



A Global Payments Company

Heartland Payment Application v5.0.1

Quick Start Guide

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1 Getting Started

1.1 Overview

HPA 5.0.1 supports the following Ingenico terminals:

- Lane 5000 CL2
- Lane 3000

Prior to receiving your Ingenico terminal, you should have coordinated with the Heartland Integration Support team to set up your TERMINAL ID (TID) and parameters. You will need a TERMINAL ID to download the HPA application. If you do not have a TERMINAL ID then please contact ProductOpsIntegration@e-hps.com for assistance.

The Ingenico terminals ship with the Downloader application used to download the HPA application from the Heartland Universal Download System (HUDS).

This guide will walk you step by step to download the HPA application, set up the HeartPOS example Point Of Sale application, and begin running transactions.

1.2 Entering Data on the Terminal

1.2.1 Physical Keypad

There are numerous screens used for configuring parameters which accept key entry. The numeric keys on the terminal provide the ability to enter both numeric digits as well as alphabetic characters associated with that key. To enter one of the alphabetic characters associated with the key press the key repeatedly until the desired character appears.

NOTE: This process requires that the user wait briefly after each character is entered until the cursor moves onto to the next entry position, pressing another key prematurely changes the current character entry.

1.3 Configuring Communication Parameters Using Comm Link

There are various options available for configuring the Wi-Fi and Ethernet parameters. The first option is through the Comm Link function. Comm Link is activated by rebooting the terminal and pressing ENTER on the Comm Link screen. The terminal can be rebooted by pressing the yellow backspace key and the “#” simultaneously.

The second option is to use the ADMIN menu then select EDIT Parameters. This section will discuss the first option of using Comm Link.

As the Downloader goes through its power up initialization process it will display a screen with “COMM LINK” displayed on the bottom row for about 3 seconds as shown below.

Notes	[Banner Image]	[Banner Image/Text]
Press the ENTER key on this screen to start the Comm Link flow.	V5.0.1.FB1E738 (C) 1999-2018 GLOBAL PAYMENTS INC COMM LINK	V5.0.1.FB1E738 (C) 1999-2018 GLOBAL PAYMENTS INC COMM LINK

1.4 Configuring Ethernet Parameters Using Comm Link

Notes	[Banner Image]	[Banner Image/Text]
Initial screen. Shows the current POS connection type, which can be changed.	COMM LINK --> POS POS CONNECTION ETHERNET EDIT NEXT	COMM LINK --> POS POS CONNECTION ETHERNET 8=EDIT 9=NEXT

Notes	[Banner Image]	[Banner Image/Text]
If EDIT selected. Select the desired POS connection type.	COMM LINK --> POS POS CONNECTION SERIAL ETHERNET	COMM LINK --> POS POS CONNECTION 1=SERIAL 2=ETHERNET

Notes	[Banner Image]	[Banner Image/Text]
If ETHERNET	--> POS: ETHERNET	--> POS: ETHERNET

selected, can edit port on which SIP device listens for commands from POS.	LISTENING PORT			LISTENING PORT
	12345			12345
	PREV	EDIT	NEXT	7=PREV 8=EDIT 9=NEXT

Notes	[Banner Image]	[Banner Image/Text]
If EDIT selected. Enter the desired SIP listening port.	--> POS: ETHERNET LISTENING PORT _____	--> POS: ETHERNET LISTENING PORT _____

Notes	[Banner Image]	[Banner Image/Text]
Initial screen. Shows the current POS connection type, which can be changed.	COMM LINK --> NETWORK NETWORK CONNECTION ETHERNET _____ NEXT	COMM LINK --> NETWORK NETWORK CONNECTION ETHERNET 9=NEXT

Notes	[Banner Image]	[Banner Image/Text]
Can edit the IP address assignment protocol.	--> NETWORK: ETHERNET IP ADDRESS ASSIGNMENT STATIC PREV EDIT NEXT	--> NETWORK: ETHERNET IP ADDRESS ASSIGNMENT STATIC 7=PREV 8=EDIT 9=NEXT

Notes	[Banner Image]	[Banner Image/Text]
If EDIT selected. Select the desired type of IP address assignment protocol.	--> NETWORK: ETHERNET IP ADDRESS ASSIGNMENT STATIC DHCP	--> NETWORK: ETHERNET IP ADDRESS ASSIGNMENT 1=STATIC 2=DHCP



<p>Notes</p> <p>If STATIC, can edit the IP address assigned to the SIP device. If DHCP, can view but not edit.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>IP ADDRESS</p> <p>192.16.1.100</p> <p>PREV EDIT NEXT</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>IP ADDRESS</p> <p>192.16.1.100</p> <p>7=PREV 8=EDIT 9=NEXT</p>
<p>Notes</p> <p>If EDIT selected.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>IP ADDRESS</p> <p>_____._____._____</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>IP ADDRESS</p> <p>_____._____._____</p>
<p>Notes</p> <p>If STATIC, can edit. If DHCP, can view but not edit.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>SUBNET MASK</p> <p>255.255.255.0</p> <p>PREV EDIT NEXT</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>SUBNET MASK</p> <p>255.255.255.0</p> <p>7=PREV 8=EDIT 9=NEXT</p>
<p>Notes</p> <p>If EDIT selected.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>SUBNET MASK</p> <p>_____._____._____</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>SUBNET MASK</p> <p>_____._____._____</p>

<p>Notes</p> <p>If STATIC, can edit. If DHCP, can view but not edit.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>DEFAULT GATEWAY</p> <p>192.168.1.1</p> <p>PREV EDIT NEXT</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>DEFAULT GATEWAY</p> <p>192.168.1.1</p> <p>7=PREV 8=EDIT 9=NEXT</p>
<p>Notes</p> <p>If EDIT selected.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>DEFAULT GATEWAY</p> <p>_____</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>DEFAULT GATEWAY</p> <p>_____</p>
<p>Notes</p> <p>If STATIC, can edit. If DHCP, can view but not edit.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 1</p> <p>192.168.1.1</p> <p>PREV EDIT NEXT</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 1</p> <p>192.168.1.1</p> <p>7=PREV 8=EDIT 9=NEXT</p>
<p>Notes</p> <p>If EDIT selected.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 1</p> <p>_____</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 1</p> <p>_____</p>

<p>Notes</p> <p>If STATIC, can edit. If DHCP, can view but not edit.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 2</p> <p><EMPTY></p> <p>PREV EDIT NEXT</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 1</p> <p><EMPTY></p> <p>7=PREV 8=EDIT 9=NEXT</p>
<p>Notes</p> <p>If EDIT selected.</p>	<p>[Banner Image]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 2</p> <p>_____._____._____</p>	<p>[Banner Image/Text]</p> <p>--> NETWORK: ETHERNET</p> <p>DNS SERVER 2</p> <p>_____._____._____</p>
<p>Notes</p> <p>If end of flow reached or cancel key pressed. If YES selected, save settings to COMMLINK.CFG file.</p>	<p>[Banner Image]</p> <p>COMM LINK</p> <p>SAVE SETTINGS?</p> <p>YES NO</p>	<p>[Banner Image/Text]</p> <p>COMM LINK</p> <p>SAVE SETTINGS?</p> <p>1=YES 2=NO</p>
<p>Notes</p> <p>If YES selected and change requires a reboot.</p>	<p>[Banner Image]</p> <p>COMM LINK</p> <p>REBOOT REQUIRED</p> <p>OK</p>	<p>[Banner Image/Text]</p> <p>COMM LINK</p> <p>REBOOT REQUIRED</p> <p>PRESS ANY KEY</p>

1.7 Configuring ALL Parameters Using Admin Menu

The Wi-Fi and Ethernet parameters may also be configured from the ADMIN menu. Downloader displays the following screen at the idle state.

[Banner Image]	[Banner Image/Text]
DOWNLOADER MENU	DOWNLOADER MENU
SELECT FUNCTION	SELECT FUNCTION
<div>DOWNLOAD</div> <div>ADMIN</div>	1=DOWNLOAD 2=ADMIN

Figure 33 Downloader Idle Menu

Press '2' to enter the ADMIN function. The Admin function prompts for the Admin password as shown below.

[Banner Image]	[Banner Image/Text]
ADMIN	ADMIN
ENTER ADMIN PASSWORD	ENTER ADMIN PASSWORD
-----	-----
<div>PREV</div> <div>EDIT</div> <div>NEXT</div>	7=PREV 8=EDIT 9=NEXT

Figure 34 Admin Password Menu

Enter 426697 for the ADMIN password.

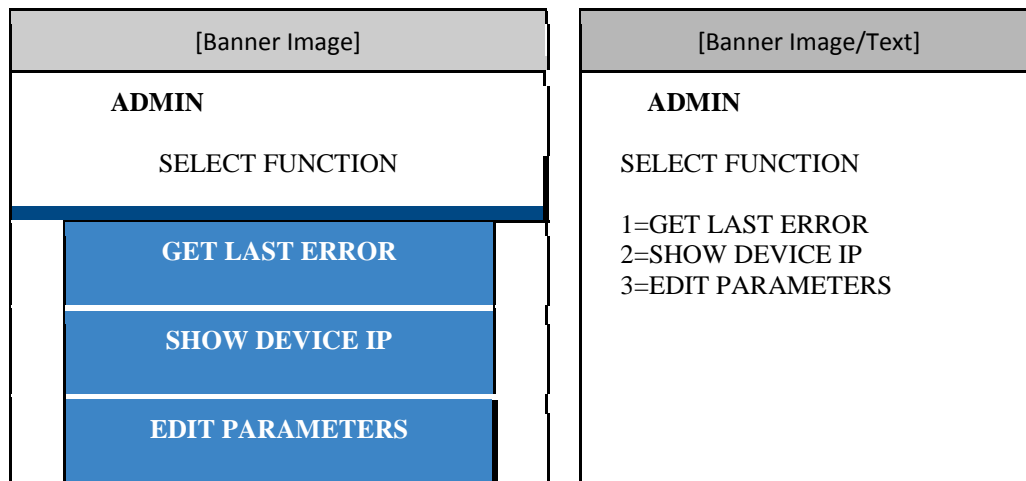


Figure 35 Admin Password Menu

Pressing '1' displays the last Downloader error, '2' shows the device IP address, and '3' enters the Edit Parameters function.

Configuring Wi-Fi parameters using the Edit Parameters function is essentially the same process as documented above for COMM LINK, the same screens and process is used to configure the Wi-Fi parameters.

In addition, Edit Parameters allows configuring some additional parameters that are not configured during COMM LINK. These additional parameters are not generally needed for establishing connectivity but may be accessed if the normal configuration process is not successful.

The additional parameters include:

- Downloaders' TID and Application ID – these are used for downloading new versions of the Downloader
- Download Host – for integrators developing application the development host(sslhps.test.hpsdnld.net) is used. For production deployment the production host (sslhps.prod.hpsdnld.net) should be used.
- Download Port – should be 8001.
- Host Link Type – should be IP.
- Heartbeat – flag used to enable automatic Downloader version updates
- Idle Timeout – how long each screen waits before timing out

1.8 Using Downloader To Download HPA

The HPA download can be initiated in two ways: it can be started manually or it can be started via an API call from the POS.

1.8.1 Manual Download of HPA Application

The Downloader idle menu is shown above in Figure 33.

Press '1' to enter the download menu. The first screen configures either a full download or a partial download. A full download downloads the application and the parameters. A partial download only downloads the parameters.

[Banner Image]	
DOWNLOAD SELECT DOWNLOAD TYPE	
YES	NO

[Banner Image/Text]
DOWNLOAD SELECT DOWNLOAD TYPE 1=YES 2=NO

Figure 36 Download Type Selection Screen

After selecting the download type, the next screen displays the current Application ID and Terminal ID settings and prompts if those are correct.

[Banner Image]	
DOWNLOAD ARE SETTINGS CORRECT ? APP ID: TID :	
YES	NO

[Banner Image/Text]
DOWNLOAD ARE SETTINGS CORRECT ? APP ID: TID : 1=YES 2=NO

Figure 37 Settings Confirmation Screen

1.8.1.1 Application ID and Terminal ID Configuration

If NO is selected from the Settings Confirmation Screen then the following screen flow allows configuring the application id and the terminal id.

[Banner Image]		
<p>DOWNLOAD DOWNLOAD TID: xxxxxx</p>		
PREV	EDIT	NEXT

Figure 38 Download TID Screen

[Banner Image/Text]		
<p>DOWNLOAD DOWNLOAD TID : xxxxxxxx</p>		
7=PREV 8=EDIT 9=NEXT		

Figure 39 Download TID Edit Screen

After configuring/confirming the download TID the flow continues with the application id screen.

[Banner Image]		
DOWNLOAD DOWNLOAD APP ID: xxxxxx		
PREV	EDIT	NEXT

Figure 40 Download TID Screen

[Banner Image/Text]		
DOWNLOAD DOWNLOAD APP ID : xxxxxxxx		
7=PREV	8=EDIT	9=NEXT

Figure 41 Download TID Edit Screen

After configuring/confirming the application id, the flow returns to the setting confirmation screen.

Selecting YES at the confirmation screen then initiates the download process.

The terminal displays the downloading screen as shown below while it performs the download.

[Banner Image]
DOWNLOAD DOWNLOADING...

Figure 42 Downloading Screen

[Banner Image/Text]
DOWNLOAD DOWNLOADING...

1.8.2 HPA Download Using POS API

For integrators just getting started with their development, the manual download process is the easiest method to download HPA and get started. However, Downloader supports an API to allow the POS to initiate a download by using the StartDownload command.

When the terminal is at the Downloader idle screen (Figure 33) then the POS can initiate the HPA download using the StartDownload command assuming that communication has been established between the POS and the terminal.

The StartDownload command includes four elements that the POS will need to initiate the download. The four elements are:

- HUDSURL – URL for the download host, either SSLHPS.TEST.HPSDNLD.NET or SSLHPS.PROD.HPSDNLD.NET
- HUDSPORT – HUDS port number, should be 8001
- HUDSTID – Terminal Id
- HUDSAPPID – Application Id, also referred to as Software Id, this can generally be blank unless multiple applications are associated with a terminal id.

In the example XML below, HUDSURL is set to the development HUDS server, the application ID is empty, and the terminal id is set to TESTSIP.

Example Request from POS

```
<HL>
<Version>1.0</Version>
<Request>StartDownload</Request>
<HUDSURL>SSLHPS.TEST.HPSDNLD.NET</HUDSURL>
<HUDSPORT>8001</HUDSPORT>
<HUDSTID>TESTSIP</HUDSTID>
<HUDSAPPID></HUDSAPPID>
</HL>
```

Example response from HPA:

```
<HL>
<Version>1.0</Version>
<Response>StartDownload</Response>
<ResultCode>[Result code]</ResultCode>
<ResultText>[Result text]</ResultText>
</HL>
```

HPA sends the response after the command is received before the download is performed. The terminal reboots after a successful download. If the download fails, please refer to [chapter 3](#) of this document for troubleshooting guidance.

1.9 HeartPOS – HPA Communication Configuration

1.9.1 Initialization

Once HPA has been downloaded then the first step is to confirm communication between the POS and the terminal. To aid in development, the HeartPOS application is provided which serves as an example POS application that can be used to run transactions.

HPA is a separate application from Downloader and has its own parameters to configure the communication channel with the POS. These parameters are downloaded along with the other HPA parameters when the HPA application is downloaded from HUDS. HPA should be properly configured to communicate with the POS when it boots up.

HPA only supports TCP (via Wi-Fi and Ethernet) connectivity between the POS and the terminal. The terminal opens up a listening socket for the POS. The POS must be configured to establish a connection with the terminal using the HPA listening socket port number.

HPA has a special function to display the listening socket port number.

Pressing the keys 8, then 9, then ENTER on the SIP device at the idle screen brings up a screen displaying the current communication configuration including the listening socket port number. The screen shows the current IP address of the terminal. This is useful when DHCP is used and the POS needs to know the terminal IP address.

1.10 Overview

HeartPOS is a sample POS application, which can be used to run transactions with the HPA application.

It is written in C# using Visual Studio 2013. Integrators who have Visual Studio 2013 can run HPA in Visual Studio. If Visual Studio is not available then the binary HeartPOS executable can be run without Visual Studio.

To run HeartPOS in Visual Studio 2013 simply click on the HeartPOS.sln file in the ../HeartPOS/VisualStudio folder. To run the HeartPOS binary without Visual Studio click on HeartPOS.exe in the ../HeartPOS/Binaries folder.

1.11 Configuring HeartPOS to Interface With HPA

Click on the “Change Config” button in the upper right corner.

Use the connection panel to set the connection parameters to match the HPA interface.

(The current HPA POS connection parameters can be displayed from the idle screen by pressing '8', then '9' then ENTER on the SIP device.)

The configuration panel has the following tabs to allow configuring parameters:

1) Connection

- a) ECR ID: sets the ECR ID element in the POS to SIP request messages. The ECR ID may be any 1-20 digit value.
- b) Reset Delay: time interval at end of transaction before HeartPOS sends a Reset command.
- c) Ethernet Connections: SIP IP Address and Port
- d) Other: this is reserved for future use

2) Transaction

- a) Confirm Amount – sets the ConfirmAmount element in sale requests
- b) Tax %: percentage of sale that will be added as tax
- c) EBT %: for food stamp sales the percentage sent in EBTAmt element (*indicating percentage eligible for food stamp use*).
- d) Enable Line Item: send line items during a sale transaction
- e) Multi Card Selection: enables specifying permutations of card types in financial messages, such as sale with CREDIT or GIFT.
- f) Bold Mandatory Flags: the mandatory tags in the XML window shown in bold font.
- g) Field Count: number of fields per message for reports
- h) Request Id: specify the RequestId element used in POS requests

3) Custom Forms – select form from drop down list, then checkbox for either pre-transaction or post-transaction

4) Download – sets parameters used in StartDownload request

5) Receipt – sets the headers and footers for the receipt

6) SIP Admin Password – if SIP Admin command is sent to the SIP device the SIP device prompts for the Admin Password. This tab displays the current Admin password (which changes on a daily basis).

2.3 Running Financial Transactions with HeartPOS

We recommend starting the SIP device **first** and when it is in a Lane Closed state, start the HeartPOS app.

HPA operates in either a Lane Open or a Lane Closed state. Financial transactions are run in the Lane Open state while Administrative functions (reports, Close Batch, End of Day (EOD), etc.) are run in the Lane Closed state.

To run transactions open the lane by clicking the Open Lane button. You can then click the Scan button to scan an item for a random amount, or click the Enter Price button to specify an exact transaction amount.

Next click on one of the card type buttons. HPA supports credit, debit, EBT, and gift card types. If the “Any Card” button is selected HeartPOS displays a pop-up dialog when the transaction is initiated to allow selecting any permutation of card types to be sent to the SIP device.

Click the desired transaction type and HeartPOS will send the transaction to the SIP device. Supported transactions include:

- Sale
- Refund
- Void
- Card verify
- Voice authorization
- Credit authorization (preauth)
- Auth complete
- Gift card add value
- Balance inquiry
- Start card(used to prompt for card acquisition ahead of the transaction to speed up the transaction)

You can abort transactions by clicking on the Reset button, which sends a reset message to the SIP device.

The XML request and response messages are shown in the window on the right hand side and example receipts are displayed in the middle window. Receipts are also stored in the Receipts directory, and may be referenced later.

2.4 Running Administrative Functions with HeartPOS

To run an administrative function click the Close Lane button to send the LaneClose message to the SIP device.

The SIP Admin button sends the ManagerMenu command to the SIP device. HPA prompts for the Admin password, which is available by clicking the Change Config button in the upper right and selecting the last tab, labeled SIP Admin Password.

The following administrative functions are available in the Lane Closed state by clicking the appropriate button:

SIP Admin – sends the ManagerMenu command to the SIP device. HPA prompts for the Admin password, which is available by clicking the Change Config button in the upper right and selecting the last tab, labeled SIP Admin Password.

Send SAF – sends SendSAF command to SIP device to send pending store and forward transactions to the host for authorization.

- 1) EOD – send the EOD (End of Day) command to the SIP device. The End of Day process includes sending all pending reversals, attachments (signature images), closing the batch (if enabled), perform Heartbeat (if enabled), and getting an EMV parameter download (if available). If the Heartbeat functionality results in downloading a new version of the application, the terminal will reboot.
- 2) Batch Clear – this function is deprecated.
- 3) Batch Close – sends the BatchClose command to the SIP device to close the current batch. The Batch Summary and Batch Detail reports are displayed in the middle window.
- 4) Reboot – sends a Reboot command to reboot the SIP device.
- 5) Get Info – SIP device sends the Application Information Report
- 6) Get Param – SIP device sends the Parameter Report
- 7) Get PDL – SIP device sends the EMV Parameter Report
- 8) Get SAF – SIP device sends the Store And Forward Report
- 9) Get Batch – SIP device sends the Batch Summary and Batch Detail reports
- 10) Set Param – used to set application parameters. Not all parameters may be set with this function.
- 11) Set Trg – puts the SIP device into Training Mode. Training Mode is not yet supported.
- 12) Start Download – used to initiate a new HPA application download from the HUDS server
- 13) Set Clock – used to set the time on the SIP device
- 14) Send File – used to send a new BANNER.JPG or IDLELOGO.JPG file to the SIP device.
- 15) HeartPOS Control Panel Functions

The HeartPOS control panel functions are in the upper right portion of the HeartPOS window. They include:

- a) Send Custom – sends the contents of the Custom.xml file in the XML subdirectory, provides the capability of sending custom commands to the SIP device.
- b) Clear Receipt – clears the receipt window.
- c) Clear Log – clears the XML log window.
- d) Change Config – set HeartPOS configuration as described in section 2.2 above.

2 Troubleshooting Downloader

The most common source of difficulty in downloading the HPA application is the use of an incorrect terminal and or Application ID. The terminal and Application IDs are platform specific, the HPA

Application ID used for the Ingenico iSMP627 (PIIHDXX) is different from the application ids used for other Ingenico platforms.

The Terminal ID is associated with an Application ID even if an Application ID is not specified in the download parameters.

Different hardware platforms require different Terminal IDs.

2.1 Server Code 2 Download Failed

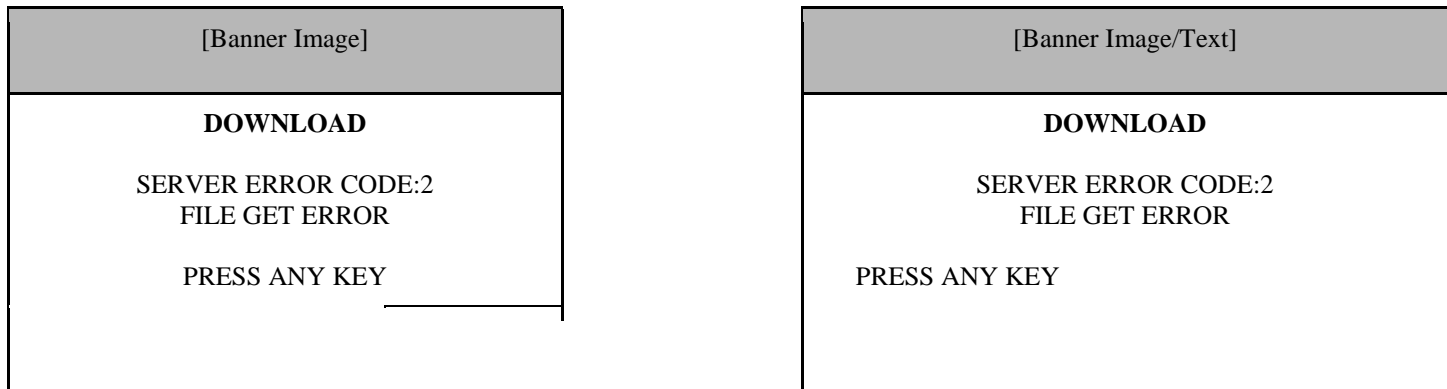


Figure 45 Downloading Screen

The above error screen is most often the result of the Application ID and or the Terminal ID being incorrect. Check with your Heartland integration specialist to verify the Terminal ID (and Application ID if used).

If the Terminal and Application IDs are correct, the next thing to check is that the correct host URL is specified for the download. For example, the Terminal ID may be set up on the development HUDS, if the production HUDS URL was inadvertently used then the Terminal ID would not be found.

2.2 Cannot Connect

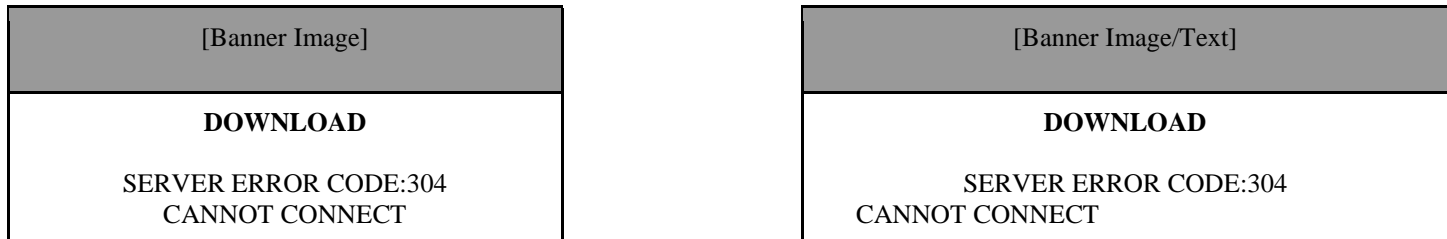




Figure 46 Downloading Screen

The error in Figure 46 typically results from the URL and/or the port being incorrect.

2.3 Missing IP Address – Connection Failure

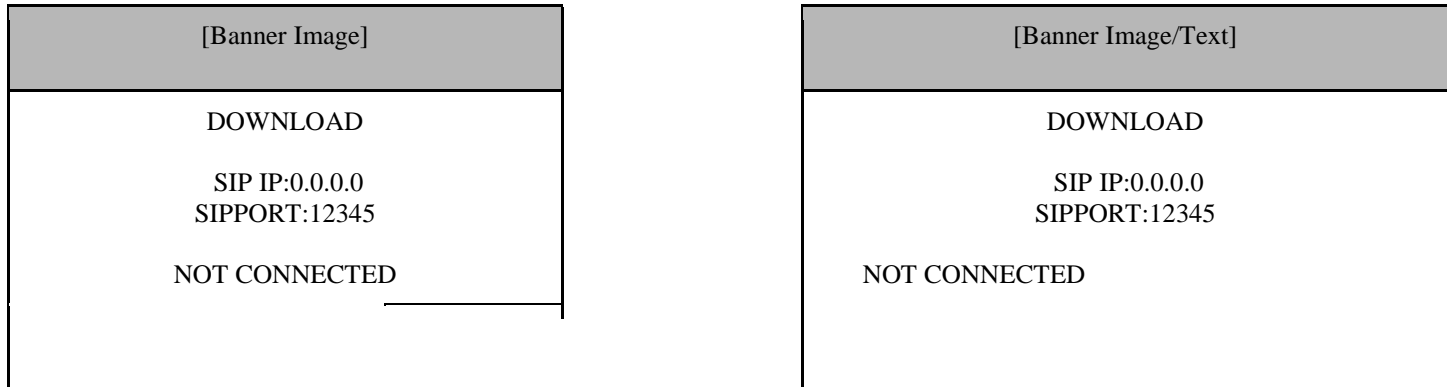


Figure 47 Missing IP Address

The message in Figure 20 with the IP address set to zeros and the status set to “NOT CONNECTED” indicates that the terminal does not have a TCP connection. Check and possibly replace the Ethernet cable.

In DHCP mode the missing IP address indicates that the terminal was unable to get an IP address from the DHCP server.

2.4 Update Failed

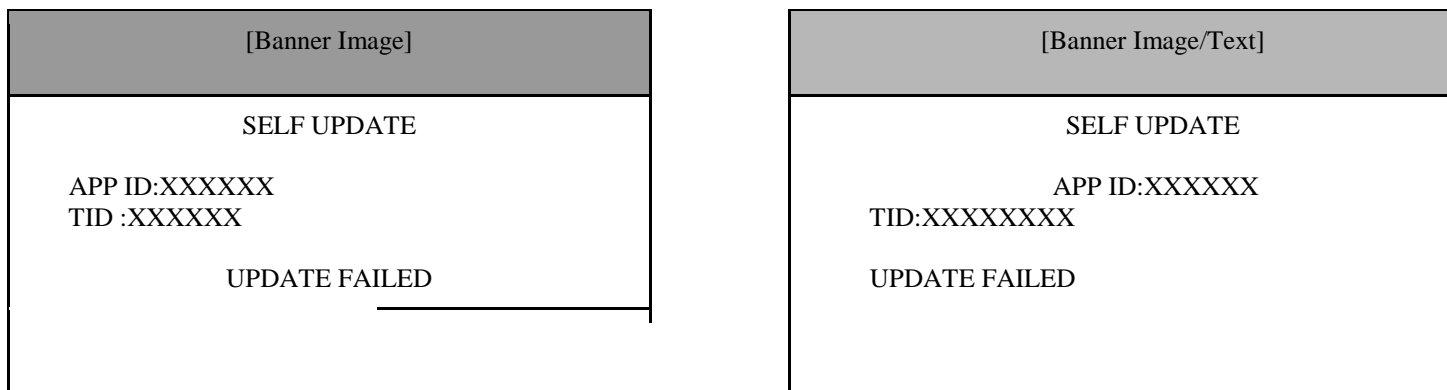


Figure 48 Missing IP Address

If the Heartbeat functionality is enabled (via Edit Parameters in Admin menu) then when Downloader boots up it checks the HUDS server to see if a newer version of the Downloader application is available. If there is a newer version then it is downloaded and installed.

An update failure on the SELF UPDATE screen indicates that there was an error when Downloader checked for a newer version of itself. This error normally results from the Downloader APPID or TERMID parameters being incorrect. These parameters are configured in the Edit Parameters function from the Admin Menu

Downloader is a separate application distinct from HPA, and as such has its own Application ID and Terminal ID. It's important to not confuse the Downloader Application and Terminal IDs with the HPA Application and Terminal IDs.

2.5 Displaying the Error Screen

When an error occurs, Downloader displays an error screen for 30 seconds before returning to the idle screen. To redisplay the error screen select GET LAST ERROR from the Admin Menu.

3 Troubleshooting HPA

3.1 Authentication Error

If financial transactions are declined with an “AUTHENTICATION ERROR” message in the GatewayRspMsg element returned in the transaction response message, then there’s likely an issue with your Portico login credentials. Please contact your Heartland integration support specialist and request a review of your login credentials.

3.2 Always In Offline Mode

If the SIP device is approving all transactions offline then the Store and Forward mode is set to ALWAYS.

The long-term solution is to contact Heartland and request the STORMD parameter be updated to either AUTO or NONE.

The short-term solution is to use the Set Parameter API to set STORMD to “3” for AUTO mode (Store and Forward in case of communication failure) or “0” for OFF. Performing a download may revert the STORMD parameter, requiring another update afterward.

3.3 EMV Parameter Download

The terminal reboots after downloading HPA. Downloader comes up first, checks to see if there is a newer version of Downloader (and downloads it if needed), then the HPA application does its initialization.

As part of the initialization, HPA downloads the EMV parameters from the Heartland parameter management system. The terminal displays EMV UPDATE TABLE at the start of the process then displays the download status by displaying EMV UPDATE TABLE N/M where N is the number of the current EMV table and M is the total number of tables to be downloaded. The total number of tables depends on which card brands have been enabled and whether contactless is enabled. If all four major cards and contactless are enabled then HPA downloads twelve tables.

It is important to monitor the status of the EMV parameter download, if the download fails HPA displays EMV INIT FAILURE. If this happens contact Heartland Integration Support to resolve the issue.

If the EMV parameter download fails then EMV transactions will not be supported. Sale transactions will not prompt for card insertion.

3.4 Store and Forward

Store and Forward transactions are stored locally on the terminal. If the batch is closed automatically on Portico then the Store and Forward transactions will not be included in the batch.

To send Store and Forward transactions to Portico so they will be included in the batch, either use the SendSAF API or EOD (End of Day). Store and Forward transactions are sent to Portico automatically as part of the End of Day process.