Host Initiated Transactions

Version 2.2

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Document Revision Information

Version	Comments
0.1	Initial version.
0.2	Added Payline information.
0.3	Update to Document Formatting.
1.0	Release Version.
1.1	Signature support and Cancel transaction functionality.
1.2	Update to production endpoint address & transaction flow.
1.3	Removed DCC & Locate functions for now.
1.4	Added additional ReCo information & added Sandbox.
1.5	Added Paymark section updated images & fixed typos. Updated Void and Refunds. Included new configuration information.
1.6	Formatting changes.
1.7	Included cash out functionality.
1.8	Update to refund section and buttons.
1.9	Included multi-user testing.
2.0	Included additional ReCos and updated transaction completion response information.
2.1	Included Receipt transaction request.
2.2	Included Fail-Proof Result Notification functionality.

Contents

1 Introduction

The **Payment Express Host Initiated Transaction (HIT)** solution is a web facing HTTPS service that permits control of a payment transaction on a Payment Express terminal.

There is no requirement of a direct physical connection between the Point of Sale (POS) application and the Payment Express terminal. All required software is on the Payment Express Terminal and Host. All messages are sent online via the internet to create an end-to-end cloud-based payment solution.

The terminal can be connected online to a modem or router directly. However if required the HIT enabled terminal can be connected to a POS's PC as well to share the internet connection from the PC, in that case the POS's PC needs to have an SCR Controller software installed. For further details please refer to section 3 - Configurations.

The Payment Express HIT sandbox is accessible online https://demo.paymentexpress.com/SandboxPxHIT.aspx
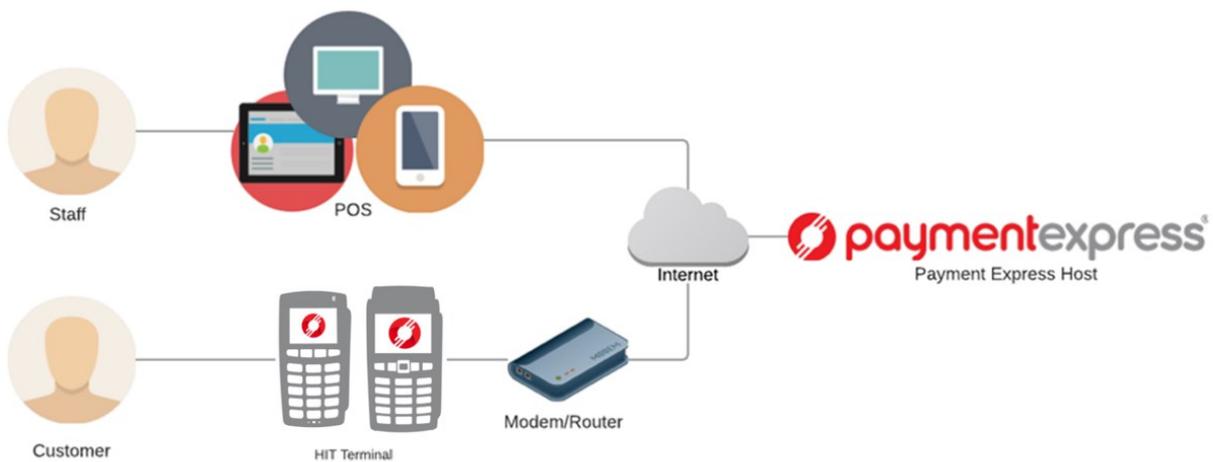
The POS initiates a transaction request to Payment Express by sending an HTTPS POST request as an XML message to the appropriate URL. See below section 2.1 (Endpoints & Firewall Considerations) for a list of URLs.

Payment Express responds to the request, either immediately or after a configurable timeout period of a few seconds; after receiving a response, the POS will continue to make Status requests until the Status response indicates that the transaction is Complete (Complete value is returned as "1") in Result.

Status responses from Payment Express may contain instructions for the POS to permit information to be displayed for the merchant (DL1, DL2) and enablement of buttons that may be used by the POS to interrupt the transaction or provide feedback for example signature capture.

Note: For any new integrations, the POS must handle the entry of new users. POS applications are typically used by many different customers.

As each customer has one or more HIT API users, a key part of POS development is ensuring that new user HIT API credentials can be easily added into the POS and that the development credentials are not hard coded in any way. Please ensure the API credentials configuration within the POS are also password protected or has some level of authorised access challenge.

2.1 Endpoints & Firewall Considerations

The POS can communicate with the Payment Host using **HTTPS** on the addresses below. Please ensure that your network can accommodate this access.

Production: https://sec.paymentexpress.com/pxmi3/pos.aspx

Test: https://uat.paymentexpress.com/pxmi3/pos.aspx

The Payment Express HIT terminal communicates with the Payment Express Host using **TCP** on the addresses below. Please ensure that your network can accommodate this access.

Production: scr.paymentexpress.com   port 65

Test: uat.paymentexpress.com   port 65

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3.1 Direct External Connection

Payment Express HIT terminals can be configured to connect directly to an external Internet connection; this allows merchants to remove all physical connection between their POS and the payment device; this option is available for both the iPP350 and the iWL250.

No Payment Express software is required on the PC running the POS. However only the Payment Express key scheme is supported.

3.1.1 Direct external connection iPP350

The iPP350 terminal is connected to an external network using three separate cables:

The customer must have a receipt printer and all receipt printing is controlled directly by the POS.

3.1.2 Direct external connection iWL25C

The iWL25C terminal is connected for online connectivity to an external network (via a router or modem) using a standard Ethernet cable. The device must also have power to the base.

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3.2 CONNECTION TO PC

Both the iPP350 and the iWL250 can be connected directly to the merchant's POS. In order to run the HIT device, the merchant must download the SCRController software from the Payment Express website.

Payment Express and Paymark (NZ only) terminal key schemes are available.

3.2.1 Connection to PC iPP350

The iPP350 is connected directly to the POS using one USB-A cable:

The customer must have a receipt printer. The HIT response will contain the receipt content which is required to be printed by the POS's own receipt printer.

3.2.2 Connection to PC iWL25C

The iWL25C terminal is connected directly to the POS using one USB-A cable. The device must also have power to the base.

All printing is handled directly by the terminal's on-board thermal printer.

3.3 IPP350 with MTM200

The iPP350 can be connected directly to the MTM200. The MTM200 includes a thermal printer and allows both Paymark and Payment Express key schemes to be used. The MTM200/iPP350 connection requires two separate cables:

All printing is handled by the MTM200's on-board thermal printer.

3.4 3G connection with IWL25C

The iWL25C accepts SIM cards, this allows it to communicate using 3G. No cable connection is required other than the standard power cable to the base.

Only Payment Express keys can be used with this set up.

All printing is handled by the on-board thermal printer.

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3.5 Paymark key set up (NZ Only)

Terminals using the Paymark key scheme must have their keys remotely injected before transacting. Please contact our support team for assistance.

3.6 Terminal configuration

The Payment Express terminal should come with preconfigured network settings. If there are any connectivity issues that cannot be resolved, please contact Payment Express Support staff.

3.6.1 Initialisation

Once powered up, the device will go through an automatic boot-up and online logon process. Once completed & ready, PINpad will idle and display "EFTPOS" on the screen.
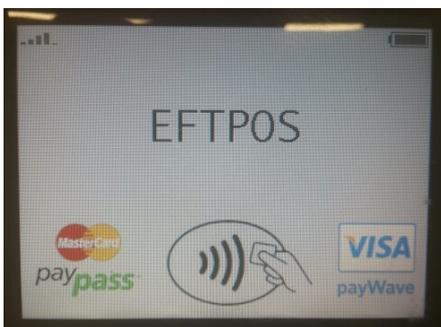
3.6.2 Logon

In order to prepare the terminal for processing transactions, the Logon message is used. A Logon uses the assigned merchant number and terminal ID to login to the banking switch. This is recommended but optional as the terminal will automatically log itself with the Payment Express Host 10 seconds after connecting to the network. However if logon is required please do the following manual logon process. Press the "Menu" button on the PINpad, and select "LOGON".

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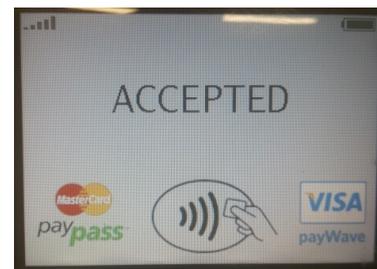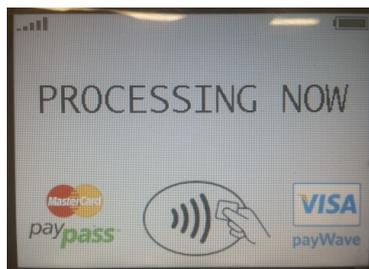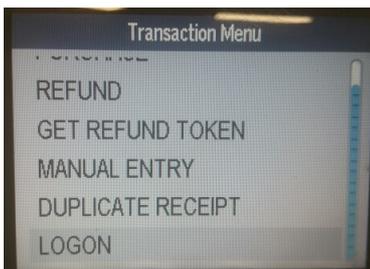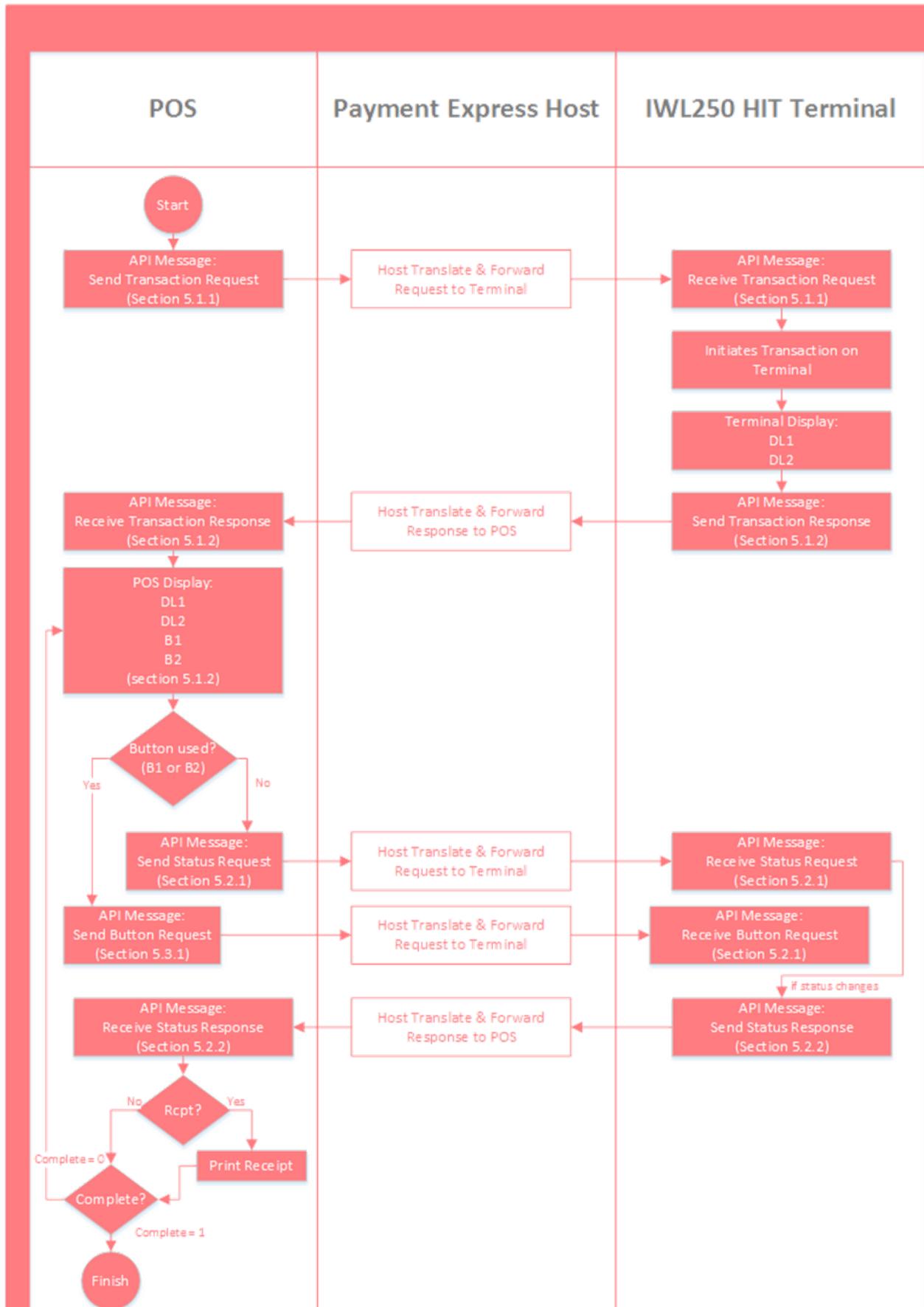
5 Message Specification

This section describes communication aspects of the HIT XML messages specification.

5.1 Transaction

To initiate a transaction the following SCR XML message specified needs to be posted to the HIT POS endpoint.

5.1.1 Transaction Request – Input Parameters

Transaction request fields or properties to initiate a card present transaction with HIT

Property\[Attribute]	Required	Description
[user]	Yes	HIT Username provided by Payment Express. Alphanumeric, from 1 to 32 characters in length. **Please ensure this is securely configurable via the POS config.**
[key]	Yes	HIT Key provided by Payment Express. Alphanumeric, from 1 to 64 characters in length. **Please ensure this is securely configurable via the POS config.**
Station	Yes	Station Id unique to the terminal. Alphanumeric, from 1 to 32 characters. **Please ensure this is securely configurable via the POS config.**
Amount	Yes	Amount of transaction in D.CC format. Where D is dollar and C is cent value. Numeric and decimal point, from 1 to 13 digits.
AmountCash	No	Amount for cash out. Numeric and decimal point, from 1 to 13 digits.
Cur	Yes	Currency of the transaction. Alphanumeric, 3 characters only allowed.
TxnType	Yes	Transaction Type. Valid values: Purchase, Auth, Refund or Status. Please note for requesting the Complete transaction after an Auth transaction from the terminal please use our PxPost or WebService API.
TxnRef	Yes	Set by POS to uniquely identify transactions. Alphanumeric, from 1 to 40 characters.
DeviceId	Yes	HIT POS identifier provided by POS. For example, a POS Lane Identifier etc. Alphanumeric, from 1 to 32 characters.
PosName	Yes	PosName – agreed between POS Vendor and Payment Express. Alphanumeric, from 1 to 32 characters.
PosVersion	No	Version of POS. Supplied by POS to assist transaction recording and diagnosis. Alphanumeric, from 1 to 32 characters.
VendorId	Yes	The developer of the POS Application. This is agreed between Payment Express and vendor. Alphanumeric from 1 to 32 characters in length.
MRef	No	Merchant text field. Alphanumeric, max 64 characters. Recommend to use, useful for reporting purposes.
UrlSuccess	No	Set the URL to receive a HTTP GET FPRN on approved card present payment. Please see usage details provided in the section 6 related to FPRN.
UrlFail	No	Set the URL to receive a HTTP GET notification on declined card present payment. Please see usage details provided in the section 6 related to FPRN.

Example Transaction Request:
```
<Scr action="doScrHIT" user="xxx" key="yyy">
 <Amount>1.05</Amount>
 <Cur>NZD</Cur>
 <TxnType>Purchase</TxnType>
 <Station>1234567890</Station>
 <TxnRef>123</TxnRef>
 <DeviceId>Device 1</DeviceId>
 <PosName>POS 1</PosName>
 <PosVersion>Pos V1</PosVersion>
 <VendorId>PXVendor</VendorId>
 <MRef>My Reference</MRef>
</Scr>
```

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5.1.2 Initial Transaction Status Response – Output Parameters

Property\[Attribute]	Description
TxnType	Transaction Type. Normally the HIT transaction response's TxnType value is as Status.
StatusId	Status of the current request.
TxnStatusId	Status ID related to current transaction.
Complete	If transaction is completed this field will be set to 1.
ReCo	Response Code indicating outcome. See 3 IntroductionResponse for a details description of ReCo values.
Tmo	Http Timeout in operation for the request.
TxnRef	TxnRef value for the original request and transaction.
DL1	Display Line 1. If not empty, the merchant display should display this on the uppermost lines.
DL2	Display Line 2. If not empty, the merchant display should display this on the lowermost line.
B1	Button1. If not blank, contains label for a button that permits the POS to interact with the transaction. The "en" attribute will be "1" if the button should be active and displayed.
B2	Button2. If not blank, contains label for a button that permits the POS to interact with the transaction. The "en" attribute will be "1" if the button should be active and displayed.

Example Status Response:
```
<Scr>
 <TxnType>Status</TxnType>
 <StatusId>3</StatusId>
 <TxnStatusId>2</TxnStatusId>
 <Complete>0</Complete>
 <ReCo/>
 <Tmo>20</Tmo>
 <TxnRef>123</TxnRef>
 <DL1>PRESENT/INSERT</DL1>
 <DL2> SWIPE CARD</DL2>
 <B1 en="0"/>
 <B2 en="1">CANCEL</B2>
</Scr>
```

5.2 Status

5.2.1 Status Request

Request a Status for an active or historical transaction. Merchant POS should request this message shortly after the transaction is initiated as per section 5.1 (Transaction). The TxnRef must match the transaction the POS wants to do status check on.

```
Example Status:
<Scr action="doScrHIT" user="xxx" key="yyy">
 <Station>1234567890</Station>
 <TxnType>Status</TxnType>
 <TxnRef>123</TxnRef>
</Scr>
```

5.2.2 Status Response
5.2.2.1 During Processing

The POS interface should always show any DL1 and/or DL2 text from the Status response to match the terminal screen prompt text. Note in below example the DL1 display message is set to Processing.

```
Example Status Response:
<Scr>
 <TxnType>Status</TxnType>
 <StatusId>4</StatusId>
 <TxnStatusId>5</TxnStatusId>
 <Complete>0</Complete>
 <ReCo/>
 <Tmo>20</Tmo>
 <TxnRef>123</TxnRef>
 <DL1>PROCESSING</DL1>
 <DL2/>
 <B1 en="0"/>
 <B2 en="0"/>
</Scr>
```

5.2.2.2 Signature Stage
A receipt message will be available to print as well as prompts and mandatory button options YES' and 'NO'.

The POS should display the button options to the POS operator and a print button to print the physical merchant copy of the receipt for the customer to sign on. The POS system is required to accept or decline a signature transactions with the Yes or No button—please follow the messages for button request in section 5.3 (Buttons).

```
Example Status Response (Signature prompted):
<Scr>
 <TxnType>Status</TxnType>
 <TxnRef>123</TxnRef>
 <StatusId>4</StatusId>
 <TxnStatusId>7</TxnStatusId>
 <Complete>0</Complete>
 <RcptW>30</RcptW>
 <Rcpt>                *-----------EFTPOS-----------*27 Mar 18 13:35     CREDITSWIPE VISA     CARD
476173******0010AUTHORISATION     025211REFERENCE     029017PURCHASE     NZD1.08TOTAL     NZD1.08     AP-
PROVED   PLEASE SIGN BELOW     *---------------------------*   MERCHANT COPY  PLEASE RETAIN  FOR YOUR RECORDS</Rcpt>
 <ReCo></ReCo>
 <Tmo>20</Tmo>
 <TxnRef>123</TxnRef>
 <DL1>SIGNATURE OK?</DL1>
 <DL2>YES/NO</DL2>
 <B1 en="1">YES</B1>
 <B2 en="1">NO</B2>
</Scr>
```

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Please Note: It is important that the POS integration continues to request a status check until after the POS user appropriately handles the prompt on the POS and/or terminal and the final response contains the Complete tag value as 1. The HIT interface allows only one transaction to be fully completed at a time. A pending transaction completion will result in an "Existing Txn In Progress" error. This should be handled by sending the Status request for the TxnRef of the transaction until it reaches the Complete stage.

5.2.2.3 Final Status Response on completion of Transaction

On completion of a transaction the Complete XML element will be set to 1. The result of the transaction will be populated inside the Result XML element. Below property elements are contained in the transaction response and Result XML element.

Property	Description
TxnType	Transaction Type. Normally the HIT transaction response's TxnType value is as Status.
TxnRef	TxnRef value for the original request and transaction.
StatusId	Status of the current request Refer to the section TxnStatusId and StatusId for more information.
TxnStatusId	Status ID related to current transaction.
Complete	If transaction is completed this field will be set to 1.
RcptW	Receipt Width specifies the maximum character limit per receipt content's line. A terminal's account is setup with a default receipt width character length. The fixed character limit can be used to center justify the receipt content per line to get the standard receipt format.
Rcpt	Actual EFTPOS receipt content that should be physically printed in case the POS handles the EFTPOS receipt printing. All receipt content should be printed to ensure financial data integrity.
Result	Encloses the final transaction results with specific transaction data fields.
AC	AuthCode. Up to 6 character authorisation code.
AP	Approved flag. "1" indicated approved (funds transfer or reserve); "0" indicated declined or not approved.
CN	Masked Card Number.
Complete	1 indicates transaction session is completed. The POS should stop sending status requests
CT	Card Name e.g. Visa.
DS	Expected Settlement Date of Transaction. Format is yyyymmddhhmmss.
DS_TZ	TimeZone applied to the DS value.
DT	Date of Transaction. Returned in Timezone Format is yyyymmddhhmmss.
DT_TZ	TimeZone applied to DT value.
PIX	EMV specific data.
RID	EMV specific data .
RRN	Retrieval reference Number
ST	STAN. The System Trace Audit Number which identifies the transaction number processed through the merchant account.
TR	DpsTxnRef. Unique global transaction identifier generated by Payment Express and returned for every transaction. This value can be provided to support teams to identify transactions.
DBID	DpsBillingId is a card token generated by Payment Express. Token used to rebill the card for subscription or recurring based payments. Rebilling requests are sent via the PxPost or Webservice API.
RC	Response Code. See section 6 Response Codes
RT	Response Text. See section 6 Response Codes.
RTT	Round Trip Time in Milliseconds –provides an indication of network health (between Payment Express and Payment Express Terminal).
AmtA	Amount value of the transaction in cents.

Example Final Status Response (Completed):

```
<Scr>
 <TxnType>Status</TxnType>
 <TxnRef>123</TxnRef>
 <StatusId>6</StatusId>
 <TxnStatusId>8</TxnStatusId>
 <Complete>1</Complete>
 <RcptW>30</RcptW>
 <Rcpt>                 *-----------EFTPOS-----------*27 Mar 18 13:13    CHEQUESWIPE VISA              CARD
411111******1111AUTHORISATION      000289REFERENCE       029013PURCHASE       NZD1.00TOTAL
NZD1.00                  APPROVED                  PIN VERIFIED                  *------------------------
----*    CUSTOMER COPY                    PLEASE RETAIN         FOR YOUR RECORDS</Rcpt>
 <Result>
  <AC>000289</AC>
  <AP>1</AP>
  <CN>411111******1111</CN>
  <CT>Visa</CT>
  <CH>VISA TEST CARD/</CH>
  <DT>20180327131306</DT>
  <DT_TZ>NZT</DT_TZ>
  <DS>20180327180000</DS>
  <DS_TZ>NZT</DS_TZ>
  <PIX></PIX>
  <RID></RID>
  <RRN></RRN>
  <ST>788359</ST>
  <TR>0000000100e1a6f9</TR>
  <DBID>0000010001128730</DBID>
  <RC>00</RC>
  <RT></RT>
  <RTT>4050</RTT>
  <AmtA>100</AmtA>
 </Result>
 <ReCo></ReCo>
 <Tmo>20</Tmo>
 <TxnRef></TxnRef>
 <DL1>APPROVED</DL1>
 <DL2></DL2>
 <B1 en="0"></B1>
 <B2 en="0"></B2>
</Scr>
```

5.3 Buttons

POS is required to display appropriate buttons if B1 or B2 field in the XML response(s) is not blank. Once any button is clicked, the POS should then post appropriate button request to SCR endpoint.

Property	Description
Station	Station Name of the Payment Express terminal being selected by the POS.
TxnType	For Button Request, the value should be UI for User Interface.
UiType	Bn
Name	B1 or B2. Depending on the button pressed.
Val	Value to be sent with the request for button press - CANCEL, YES, NO.
TxnRef	Transaction reference assigned by POS. This should be different for each

5.3.1 Button Request XML

```
Example Button:
<Scr action="doScrHIT" user="xxx" key="yyy">
 <Station>1234567890</Station>
 <TxnType>UI</TxnType>
 <UiType>Bn</UiType>
 <Name>B1</Name>
 <Val>YES</Val>
 <TxnRef>12345678</TxnRef>
</Scr>
```

5.3.2 Button Response XML Example

```
Example Button Response:
<Scr>
   <TxnType>UI</TxnType>
   <TxnRef>12345678</TxnRef>
   <Success>1</Success>
   <RC></RC>
</Scr>
```

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5.4 Refunds

5.4.1 Matched refunds initiated via HIT request

To initiate a refund directly from the POS, the DpsTxnRef of the initial transaction must be included. The unique TxnRef is used separately as a reference to the refund and must be unique.

```
Example Matched Refund:
<Scr action="doScrHIT" user="xxx" key="yyy">
<Amount>76.00</Amount>
<Cur>NZD</Cur>
<TxnType>Refund</TxnType>
<Station>1234567890</Station>
<TxnRef>987</TxnRef>
<DpsTxnRef>0000005400911209</DpsTxnRef>
<DeviceId>1234567890</DeviceId>
<PosName>POS 1</PosName>
<PosVersion>Pos V1</PosVersion>
<VendorId>DPSVendor</VendorId>
<MRef>My Reference</MRef>
</Scr>
```

5.4.2 Unmatched refunds with refund card

To initiate a refund directly from the POS and authorise with a merchant refund card, the following example XML should be modified and sent. The DpsTxnRef tag does not need to be included, instead for authorization the terminal will prompt for the merchant's refund card to be swiped and PIN entered before the customer presents their card for the refund. The merchant refund card is setup by Payment Express. For extra security, it is expected the POS requires own authorization before requesting unmatched refund via the POS.

```
Example Unmatched Refund:
<Scr action="doScrHIT" user="xxx" key="yyy">
<Amount>76.00</Amount>
<Cur>NZD</Cur>
<TxnType>Refund</TxnType>
<Station>1234567890</Station>
<TxnRef>987</TxnRef>
<DeviceId>1234567890</DeviceId>
<PosName>POS 1</PosName>
<PosVersion>Pos V1</PosVersion>
<VendorId>DPSVendor</VendorId>
<MRef>My Reference</MRef>
</Scr>
```

5.4.3 Matched refunds via ecommerce solution

The PxPost or Web Service eCommerce API can be used to process refunds with the matched DpsTxnRef of the given HIT transaction. For more information on PxPost and Web Service, please visit our website

https://www.paymentexpress.com/developer-e-commerce-merchant-hosted-transaction-processing

When using PxPost or Web Service to handle refunds, the HIT user and the eCommerce API user must be associated with the same Payment Express Group; for additional information please contact our Support team.

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5.5 Receipt

In case the POS requires to request the last EFTPOS receipt content to print, the POS can send a request to receive the last transaction's receipt content with the most recent or last transaction's TxnRef. This can be requested to reprint the receipt when a printer and it's paper roll is available. Following are the request and response details specific to get the last receipt.

5.5.1 Receipt Request XML

Property	Required	Description
Station	Yes	Station Name of the Payment Express terminal being selected by the POS.
TxnType	Yes	For Receipt Request, the value should be Receipt.
TxnRef	Yes	The most recently processed transaction's transaction reference.
DuplicateFlag	No	An optional tag. If value 1: Includes a DUPLICATE RECEIPT text string on the receipt content. Otherwise 0 will not include the duplicate text string.
ReceiptType	Yes	A flag indicating the receipt content type to receive. Valid Values: 1 = Merchant Copy of receipt with a signature placeholder (only for signature transaction) 2 = Customer Copy of receipt 3 = Merchant Copy of receipt

Example Receipt Request:
```
<Scr action="doScrHIT" user="xxx" key="yyy">
<Station>4012345678</Station>
<TxnType>Receipt</TxnType>
<TxnRef>12345</TxnRef>
<DuplicateFlag>0</DuplicateFlag>
<ReceiptType>2</ReceiptType>
</Scr>
```

5.5.2 Receipt Response XML

Property	Description
RcptW	Receipt Width specifies the maximum character limit per receipt content's line. A terminal's account is setup with a default receipt width character length. The fixed character limit can be used to center justify the receipt content per line to get the standard receipt format.
Rcpt	Actual EFTPOS receipt content that should be physically printed in case the POS handles the EFTPOS receipt printing. All receipt content should be printed to ensure financial data integrity.

Example Receipt Response:
```
<Scr>
  <TxnRef>12345</TxnRef>
  <TxnType>Receipt</TxnType>
  <RcptW>30</RcptW>
  <Rcpt>                  *-----------EFTPOS-----------*18 Apr 18 11:06     CHEQUESWIPE VISA           CARD
499999******9103AUTHORISATION       011498REFERENCE        009451PURCHASE        AUD1.00TOTAL        AUD1.00
APPROVED                       PIN VERIFIED                   *---------------------------*     CUSTOMER COPY
PLEASE RETAIN         FOR YOUR RECORDS</Rcpt>
</Scr>
```

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6 Fail-Proof Result Notification (FPRN)

Fail-Proof Result Notification (FPRN) is a service that provides additional assurance that the merchant website will receive a notification regarding the outcome of transactions completed via the Payment Express host. This service allows the merchant POS to stop checking for the status stage after the transaction is initiated and simply indicate finalisation of the transaction.

FPRN can be enabled by adding <UrlSuccess> and <UrlFail> parameters in the request. Notification will be sent by Payment Express host once the transaction is finalised. Payment Express host will only send FPRN notification when the response result of TxnStatusId is 7 – Verifying Signature and 8 – Display Result. However, it is recommended to display a user-friendly prompt such as "Transaction in progress—Please refer to terminal" on the screen of the POS. The only case that the POS would still have to display prompts/buttons is when the terminal must require user selection (TxnStatusId = 7) for processing transactions that require a signature verification with mandatory button options 'YES' and 'NO'.

As soon as the response result of TxnStatusId is 7 or 8, a background process on our cloud makes a HTTP GET request to the merchant-nominated success or failure URL. The URL must contain your own suitable query string parameters to identify the transaction reference, station ID etc appropriately on receiving the GET request from our cloud.

Depending on your architecture, the merchant hosted server may need to ensure it informs the POS of the GET request and subsequently performs a status request (as shown in section 5.2) to receive the final transaction outcome details as shown in section 5.2.2.3.

If the merchant web site is unreachable or returns any HTTP status code other than 200, 201, 302, 303, 404 or 502 the HTTP GET is retried up to a maximum of six times. It will give up immediately on receiving a 404 (page not found) HTTP status code or 502 (Bad Gateway) HTTP status code. A 500 HTTP status code, indicating a temporary problem at the client site, will cause a retry.

Please note if required, the POS can still perform the status request (as shown in section 5.2) after the transaction is initiated if the POS still wants to display the prompts on the POS screen for every stage of the transaction process.

To ensure that the web application is in the best position to acknowledge the outcome of every transaction, certain guidelines should be followed.
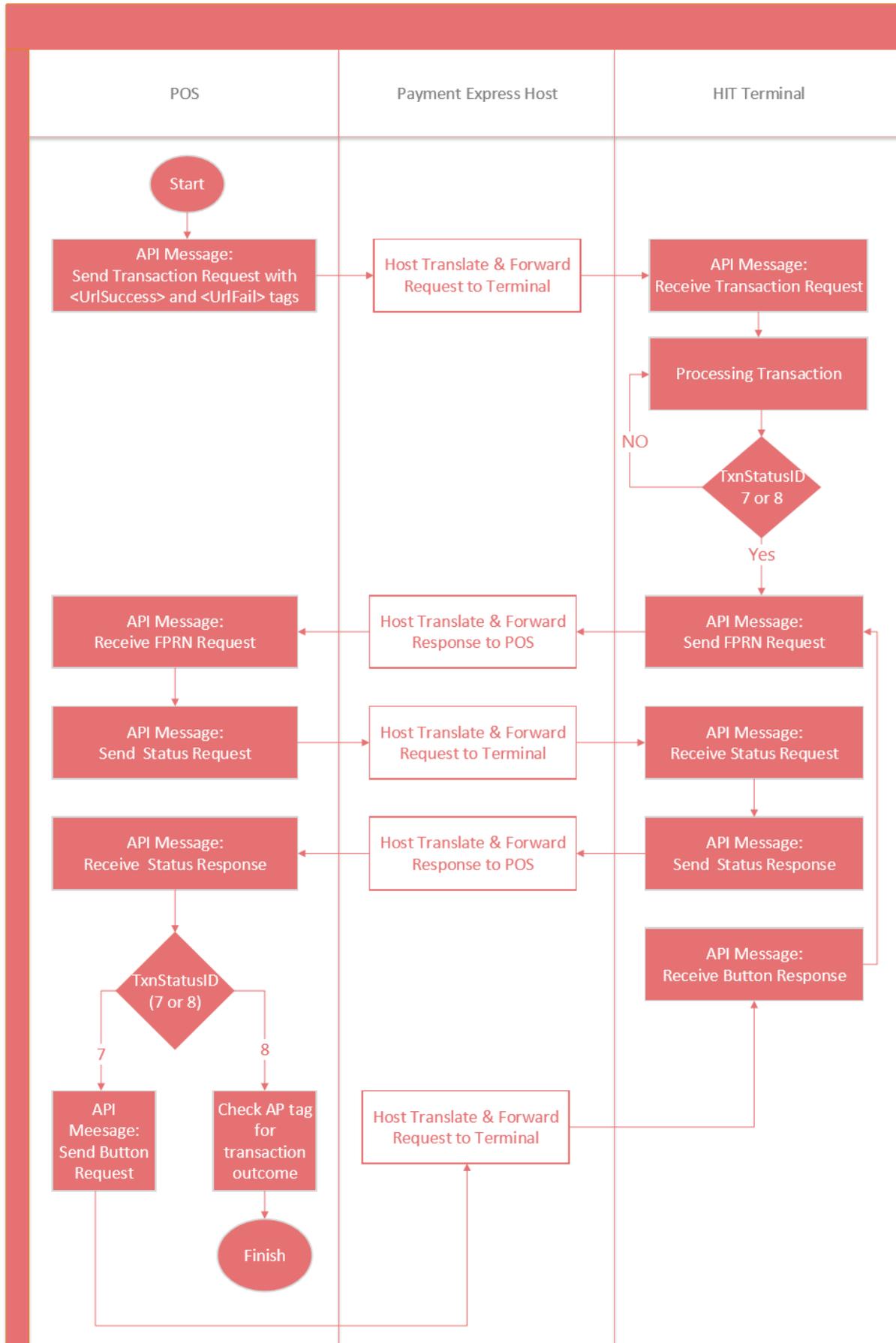
The merchant web application should not:

- Filter or base any conditional logic upon the originating IP address (this can vary)

- Depend upon receiving one and only one request for the success/fail URL from the Payment Express FPRN system (multiple requests may be sent).

```
Example Transaction Request with FPRN:
<Scr action="doScrHIT" user="xxx" key="yyy">
 <Amount>1.05</Amount>
 <Cur>NZD</Cur>
 <TxnType>Purchase</TxnType>
 <Station>1234567890</Station>
 <TxnRef>123</TxnRef>
 <DeviceId>Device 1</DeviceId>
 <PosName>POS 1</PosName>
 <PosVersion>Pos V1</PosVersion>
 <VendorId>PXVendor</VendorId>
 <MRef>My Reference</MRef>
<UrlSuccess>https://InsertHostedWebHookURL?txnRef=12345&station=1234567890</UrlSuccess>
<UrlFail>https://InsertHostedWebHookURL?txnRef=12345&station=1234567890</UrlFail>
</Scr>
```

Note: The URL at which the merchant website will process FPRN requests must be exposed via standard internet ports i.e. port 80 or port 443 for SSL/TLS traffic. When specifying UrlSuccess and UrlFail values do not specify a non-standard port number within the URL.

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6.1 Fail-Proof Result Notification Transaction Flow

POS	Payment Express Host	HIT Terminal

Start

API Message: Send Transaction Request with <UrlSuccess> and <UrlFail> tags

→ **Host Translate & Forward Request to Terminal**

→ **API Message:** Receive Transaction Request

↓ **Processing Transaction**

↓ **TxnStatusID 7 or 8** — NO (loop back to Processing Transaction) / Yes

API Message: Receive FPRN Request ← **Host Translate & Forward Response to POS** ← **API Message:** Send FPRN Request

↓

API Message: Send Status Request → **Host Translate & Forward Request to Terminal** → **API Message:** Receive Status Request

↓

API Message: Receive Status Response ← **Host Translate & Forward Response to POS** ← **API Message:** Send Status Response

↓ **TxnStatusID (7 or 8)**

- 7 → **API Meesage: Send Button Request**
- 8 → **Check AP tag for transaction outcome**

API Message: Receive Button Response

Host Translate & Forward Request to Terminal

Finish

7 Response Codes

The Response Code value is a two character response used to indicate the transaction outcome.

ReCo	Description
P4	PosDeviceId is greater than 32 characters
P5	PosDeviceId not matched
P7	Invalid transaction type
P8	Authentication error
P9	Authentication error—Station Id mismatch
PA	Status request error
PB/PC	SCRHIT Init Session Error
PC	Existing Txn In progress—previous transaction was left in an incomplete state, ensure sending status request of the previous transaction and it's reference and status response is handled accordingly.
PD/PE/PF	SCRHIT Transmit Error— network connection issue, ensure the terminal has performed a Logon to the Payment Express HOST.
PG	Init Wait Timeout
PJ	TxnRef not matched
PK	SCRHIT not enabled
PL	Invalid input parameter
PM	Txn type not allowed
PO	Invalid Station Id
TQ	HIT Start Failed— connection lost, ensure the terminal has performed a Logon to the Payment Express HOST.

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8 TxnStatusId and StatusId

The TxnStatusId is the Status ID related to the current transaction and terminal prompt. StatusId is the status of the current request.

TxnStatusId

Id	Description
1	Idle
2	Present Or Insert Card
3	Select Account
4	Select App
5	Enter Pin
6	Processing
7	Verifying Signature
8	Display Result

StatusId

Id	Description
1	Initiating
2	Transaction Started
3	Transaction Started
4	Processing
5	Authenticating
6	Transaction Completed

The **HIT request parameters** are supplied as either XML elements or attributes. Some parameters are mandatory (must be included and non-blank), while others are optional.

Amount

Amount of the transaction type. Decimal point is mandatory.

AmountCash

Amount of cash out required. Decimal point is mandatory.

EnableAddBillCard flag (optional) and BillingId (optional)

Set the EnableAddBillCard flag to 1 and POS supplies a unique BillingId that can be associated with card data for tokenizing a card and use for future automated rebilling or recurring payment via an eCommerce API (PxPost or WebService). BillingId has to be 1-32 characters in length. Otherwise the DpsBillingId (DBID) in the final transaction response can be used as a card token that is automatically generated by Payment Express.

Cur

Specifies the standard three letter Currency Code for the transaction. The standard currencies supported depends on the merchant's account configuration in the Payment Express system.

DeviceId

POS identifier provided by POS. For example, a POS Lane Identifier etc. Alphanumeric, from 1 to 32 characters.

EnableTip (optional)

If set to 1, enables prompting for a Tip (gratuity) in hospitality situations. Valid for Auth or Purchase transactions.

HttpTimeout (optional)

Timeout in seconds to be applied by Payment Express to HIT Client HTTP POST requests. If supplied, value must be between 10 and 60.

MRef (optional)

Merchant reference applied to the transaction. Mostly used for transaction reporting purposes. Up to 64 characters alphanumeric.

PosName

PosName – agreed between POS Vendor and Payment Express.

PosVersion

Version of POS. Supplied by POS to assist transaction recording and diagnosis. Alphanumeric characters between 1-32 characters.

Station

Station is the serial number value as a Station Name of the Payment Express terminal being selected by the POS.

TxnRef

Transaction reference assigned by POS. This should be unique for each Purchase, Auth or Refund transaction.

TxnType

Value	Description
Purchase	Purchase Transaction
Auth	Auth a card for certain amount
Status	To receive the current status of the HIT terminal and HOST process
Refund	To Refund a Purchase or Complete Transaction

For more information please refer to [Transaction Type Information](#).

TZ (optional)

Time zone to be applied to returned time values including times printed on receipt. If not supplied, the time zone configured by Payment Express for the terminal is applied.

Value	Description
AEST	Australia Eastern Time (Sydney)
AESTQL	Australia Eastern Time (Queensland)
NZT	New Zealand Time
UK GMT	UK Time
US CST	United States Central Time
US EST	United States Eastern Time
US MST	United States Mountain time
US PST	United States Pacific Time

Val

Value to be sent with the request for the button press - CANCEL, YES or NO.

VendorId

The developer of the POS Application. This is agreed between Payment Express and vendor. Alphanumeric from 1 to 32 characters in length.

10 REAL-TIME TRANSACTION MONITORING

Any transactions processed via the Payment Express® HIT terminal can be monitored in real-time from any device with access to internet and a web browser.

You can logon to the **Payline®** web portal at the address below using the **username** and **password** provided with your account.

Live transactions portal: https://sec.paymentexpress.com/pxmi3/logon

Test transactions portal: https://uat.paymentexpress.com/pxmi3/logon

In addition to monitoring transactions in real-time, the Payline® web portal can configured to download transaction reports, view invoices, view payments and also process manual transactions online.

For more information on Payline®, phone Payment Express® Sales on 0800 PAYMENT (729 6368) or email sales@paymentexpress.com.
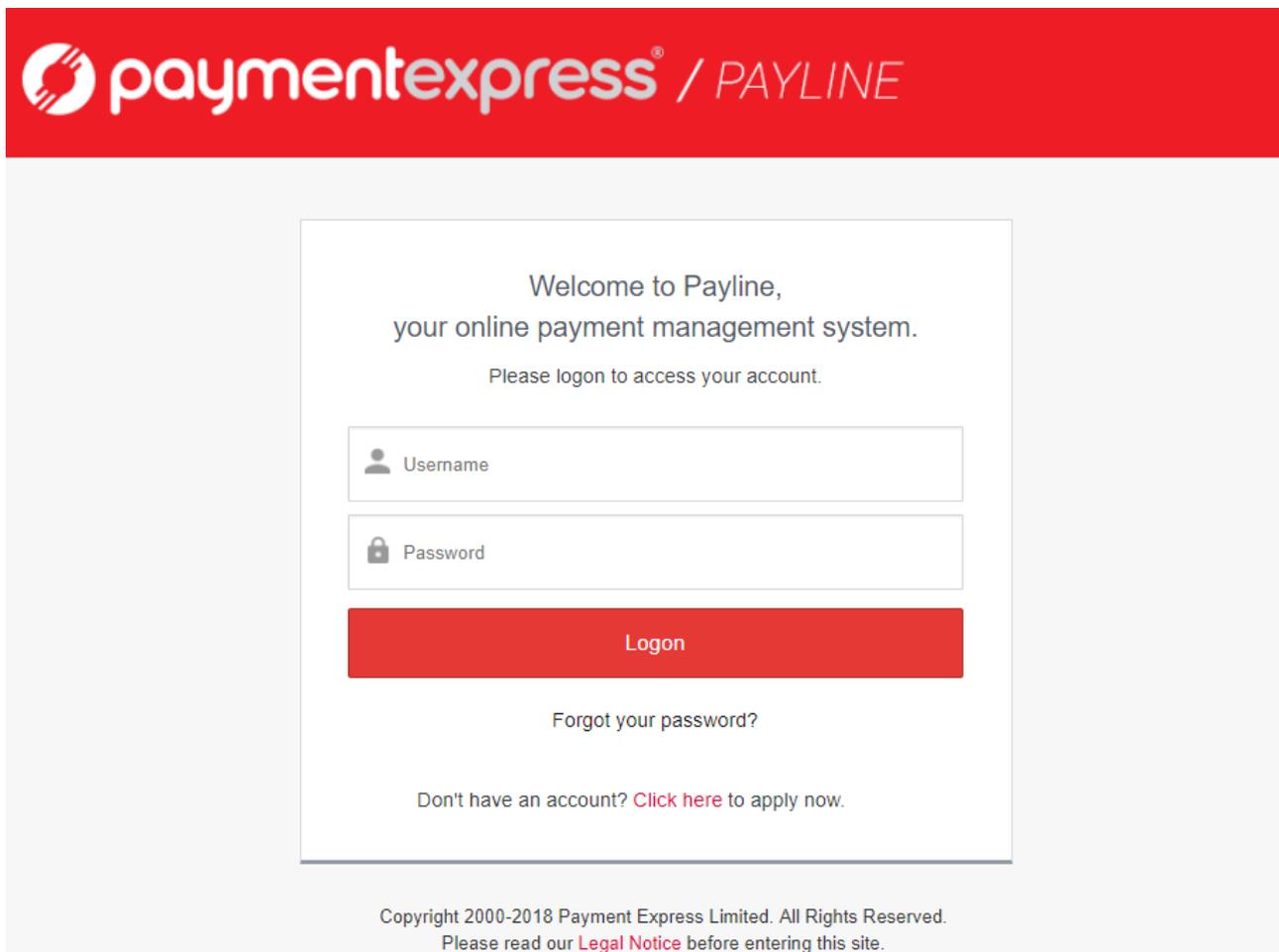
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