Set the device with wired connection.

◻ NOTE

Use the network cable to connect the device and the router, meanwhile connect your smartphone to the same router wirelessly.
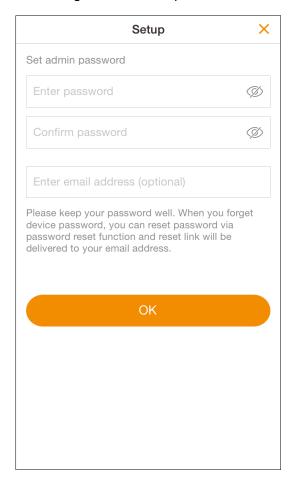
1) Tap **No, I want wired connection**.

The network connection requirement interface is displayed. See Figure 1-10.

Figure 1-10 Wi-Fi connection for smartphone
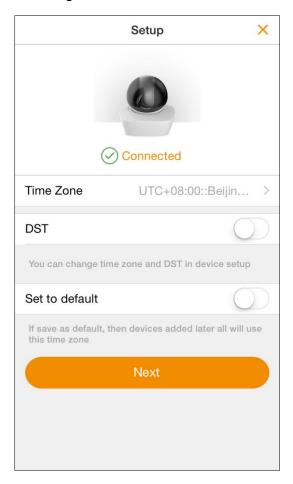
2) Tap **Config Wi-Fi** to enter the interface from where you can connect your smartphone to Wi-Fi or check if your connection satisfies the requirement.

3) Tap **Next** till the password setting interface is displayed. See Figure 1-11.

Figure 1-11 Enter password

4) Enter the password and email address, and then tap **OK**.
   The system starts adding device to your Lechange account. After the device is added, the connected status interface is displayed. See Figure 1-12.

Figure 1-12 Device connected

5) Configure the time zone, DST, and default settings according to your requirement, and then tap **Next**.
The live view interface is displayed. See Figure 1-13.

📖 NOTE

The settings of time zone and DST will affect some functions uses of Lechange App. Please configure properly.

Figure 1-13 Live view

1.2.2 Adding a Wireless PIR Detector

You can add wireless alarm devices under the IP cameras with gateway function that have been added to your Lechange App account. The manual takes adding a wireless PIR detector as an example.
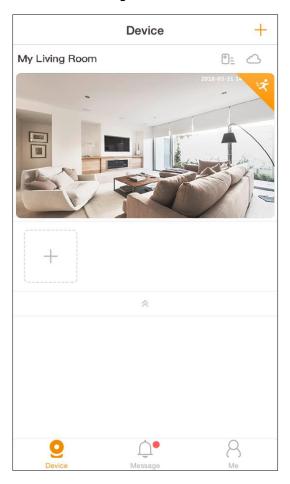
📖 NOTE

Make sure you have added at least one IP camera with gateway function to your Lechange App.

Step 1 On the **Device** interface, under the added IP camera, tap ⌄ .

The adding device interface is displayed. See Figure 1-14.

Figure 1-14
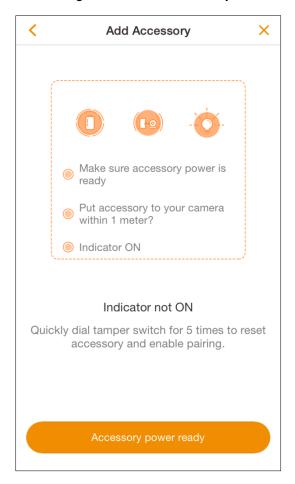
Step 2 Tap [+], and then start adding the device through either of the following ways.

- Scan the QR code on the device, the device image with SN appears on the screen, and then tap **Next**.
- Tap **Manually enter SN**, enter the serial number of the device, and then tap **Next**.

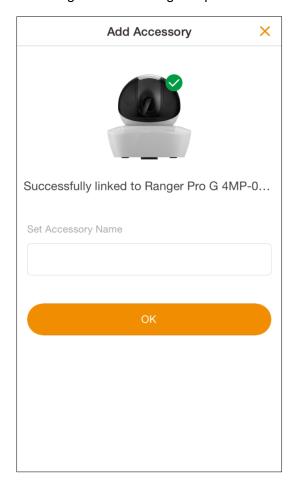The **Add Accessory** interface is displayed. See Figure 1-15.

Figure 1-15 Add Accessory

Step 3 Follow the onscreen instructions to get the PIR detector ready for pairing, and then tap
Accessory power ready.
After the pairing completed, the accessory name setting interface is displayed. See
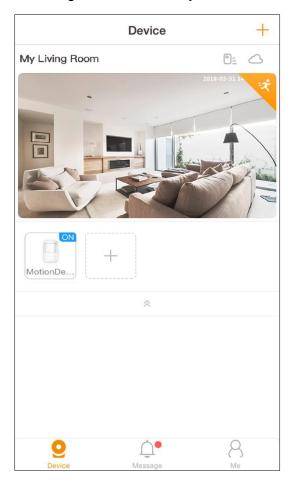Figure 1-16.

Figure 1-16 Pairing completed

Step 4 Enter the accessory name, and then tap **OK**.

A prompt indicating "Add successfully, going to link a camera?" is displayed.

● Tap **Yes**, the **Link Camera** interface is displayed, you can link the wireless PIR detector to other IP cameras.

● Tap **No**, the operation is completed. You can find the wireless PIR detector displays under the IP camera. See Figure 1-17.

Figure 1-17 Accessory added

1.2.3 Adding a Doorbell
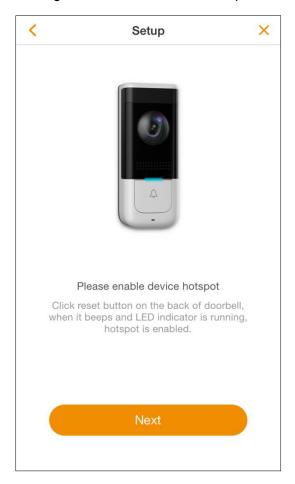
You can add doorbells to Lechange App.

Step 1 On the **Device** interface, tap ✛ on the top right or tap ⊕ in the middle of screen.

The **Scan QR Code** interface is displayed.

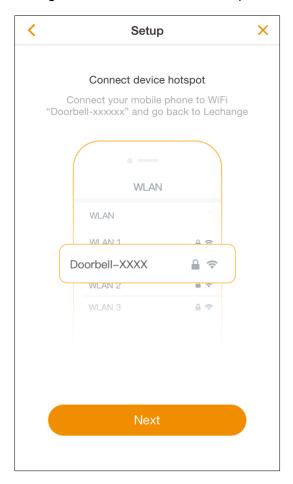Step 2 Add the device through either of the following ways.

- Scan the QR code on the device, the device image with SN appears on the screen, and then tap **Next**.
- Tap **Manually enter SN**, enter the serial number of the device, and then tap **Next**.

The device hotspot enabling instruction interface is displayed. See Figure 1-18.

Figure 1-18 Enable device hotspot

Step 3 On the back of the doorbell, press the reset button; on the Lechange App, tap **Next**.
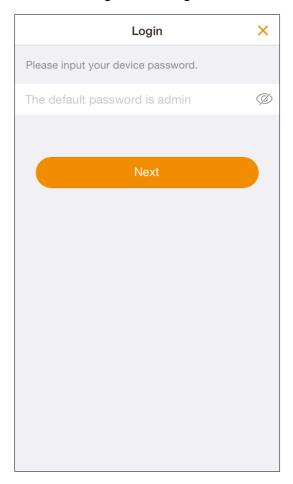The device hotspot connecting instruction interface is displayed. See Figure 1-19.

Figure 1-19 Connect device hotspot

Step 4 Configure the Wi-Fi settings of your smartphone to connect to "Doorbell-xxxxxx", go
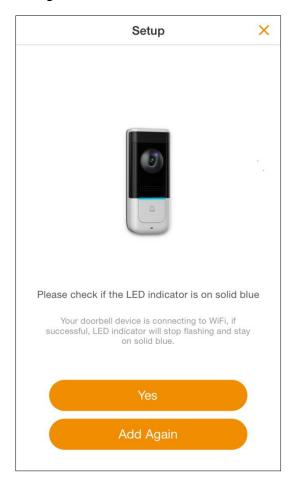back to Lechange App, and then tap **Next**.
The Login interface is displayed. See Figure 1-20.

Figure 1-20 Login

Step 5 Enter the password, and then tap **Next**.

The Wi-Fi hotspot list is displayed.

Step 6 Select the Wi-Fi hotspot from the list, enter the Wi-Fi password, and then tap **Connect**.

The doorbell starts connecting to the selected Wi-Fi hotspot. The connection result checking instruction is displayed. See Figure 1-21.
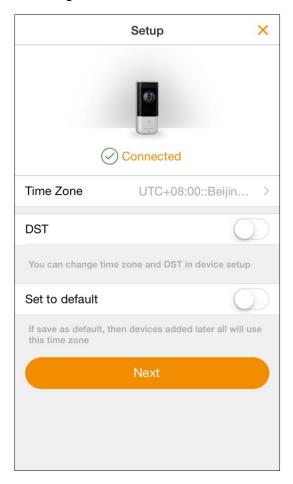
Figure 1-21 Connection status check

Step 7 Follow the onscreen instructions to check the connection status on the device. After the connection is succeeded, tap **Yes**.

The system starts adding doorbell to your Lechange account. After the doorbell is added, the connected status interface is displayed. See Figure 1-22.
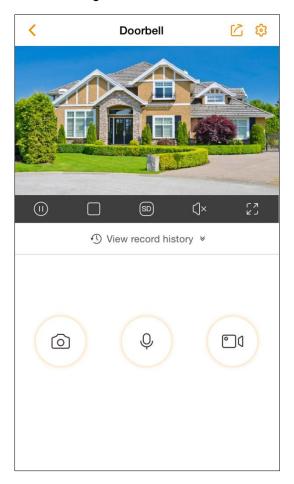
Figure 1-22 Device connected

Step 8 Configure the time zone, DST, and default settings according to your requirement, and then tap **Next**.

The live view interface is displayed. See Figure 1-23.

📖 NOTE

The settings of time zone and DST will affect some functions uses of Lechange App. Please configure properly.

Figure 1-23 Live view

1.2.4 Adding a Storage Device

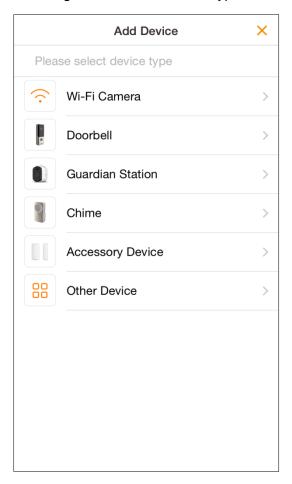You can add storage devices such as digital video recorder and network video recorder to your Lechange App account.

Step 1 On the **Device** interface, tap + on the top right or tap ⊕ in the middle of screen.

The **Scan QR Code** interface is displayed.

Step 2 Add the device through either of the following ways.
- Scan the QR code on the device, the device image with SN appears on the screen, and then tap **Next**.
- Tap **Manually enter SN**, enter the serial number of the device, and then tap **Next**.
The device type select interface is displayed. See Figure 1-24.

Figure 1-24 Select device type

Step 3　Select **Other Device**.

The device network setting interface is displayed. See Figure 1-25.

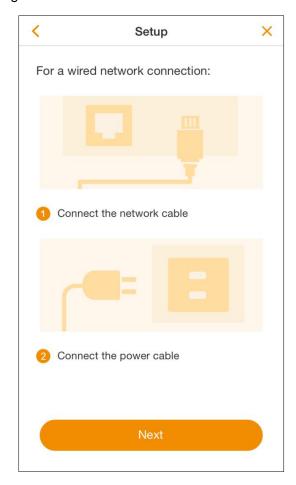Figure 1-25 Device network setting

Step 4 Select **No, I want wired connection**.

NOTE

The storage devices only support wired connection.

The instruction interface of wired network connection is displayed. See Figure 1-26.

Figure 1-26 Wired network connection instruction

Step 5 Get the storage device ready for connection.
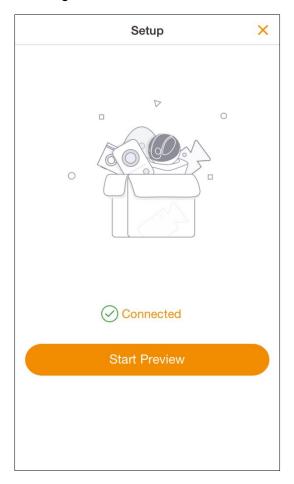
📖 NOTE

Make sure the DHCP function is enabled for the network setting of the storage device.

● Connect one end of network cable to the storage device and the other end to the router.

● Connect the power cable to the storage device and turn on the device.

Step 6 Tap **Next**.

The system starts adding device to your Lechange account. After the device is added, the connected status interface is displayed. See Figure 1-27.
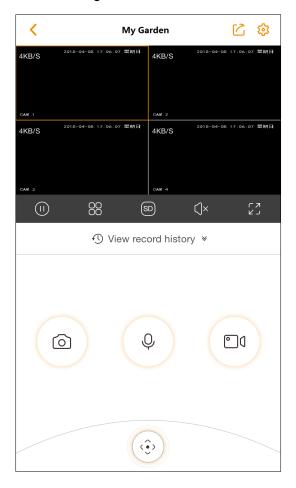
Figure 1-27 Network connected

Step 7 Tap **Start Preview**.

The live view interface is displayed. See Figure 1-28.

Figure 1-28 Live view

1.3 Live View

The live view provides you a real-time video display. See Figure 1-29 (normal display mode) and Figure 1-30 (landscape display mode). You can perform the operations such as pause, window splitting, and mute.

You can zoom in the screen to view the details.

● If PTZ function is not enabled, the zooming operation by gesture is completed through digital zoom.

● If PTZ function is enabled, the zooming operation by gesture is completed through optical zoom (for the device that supports optical zoom).
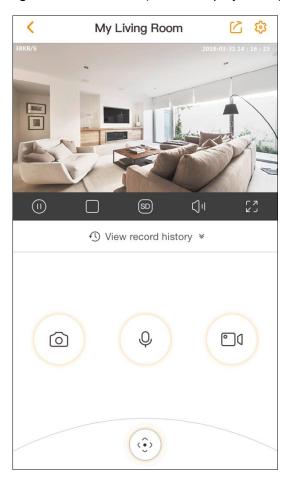
Figure 1-29 Live view (normal display mode)

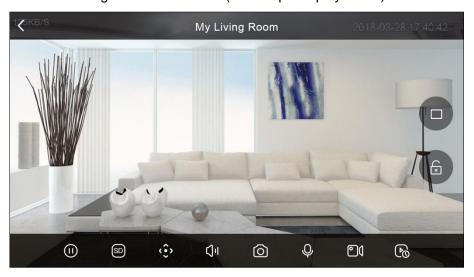Figure 1-30 Live view (landscape display mode)

Table 1-1 Function icons description

Icon	Function
	Plays or pauses the video.
	Switches between single-window view and four-window view.
	Switches between standard definition and high definition.

Icon	Function
◁❙❙ ◁×	Mutes or unmutes the video.
⤢	Displays video in landscape mode. Tap ◁ to exit the landscape display mode.
🔓 🔒	In landscape display mode, tap 🔓 to lock the screen from auto switching to normal display mode by gravity. The icon switches to 🔒 .
🕘 , ▷🕘	Tap the view record history icon to view the recorded videos.
📷 , 📷	Tap this icon to take a snapshot.
🎤 , 🎤	Tap this icon to enable two-way talk function. The icon switches to 🎤 in normal display mode and 🎤 in landscape display mode. Tap again to stop two-way talk function.
📹 , 📹	Tap this icon to start instant recording. The icon switches to 📹 in normal display mode and 📹 in landscape display mode.
✛ , ✛	Tap this icon to display the PTZ control panel. You can move the camera in both horizontal and vertical direction to get different angle of view. 📖 NOTE This function is available only on the camera supporting PTZ.

1.4 Playing Back the Recorded Video

● On the live view interface in normal display mode, click **View record history**.

● On the live view interface in landscape display mode, click ▷🕘 .

The **Record History** interface is displayed. See Figure 1-31 (normal display mode) and Figure 1-32 (landscape display mode).

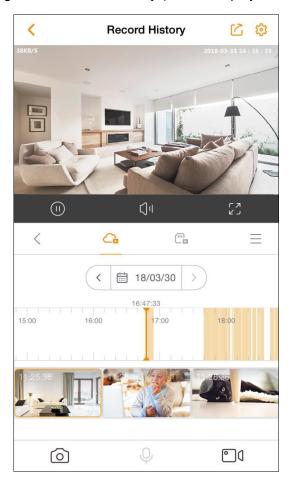Figure 1-31 Record history (normal display mode)

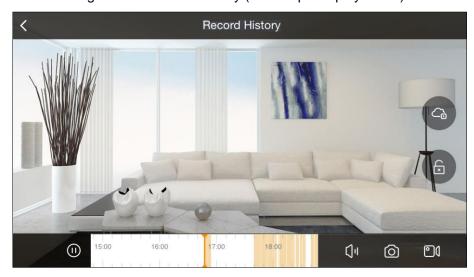
Figure 1-32 Record history (landscape display mode)

Table 1-2 Record history interface

Icon	Function
	Plays or pauses the recorded video.
	Mutes or unmutes the video.

Icon	Function
	Displays video in landscape mode. Tap to exit landscape mode.
,	Tap this icon to take a snapshot.
,	Tap this icon to start instant recording. The icon switches to in normal display mode and in landscape display mode.
,	Tap this icon to exit the record history and display the live view interface.
	In the normal display mode, tap this icon to display the recorded videos that are stored in the Cloud server. The icons turns to once it is selected.
	In the normal display mode, tap this icon to display the recorded videos that are stored in the SD card. The icons turns to once it is selected.
	In landscape display mode, switches between displaying the recorded videos that are stored in the Cloud server and that are stored in the SD card.
	Tap this icon to display the videos that are either stored in the Cloud service or in the SD card in list.
	In landscape display mode, tap to lock the screen from auto switching to normal display mode by gravity. The icon switches to .
	In the calendar list, select the time when you want to view the recorded videos. This function is only available in normal display mode.
	The time bar shows the time when there are recorded videos. Tap and hold the time bar to drag to the time where you want to view the recorded video. 📖 NOTE The orange represents recorded videos of local alarm event, and the blue represents general recorded videos.

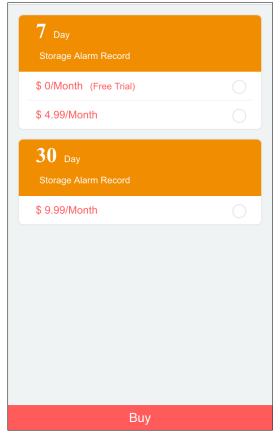# 1.5 Using Cloud Storage Service

The Lechange App provides you the Cloud service to extend your storage capability. To use this service, do the following:

Step 1 On the **Device** interface, tap .

The service purchasing interface is displayed. See Figure 1-33.

Figure 1-33 Service purchasing

Step 2 Tap the check box of the service type that you want to buy, tap **Buy**, and then follow the onscreen instructions to complete the purchasing.

After the Cloud service is purchased, the [icon] turns to [icon] .

1.6 Managing Device

You can configure the settings for the added IP camera, alarm device, doorbell, and storage device, such as recording schedule, time zone, and alarms.

To enter the device management interface, tap **My Device** on the **Me** interface, and then tap the device name.

The **Device Info** interface is displayed. See Figure 1-34.

📖 NOTE

The Device Info interface shows the functions that you can configure on the device. The actual interface might be different depending on the device you added.
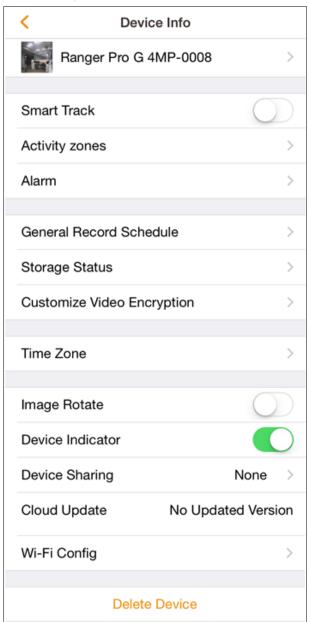
Figure 1-34 Device information
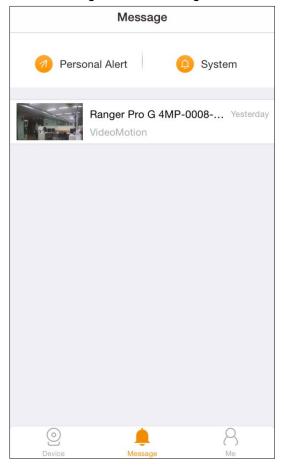

Table 1-3 Device management parameters

Parameter	Function
Device name	Displays device information such as device name, model name, and SN. You can also reset device password from here.
Smart Track	If the **Smart Track** function is enabled, when there is an object appears, the camera automatically follows its moving track till it is out of the view.
Activity zones	You can define a motion detection area. When the object appears in this area, the system activates alarm.
Alarm	Enables the alarm activation function, such as motion detection, local alarm, and PIR alarm.
General Record Schedule	You can configure the schedule for recording video.
Storage Status	You can view the storage status of cloud storage and device SD card storage.

Parameter	Function
Customize Video Encryption	If the **Customize Video Encryption** function is enabled, you can set a password for viewing the videos that are stored in the Cloud. When you log in Lechange App from other smartphones, you should enter this password for the first time to access the live view interface.
Time Zone	You can configure the time zone and enable DST for the device.
Image Rotate	Enables the image rotate function.
Device Indicator	Enables the indicator function.
Device Sharing	You can share the added devices to other Lechange App users.
Cloud Update	Indicates if there is an updated version.
Wi-Fi Config	You can configure the Wi-Fi connection settings from here.
Protection Setup	You can enable the **Protection Setup** function to configure the schedule for alarm linkage with IP camera. NOTE This function is provided on alarm devices such as wireless PIR detector.
Link Camera	You can add IP cameras to establish alarm linkage with the alarm devices such as wireless PIR detector. NOTE This function is provided on alarm devices such as wireless PIR detector.
Link Chime	You can add the chimes and set the ring tones of the linked chimes. The linked chimes display on the **Link Chime** interface. One doorbell can link multiple chimes. NOTE This function is provided on doorbell device.
PIR Area	You can define a motion detection area. When the object appears in this area, the system activates alarm. NOTE This function is provided on doorbell device.
Delete Device	Tap **Delete Device** to delete the device from your Lechange App.

1.7 Reading Messages

You can read the personal alerts, system notifications, and view the recorded videos on the **Message** interface. See Figure 1-35.

Figure 1-35 Message

- ● Personal Alert

  A reserved area for notification that relates to your account, such as cloud storage expire notification, or device share notification. Please note the incoming App update.

- ● System

  View the notifications that are pushed from server.

- ● Recorded video

  Tap the video to enter the calendar interface. Tap the date that you want to view the recorded videos, and the videos satisfying requirement display. Then you can tap the specific file to view the recorded video.

1.8 Managing Account

You can view the information such as order details, device information, and account settings on the **Me** interface. See Figure 1-36.
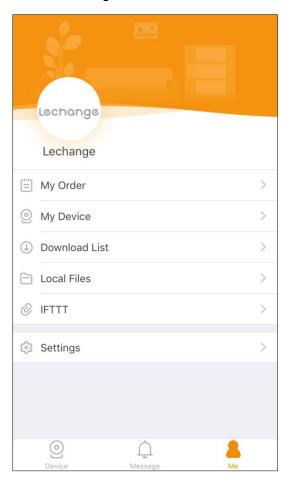
Figure 1-36 Me

Table 1-4 Account information

| Parameter	Function
My Order	View the orders of Cloud storage plan such as unpaid order, paid order, and cancelled order.
My Device	Enters the device information interface.
Download List	Displays the videos that are in the process of downloading.
Local Files	You can view the recorded videos or snapshots. ● For iOS smartphone, you can share the local files with other apps, download to your smartphone, or delete the files. ● For Android smartphone, you can only share the local files with other apps or delete the files.
IFTTT	If This Then That (IFTTT) is a free web-based service to create chains of simple conditional statements which are called applets. An applet is triggered by changes that occur within other web-services, app, or devices such as Gmail, Facebook, or Lechange.
Settings	You can change account password, set motion detection period, reset device password, view the version information and FAQ, provide feedback, join the user experience plan, clear cache, and exit the current account.
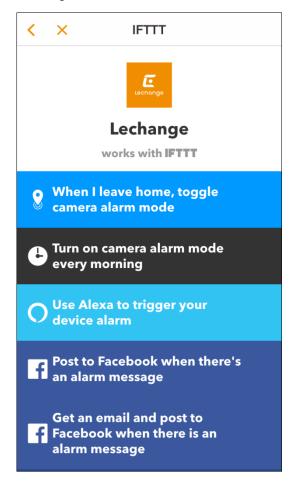
1.9 Using IFTTT Function

To introduce IFTTT function, the Manual takes activating alarm mode when you leave home as an example. This operation links your smartphone GPS to the alarm mode of your Lechange camera.

Step 1 On the **Me** interface, tap **IFTTT**.

The **IFTTT** main interface is displayed. See Figure 1-37.
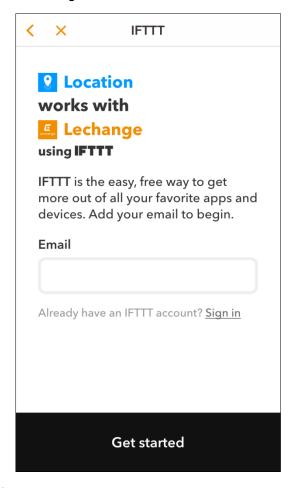
Figure 1-37 IFTTT main interface

Step 2 Tap **When I have home, toggle camera alarm mode**.

The function introduction interface is displayed.

Step 3 Tap **Continue**.

The email reservation interface is displayed. See Figure 1-38.
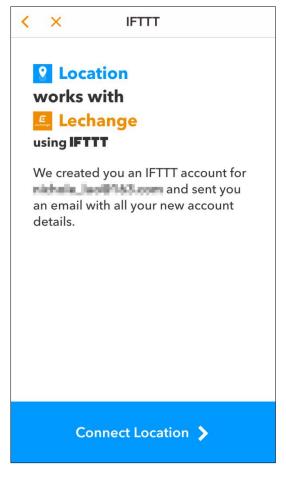
Figure 1-38 Email reservation

Step 4 Tap **Get started**.

📖 NOTE

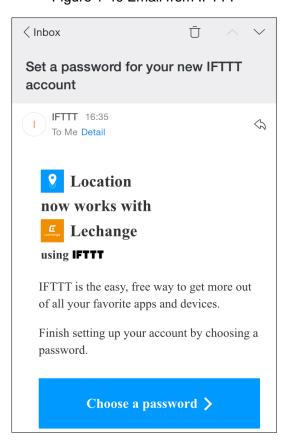If you have already had an IFTTT account, tap **Sign in**.

The interface indicating that the account details have sent to your email address is displayed. See Figure 1-39.
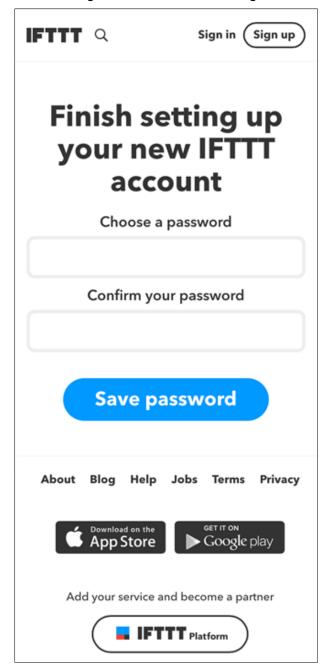
Figure 1-39 Account details

Step 5 Set a password for your account.
1) Open your email box and find the email sent from IFTTT. See Figure 1-40.

Figure 1-40 Email from IFTTT

2) Tap **Choose a password**.

The password setting interface is displayed. See Figure 1-41.
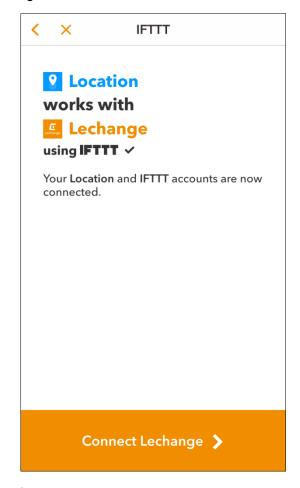
Figure 1-41 Password setting

3) Tap **Save password**.

Now the password setting from your email box has been completed. You can return to your Lechange App.

Step 6 On the Lechange App, tap **Connect Location**.

The interface indicating your location and IFTTT account are now connected is displayed. See Figure 1-42.

Figure 1-42 Location and account connected

Step 7 Tap **Connect Lechange**.

The account login interface is displayed. See Figure 1-43.
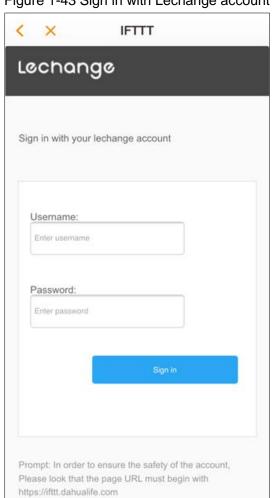
Figure 1-43 Sign in with Lechange account

Step 8 Enter the user name and password, and then tap **Sign in**.

The alarm area and alarm mode setting interface is displayed. See Figure 1-44.

Figure 1-44 Alarm area and alarm mode setting

Step 9 Set alarm area and alarm mode.
1) In the area box, enter an address. The GPS location circle adjusts automatically by taking the entered address as the center.
2) In the device list, select a device which you want to set with this function.
3) In the mode list, select **on** or **off**.
   ◇ On: When your exit this area, the alarm is turned on with the selected device.
   ◇ Off: When you exit this area, the alarm is turned off with the selected device.
Step 10 Tap **Save**.
The interface showing the function enabled is displayed. See Figure 1-45.
Now you can start enjoying your IFTTT function.

Figure 1-45 IFTTT setting completed