SecurePost Listener

Version 1.5.11

August 24, 2020

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Overview

The SecurePost Listener application allows integrators to send HTTP requests to a given IP and port address of a Windows desktop machine to launch the 1stMILE MiddleWare™ transaction processing dialogs on that machine.

There are three different formats of requests that are accepted, each with a different response formats: REST, XML and JSON.

REST

The preferred method is to send the request with individual values contained in separate query parameters.

Example:

```
http://127.0.0.1:8443/?PaymentType=Credit&TransactionType=Sale&Amount=1.25
&MerchantOrderNumber=20110511-1109
```

This example sends a request for a credit card sale in the amount of $1.25 to be processed on the local desktop.

Request Parameters

The following request parameters are supported via the REST interface.

PaymentType

The PaymentType parameter specifies the payment type. Valid values are listed below. If this parameter is not provided, the default value of 'Credit' will be used.

Value	Description
`Credit`	Credit or Debit card transaction.
`Check`	ACH transaction.

TransactionType

The TransactionType parameter specifies the type of transaction to process. Valid values are listed below. If this parameter is not provided, the default value of 'Sale' will be used.

Value	Description
`Sale`	Perform a sale.
`PreAuth`	Perform an Authorization only transaction. This value is only valid when PaymentType is 'Credit'.

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PostAuth	Perform a Post (Capture) transaction. This value is only valid when PaymentType is 'Credit'.
Refund	Perform a Refund for a previously executed Sale or Authorization.
Void	Void a credit card authorization or sale.
CreditApplication	Perform a credit application or credit application action.
AccountLookup	Perform an account lookup.
TokenLookup	Perform a tokenized account lookup.
SigCap	Perform a stand-alone signature capture.
GiftCard	Perform a gift card action specified in the GiftCardAction parameter.
TransactionSearch	Perform a Transaction Search operation.
TextToPay	Generate a pay link for the consumer to pay for a transaction.
TextToAuthorize	Generate an authorization for the consumer to authorize a work order.

Amount
This parameter specifies the amount of the transaction in dollars and cents (e.g., 100.25).

MerchantOrderNumber
This parameter may be used to specify an alphanumeric value, meaningful to the merchant, which will be associated with the transaction.

MerchantRefID
This parameter may be used to specify an alphanumeric value to identify the HTTP request. It does not apply to the transaction, but will simply be reflected in the HTTP response.

OrderID
The Order ID parameter is required for the 'Refund' and 'Void' transaction types and identifies the original transaction to be acted upon.

TransactionID
The Transaction ID parameter is required for the 'Refund' and 'Void' transaction types and identifies the original transaction to be acted upon.

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RefCode
This parameter is required for the 'PostAuth' transaction type and identifies the original 'PreAuth' transaction to be completed.

SwipeImmediate
Specify '1' to immediately initiate a card swipe when the sale dialog is shown. This behavior only applies when TransactionType is 'Sale', 'PreAuth', or 'VAC'. For some devices, an Amount is required before a card swipe is allowed.

ProcessOnSwipe
Specify '1' to process the transaction immediately upon a successful card swipe. This parameter is only applicable when TransactionType is 'Sale', 'PreAuth' or 'VAC'.

SuppressAcceptedDialog
Specify '1' to suppress displaying the "Accepted" dialog for successful transactions.

ReceiptCopies
This parameter allows setting the default number of copies when the receipt is printed.

AutoPrintReceipt
Specify '1' to automatically print the receipt upon successful completion of a 'Sale', 'PreAuth', or 'VAC' transaction.

IsvEmv
Specify '1' to receive the ReceiptGroup response elements. The ReceiptGroup response elements may include EMV information (required for printed receipts). If this parameter is not present (or set to '0'), EMV response elements (if available) are included in the Terms response element.

ReturnRawResults
Specify '1' to return the transaction response directly from 1stMILE MiddleWare. Refer to the 1stMILE MiddleWare documentation for more information.

ReturnImageEncoding
If a signature image is captured as part of a credit card transaction or through the stand-alone signature capture dialog, this parameter specifies the ASCII encoding method for returning the image. If this parameter is not specified in the request, no image will be returned. Valid values are

Value	Description
`Base64`	Radix-64 encoding; the base 64 digits in ascending order from zero are the uppercase characters 'A' to 'Z', the lowercase characters 'a' to 'z', the numerals '0' to '9', and the symbols '+' and '/'. The valueless character, '=', is used for trailing padding.
`BinHex`	Binary to Hexadecimal encoding; each byte is converted to a hexadecimal string representation.

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ReturnImageFormat

Identifies the image format in which you would like the signature image returned. Valid values are listed in the following table:

Value	Description
`Bmp`	Windows bitmap
`Emf`	Enhanced Windows metafile
`Gif`	Graphics Interchange Format
`Jpeg`	Joint Photographic Experts Group image format
`Png`	Portable Network Graphics image format
`Pcl`	Printer Control Language format
`Tiff`	Tag Image File Format
`Wmf`	Windows metafile

ReturnImageHeight

Specifies the image height in pixels.

ReturnImageWidth

Specifies the image width in pixels.

GiftCardAction

When a TransactionType is specified as GiftCard, this parameter indicates the operation to perform. Valid values are listed in the following table:

Value	Description
`Issue`	Issue a new gift card.
`AddValue`	Add value to a gift card.
`BalanceInquiry`	Perform a balance inquiry on a gift card.
`Deactivate`	Deactivate a gift card.

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Additionally, any parameter supported by 1stMILE MiddleWare is also acceptable and will be passed to the library.

Response

The response from an HTTP REST request is multi-line (CR/LF separated) plain text content. Each line contains an identifier followed by an equal sign (=) followed by a value.

Result

This identifies the result of the transaction. Possible values are listed in the following table:

Value	Description
`None`	The user cancelled the transaction before attempting to process it.
`Error`	An error occurred prior to executing the transaction. Inspect the 'Reason' value for more information.
`Accepted`	The transaction was accepted.
`Declined`	The transaction was declined.

Reason

In the case of an Error, this field contains details about the error.

AuthCode

This contains the colon delimited result code for the transaction. Refer to the Online Merchant Center Integration Guide Appendices for more information.

OrderID

This is the Order ID for the transaction.

TransactionID

This is the Transaction ID for the transaction.

MerchantOrderNumber

If supplied in the request, this is the Order Number associated with the transaction.

RefCode

For credit card 'PreAuth' transactions, this is the reference code that must be used to perform a Post/Capture.

AccountNumber

This is the masked account number on which the transaction was performed.

Duplicate

This indicates the transaction is a duplicate of a previous transaction.

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Partial
This indicates the transaction was approved for a partial amount. Inspect the Amount value for the amount that was approved.

Amount
This indicates the amount for which the transaction was processed.

Expiration
This indicates the card expiration, if available.

Name
This indicates the cardholder name, if available.

PayType
This indicates the payment type, if available. Refer to the 1stMILE MiddleWare Integration Guide for valid values.

EntryMethod
This indicates the entry method, if available. Valid values are SWIPED or KEYED. Additional values may be added at a future date.

TermId
This optional tag may be included to identify the Terminal on which the transaction originated.

MerchantId
This optional tag may be included to identify the Merchant.

Balance
Balance remaining on card (not supported for all card types).

Terms
For certain credit cards (e.g., CarCareONE, Goodyear, Drive Card, and Service Central), additional information may be required for printed receipts. This information is included in this tag. If the IsvEmv parameter was not provided, EMV information may be provided in this element for EMV transactions. The value may include the 2-character sequence [] to indicate where newlines would be used.

ReceiptGroup1-3
If the IsvEmv parameter was provided, the response will contain additional elements that may be used for printing a receipt. Each ReceiptGroup contains name/value pairs with a "|" (pipe) as a delimiter and a ":" (colon) as a separator between the name and value. Not all pairs will be present at all times. Additional elements may be added in the future. Refer to the 1stMILE MiddleWare Integration Guide for more information.

OdometerReading
For Fleet cards, if the Odometer service prompt was required for the transaction, it is included in this tag which should be printed on receipts.

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VehicleId
For Visa Fleet and Wright Express fleet cards, if the Vehicle ID or Vehicle# service prompt was required for the transaction, it is included in this tag which should be printed on receipts.

PurchaseDevSequenceNumber
For Wright Express fleet cards, if the Purchase Dev. Seq. # service prompt was required for the transaction, it is included in this tag which should be printed on receipts.

Token
For Tokenized transactions, whether creating a new tokenized account or using an existing tokenized account to perform a transaction, the value indicates the Merchant Partners token that is required for subsequent transactions against the tokenized account.

Last4Digits
For Tokenized transactions, this value indicates the last four digits of the payment account for the tokenized account.

MerchantRefID
If supplied in the request, this reflects the supplied value.

Signature
If a signature image is captured in the process of the transaction and the ReturnImageEncoding parameter was specified in the request, the image is returned as ASCII text. If ReturnImageEncoding is not specified with the request, no image is returned. Refer to the 1stMILE MiddleWare documentation for more information.

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XML

An alternative request method is to build an XML document and send it in the HTTP query as the value of a single parameter, TerminalTransaction.

Example:

```
http://127.0.0.1:8181/?TerminalTransaction=%3crequest%3e%3cPaymentType%3eCredit%3c%2f
PaymentType%3e%3cTransType%3eSale%3c%2fTransType%3e%3cAmount%3e1.25%3c%2fAmount%3e%3c
InvNum%3e20110511-1109%3c%2fInvNum%3e%3c%2frequest%3e
```

This example sends a request for a credit card sale in the amount of $1.25 to be processed on the local desktop. For reference, the XML in the above example prior to encoding:

```
<request>
  <PaymentType>Credit</PaymentType>
  <TransType>Sale</TransType>
  <Amount>1.25</Amount>
  <InvNum>20110511-1109</InvNum>
</request>
```

Request XML

Value	Required	Type	Description
<request>	Y	element	
<PaymentType>	N	string	Indicates the payment type. If this parameter is not provided, the default value of 'Credit' will be used. See REST 'PaymentType' field for valid values.
<TransType>	N	string	Indicates the type of transaction to process. If this parameter is not provided, the default value of 'Sale' will be used. See REST 'TransactionType' field for valid values.
<Amount>	N	decimal	Indicates the amount of the transaction in dollars and cents (e.g., 100.25).
<InvNum>	N	string	This parameter may be used to specify an alphanumeric value, meaningful to the merchant, which will be associated with the transaction. This is equivalent to the REST 'MerchantOrderNumber' field.

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<RefId>	N	string	This parameter may be used to specify an alphanumeric value to identify the request. It does not apply to the transaction, but will simply be reflected in the response.
<RegisterId>	N	string	Like the REST MerchantRefID parameter, this element is simply reflected in the response if provided in the request.
<OrderID>	N	string	The Order ID parameter is required for the 'Refund' and 'Void' transaction types and identifies the original transaction to be acted upon.
<TransactionID>	N	string	The Transaction ID parameter is required for the 'Refund' and 'Void' transaction types and identifies the original transaction to be acted upon.
<RefCode>	N	string	This parameter is required for the 'PostAuth' transaction type and identifies the original 'PreAuth' transaction to be completed.
<SwipeImmediate>	N	boolean	Specify 'true' to immediately initiate a card swipe when the sale dialog is shown. This behavior only applies when TransactionType is specified as 'Sale', 'PreAuth', or 'VAC'. For some devices, an Amount is required before a card swipe is allowed.
<ProcessOnSwipe>	N	boolean	Specify 'true' to process the transaction immediately upon a successful card swipe. This parameter is only applicable when TransactionType is 'Sale', 'PreAuth' or 'VAC'.
<SuppressAcceptedDialog>	N	boolean	Specify 'true' to suppress displaying the "Accepted" dialog for successful transactions.
<ReceiptCopies>	N	numeric	This parameter allows setting the default number of copies when the receipt is printed.

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<AutoPrintReceipt>	N	boolean	Specify 'true' to automatically print the receipt upon successful completion of a 'Sale', 'PreAuth', or 'VAC' transaction.
<IsvEmv>	N	boolean	Specify 'true' to receive the ReceiptGroup response elements. The ReceiptGroup response elements may include EMV information (required for printed receipts). If this parameter is not present (or set to 0), EMV response elements (if available) are included in the Terms response element.
<ReturnRawResults>	N	boolean	Specify 'true' to return the transaction response directly from 1stMILE MiddleWare. Refer to the 1stMILE MiddleWare documentation for more information.
<ReturnImageEncoding>	N	string	If a signature image is captured as part of a credit card transaction or through the stand-alone signature capture dialog, this parameter specifies the ASCII encoding method for returning the image. If this parameter is not specified in the request, no image will be returned. See REST 'ReturnImageEncoding' for valid values.
<ReturnImageFormat>	N	string	Identifies the image format in which you would like the signature image returned. See REST 'ReturnImageFormat' for valid values.
<ReturnImageHeight>	N	numeric	Specifies the image height in pixels.
<ReturnImageWidth>	N	numeric	Specifies the image width in pixels.
<GiftCardAction>	N	string	When a TransactionType is specified as GiftCard, this parameter indicates the operation to perform. See REST 'GiftCardAction' for valid values.

Additionally, any parameter supported by 1stMILE MiddleWare is also acceptable as an XML element and will be passed to the library.

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Response XML

The transaction response is returned as text/xml content with the following definition.

Value	Required	Type	Description
`<TransactionResponse>`	Y	element	
`<Result>`	N	string	Identifies the result of the transaction. See REST 'Result' for valid values.
`<Reason>`	N	string	In the case of an Error, this field contains details about the error.
`<AuthCode>`	N	decimal	This contains the colon delimited result code for the transaction. Refer to the Online Merchant Center Integration Guide Appendices for more information.
`<OrderID>`	N	string	This is the Order ID for the transaction.
`<TransactionID>`	N	string	This is the Transaction ID for the transaction.
`<MerchantOrderNumber>`	N	string	If supplied in the request, this is the Order Number associated with the transaction.
`<RefCode>`	N	string	For credit card 'PreAuth' transactions, this is the reference code that must be used to perform a Post/Capture.
`<AccountNumber>`	N	string	This is the masked account number on which the transaction was performed.
`<Duplicate>`	N	string	This indicates the transaction is a duplicate of a previous transaction.
`<Partial>`	N	boolean	This indicates the transaction was approved for a partial amount. Inspect the Amount value for the amount that was approved.
`<Amount>`	N	boolean	This indicates the amount for which the transaction was processed.
`<RefId>`	N	boolean	If supplied in the request, this element contains the supplied value.

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<RegisterId>	N	numeric	If supplied in the request, this is a reflection of the supplied value.
<PayType>	N	boolean	This indicates the payment type, if available. Refer to the 1stMILE MiddleWare Integration Guide for valid values.
<TermId>	N	boolean	This optional tag may be included to identify the Terminal on which the transaction originated.
<MerchantId>	N	boolean	This optional tag may be included to identify the Merchant.
<Balance>	N	string	Balance remaining on card (not supported for all card types).
<Terms>	N	string	For certain credit cards (e.g., CarCareONE, Goodyear, Drive Card, and Service Central), additional information may be required for printed receipts. This information is included in this tag. If the IsvEmv parameter was not provided, EMV information may be provided in this element for EMV transactions. The value may include the 2-character sequence [] to indicate where newlines would be used.
<ReceiptGroup1> **<ReceiptGroup2>** **<ReceiptGroup3>**	N	string	If the IsvEmv parameter was provided, the response will contain additional elements that may be used for printing a receipt. Each ReceiptGroup contains name/value pairs with a "|" (pipe) as a delimiter and a ":" (colon) as a separator between the name and value. Not all pairs will be present at all times. Additional elements may be added in the future. Refer to the 1stMILE MiddleWare Integration Guide for more information.
<OdometerReading>	N	numeric	For Fleet cards, if the Odometer service prompt was required for the transaction, it is included in this tag which should be printed on receipts.

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<VehicleId>	N	numeric	For Visa Fleet and Wright Express fleet cards, if the Vehicle ID or Vehicle# service prompt was required for the transaction, it is included in this tag which should be printed on receipts.
<PurchaseDevSequenceNumber>	N	string	For Wright Express fleet cards, if the Purchase Dev. Seq. # service prompt was required for the transaction, it is included in this tag which should be printed on receipts.
<Token>	N	string	For Tokenized transactions, whether creating a new tokenized account or using an existing tokenized account to perform a transaction, the value indicates the Merchant Partners token that is required for subsequent transactions against the tokenized account.
<Last4Digits>	N	string	For Tokenized transactions, this value indicates the last four digits of the payment account for the tokenized account.
<EntryMethod>	N	string	This indicates the entry method, if available. Valid values are SWIPED or KEYED. Additional values may be added at a future date.
<Signature>	N	string	If a signature image is captured in the process of the transaction and the ReturnImageEncoding parameter was specified in the request, the image is returned as ASCII text. If ReturnImageEncoding is not specified with the request, no image is returned. Refer to the 1stMILE MiddleWare documentation for more information.

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JSON

An alternative request method is to POST a JSON payload.

Example:

```
POST / HTTP/1.1
Host: 127.0.0.1:8443
Content-Type: application/json

{
    "transactionType": "Sale",
    "transaction": {
        "amount": 1.25,
        "merchantOrderNumber": "20200821-1101"
    }
}
```

This example sends a request for a credit card sale in the amount of $1.25 to be processed on the local desktop.

Request JSON

Refer to the 1stMILE MiddleWare Integration Guide for specifications of all supported JSON request payloads.

Response JSON

Refer to the 1stMILE MiddleWare Integration Guide for specifications of all supported JSON response payloads.

Example:

```
[{
        "status": "SUCCESS",
        "receiptGroup1": {
            "transactionType": "SALE",
            "transactionID": "9876543210",
            "transactionResult": "APPROVED",
            "account": "XXXXXXXXXXXX5454",
            "timestamp": "8/21/2020 10:02:07 AM",
            "merchantOrdernumber": "20200821-1101",
            "amount": 1.25,
            "entryMethod": "KEYED",
            "accountType": "MasterCard",
            "name": "James D. Customer",
            "orderID": "1234567890",
            "authCode": "TEST",
            "refCode": "9876543210-TEST",
            "avsResult": "N",
            "cvv2Result": "M"
        },
        "additionalDetails": {
```

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```
            "expiration": "12/2020",
            "last4digits": "5454",
            "message": "Sale"
        }
    }
]
```


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