




## Networking Unique Super Mobile Applications

 constructs a three-screen networked cross-platform

The Sapido networking products come with an exclusive bandwidth sharing technology. The main home controller can be used as a bandwidth management control center and can combine wired and wireless bridges between multiple Sapido products to increase the network coverage. The super USB port can support connections from a number of external devices, and the establishment of a wireless networking environment with all of the devices (e.g. smartphones, tablets, computers, and televisions) through the Pdapp mobile software helps users develop a cross-system platform of multimedia file sharing, monitoring, and network management. Through the cloud-based services, users can enjoy the smart networking anytime and anywhere.



### **【 Pdnet constructs a three-screen network 】**

The Pdnet is composed of the routers and the home controller, which allows users to expand the network coverage through the bridging of multiple wired and wireless Sapido products. The super USB port can support external flash drives or hard drives for file sharing, a webcam for remotely monitoring, and audio speakers for airplay . Through the Pdapp, users are able to enjoy an interactive network service through the smartphone, tablet, computer, or television.

#### **Home controller for bandwidth sharing and network management**

Sapido products come with a bandwidth sharing feature that links the Internet with the intranet and can be used as a home broadband network management center to control all of your networking devices in one setting, strengthening the network security and making Internet usage more practical and convenient.



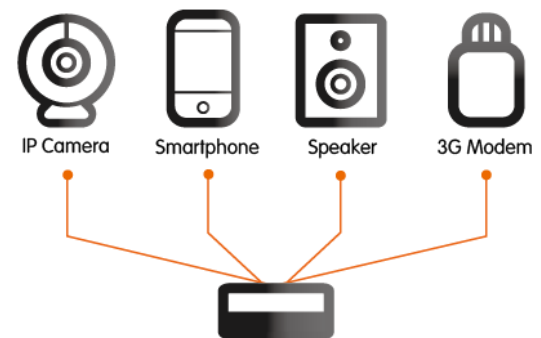
## ● Network signal expansion increases the network coverage by one touch WPS button

The bridge (AP) and wireless bridge (Wi-Fi AP) function as a way to link multiple Sapido products and to expand the wireless signal through WiFi AP mode switch and one touch WPS button. You can press the WPS button to complete the connection and configure the network through the full graphical user interface.



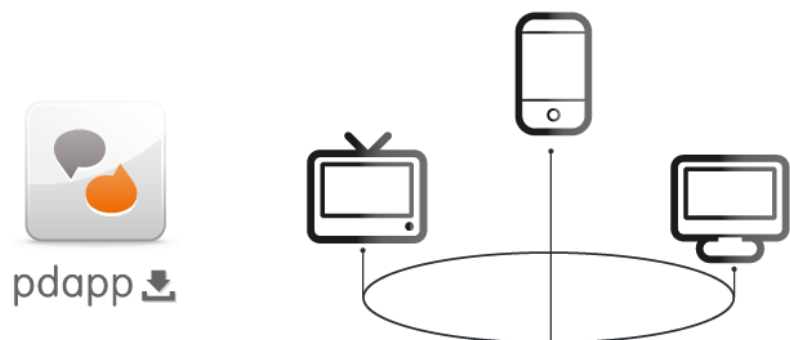
## ● Flexible Application - super USB port supports multiple devices

Connect a flash drive or an external hard driver to the USB port to upload and download files, a webcam to remotely monitor the network security, and audio speakers to airplay music .



## ● Interactive networking - cross-platform interface

The Pdapp allows users to link their devices (e.g. smartphones, tablets, computers, and televisions) and to synchronize them in one location to make sharing easier.



## **1. Sapido Smart Home Application- An Apartment4**

- 1.1. Smart Home pdnet Setup5**
  - 1.1.1. Smart home controller installation and settings5**
  - 1.1.1. pdapp Download8**
  - 1.1.2. Wi-Fi AP Bridge Setting9**
  - 1.1.3. Network Application10**
- 1.2. Smart Home pdnet Application11**
  - 1.2.1. Smart Home Network11**
  - 1.2.2. AirPlay12**
- 1.3. Outdoor Application13**
  - 1.3.1. Cloud Monitoring- Full time Home Security while travelling. 13**
  - 1.3.2. Cloud Storage- Remote File Access Application14**

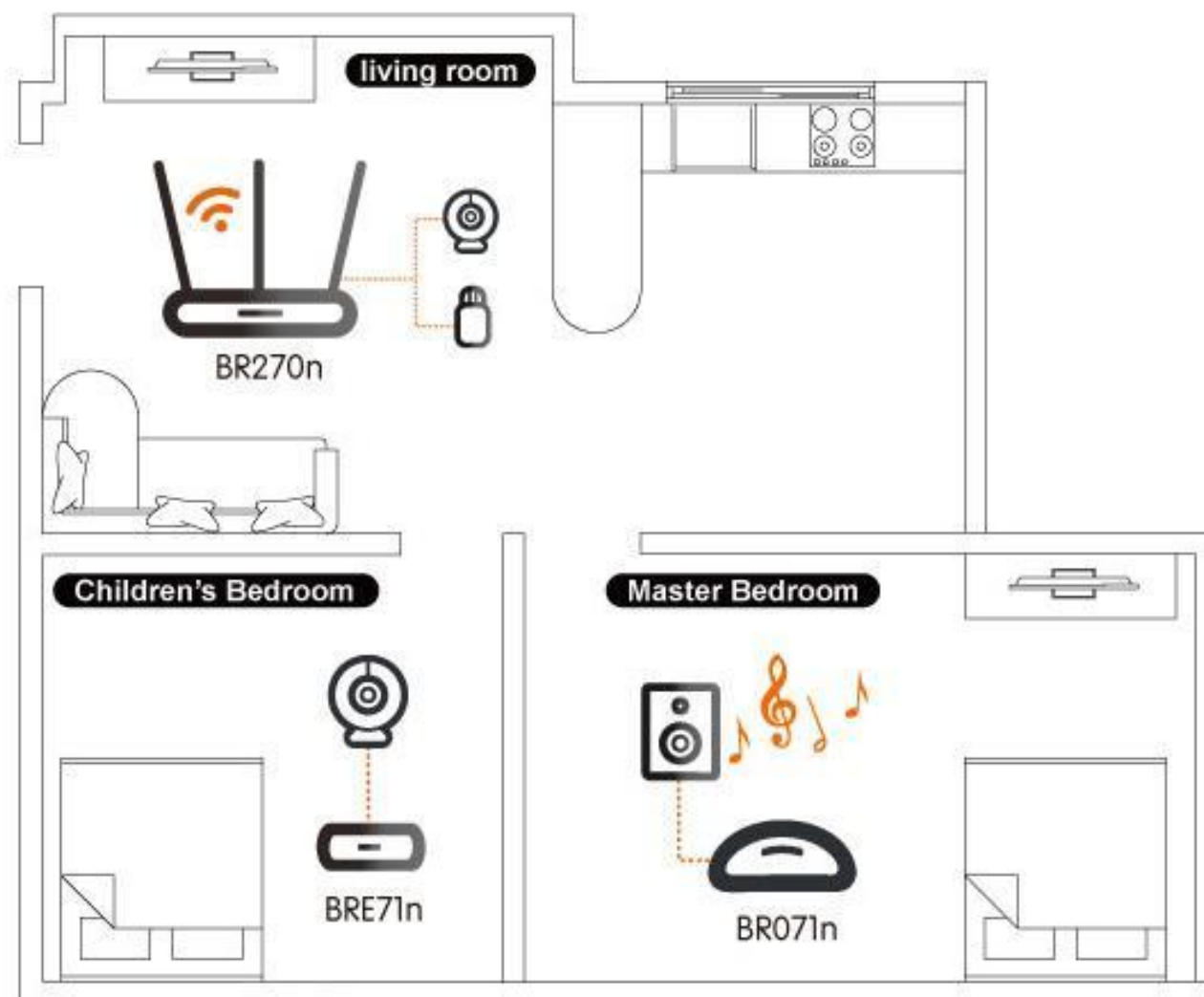
## **2. Sapido Smart Home Application- A Big House15**

- 2.1. Smart Home pdnet Setup16**
  - 2.1.1. Smart home controller installation and settings16**
  - 2.1.2. pdapp Download19**
  - 2.1.3. Wi-Fi AP Bridge Setting20**
  - 2.1.4. Network Application21**
- 2.2. Smart Home pdnet Application23**
  - 2.2.1. Smart Home Network23**
  - 2.2.2. AirPlay25**
- 2.3. Outdoor Application26**
  - 2.3.1. Cloud Monitoring- Full time Home Security while travelling. 26**
  - 2.3.2. Cloud Storage- Remote File Access Application27**
  - 2.3.3. Wake-on-LAN Technology for remote files accessing Application28**

This User Manual (Ver. 2013/04) is for Firmware Version: Ver1.0.x / pdapp Version: Ver:1.0.x

## 1. Sapido Smart Home Application- An Apartment

Main purpose: Users can easily and quickly build a wireless network environment in the apartment with 2 to 3 rooms for cloud monitoring, files sharing, and network management.



Apartment users will need 3pcs Sapido products, 1 USB webcam, 1 USB audio speaker, 1 USB Flash Drive, or HDD to quickly build a home Pdnet. The device details are as below:

Type	Devices
Home Controller	BR270n x 1pc
Wi-Fi AP bridge	BRE71n x 1pc BR071n x 1pc
Webcam	USB Webcam x 2pcs
Audio Speaker	USB Audio Speaker x 1 set







- [Back To Menu](#) -

## 1.1. Smart Home pdnet Setup

### 1.1.1. Smart home controller installation and settings

Location	Devices
Living Room Smart Home Controller	BR270n x 1pc + USB Webcam x 1pc + USB Flash Drive or HDD x 1pc

#### 1.1.1.1. Installation

<p>Step 1. Install 3pcs 7dBi high gain antennas on BR270n.</p> 	<p>Step 2. Connect modem to BR270n's <b>WAN port</b> via an Ethernet cable.</p> 
<p>Step 3. Connect the USB Flash Drive or External HDD to USB port for network storage.</p> 	<p>Step 4. Connect a webcam to USB port for remote monitoring.</p> 
<p>Step 5. Power on and wait for 30 seconds.</p> 	<p>Step 6. Use wireless devices (smartphone, tablet, or laptop) to connect to the Wi-Fi signal of BR270n and setup the home controller.</p> 

- [Back To Menu](#) -

### 1.1.1.2. Internet Connection Setting

Step 1. Open the web browser. It will detect the connection type automatically.



Step 2. Detect Internet type and direct to the setting page automatically.

#### ● xDSL / Fiber Setting

Enter username and password provided by ISP, key in SSID, and set up the encryption.

#### PPPoE

##### PPPoE user name and password

User Name:

Password:

##### Wireless Setup

Wireless AP ☒ Enable ☐ Disable

SSID

Encryption  ▼

WPA\_Pre-Shared Key

#### ● Cable Modem Setting

Enter SSID and set up the encryption.

#### DHCP

##### MAC setting

MAC type ☐ Universal ☒ Specific

Clone MAC Address:

##### Wireless Setup

Wireless AP ☒ Enable ☐ Disable

SSID

Encryption  ▼

WPA\_Pre-Shared Key

- **Static IP Setting**

Enter IP address, Subnet Mask, Gateway, and DNS. (Please check with your ISP or Network Administrator for more details)

## Static IP

### IP Address setting

IP Address:	<input type="text" value="172.1.1.1"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="172.1.1.254"/>
DNS:	<input type="text" value="8.8.8.8"/>

### Wireless Setup

Wireless AP	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
SSID	<input type="text" value="Sapido_Router"/>
Encryption	<input type="text" value="WPA2"/> ▼
WPA_Pre-Shared Key	<input type="text" value="....."/>

Step 3. Click "Apply". DO NOT disconnect or power off the router while countdowning.

Apply

Step 4. When "WAN Successfully Connected" appears, download and install pdapp to complete the settings.



- [Back To Menu](#) -



### 1.1.1. pdapp Download

pdapp supports iOS (App store), Android (Google Play), and Windows. Downloading steps are as below:

#### APP Store ( iOS )



Go to “APP Store”, search for “pdapp” or “Sapido”, and click “Install” to download pdapp.



#### Google Play ( Android )



Go to “Google Play”, click “Search” icon on the right top corner and search for “Pdapp” to install.





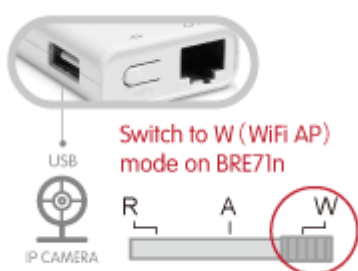
### 1.1.2. Wi-Fi AP Bridge Setting

Switch to W (Wi-Fi AP) mode, and press the WPS button for instant Wi-Fi connection, which can extend the wireless network to poor signal corners and share with multiple devices. It can also build an internal wireless network environment.

#### 1.1.2.1. Wi-Fi AP Bridge Setting- CD-free

Location	Devices
Children's Bedroom	BRE71n x 1pc
Master Bedroom	BR071n x 1pc

Step 1. Switch to W (Wi-Fi AP) mode on BRE71n.



Step 2. Power on and wait for 30 seconds.



Step 3. Press “WPS” button on the main router BR270n till WPS LED indicator is flashing, and then press “WPS” button on BRE71n till WPS LED indicator is flashing. When both LED indicators have stopped flashing, the Wi-Fi bridge is successfully connected and automatically encrypted.



Step 4. Use the same steps to set up Wi-Fi AP bridge on the BR071n.

**Remark:** Wi-Fi AP bridge router must be Sapido router equipped with WPS button.

### 1.1.3. Network Application

Super USB port connected with webcams for real time monitoring; audio speakers for AirPlay.

#### 1.1.3.1. Cloud Monitoring Setting- CD-free

Location	Devices
Children's Bedroom	BRE71n x 1pc + USB webcam x 1pc

Step 1. After the Wi-Fi AP bridge connected, put one BRE71n at the children's bedroom. Power on it and wait for 30 seconds.



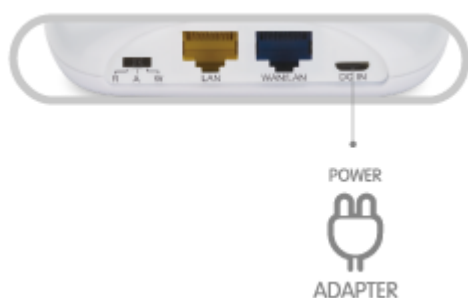
Step 2. Connect the webcam to USB port for the instant remote monitoring.



#### 1.1.3.2. 【AirPlay】 CD-free Installation

Location	Devices
Master Bedroom	BR071n x 1pc + USB Audio Speaker x 1 set

Step 1. After the Wi-Fi AP bridge connected, put one BR071n at the master bedroom. Power on it and wait for 30 seconds.



Step 2. Connect the audio speaker to USB port, plug and play for AirPlay.



## 1.2. Smart Home pdnet Application

### 1.2.1. Smart Home Network

pdapp helps you quickly overview the Pdnet network and manage devices in Pdnet.

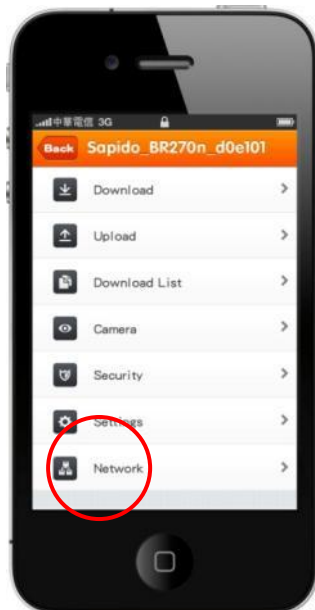
Step 1. Use wireless devices (smartphone, tablet, or laptop) to connect to the Wi-Fi signal of BR270n and setup the home controller.



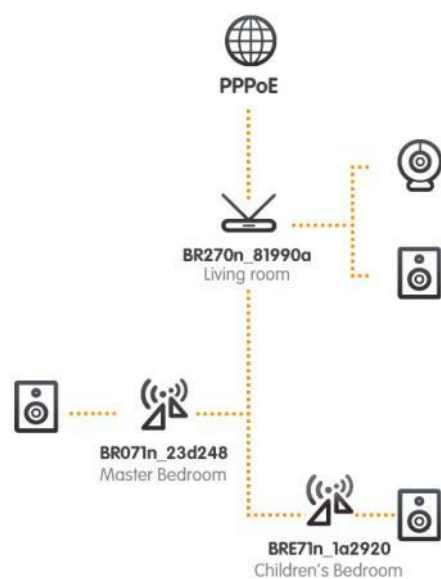
Step 2. Log into pdapp (please refer to pdapp manual).



Step 3. Click "Network" in Pdapp menu.



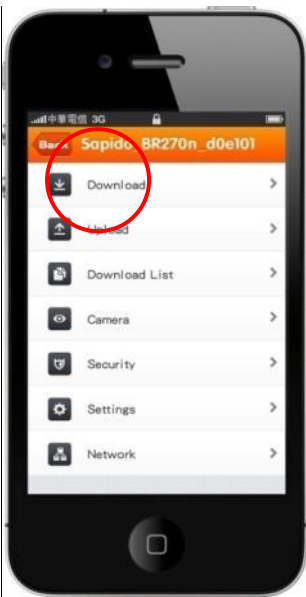
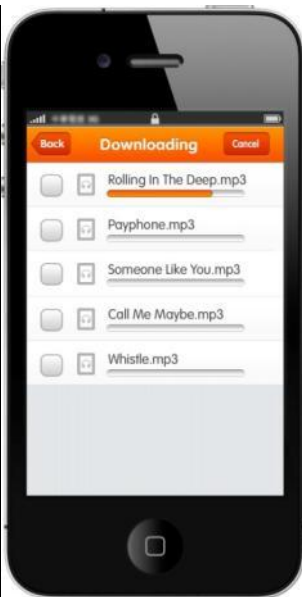
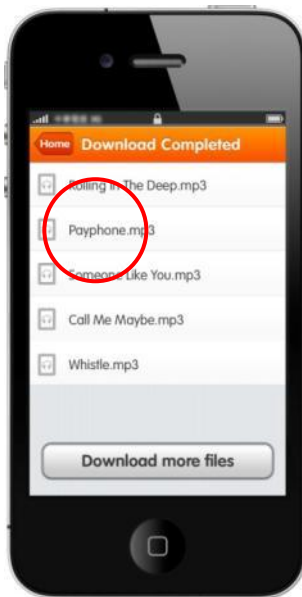

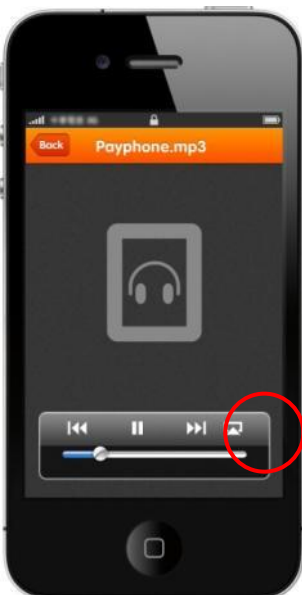

Step 4. Overview the entire network status of routers, USB devices, and computers.



- [Back To Menu](#) -

### 1.2.2. AirPlay

CD-free installation; Plug and Play; connecting the audio speaker to USB port to play the music wirelessly.

<p>Step 1. Click <b>"Download"</b> in Pdapp menu.</p> 	<p>Step 2. Download music file</p> 	<p>Step 3. Preview the downloaded music file.</p> 
<p>Step 4. Play the downloaded music file</p> 	<p>Step 5. Airplay Function. Click the AirPlay icon.</p> 	<p>Step 6. Choose the audio speaker device and AirPlay</p> 

AirPlay function supports iOS system (iPhone/iPad), which can be used on LAN (Local Area Network) only. The AirPlay icon will not appear through WAN (Wide Area Network).

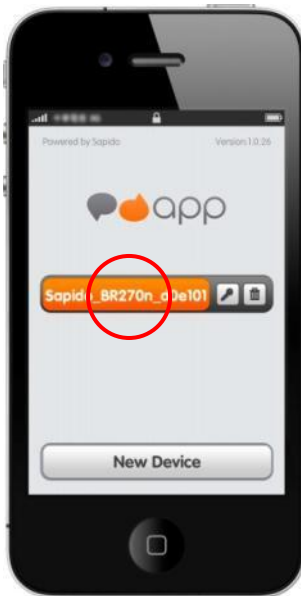
- [Back To Menu](#) -

## 1.3. Outdoor Application

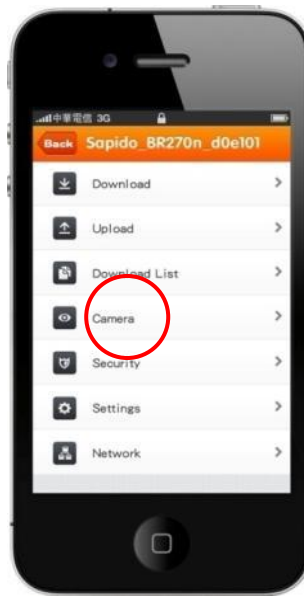
### 1.3.1. Cloud Monitoring- Full time Home Security while travelling.

Connect the webcam to USB port to monitor the real-time home security for elders, children, and pets.

Step 1. Open pdapp and log into the device.



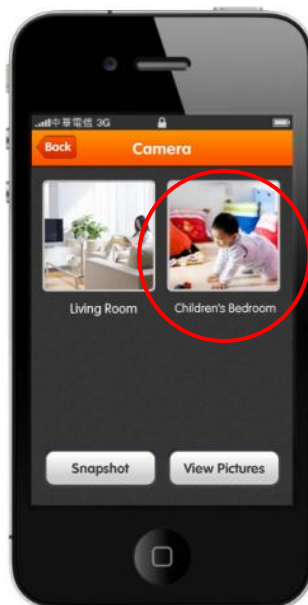
Step 2. Click "Camera".



Step 3. Cloud monitoring screen.



Step 4. Click one of the Cameras



Step 5. Single camera screen

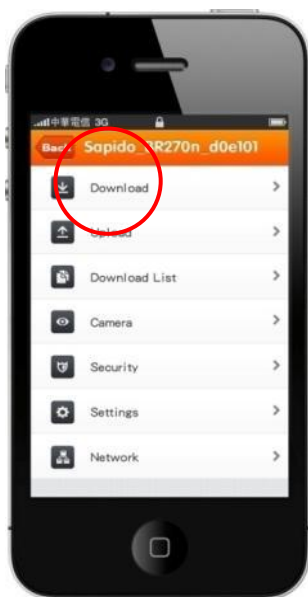


- [Back To Menu](#) -

### 1.3.2. Cloud Storage- Remote File Access Application

Connect USB drive or external HDD to USB port for the file uploading and downloading from BR270n.

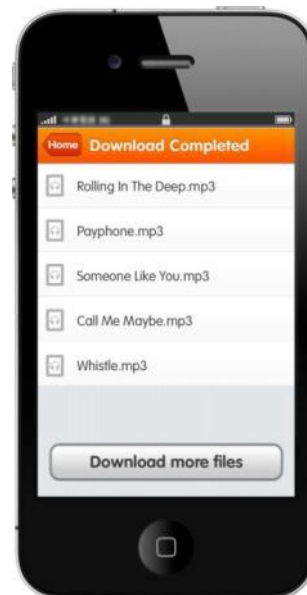
Step 1. Click **"Download"**



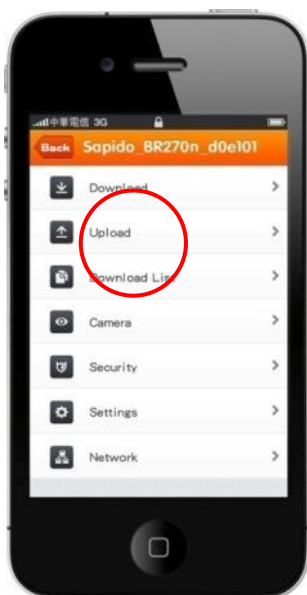
Step 2. Downloading



Step 3. Download completed



Step 4. Click **"Upload"**



Step 5. Uploading



Step 6. Upload completed

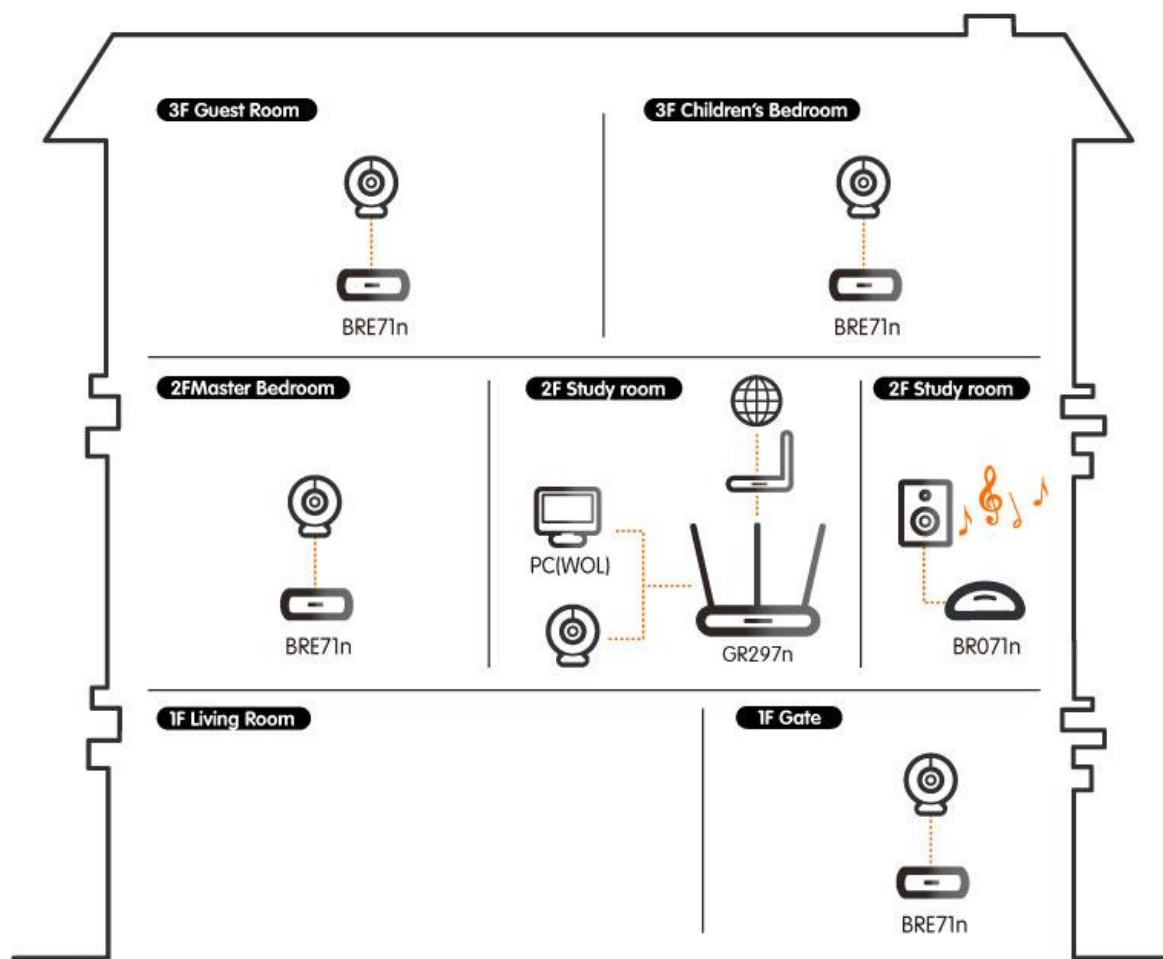


✗For more details about Pdapp, please refer to the Pdapp Manual at Sapido official website.

- [Back To Menu](#) -

## 2. Sapido Smart Home Application- A Big House

Main Purpose: Users can easily and quickly build a wireless network environment for cloud monitoring, network management, files sharing, and multimedia application.



Big house user can use multiple Sapido products, webcams, USB audio speakers, 1 USB flash drive, or 1 external HDD to build a home Pdnet. The device details are as below:

Type	Devices
Home Controller	GR297n x 1pc
Wi-Fi AP Bridge	BRE71n x 4pcs BR071n x 1pc
Webcam	Webcam x 5pcs
Audio Speaker	Audio speaker x 1 set
Storage device	USB Flash drive or external HDD x 1pc
Computer	Computer x 1pc

- [Back To Menu](#) -





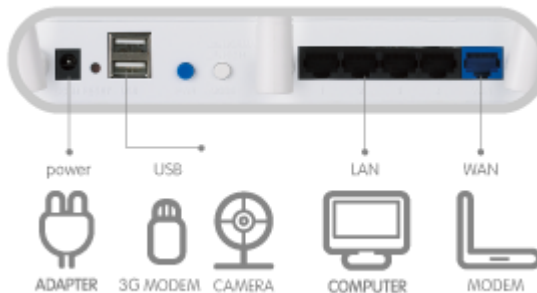


## 2.1. Smart Home pdnet Setup

### 2.1.1. Smart home controller installation and settings

Location	Devices
Study room Smart Home Controller	GR297n x 1pc + Webcam x 1pc + USB Flash Drive or external HDD x 1pc
Study room	Computer x 1pc

#### 2.1.1.1. Installation

<p>Step 1. Install 3pcs 7dBi high gain antennas on GR297n.</p> 	<p>Step 2. Connect modem to GR297n's WAN port via an Ethernet cable.</p> 
<p>Step 3. Connect the USB Flash Drive or External HDD to USB port for network storage; connect a webcam for remote monitoring.</p> 	<p>Step 4. Power on the router and wait for 30 seconds.</p> 
<p>Step 5. Connect a computer to GR297n's LAN port via an Ethernet cable. Through Wake-on-LAN (WoL) technology, smartphone users can wake the computer remotely for files accessing and multimedia files sharing with others at the same time. Please set up the GR297n using computer.</p>	

- [Back To Menu](#) -

### 2.1.1.2. Internet Connection Setting

Step 1. Open the web browser. It will detect the connection type automatically.



Step 2. Detect Internet type and direct to the setting page automatically.

#### ● xDSL / Fiber Setting

Enter username and password provided by ISP, key in SSID, and set up the encryption.

#### PPPoE

##### PPPoE user name and password

User Name:

Password:

##### Wireless Setup

Wireless AP ☒ Enable ☐ Disable

SSID

Encryption  ▼

WPA\_Pre-Shared Key

#### ● Cable Modem Setting

Enter SSID and set up the encryption.

#### DHCP

##### MAC setting

MAC type ☐ Universal ☒ Specific

Clone MAC Address:

##### Wireless Setup

Wireless AP ☒ Enable ☐ Disable

SSID

Encryption  ▼

WPA\_Pre-Shared Key

## ● Static IP Setting

Enter IP address, subnet mask, gateway, and DNS. (Please check with your ISP or Network Administrator for more details).

### Static IP

#### IP Address setting

IP Address:	<input type="text" value="172.1.1.1"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="172.1.1.254"/>
DNS:	<input type="text" value="8.8.8.8"/>

#### Wireless Setup

Wireless AP	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
SSID	<input type="text" value="Sapido_Router"/>
Encryption	<input type="text" value="WPA2"/> ▼
WPA_Pre-Shared Key	<input type="text" value="....."/>

Step 3. Click "Apply". DO NOT disconnect or power off the router while countdowning.

Apply

Step 4. When "WAN Successfully Connected" appears, download and install pdapp to complete the settings.

### WAN connect successfully!

Connect Information

IP address	122.121.113.122
DNS	168.95.192.1
Gateway	168.95.98.254

 pdapp  
Download Sapido Cloud

- [Back To Menu](#) -

### 2.1.2. pdapp Download

pdapp supports iOS (App store), Android (Google Play) and Windows. Downloading steps are as below:

#### APP Store ( iOS )



Go to “APP Store”, search for “pdapp” or “Sapido”, and click “Install” to download pdapp.



#### Google Play (Android)



Go to “Google Play”, click “Search” icon on the right top corner and search for “Pdapp” to install.



- [Back To Menu](#) -

### 2.1.3. Wi-Fi AP Bridge Setting

Switch to W (Wi-Fi AP) mode, and press the WPS button for instant Wi-Fi connection, which can extend the wireless network to poor signal corners and share with multiple devices. It can also build an internal wireless network environment.

#### 2.1.3.1. Wi-Fi AP Bridge Setting- CD-free

Location	Devices
Gate	BRE71n x 1pc
Master Bedroom	BRE71n x 1 pc
Children's Bedroom	BRE71n x 1 pc
Guest Room	BRE71n x 1 pc
Study Room	BR071n x 1 pc

Step 1. Switch to "W" mode (Wi-Fi AP) on one BRE71n.



Step 2. Power on the router and wait for 30 seconds.



Step 3. Press "WPS" button on the main router GR297n till WPS LED indicator is flashing, and then press "WPS" button on BRE71n till WPS LED indicator is flashing. When both LED indicators have stopped flashing, the Wi-Fi bridge is successfully connected and automatically encrypted.



Step 4. Use the same steps to set up Wi-Fi AP bridge on the 2nd BRE71n.

Step 5. Use the same steps to set up Wi-Fi AP bridge on the 3rd BRE71n.

Step 6. Use the same steps to set up Wi-Fi AP bridge on the last BRE71n.

Step 7. Use the same steps to set up another Wi-Fi AP bridge on BR071n.

Remark: Wi-Fi AP bridge router must be Sapido router equipped with WPS button.

- [Back To Menu](#) -

## 2.1.4. Network Application

Super USB port connected with webcams for real time monitoring and audio speakers for AirPlay.

### 2.1.4.1. Cloud Monitoring- CD-free

Location	Devices
Gate	BRE71n x 1pc + USB webcam x 1pc
Master Bedroom	BRE71n x 1pc + USB webcam x 1pc
Children's bedroom	BRE71n x 1pc + USB webcam x 1pc
Guest room	BRE71n x 1pc + USB webcam x 1pc

Step 1. After the Wi-Fi AP Bridge connected, put one BRE71n at the gate. Power on it and wait for 30 seconds.



Step 2. Connect the webcam on the USB port, plug and play for instant remote monitoring.



Step 3. After the Wi-Fi AP Bridge connected, put the 2nd BRE71n in the master bedroom and connect the webcam on the USB port. Power on and wait for 30 seconds.

Step 4. After the Wi-Fi AP Bridge connected, put the 3rd BRE71n in the children's bedroom and connect the webcam on the USB port. Power on and wait for 30 seconds.

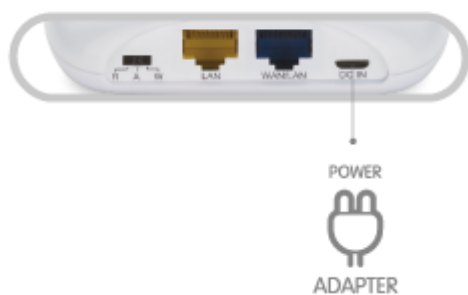
Step 5. After the Wi-Fi AP Bridge connected, put the last BRE71n in the guest room and connect the webcam on the USB port. Power on and wait for 30 seconds.

- [Back To Menu](#) -

#### 2.1.4.2. Airplay- CD-free Installation.

Location	Devices
Study Room	BR071n x 1pc + USB Audio Speaker x 1 set

Step 1. After the Wi-Fi AP bridge connected, put one BR071n in the study room. Power on it and wait for 30 seconds.



Step 2. Connect the audio speaker on the USB port, plug and play for AirPlay.



- [Back To Menu](#) -



## 2.2. Smart Home pdnet Application

### 2.2.1. Smart Home Network

Users can build up a private Pdnnet platform to enjoy multimedia files sharing, monitoring, and network management through a cross-system (iOS, Android, and Windows) pdapp. Users can also enjoy the cloud service from Three-screen Networked Platform (handheld devices, computers, and televisions) anytime and everywhere.



Pdapp helps you quickly overview the Pdnnet network and manage devices in Pdnnet.

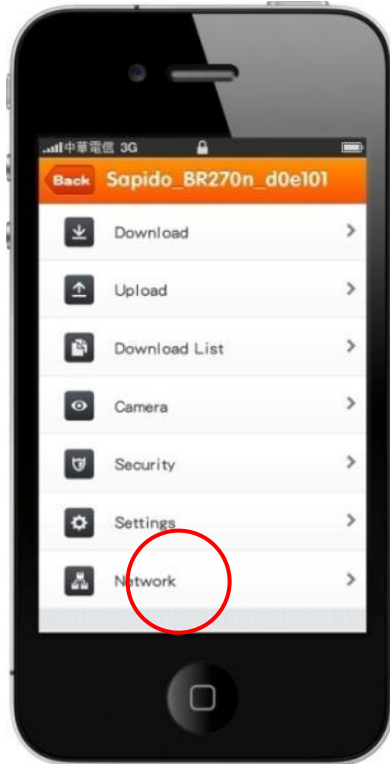
Step 1. Use wireless devices (smartphone, tablet, or laptop) to connect to the Wi-Fi signal of GR297n and setup the home controller.



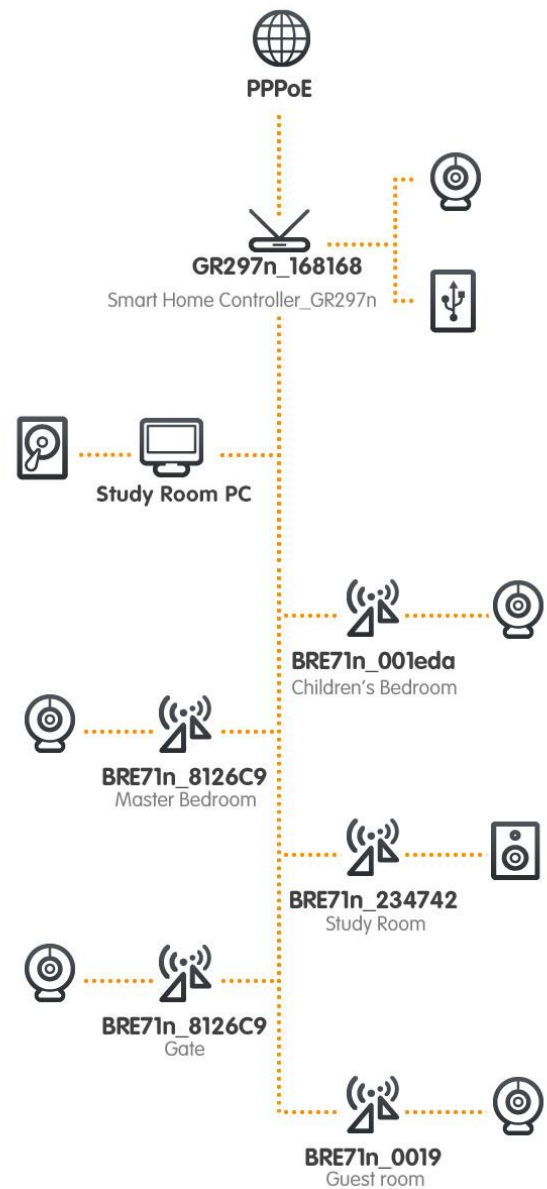
Step 2. Log into Pdapp (please refer to pdapp manual).



Step 3. Click **“Network”** in Pdapp menu.



Step 4. Overview the entire network status of routers, USB devices, and computers.

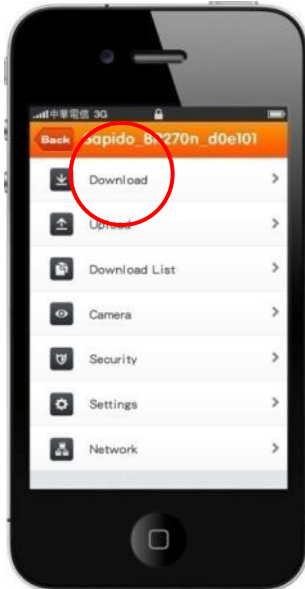


- [Back To Menu](#) -

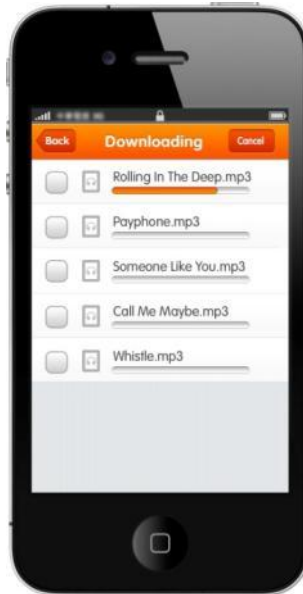
### 2.2.2. AirPlay

CD-free Installation; Plug and Play; Connect the audio speaker to USB port to play the music wirelessly.

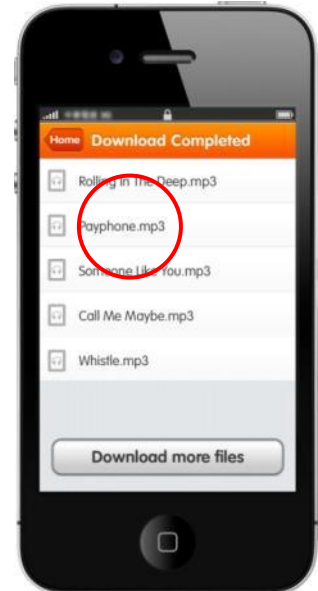
Step 1. Click “**Download**” in Pdapp menu.



Step 2. Download the music file.



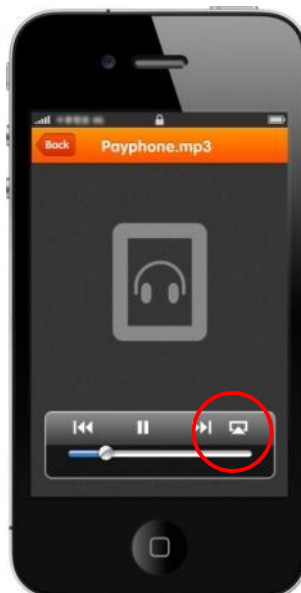
Step 3. Preview the downloaded music file.



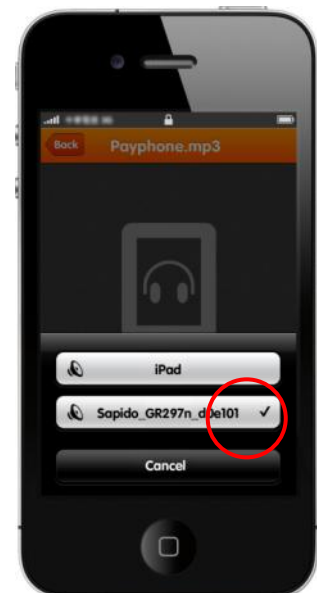
Step 4. Play the downloaded music file.



Step 5. Click the AirPlay icon.



Step 6. Choose the audio speaker device and AirPlay


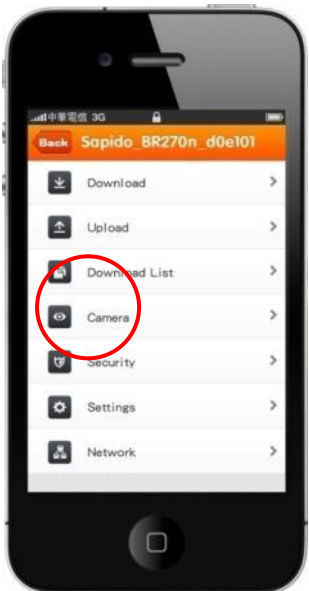

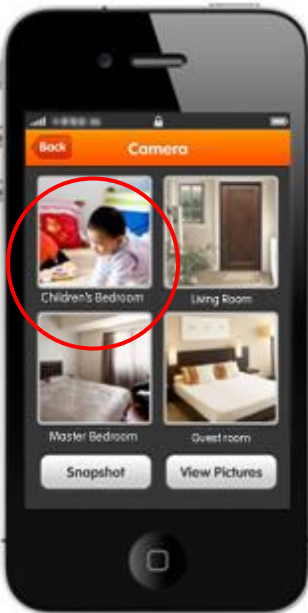



AirPlay function supports iOS system (iPhone/iPad), which can be used on LAN (Local Area Network) only. The AirPlay icon will not appear through WAN (Wide Area Network).

## 2.3. Outdoor Application

### 2.3.1. Cloud Monitoring- Full time Home Security while travelling.

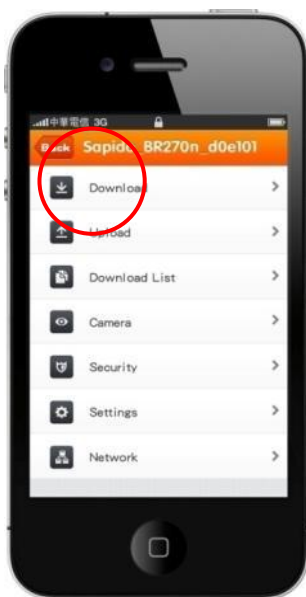
Connect the webcam to USB port to monitor the real-time home security for elders, children, and pets.

<p>Step 1. Open pdapp and log into the device</p> 	<p>Step 2. Click "Camera".</p> 	<p>Step 3. Cloud monitoring Screen.</p> 
<p>Step 4. Click one of the cameras.</p> 	<p>Step 5. Single camera screen</p> 	

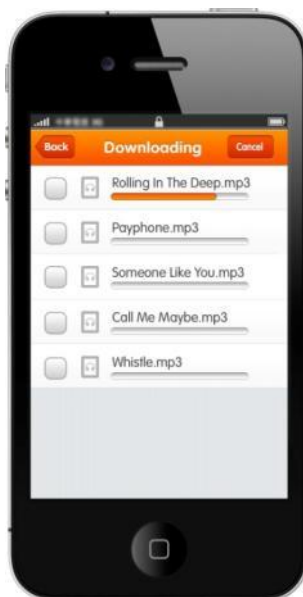
### 2.3.2. Cloud Storage- Remote File Access Application

Connect USB drives or external HDDs to USB port for the file uploading and downloading from GR297n.

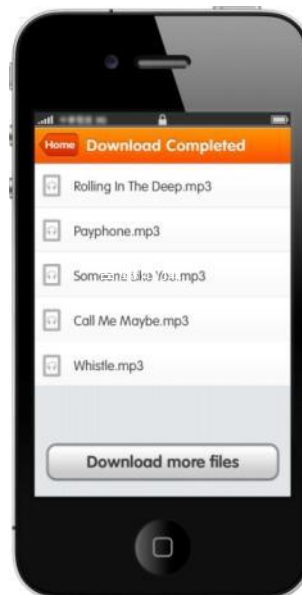
Step 1. Click **"Download"**



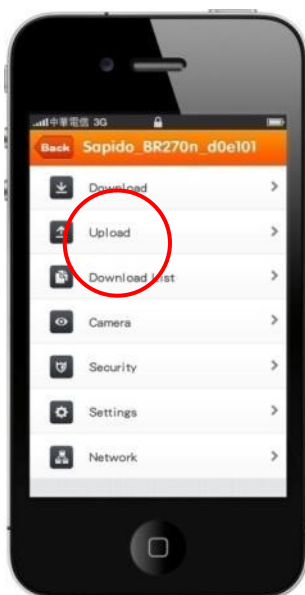
Step 2. Downloading



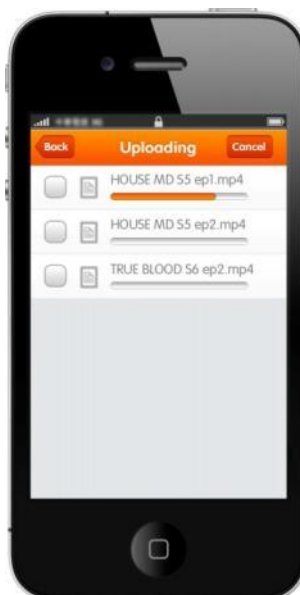
Step 3. Download Completed



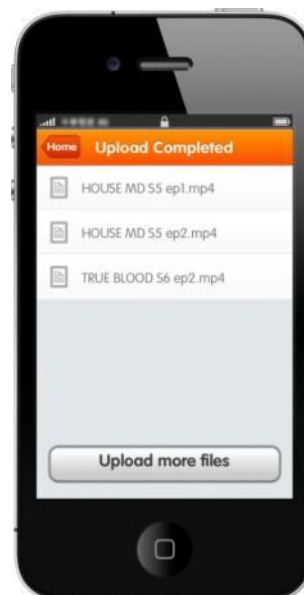
Step 4. Click **"Upload"**



Step 5. Uploading



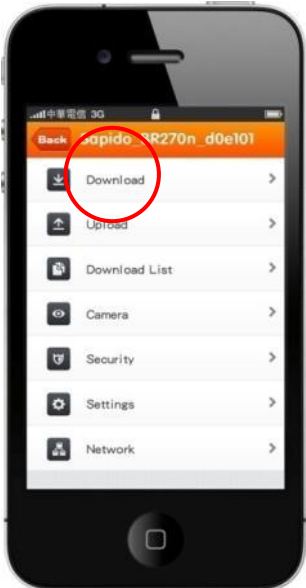
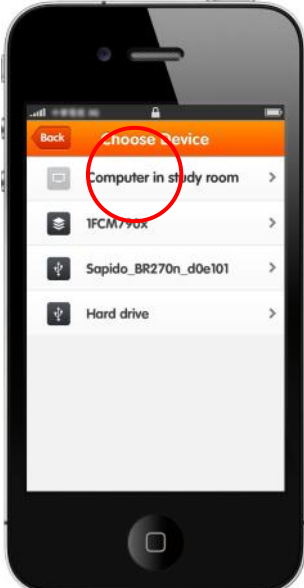
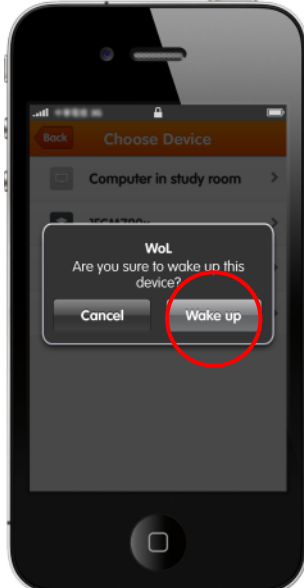
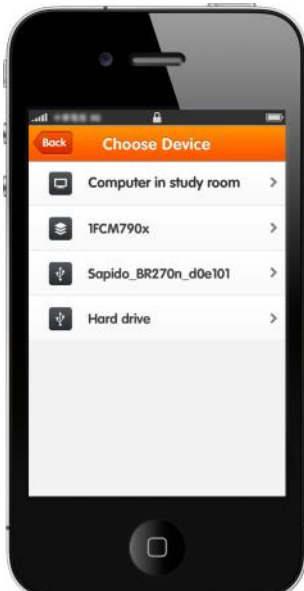
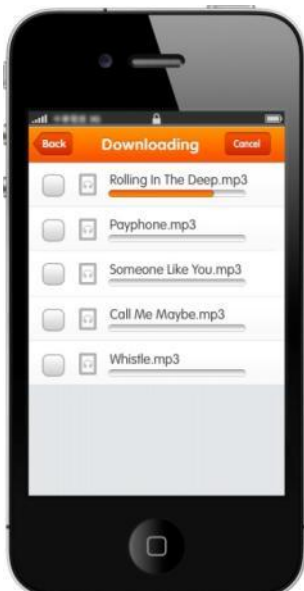
Step 6. Upload Completed



- [Back To Menu](#) -

### 2.3.3. Wake-on-LAN Technology for remote files accessing Application

Through Wake-on-LAN (WoL) technology, smartphone users can wake the computer remotely for files accessing and multimedia files sharing with others at the same time.

<p>Step 1. Click “Download”</p> 	<p>Step 2. Choose the computer to download</p> 	<p>Step 3. Click “Wake-on”</p> 
<p>Step 4. Waking up</p> 	<p>Step 5. Computer is successfully awoken</p> 	<p>Step 6. Downloading</p> 

For more details about pdapp, please refer to the Manual on Sapido Official Website.

- [Back To Menu](#) -