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## **BE PAYMENT READY**

Moneris Cloud Solution Integration Guide - August 2021

Moneris Gateway

Version: 1.3.0

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## Getting Help

Moneris has help for you at every stage of the integration process.

Getting Started	During Development	Production
Contact our Client Integration Specialists: clientintegrations@moneris.com	If you are already working with an integration specialist and need technical development assistance, contact our eProducts Technical Consultants: 1-866-319-7450 eproducts@moneris.com	If your application is already live and you need production support, contact Moneris Customer Service: onlinepayments@moneris.com 1-866-319-7450 Available 24/7

For additional support resources, you can also make use of our community forums at <http://community.moneris.com/product-forums/>

## Best Practices

It is recommended that your application has a controlled Administrative section that gives a merchant the abilities to set and view configuration settings as well as the following functionalities:

- Separate abilities to call the Pair, Unpair and Initialization methods.
  - The Pair method allows for initial setup of the PINpad with the Cloud.
  - The Unpair method allows for disconnecting a PINpad from the merchant's Cloud profile.
  - The Initialization method allows for merchant to reinitialize the PINpad after merchant configuration changes that affects the device profile.
- (optional) Batch Close. This transaction signals the Moneris Host to close the current batch and initiate financial settlement. Merchants set up for System Close are not required to build Batch Close functionality, however PED totals reset functionality should be built to reset the PINpad totals after the System Close occurs.

# 1 About this Documentation

This documentation is intended for merchants who are integrating their payment application with a Moneris Cloud Solution.

## 1.1 Changes in This Version - 1.3.0

- Added new error codes in Transaction Response Error Codes
- Added new section and topics for Dynamic Currency Conversion
- Added new request fields, including **swipe indicator**
- Added new response fields: ContactlessData, Cvd, ForeignCurrencyAlpha, FormsModuleVersion, HostId, HostCorrectionCount, HostCreditCount, HWModelNumber, IssuerId, MacAddress, MerchantId, Moto, OsVersionInformation, PaymentModuleVersion, PedSerial, PospadApiVersion, SoftwareVersionNumber
- Added new limits and definition information for response field ChipConditionCode, InvoiceNumber, SafIndicator, Timer, TokenResponseCode, TxnName, Tsi
- Added barcode definition tables
- New conceptual presentation of the transaction response process
- Updates of sample code snippets
- New transaction type topic: Get PED Info
- Amended information in Testing Your Solution, Trans Receipt Requirements, Certification Requirements, Moving to Production and Configuring Your Store for Production
- Added note about P2PE release in topics Add BIN Range, Delete BIN Range, and Get BIN Ranges
- Amended definition for GET Bin Ranges transaction
- Removed response fields **EncryptedTrack1** and **EncryptedTrack3**, and amended the **EncryptedTrack2** field information
- Removed response fields **ExchangeRate**, **ReceiptID** and response object **synchronizationData**
- Amended limits and descriptions for request fields **predefined amount 1**, **predefined amount 2**, **predefined amount 3**, **surcharge fee on Interac**, **surcharge fee on Interac cashback**, **Interac cashback limit**, **Visa cashback limit**, **Mastercard cashback limit**

Changes in v1.2.3

- Added new IP addresses in URLs and Firewall Rules topic
- Added new descriptive information for the Get Receipt transaction

Changes made in v1.2.2

- Corrected Unpair transaction request

Changes made in v1.2.1

- New IP addresses and URLs added to topic URLs and Firewall Rules

Changes made in v1.2.0

- Added new administrative transaction types: Cashback, Card Read, Pan Masking Setting, Mobile POS Setting
- Set Tip transaction type has been amended with new request fields: **enable tip**, **display amount selection**, **display percentage selection**, **predefined percentage (1-3)**, **tip warning threshold**; old method is deprecated
- Added Force Post transaction type
- Added new administrative transactions particular to the P400 POS device: Screen Calibration, Set Beep Volume
- Added new administrative transactions particular to the E355 POS device: Battery Status, Scan Barcode
- Added new transaction response condition code 307
- Added new response variables for condition code
- Added new transaction flows for the Moneris Cloud, postback URL method and polling method
- Added topic to describe transaction request structure
- Added transaction response error code 908
- Added new administrative transactions PED Totals Reset and PED Code Download
- Amended description of **LanguageCode** transaction response field for accuracy

#### Changes made in v1.1.6

- A new integration method combining the postback URL and polling methods has been introduced
- new request variable/attribute: **polling**
- new topics describing the combined method and examples for transaction request and responses using this method



## 2 Technical Requirements

There are two sets of technical requirements, one for integrator and another for each of the integrator's merchants.

If you are a merchant implementing the integration directly, both of these sets of requirements apply to you.

### 2.1 Technical Requirements for Integrators

To integrate with the Moneris Cloud Solution, as an integrator you must:

- Perform HTTPS requests to Moneris' cloud servers to initiate transactions

If using the Postback method to integrate with the Moneris Cloud, the following are also required:

- Develop and maintain your own server
- Implement a SSL Certificate for your web server to facilitate secure server-to-server communication with Moneris' Cloud Server

### 2.2 Technical Requirements for Merchants

In order to use the Moneris Cloud Solution, a merchant is required to have:

- On-location internet access
- At least one Moneris Cloud PINpad
- Access to an Ethernet port to plug the PINpad into, or access to a wireless network with internet access (e355 only)
- An outbound firewall rule enabling access to <https://iptermtest.moneris.com> (testing) <https://ipterm.moneris.com>(production) and the integrator's site
- Outbound/inbound firewall rules for <https://ippostest.com> (testing) and <https://ippos.moneris.com> (production) to issue the command

If using the HTTPS polling method to integrate with the Moneris Cloud Solution, the following are also required:

- Outbound firewall for <https://ippostest.moneris.com> (testing) and <https://ippos.moneris.com> (production) to issue the command, and
- <https://cloudreceipt.moneris.com> to receive the response

## 2.3 URLs and Firewall Rules

The following are URLs and firewall rules

### Testing

URL	IP:Port	Inbound/Outbound
<a href="https://ippostest.moneris.com">https://ippostest.moneris.com</a>	23.249.193.132:443	Inbound and Outbound
	23.249.201.132:443	
<a href="https://iptermtest.moneris.com">https://iptermtest.moneris.com</a>	23.249.193.133:443	Outbound
	23.249.201.133:443	
<a href="https://cloudreceiptct.moneris.com">https://cloudreceiptct.moneris.com</a>	3.218.135.213:443	Outbound
	23.249.193.134:443	
	23.249.201.134:443	

### Production

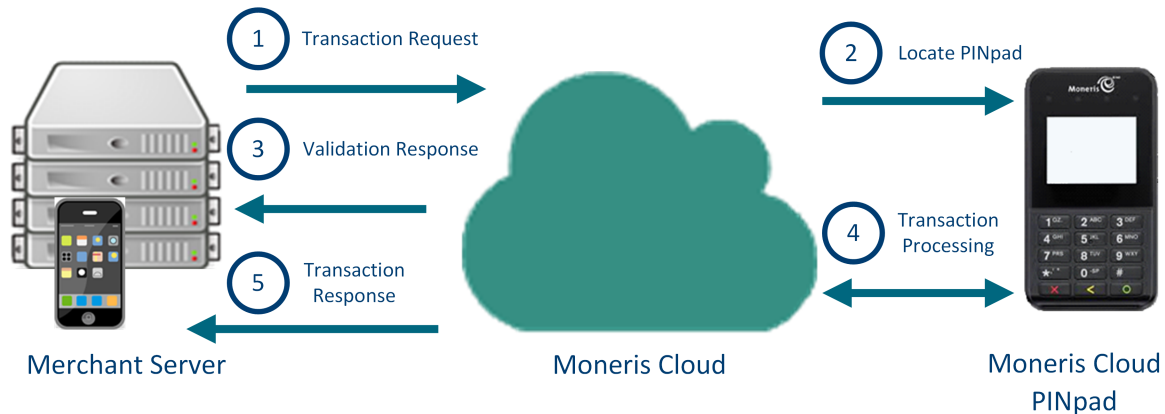
URL	IP:Port	Inbound/Outbound
<a href="https://ippos.moneris.com">https://ippos.moneris.com</a>	23.249.192.132:443	Inbound and Outbound
	23.249.200.132:443	
<a href="https://ipterm.moneris.com">https://ipterm.moneris.com</a>	23.249.192.133:443	Outbound
	23.249.200.133:443	
<a href="https://cloudreceipt.moneris.com">https://cloudreceipt.moneris.com</a>	34.238.1.58:443	Outbound
	23.249.192.134:443	
	23.249.200.134:443	

## 3 Integrating Your Moneris Cloud Solution

- 3.1 Moneris Cloud Transaction Flow
- 3.2 Transaction Request Structure in Moneris Cloud
- 3.3 Transaction Responses in Two Stages
- 3.4 Transaction Types

### 3.1 Moneris Cloud Transaction Flow

The following diagram illustrates the overall interaction between your merchant server and the Moneris Cloud Solution.



1. Merchant payment interface tells your merchant server to initiate a transaction request to the Moneris Cloud
2. Moneris Cloud locates the PINpad
3. Moneris Cloud returns a validation response to the Merchant Application
4. Moneris Cloud processes the transaction and updates the PINpad that the transaction has completed or has been declined
5. Transaction response is returned to your merchant server

### 3.2 Transaction Request Structure in Moneris Cloud

The Moneris Cloud Solution uses JSON format in requests and responses.

All Moneris Cloud Solution transaction requests have the following requirements:

- Send to the API URL that corresponds to the environment you are transacting against
- Send as a HTTPS POST request
- Include the HTTP header: “Content-Type: application/json”
- Send a POST body with the common POST request fields, as demonstrated below.

All Moneris Cloud Solution transaction requests are structured by convention with the common post request fields at the beginning of the JSON request:

```
{
  "storeId":"example_storeId",
  "apiToken":"example_apiToken",
  "terminalId":"example_terminalId",
  "txnType":"example_txnType"
}
```

If you are using either the Postback URL (for more information, see 3.3.2.1 About Postback URL) or Combined (see 3.3.2.5 About Combined Integration Method) integration method, the post fields will also include a line for your postback URL:

```
"postbackUrl":"https://example.client.url"
```

For transaction requests that require sending additional information, a **request** object will also be included. Fields are nested inside the request object when it is present. For example, here is a request object containing a field for **amount**:

```
"request":{
  "amount":"1.00"
}
```

Putting all the components above together, the transaction request above looks like this:

```
{
  "storeId":"example_storeId",
  "apiToken":"example_apiToken",
  "terminalId":"example_terminalId",
  "txnType":"example_txnType",
  "postbackURL":"https://example.client.url",
  "request":{
    "amount":"1.00"
  }
}
```

For further explanation of the post request fields, see 8 Post Request Fields – Cloud

### 3.3 Transaction Responses in Two Stages

Each transaction request using the Moneris Cloud Solution sends back two distinct categories of responses, which occur in sequence:

1. **Validation response**: the response to the validation step, which is sent synchronously
2. **Transaction response**: the asynchronous response that is sent back after the transaction has been processed

Both of these responses are either sent back to the Postback URL sent in the original transaction request (Postback URL method) or pushed to the Cloud receipt server (Cloud HTTPS polling method).

---

### 3.3.1 Transaction Validation Response

Once the initial request is received, the cloud application will perform validation on the message itself, this includes validating the credentials sent, locating the PINpad, checking to see if it can perform a transaction, etc.

If the PINpad is reachable and the transaction can be processed, the Moneris Cloud will respond with a validation response to the initial request and then close the HTTPS connection.

#### 3.3.1.1 Example Validation Responses

##### Sample Validation Response – Successful Validation

```
{
  "receipt":{
    "ResponseCode":"001",
    "Message":"Transaction request received",
    "Completed":"false",
    "Error":"false",
    "TimedOut":"false",
    "CloudTicket":"2ff76472-1550-4d3d-9e00-a72e29ff9e9b",
    "receiptUrl":"https://cloudreceiptct.moneris.com/receipt/123"
  }
}
```

##### Sample Validation Response – Unsuccessful Validation

```
{
  "receipt":{
    "ResponseCode":"903",
    "Message":"Unable to Locate Pinpad",
    "Completed":"false",
    "Error":"true",
    "TimedOut":"false",
    "CloudTicket":"2ff76472-1550-4d3d-9e00-a72e29ff9e9b"
  }
}
```

### 3.3.2 Transaction Response/Receipt Delivery Methods

Once the transaction is complete, the Moneris Cloud Solution will asynchronously deliver the final transaction receipt back using the delivery method you decide to use:

- Cloud HTTPS polling method: Moneris provides a receipt URL for each transaction from which your server can pull the transaction response (this is the default method used by the Moneris Cloud Solution)

- Postback URL method: you provide a unique URL on your server that the Moneris Cloud uses to send transaction responses
- A combined method with both the postback URL and HTTPS polling
- WebSocket method: currently only available to tech trial merchants

### 3.3.2.1 About Postback URL

The Postback URL is a unique URL on your server that you send in the transaction POST request, which is then used as an address by the Moneris Cloud to send back responses. This requires your server to be able handle and respond to GET requests to that URL.

This method is ideal for integrators who are building their POS system using the SaaS model.

If you do not have your own DNS name with SSL certificate, you can integrate your Moneris Cloud Solution using the Cloud HTTPS polling method instead.

### 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

The following example shows the entire transaction request and two-stage response cycle, in order of occurrence:

#### Sample Transaction Request

```
{
  "storeId":"your_storeId",
  "apiToken":"your_apiToken",
  "terminalId":"your_terminalId",
  "txnType":"example_txnType",
  "postbackUrl":"https://example.client.url"
}
```

#### (i) Sample Validation Response (occurs synchronously)

```
{
  "receipt":{
    "ResponseCode":"001",
    "Message":"Transaction request received",
    "Completed":"false",
    "Error":"false",
    "TimedOut":"false",
    "PostbackUrl":"https://example.client.url",
    "CloudTicket":"fdee7448-a753-4721-b516-484ad9c915f5"
  }
}
```

---

(ii) Sample Transaction Response (occurs asynchronously, after completion of transaction)

**NOTE:** If we are unable to get a response from posting to your postback URL, if either it times out or errors out, Moneris will re-attempt to send the final receipt 6 more times at 10 second intervals

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"00",
    "Error":"false",
    "InitRequired":"false",
    "SafIndicator":"N",
    "ResponseCode":"027",
    "ISO":"01",
    "LanguageCode":"3",
    "PartialAuthAmount":null,
    "AvailableBalance":null,
    "TipAmount":null,
    "EMVCashBackAmount":null,
    "SurchargeAmount":null,
    "ForeignCurrencyAmount":null,
    "ForeignCurrencyCode":null,
    "BaseRate":null,
    "ExchangeRate":null,
    "Pan":"*****2003",
    "CardType":"V ",
    "CardName":"VISA",
    "AccountType":"4",
    "SwipeIndicator":"H",
    "FormFactor":"00",
    "CvmIndicator":"N",
    "ReservedField1":null,
    "ReservedField2":null,
    "AuthCode":"709634",
    "InvoiceNumber":null,
    "EMVEchoData":null,
    "ReservedField3":null,
    "ReservedField4":null,
    "Aid":"A0000000031010",
    "AppLabel":"VISA CREDIT",
    "AppPreferredName":null,
    "Arqc":"17C47A4D2983087E",
    "TvrArqc":"0000000000",
    "Tcacc":"17C47A4D2983087E",
    "TvrTcacc":"0000000000",
    "Tsi":null,
  }
}
```



```
    "TokenResponseCode":null,  
    "Token":null,  
    "LogonRequired":"N",  
    "EncryptedCardInfo":null,  
    "TransDate":"17-08-01",  
    "TransTime":"14:43:21",  
    "Amount":"1.00",  
    "ReferenceNumber":"610554600010840090",  
    "ReceiptId":"example_orderId",  
    "TransId":"example_txnNumber",  
    "TimedOut":"false",  
    "CloudTicket":"fdee7448-a753-4721-b516-484ad9c915f5",  
    "TxnName":"Purchase"  
  }  
}
```

### 3.3.2.3 About Cloud HTTPS Polling

If you do not have your own DNS name with SSL certificate, you can integrate your Moneris Cloud Solution with the Cloud HTTPS polling method instead. In Cloud HTTPS polling, Moneris provides a receipt URL for each transaction that your server is able to use to pull the transaction response from.

A Cloud HTTPS polling receipt URL will look like:

<https://cloudreceipt.moneris.com/receipt/...>

To ensure that Moneris' servers do not mistake your polling requests for a network security attack, do not use a polling frequency interval less than two seconds when setting up your Moneris Cloud Solution integration with the Cloud HTTPS method.

**NOTE:** The receipt is not permanently stored at this Moneris response URL, and will only be available for 30 minutes before being deleted. If you need to store the receipt, you must save it to your own server.

### 3.3.2.4 Example Transaction Request & Responses – HTTPS Polling Method

#### Sample Transaction Request

```
{  
  "storeId": "example_storeId",  
  "apiToken": "example_apiToken",  
  "terminalId": "your_terminalId",  
  "txnType": "purchase",  
  "request": {  
    "amount": "100.00",  
    "orderId": "example_orderId"  
  }  
}
```

```
}  
}
```

Once you've sent the transaction request, you will get a validation response that has `receiptUrl` included. If you perform a HTTPS GET request against that URL before completing the transaction, you will get a copy of the validation response without `receiptUrl`.

You can compare what you got on the asynchronous transaction response with what's shown at the polling response URL to verify that you are looking at the right receipt.

**NOTE:** To determine whether or not the transaction is finished, check the field "Completed"; the validation response will have "false" as a string.

### (i) Sample Validation Response (occurs synchronously)

```
{  
  "receipt": {  
    "ResponseCode": "001",  
    "Message": "Transaction request received",  
    "Completed": "false",  
    "Error": "false",  
    "TimedOut": "false",  
    "CloudTicket": "8fdd2ee1-7f2a-4dd6-a5ef-08f2a22af010",  
    "receiptUrl": "https://cloudreceipt.moneris.com/receipt/1dc05c4f-ffef-49c3-840f-31b20b45b3aa?ticket=8fdd2ee1-7f2a-4dd6-a5ef-08f2a22af010"  
  }  
}
```

Once the transaction is complete, whether or not it was completed successfully, the validation response will be replaced with the transaction response.

The validation response will be replaced with the transaction response only when the transaction is completed or if it fails in any way (such as the cardholder pressing cancel on the pinpad, etc)

As part of your integration you should include logic to compare the responses between each poll, so that when the response changes you know the transaction has been completed.

At this stage, "Completed" will have the value of "true".

### (ii) Sample Transaction Response (occurs asynchronously, after completion of transaction)

```
{  
  "receipt": {  
    "Completed": "true",  
    "TransType": "00",  
    "Error": "false",  
    ...  
    "Amount": "100.00",  
    "ReferenceNumber": "660199130010060020",  
  }  
}
```

```

        "CloudTicket": "8fdd2ee1-7f2a-4dd6-a5ef-08f2a22af010",
        "TxnName": "Purchase"
    }
}

```

### 3.3.2.5 About Combined Integration Method

You can also choose to integrate with the Moneris Cloud Solution by using both the Postback URL method and the HTTPS polling method. This combined method is useful for having a backup of the receipt in the event the response to the postback URL is disrupted.

In order to use the combined method, send both the **postbackUrl** and **polling** variables in the transaction request.

To ensure that Moneris' servers do not mistake your polling requests for a network security attack, do not use a polling frequency interval greater than two seconds when setting up your Moneris Cloud Solution integration with the combined method.

### 3.3.2.6 Example Transaction Request & Responses – Combined Integration Method

#### Sample Transaction Request

```

{
  "storeId":"example_storeId",
  "terminalId":"example_terminalId",
  "txnType":"purchase",
  "polling":true,
  "postbackUrl":"https://example.client.url",
  "request":{
    "orderId":"example_orderId",
    "amount":"2.00"
  }
}

```

#### (i) Sample Validation Response (occurs synchronously)

```

{
  "receipt":{
    "ResponseCode":"001",
    "Message":"Transaction request received",
    "Completed":"false",
    "Error":"false",
    "TimedOut":"false",
    "PostbackUrl":"https://example.client.url",
    "CloudTicket":"9412aeed-7593-48c1-bf9e-9049655a82cd",
    "receiptUrl":"https://cloudreceipt.moneris.com/receipt/bbc891cc-a505-4196-b5a7-85be7b2dcda3?ticket=9412aeed-7593-48c1-bf9e-9049655a82cd"
  }
}

```

---

**(ii) Sample Transaction Response (asynchronous, pushed to postback URL and receipt URL)**

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"00",
    "Error":"false",
    ...
    "Amount":"2.00",
    "ReferenceNumber":"660204200010010280",
    "CloudTicket":"9412aeed-7593-48c1-bf9e-9049655a82cd",
    "TxnName":"Purchase"
  }
}
```

## 3.4 Transaction Types

Moneris Gateway Card Present supports a wide variety of transactions through the Cloud Solution.

Card Present Cloud Solution transaction types are categorized as one of three types:

- Pairing and Initialization transactions
- Administrative transactions (including card read and device-specific transactions)
- Financial transactions

### 3.4.1 Pairing and Initialization Transactions

These transactions control the activated/deactivated state of the pinpad as well as synchronization with our servers.

### 3.4.1.1 Pair

The Pair function is required to initially set up the PINPad with the Moneris Cloud environment.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Pair

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type txnType	50-character alphanumeric	Type of transaction request
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
pairing token <b>request . pairingToken</b>	6-character alphanumeric	Value provided by the terminal as part of the pairing process

## Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>  <b>Use for:</b> postback URL method and combined method	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <b>polling</b>  <b>Use for:</b> combined method	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About Combined Integration Method

## Sample transaction request – Pair

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "txnType": "pair",
  "postbackUrl": "https://example.client.url",
  "terminalId": "your_terminalId",
  "request": {
    "pairingToken": "example_pairingToken"
  }
}
```

## Validation response – Pair

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

## Sample transaction response/receipt – Pair

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "90",
    "Error": "false",
    "InitRequired": "false",
    "TransDateTime": "180213160225",
    "TerminalId": "your_terminalId",
    "Timer": null,
    "ResponseCode": "007",
    "TCRRL": "0000",
    "CloudTicket": "90a80f66-9d17-4f9e-91e8-ead8794cba31",
    "TxnName": "Pair",
    "PairingToken": "example_pairingToken",
    "MerchantId": "example_merchantId",
    "Paired": "true"
  }
}
```

### 3.4.1.2 Initialization

Downloads the merchant account configuration to the PINpad device.

The Initialization transaction is used to download updates to the PINpad without needing to unpair the PINpad. This transaction is not available until the PINpad has been successfully paired.

If a change is detected, the Receipt.InitRequired parameter will return true on a Moneris host transaction.

The merchant will still be able to process in this case, however it is advising that this PINpad will need to be initialized to pick up the changes. If the PINpad's internal clock rolls past 3:00AM and the initialization has not taken place, all Moneris host transactions (except for Initialization) will be disallowed returning a Receipt.ErrorCode of 160. Successfully running an Initialization transaction will allow all transactions that the PINpad is configured for to run.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Initialization

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID	8-character alphanumeric	The ECR number of the particular PINpad you are addressing



Variable Name	Limits	Description
---------------	--------	-------------

terminalId

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>  <div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <b>Use for:</b> postback URL method and combined method                 </div>	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL

polling

**polling**

**Use for:** combined method

true or false

Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response

Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL

For more information, see [About Combined Integration Method](#)

### Sample transaction request – Initialization

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "initialization",
  "postbackUrl": "https://example.client.url"
}
```

### Validation response – Initialization

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Mon-

---

eris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

### Sample transaction response/receipt – Initialization

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "90",
    "Error": "false",
    "InitRequired": "false",
    "TransDateTime": "180213160503",
    "TerminalId": "your_terminalId",
    "Timer": null,
    "ResponseCode": "007",
    "TCRRL": "0000",
    "CloudTicket": "dfc9d5cd-f79c-4451-a028-865f524607b2",
    "TxnName": "Initialization"
  }
}
```

### 3.4.1.3 Unpair

The Unpair function is used to unpair the PINPad from the Cloud.

The Unpair transaction will free a PINpad from its **terminalId** and **merchantId**. The PINpad will return to a state where the pairing token will be displayed on the screen, the PINpad will no longer be able to perform further transactions and will need to be paired again before it can perform any subsequent transactions.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Unpair

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

## Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>  <b>Use for:</b> postback URL method and combined method	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <b>polling</b>  <b>Use for:</b> combined method	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About Combined Integration Method

## Sample transaction request – Unpair

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "unpair",
  "postbackUrl": "https://example.client.url"
}
```

## Validation response – Unpair

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

## Sample transaction response/receipt – Unpair

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "40",
    "Error": "false",
    "InitRequired": "false",
    "errorCode": null,
    "CloudTicket": "598aa9ed-4af2-4564-9482-4d6be0f7cacb",
    "TxnName": "Unpair",
    "Paired": false,
    "Token": "example_pairingToken",
    "FriendlyName": null
  }
}
```

### 3.4.2 Administrative Transactions

Administrative transactions carry out essential non-financial tasks, including communication functions with the PINpad, setting parameters for tipping and settling batches of transactions.

Administrative transactions supported by the Moneris Cloud Solution include:

- Pair
- Initialization
- Unpair
- Set Tip
- Surcharge
- Cashback
- Card Read
- Batch Close

- Pan Masking Setting
- Mobile POS Setting
- Get Receipt

In addition, the Moneris Cloud Solution supports administrative transactions related to card read features as well as device-specific administrative transactions.

### 3.4.2.1 Set Tip

Defines the tipping options that are presented to the customer on the PINpad at point of sale.

#### Required Fields – Set Tip

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type txnType	50-character alphanumeric	Type of transaction request
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
enable tip	1-character numeric	Enables or disables the tip prompt dialog on the PINpad

Variable Name	Limits	Description
<code>request.enableTip</code>		<p>Once set, this will persist for all subsequent transactions performed by the PINpad until it is explicitly changed</p> <p>If enabling, At least one of the following request parameters must be a non-zero value:</p> <ul style="list-style-type: none"> <li><code>request.displayPercentageSelection</code></li> <li><code>request.displayAmountSelection</code></li> <li><code>request.predefinedPercentage1</code></li> </ul> <p>Allowable values:</p> <ul style="list-style-type: none"> <li>0 – disables tip (default)</li> <li>1 – enables tip</li> </ul>

### Optional Fields – Set Tip

Variable Name	Limits	Description
display percentage selection <code>request.displayPercentageSelection</code>	1-character numeric	<p>Enables or disables the tip percentage input dialog</p> <ul style="list-style-type: none"> <li>0 – disabled</li> <li>1 – enabled</li> </ul>
display amount selection <code>request.displayAmountSelection</code>	1-character numeric	<p>Enables or disables dialog for tip amount input</p> <ul style="list-style-type: none"> <li>0 – disabled</li> <li>1 – enabled</li> </ul>
predefined percentage 1 <code>request.predefinedPercentage1</code>	2-character numeric 0-99	<p>Sets the first tip percentage shortcut button to display as the indicated % value</p> <p>Accepts a percent value from 1-99</p> <p>0 = disables the predefined percentage button1</p>
predefined percentage 2	2-character numeric	Sets the second tip percentage shortcut button to display as the

Variable Name	Limits	Description
<code>request.pre-definedPercentage2</code>	0-99	<p>indicated % value</p> <p>Accepts a percent value from 1-99</p> <p><b>request.predefinedPercentage1</b> must be a non-zero value to enable this field</p> <p>0 = disables the predefined percentage button2</p>
<pre>predefined percentage 3 request.pre-definedPercentage3</pre>	<p>2-character numeric</p> <p>0-99</p>	<p>Sets the third tip percentage shortcut button to display as the indicated % value</p> <p>Accepts a percent value from 1-99</p> <p><b>request.predefinedPercentage2</b> must be a non-zero value to enable this field</p> <p>0 = disables the predefined percentage button3</p>
<pre>tip warning threshold request.tipWarningThreshold</pre>	<p>2-character numeric</p> <p>0-99</p>	<p>Displays a prompt asking the cardholder to confirm if the tip being paid exceeds the indicated percent of the pre-tip amount</p> <p>If set to 0, the prompt is disabled</p>

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
<pre>postback URL postbackUrl</pre> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin-top: 10px;"> <p><b>Use for:</b> postback URL method and combined method</p> </div>	2000-character alphanumeric	<p>The HTTPS URL that the cloud application expects to POST the request back to</p> <p>If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL</p>
<pre>polling polling</pre>	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the syn-



Variable Name	Limits	Description
<div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <b>Use for:</b> combined method                 </div>		<p>chronous response</p> <p>Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL</p> <p>For more information, see <a href="#">About Combined Integration Method</a></p>

### Sample transaction request – Set Tip

```

{
  "storeId":"example_storeId",
  "terminalId":"example_terminalId",
  "apiToken":"example_apiToken",
  "txnType":"setTip",
  "request":{
    "enableTip":"","",
    "displayPercentageSelection":"","",
    "displayAmountSelection":"","",
    "predefinedPercentage1":"","",
    "predefinedPercentage2":"","",
    "predefinedPercentage3":"","",
    "tipWarningThreshold":""
  }
}
    
```

### Validation response – Set Tip

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see [3.3.2.2 Example Transaction Request & Responses – Postback URL Method](#)

### Sample transaction response/receipt – Set Tip

**NOTE:** For detailed information about response variables, see [11 Definition of Transaction Response Fields – Cloud](#)

---

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"57",
    "Error":"false",
    "InitRequired":"false",
    "CloudTicket":"ff8c8e08-92f0-4cec-b1e2-1e26a645f424",
    "TxnName":"SetTip"
  }
}
```

### 3.4.2.2 Set Tip (Deprecated Method)

Defines the tipping options that are presented to the customer on the PINpad at point of sale.

**This version of the transaction has been deprecated; best practice is to use the new transaction type**

#### Required Fields – Set Tip (Deprecated Method)

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type txnType	50-character alphanumeric	Type of transaction request
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
tip type <b>request . tipType</b>	2-character alphabetic	<p>Default: disabled</p> <p>The current state of setTip persists for all subsequent transactions performed by the PINpad until it is explicitly changed</p>

Variable Name	Limits	Description
		<p>In order to change the state of <code>setTip</code>, this variable must be sent</p> <p>Valid options:</p> <p>TB - Tip entry is enabled for debit and credit dollar amount. The tip prompt appears on all Moneris host Purchase transactions (both EMV and MSD).</p> <p>TF - Tip entry is disabled. This is the default setting. The tip entry feature is disabled for all transaction types.</p> <p>TC - Tip entry is enabled for debit and credit percentage. The tip prompt appears on all Moneris host Purchase transactions (both EMV and MSD).</p> <p>TH - Tip entry is enabled for debit and credit, both dollar amount and percentage. The tip prompt appears on all Moneris host Purchase transactions (both EMV and MSD).</p>

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <b>Use for:</b> postback URL method and combined method         </div>	2000-character alphanumeric	<p>The HTTPS URL that the cloud application expects to POST the request back to</p> <p>If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL</p>
polling <b>polling</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <b>Use for:</b> combined method         </div>	true or false	<p>Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response</p> <p>Intended for use in the combined method when postback URL is also being sent; when <code>polling = true</code> the Cloud application generates a polling receipt and sends it back to your postback URL</p>

Variable Name	Limits	Description
---------------	--------	-------------

For more information, see [About Combined Integration Method](#)

### Sample transaction request – Set Tip (Deprecated Method)

```
{
  "storeId":"example_storeId",
  "apiToken":"example_apiToken",
  "terminalId":"example_terminalId",
  "txnType":"setTip",
  "postbackUrl":"https://example.client.url",
  "request":{
    "tipType":"TF"
  }
}
```

### Validation response – Set Tip (Deprecated Method)

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see [3.3.2.2 Example Transaction Request & Responses – Postback URL Method](#)

### Sample transaction response/receipt – Set Tip (Deprecated Method)

**NOTE:** For detailed information about response variables, see [11 Definition of Transaction Response Fields – Cloud](#)

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"87",
    "Error":"false",
    "InitRequired":"false",
    "CloudTicket":"ff8c8e08-92f0-4cec-b1e2-1e26a645f424",
    "TxnName":"SetTip"
  }
}
```

### 3.4.2.3 Surcharge

This transaction will set up the surcharge dialog for all subsequent INTERAC® debit transactions performed using the particular PINpad.

Without the Surcharge transaction being sent, the default mode is disabled.

This transaction is not supported on E355 devices.

**NOTE:** Unlike most other transactions, the dollar amount of the surcharge fee is specified in cents without decimal places; see the request field for surcharge fee below

#### Required Fields – Surcharge

Variable Name	Limits	Description
store ID storeId	50-character alpha-numeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alpha-numeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type txnType	50-character alpha-numeric	Type of transaction request
terminal ID terminalId	8-character alpha-numeric	The ECR number of the particular PINpad you are addressing
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
enable surcharge	1-character numeric	Enables or disables the surcharge fee

Variable Name	Limits	Description
<code>request.enableSurcharge</code>		and its dialog 0 = disables surcharge 1 = enables surcharge
surcharge fee on Interac <code>request.surchargeFeeOnInterac</code>	5-character alphanumeric 0 to 99.99	Sets the surcharge fee on an INTERAC® transaction without cashback  Values represent the dollar amount of the surcharge fee (0.01 to 99.99)  0 = disables surcharge on an INTERAC® transaction without cashback
surcharge fee on Interac cashback <code>request.surchargeFeeOnInteracCashback</code>	5-character alphanumeric 0 to 99.99	Sets the surcharge fee for INTERAC® transactions with cashback  Values represent the dollar amount of the surcharge fee (0.01 to 99.99)  0 = disables surcharge on an INTERAC® transaction with cashback

### Optional Fields – Surcharge

Variable Name	Limits	Description
threshold limit <code>request.thresholdLimit</code>	10-character alphanumeric 1.00 to 9999999.00	Sets a threshold dollar amount for the surcharge fee; the fee will be applied to any transaction amount that is <i>less than</i> this threshold  For surcharging INTERAC® transactions with cashback, the cashback value is added to the initial amount value then checked against the threshold limit  0= the surcharge fee will be applied to any transaction amount  Allowable values: 1.00 to 9999999.00  The amount value is specified in whole dollars; if decimal values

Variable Name	Limits	Description
		<p>are sent, they will be ignored to ensure it is a whole dollar amount</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>NOTE:</b> Not supported on IPP320 devices</p> </div>

### Sample transaction request – Surcharge

```

{
  "storeId":"example_storeId",
  "terminalId":"example_TerminalId",
  "apiToken":"example_ApiToken",
  "txnType":"surcharge",
  "request":{
    "enableSurcharge":"","",
    "surchargeFeeOnInterac":"","",
    "surchargeFeeOnInteracCashback":"","",
    "thresholdLimit":""
  }
}

```

### Sample transaction response/receipt – Surcharge

```

{
  "receipt":{
    "Completed":"true",
    "TransType":"53",
    "Error":"false",
    "InitRequired":"false",
    "CloudTicket":"ff8c8e08-92f0-4cec-b1e2-1e26a645f424",
    "TxnName":"Surcharge"
  }
}

```



### 3.4.2.4 Cashback

Sets up the cashback dialog for both INTERAC® and Visa and Mastercard debit/prepaid credit cards.

After enabling cashback, to process a Purchase that will prompt for cashback, `request.entryMethod` must be sent with a value of 'B' For more information, see 3.4.5.1 Purchase

**NOTE:** Credit cashback is not supported on IPP320 devices.

#### Required Fields – Cashback

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
enable cashback <code>request.enableCashback</code>	1-character numeric	<p>Enables or disables cashback</p> <p>When enabling cashback, at least</p>

Variable Name	Limits	Description
		<p>one of the card brand limits needs to be set to a value greater than 0</p> <p>0 = disables cashback (default)</p> <p>1 = enables cashback</p>
Interac cashback limit <b>request . interacCashbackLimit</b>	6-character alphanumeric  1.00-999.00; must be a whole dollar amount	Sets the cashback limit for INTERAC® transactions  The value represents whole dollars; decimal values are not valid and will be rejected by the PINpad
Visa cashback limit <b>request . visaCashbackLimit</b>	6-character alphanumeric  1.00-999.00; must be a whole dollar amount	Sets the cashback limit for Visa transactions  The value represents whole dollars; decimal values are not valid and will be rejected by the PINpad
Mastercard cashback limit <b>request . mastercardCashbackLimit</b>	6-character alphanumeric  1.00-999.00; must be a whole dollar amount	Sets the cashback limit for Mastercard  The value represents whole dollars; decimal values are not valid and will be rejected by the PINpad

### Optional Fields – Cashback

Variable Name	Limits	Description
predefined amount 1 <b>request . predefinedAmount1</b>	6-character alphanumeric  1.00-999.00; must be a whole dollar amount	Sets the first cashback shortcut button to be the indicated amount  A predefined amount must be less than or equal to the INTERAC®, Visa or Mastercard limit, or else an invalid amount error message will be returned from the PINpad  If decimal values are sent, they will be ignored to ensure it is a whole dollar amount
predefined amount 2	6-character alphanumeric	Sets the second cashback short-

Variable Name	Limits	Description
<code>request . predefinedAmount2</code>	1.00-999.00; must be a whole dollar amount	<p>cut button to be the indicated amount</p> <p>A predefined amount must be less than or equal to the INTERAC®, Visa or Mastercard limit, or else an invalid amount error message will be returned from the PINpad</p> <p>If decimal values are sent, they will be ignored to ensure it is a whole dollar amount</p>
<p>predefined amount 3</p> <p><code>request . predefinedAmount3</code></p>	<p>6-character alphanumeric</p> <p>1.00-999.00; must be a whole dollar amount</p>	<p>Sets the third cashback shortcut button to be the indicated amount</p> <p>A predefined amount must be less than or equal to the INTERAC®, Visa or Mastercard limit, or else an invalid amount error message will be returned from the PINpad</p> <p>If decimal values are sent, they will be ignored to ensure it is a whole dollar amount.</p>
<p>allow cashback custom entry</p> <p><code>request . allowCash-backCustomEntry</code></p>	1-character numeric	<p>Enables or disables whether the cardholder can enter a whole-dollar cashback amount of their choice</p> <p>The value the cardholder enters is restricted to a multiple of 10 and must be equal to or less than the cashback limit to the corresponding card brand (INTERAC®, Visa, Mastercard)</p> <p>0 = disables cardholder cashback entry</p> <p>1 = enables cardholder cashback entry</p>

### Sample transaction request – Cashback

```
{
  "storeId": "example_storeId",
```

---

```
"terminalId":"example_terminalId",
"apiToken":"example_apiToken",
"txnType":"cashback",
"request":{
  "enableCashback":"","
  "predefinedAmount1":"","
  "predefinedAmount2":"","
  "predefinedAmount3":"","
  "allowCashbackCustomEntry":"","
  "interacCashbackLimit":"","
  "visaCashbackLimit":"","
  "mastercardCashbackLimit":""
}
}
```

### Sample transaction response/receipt – Cashback

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"56",
    "Error":"false",
    "InitRequired":"false",
    "CloudTicket":"ff8c8e08-92f0-4cec-b1e2-1e26a645f424",
    "TxnName":"Cashback"
  }
}
```

### 3.4.2.5 Batch Close

Signals the Moneris Host to close the current batch and initiate financial settlement.

On a successful batch close, the response will contain the Host and PINpad totals broken down by card type followed by the Host and PINpad totals of the closed batch. A successful Batch Close causes the PINpad to clear any accumulated internal totals.

For funds to be deposited the following business day, the batch must close before 11 pm ET.

#### Required Fields – Batch Close

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

#### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>	2000-character alphanumeric	<p>The HTTPS URL that the cloud application expects to POST the request back to</p> <p>If the postback URL field is <i>not</i></p>

Variable Name	Limits	Description
<p><b>Use for:</b> postback URL method and combined method</p> <p>polling</p> <p><b>polling</b></p> <p><b>Use for:</b> combined method</p>	<p>true or false</p>	<p>sent, Moneris Cloud will return the polling receipt URL</p> <p>Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response</p> <p>Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL</p> <p>For more information, see About Combined Integration Method</p>

### Sample transaction request – Batch Close

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "batchClose",
  "postbackUrl": "https://example.client.url"
}
```

### Validation response – Batch Close

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

## Sample transaction response/receipt – Batch Close

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"65",
    "Error":"false",
    "InitRequired":"false",
    "ConditionCode":"007",
    "ResponseCode":"007",
    "LanguageCode":"3",
    "TerminalId":"61055460",
    "BatchNumber":"039",
    "HostPurchaseCount":"0000",
    "HostPurchaseTotal":"+0.00",
    "HostRefundCount":"0000",
    "HostRefundTotal":"+0.00",
    "HostCorrectionCount":"0000",
    "HostCorrectionTotal":"+0.00",
    "HostPaymentCount":"0000",
    "HostPaymentTotal":"+0.00",
    "HostPaymentCorrectionCount":"0000",
    "HostPaymentCorrectionTotal":"+0.00",
    "HostCreditCount":"0000",
    "DevicePurchaseCount":"0005",
    "DevicePurchaseTotal":"+5.00",
    "DeviceRefundCount":"0000",
    "DeviceRefundTotal":"+0.00",
    "DeviceCorrectionCount":"0000",
    "DeviceCorrectionTotal":"+0.00",
    "DevicePaymentCount":"0000",
    "DevicePaymentTotal":"+0.00",
    "DevicePaymentCorrectionCount":"0000",
    "DevicePaymentCorrectionTotal":"+0.00",
    "DeviceCreditCount":"0000",
    "TransDate":"19-05-08",
    "TransTime":"09:17:52",
    "CloudTicket":"a2e23429-aae6-4d70-8e07-682ce9e6ddd3",
    "TxnName":"BatchClose"
  }
}
```

### 3.4.2.6 Pan Masking Setting

Changes the way the credit card number is masked on the receipt; choice is between showing first six and last four or just last four.

#### Required Fields – Pan Masking Setting

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
enable <b>request.enable</b>	true/false	Sets the degree of masking applied to the credit card number on the receipt  If <b>true</b> , then pan masking is enabled and only the <b>last 4 digits</b> of the card number are visible on the receipt  If <b>false</b> (default), then pan masking is disabled and both the first 6 and last 4 digits of the card number will



Variable Name	Limits	Description
---------------	--------	-------------

be unmasked

### Sample transaction request – Pan Masking Setting

```
{
  "storeId": "example_storeId",
  "terminalId": "example_terminalId",
  "apiToken": "example_apiToken",
  "txnType": "panMaskingSetting",
  "request": {
    "enabled": true
  }
}
```

### Sample transaction response/receipt – Pan Masking Setting

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "87",
    "Error": "false",
    "InitRequired": "false",
    "CloudTicket": "f8da01c8-0b96-4a45-8e57-a197d26f2853",
    "TxnName": "PanMaskingSetting"
  }
}
```

### 3.4.2.7 Mobile POS Setting

Mobile Point-of-Sale (mPOS) is a method to accept card payment through the use of a mobile telecommunications device that has the ability to wirelessly communicate across open networks.

This setting indicates to the PINpad that the attached ECR is a mobile telecommunications device.

Available on E355 devices only.

Variable Name	Limits	Description
store ID storeid	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
enable <b>request.enable</b>	true/false	If <code>true</code> , the mPOS indicator will be sent for all credit transactions  If <code>false</code> (default), the mPOS indicator will not be sent

### Sample transaction request – Mobile POS Setting

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "example_terminalId",
  "txnType": "mobilePosSetting"
  "request": {
    "enabled": "true"
  }
}
```

### Sample transaction response/receipt – Mobile POS Setting

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "87",
    "Error": "false",
    "InitRequired": "false",
    "CloudTicket": "260e8840-b9c0-4f0f-ab29-2e2b76d2702e",
    "TxnName": "MobilePosSetting"
  }
}
```

#### 3.4.2.8 Get Receipt

Returns the cardholder or merchant receipt data of the previous financial transaction in plain text with line feeds.

The merchant name and address must be printed on the receipt. This information is not returned in the response.

**NOTE:** This transaction is only supported on P400 devices.

**Best Practice:** Retry logic should be implemented for the Get Receipt command in the event there is an error or for any other reason the receipt is not returned. Merchants/integrators should not depend on the Get Receipt command to indicate the final status of a transaction and instead refer to the response of the actual financial transaction.

#### Required Fields – Get Receipt

Variable Name	Limits	Description
store ID storeid	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup

Variable Name	Limits	Description
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

### Optional Fields – Get Receipt

Variable Name	Limits	Description
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
receipt type <b>request . receiptType</b>	1-character alphabetic	<p>Selects which version of the receipt to return</p> <p>C – returns the cardholder receipt (default)</p> <p>M – returns the merchant receipt</p>

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>	2000-character alphanumeric	<p>The HTTPS URL that the cloud application expects to POST the request back to</p> <p>If the postback URL field is <i>not</i></p>

Variable Name	Limits	Description
<div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <b>Use for:</b> postback URL method and combined method                 </div>		sent, Moneris Cloud will return the polling receipt URL
polling  <b>polling</b>	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About Combined Integration Method
<div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <b>Use for:</b> combined method                 </div>		

### Sample transaction request – Get Receipt

```
{
  "storeId": "example_storeId",
  "terminalId": "example_terminalId",
  "apiToken": "example_apiToken",
  "txnType": "getReceipt"
}
```

### Sample transaction response/receipt – Get Receipt

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "58",
    "Error": "false",
    "InitRequired": "false",
    "receipt": "\r\n
                Purchase                               \r\nMay
10,2019                               10:31:59\r\nINTERAC
*****4442\r\nCHEQUING                               \r\nTID:
66012164                               Entry: Swipe (S)\r\nSequence: 023
Batch: 004\r\nUID: 1B9130379196503                               \r\n\r\nAmount
                $1.00\r\nTotal
$1.00\r\n                57 TRANSACTION                               \r\n                NOT
APPROVED 105                               \r\n                Cardholder copy
\r\n",
    "CloudTicket": "b20f96c9-d672-4b42-ac98-93c6a3138016",
    "TxnName": "GetReceipt"
  }
}
```

```
}  
}
```

### 3.4.2.9 Get PED Info

Retrieves technical information about a particular PINpad device

#### Required Fields – Get PED Info

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

#### Sample transaction request – Get PED Info

```
{  
  "storeId": "your_storeId",  
  "terminalId": "your_terminalId",  
  "apiToken": "your_apiToken",  
  "txnType": "getPEDInfo"  
}
```

#### Sample transaction response/receipt – Get PED Info

```
{  
  "receipt": {
```

```
    "Completed": "true",
    "TransType": "44",
    "Error": "false",
    "InitRequired": "false",
    "PedSerial": "P1234567",
    "SoftwareVersionNumber": "1904C",
    "PospadApiVersion": "C02",
    "OsVersionInformation": "release-30812200 ",
    "EmvContactKernalInfo": "Kernel:L27.0.3r",
    "EmvContactFramework": "Framework:4.6.14-380",
    "EmvContactlessKernelInfo": "Kernel:EP2.0.4r;MK2.1.1r;...;IK1.0.3r",
    "EmvContactlessFramework": "Framework:5.23.7-380",
    "HWModelNumber": "P400",
    "MacAddress": "A4:60:11:12:07:17",
    "ECRtoPEDConnectionType": "CLOUD",
    "PaymentModuleVersion": "P0207",
    "GiftAndLoyaltyModuleVersion": "G0207",
    "FormsModuleVersion": "F0100",
    "CloudTicket": "39df080a-4b0c-4c2d-a960-af5f62453110",
    "TxnName": "GetPEDInfo"
  }
}
```

### 3.4.3 Device-Specific Hardware Transactions

The following transactions apply only to P400 devices:

- Screen Calibration
- Set Beep Volume
- PED Code Download

The following transaction apply only to E355 devices:

- Battery Status
- Scan Barcode

### 3.4.3.1 Screen Calibration

#### Required Fields – Screen Calibration

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

#### Sample transaction request – Screen Calibration

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "example_terminalId",
  "txnType": "screenCalibration"
}
```

#### Sample transaction response/receipt – Screen Calibration

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "D8",
    "Error": "false",
  }
}
```



```
    "InitRequired": "false",  
    "CloudTicket": "1af16b4e-7bb3-4859-ba3e-fc98ebbed62d",  
    "TxnName": "ScreenCalibration"  
  }  
}
```

### 3.4.3.2 Set Beep Volume

#### Required Fields – Set Beep Volume

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request <b>request</b>	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
volume <b>request . volume</b>	3-character numeric  10-100, in multiples of 10 only	The volume level, represented as percentage in multiples of 10, for the PINpad device  Default = 70; cannot be 0

#### Sample transaction request – Set Beep Volume

```
{  
  "storeId": "example_storeId",  
  "apiToken": "example_apiToken",  
}
```

```
"terminalId":"example_terminalId",
"txnType":"setBeepVolume",
"request":{
  "volume":"10"
}
}
```

### Sample transaction response/receipt – Set Beep Volume

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "D3",
    "Error": "false",
    "InitRequired": "false",
    "CloudTicket": "4e8b2d82-e819-4329-87ca-8753e790fe49",
    "TxnName": "SetBeepVolume"
  }
}
```

### 3.4.3.3 Battery Status

#### Required Fields – Battery Status

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

#### Sample transaction request – Battery Status

```
{
  "storeId": "your_storeId",
  "terminalId": "your_TerminalId",
  "apiToken": "your_ApiToken",
  "txnType": "batteryStatus"
}
```

#### Sample transaction response/receipt – Battery Status

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "D4",
    "Error": "false",
  }
}
```

```
    "InitRequired":"false",  
    "BatteryPercentageLevel":"66",  
    "BatteryChargingStatus":"0",  
    "CloudTicket":"78ac89e8-82e5-43dd-bef7-8874078f410b",  
    "TxnName":"BatteryStatus"  
  }  
}
```

### 3.4.3.4 Scan Barcode

Prompts the PINpad device to scan a barcode.

#### Required Fields – Scan Barcode

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

#### Optional Fields – Scan Barcode

Variable Name	Limits	Description
request <b>request</b>	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
display timeout <b>request.displayTimeout</b>	2-character alphanumeric 1-99 seconds	Maximum amount of time allowed to scan an item with the barcode reader before the Scan Barcode transaction times out  If not specified, default is 30

Variable Name	Limits	Description
		seconds
scan type <code>request . scanType</code>	1-character alphabetic	Sets how barcode scanning will be activated; if not present, then scanning is activated by a press of one of the device's side buttons  Possible values:  C - scanning starts automatically
prompt text 1 <code>request . promptText1</code>	16-character alphanumeric	Contains text used on the first line of the prompt
prompt text 2 <code>request . promptText2</code>	16-character alphanumeric	Contains text used on the second line of the prompt
prompt text 3 <code>request . promptText3</code>	16-character alphanumeric	Contains text used on the third line of the prompt
prompt text 4 <code>request . promptText4</code>	16-character alphanumeric	Contains text used on the fourth line of the prompt  The format of this line allows inserting of additional info; currently, only the [%T] format modifier is implemented  If [%T] is present at the end of the prompt text then the remaining time until timeout is going to replace the %T.

### Sample transaction request – Scan Barcode

```
{
  "storeId":"example_storeId",
  "terminalId":"example_terminalId",
  "apiToken":"example_apiToken",
  "txnType":"scanBarcode",
  "request":{
    "displayTimeout":"",
    "scanType":"",
    "promptText1":"",
    "promptText2":"",
    "promptText3":""
  }
}
```

---

```
    "promptText4":""
  }
}
```

### Sample transaction response/receipt – Scan Barcode

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"D9",
    "Error":"false",
    "InitRequired":"false",
    "BarCode":"ABC-ABG-178",
    "BarCodeFormatInfo":"00010102",
    "CloudTicket":"b8afecea-60f6-4c5b-97fe-935a7b1379ce",
    "TxnName":"ScanBarcode"
  }
}
```

## 3.4.4 Card Read Transactions

- 3.4.4.1 Encrypted Card Read
- 3.4.4.2 Unencrypted Card Read
- 3.4.4.3 Add BIN Range
- 3.4.4.4 Delete BIN Range
- 3.4.4.5 Get BIN Ranges



### 3.4.4.1 Encrypted Card Read

Returns the encrypted track 2 data of a card. Merchants/integrators can use this information to perform gift and loyalty transactions.

This version of Card Read returns the encrypted track(s).

**NOTE:** In order to run gift and loyalty transactions, contact your Moneris Client Integration Specialist for more information.

#### Required Fields – Encrypted Card Read

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

#### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL	2000-character alphanumeric	The HTTPS URL that the cloud

Variable Name	Limits	Description
<b>postbackUrl</b> <div style="border: 1px solid black; background-color: yellow; padding: 2px; margin-top: 5px;"> <b>Use for:</b> postback URL method and combined method </div>		application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling  <b>polling</b> <div style="border: 1px solid black; background-color: yellow; padding: 2px; margin-top: 5px;"> <b>Use for:</b> combined method </div>	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see <a href="#">About Combined Integration Method</a>

### Sample transaction request – Encrypted Card Read

```

{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "encryptedCardRead",
  "postbackUrl": "https://example.client.url"
}

```

### Validation response – Encrypted Card Read

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see [3.3.2.2 Example Transaction Request & Responses – Postback URL Method](#)

## Sample transaction response/receipt – Encrypted Card Read

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"48",
    "Error":"false",
    "InitRequired":"false",
    "EncryptedTrack1":null,
    "EncryptedTrack2":"100002\u001d3f5da...ca26bc1ec7a38f",
    "EncryptedTrack3":null,
    "CloudTicket":"861e9bac-c169-438d-a82f-fbe0a392ea72",
    "TxnName":"EncryptedCardRead"
  }
}
```

### 3.4.4.2 Unencrypted Card Read

Use this function to read swipe/manual entry cards where the bin range has been added via the Add BIN Range transaction. If the bin range does not match one of the stored bin ranges, an error will be returned.

**NOTE:** Contact your Client Integration Specialist / Service Manager to utilize this command if you are using a P2PE Enabled Application (P400 Release 20.xx).

#### Required Fields – Unencrypted Card Read

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request

#### Optional Fields – Unencrypted Card Read

Variable Name	Limits	Description
request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs

Variable Name	Limits	Description								
<b>request</b>										
entry options <b>request</b> <b>.entryOptions</b>	3-character alphabetic	<p>Describes the entry method of the card</p> <p>Default if omitted: YNY</p> <table border="1"> <thead> <tr> <th>Position</th> <th>Values</th> </tr> </thead> <tbody> <tr> <td>First position</td> <td>                     Allow or disallow swiped card entry                       Values: Y or N                 </td> </tr> <tr> <td>Second position</td> <td>Value is N</td> </tr> <tr> <td>Third position</td> <td>                     Allow or disallow keyed card number/expiry date entry on device                       Values:                       Y – allow keyed card number and expiry date                       N – do not allow keyed card number or expiry date                       C – allow keyed card number only, without expiry date prompt                 </td> </tr> </tbody> </table>	Position	Values	First position	Allow or disallow swiped card entry  Values: Y or N	Second position	Value is N	Third position	Allow or disallow keyed card number/expiry date entry on device  Values:  Y – allow keyed card number and expiry date  N – do not allow keyed card number or expiry date  C – allow keyed card number only, without expiry date prompt
Position	Values									
First position	Allow or disallow swiped card entry  Values: Y or N									
Second position	Value is N									
Third position	Allow or disallow keyed card number/expiry date entry on device  Values:  Y – allow keyed card number and expiry date  N – do not allow keyed card number or expiry date  C – allow keyed card number only, without expiry date prompt									
track <b>request . track</b>	1-character numeric	<p>Tracks to be captured on card read</p> <p>Default value is 2 if omitted</p> <p>Values:</p> <ul style="list-style-type: none"> <li>1 - track 1 data</li> <li>2 - track 2 data</li> <li>3 - track 3 data</li> <li>0 - track 1, track 2 and track 3 data</li> </ul>								

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>	2000-character alphanumeric	<p>The HTTPS URL that the cloud application expects to POST the request back to</p> <p>If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL</p>
<div style="border: 1px solid black; background-color: #ffff00; padding: 5px; width: fit-content;"> <p><b>Use for:</b> postback URL method and combined method</p> </div>		

Variable Name	Limits	Description
polling	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response
<b>polling</b>		Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL
<b>Use for:</b> combined method		For more information, see About Combined Integration Method

### Required Fields – Unencrypted Card Read

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "unencryptedCardRead",
  "request": {
    "entryOptions": "YNC",
    "track": "2"
  }
}
```

### Sample transaction response/receipt – Unencrypted Card Read

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "41",
    "Error": "false",
    "InitRequired": "false",
    "Track1": null,
    "Track2": "M6360872160006039=0000?",
    "Track3": null,
    "CloudTicket": "76bbd40a-64ce-4239-b3e2-92d1d4877e04",
    "TxnName": "unencryptedCardRead"
  }
}
```

### Response Variables – Unencrypted Card Read

Response Variable Name	Limits	Description
Track1	79-character alphanumeric variable length	Track 1 details described in ISO 7813
Track2	40-character alphanumeric variable length	Track 2 details described in ISO 7813
Track3	variable length	Track 3 data

### 3.4.4.3 Add BIN Range

This function is used to store the third party gift and loyalty BIN range in the device's BIN storage.

If the BIN range overlaps with a BIN range of any financial institution, an error will be returned.

**NOTE:** This command is not supported on P400 release 20.xx (P2PE Enabled Applications)

#### Required Fields – Add BIN Range

Variable Name	Limits	Description
store ID <code>storeId</code>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <code>apiToken</code>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
terminal ID <code>terminalId</code>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type <code>txnType</code>	50-character alphanumeric	Type of transaction request
request <code>request</code>	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
high prefix <code>request.highPrefix</code>	11-character numeric max 99999999999	Defines the top value of the range of BIN numbers to be stored  Must be a greater number than the



Variable Name	Limits	Description
low prefix <code>request.lowPrefix</code>	11-character numeric min 00000000000	low prefix Defines the bottom value of the range of BIN numbers to be stored Must be a lesser value than the high prefix

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <code>postbackUrl</code>  <b>Use for:</b> postback URL method and combined method	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <code>polling</code>  <b>Use for:</b> combined method	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About Combined Integration Method

### Sample transaction request – Add BIN Range

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "example_terminalId",
  "txnType": "addBinRange",
  "postbackUrl": "https://example.client.url",
  "request": {
    "lowPrefix": "63608700000",
    "highPrefix": "63608800000"
  }
}
```

---

```
}  
}
```

### Sample transaction response/receipt – Add BIN Range

A successful response will look as follows:

```
{  
  "receipt": {  
    "Completed": "true",  
    "TransType": "77",  
    "Error": "false",  
    "InitRequired": "false",  
    "CloudTicket": "d5563bc9-ff95-469f-a7a2-40a492675be8",  
    "TxnName": "AddBinRange"  
  }  
}
```

If there is an error, the response will look something like the following:

```
{  
  "receipt": {  
    "Completed": "true",  
    "TransType": null,  
    "Error": "true",  
    "ErrorCode": "188",  
    "InitRequired": "false",  
    "CloudTicket": "b85ee4a5-b9ae-4b1a-af1e-92f9a86719a9",  
    "TxnName": "AddBinRange"  
  }  
}
```

### 3.4.4.4 Delete BIN Range

Removes bin ranges from the PINpad’s bin table storage.

**NOTE:** This command is not supported on P400 release 20.xx (P2PE Enabled Applications)

#### Required Fields – Delete BIN Range

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request <b>request</b>	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
high prefix <b>request.highPrefix</b>	11-character numeric max 99999999999	<p>Defines the top value of the range of BIN numbers to be stored</p> <p>Must be a greater number than the low prefix</p>

Variable Name	Limits	Description
low prefix <code>request.lowPrefix</code>	11-character numeric min 00000000000	Defines the bottom value of the range of BIN numbers to be stored  Must be a lesser value than the high prefix

Variable Name	Limits	Description
---------------	--------	-------------

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <code>postbackUrl</code>  <b>Use for:</b> postback URL method and combined method	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL

polling  
`polling`

**Use for:** combined method

true or false

Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response

Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL

For more information, see About Combined Integration Method

### Sample transaction request – Delete BIN Range

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "example_terminalId",
  "txnType": "deleteBinRange ",
  "postbackUrl": "https://example.client.url",
  "request": {
    "lowPrefix": "63608700000",
```

```
    "highPrefix": "63608800000"  
  }  
}
```

### Example JSON Response – Delete BIN Range

A successful response will look as follows:

```
{  
  "receipt": {  
    "Completed": "true",  
    "TransType": "77",  
    "Error": "false",  
    "InitRequired": "false",  
    "CloudTicket": "b137e8d4-7626-47f9-80d6-24236a852419",  
    "TxnName": "DeleteBinRange"  
  }  
}
```

If there is an error, the response will look something like the following:

```
{  
  "receipt": {  
    "Completed": "true",  
    "TransType": null,  
    "Error": "true",  
    "ErrorCode": "139",  
    "InitRequired": "false",  
    "CloudTicket": "ae52641a-786f-4c43-9989-f36ff9309506",  
    "TxnName": "DeleteBinRange"  
  }  
}
```

### 3.4.4.5 Get BIN Ranges

Returns an array of current BIN ranges that were added via the Add BIN Range transaction.

#### Required Fields – Get BIN Ranges

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing

#### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
<div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;">Use for: postback URL method and combined method</div>		
polling <b>polling</b>	true or false	Requests that Moneris Cloud pushes the receipt to a tem-

Variable Name	Limits	Description
<b>Use for:</b> combined method		<p>porary polling receipt URL, and returns that URL in the synchronous response</p> <p>Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL</p> <p>For more information, see <a href="#">About Combined Integration Method</a></p>

### Required Fields – Get BIN Ranges

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "example_terminalId",
  "txnType": "getBinRanges",
  "postbackUrl": "https://example.client.url"
}
```

### Sample transaction response/receipt – Get BIN Ranges

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "78",
    "Error": "false",
    "InitRequired": "false",
    "BinRangeCount": "3",
    "BinRanges": [
      {
        "LowPrefix": "63608700000",
        "HighPrefix": "63608800000"
      },
      {
        "LowPrefix": "31104000000",
        "HighPrefix": "31105000000"
      },
      {
        "LowPrefix": "03110400000",
        "HighPrefix": "03110500000"
      }
    ]
  }
}
```

```

    "CloudTicket": "97d47282-142e-46d6-8d45-a6f99b7fd16b",
    "TxnName": "GetBinRanges"
  }
}

```

### Response Variables – Get Gift BIN Range

Response Variable	Size/Type	Description
BinRanges	JSON array	Sequential list of bin ranges in JSON format
LowPrefix	11-character alphanumeric fixed length	The low bin prefix
HighPrefix	11-character alphanumeric fixed length	The high bin prefix
BinRangeCount		The number of distinct bin ranges being returned

### 3.4.5 Financial Transactions

Financial transactions supported by the Card Present Cloud Solution include:

- Purchase
- Pre-Authorization
- Pre-Authorization Completion
- Purchase Correction
- Refund
- Independent Refund
- Force Post
- Card Verification
- Balance Inquiry



### 3.4.5.1 Purchase

Verifies funds on the customer’s card, removes the funds and prepares them for deposit into the merchant’s account.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Purchase

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
request <b>request</b>	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
order ID <b>request.orderId</b>	50-character alphanumeric a-Z A-Z 0-9 _ - : . @ spaces	<p>The orderId that has been assigned to the transaction</p> <p>In the transaction response, this vari-</p>

Variable Name	Limits	Description
amount <code>request.amount</code>	10-character decimal Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <b>EXAMPLE:</b> 1234567.89	able is referenced by ReceiptId  The dollar amount this transaction is for, including cents, in string form

### Optional Fields – Purchase

Variable Name	Limits	Description
entry method <code>request.entryMethod</code>	1-character alphanumeric	By default, the PINpad will accept swipe/insert/tapped credit and debit cards. This attribute allows you to override the PINpad's default entry method.  Allowable values:  B - swiped/inserted debit and credit cards only, cashback  C - swiped/inserted/tapped credit cards  D - swiped/inserted/tapped debit cards  E - swiped/inserted credit and debit cards  M - manually-entered credit cards  U - swipe only for assisted UnionPay cards  For P400 and E355 devices:  T – tapped credit or debit cards  If not present, any of the above entry methods will be allowed with the exception of manual entry and assisted UnionPay

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin-top: 10px;"> <b>Use for:</b> postback URL method and combined method                 </div>	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <b>polling</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin-top: 10px;"> <b>Use for:</b> combined method                 </div>	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About Combined Integration Method

### Sample transaction request – Purchase

```

{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "example_terminalId",
  "txnType": "purchase",
  "postbackUrl": "https://example.client.url",
  "request": {
    "orderId": "example_orderId",
    "amount": "1.00"
  }
}
    
```

### Validation response – Purchase

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

---

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

### Sample transaction response/receipt – Purchase

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "00",
    "Error": "false",
    "InitRequired": "false",
    "SafIndicator": "N",
    "ResponseCode": "027",
    "ISO": "01",
    "LanguageCode": "3",
    "PartialAuthAmount": null,
    "AvailableBalance": null,
    "TipAmount": null,
    "EMVCashBackAmount": null,
    "SurchargeAmount": null,
    "ForeignCurrencyAmount": null,
    "ForeignCurrencyCode": null,
    "BaseRate": null,
    "ExchangeRate": null,
    "Pan": "*****2003",
    "CardType": "V ",
    "CardName": "VISA",
    "AccountType": "4",
    "SwipeIndicator": "H",
    "FormFactor": "00",
    "CvmIndicator": "N",
    "ReservedField1": null,
    "ReservedField2": null,
    "AuthCode": "496204",
    "InvoiceNumber": null,
    "EMVEchoData": null,
    "ReservedField3": null,
    "ReservedField4": null,
    "Aid": "A0000000031010",
    "AppLabel": "VISA CREDIT",
    "AppPreferredName": null,
    "Arqc": "F8A2F0A8997E7B94",
    "TvrArqc": "0000000000",
    "Tcacc": "F8A2F0A8997E7B94",
```

```
    "TvrTcacc": "0000000000",
    "Tsi": null,
    "TokenResponseCode": null,
    "Token": null,
    "LogonRequired": "N",
    "EncryptedCardInfo": null,
    "TransDate": "18-02-13",
    "TransTime": "15:47:51",
    "Amount": "1.00",
    "ReferenceNumber": "610492970010140050",
    "ReceiptId": "example_orderId",
    "TransId": "example_txnNumber",
    "TimedOut": "false",
    "CloudTicket": "c82fb7f7-3ace-4d4d-a93e-d5b6c845b8a2",
    "TxnName": "Purchase"
  }
}
```

### 3.4.5.2 Pre-Authorization

Verifies and locks funds on the customer's credit card. The funds are locked for a specified amount of time based on the card issuer.

To retrieve the funds that have been locked by a Pre-Authorization transaction so that they may be settled in the merchant's account, a Pre-Authorization Completion transaction must be performed. A Pre-Authorization transaction may only be "completed" once.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Pre-Authorization

Attribute or Variable	Size/Type	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation  To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:  Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a>  Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
request <b>request</b>	hash, dictionary, object	The details necessary to run the transaction; a JSON object containing nested key-value pairs

Attribute or Variable	Size/Type	Description
order ID <code>request.orderId</code>	50-character alphanumeric a-Z A-Z 0-9 _ - : . @ spaces	The orderId that has been assigned to the transaction  In the transaction response, this variable is referenced by ReceiptId
amount <code>request.amount</code>	10-character decimal  Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <div style="border: 1px solid black; padding: 2px; display: inline-block;">EXAMPLE: 1234567.89</div>  variable length	Transaction dollar amount  This must contain at least 3 digits, two of which are penny values  Minimum allowable value = \$0.01, maximum allowable value = \$9999999.99

### Optional Fields – Pre-Authorization

Variable Name	Limits	Description
entry method <code>request.entryMethod</code>	1-character alphanumeric	By default, the PINpad will accept swipe/insert/tapped credit and debit cards. This attribute allows you to override the PINpad's default entry method.  Allowable values:  B - swiped/inserted debit and credit cards only, cashback  C - swiped/inserted/tapped credit cards  D - swiped/inserted/tapped debit cards  E - swiped/inserted credit and debit cards  M - manually-entered credit cards  U - swipe only for assisted UnionPay cards  For P400 and E355 devices:  T – tapped credit or debit cards  If not present, any of the above entry methods will be allowed with the exception of manual

Variable Name	Limits	Description
		entry and assisted UnionPay

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin-top: 10px;"> <b>Use for:</b> postback URL method and combined method           </div>	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <b>polling</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin-top: 10px;"> <b>Use for:</b> combined method           </div>	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see <a href="#">About Combined Integration Method</a>

### Sample transaction request – Pre-Authorization

```

{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "preauth",
  "postbackUrl": "https://example.client.url",
  "request": {
    "orderId": "example_orderId",
    "amount": "1.00"
  }
}

```



## Validation response – Pre-Authorization

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

## Sample transaction response/receipt – Pre-Authorization

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt": {
    "synchronizationData": {
      "PosEntryMode": "051",
      "EmvRequestData": "01401241802132909C3E07A...",
      "EmvAdditionalData": "010122410302008CA000...",
      "ChipConditionCode": "",
      "ReasonOnlineCode": "1508",
      "IssuerScriptResults": "",
      "IsoResponseCode": "00"
    },
    "Completed": "true",
    "TransType": "01",
    "Error": "false",
    "InitRequired": "false",
    "SafIndicator": "N",
    "ResponseCode": "027",
    "IsoResponseCode": "01",
    "LanguageCode": "3",
    "PartialAuthAmount": null,
    "AvailableBalance": null,
    "TipAmount": null,
    "EMVCashBackAmount": null,
    "SurchargeAmount": null,
    "ForeignCurrencyAmount": null,
    "ForeignCurrencyCode": null,
    "BaseRate": null,
    "ExchangeRate": null,
    "Pan": "*****2003",
    "CardType": "V ",
    "CardName": "VISA",
```

```
"AccountType": "4",
"SwipeIndicator": "C",
"FormFactor": null,
"CvmIndicator": "P",
"ReservedField1": null,
"ReservedField2": null,
"AuthCode": "673662",
"InvoiceNumber": null,
"EMVEchoData": null,
"ReservedField3": null,
"ReservedField4": null,
"Aid": "A0000000031010",
"AppLabel": "VISA CREDIT",
"AppPreferredName": null,
"Arqc": "18E7AC7BA810C527",
"TvrArqc": "0840008000",
"Tcacc": "2909C3E07A68E181",
"TvrTcacc": "0840008000",
"Tsi": "F800",
"TokenResponseCode": null,
"Token": null,
"LogonRequired": "N",
"EncryptedCardInfo": "Y100002\u001d935fe79...",
"EncryptedTrack2": "Y100002\u001d935fe7982...",
"EncryptedPan": "Y100002\u001d935fe7982467...",
"TransDate": "18-02-13",
"TransTime": "12:48:46",
"Amount": "1.00",
"ReferenceNumber": "610492970010140030",
"ReceiptId": "example_orderId",
"TransId": "example_txnNumber",
"TimedOut": "false",
"CloudTicket": "d5c670d1-4800-42be-96a1-2573a9befa32",
"TxnName": "Preauth"
}
}
```

### 3.4.5.3 Pre-Authorization Completion

Retrieves funds that have been locked (by a Pre-Authorization transaction), and prepares them for settlement into the merchant’s account.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Pre-Authorization Completion

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
request <b>request</b>	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
txnNumber	50-character alphanumeric	<p>Needed to refer to the original Pre-authorization transaction</p> <p>In the transaction response, this vari-</p>

Variable Name	Limits	Description
		able is referenced by TransId
orderId	50-character alphanumeric a-Z A-Z 0-9 _ - : . @ spaces	Needed to refer to the original Pre-authorization transaction  In the transaction response, this variable is referenced by ReceiptId
amount <b>request.amount</b>	10-character decimal  Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <div style="border: 1px solid black; padding: 2px; display: inline-block;">EXAMPLE: 1234567.89</div>  variable length	The dollar amount this transaction is for, including cents, in string form

Variable Name	Limits	Description
---------------	--------	-------------

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b>  <div style="border: 1px solid black; padding: 2px; display: inline-block;">Use for: postback URL method and combined method</div>	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <b>polling</b>  <div style="border: 1px solid black; padding: 2px; display: inline-block;">Use for: combined method</div>	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL

Variable Name	Limits	Description
---------------	--------	-------------

For more information, see [About Combined Integration Method](#)

### Sample transaction request – Pre-Authorization Completion

```
{
  "storeId":"example_storeId",
  "apiToken":"example_apiToken",
  "terminalId":"your_terminalId",
  "txnType":"completion",
  "postbackUrl":"https://example.client.url",
  "request":{
    "orderId":"example_orderId",
    "txnNumber":"example_txnNumber",
    "amount":"1.00"
  }
}
```

### Validation response – Pre-Authorization Completion

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see [3.3.2.2 Example Transaction Request & Responses – Postback URL Method](#)

### Sample transaction response/receipt – Pre-Authorization Completion

**NOTE:** For detailed information about response variables, see [11 Definition of Transaction Response Fields – Cloud](#)

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "02",
    "Error": "false",
    "InitRequired": "false",
    "SafIndicator": "N",
    "ResponseCode": "027",
    "IsoResponseCode": "01",
    "LanguageCode": "3",
    "PartialAuthAmount": null,
  }
}
```

```
"AvailableBalance": null,
"TipAmount": null,
"EMVCashBackAmount": null,
"SurchargeAmount": null,
"ForeignCurrencyAmount": null,
"ForeignCurrencyCode": null,
"BaseRate": null,
"ExchangeRate": null,
"Pan": "*****2003",
"CardType": "V ",
"CardName": "VISA",
"AccountType": "4",
"SwipeIndicator": "C",
"FormFactor": null,
"CvmIndicator": "P",
"ReservedField1": null,
"ReservedField2": null,
"AuthCode": "673662",
"InvoiceNumber": null,
"EMVEchoData": null,
"ReservedField3": null,
"ReservedField4": null,
"Aid": "A0000000031010",
"AppLabel": "VISA CREDIT",
"AppPreferredName": null,
"Arqc": "18E7AC7BA810C527",
"TvrArqc": "0840008000",
"Tcacc": "2909C3E07A68E181",
"TvrTcacc": "0840008000",
"Tsi": "F800",
"TokenResponseCode": null,
"Token": null,
"LogonRequired": "N",
"EncryptedCardInfo": null,
"TransDate": "18-02-13",
"TransTime": "15:51:49",
"Amount": "1.00",
"ReferenceNumber": "610492970010140070",
"ReceiptId": "example_orderId",
"TransId": "example_txnNumber",
"TimedOut": "false",
"CloudTicket": "5cfc7eb8-c130-4cea-bcc0-cfa2fcf5f0b4",
"TxnName": "Completion"
}
}
```

### 3.4.5.4 Purchase Correction

Restores the full amount of a previous Purchase, Pre-Authorization Completion or Force Post transaction to the cardholder's card, and removes any record of it from the cardholder's statement.

This transaction can be used against a Purchase or Pre-Authorization Completion transaction that occurred same day provided that the batch containing the original transaction remains open.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Purchase Correction

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
request <b>request</b>	hash, dictionary, object	The details necessary to run the transaction; a JSON object containing nested key-value pairs
transaction number	50-character alphanumeric	Needed to refer to the original

Variable Name	Limits	Description
<code>request.txnNumber</code>		Purchase or Completion transaction  In the transaction response, this variable is referenced by TransId
order ID <code>request.orderId</code>	50-character alphanumeric a-Z A-Z 0-9 _ - : . @ spaces	Needed to refer to the original Purchase or Completion transaction  In the transaction response, this variable is referenced by ReceiptId
amount <code>request.amount</code>	10-character decimal  Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <div style="border: 1px solid black; padding: 5px; display: inline-block;">EXAMPLE: 1234567.89</div>	The dollar amount this transaction is for, including cents, in string form

### Optional Fields – Purchase Correction

Variable Name	Limits	Description
token action <code>request.tokenAction</code>	1-character numeric	Allowable values:  1 = request a token to be returned  0 = apply a token in lieu of card presentment
token data <code>request.tokenData</code>	50-character alphanumeric	This value is the token that represents a card  If <code>request.tokenAction</code> is 0, then this field is required and should be the value of the token you are processing the transaction against
entry method <code>request.entryMethod</code>	1-character alphabetic	By default, the PINpad will accept swipe/insert/tapped credit and debit cards. This attribute allows you to override the PINpad's default entry method.



Variable Name	Limits	Description
		<p>Allowable values:</p> <p>B - swiped/inserted debit and credit cards only, cashback</p> <p>C - swiped/inserted/tapped credit cards</p> <p>D - swiped/inserted/tapped debit cards</p> <p>E - swiped/inserted credit and debit cards</p> <p>M - manually-entered credit cards</p> <p>U - swipe only for assisted UnionPay cards</p> <p>For P400 and E355 devices:</p> <p>T – tapped credit or debit cards</p> <p>If not present, any of the above entry methods will be allowed with the exception of manual entry and assisted UnionPay</p>
<p>echo data</p> <p><b>request . echoData</b></p>	<p>16-character alphanumeric</p>	<p>A value that will be returned in the final receipt of the transaction; sent by the merchant for their own tracking</p>
<p>mail order/telephone order (moto)</p> <p><b>request . moto</b></p>	<p>2-character numeric</p>	<p>Indicates whether transaction is a mail order/telephone order transaction</p> <p>Allowable values:</p> <p>10 = single mail/telephone order transaction</p> <p><b>request.entryMethod</b> must also be set to <b>M</b></p>
<p>partial authorization amount</p> <p><b>request . partialAuthAmount</b></p>	<p>10-character decimal</p>	<p>The amount that was partially approved for a transaction</p> <p>If processing a partially approved follow-on transaction (Purchase Correction/Pre-Authorization Completion), populate this field with what was returned in <b>receipt.PartialAuthAmount</b> of the original transaction that was</p>

Variable Name	Limits	Description
		partially approved
card number fraud check <code>request.cardNumberFraudCheck</code>	4-character numeric fixed length	Last 4 digits of the card number used in the original authorization (Purchase)

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <code>postbackUrl</code>  <b>Use for:</b> postback URL method and combined method	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <code>polling</code>  <b>Use for:</b> combined method	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About Combined Integration Method

### Sample transaction request – Purchase Correction

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "purchaseCorrection",
  "postbackUrl": "https://example.client.url",
  "request": {
    "orderId": "example_orderId",
    "txnNumber": "example_txnNumber",
    "amount": "1.00"
  }
}
```

```
}
}
```

### Validation response – Purchase Correction

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

### Sample transaction response/receipt – Purchase Correction

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "11",
    "Error": "false",
    "InitRequired": "false",
    "SafIndicator": "N",
    "ResponseCode": "027",
    "ISO": "01",
    "LanguageCode": "3",
    "PartialAuthAmount": null,
    "AvailableBalance": null,
    "TipAmount": null,
    "EMVCashBackAmount": null,
    "SurchargeAmount": null,
    "ForeignCurrencyAmount": null,
    "ForeignCurrencyCode": null,
    "BaseRate": null,
    "ExchangeRate": null,
    "Pan": "*****2003",
    "CardType": "V ",
    "CardName": "VISA",
    "AccountType": "4",
    "SwipeIndicator": "C",
    "FormFactor": null,
    "CvmIndicator": "S",
    "ReservedField1": null,
    "ReservedField2": null,
    "AuthCode": "496204",
```

```
"InvoiceNumber": null,  
"EMVEchoData": null,  
"ReservedField3": null,  
"ReservedField4": null,  
"Aid": "A0000000031010",  
"AppLabel": "VISA CREDIT",  
"AppPreferredName": null,  
"Arqc": null,  
"TvrArqc": null,  
"Tcacc": null,  
"TvrTcacc": null,  
"Tsi": null,  
"TokenResponseCode": null,  
"Token": null,  
"LogonRequired": "N",  
"EncryptedCardInfo": null,  
"TransDate": "18-02-13",  
"TransTime": "15:49:29",  
"Amount": "1.00",  
"ReferenceNumber": "610492970010140060",  
"ReceiptId": "example_orderId",  
"TransId": "example_txnNumber",  
"TimedOut": "false",  
"CloudTicket": "61ba1758-c1a5-4564-8bb8-841a409ea169",  
"TxnName": "PurchaseCorrection"  
}  
}
```

### 3.4.5.5 Refund

Restores all or part of the funds from a Purchase, Pre-Authorization Completion or Force Post transaction to the cardholder's card.

Unlike a Purchase Correction, there is a record of both the initial charge and the refund on the cardholder's statement.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Refund

Variable Name	Limits	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request <b>request</b>	hash, dictionary, object	The details necessary to run the transaction; a JSON object containing nested key-value pairs
order ID	50-character alphanumeric	Needed to refer to the original

Variable Name	Limits	Description
<code>request.orderId</code>	a-Z A-Z 0-9 _ - : . @ spaces	Purchase or Completion transaction  In the transaction response, this variable is referenced by <code>ReceiptId</code>
<code>amount</code> <code>request.amount</code>	10-character decimal  Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <div style="border: 1px solid black; padding: 5px; background-color: #e0ffe0; display: inline-block;">EXAMPLE: 1234567.89</div>	The dollar amount this transaction is for, including cents, in string form

### Optional Fields – Refund

Variable Name	Limits	Description
<code>token action</code> <code>request.tokenAction</code>	1-character numeric	Allowable values:  1 = request a token to be returned  0 = apply a token in lieu of card presentment
<code>token data</code> <code>request.tokenData</code>	50-character alphanumeric	This value is the token that represents a card  If <code>request.tokenAction</code> is 0, then this field is required and should be the value of the token you are processing the transaction against
<code>card type</code> <code>request.cardType</code>	2-character alphanumeric	The value of the <code>receipt.CardType</code> of the original tokenization request  Only required if <code>request.tokenAction</code> is set to 0  Possible values:  V = Visa  M = Mastercard

Variable Name	Limits	Description
<p>entry method <b>request.entryMethod</b></p>	<p>1-character alphabetic</p>	<p>AX = American Express C1 = JCB NO = Discover/Diners Club</p> <p>By default, the PINpad will accept swipe/insert/tapped credit and debit cards. This attribute allows you to override the PINpad's default entry method.</p> <p>Allowable values:</p> <p>B - swiped/inserted debit and credit cards only, cashback C - swiped/inserted/tapped credit cards D - swiped/inserted/tapped debit cards E - swiped/inserted credit and debit cards M - manually-entered credit cards U - swipe only for assisted UnionPay cards</p> <p>For P400 and E355 devices: T – tapped credit or debit cards</p> <p>If not present, any of the above entry methods will be allowed with the exception of manual entry and assisted UnionPay</p>
<p>echo data <b>request.echoData</b></p>	<p>16-character alphanumeric</p>	<p>A value that will be returned in the final receipt of the transaction; sent by the merchant for their own tracking</p>
<p>mail order/telephone order (moto) <b>request.moto</b></p>	<p>2-character numeric</p>	<p>Indicates whether transaction is a mail order/telephone order transaction</p> <p>Allowable values:</p> <p>10 = single mail/telephone order transaction</p> <p><b>request.entryMethod</b> must also be set to <b>M</b></p>

Variable Name	Limits	Description
card number fraud check <code>request.cardNumberFraudCheck</code>	4-character numeric fixed length	Last 4 digits of the card number used in the original authorization (Purchase)

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <code>postbackUrl</code>  <b>Use for:</b> postback URL method and combined method	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <code>polling</code>  <b>Use for:</b> combined method	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when <code>polling = true</code> the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see <a href="#">About Combined Integration Method</a>

### Sample transaction request – Refund

```
{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "refund",
  "postbackUrl": "https://example.client.url",
  "request": {
    "txnNumber": "example_txnNumber",
    "orderId": "example_orderId",
    "amount": "1.00"
  }
}
```



```

    }
}

```

### Validation response – Refund

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

### Sample transaction response/receipt – Refund

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```

{
  "receipt": {
    "Completed": "true",
    "TransType": "04",
    "Error": "false",
    "InitRequired": "false",
    "SafIndicator": "N",
    "ResponseCode": "027",
    "ISO": "01",
    "LanguageCode": "3",
    "PartialAuthAmount": null,
    "AvailableBalance": null,
    "TipAmount": null,
    "EMVCashBackAmount": null,
    "SurchargeAmount": null,
    "ForeignCurrencyAmount": null,
    "ForeignCurrencyCode": null,
    "BaseRate": null,
    "ExchangeRate": null,
    "Pan": "*****2003",
    "CardType": "V ",
    "CardName": "VISA",
    "AccountType": "4",
    "SwipeIndicator": "H",
    "FormFactor": "00",
    "CvmIndicator": "S",
    "ReservedField1": null,
    "ReservedField2": null,
    "AuthCode": "025367",
  }
}

```

```
"InvoiceNumber": null,  
"EMVEchoData": null,  
"ReservedField3": null,  
"ReservedField4": null,  
"Aid": "A0000000031010",  
"AppLabel": "VISA CREDIT",  
"AppPreferredName": null,  
"Arqc": null,  
"TvrArqc": null,  
"Tcacc": null,  
"TvrTcacc": null,  
"Tsi": null,  
"TokenResponseCode": null,  
"Token": null,  
"LogonRequired": "N",  
"EncryptedCardInfo": null,  
"TransDate": "18-02-13",  
"TransTime": "12:13:48",  
"Amount": "1.00",  
"ReferenceNumber": "610492970010140010",  
"ReceiptId": "example_orderId",  
"TransId": "example_txnNumber",  
"TimedOut": "false",  
"CloudTicket": "40fec383-ce47-4c19-97a7-811ac775eee1",  
"TxnName": "Refund"  
}  
}
```

### 3.4.5.6 Independent Refund

Credits a specified amount to the cardholder’s credit card. The credit card number and expiry date are mandatory.

It is not necessary for the transaction that you are refunding to have been processed via the Moneris Gateway.

**NOTE:** This transaction type includes the **request** object, which also contains its own nested variables. See the tables below for more information.

#### Required Fields – Independent Refund

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a></p>
transaction type txnType	50-character alphanumeric	Type of transaction request
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
order ID	50-character alphanumeric	Needed to refer to the original

Variable Name	Limits	Description
<code>request.orderId</code>	a-Z A-Z 0-9 _ - : . @ spaces	Purchase or Completion transaction  In the transaction response, this variable is referenced by ReceiptId
<code>amount</code> <code>request.amount</code>	10-character decimal  Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <b>EXAMPLE:</b> 1234567.89	Transaction dollar amount  This must contain at least 3 digits, two of which are penny values  Minimum allowable value = \$0.01, maximum allowable value = \$9999999.99

### Optional Fields – Independent Refund

Variable Name	Limits	Description
<code>entry method</code> <code>request.entryMethod</code>	1-character alphabetic	By default, the PINpad will accept swipe/insert/tapped credit and debit cards. This attribute allows you to override the PINpad's default entry method.  Allowable values:  B - swiped/inserted debit and credit cards only, cashback  C - swiped/inserted/tapped credit cards  D - swiped/inserted/tapped debit cards  E - swiped/inserted credit and debit cards  M - manually-entered credit cards  U - swipe only for assisted UnionPay cards  For P400 and E355 devices:  T – tapped credit or debit cards  If not present, any of the above entry methods will be allowed with the exception of manual entry and assisted UnionPay

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
postback URL <b>postbackUrl</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin-top: 10px;"> <b>Use for:</b> postback URL method and combined method                 </div>	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <b>polling</b> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin-top: 10px;"> <b>Use for:</b> combined method                 </div>	true or false	Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About Combined Integration Method

### Sample transaction request – Independent Refund

```

{
  "storeId": "example_storeId",
  "apiToken": "example_apiToken",
  "terminalId": "your_terminalId",
  "txnType": "refund",
  "postbackUrl": "https://example.client.url",
  "request": {
    "orderId": "example_orderId",
    "amount": "1.00"
  }
}
    
```

### Validation response – Independent Refund

When you send a transaction request via the Moneris Cloud Solution, the gateway first validates the transaction and sends back a validation response. Once the transaction is deemed to be valid, the Moneris Gateway then processes the transaction and returns the transaction response with receipt information.

---

For an example of the entire transaction request and the two-step responses, see 3.3.2.2 Example Transaction Request & Responses – Postback URL Method

### Sample transaction response/receipt – Independent Refund

**NOTE:** For detailed information about response variables, see 11 Definition of Transaction Response Fields – Cloud

```
{
  "receipt": {
    "Completed": "true",
    "TransType": "04",
    "Error": "false",
    "InitRequired": "false",
    "SafIndicator": "N",
    "ResponseCode": "027",
    "ISO": "01",
    "LanguageCode": "3",
    "PartialAuthAmount": null,
    "AvailableBalance": null,
    "TipAmount": null,
    "EMVCashBackAmount": null,
    "SurchargeAmount": null,
    "ForeignCurrencyAmount": null,
    "ForeignCurrencyCode": null,
    "BaseRate": null,
    "ExchangeRate": null,
    "Pan": "*****2003",
    "CardType": "V ",
    "CardName": "VISA",
    "AccountType": "4",
    "SwipeIndicator": "H",
    "FormFactor": "00",
    "CvmIndicator": "S",
    "ReservedField1": null,
    "ReservedField2": null,
    "AuthCode": "025420",
    "InvoiceNumber": null,
    "EMVEchoData": null,
    "ReservedField3": null,
    "ReservedField4": null,
    "Aid": "A0000000031010",
    "AppLabel": "VISA CREDIT",
    "AppPreferredName": null,
    "Arqc": null,
    "TvrArqc": null,
    "Tcacc": null,
  }
}
```

```

    "TvrTcacc": null,
    "Tsi": null,
    "TokenResponseCode": null,
    "Token": null,
    "LogonRequired": "N",
    "EncryptedCardInfo": null,
    "TransDate": "18-02-13",
    "TransTime": "15:55:45",
    "Amount": "1.00",
    "ReferenceNumber": "610492970010140080",
    "ReceiptId": "example_orderId",
    "TransId": "example_txnNumber",
    "TimedOut": "false",
    "CloudTicket": "10c67bac-4766-4f73-9100-c02172313433",
    "TxnName": "Refund"
  }
}

```

### 3.4.5.7 Force Post

Retrieves the locked funds and prepares them for settlement into the merchant’s account.

Used when a merchant obtains the authorization number directly from the issuer by a third-party authorization method (such as by phone).

Force Post transactions are not supported for UnionPay.

#### Required Fields – Force Post

Variable Name	Limits	Description
store ID storeId	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token apiToken	50-character alphanumeric	<p>Unique alphanumeric string assigned by Moneris upon merchant account activation</p> <p>To find your API token, refer to your test or production store’s Admin settings in the Merchant Resource Center, at the following URLs:</p> <p>Testing: <a href="https://esqa.-moneris.com/mpg/">https://esqa.-moneris.com/mpg/</a></p> <p>Production: <a href="https://www3.-moneris.com/mpg/">https://www3.-moneris.com/mpg/</a></p>
transaction type	50-character alphanumeric	Type of transaction request

Variable Name	Limits	Description
txnType		
terminal ID terminalId	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
request request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
amount <b>request . amount</b>	10-character decimal  Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <b>EXAMPLE:</b> 1234567.89	The dollar amount this transaction is for, including cents, in string form
order ID <b>request . orderId</b>	50-character alphanumeric a-Z A-Z 0-9 _ - : . @ spaces	The orderId that has been assigned to the transaction  In the transaction response, this variable is referenced by ReceiptId
authorization code <b>request . authCode</b>	8-character alphanumeric	Approval number is obtained by phoning for an authorization

### Optional Fields – Force Post

Variable Name	Limits	Description
entry method <b>request . entryMethod</b>	1-character alphabetic	By default, the PINpad will accept swipe/insert/tapped credit and debit cards. This attribute allows you to override the PINpad's default entry method.  Allowable values:  B - swiped/inserted debit and credit cards only, cashback  C - swiped/inserted/tapped credit cards  D - swiped/inserted/tapped debit cards



Variable Name	Limits	Description
		<p>E - swiped/inserted credit and debit cards</p> <p>M - manually-entered credit cards</p> <p>U - swipe only for assisted UnionPay cards</p> <p>For P400 and E355 devices:</p> <p>T – tapped credit or debit cards</p> <p>If not present, any of the above entry methods will be allowed with the exception of manual entry and assisted UnionPay</p>
<p>echo data</p> <p><code>request.echoData</code></p>	16-character alphanumeric	A value that will be returned in the final receipt of the transaction; sent by the merchant for their own tracking

### Fields Dependent on Receipt Delivery Method

Variable Name	Limits	Description
<p>postback URL</p> <p><code>postbackUrl</code></p> <div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <p><b>Use for:</b> postback URL method and combined method</p> </div>	2000-character alphanumeric	<p>The HTTPS URL that the cloud application expects to POST the request back to</p> <p>If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL</p>
<p>polling</p> <p><code>polling</code></p> <div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;"> <p><b>Use for:</b> combined method</p> </div>	true or false	<p>Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response</p> <p>Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL</p> <p>For more information, see About Combined Integration Method</p>

---

### Sample transaction request – Force Post

```
{
  "storeId":"example_storeId",
  "apiToken":"example_apiToken",
  "terminalId":"example_terminalId",
  "txnType":"forcePost",
  "request":{
    "amount":"1.00",
    "originalApprovalNumber":"999999",
    "orderId":"29wu8syd7gubsihoar83gefiy"
  }
}
```

### Sample transaction response/receipt – Force Post

```
{
  "receipt":{
    "Completed":"true",
    "TransType":"03",
    "Error":"false",
    "InitRequired":"false",
    "SafIndicator":"N",
    "ResponseCode":"027",
    "IsoResponseCode":"01",
    "LanguageCode":"3",
    "Amount":"1.00",
    "PartialAuthAmount":null,
    "AvailableBalance":null,
    "TipAmount":null,
    "EMVCashbackAmount":null,
    "SurchargeAmount":null,
    "ForeignCurrencyAmount":null,
    "ForeignCurrencyCode":null,
    "ConversionRate":null,
    "Markup":null,
    "Pan":"*****3436",
    "CardType":"V ",
    "CardName":"VISA",
    "AccountType":"4",
    "SwipeIndicator":"S",
    "FormFactor":null,
    "CvmIndicator":"S",
    "DccOptIn":null,
    "AuthCode":"123456",
    "InvoiceNumber":null,
    "EMVEchoData":null,
    "Aid":null,
    "AppLabel":null,
  }
}
```

```
    "AppPreferredName":null,  
    "Arqc":null,  
    "TvrArqc":null,  
    "Tcacc":null,  
    "TvrTcacc":null,  
    "Tsi":null,  
    "TokenResponseCode":"00",  
    "Token":null,  
    "LogonRequired":"N",  
    "EncryptedTrack2":null,  
    "TransDate":"19-06-11",  
    "TransTime":"13:13:15",  
    "ReferenceNumber":"P12080110010300090",  
    "ReceiptId":"oiy7uf6ug76e7564a53eztrxtcyguho7",  
    "TransId":"76432-0_14",  
    "TimedOut":"false",  
    "CloudTicket":"3b5e173a-7712-4a87-835f-c9f3992c2e32",  
    "TxnName":"ForcePost"  
  }  
}
```

## 4 Testing Your Solution

### Test credentials

When testing, your code should use the following test credentials:

POST: <https://ipptest.moneris.com/Terminal/>

```
{  
  "storeId":"example_storeId",  
  "apiToken":"example_apiToken",  
  "terminalId":"example_terminalId",  
  "txnType":"example_txnType",  
  "postbackUrl":"https://example.client.url"  
}
```

### Test cards

Please contact our Client Integration team to request test cards.

## 5 Transaction Receipt Requirements

For receipt requirements and the full list of Moneris Host Response Codes refer to the Moneris Receipt Requirements Specification.

## 6 Certification Requirements

Once you have completed the development and testing, your application must undergo a certification process where all the applicable transaction types must be demonstrated and the corresponding receipts properly generated.

Please contact a Client Integration Specialist for the Certification Test checklist that must be completed and returned to us for verification. Please refer to [Getting Help](#) for contact details.

Any further changes to the product after certification require a new re-certification. Once all the certification requirements are met, Moneris will provide you with an official certification letter.

## 7 Moving to Production

When moving your merchant account to production you will be required to configure/pass transaction credentials assigned to your merchant account by Moneris.

The credentials store ID and terminal ID are provided by your Client Integration Specialist along with the PINpad serial number associated with each terminal ID. The API token can be obtained by logging into Merchant Direct, as described in your Welcome letter.

In cases where you are enabling multiple physical locations for a given merchant/account, it is important that this is a coordinated effort between you and/or your merchant customer in order to minimize input errors and to ensure that the correct payment credentials are assigned to each Moneris Gateway account.

If your system requires the merchant account's batch close to be controlled by your system, please specify this requirement in your certification test results. In addition, your product documentation should describe the batch close processes.

### 7.1 Configuring Your Integration for Production

Once you have completed your testing you are ready to point your integration to the production host. To configure your integration for production, do the following:

1. Change the POST URL to `https://ippos.moneris.com/Terminal/`
2. Change the `storeId` and `terminalId` to reflect your production store ID and terminal ID, and
3. Change the API token to the production API token that you received during activation

#### Code comparison between production and testing

Production	Testing/Development
<pre>POST: https://ippos.moneris.com/Terminal/  {"storeId":"example_storeId",//provided by Moneris "apiToken":"example_apiToken",//provided by Moneris "terminalId":"example_ terminalId",//provided by Moneris "txnType":"purchase", "postbackUrl":"https://example.client.ur l", "request":{"orderId":"example_orderId", }}</pre>	<pre>POST: https://ipptest.moneris.com/Terminal/  {"storeId":"example_storeId",//personal test store ID "apiToken":"example_apiToken",//personal test api token "terminalId":"example_terminalId",//test pinpad ID "txnType":"purchase", "postbackUrl":"https://example.client.ur l", "request":{"orderId":"example_orderId", }}</pre>





## 8 Post Request Fields – Cloud

Variable Name	Size/Type	Description
store ID <b>storeId</b>	50-character alphanumeric	Unique identifier provided by Moneris upon merchant account setup
API token <b>apiToken</b>	50-character alphanumeric	Unique alphanumeric string assigned by Moneris upon merchant account activation. To find your API token, refer to your test or production store's Admin settings in the Merchant Resource Center, at the following URLs: Testing: <a href="https://esqa.moneris.com/mpg/">https://esqa.moneris.com/mpg/</a> Production: <a href="https://www3.moneris.com/mpg/">https://www3.moneris.com/mpg/</a>
terminal ID <b>terminalId</b>	8-character alphanumeric	The ECR number of the particular PINpad you are addressing
transaction type <b>txnType</b>	50-character alphanumeric	Type of transaction request
postback URL <b>postbackUrl</b>	2000-character alphanumeric	The HTTPS URL that the cloud application expects to POST the request back to  If the postback URL field is <i>not</i> sent, Moneris Cloud will return the polling receipt URL
polling <b>polling</b>		Requests that Moneris Cloud pushes the receipt to a temporary polling receipt URL, and returns that URL in the synchronous response  Intended for use in the combined method when postback URL is also being sent; when polling = true the Cloud application generates a polling receipt and sends it back to your postback URL  For more information, see About

**Use for:** combined method

Variable Name	Size/Type	Description
---------------	-----------	-------------

Combined Integration Method

## 9 Definition of Request Fields – Cloud

Variable Name	Limits	Description
amount	10-character decimal	Transaction dollar amount
amount	Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <b>EXAMPLE:</b> 1234567.89  variable length	This must contain at least 3 digits, two of which are penny values  Minimum allowable value = \$0.01, maximum allowable value = \$9999999.99
language	2-character alphabetic	Indicates what language will be used for the dialog  Possible values:  EN = English  FR = French  If language field is not specified, default is EN
order ID	50-character alphanumeric	Merchant-defined transaction identifier that must be unique for every Purchase, Pre-Authorization and Independent Refund transaction. No two transactions of these types may have the same order ID.  For Refund, Completion and Purchase Correction transactions, the order ID must be the same as that of the original transaction.  In the transaction response, this variable is referenced by ReceiptId
orderId	a-Z A-Z 0-9 _ - : . @ spaces	
request	N/A	The details necessary to run the transaction; a JSON object containing nested key-value pairs
request		

## 10 Definition of Validation Response Fields – Cloud

Variable Name	Limits	Description
CloudTicket	50-character alphanumeric, variable length	This is the reference value for the unique transaction request
Completed	true/ false	Indicates whether the transaction process is completed.
Error	true/ false	Indicates whether an error occurred while attempting to connect to the PINpad or process the transaction request.
Message	Variable length	Once a transaction request is received by the cloud, a postback acknowledgment will be returned to the application with a response message
PostbackUrl	2000-character alphanumeric	Echoes back the postbackUrl defined by the merchant in the request  <b>NOTE:</b> Only returned if the post-backUrl is sent in the request
receipt	Object	The receipt from the validation stage  If it fulfills all the validation criteria, then the transaction will be processed by the Moneris Gateway.  <b>NOTE:</b> Not to be confused by the receipt object returned in the Transaction Response stage
receiptUrl	2000-character alphanumeric	URL endpoint to poll for the transaction result.
ResponseCode	3-character numeric (variable length)	The response code is used to determine whether the trans-

Variable Name	Limits	Description
		<p>action request was successful or not.</p> <p>If successful, returns 001</p> <p>If not successful, it will return an error code; see 10.1 Cloud Validation Response Codes</p>
TimedOut	true/ false	Indicates whether the transaction process has timed out.

## 10.1 Cloud Validation Response Codes

Error Code #	Description	Comments
001	Transaction request received	Indicates the Cloud request passed validation and will be sent to the pinpad to process.
900	Global Error	Generic Error Message for all uncaught exceptions generated by the application
901	Invalid Message Structure	<p>The https request with parameters structure did not conform to our expectations</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>EXAMPLE:</b> invalid JSON format, missing request keys, etc.</p> </div>
902	Invalid Request Value	<p>There was a value in the http request that did not match our expectations</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>EXAMPLE:</b> incorrect value for terminalId, pairingToken, storeId, amount is an integer instead of a string, etc.</p> </div>
903	Unable to Locate Pinpad	We were unable to located a PINpad by the references that was sent in

Error Code #	Description	Comments
		<div style="border: 1px solid black; padding: 5px; background-color: #e0f2f1;"> <p><b>EXAMPLE:</b> The PINpad is disconnected, PINpad is disabled, etc.</p> </div>
904	Pinpad is Currently Performing Another Transaction	The PINpad is currently performing another transaction and is unable to perform the valid transaction that you had sent us
905	Invalid PostbackUrl	We were unable to perform a https GET request against the provided postbackUrl
906	Pinpad connection has timed out	Likely the result of an intermittent internet connection issue on the merchant/integrator side
907	Pinpad was disconnected during a transaction	Returned when the server detects that the PINpad has been disconnected while in the middle of a transaction
908	The pinpad is unable to connect to the cloud service, please contact your support representative for further instructions	Indicates the PINpad may require replacement

## 11 Definition of Transaction Response Fields – Cloud

**NOTE:** When a response variable returns a null value, that value will still be represented by the word NULL regardless of the size or type listed for the variable.

For information on transaction response fields that should be included on receipts, please refer to the Moneris Developer Portal at <https://developer.moneris.com>

Variable Name	Limits	Description
AccountType	2-character alphanumeric  variable length	Account type defines the card type used and what type of account was used for a transaction.  Possible values:  0 – Default Account  1 – Chequing Account  2 – Savings Account  4 – Credit Card
Aid	32-character alphanumeric  variable length	The Application Identifier (Aid) field is a data label that identifies an application on the card or terminal. The Aid is used to determine which applications are supported as both the card and the terminal must support the same Aid to initiate a transaction.
Amount	10-character decimal  Up to 7 digits (dollars) + decimal point (.) + 2 digits (cents) after the decimal point  <b>EXAMPLE:</b> 1234567.89  variable length	The amount represents the amount that the cardholder was charged/refunded.  Format: nnnnnnN.NN The amount will always contain one (1) dollar value and two (2) cent values separated by a period “.”  N = always returned  n = returned when required

Variable Name	Limits	Description
AppLabel	16-character alphanumeric (variable length)	The Application Label contains only characters in the common character set that all EMV-capable terminals are required to support. This should ensure that there will always be a name that can be displayed to the cardholder.
AppPreferredName	16-character alphanumeric (variable length)	The Application Preferred Name is the name of the card application in the cardholder's local language and should be displayed to the cardholder during Application Selection. Although this is the preferred name to be displayed to the cardholder, it will not always be possible to do so as the name may use an 'issuer code table' that is not supported by the terminal.
Arqc	16-character alphanumeric fixed length	The Authorization Request Cryptogram (ARQC) is used for an Online Card Authentication process. This field is generated by the card for transactions that require online authorization. The issuer validates the ARQC to ensure the authenticity of the card.
AuthCode	8-character alphanumeric variable length	The authorization code is returned by the issuer as part of the transaction response
AvailableBalance	9-character numeric variable length	Indicates the available account balance on a cardholder account
BaseRate	n/a	Currently unavailable; reserved for future use
BatchNumber	3-character numeric fixed length	Identifies the current batch number
CardName	12-character alphanumeric variable length	Displays the name of the card type. Example, VISA.
CardType	2-character alphanumeric variable length	CardType defines the card type used for a transaction. P – Debit



Variable Name	Limits	Description
		V – Visa M – MasterCard AX – American Express NO – Discover/Novus C1 – Japan Credit Bureau UP – UnionPay
<b>ChipConditionCode</b> belongs to synchronizationData object	1-character numeric	If returned, it is required for a Pre-Authorization Completion transaction
CloudTicket	100-character alphanumeric	This is the unique reference id of the cloud request Same as value returned in the Validation receipt
Completed	true/ false	Indicates whether a transaction was completed or not
ConditionCode	3-character alphanumeric	Returned in an Open Total or Batch Close transaction; indicates whether or not the batch was in balance 099 – Open Total was successful 006 – Batch Close was completed and is in balance. 007 – Batch Close was completed and is out of balance
ContactlessData	128-character alphanumeric	If returned, it is required for a Pre-Authorization Completion transaction
Cvd	2-character alphanumeric	<b>Position 1</b> 0 = CVD value is deliberately bypassed or is not provided by the merchant 1 = CVD value is present 2 = CVD value is on the card, but is illegible 9 = Cardholder states that the card has no CVD imprint <b>Position 2</b> M = CVV2 match (CID match for Discover) N = No match for CVV2 or for CID P = Not processed

Variable Name	Limits	Description
		<p>S = CVV2 (CID match for Discover) should be on the card, but merchant has indicated that CVV2/CID is not present on the card.</p> <p>U = Uncertified issuer (issuer is not a CVV2 participant; CID was not checked)</p> <p>Y = Match for Amex/JCB</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>NOTE:</b> Response code 'S' is used only for Visa accounts that are processed through the Mastercard network; it is not supported for Mastercard. Supported CVV response codes for Mastercard include 'M', 'N', 'P', and 'U'</p> </div>
CvmIndicator	1-character alphanumeric	<p>This field is based upon the verification method used by the PED: if a PIN was successfully used and the transaction approved, then the field is set to 'P'. If a PIN was not used (or failed) and the transaction approved, then the field is set to 'S'. If both the PIN and signature are to be used, and the transaction is approved, then the field is set to 'B'. If a mobile transaction was successfully performed and the transaction approved, then the field is set to 'M'. If no verification method was used, and the transaction is approved, then the field is set to 'N'. If the transaction is declined, then this field is to be zero length.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>S – Signature</li> <li>P – Verified by PIN</li> <li>B – Signature and PIN</li> <li>M – Mobile</li> <li>N – None</li> </ul>
DevicePurchaseCount	4-character numeric  variable length	Cumulative number of all Purchase transactions in the given batch, as recorded on the PINPad device.
DevicePurchaseTotal	19-character alphanumeric  variable length	Cumulative dollar amount of all Purchase transactions in the given batch, as recorded on the PINPad device.
DeviceRefundCount	4-character	Cumulative number of all Refund transactions in the

Variable Name	Limits	Description
	numeric variable length	given batch, as recorded on the PINPad device.
DeviceRefundTotal	19-character alphanumeric variable length	Cumulative dollar amount of all Refund transactions in the given batch, as recorded on the PINPad device.
DeviceCorrectionCount	4-character numeric variable length	Cumulative number of all Purchase Correction transactions in the given batch, as recorded on the PINPad device.
DeviceCorrectionTotal	19-character alphanumeric variable length	Cumulative dollar amount of all Purchase Correction transactions in the given batch, as recorded on the PINPad device.
DevicePaymentCount	n/a	Currently unavailable; reserved for future use
DevicePaymentTotal	n/a	Currently unavailable; reserved for future use
DevicePaymentCorrectionCount	n/a	Currently unavailable; reserved for future use
DevicePaymentCorrectionTotal	n/a	Currently unavailable; reserved for future use
DevicePurchaseCount	4-character numeric	Cumulative number of all Purchase transactions in the given batch, as recorded on the PINPad device
DevicePurchaseTotal	19-character alphanumeric	Cumulative dollar amount of all Purchase transactions in the given batch, as recorded on the PINPad device
DeviceCreditCount	n/a	Currently unavailable; reserved for future use
ECRtoPEDConnectionType	6-character alphanumeric	
EmvAdditionalData belongs to synchronizationData object	48-character alphanumeric	If returned, it is required for a Pre-Authorization Completion transaction
EMVCashBackAmount	6-character decimal	Dollar amount of the cashback amount the customer entered on the PINpad

Variable Name	Limits	Description
	variable length 0-99999	
EmvContactFramework	140-character alphanumeric	
EmvContactKernalInfo	140-character alphanumeric	
EmvContact-lessFramework	140-character alphanumeric	
EmvContact-lessKernalInfo	140-character alphanumeric	
EMVEchoData	16-character alphanumeric, must consist of printable ASCII characters variable length	Merchant-defined data echoed back from the request
EmvIsoResponseCode	2-character alphanumeric	If returned, it is required for a Preauthorization Completion transaction
EmvTerminalCapabilities	8-character alphanumeric	If returned, it is required for a Preauthorization Completion transaction
EncryptedCardInfo	alphanumeric variable length	The encrypted card number
EncryptedPan	alphanumeric variable length	The encrypted card number
EncryptedTrack2	520-character alphanumeric variable length	Encrypted Track 2 data read from the magnetic stripe of a swiped card, Track 2 equivalent from the chip of the EMV card or card number with optional expiry date key entered at the PINpad
Error	true / false	Indicates whether an error has occurred  See 11.1 Transaction Response Error Codes for more information

Variable Name	Limits	Description
		<div style="border: 1px solid black; background-color: #e0ffe0; padding: 5px;"> <p><b>EXAMPLE:</b> When cancel key is pressed or card is prematurely removed from PINpad, Error will be returned as true</p> </div>
ErrorCode	3-character numeric	<p>Returned when Error = true</p> <p>See 11.1 Transaction Response Error Codes for more information</p>
FormFactor	2-character numeric fixed length	<p>The form factor indicator (FFI), also known as device type for MasterCard, describes the chip card technology used to make payment</p> <p>Examples of form factors include plastic cards, key fobs, subscriber identity modules (SIMs) used in mobile phones, and USB-based tokens</p>
FormsModuleVersion	5-character alphanumeric	
FriendlyName	alphanumeric variable length	Unique 'human' name you can set for a given PINpad device for ease of reference
GiftAndLoyaltyModuleVersion	5-character alphanumeric	
HostCorrectionCount	4-character numeric	Cumulative number of all Correction transactions in the given batch, as recorded by the processing host used by Moneris
HostCorrectionTotal	19-character alphanumeric	Cumulative dollar amount of all Correction transactions in the given batch, as recorded by the processing host used by Moneris
HostCreditCount	n/a	Currently unavailable; reserved for future use
HostId	15-character alphanumeric	Transaction ID which is unique across the Moneris Authorization platform
HostPurchaseCount	4-character numeric variable length	Cumulative number of all Purchase transactions in the given batch, as recorded by the processing host used by Moneris
HostPurchaseTotal	19-character alphanumeric	Cumulative dollar amount of all Purchase transactions in the given batch, as recorded by the pro-

Variable Name	Limits	Description
	variable length	cessing host used by Moneris
HostRefundCount	4-character numeric variable length	Cumulative number of all Refund transactions in the given batch, as recorded by the processing host used by Moneris
HostRefundTotal	19-character alphanumeric variable length	Cumulative dollar amount of all Refund transactions in the given batch, as recorded by the processing host used by Moneris
HostCorrectionCount	4-character numeric variable length	Cumulative number of all Purchase Correction transactions in the given batch, as recorded by the processing host used by Moneris
HostPaymentCount	n/a	Currently unavailable; reserved for future use
HostPaymentTotal	n/a	Currently unavailable; reserved for future use
HostPaymentCorrectionCount	n/a	Currently unavailable; reserved for future use
HostPaymentCorrectionTotal	n/a	Currently unavailable; reserved for future use
HostCreditCount	n/a	Currently unavailable; reserved for future use
HWMModelNumber	10-character alphanumeric	Model number of the PINpad
InvoiceNumber	10-character alphanumeric	Value tracked by Moneris Merchant Direct for the purpose of indexing transactions  Only the right-most 7 characters will be sent to the host for a Private Label card
InitRequired	boolean true or false	If true, it is recommended to perform Initialization
IsoResponseCode	2-character alphanumeric fixed length	The ISO code is a bank-issued response code  For a full list of response codes and the associated message please see the Financial Response Codes section on <a href="https://developer.moneris.com">https://developer.moneris.com</a>

**NOTE:** May also be returned by the synchronizationData object, where applicable

Variable Name	Limits	Description
IssuerId	15-character alphanumeric	The value returned in <b>receipt.IssuerId</b> from the transaction that requested a token  If no value was returned, this value may be omitted in the request
IssuerScriptResults	n/a	Currently unavailable; reserved for future use  belongs to synchronizationData object
LanguageCode	1-character numeric	The language field defines what language is used for the transaction receipt  If no language field is returned the language preference of the merchant may be used  3 – both merchant receipt and cardholder receipt English 4 – both merchant receipt and cardholder receipt French 5 – merchant receipt English, cardholder receipt French 6 – merchant receipt French, cardholder receipt English
LogonRequired	1-character alphabetic  Y/N  fixed length	When this field is set to ‘Y’ it indicates that the ECR must perform a log-on in order to retrieve updated security certificate data from the Moneris Cloud  Possible values:  Y = log-on is required  N = log-on not required
MacAddress	17-character alphanumeric	Valid value is NN:NN:NN:NN:NN:NN where NN is a hex digital number
MerchantId	13-character alphanumeric	Fixed field length that represents the merchant ID assigned by Moneris
Moto	2-character numeric	Possible values:  10 = Single mail/telephone order transaction  21 = Recurring mail/telephone order transaction
OsVersionInformation	140-character alphanumeric	

Variable Name	Limits	Description
Paired	true/false	Indicates whether the PINpad has been successfully paired with the Moneris Cloud
PairingToken	6-character alphanumeric	Value provided by the terminal as part of the pairing process
Pan	19-character numeric  variable length	Masked card number  If Pan Masking is enabled, the last 4 digits of the card number will be returned, with all other digits masked by asterisks  If Pan Masking is disabled, the first 6 and last 4 digits of the card number will be returned, with all other digits masked by asterisks
PartialAuthAmount	10-character decimal	The amount that was partially approved for a transaction
PaymentModuleVersion	5-character alphanumeric	
PedSerial	8-character alphanumeric	Serial number of the PINpad
PreauthAmount	10-character decimal	The dollar amount of the original Pre-Authorization, including cents in string form
PosEntryMode  belongs to synchronizationData object	3-character numeric	If returned, it is required for a Pre-Authorization Completion transaction
PospadApiVersion	3-character alphanumeric	Allowable value is Cxx, where xx is a 2 digit numeric value
ReasonOnlineCode	4-character numeric	If returned, it is required for a Pre-Authorization Completion transaction
receipt	Object	The final receipt of a transaction
ReferenceNumber	18-character numeric	This is a bank transaction reference number. This information should also be stored by the merchant.

**EXAMPLE**  
The following illustrates the breakdown of this field where



Variable Name	Limits	Description
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"990123450010690030" is the reference number returned in the message  
 "99012345" is the terminal ID  
 "001" is the shift number  
 "069" is the batch number, and  
 "003" is the transaction number within the batch.  
 The final character is a control flag, typically "0".

ReservedField1	n/a	Currently unavailable; reserved for future use
ReservedField2		
ReservedField3		
ReservedField4		

ResponseCode	3-character numeric  variable length	The response code is used to determine whether the transaction was approved or declined. The receipt message is determined by the Response Code and the ISO code.
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Response Code	Result
0 – 49 (inclusive)	Approved
50 – 999 (inclusive)	Declined
null	Incomplete

For a full list of response codes and the associated message please see the Financial Response Codes section on <https://developer.moneris.com>

SafIndicator	1-character alphanumeric	Indicates whether a transaction has been SAFed or not  Possible values: S = is a SAF transaction N = is not a SAF transaction
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Variable Name	Limits	Description
SequenceNumber	10-character numeric	<p>Sequence number assigned to a transaction</p> <div style="border: 1px solid black; padding: 5px; background-color: #e0f2f1;"> <p><b>EXAMPLE</b>                      If "0010690030" is the sequence number returned.</p> <p>"001" is the shift number (typically 001)</p> <p>"069" is the batch number</p> <p>"003" is the transaction number</p> <p>"0" is the control flag (typically 0)</p> </div>
SoftwareVersionNumber	5-character alphanumeric	<p>Software version loaded on the PINpad and the last character is the mode</p> <p>C = Cloud mode</p>
SurchargeAmount	6-character decimal  variable length	Dollar amount of the surcharge fee
SwipeIndicator	1-character alpha	<p>The swipe indicator characters (S, M, C, Q, F, T, or H). On the transaction receipt a "Pan Entry" field must be displayed.</p> <p>S (swiped)</p> <ul style="list-style-type: none"> <li>• The card is swiped, and,</li> <li>• The card, as determined by the service code and bin range, is not a supported chip card, and</li> <li>• The swipe is not the result of fallback</li> </ul> <p>M (manual entry)</p> <ul style="list-style-type: none"> <li>• The card is manually entered, and</li> <li>• The manual entry is not the result of fallback</li> </ul> <p>C (chip transaction)</p> <ul style="list-style-type: none"> <li>• The card is inserted, and</li> </ul>

Variable Name	Limits	Description
		<ul style="list-style-type: none"> <li>• The card, as determined by its AIDs, is a supported chip card</li> </ul> <p>Q (chip transaction - chip failure after host approval)</p> <ul style="list-style-type: none"> <li>• The card is inserted, and</li> <li>• The card, as determined by its AIDs, is a supported chip card, and</li> <li>• A chip failure occurred after an approved response was received from the host (MasterCard only)</li> </ul> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>NOTE:</b> In the case of value 'Q,' the value 'C' (Chip Transaction) should be printed on the customer transaction receipt. The purpose of the 'Q' is to notify the ECR that chip failure has occurred in the event that Moneris specifications require additional receipt information to be printed.</p> </div> <p>F (fallback to swipe)</p> <ul style="list-style-type: none"> <li>• The card is swiped at the fallback prompt, and</li> <li>• The card, as determined by the service code and bin range, is a supported chip card</li> </ul> <p>I (fallback from contactless to insert)</p> <ul style="list-style-type: none"> <li>• The card is inserted in a fallback prompt</li> </ul> <p>T (contactless MSD)</p> <ul style="list-style-type: none"> <li>• Card is tapped, and</li> <li>• The card as determined by the service code and BIN range is not a supported chip card</li> </ul> <p>H (contactless EMV)</p> <ul style="list-style-type: none"> <li>• Card is tapped, and</li> <li>• The card as determined by its AIDs is a supported chip card</li> </ul>

Variable Name	Limits	Description
Tcacc	16-character alphanumeric fixed length	Transaction Certificate (TC) and Application Authentication Cryptogram (ACC) are cryptograms generated by the card at the end of all offline and online approved transactions. Both provide information about the actual steps and processes executed by the card terminal and merchant during a given transaction and can be used during dispute processing.
TCRRL (Terminal Contact-less Receipt Required Limit)	4-character numeric fixed length	<p>If the transaction amount is equal to or higher than the TCRRL amount, or if a cardholder requires a receipt (for an amount lower than the TCRRL), then a receipt must be printed</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>NOTE:</b> This field applies to debit card transactions only</p> </div> <p>Possible values:</p> <p>0000 = dollar limit is zero</p> <p>9999 = dollar limit is "infinite"</p> <p>1234 = dollar limit is \$1,234.00</p>
TerminalId	8-character alphanumeric	The ECR ID number of the particular PINpad that processed the transaction
Timer	3-character numeric	Network time-out timer in seconds
TipAmount	9-character numeric variable length	Contains the amount of the tip, agreed to by the cardholder, applied to the Purchase or Pre-Authorization Completion transaction
Token	6-character alphanumeric	Value provided by the terminal as part of the pairing process
TokenData	50-character alphanumeric	This value is the token that represents a card
TokenResponseCode	2-character numeric	<p>Currently unavailable; reserved for future use</p> <p>Possible values are:</p> <p>00 = Approved</p> <p>01 = Token lookup failed (no match)</p>

Variable Name	Limits	Description
		50 = Merchant not set up for Token functionality 99 = Can't process your request Generic Response failure
TransDate	8-character alphanumeric YY-MM-DD fixed length	Date of the transaction Must be displayed on the transaction receipt YY-MM-DD format: YY = 2 digit year MM = 2 digit month ("0" left padded   Jan = 01) DD = 2 digit day of month ("0" left padded)
TransDateTime	12-character numeric YYMMDDHHMMSS fixed length	Represents the time and date as one variable field YYMMDDHHMMSS format: YY = year MM = month DD = day HH = hours MM = minutes SS = seconds
TransId	50-character numeric variable length	The transaction number is an identifier used by Moneris Gateway to identify the transaction. This value is used for follow-on transactions  Does not need to be displayed on the receipt but should be stored in the application database
TransTime	8-character numeric HH:MM:SS fixed length	Time of the transaction. Must be displayed on the transaction receipt. Format: HH:II:SS HH = 2 digit hour, 24 hour clock ("0" left padded   02 = 2am, 14 = 2pm) MM = 2 digit minute ("0" left padded) SS = 2 digit seconds ("0" left padded)
TransType	2-character numeric variable length	Numerical code corresponding to what type of transaction was performed

Variable Name	Limits	Description
Tsi	4-character alphanumeric	The Transaction Status Information used for all EMV transactions, except VISA PayWave and Interac Flash
TvrArqc	10-character alphanumeric fixed length	To determine if it is safe for the merchant to approve the stand-in transaction, the values of the flags in the EMV Terminal Verification Results (TVR) must be examined to ensure that no unsafe conditions arose during the transaction. The transaction should be declined if checking of the TVR flags indicates an unsafe transaction.
TvrTcacc	10-character alphanumeric fixed length	The final Terminal Verification Results (TVR)
TxnName	50-character alphanumeric	This data field element contains the echo copy of txnType from the request

## 11.1 Transaction Response Error Codes

**NOTE:** These error codes only apply to the Receipt.ErrorCode response field. For a list of Host response codes returned in Receipt.ResponseCode and Receipt.IsoResponseCode please refer to the Moneris Receipt Requirements Specification or the Host Messaging Specification.

Response Error Code	Description	Comments
000	ECR Request accepted by the PED and a Moneris host request is returned to the ECR.	The ECR is to forward the attached Moneris host request to the Moneris switch.
001	Moneris host Response received from the PED.	This condition code is used to synchronize the PED with the ECR after the Moneris host response has been processed. The PED will not display any of the host response messages until the '99'

Response Error Code	Description	Comments
		command is received from the ECR.
002	Response received from the PED.	The ECR is to forward the attached Moneris host continuation request to the Moneris switch. This condition code is also used when an '899' sequence error is processed. The resequenced request uses this code.
003	Initialization complete. The Initialization process has completed up to the end of the Handshake record exchange between the ECR/PED and Moneris host.	The ECR is to forward the attached Logon request message to Moneris switch.
005	Close Batch part 1 complete.	The ECR is to forward the attached part 2 Close Batch request message to Moneris switch.
006	The Batch successfully closed and was in balance.	
007	The Batch successfully closed, but was out of balance.	
010	Transaction is partially approved – cardholder confirmation needed.	This condition code is used for partially approved transactions where additional prompt appears on the PED to confirm whether the cardholder agrees or disagrees with the charges. The ECR has to increase time-out value awaiting the response from the PED.
011	EMV Pre-Auth response accepted.	This condition code has the additional EMV data attached to it that is required to be added to an EMV Pre-Auth Completion transaction.  This code is used, in lieu of the

Response Error Code	Description	Comments
		'001' in a successful EMV Pre-Auth transaction.
012	Pre-Auth is partially approved – cardholder confirmation needed.	This condition code is used for partially approved Pre-Authorization transactions where additional prompt appears on the PED to confirm whether the cardholder agrees or disagrees with the charges. The ECR has to increase time-out value awaiting the response from the PED. This condition code has the additional EMV data attached to it that is required to be added to an EMV Pre-Auth Completion transaction.
050	Auto retry requested. The 1st flag byte in FID 's' contained a value of '1'.	The ECR is to forward the attached Moneris host request message to Moneris switch.
051	Response received, retry requested. The 1st flag byte in FID 's' contained a value of either '2' or '3'.	This condition code has the normal ECR response data attached.
052	Response received, initialization requested. The 3rd flag byte in FID 's' contained a value '1'.	This condition code has the normal ECR response data attached. This condition code applies to Financial and Moneris Gift and Loyalty responses.
089	Cashback amount not returned on response.	For prepaid Mastercard and Visa transaction with cashback was approved, however, cashback amount was not returned by the host.
098	Cancel/Reset request accepted.	The PED typically returns to idle.
099	Transaction Completed, process ECR response.	This condition code has the normal ECR response data attached.
100	Invalid Transaction Code.	



Response Error Code	Description	Comments
101	Invalid transaction request parameter such as Amount.	This error code applies to all amount field types.
102	Missing Amount field	This condition code applies to all amount field types (Moneris host, Moneris Gift and Loyalty and Air Miles).
103	1. Invalid Entry Method. 2. Card Present UnionPay Purchase or Pre-Authorization request is sent with Entry Method 'W'.	Invalid entry method format
104	Missing TRACK 2 data.	This condition code is only applicable to PEDs that do not have a built-in MSR or chip reader.
105	Invalid or missing Approval Number	
106	Missing Approval Number on Pre-Authorization Completion Request	
107	One, or more, of the field separator characters is either missing or invalid	This condition code usually only applies to the FS character immediately following the Transaction Code in the ECR request. A missing/invalid FS further down the string will usually trigger an error in the field that immediately precedes it.
108	The EOT character designating the end of a message from the ECR is either missing or corrupted	
109	Invalid Close Batch/Totals flag	
110	Missing/invalid Clear Totals flag	
111	Invalid Merchant ID	Initialization

Response Error Code	Description	Comments
112	Missing Merchant ID	
113	Invalid ECR ID	All B24 (non-local) Financial/Administrative Transactions
114	Missing ECR ID	
115	Invalid Clerk ID	
116	Invalid Echo Data	
117	Missing Clerk ID	This condition code applies to Financial and Gift and Loyalty transactions.
118	Invalid length or format of host routing code	Moneris Gift and Loyalty Host Routing Code
120	Unknown or illegal field. This condition code is a general validation error and may be returned for any transaction that contains an unknown or illegal field.	This condition code is a catchall for any request field error not previously defined. This condition code should not be used for additional fields tacked onto the end of an ECR request. Those fields are to be ignored, with no special action taken
122	Cashback Allowed Indicator is not expected	This condition code is returned if a valid Cashback Allowed Indicator is received on a Purchase ECR Request but Cashback feature is not enabled on the PED.
123	Attempt to Set Floor Limit or Set SAF Without Host Initialization	
124	Missing/invalid Card Plan or Card Plan is not Credit	
125	Missing/invalid Floor Limit	
126	Missing/Invalid Maximum SAF Record	

Response Error Code	Description	Comments
127	SAF Mode is OFF	
128	SAF Was Declined by Host	The SAF transaction details are returned.
129	Missing/invalid Add/Remove BIN Range Indicator	
130	Missing/invalid Low BIN Range	
131	Missing/invalid High BIN Range	
132	BIN range table is full	Moneris Verifone P400 supports a total of 40 BIN Ranges in memory.
133	Invalid Extended Configuration	
134	Missing Extended Configuration	
135	Missing/invalid Clerk List	
136	Missing/invalid Display Timeout	Display Message only.
137	Either of the Invoice Number or Promo Code is present when the other is not	Payment Void transaction only.
138	Invalid Message Text – Line#n	Display Message only.
139	To-be-deleted BIN range cannot be found	n/a
140	There is no previous PED message to resend	Resend Last PED Response
141	Not supported in Unattended Mode	This condition code applies to transactions/commands that are supported in Attended Mode but not supported in Unattended Mode.

Response Error Code	Description	Comments
142	Missing/invalid Entry Method Allowed Mask	Retrieve Card Track Data only.
145	Missing/invalid Track Selection Indicator	Retrieve Card Track Data only.
146	EMV Initialization Failed – EMV Insert Not Allowed	The EMV insert card option is not allowed because the POSPAD Initialization does not support EMV or EMV Initialization failed. Retrieve Card Track Data Only
147	EMV Card Read Error	Retrieve Card Track Data Only
148	PED Serial Number is not present or cannot be retrieved by the PED	Retrieve PED Serial Number only
149	Code download application is not present in the PED	Initiate PED Code Download only
150	The transaction type requested is not allowed by the PED. The trans was not enabled via DID 'p' in the download, or the PED has been logged off, or no bin range has been added.	
151 613	Card Type not supported. The card type being used is not contained in the BIN table (via DIDs '0' – '29') or was not activated via DID 'k' in the download. Card Plan in the Token field cannot be found in the supported BIN ranges Manual entry of a card present Purchase or Pre-Authorization using a UnionPay card UnionPay Force Post transaction	Applies to MSD cards Invalid Card For Inserted and Tapped scenarios where VEGA returns EMV_NO_AID_MATCH without EMV data, NO SUPPORTED APPLICATIONS USE MAG STRIPE is displayed. Once the card is swiped, the Track 2 can be confirmed.  151 Applies to MSD cards only 613 Applies to EMV cards only
152	Refund Limit exceeded: Transaction not allowed.	The amount used in the Refund transaction exceeded the refund limit for the card used.

Response Error Code	Description	Comments
153	Optional debit/credit indicator does not match card type used	Tender mismatch or Invalid tender Debit indicator sent for a credit only transaction. Applies to transaction types: Pre-Auth, Card Verification, Balance Inquiry, Force Post, Payment and Payment Void. Credit transaction with cashback was initiated but EMV chip failure occurred and fallback attempted.
154	Cashback not allowed	
155	Invalid or missing variable name	
156	Invalid variable value	
157	Invalid configuration file name	
158	No Record Found	
160	<p>Transaction Not Allowed: Re-initialization required, due to:</p> <ol style="list-style-type: none"> <li>1. The 3rd flag byte in FID 's' contained a value '1' and the internal clock in the PED has rolled past 03:00:00.</li> <li>2. The last attempted Initialization had failed.</li> <li>3. The mode of operation had been changed via an extended configuration.</li> <li>4. A PED that had never been initialized since it was originally loaded with its application code.</li> <li>5. A Moneris Gift and Loyalty Initialization was attempted prior to successfully completing a Moneris Host Initialization.</li> </ol>	The PINpad is locked out from performing any Moneris host transactions until an Initialization has been successfully completed

Response Error Code	Description	Comments
	6. An Initiate PED Code Download was performed and a non-host init transaction is attempted.	
161	<p>Only one transaction retry is allowed per transaction.</p> <p>On a transaction retry ('98' command used in response to the '051' condition code), where the transaction failed again (FID 's' set) another '98' was attempted by the ECR. The Retry command ('98') was attempted when no retry condition exists in the PED.</p>	
162	An ECR request with a new transaction, or command, was sent while another transaction has not yet completed.	This error is generated while the PED is waiting for a Moneris host response or is expecting the '99' Completion command. This condition code will not be generated if the ECR request is sent after the PED has timed out waiting for the Moneris host response.
163	A '97' Reset command was issued by the ECR after the Moneris host response was received by the PED, but before the '99' Completion command was processed.	EMV card is still inserted in the card reader while the ECR sends a '97' Reset command
164	Invalid MOTO E-Commerce Flag	This condition code is also used if a MOTO indicator is present in 'Unattended Mode'.
165	A '99' Completion command was issued by the ECR before it sent the Moneris host response to the PED.	
166	A '99' Completion command was issued by the ECR while the PED is in idle.	This condition code should be returned, as well, for other times the '99' command is issued and is not expected (other than the con-

Response Error Code	Description	Comments
		dition covered by the '165' condition code).
170	Invalid Invoice Number	
171	The Invoice Number is disallowed for this card type	
172	Invalid Promo Code	
173	The Promo Code is disallowed for this card type	
174	Release SAF Record command was received and the SAF file was empty	
188	BIN range already added	n/a
190	A card swiped at the ECR and included in the ECR request had a service code of either '2xx' or '6xx'.	This error code only applies when EMV is active in the PINpad configuration  If not EMV, then cards with these service codes are to be processed normally
191	SAF record cannot be released due to host disconnect	
192	SAF Maximum Size reached	Once SAF Maximum Size Limit is reached any additional transactions sent to SAF will return this condition code
193	SAF record cannot be accepted due to Service Code x2x	
194	One of the Transaction Status Information checks fail	Check performed on a Pre-Auth Completion Request
195	Invalid Encrypted Track2 length or format	Check performed on a Pre-Auth Completion Request
196	Invalid Expiry Date	Checked if PED or ECR is standing-in

Response Error Code	Description	Comments
		Not applicable for Force Post transactions
197	Invalid Swiped Indicator	
198	Invalid /Missing Original Pre-Auth Amount	Check performed on a Pre-Auth Completion Request
199	Invalid Scan Type	
200	No match on Merchant ID.  A Moneris host response code of '960' was returned in the Initialization transaction.	
201	No match on PED Serial Number.  A Moneris host response code of '961' was returned in the Initialization transaction.	
202	Initialization MAC'ing error – The PED retries the host init for a second time and still receives the MAC error	
205	Initialization MAC'ing error – Contact Help Centre.  The Initialization failed on a MAC error (on DID 'R ').	
206	The Initialization failed for one of the reasons below:  1. A Moneris host response code of '965' was returned in the Initialization transaction. 2. The Initialization transaction was aborted with a Moneris host response code of '882' returned on a download packet.  3. Any other reason the Initialization failed that is not	



Response Error Code	Description	Comments
	covered by the '2xx' codes above.	
210	The Initialization failed due to an EMV failure	A full Initialization ECR response is attached to this condition code, which includes the EMV Initialization failure code.
250	No response received from the Host	Administrative transactions This condition code also applies to an SPT Certificate error
300	The LRC character, in the Moneris host response, did not match the expected value, as calculated by the PED	This condition code only applies to the Moneris host response message. A similar error detected with error checking feature should return a NAK to the ECR.
301	No LRC character was detected after the ETX character in the Moneris host response	This condition code only applies to the Moneris host response message. A similar error detected with error checking feature should return a NAK to the ECR.
302	No ETX character was detected in the Moneris host response	This condition code only applies to the Moneris host response message. A similar error detected with error checking feature should return a NAK to the ECR
303	No STX character was detected in the Moneris host response	This condition code only applies to the Moneris host response message. A similar error detected with error checking feature should return a NAK to the ECR.
304	The Moneris host response message failed MAC verification	A MAC reversal (Moneris host message subtype = 'R') will be attached to the condition code only if the Moneris host response was approved (Moneris host response code < '050').  This condition code only applies if the MAC'ing feature is enabled in the PED via the download data

Response Error Code	Description	Comments
306	<p>A Moneris host response message is received, by the PED, when it is in idle, or otherwise not expecting one.</p>	<p>(DID '1' = '1').</p> <p>A controller reversal (Moneris host message subtype = 'C') will be attached to the condition code only if the Moneris host response was approved (Moneris host response code &lt; '050') and the Moneris host transaction code indicates a Purchase ('00) or Pre-authorization ('01') transaction.</p>
307	<p>This condition code is issued for the following conditions:</p> <ol style="list-style-type: none"> <li>1. A normal Moneris host financial declined response was received where the Moneris host response code match one of the values downloaded in DID's 'O' or 'P'. For this condition, this code replaces the '099' code and the normal ECR response message is to be attached to the code.</li> <li>2. The Moneris host response message did not match up to the outstanding Moneris host request (i.e. the transaction code is different). For this condition, this code replaces the '001' code and the transaction is cancelled.</li> <li>3. The Moneris host response message contained an invalid header Transaction Date or Time. For this condition, this code replaces the '001' code.</li> </ol>	<p>For case #3 only, a controller reversal (Moneris host message subtype = 'C') will be attached to the condition code only if the Moneris host response is approved (Moneris host response code &lt; '050').</p>
308	<p>A non-Moneris host message was received when a Moneris host one was expected (i.e. the 1st two characters of the message did not have a routing code of '9.').</p>	<p>Regardless of the content of the remaining part of the message, no reversal is to be attached to this condition code.</p>

Response Error Code	Description	Comments
309	<p>Invalid Moneris host response received:</p> <ol style="list-style-type: none"> <li>1. One of the mandatory FID's ('F' (on approvals), 'X', 'g' (on declines), 'h', 's', or '9F' (EMV only)) is missing from a Moneris host financial response.</li> <li>2. FID 'g' (on a decline) was empty (zero length) or only contained the '=' separator.</li> <li>3. One of the FID's had corrupted data.</li> <li>4. FID 'Q' has a different value or is missing data from the request</li> </ol>	<p>A controller reversal (Moneris host message subtype = 'C') will be attached to the condition code only if the Moneris host response is approved (Moneris host response code &lt; '050').</p> <p>If FID 'Q' is present in the request</p>
310	<p>This condition code is issued for the following conditions:</p> <ol style="list-style-type: none"> <li>1. An EMV card was pulled from the insertion reader prior to the transaction being completed.</li> <li>2. The EMV card declined a Moneris host response that was approved by the host.</li> <li>3. A customer declined the partially approved Moneris host response that was approved by the host.</li> </ol>	<p>For the pulled card condition, Moneris host response code '991' is inserted into the reversal (in the last 3 bytes of the header). A controller reversal (Moneris host message subtype = 'C') will be attached to the condition code.</p> <p>For the card decline condition, Moneris host response code '990' is inserted. An ICC reversal (Moneris host message subtype = 'I') will be attached to the condition code.</p> <p>Purchase and Pre-Authorization transactions. For the card decline condition, Moneris host response code '990' is inserted. An ICC reversal (Moneris host message subtype = 'U') will be attached to the condition code.</p>
350	<p>Unrecoverable data error: error condition(s) (as defined for codes '300', '301', '302', and '303') has been detected in 3 consecutive attempts in reception of the Moneris host</p>	<p>On the 1st two attempts, the condition code indicating the actual error condition is returned. The '350' condition code is only returned on the 3rd attempt.</p>

Response Error Code	Description	Comments
	response	This condition code is not issued if a good response is received in between the bad ones (i.e. the counter is reset), or if the original transaction is cancelled and a new one initiated (even though it may have these errors).
400	The PINpad has timed out while waiting for the cardholder to respond to a displayed prompt.	The transaction, in progress, is cancelled. The timers used vary, depending upon the particular prompt. Not all prompts are timed.
401	The CANCEL key was pressed in response to a cardholder prompt on the PINpad.	The transaction, in progress, is cancelled. This error code only applies to the Moneris host transactions. It is not issued when the CANCEL key is used for the PINpad setup prompts.
402	The Moneris host response message was sent to the PED after the host response timer (as set from the data in DID 'J') has expired, but before any other function, or transaction, was initiated by the ECR	A timeout reversal (Moneris host message subtype = 'T') will be attached to the condition code only if the Moneris host response is approved (Moneris host response code < '050').
420	Secondary Application Is Not Responding	The command received intends for the secondary PED application (like Gift and Loyalty or Forms) but it does not respond.
450	One, or more, of the KKMACE, KKPE, or KKME master keys have been corrupted	The PINpad needs to be re-injected with new keys.
460	The 'Resend Last PED Response' message fails to reach the ECR.	Host knows last Approved response was not delivered successfully to the ECR and will reverse it.
461	Current batch needs to be closed before Code Download can be initiated	Affects all four modes: Secure Pass-Thru, Integrated, Direct-Host-Connect and Hybrid

Response Error Code	Description	Comments
500	The MOTO/E-Commerce Flag is not allowed	MOTO/E-Commerce Flag can only be present for a manually keyed card.
501	Fallback transaction cannot be added to SAF	If all other conditions are satisfied but the PED cannot SAF the transaction because it's a fallback transaction, condition code 501 is returned.
503	Benefit Amount is greater than Total Amount	
505	Moneris Gift and Loyalty Init required	The PED is locked out from performing any Moneris Gift and Loyalty host transactions until an Initialization has been successfully completed.
506	No original transaction code for void	Applies to Loyalty Correction (future)
507	Invalid original transaction code for void	Applies to Loyalty Correction (future)
508	Bad or missing card code	
509	No totals for Retrieve Card Code Totals command	PED and/or host totals are missing or not available
511	Refund not allowed	
512	No host totals available for Close Batch	Host declines or not available Moneris Gift and Loyalty response code 312 – PED totals will be cleared
513	Amount doesn't match	Amount field and Benefit Amount field Gift Purchase and Gift Refund
514	CVC entered without Customer Track2 or CVC is invalid	Gift Purchase, Gift Refund, Gift Void, Card Activation/Reload, Card Deactivation and Card Inquiry

Response Error Code	Description	Comments
517	Current Moneris Gift and Loyalty batch needs to be closed before Code Download can be initiated	Affects all four modes: Secure Pass-Thru, Integrated, Direct-Host-Connect and Hybrid
518	Invalid Gift and Loyalty card code	
519	Card used falls into "Whitelisted" BIN range	
523	Trans request fails to connect or there is no host response  SAF is enabled and trans amount is greater than SAF Floor Limit	SAF Transactions: Purchase (EMV and MSD) and Void (Correction) (EMV and MSD)  Contact transactions  Call for Auth
524	Trans request fails to connect or there is no host response  SAF is not enabled and trans amount is greater than SAF Floor Limit	PED checks floor limit for all financial transactions Contact or Contactless transactions  Call for Auth
525	Terminal ID Not on File	
526	Merchant ID Invalid	
527	Invalid or Missing IP Address	Initiate PED Code Download
528	Invalid or Missing IP Port	Initiate PED Code Download
529	Invalid or Missing SSL Indicator	Initiate PED Code Download
530	Token field exists and token is invalid or missing	
531	Debit or UnionPay cards are not supported for financial transactions with a token	
532	Token and Encrypted Track2 are sent in the same ECR request	

Response Error Code	Description	Comments
533	Cashback request is sent with a token	
534	<ol style="list-style-type: none"> <li>Invalid or missing Moneris Token value</li> <li>Moneris Token request has a valid value of '1' and a token is also sent in the ECR request message</li> </ol>	
536	A Moneris token request is sent or a token is sent but tokenization is disabled	
538	No track is available on the card	Retrieve Encrypted Card Track Data
540	Customer declines the partially approved amount or allows the 'Approved Amount:' prompt to time-out	Credit Purchase and Pre-Authorization transactions. The transaction is reversed.
541	<ol style="list-style-type: none"> <li>Card Number length error</li> <li>Card Number is missing and there is no Token</li> <li>Token is missing and there is no Card Number</li> </ol>	Pre-Auth Completion ECR request
542	Account Type length error	Pre-Auth Completion ECR request
543	DCC information in Purchase Void or Refund Void is missing or invalid	
544	<ol style="list-style-type: none"> <li>Token and/or Original Foreign Currency Amount fields are not accepted for a DCC Pre-Auth Completion transaction</li> <li>DCC data were sent for Void but the original transaction was not DCC assessed</li> </ol>	
545	Serial number is invalid or	Returned only in Cloud mode.

Response Error Code	Description	Comments
	missing from the Cloud Prefix	
548	Invalid or missing URL	
549	Invalid or missing Port	
550	Invalid MAC data (stand-alone application)	
551	Error with MAC Generated data	
552	Language Code is incorrect	Pre-Auth Completion ECR request
560	Percentage value is incorrect	
561	Invalid IssuerId Data	
600	Invalid POS Entry Mode	
601	Invalid EMV Request Data	
602	Invalid EMV Additional Data	
603	Invalid Chip Condition Code	
604	Invalid EMV Reason Online Code	
605	Invalid EMV Issuer Script Results	
606	The EMV card had determined that its PIN try counter had been exceeded.	The transaction is cancelled without generating any Moneris host messages.
607	EMV card removed prior to completion of the transaction	Re-attempt transaction
608	The transaction is declined by the EMV card prior to its being sent to the host. The transaction declined by the EMV card after host reply received	



Response Error Code	Description	Comments
609	An error was detected with the EMV chip 1. The chip error occurs before the transaction request goes to the host, then all EMV cards are treated the same. The chip error occurs, the transaction is declined and c.c. '609' is returned to the ECR 2. The chip error occurs after the transaction request goes to and is approved by the host, then all EMV cards are treated the same with the exception of MasterCard. For all other EMV cards, '609' is returned to the ECR and a reversal must be generated and sent back to the host. For MasterCard, even though there is a chip error, the transaction is still approved at the chip and the transaction is approved at the PED. No reversal is generated. The MasterCard '099' message will contain whatever data is available at the time and it is sent back in the '099' message	The chip error can occur at any point in the transaction flow where the chip and VEGA/Kernel can no longer communicate.  The transaction is declined.
610	An EMV chip card was attempted to be used for a Pre-Auth transaction when the extended configuration 'PN' (EMV Pre-Auth not allowed) is in effect	
611	A fallback swipe was attempted for a card whose BIN does not allow fallback (as per the setting in DID 't' in the download parameters)	
612	Invalid Track 2 Equivalent data on the EMV chip	
613	Card Type not supported.	All EMV Transactions

Response Error Code	Description	Comments
	The Track 2 Equivalent data on the EMV chip is outside of a BIN range of a card for which the PED is initialized to accept.	
614	One or more mandatory EMV data items is missing from the Pre-auth Completion ECR request	The PED will also reply with this condition code if the track data is missing from the EMV pre-auth completion request.
615	TC Advice is not supported	The TC Advice message which was implemented in EMV Phase 1 is no longer supported. Please refer to Common EMV Business Requirements for details.
616	Transaction Not Completed  Reset '97' command received to stop the EMV transaction while waiting for host response	A stand-in transaction fails the TVR check  FID 'Q' has a different value or is missing data from the request, if it was present in the request  Fail to connect to the host  Invalid host response  SAF Not Allowed  ECHO data field will not be returned on the Financial Transaction ECR Response
621	Extended configuration 'PA' or 'PD' was used when DID 's' did not contain a value of 'M'	
622	Invalid card name	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
623	Missing card name	
624	Invalid application label	Only when used for EMV Credit Pre-Auth Completion ECR Requests.

Response Error Code	Description	Comments
625	Invalid application preferred name	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
626	Invalid EMV application ID	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
627	Invalid ARQC	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
628	Invalid TVR for ARQC	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
629	Invalid TC/AAC	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
630	Invalid TVR for TC/AAC	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
631	Invalid CVM indicator	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
632	Invalid Form Factor	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
633	Invalid Contactless Data	Only when used for EMV Credit Pre-Auth Completion ECR Requests.
634	Invalid format of the EMV terminal capabilities field in Pre-Auth Completion request	
640	MSD After-Reversal Code	This is a “dummy” condition code that is returned as the second condition code after a reversal has been sent to the ECR.  SAF Not Allowed

Response Error Code	Description	Comments
		No Host/Invalid Host Response, Timeout  ECHO data field will not be returned on the Financial Transaction ECR Response
641	Invalid EMV ISO Response Code	This condition code is returned to the ECR.

## Appendix A Security Requirements

All Merchants and Service Providers that store, process, or transmit cardholder data must comply with PCI DSS and the Card Association Compliance Programs. However, validation requirements vary by business and are contingent upon your "Merchant Level" or "Service Provider Level". Failure to comply with PCI DSS and the Card Association Compliance Programs 3.2 may result in a Merchant being subject to fines, fees or assessments and/or termination of processing services. Non-compliant solutions may prevent merchants boarding with Moneris Solutions.

As a Moneris Solutions client or partner using this method of integration, your solution must demonstrate compliance to the Payment Card Industry Data Security Standard (PCI DSS) and/or the Payment Application Data Security Standard (PA DSS) 3.2. These standards are designed to help the cardholders and merchants in such ways as they ensure credit card numbers are encrypted when transmitted/stored in a database and that merchants have strong access control measures, logging, secure software updates, secure remote access and support.

For further information on PCI DSS and PA DSS requirements, please visit [www.pcisecuritystandards.org](http://www.pcisecuritystandards.org).

For more information on how to get your application PCI-DSS compliant, please contact our Integration Specialists and visit <https://developer.moneris.com> to view the PCI-DSS Implementation Guide.