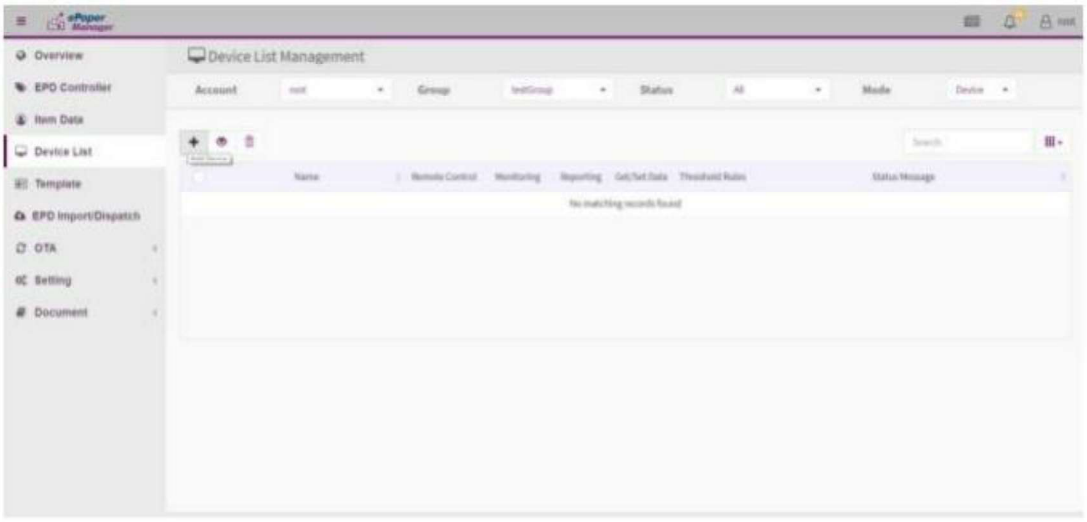
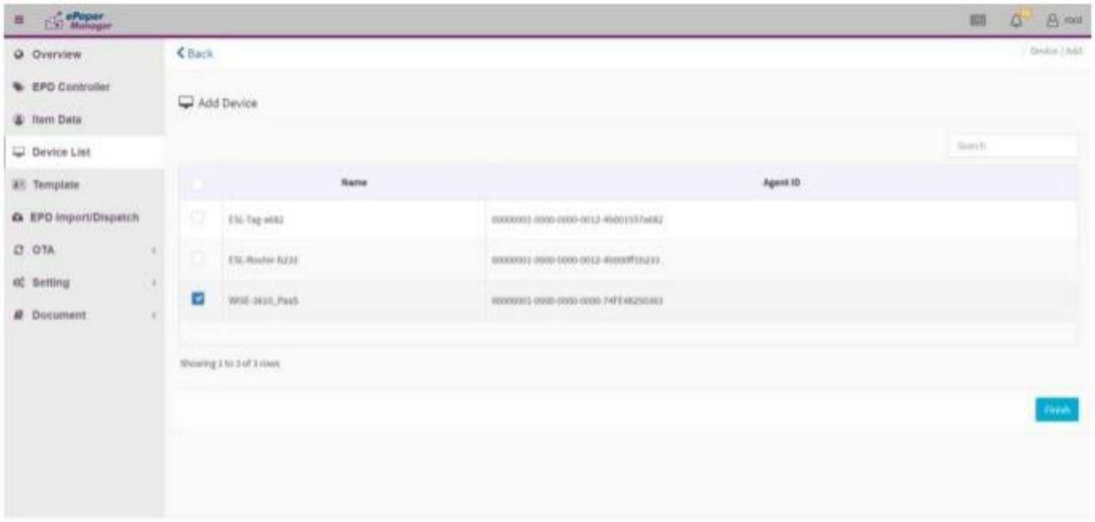
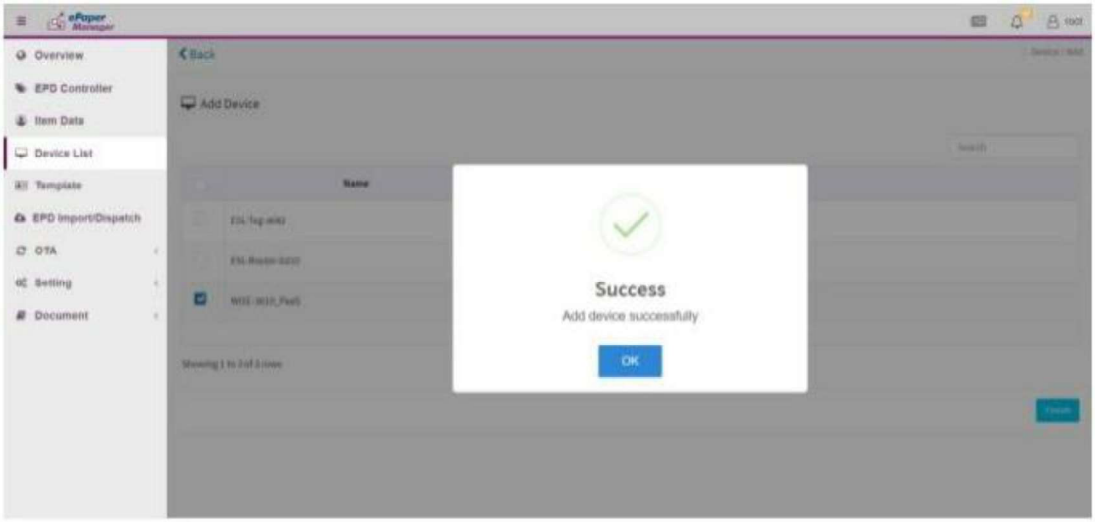
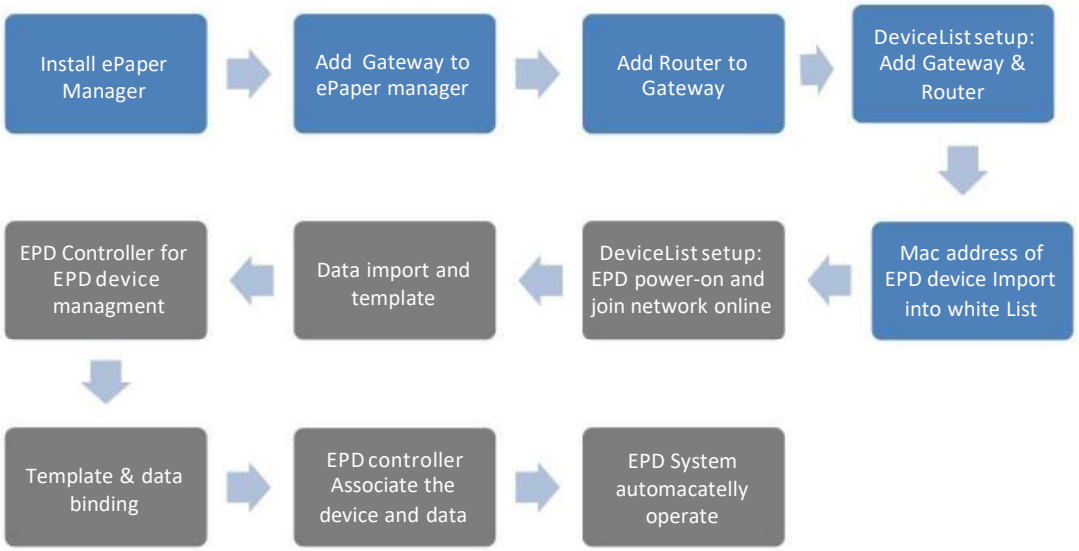
3. Add Gateway/Router to Group







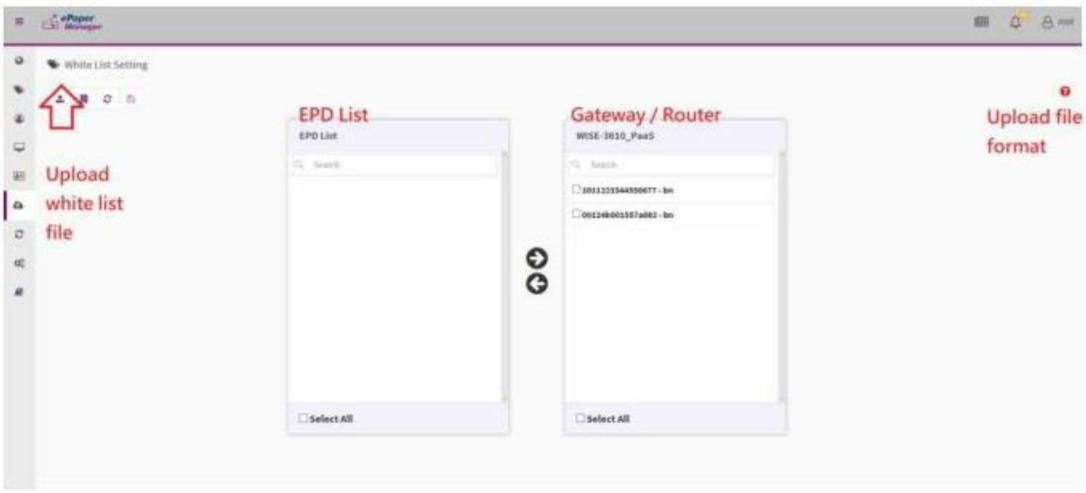
4. Legal ePaper device joins the network



■Import the whitelist

Import Mac address of EPD device list into ePaper manager.

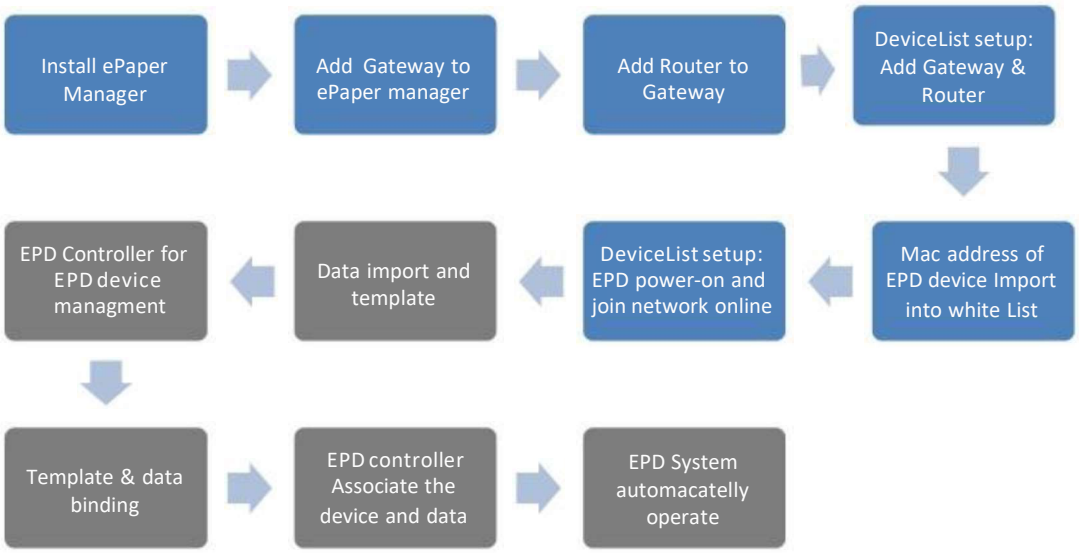
Note: User may receive the mac address file when EPD device shipping.



■Add EPD device into ePaper manager whitelist. There is a mac address label on the EPD-053 back, users may scan QR Code to mapping the target item.

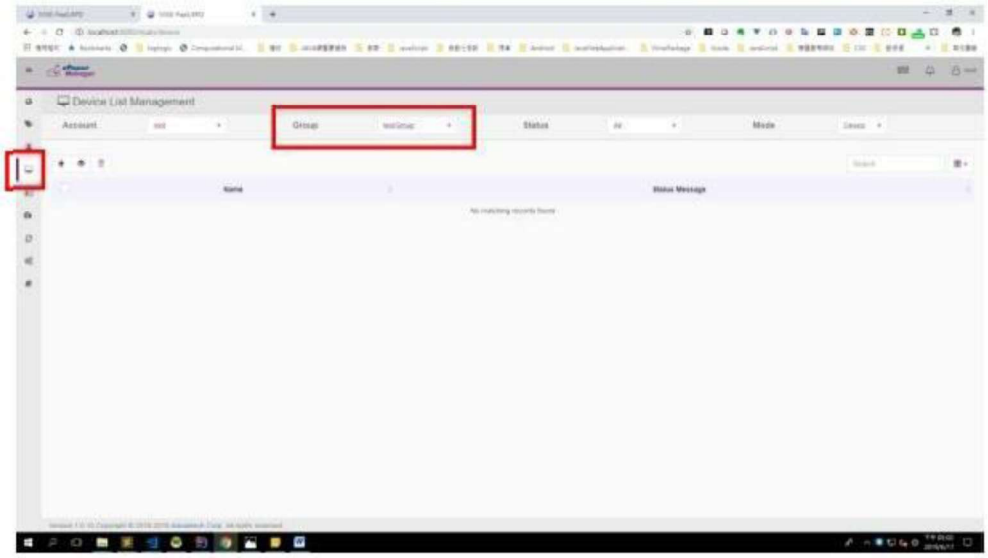
■Dispatch the EPD device to Gateway and Router
■(Option) Setup Router Channel
– Refer to #4.3.2 item 7. Setup Router Channel.
■Wakeup EPD device from sleep mode
– Press button and release button

5. Add EPD device into a Device Group

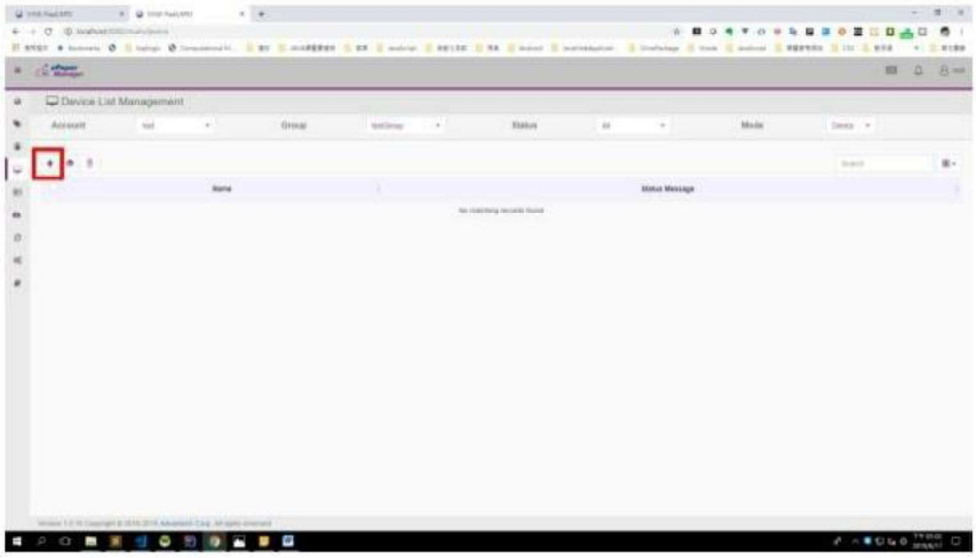


1). EPD device online. Click any button of the EPD device and you can see it on-line (30 mins for 400 pcs EPD devices join network in each router).

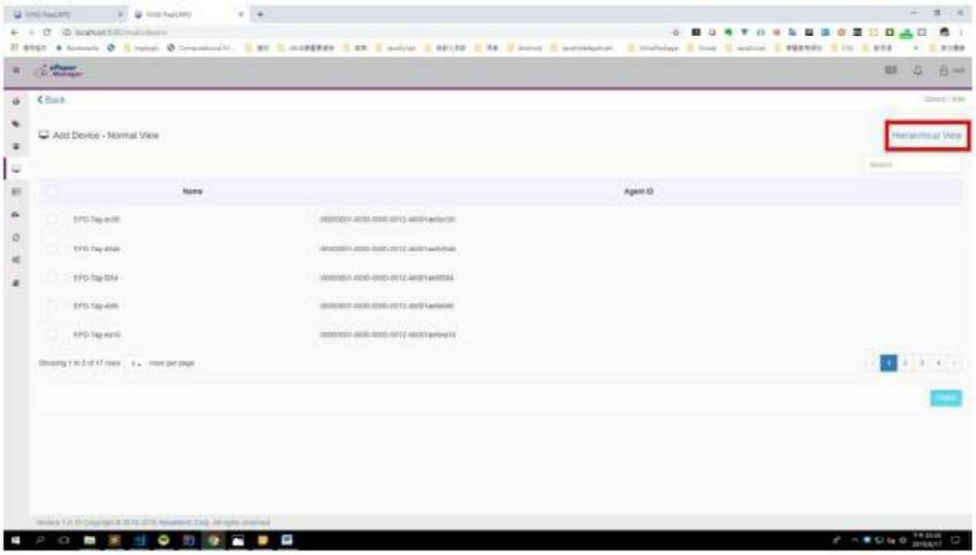
2).Click device list on the side bar menu, and select the device group you want to add devices.

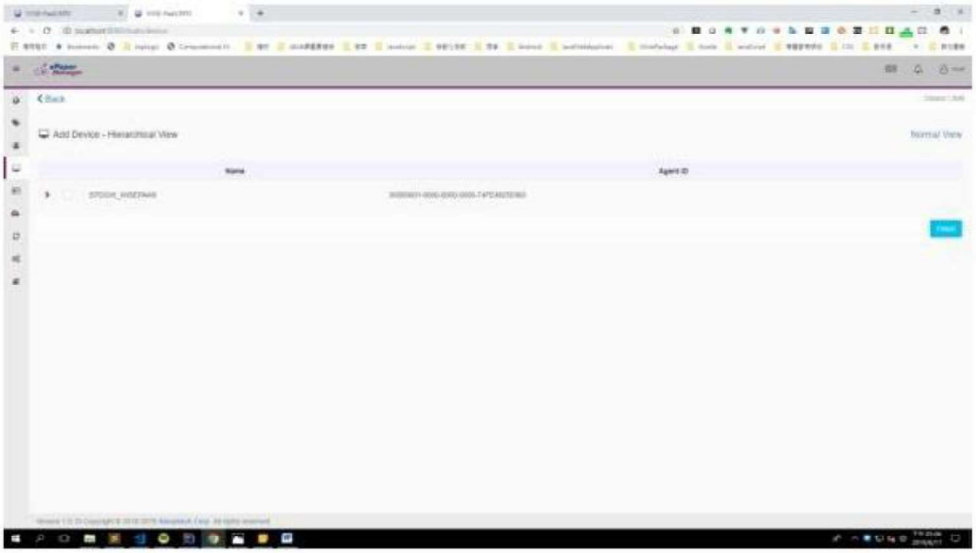


2). Click the add button on the top-left corner.

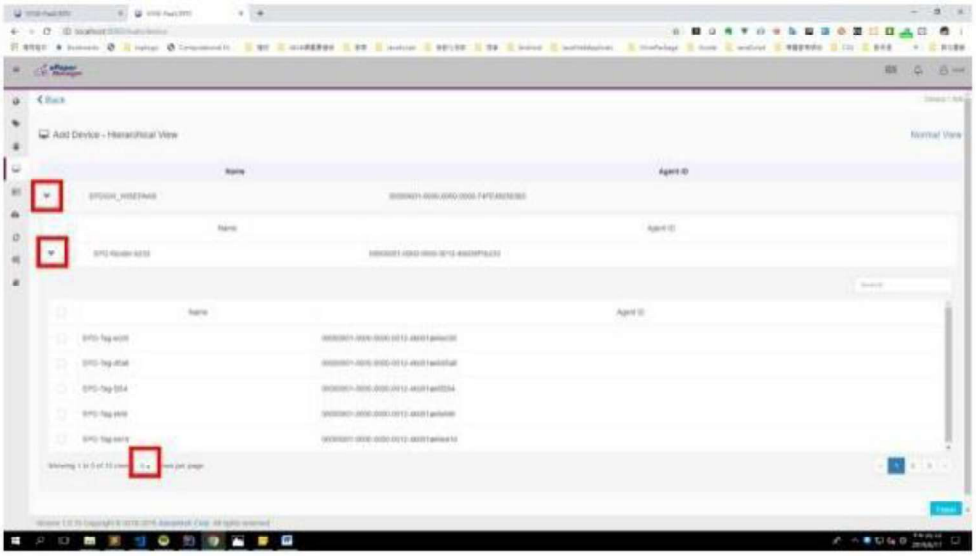


3). Choose the hierarchical view. (If you have finished the whitelist Setting previously, you will see the devices grouped under a gateway.)

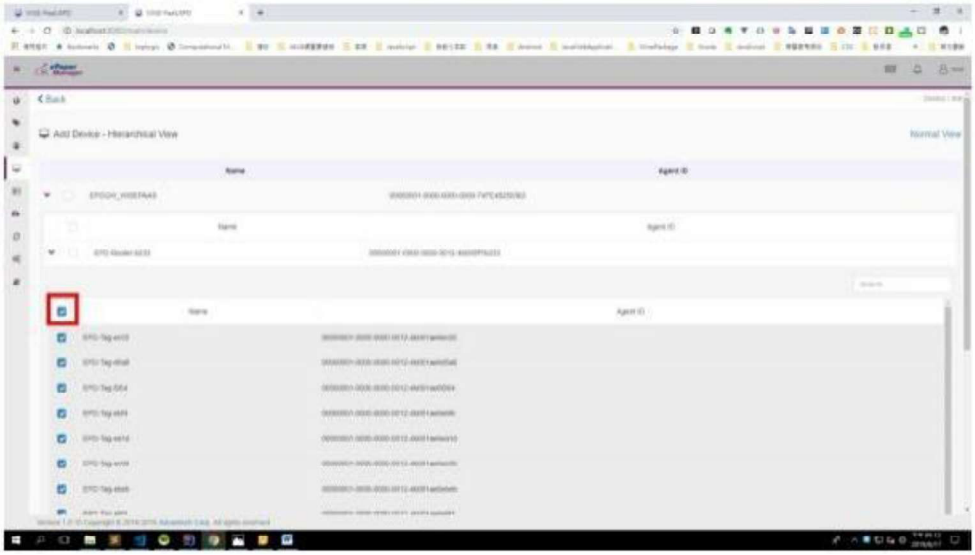




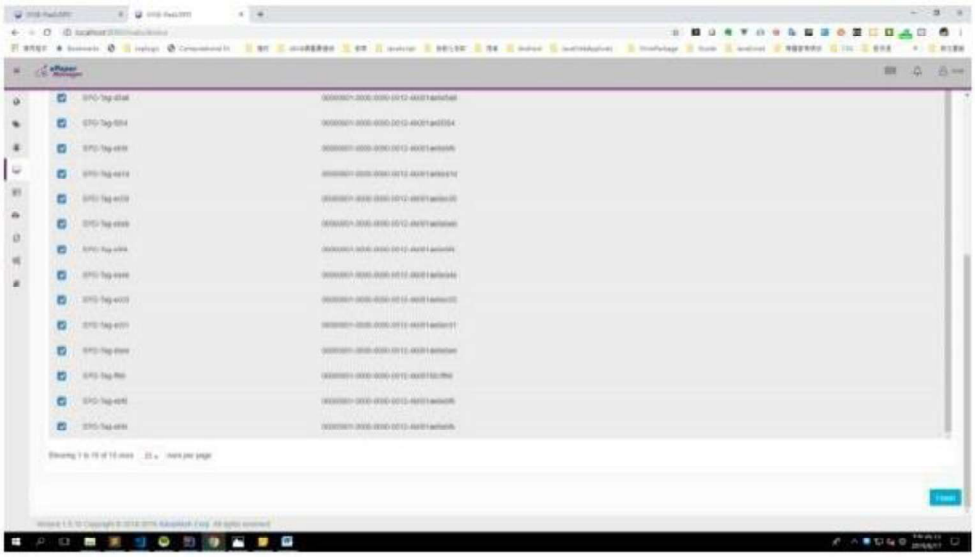
4). Open the hierarchy until you see the device. Change the show number in order to select all devices under this gateway.

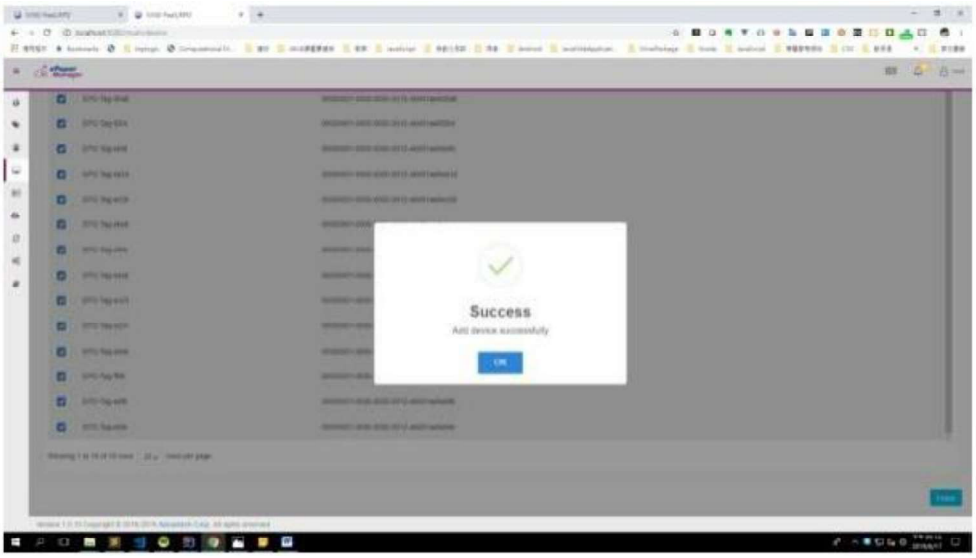


5). Select all by click the checkbox above.



6).Click the finish button to finish the selection.
Note: It's an optional step, since the system already has encrypted keys to protect all transmission data.

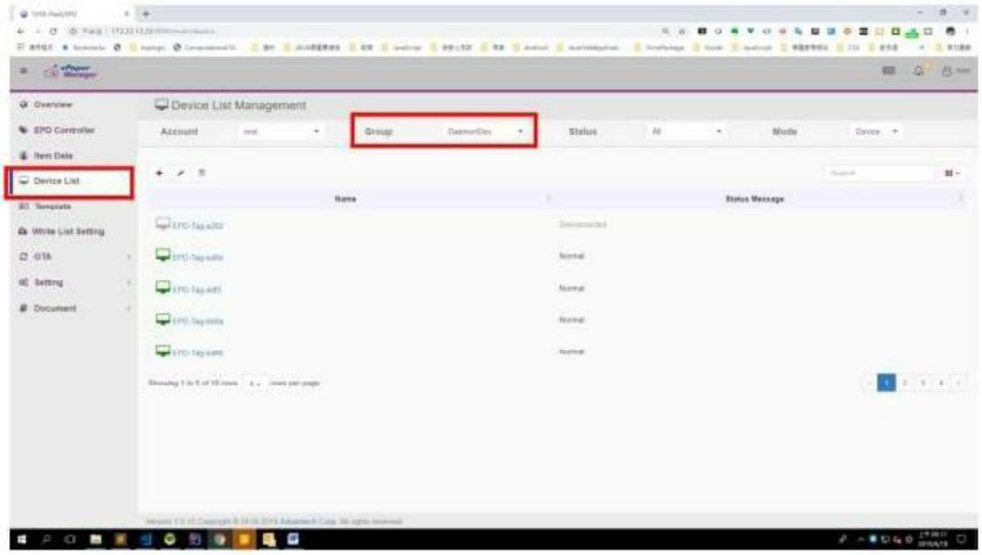




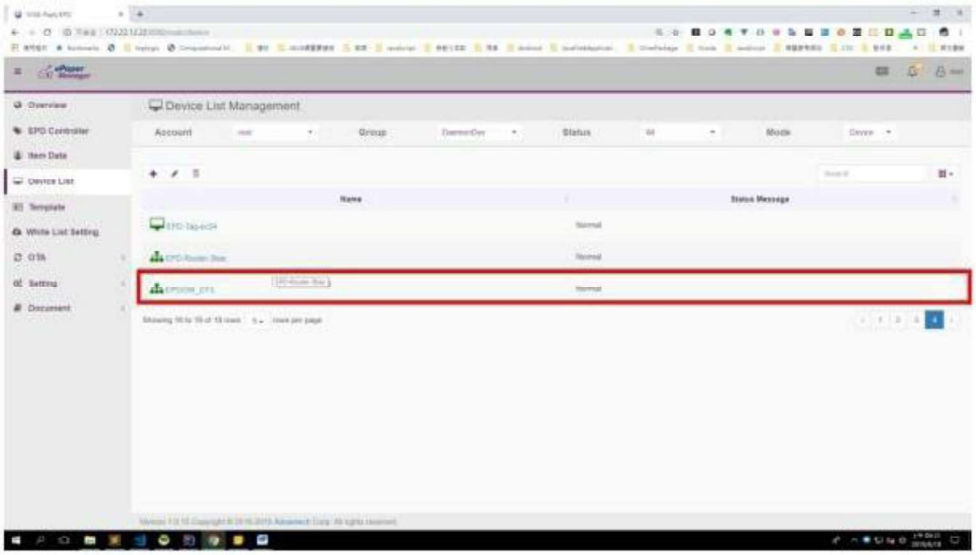
6. Set Gateway Encrypted Key

Note: An optional step, since the system already has an encrypted key to protect all transmission data.

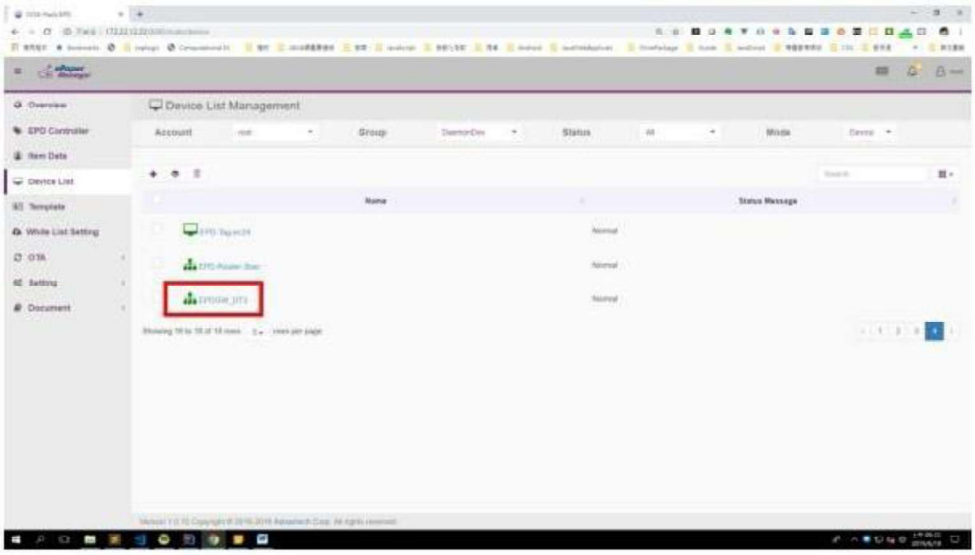
1).Click Device List on the side bar menu, and select the device group for the router.



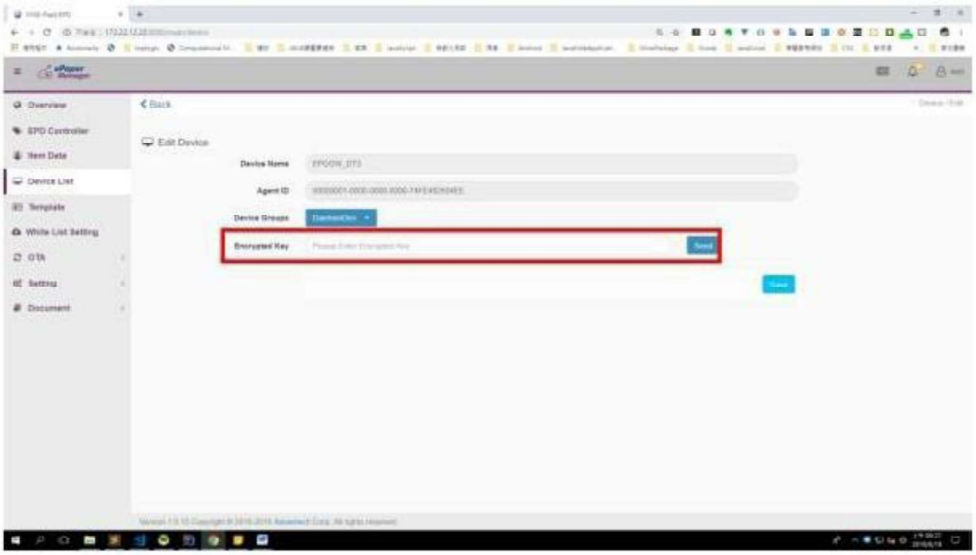
2). Find the gateway device, and change to edit mode by clicking the edit button.



3). Click the name of gateway device to enter the edit mode.

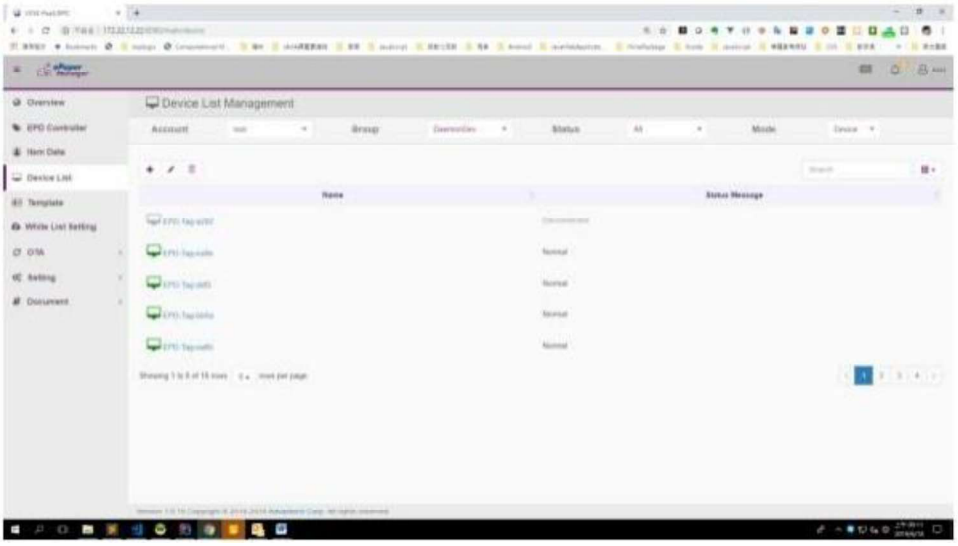


4.) Fill in the Encrypted Key (32-characters with A-Z and 0-9), and then click send to finish the configuration.

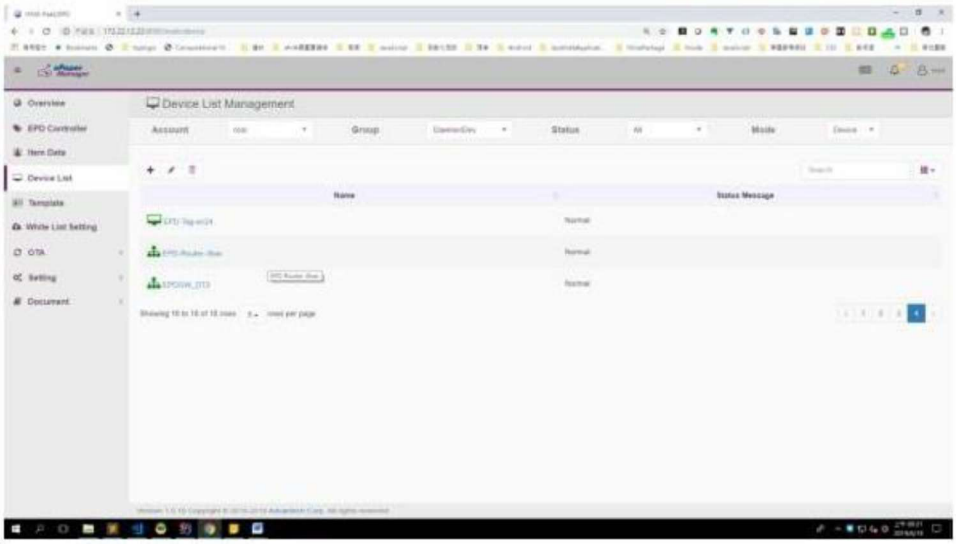


7. Setup Router Channel on WISE-3610Z or WISE-3240

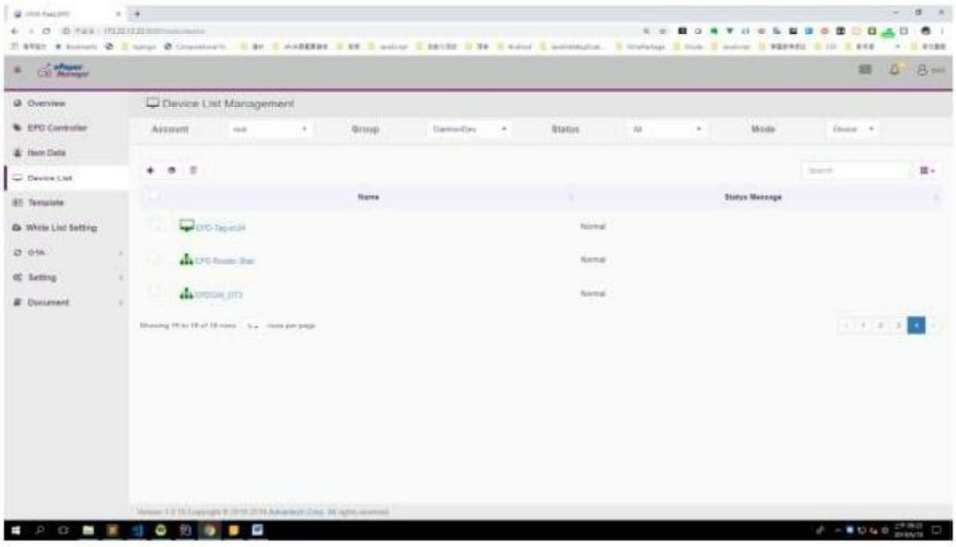
1). Click Device List on the side bar menu, and select the device group for the router.



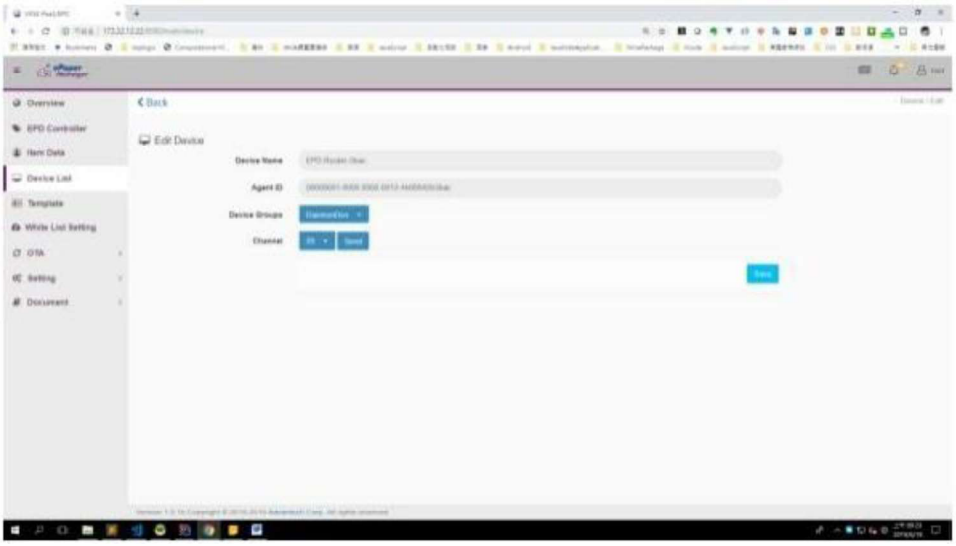
2). Find the router device, and change to edit mode by clicking the edit button.



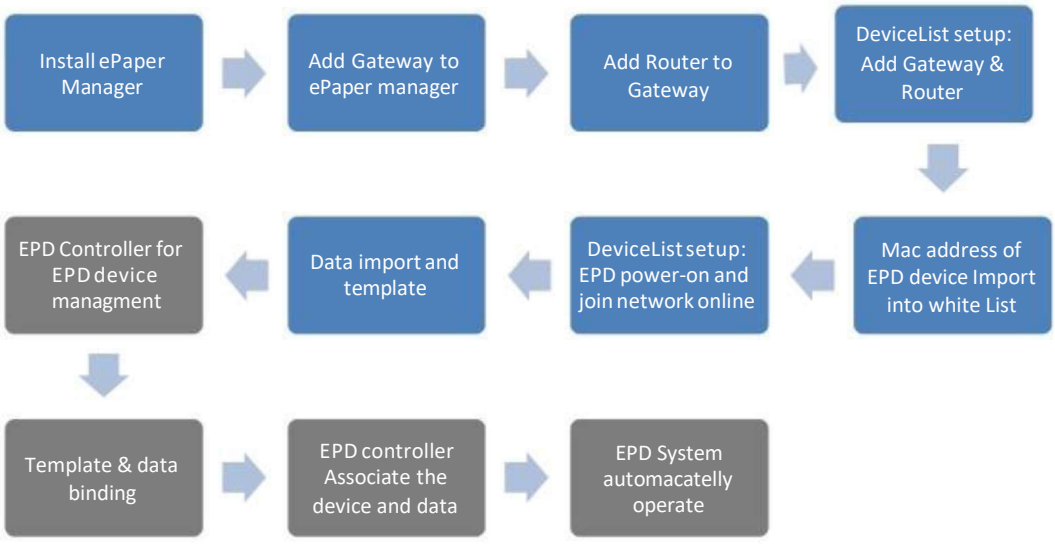
3). Click the name of route to enter edit mode.



4). Change the Channel (11,13,14,15,20,21,22,23,24,25,26 are available), and then click send to finish the configuration.



4.3.3 Import Item Data to ePaper Manager



There are 2 ways to import data from vertical market applications to our ePaper manager.

1**) JSON Format: Uses API to update data in real time.**

In order to import data to EPD, use the JSON format schema. See code below for ref.

Note: Code must be a unique ID in the JSON format.

{ "items": [{ "code": "uniqueID_user_provide_1", "name": "item_name_user_provide_1", "content": { "device Content Title 01": "device Content01", "device Content Title 02": "device Content02" } }, { "code": "uniqueID_user_provide_2", "name": "item_name_user_provide_2", "content": { "device Content Title 11": "device Content11", "device Content Title 12": "device Content12" } },] }

2) Batch data updates into ePaper manager database using Excel or CSV format

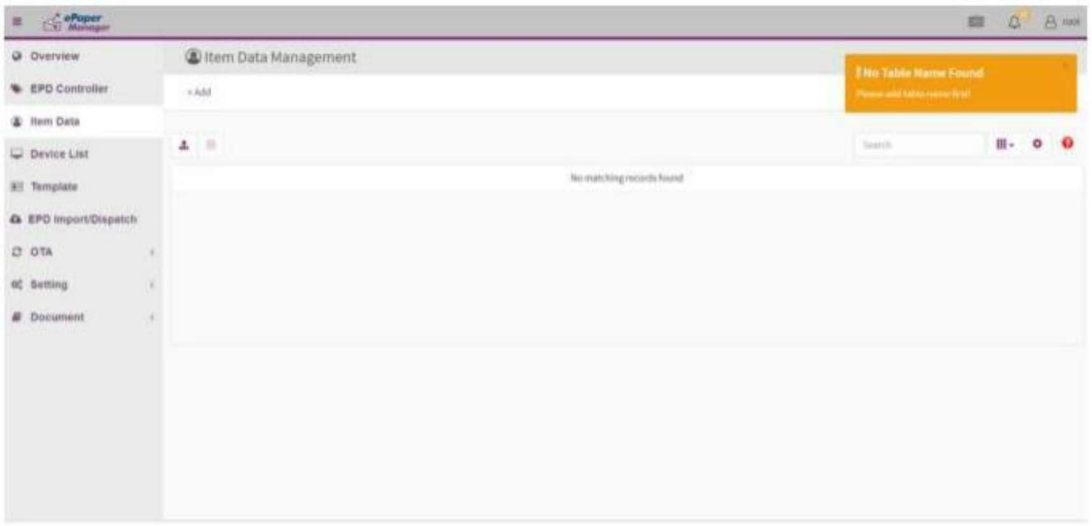
If you upload Excel or CSV to the system directly, the system will auto transfer the format to JSON.

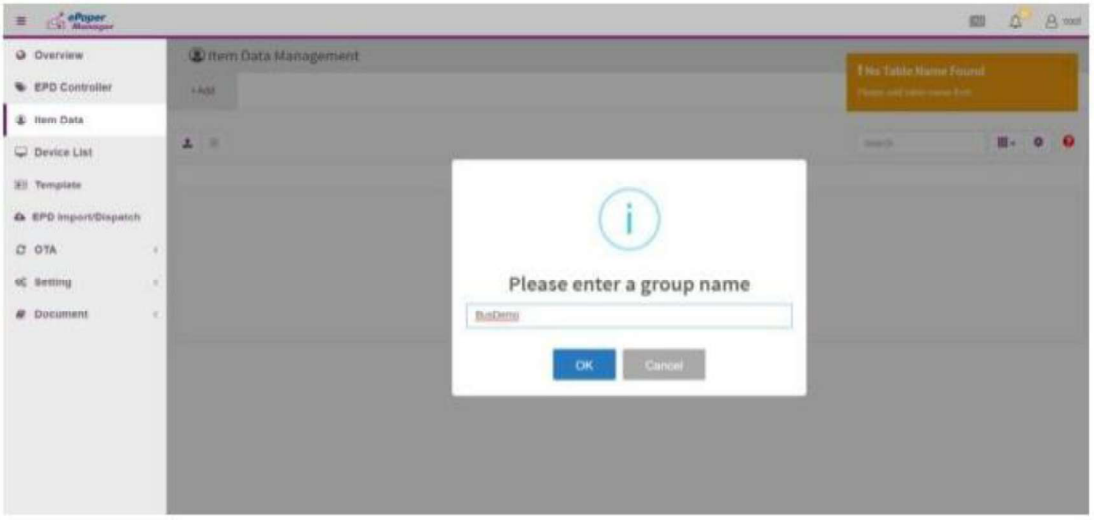
Note: The first column of data must be a unique ID in Excel or CSV format for overall item data.

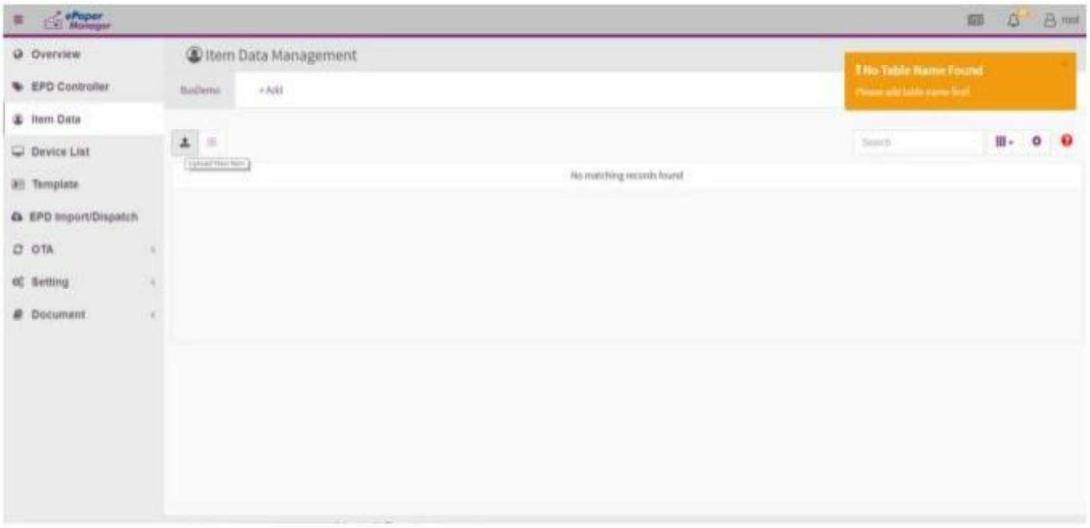
Example1:

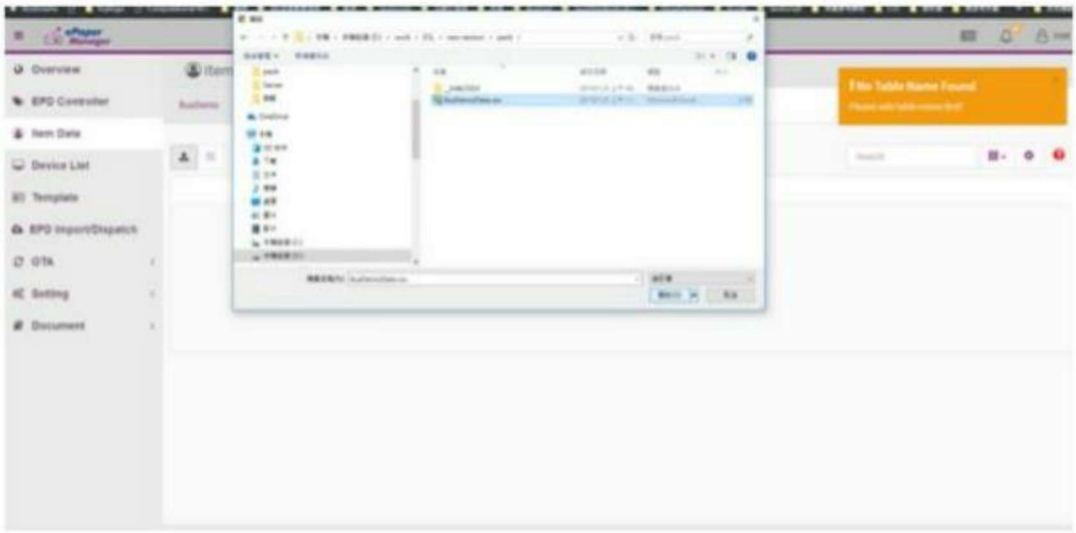
i. Vertical application scheduling sends data to the ePaper manager server

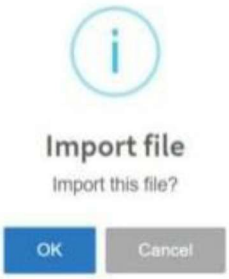
ii. Click item Data in the left-side navigation bar and click left side button as shown below.

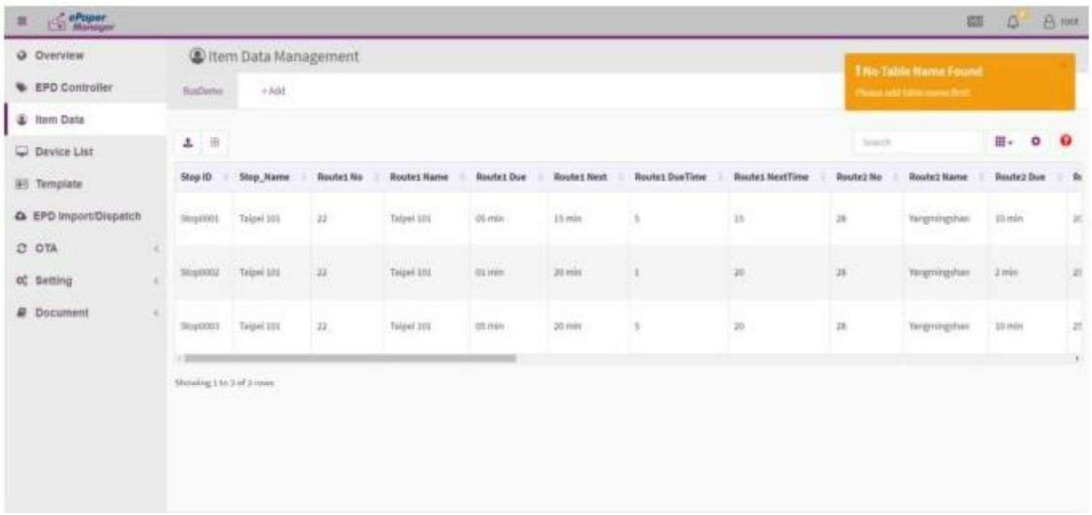




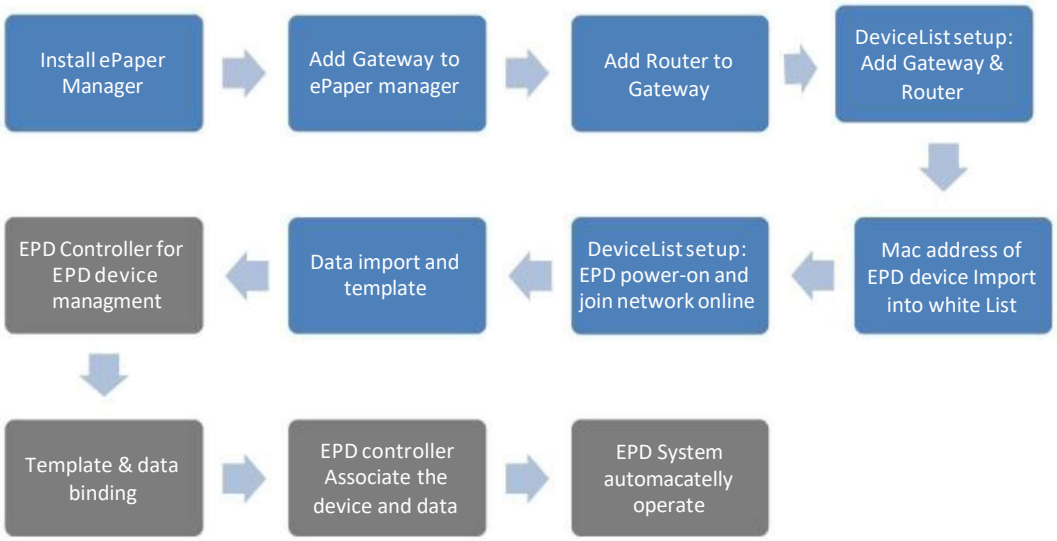

Overview
EPD Controller
Item Data
Device List
Template
EPD Import/Dispatch
OTA
Setting
Document
Item Data Management
No Table Name Found
No matching records found


Overview
EPD Controller
Item Data
Device List
Template
EPD Import/Dispatch
OTA
Setting
Document
No Table Name Found

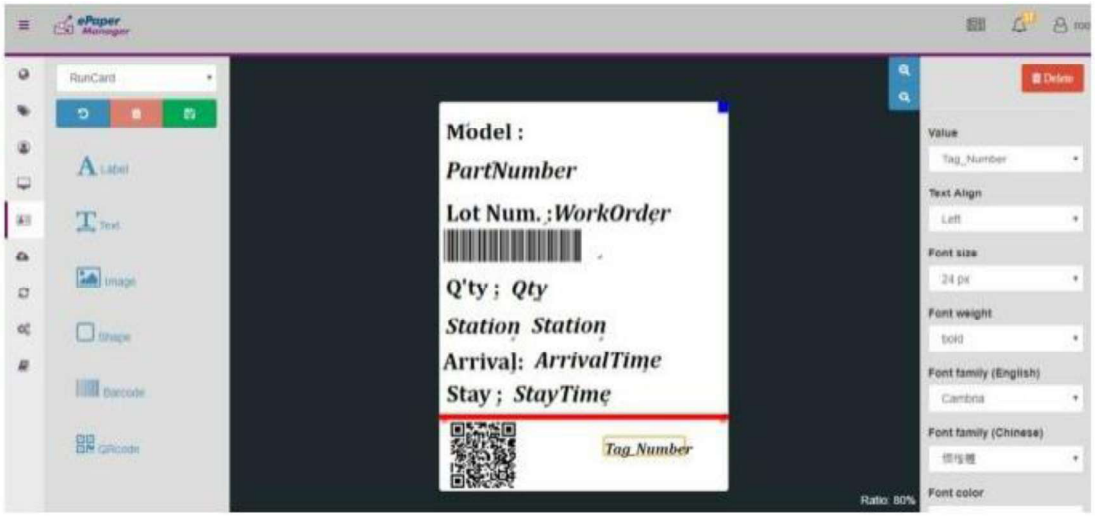

Import file
Import this file?
OK
Cancel



4.3.4 Design Your Own Template



Before delivering the data to the EPD device, the user needs to design the template for the device to show the data on the screen. We have provided you with a drag & drop user interface to help you design your templates more easily. Click Template in the left-side navigation bar and choose various tools to design templates, such as Label, Text, Image, Shape, Barcode and QRcode.

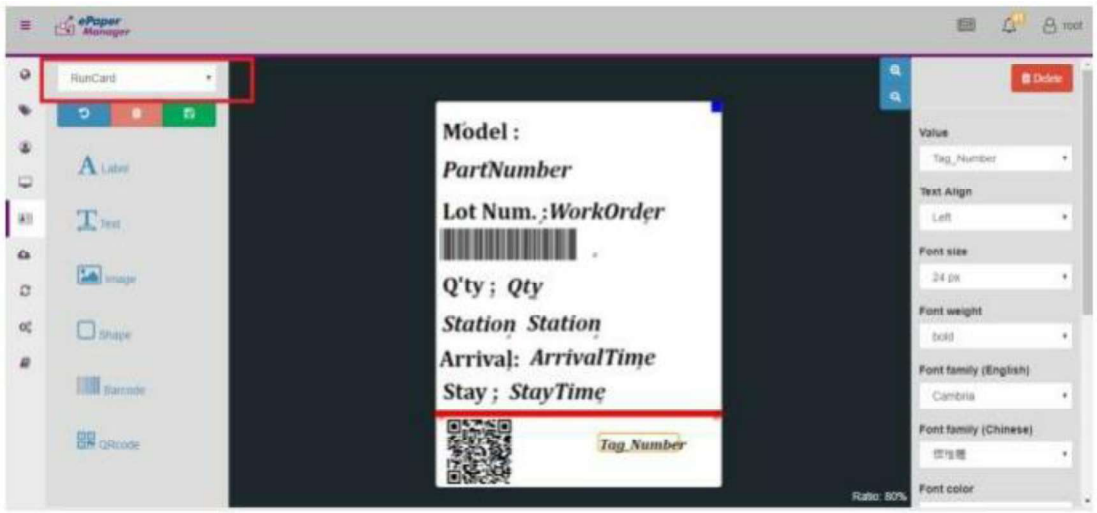


- Label
  Simply a text message
- Text
  Value comes from imported data, and you can choose what column of data needed to be shown.
- Image
  Full color images will automatically be re-sampled to red, black and white.
- Shape
  System supports rectangles, circles and triangle shapes.
- Barcode
  System supports code 39 barcodes.
- QRcode

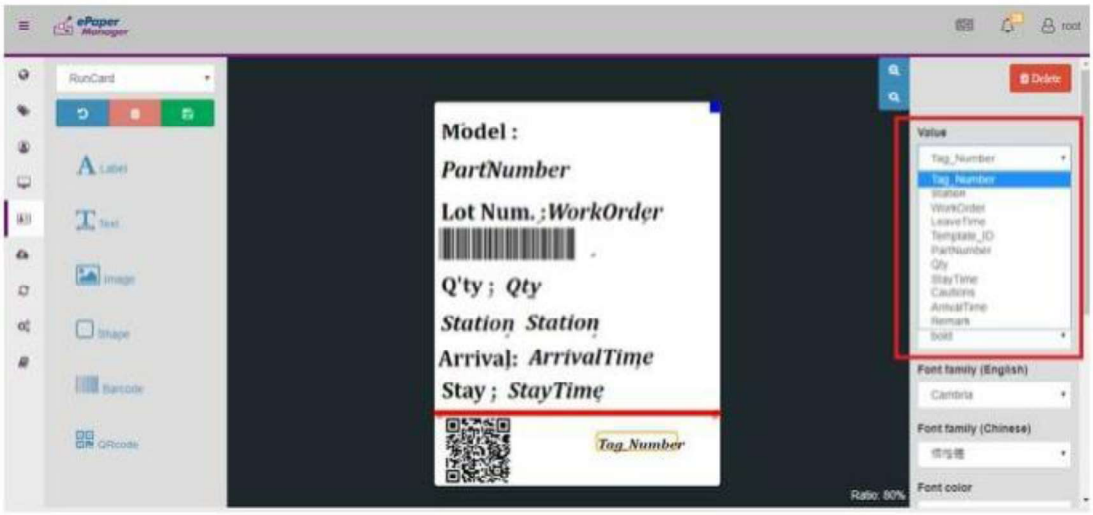
4.3.5 Combing Template and Item Data

After importing data and making the template, we can combine them for regular data auto updates.

1) Select Item Group from Item Data

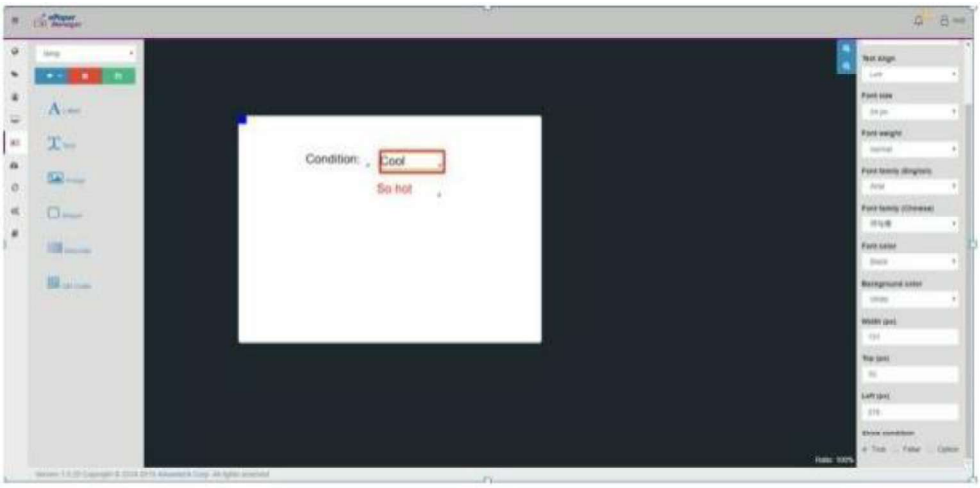


2) Click on the component, select value at the right Drop-down menu

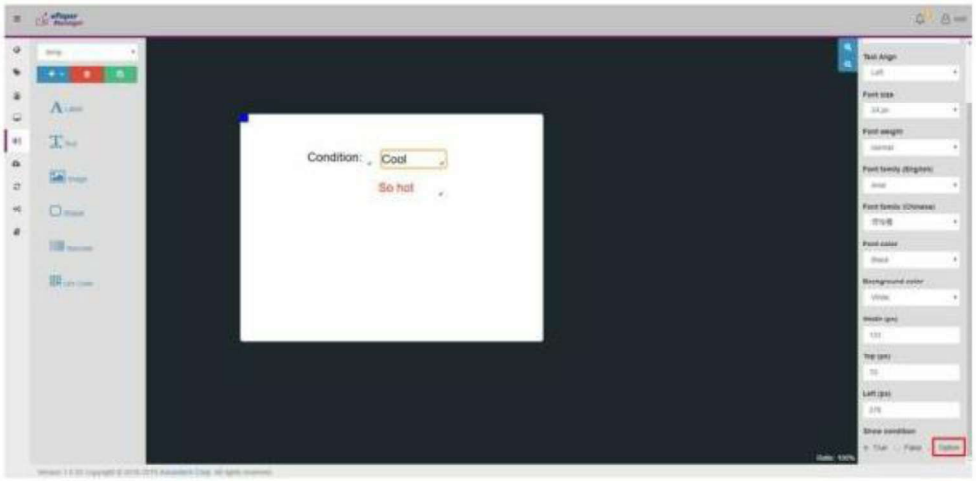


3). Setup dynamic template.
For another special purpose template setting, you can decide whether an object shows or not depending on the specific item values. For example, word becomes red when temperatures are over 40. The next step demonstrates how to achieve this goal.

a. Make two objects which show conditions are opposite.
Click one object.

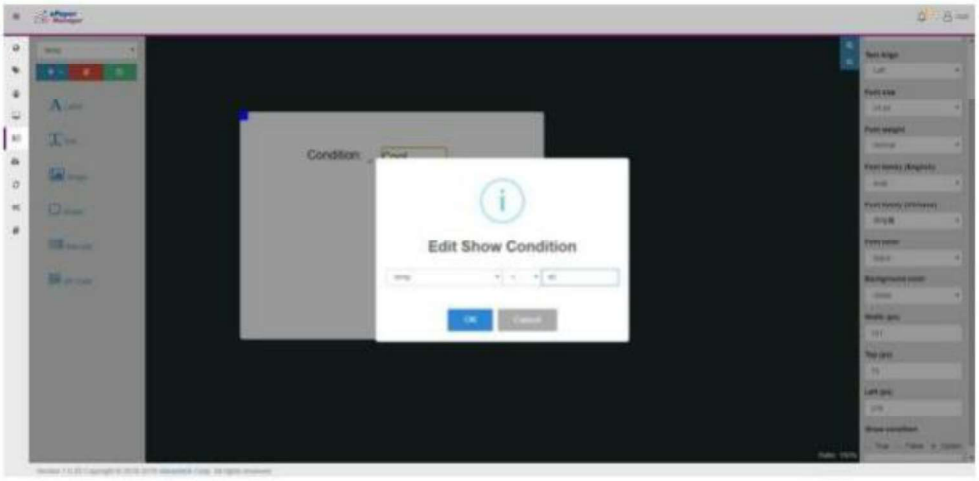


Click the radio button option in the show condition.

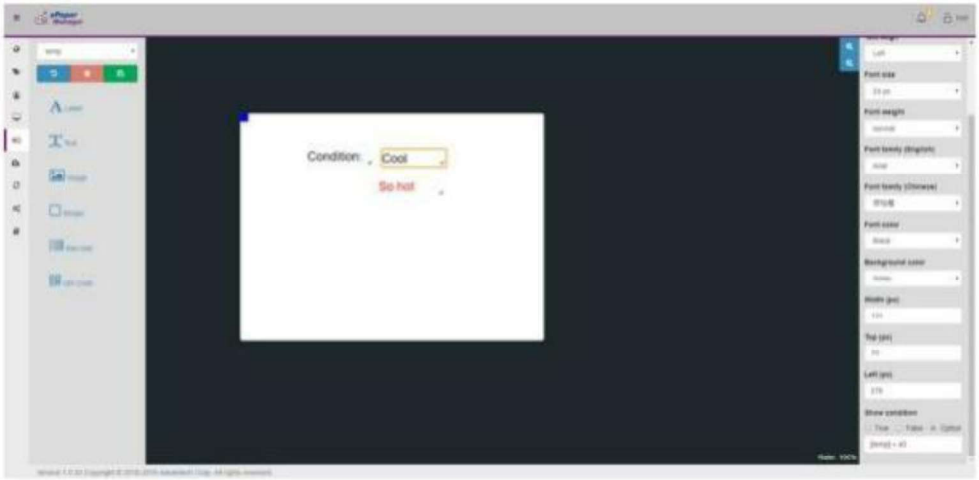


A pop up dialog will appear. Fill in the conditions to show this object.

Note: if this item value is a number, you can use all operations. If this item value is a character, you only can use "==" or "!=").

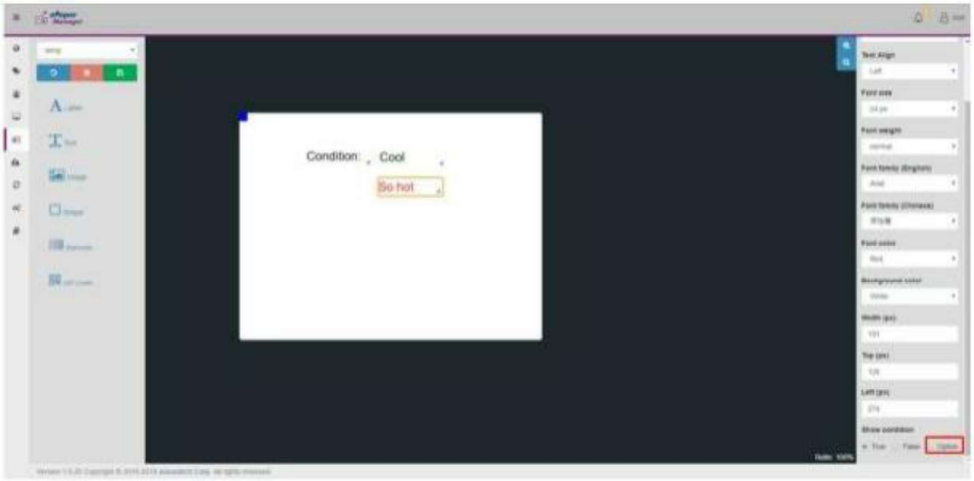


Finish the show condition setting.



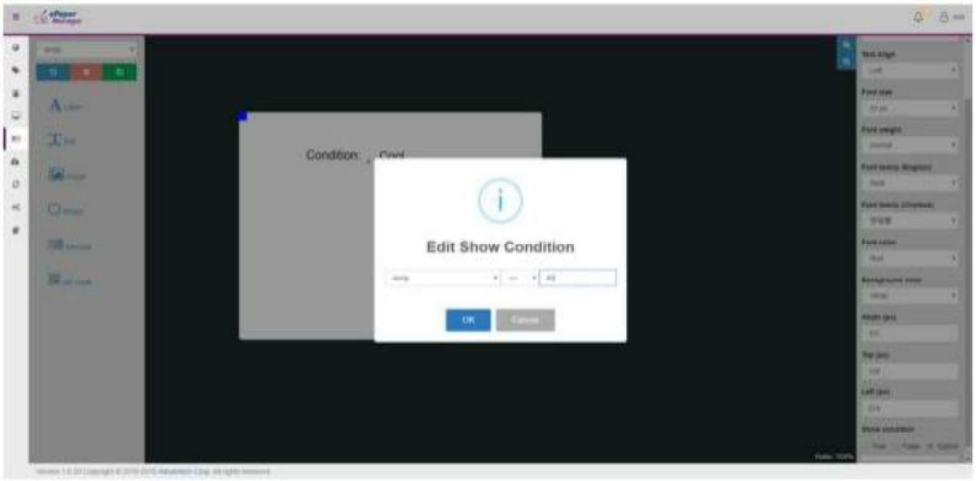
Click another object.

Click the radio button option in the show condition.

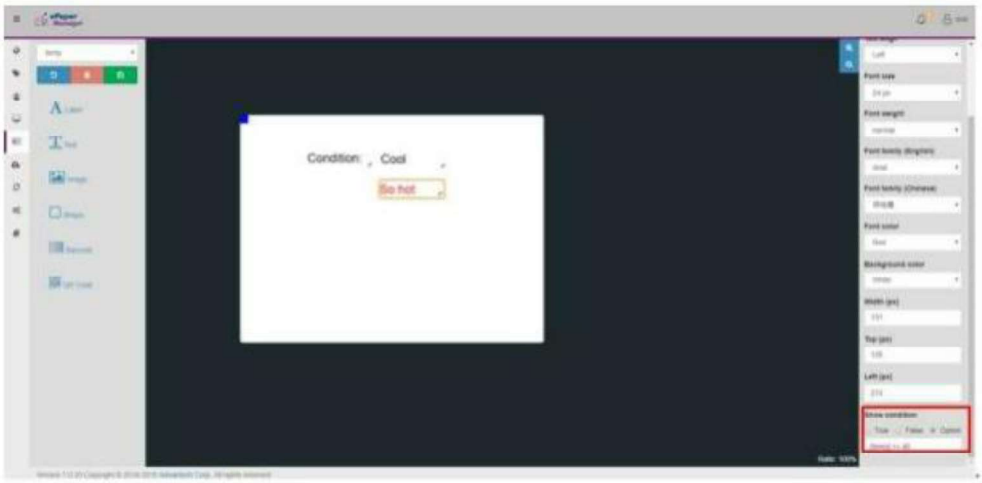


In the dialog, fill in the conditions to show this object.

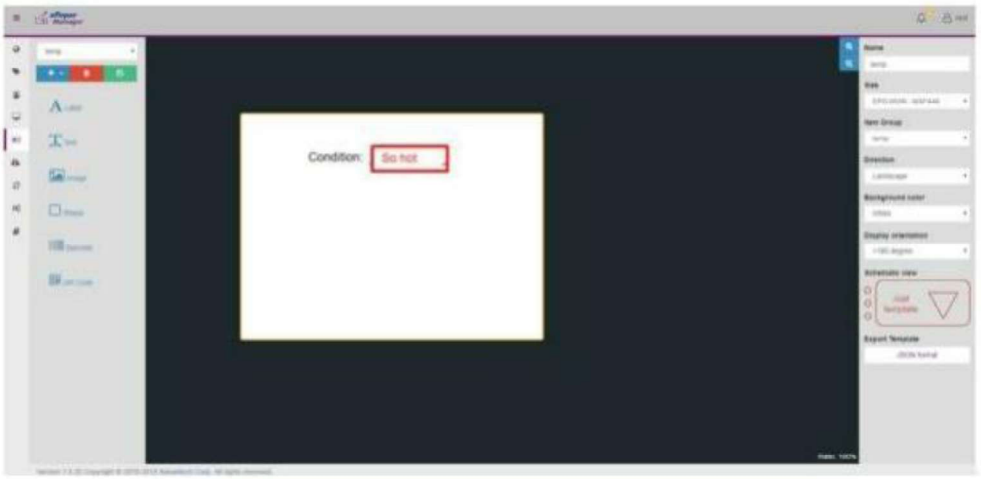
Note: if this item value is number, you can use all operations. If this item value is character, you only can use "==" or "!=").



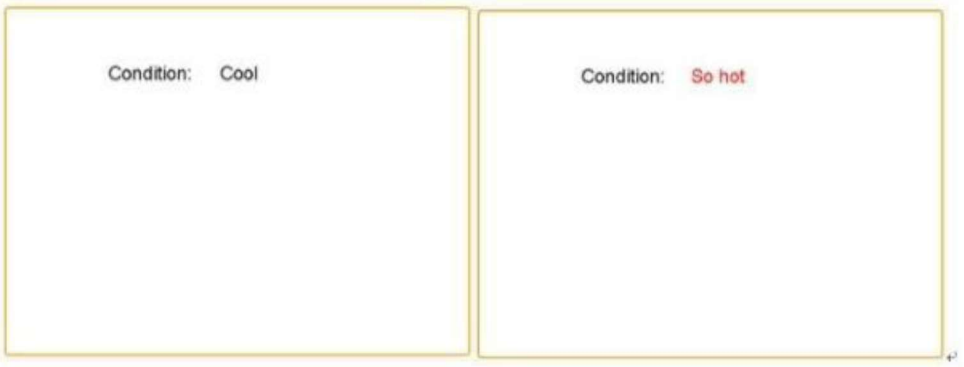
Finish the show condition setting.



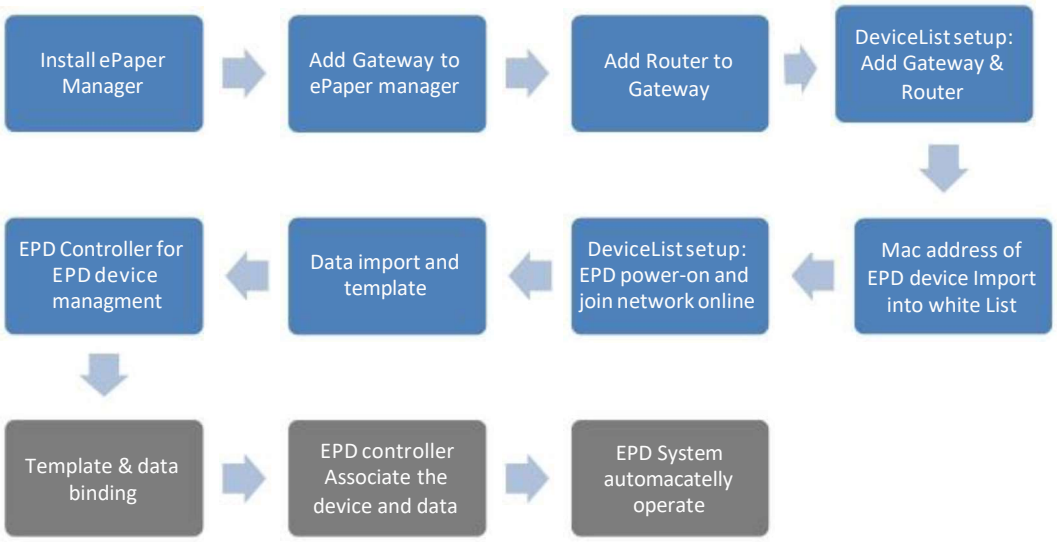
b. Put these two objects in the exact same position.



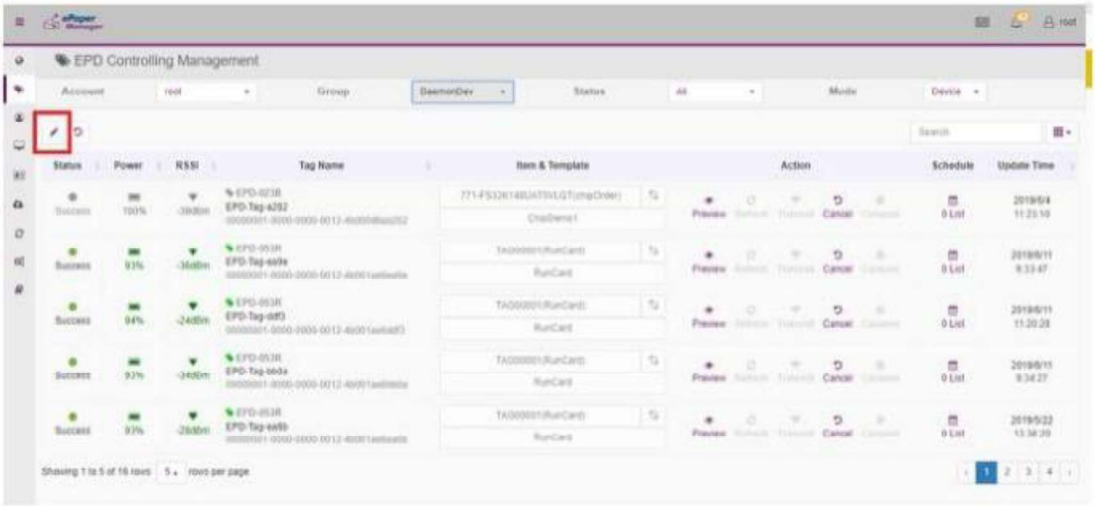
c. See the results by preview in the EPD controller page.



4.3.6 EPD Controller for EPD Device Management



- Select correct account/group where your devices belong to
- Select Preview / Edit mode



There are 2 parts in the management: Properties & Action

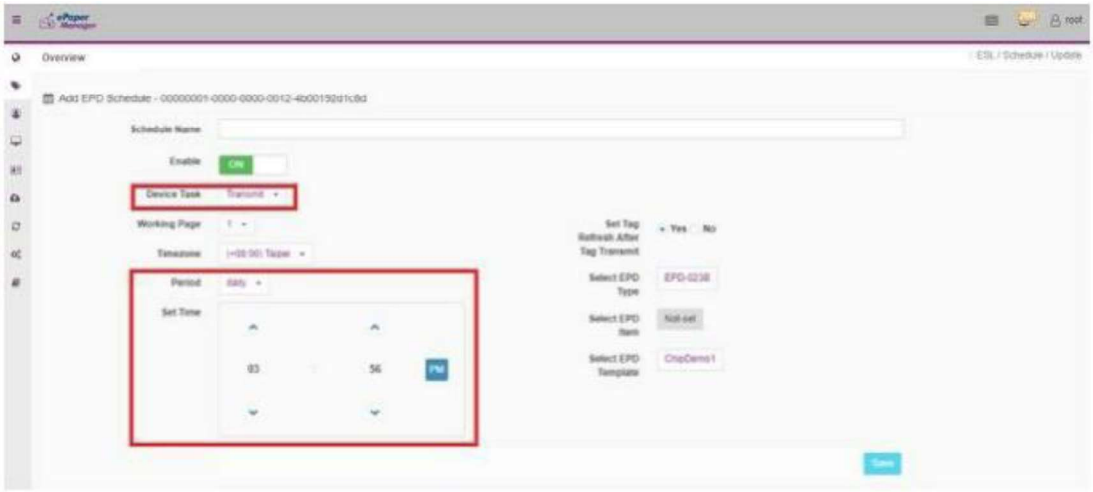
1) Properties: Users can read EPD device status as shown below.
   - EPD Device Status
   - Power
   - RSSI
   - Device Type, Name, Mac address
   - Binding Items & Template
   - Update Time
2) Action
   - 2-1 preivew: users can preview the image on EPD device
   - 2-2 Refresh: users may control EPD device refresh
   - 2-3 Transmit: users can deliver images to the EPD device
   - 2-4 Cancel: users can cancel the transmit task.

■2-5 Carousel: users can setup carousel mode for the EPD device. (this feature is only for EPD-092/132 model)

■2-6 Schedule: User need to setup a EPD device data delivery schedule:
Note: The timezone is determined by browser's UTC time.

– The user needs to setup EPD device data delivery schedule:
Device Task: Select Transmit

– The user needs to setup EPD device image flash schedule
Device Task: Select Re-fresh

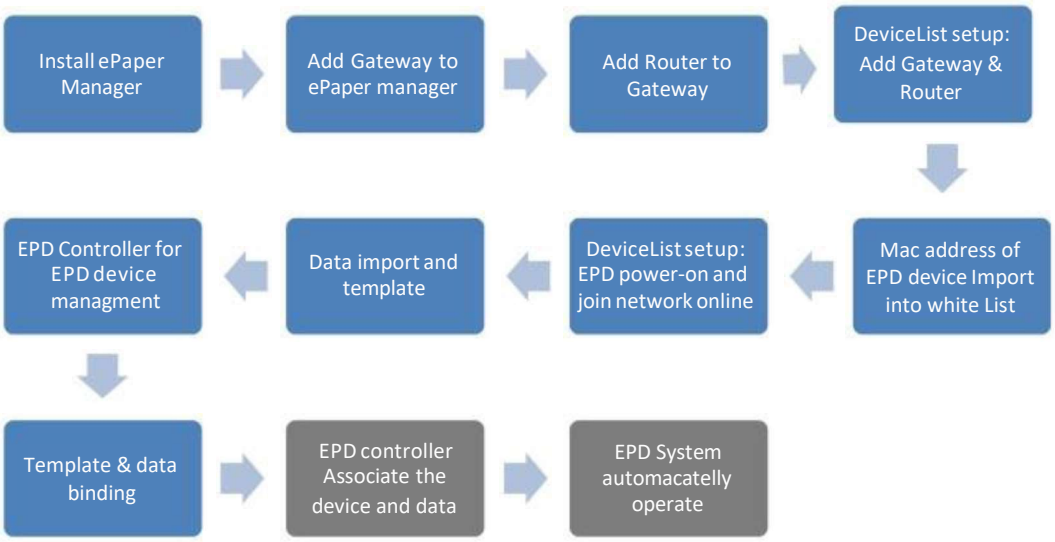


– Select EPD Item: you may select device to do receive the schedule.

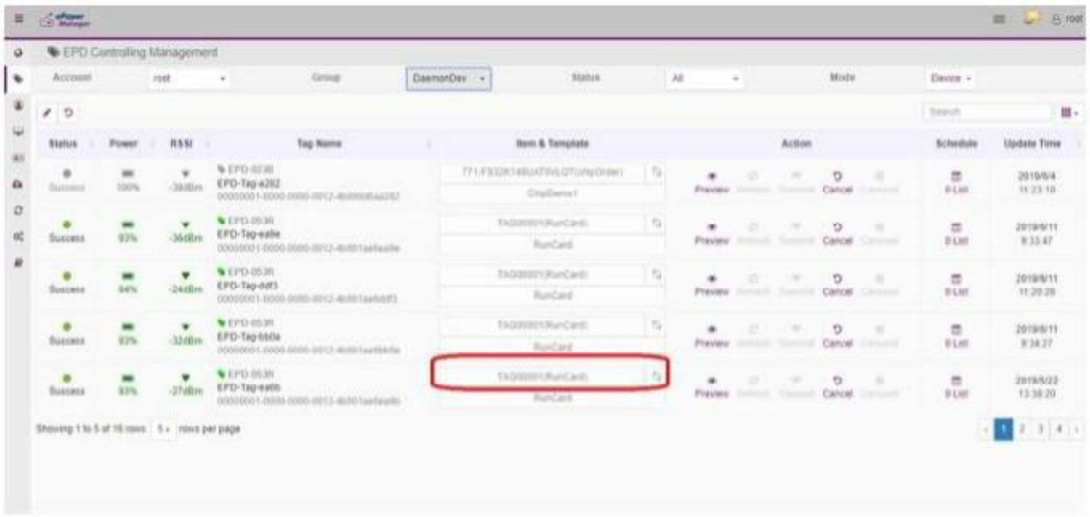
– Set EPD Template: you may select EPD Template from the list which you already design.

– Working Page: select which page in EPD device

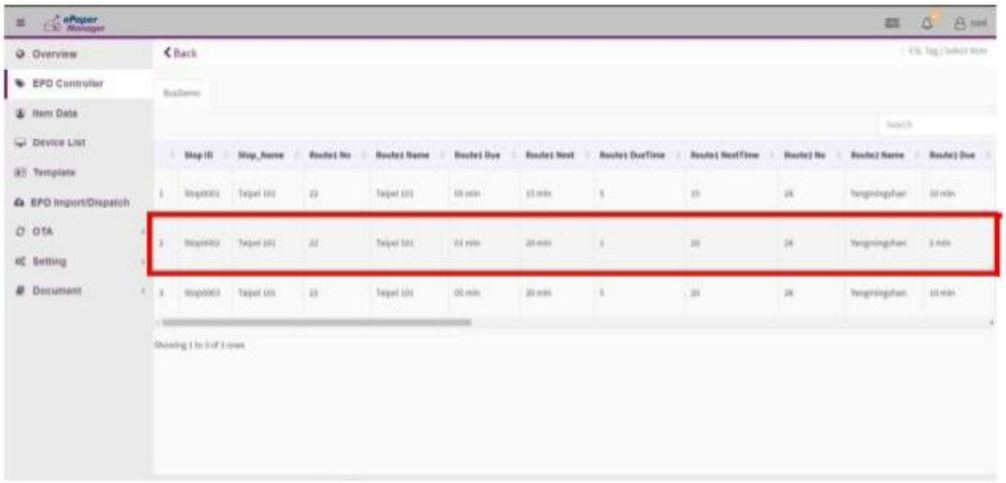
– The user may setup the schedule date and time from system.



1. Select binding data icon



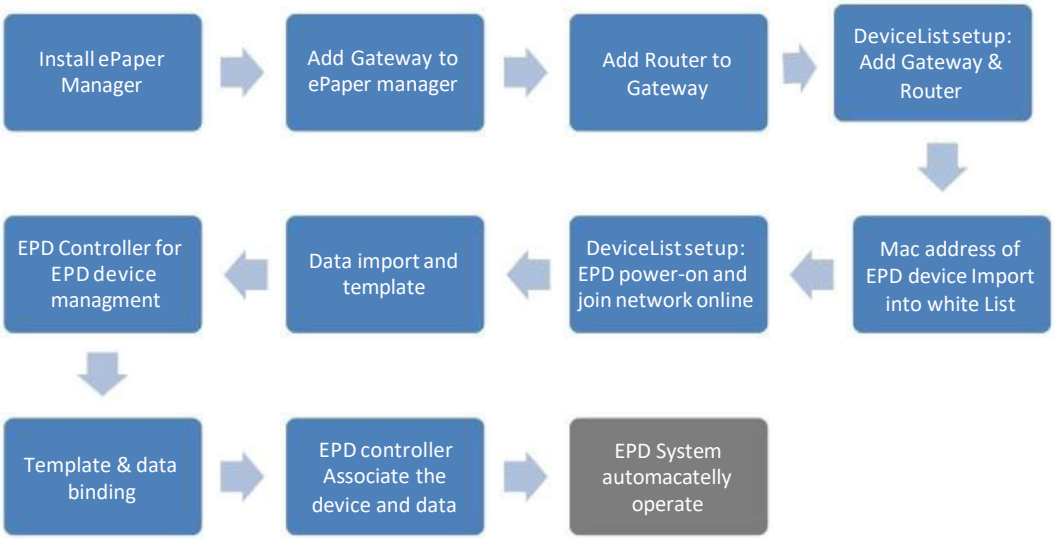
2. Select data to bind



Note! *The user can import data and binding data to the EPD device in this web page.*

We also offer a handset APP to bind device data and EPD

3. Binding Product item data with the APP



– Install on Barcode scanner handset
– Use a barcode scanner: PWS-472 to scan the EPD device Mac address bar-code and target product barcode

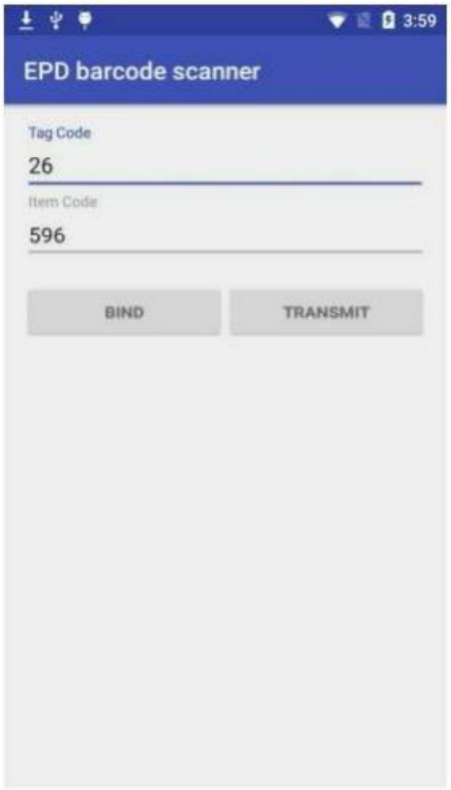
ePaper Manager Associate App

Download and install the EPM Barcode Scanner app on the PWS-472 device, a 5" Industrial-Grade Handheld Terminal with 1D barcode scanner, and you will see the icon in your desktop.

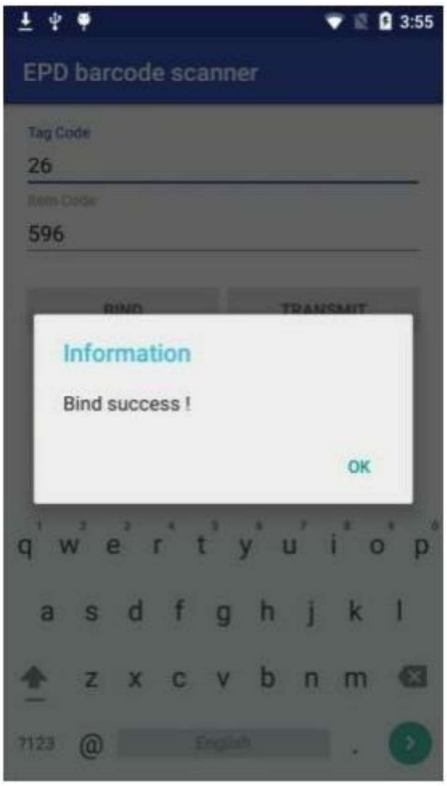
Please check your device link. Launch the app by clicking the icon.

Enter the server location, account, and password to sign into e-Paper Manager.

Enter your device Code and Item Code information to perform bind action.

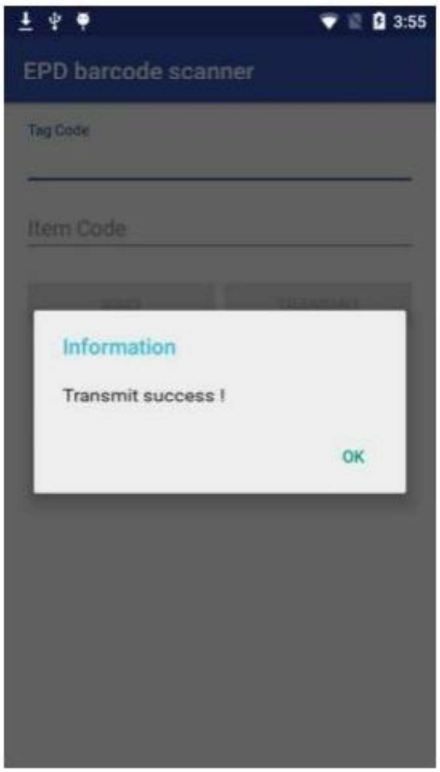


PWS-472 device can scan a barcode to quickly bring the device Code and Item Code information into the fields. An information success window will show up.

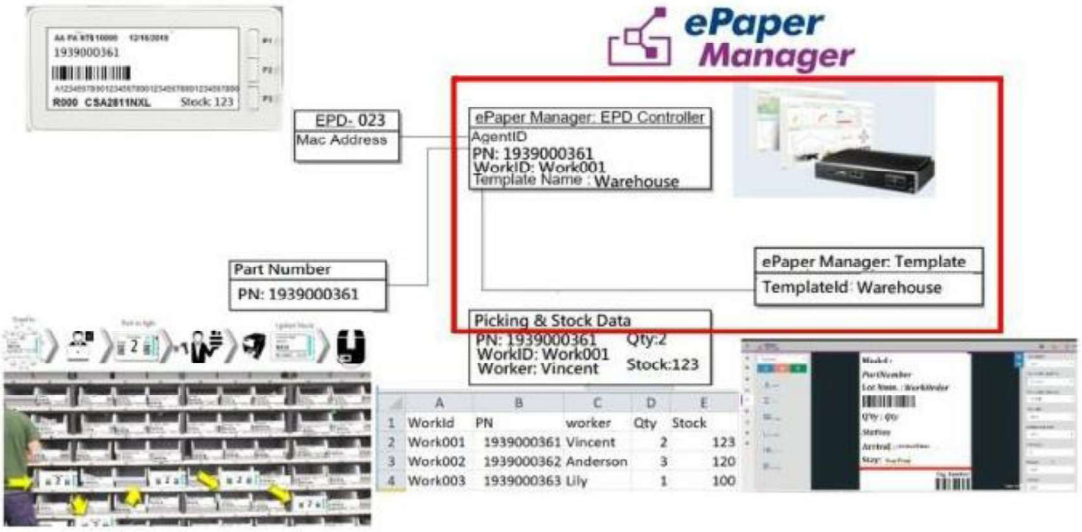


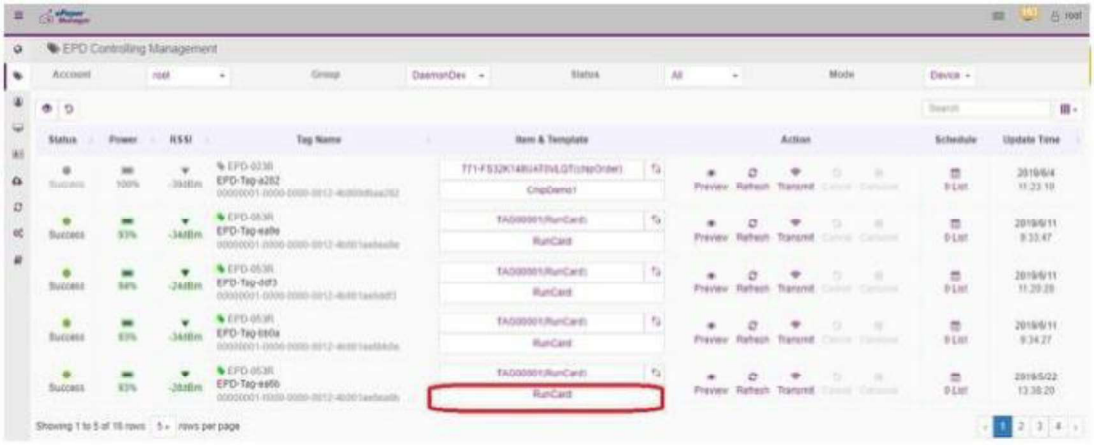
Click the transmit button to transmit image to the device.

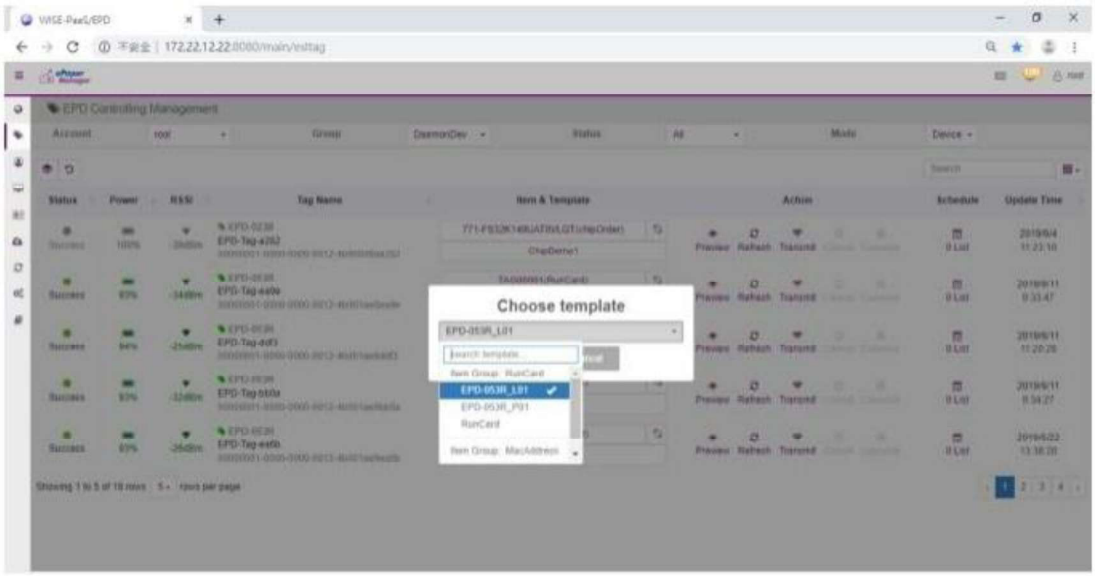
An information success window will show up.



4. Binding template:

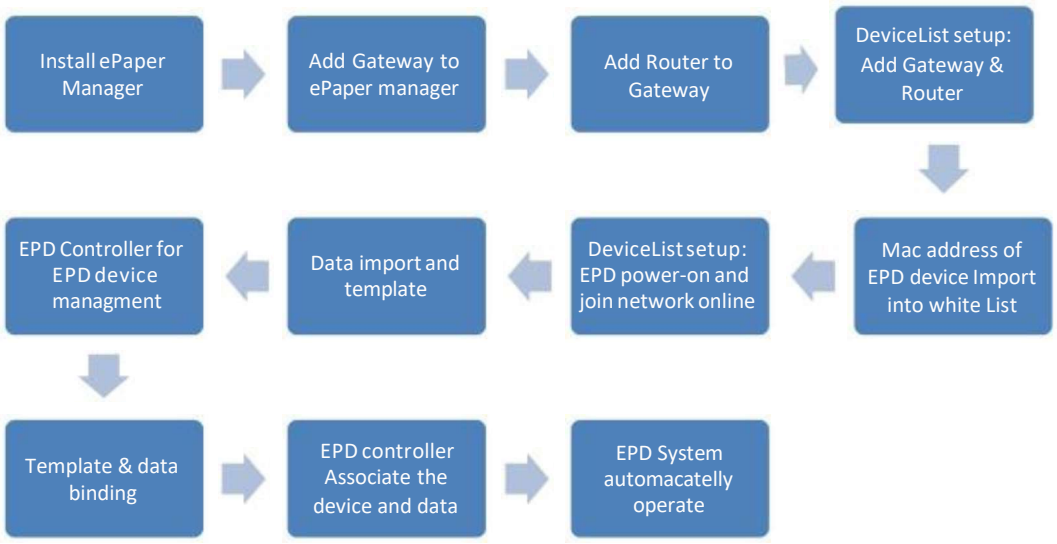

ePaper Manager
1939000361
R000 CSA2811NXL Stock: 123
EPD- 023
Mac Address
ePaper Manager: EPD Controller
AgentID
PN: 1939000361
WorkID: Work001
Template Name : Warehouse
Part Number
PN: 1939000361
ePaper Manager: Template
TemplateId: Warehouse
Picking & Stock Data
PN: 1939000361 Qty:2
WorkID: Work001
Worker: Vincent Stock:123
A B C D E
1 WorkId PN worker Qty Stock
2 Work001 1939000361 Vincent 2 123
3 Work002 1939000362 Anderson 3 120
4 Work003 1939000363 Lily 1 100


EPD Controlling Management


EPD Controlling Management
Choose template

5. There are 4 actions for you to select the action.
   - Preview: Current EPD device image preview
   - Refresh: Re-fresh image
   - Transmit: Transmit image
   - Un-bind the EPD device and Item

4.3.7 Final Association Between EPD Device, Target Product and Product Data

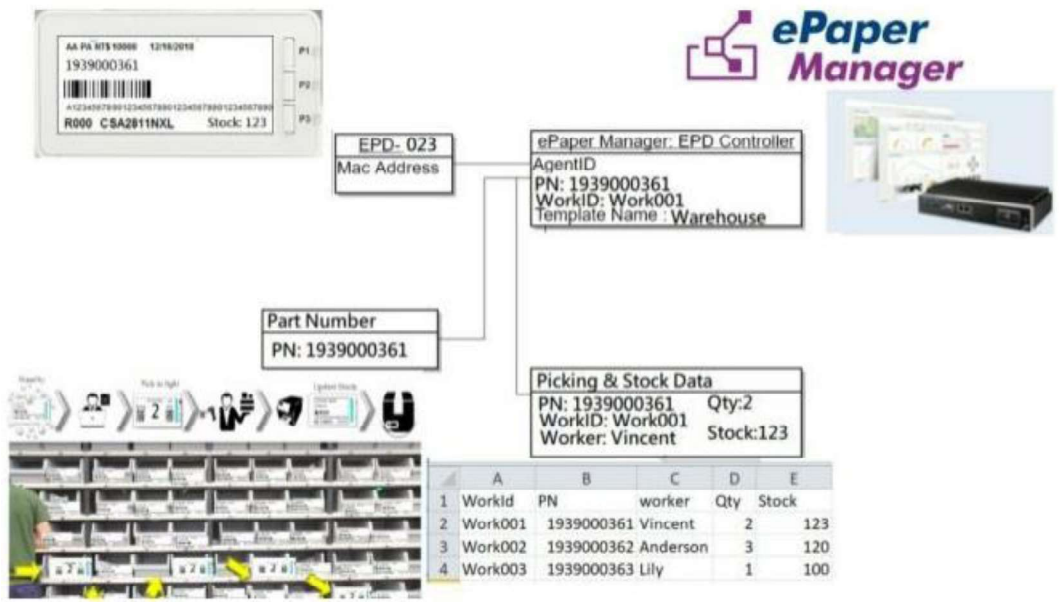


1) EPD device: Get EPD device's Mac address as an associate attribute, ePaper manager record and mapping to agent ID.

2) Target Item Product: Get a physical working ID Lot num as associate attribute.

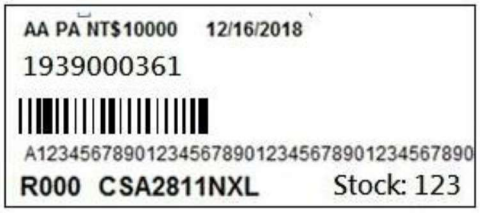
3) The user needs to associate items above

4) Import RunCard Data needs to include field name: WorkID and data: Work001.



4.3.8 Smart Warehouse Pick to Light Scenario

1. EPD device in standby Mode, only shows stock status

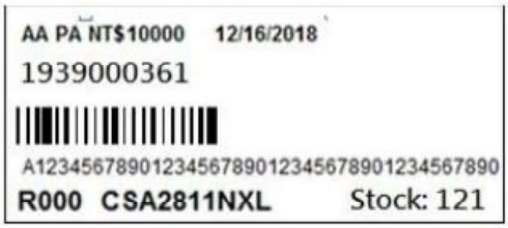


2. When pick material requests input to the ERP, the ERP sends out an API to ePaper manager to trigger:
   Action 1: change the image as below

   Action 2: light up an LED to guide the picker to pick the material

Below is the comparison between traditional card and EPD.

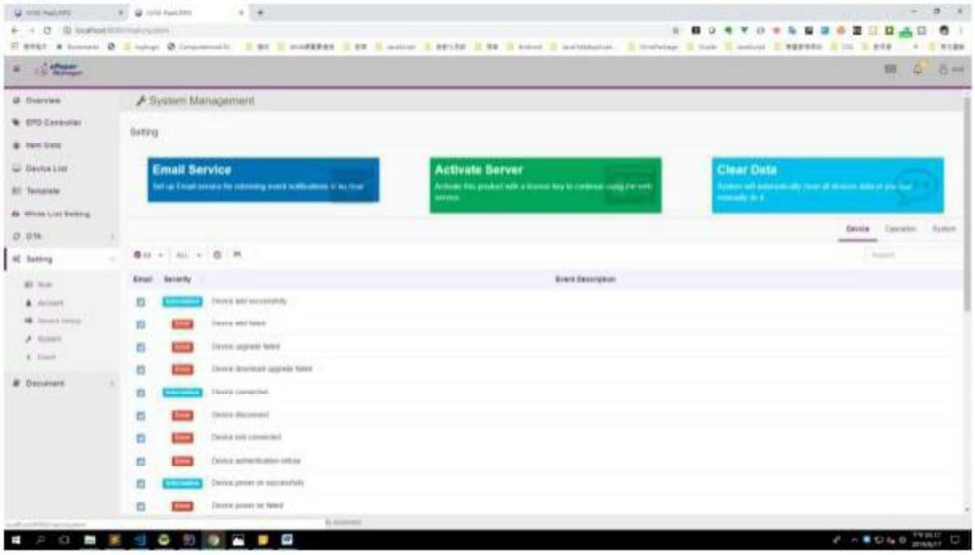
3. When picker see the LED indicator on the drawer.
   Action1: Picker take out the material according to the EPD's information|
   Action2: Picker uses barcode scanner to scan the QR code
   Aciton3: ERP system will update the stock status and trigger the API to request EPD to update the information



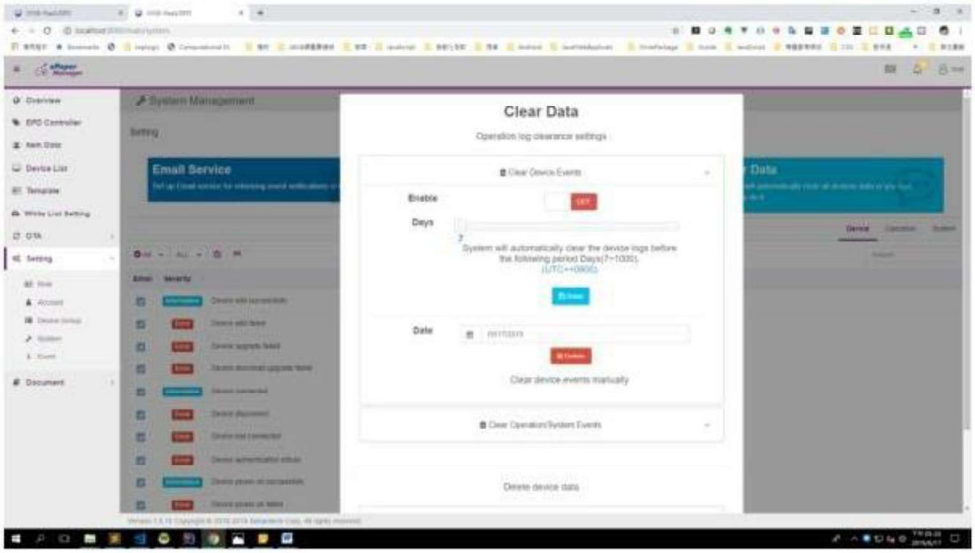
Action4: printer print out the label directly.

4.3.9 Clear Events and Data of MongoDB

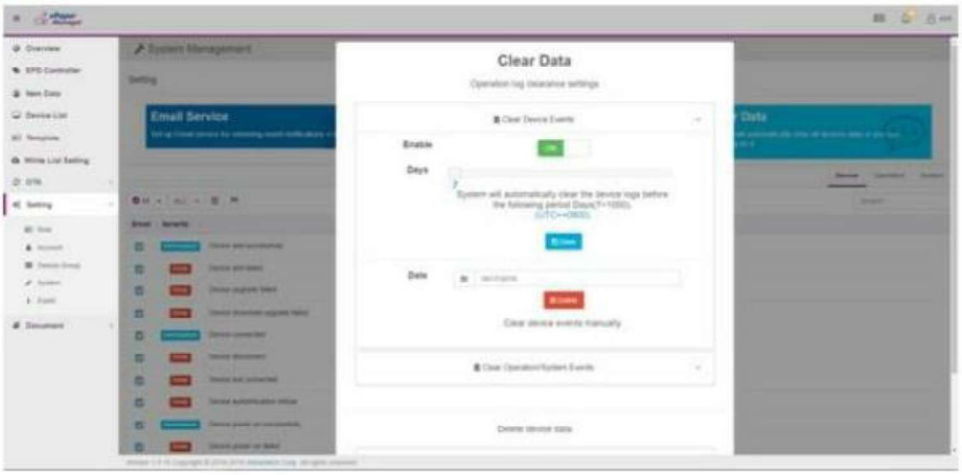
1. Click Setting – System on the side bar menu, and Click the Clear Data Button.

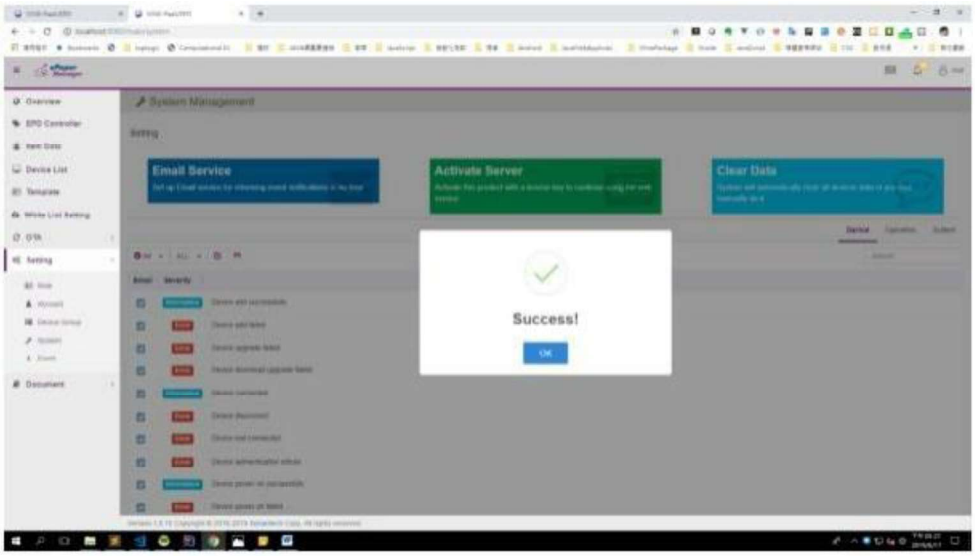


2. Clear device events:
1.) Open the Clear Device Events section.



2.) Change the Enable switch to ON, and select the days how often the system will begin clearance, and then click the save button to finish configuration.





3.) Clear events manually.