

# EMV Device Guide for Everest

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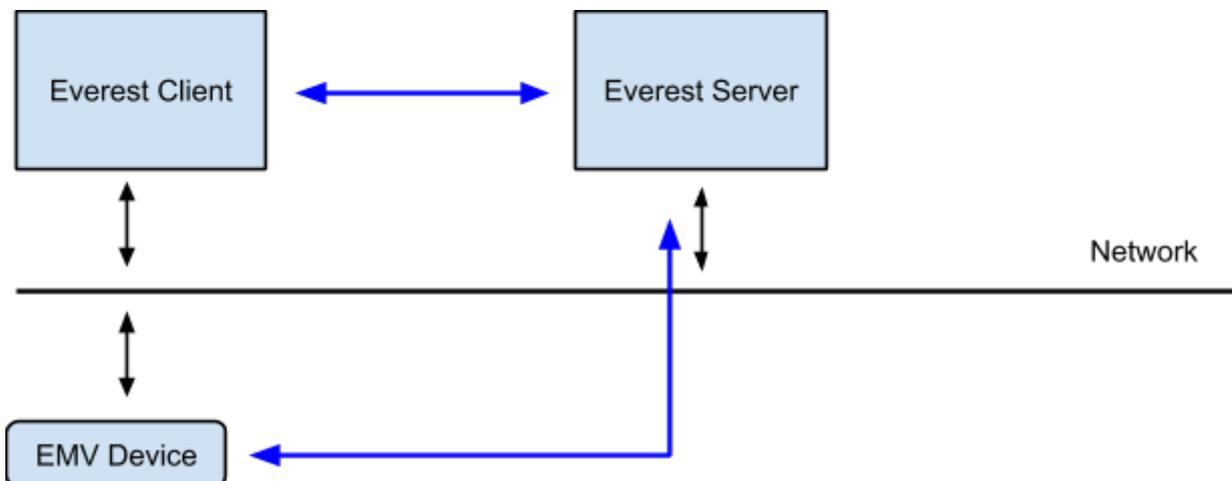
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## Verifone EMV Device communication

Everest communicates with the device from the Everest Server, here is the image showing the communications:



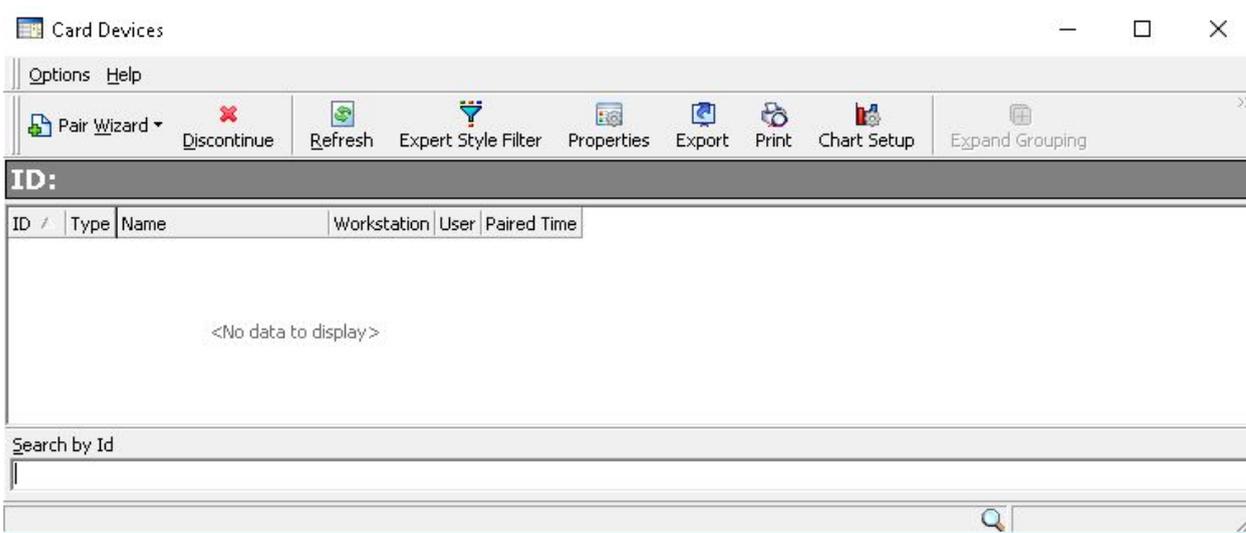
- Black arrows shows physical connections to the network
- Blue arrows shows which parts of the system communicates with each other. Client would not have direct access to the device, instead it will instruct Server to do a transaction and in turn Server will talk to the device.

## Card Devices browser

In order to pair a device the following needs to be done:

1. File > Setup > Miscellaneous > Card Devices

2. Card Devices browser will be shown (see image below) listing all the devices for the current session, the following operations will be available in the browser:
  - a. Pair Wizard - executes Card Device pairing wizard
  - b. Discontinue - unpair the device
  - c. Refresh - refresh the list of the devices (might be useful after device just added)



## Pairing device

Navigate File > Setup > Miscellaneous > Card Devices to open device browser and use Pair Wizard button in the toolbar (or INS key) to start the pairing wizard.

Card Device Pairing Wizard form contains the following pages:

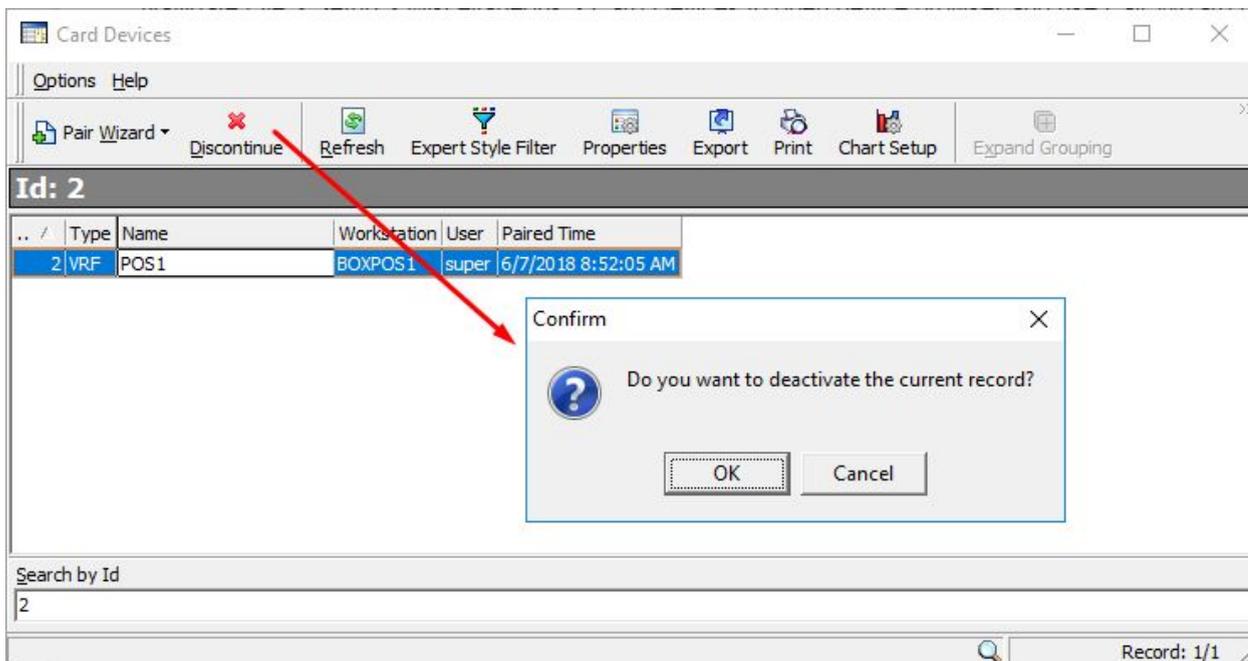
- 1) **General** - here the user will need to specify general details of the device and click Pair
  - a) Fields:
    - i) **Name** - name of the device as it will be shown in the Everest UI
    - ii) **IP Address/Host name** - this will be used by Everest to access the device, name must be know to Everest Server since only Everest Server will be communicating with the device
    - iii) **Command port** - by default device listen on 5015 port
    - iv) **System port** - by default device listen on 5016 port (currently Everest not communicate to system port)
    - v) **Workstation** - workstation name which can access the device. Available for modification only if user has *extended mode permission* (EXTENDED\_MODE) which allows for Everest administrator execute pairing from their own workstation for the end user workstation
    - vi) **Pairing Code: <code>** - code is randomly generated When pairing is executed the device will ask for the pairing code and **<code>** needs to be typed on the device by the end user.
  - b) Buttons
    - i) Pair - initiate the pairing with the device, in case any error happens the message box with the explanation will be shown. If pairing succeeds the confirmation page will be shown. The device will ask to provide pairing code which is shown on that page. When a user enters the code and it matches the entry code in the pairing request, the device will respond with an acknowledgment of success.
    - ii) Cancel - closes the wizard
- 2) **Confirmation page** - this is just informational page which contains text saying the device is paired

## a) Buttons - Close

See [Appendix A](#) for the pairing example and screenshots.

# Unpair device

Navigate File > Setup > Miscellaneous > Card Devices to open device browser. Highlight the device in the list you want to discontinue and click Discontinue button in the toolbar and confirm discontinue in the popup window. Device should be removed from the list if no error happens<sup>1</sup>.



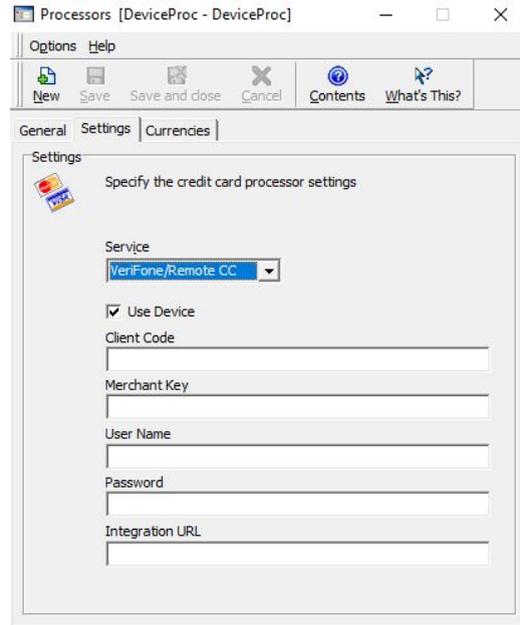
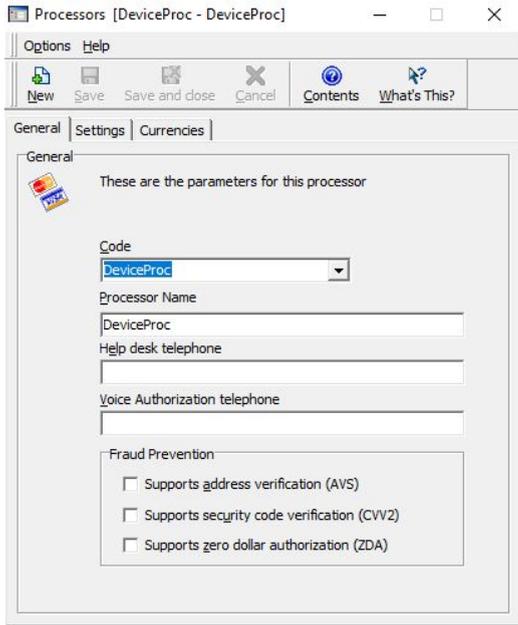
# Configure payment processor and method

Navigate File > Setup > Accounting > Processors - processor browser will be opened. Click New > In New Window to bring up empty profile for the new processor:

1. General tab - fill details as needed. If processor will be used only for the communication with the device<sup>2</sup> then make sure all the checkboxes in the Fraud Prevention section are unchecked
2. Settings tab - select VeriFone/Remote CC for the service and mark *Use Device* checkbox. You may also fill in other fields if you wish to use the same processor for online Verifone payments. Save the profile

<sup>1</sup> Known issue: device can be discontinued only from the workstation it is linked to

<sup>2</sup> Same processor can be used to communicate with Verifone payment gateway in which case the gateway details must be provided (client code, merchant key and etc)

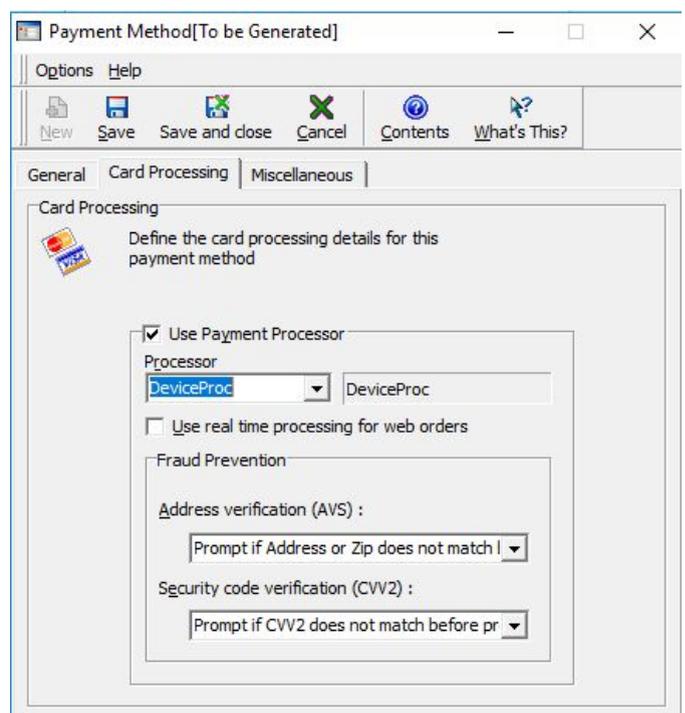
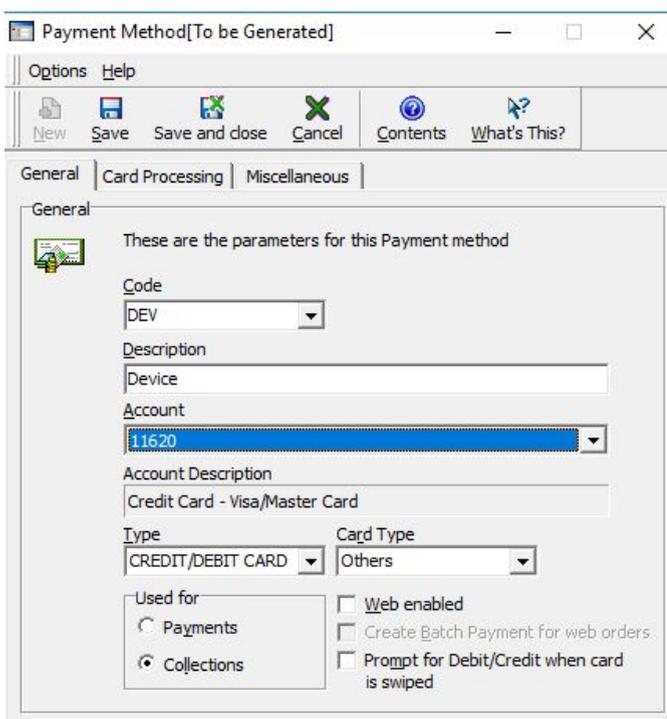


In order to link created payment processor with the payment method navigate to File > Setup > Accounting > Payment method > New

Fill General tab as shown below - important is to select the following fields (the rest fields can be configured as appropriate for your system setup):

1. Type as "Credit/Debit card"
2. Used for Collections
3. Card Type is Others

On the Settings tab mark Use Payment Processor checkbox and select in the Processor drop down the one you created for handling device communication. Save profile.



# Supported Operations

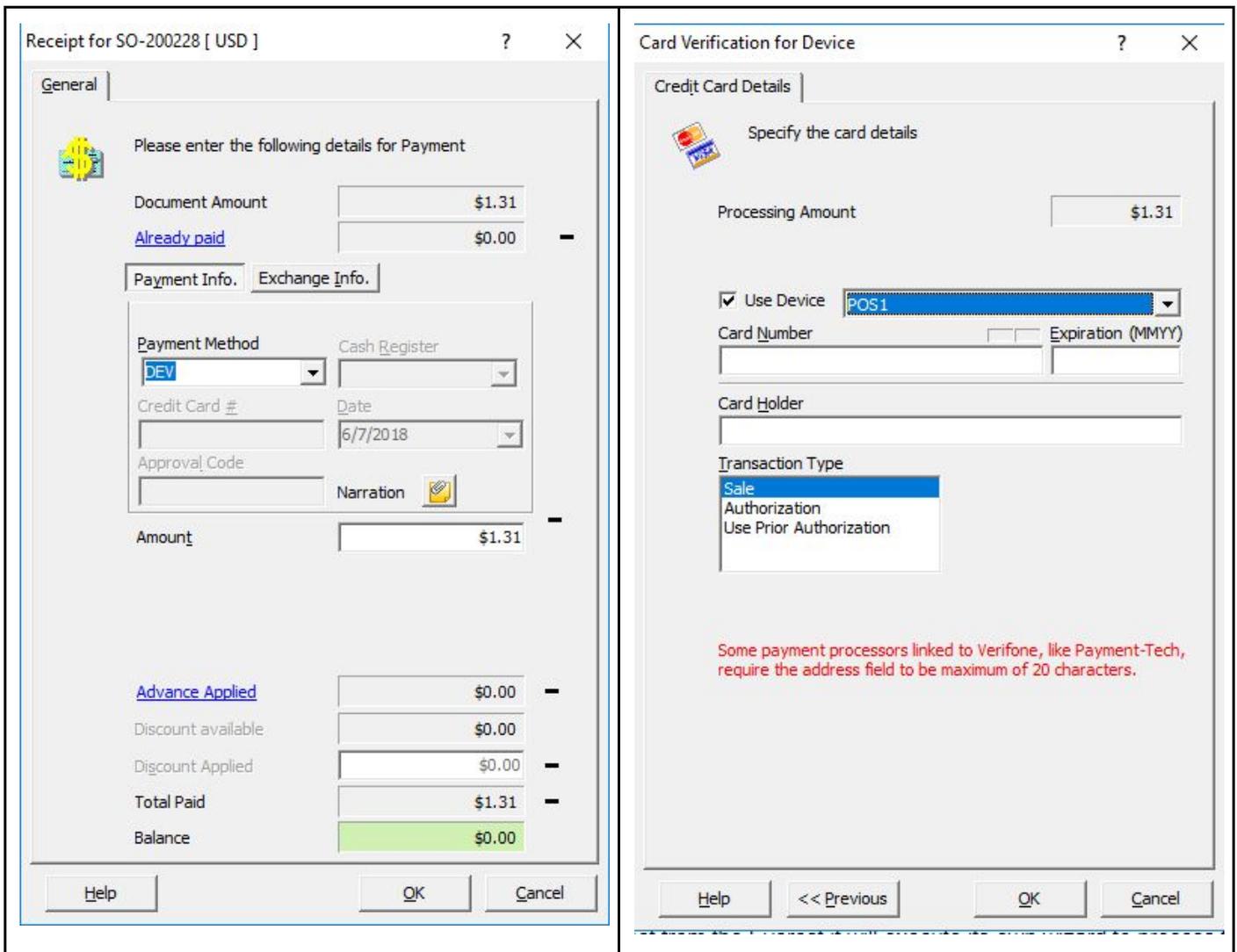
Following table summarize what operations are supported depending on the card type:

	Credit Card	Debit Card
Sale	Yes	Yes
Authorization	Yes	No
Use Prior Authorization - Capture	Yes	No
Use Prior Authorization - Voice	No	No
Refund	Yes	Yes

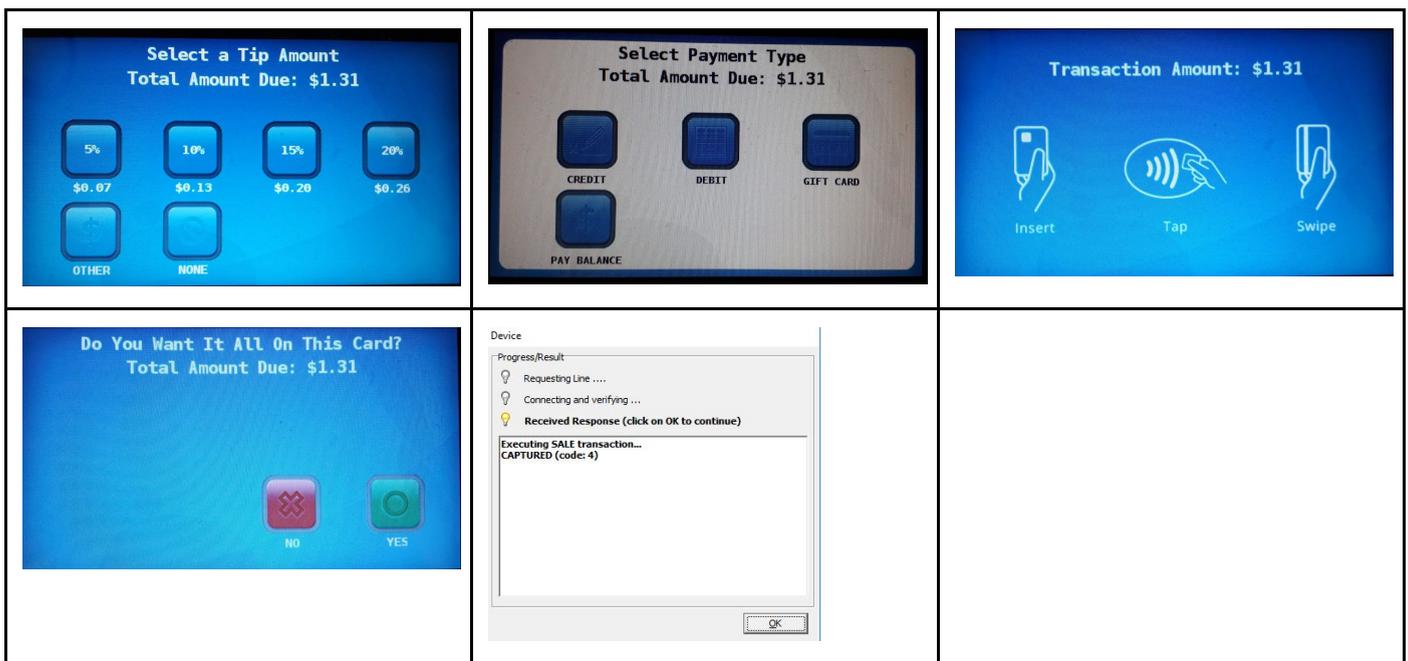
## Processing credit/debit card transactions

During transaction processing, the user should select the payment method created to process credit/debit cards via a device. Below are the screenshots of the forms which shown when Receive operation is executed on a Sales Order.

DEV payment method selected on the first form, this method is created as explained in previous sections. After OK is clicked on the first page (Receipt for SO-...) the Card Verification page will be shown. *Use Device* checkbox needs to be marked and desired device needs to be selected (dropdown will be filled with the names of the devices as were specified during a device pairing). After transaction type is selected and OK button is clicked the communication with the device will be executed.



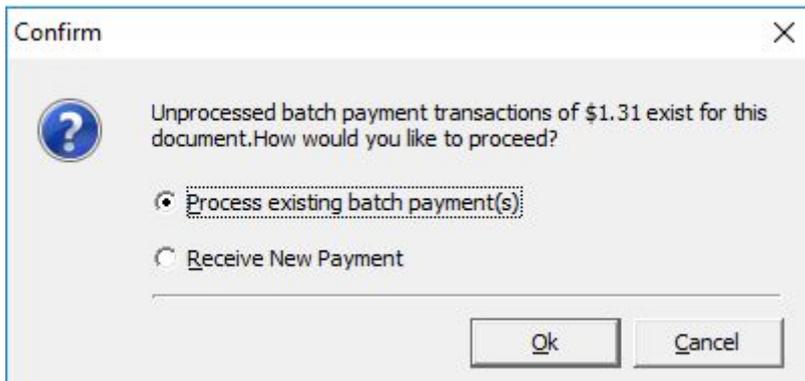
Once device receive request from the Everest it will execute its own wizard<sup>3</sup> to process the transaction:



<sup>3</sup> Wizard screens depends on the device type as well as on its configuration. Current screenshots are taken on MX915 device with factory default settings

Sales and Authorization transactions are similar in terms of UI - required operation needs to be selected in the *Transaction Type*. However if Sale operation transfer funds to merchant account the Authorization operation just blocks them on a customer credit card. In order to finalize the transaction *Use Prior Authorization* type of transaction needs to be executed.

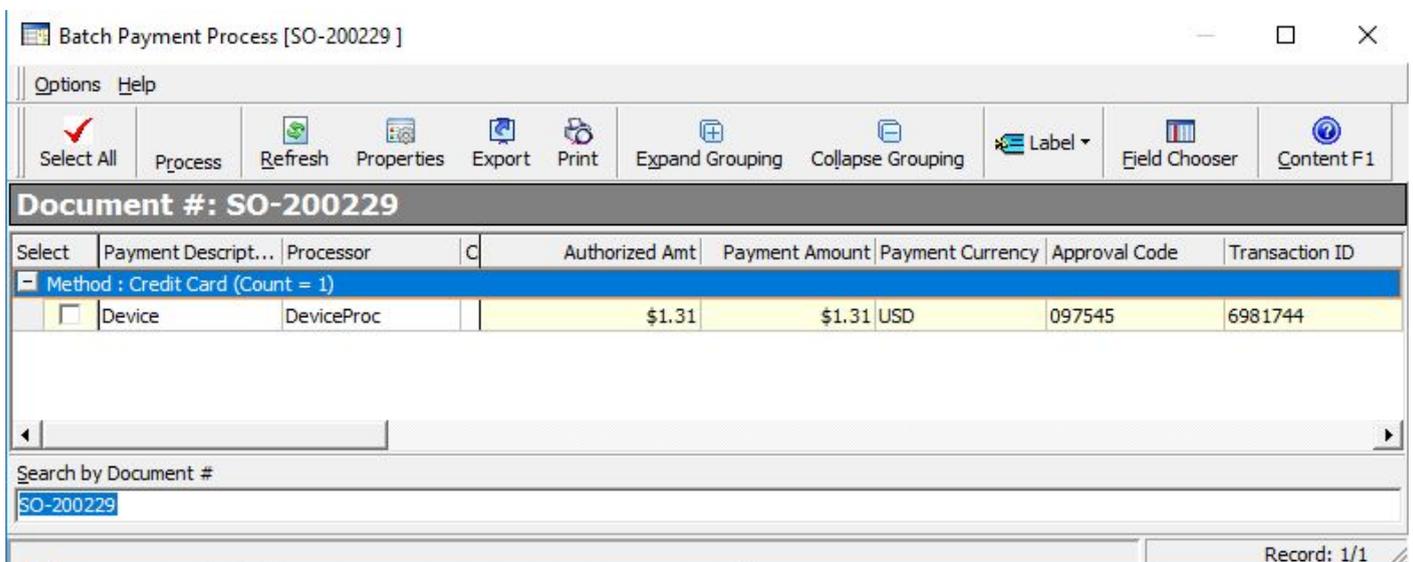
When Authorization operation already executed for a sales document and Receive button clicked again the following message is shown:



In order to capture existing authorization any of the method option can be chosen.

## Processing existing batch payment(s)

When this option is chosen the batch payment browser will be opened:



Mark checkbox against transaction(s) which need to be finalized and click Process. Everest will communicate with the device and execute capture transaction - user interaction is not required in this process.

## Receive New Payment

If this option is chosen then usual forms will be shown. Select the payment method which was used to execute Authorization transaction and proceed to the next step. On the Card Verification form select the device which was used to execute Authorization operation and choose Use Prior Authorization in Transaction Type field - additional fields will be shown:

Select Capture radio button and in the Approval Code dropdown select code for the authorization operation executed previously for the sales document. Once OK button is clicked the capture operation will be executed and no user interaction will be needed.

## Refund

Refund operation can be executed exactly the same way as for Sale operation. Card Verification screen will have only Refund operation available in the Card Verification form:

Credit Card Details



Specify the card details

Processing Amount

By Transaction ID

Use Device

Card Number  Expiration (MMYY)

Card Holder

Transaction Type

Some payment processors linked to Verifone, like Payment-Tech, require the address field to be maximum of 20 characters.

Help

<< Previous

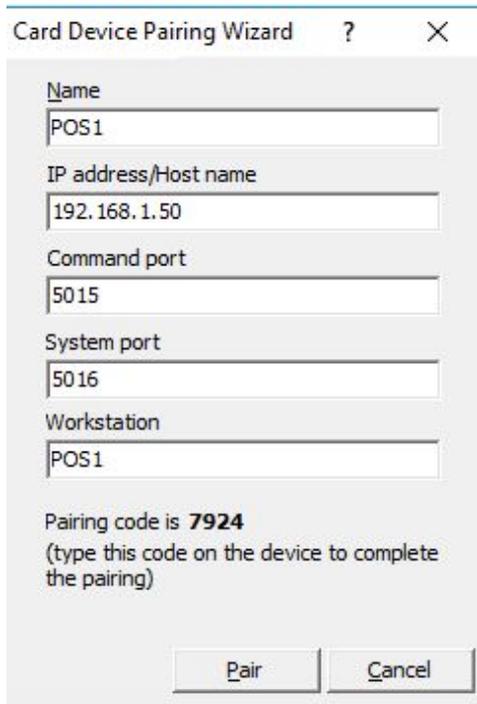
OK

Cancel

# Appendix A - Pairing Example

Below are the pairing example - device got 192.168.1.50 IP address assigned. Everest will show this device in UI as POS1 (int various places - device browser, payment details) since we provided POS1 for the Name field. Workstation where Everest Client is running also named POS1 so we provide that name in the Workstation field.

## 1. Pairing wizard general page



Card Device Pairing Wizard ? X

Name  
POS1

IP address/Host name  
192.168.1.50

Command port  
5015

System port  
5016

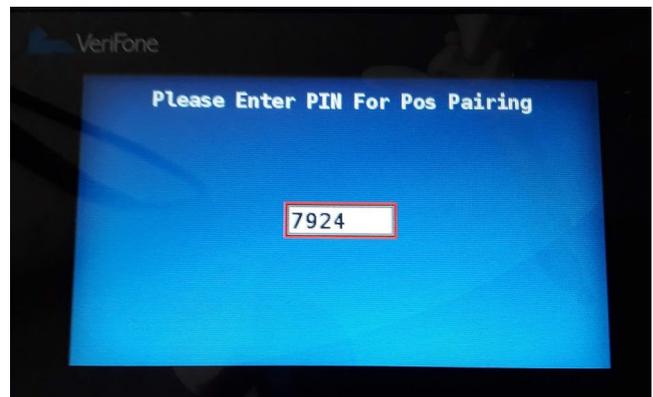
Workstation  
POS1

Pairing code is **7924**  
(type this code on the device to complete the pairing)

Pair Cancel

## 2. POS Screen

When Pair button is clicked the device will request to provide PIN code (which is 7924 for our example). PIN is provided and Enter (green on the device) is clicked



## 3.1 Confirmation page

Everest will show confirmation page if pairing succeeded



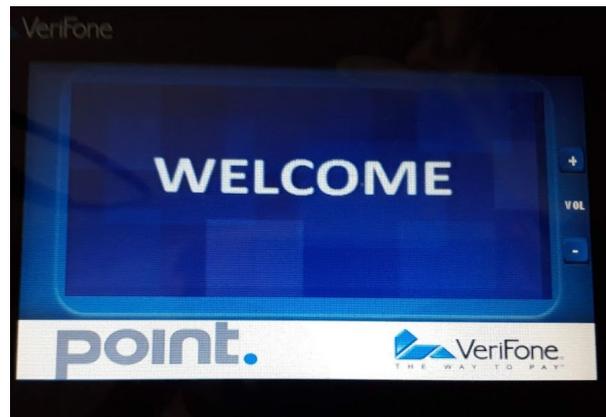
Card Device Pairing Wizard ? X

Device was successfully paired!

Close

## 3.2 POS Welcome screen

Device will show welcome screen if pairing succeeded



## Appendix B - Troubleshooting

It is possible to enable logging all communications between Everest Server and device, in order to do so open *c:\Program Files (x86)\code\Everest\Application\application.config* (path is valid when Everest Server installed into *c:\Program Files (x86)\code\Everest\Application* which is default) and set full path to the log file into value attribute for *EmvTraceFilePath* parameter (see screenshot below). Once configuration file is modified restart Everest COM+ application.

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <configSections>
    <section name="log4net" type="log4net.Config.Log4NetConfigurationSectionHandler, log4n
    <section name="EverestMagentoExt" type="EverestMagentoExt.ExtConfig, EverestMagentoExt
  </configSections>

  <EverestMagentoExt everestSinkUrl="http://localhost:7001/" />

  <appSettings>
    <add key="EmvTraceFilePath" value="c:\temp\pos1.log" />
  </appSettings>

  <log4net debug="true">
    <appender name="OutputDebugStringAppender" type="log4net.Appender.OutputDebugStringApp
    <layout type="log4net.Layout.PatternLayout">
      <conversionPattern value="[EverestMagentoExt] %level %date{HH:mm:ss,fff} - %messag
    </layout>
  </log4net>
  ..
  ..
```



If the value is empty or the [add] entry is missing then logging will be disabled.