

flexEngage™ Integration Guide for REST Receipt API Version 1.x

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Disclaimer

flexEngage™ REST Receipt API v1.x is a "Feature Release". This new version includes several new features you must familiarize yourself with prior to installation on existing or new systems. Some of the new features improve/change the workflow of the Point of Sale that may impact existing users. Incorrect implementation could have a negative impact on your receipt data. flexEngage strongly advises against upgrading any existing integrations or implementing new integrations unless you have met the following conditions:

- Attended the mandatory onboarding meeting with flexEngage technical team to review implementation and testing plans
- Thoroughly read the Integration Guide for this release
- Fully tested this release in a controlled production-like test lab environment
- Reviewed and completed the "flexEngage Integration Test Guide" document for this release specific to this upgrade or installation
- Understand how these changes impact existing flexEngage installations when upgraded

1. INTRODUCTION

The primary objective of this integration is to send as much customer, transaction, tender and item information, as possible to flexEngage. flexEngage then digitizes the entire transaction for the end consumer, and provides detailed statistics & analytics for the merchant.

This Integration Guide provides integrators with detailed descriptions on how to connect with and test the flexEngage web services. This guide does not provide instructions on Point of Sale (POS) specific integration steps.

1.1 Intended Audience

This guide is for an integrator/developer that is looking to integrate a Point of Sale (POS) system with the flexEngage web services. This integration provides digital receipts to consumers as part of the checkout process. This document should be used in conjunction with the *flexEngage Integration Test Guide*, which provides steps to test the POS integration and ensure the digital receipt functionality performs as expected. The Technical Services team will provide you with the flexEngageIntegration Test Guide.

1.2 Web Services Info

RAML

The RAML for this web service can be found here: <http://docs.flexreceipts.com/receipts-api>

Endpoints

The Technical Services team will provide you with the endpoint connectivity information for both the test and production environments through the *Merchant Access Form*.

Test:

There are two supported endpoints depending upon the environment. Your flexEngage Integration Specialist will supply you with the endpoints to use for your setup, as well as the information on how to connect to the endpoints.

Legacy Environment (supports Latin-1 character sets):

`https://api-test.flexreceipts-lab.com/ws/rest/v1/merchants/[MERCHANT-ID]/receipts`

Current Environment (supports UTF-8 character sets):

`https://api-test-02.flexreceipts-lab.com/ws/rest/v1/merchants/[MERCHANT-ID]/receipts`

(Note: Replace [MERCHANT-ID] with the merchant ID that was provided by flexEngage.)

Production: The endpoint for the production environment is given at the time of production deployment as coordinated with flexEngage.

The fully-qualified absolute URL of the endpoint/s should be configurable values on the POS to allow flexibility - move from one environment to another (e.g., test environment to production environment).

SSL Certificates

All communication with flexEngage web services are done over an encrypted **TLS connection**. For performance purposes and because of the "Poodle" vulnerability with SSL v3.0, flexEngage is optimized for TLS 1.2. The POS should use the **root certificate** and not sub certificates for api.flexEngage.com or api-test.flexEngage.com.

TLS/SNI Support

You should be using a TLS implementation that supports Server Name Identification (SNI). If you do not, you could encounter certificate issues with one or more of our environments. Contact flexEngage if your TLS implementation does not support SNI.

Web Service Authentication

flexEngage provides the Merchant with API keys to be used as credentials for all web service requests. Credentials must be transmitted using HTTP Basic Authentication. Depending upon the programming language used, there should be a library which makes this easy to do.

Receipt Language

flexEngage uses store locale mappings to determine receipt language. To use this feature, you must:

- Share your store group locales with flexEngage Technical Services. The flexEngage Technical Services team will map those stores to groups with the correct localization.
 - Example, store #9999 is in Montreal, so it needs to be in the fr_CA store group to get the fr_CA version of the receipt.
- Send the ISO 2 character language abbreviation (en_US, en_CA, es_ES) as “Accept-Language” in the http header of the Receipt message.
 - Using this header will override any localization configurations in the first bullet point.

Accept-Language: fr_CA

Content-Length: 11195

Host: api.flexEngage.com:443

Connection: Keep-Alive

User-Agent: Apache-HttpClient/4.1.1 (java 1.5)

Authorization: Basic YUdjMGRtdHdiROZzZDFZNEs.....

1.3 Configurability

The POS integration with flexEngage (e.g., Web Services, POS UI) should be configurable so that operations can be modified without code changes. See **Appendix 1** for examples of features that should be configurable.

1.4 Testing Info

In order to test with flexEngage you must contact flexEngage Support to setup a test account. flexEngage must be notified in advance of any testing in the flexEngage integration test environment. Contact your flexEngage representative for instructions on how to contact flexEngage Support.

NOTE: Testing in the flexEngage Production environment is strictly prohibited. All production deployments must be coordinated with the flexEngage team ahead of time, and a flexEngage representative must be involved with the deployment.

In the event that post-deployment production troubleshooting (that cannot be satisfied in the flexEngage test environment) is required, the integrator must submit a written request to flexEngage to schedule a limited test against the flexEngage production environment. The following restrictions apply to all testing requests:

- *No automated or high volume testing.*
- *Only flexEngage approved versions of integration code can be used to communicate with the flexEngage production environment;*
- *All code changes must be tested with flexEngage in the test environment prior to being deployed to the production environment.*
- *Testing scope and timeframe should be documented in writing and should include:*
 - *Date and time of the test.*
 - *Duration of the test.*
 - *Number of locations and registers (POS) involved in the test.*
 - *Number of transactions by transaction type that will be sent.*
 - *A copy of the written test plan that includes the test cases/scenarios that will be run.*

Fake Email Addresses

Intentionally sending fake email addresses when testing is prohibited. flexEngage recommends that you register a test domain name and create a test “catch-all” email account where any email sent to that domain is sent to the “catch-all” email account. This allows you to create an unlimited number of valid test email addresses. Most email providers have this feature. Below is a screenshot of that setting in Godaddy email. For additional information please contact flexEngage Support.

Catch-all setting in Godaddy email

Quota: 0 MB available

☒ Make this a catch-all account ?

☐ Send copy to:

SMTP relays per day

☒ Enable SPAM filter

☐ Enable auto reply

Catch-All Accounts

Catch-all accounts receive messages sent to any email addresses that aren't set up for a particular domain. They're commonly used to catch email sent to a misspelled user name. For example, if "kathy@coolexample.com" is a catch-all account, it receives email sent to "cathy@coolexample.com" when "cathy" is not a valid email address for coolexample.com.

1.5 Offline Mode

If the API is not reachable (e.g., store network connectivity is down), then failed API requests should be queued up and sent when access to the API is available again.

This can be accomplished by setting up a folder where failed API requests are stored and reprocessed from when access to the API is restored.

2. RECEIPT PROCESS FLOW

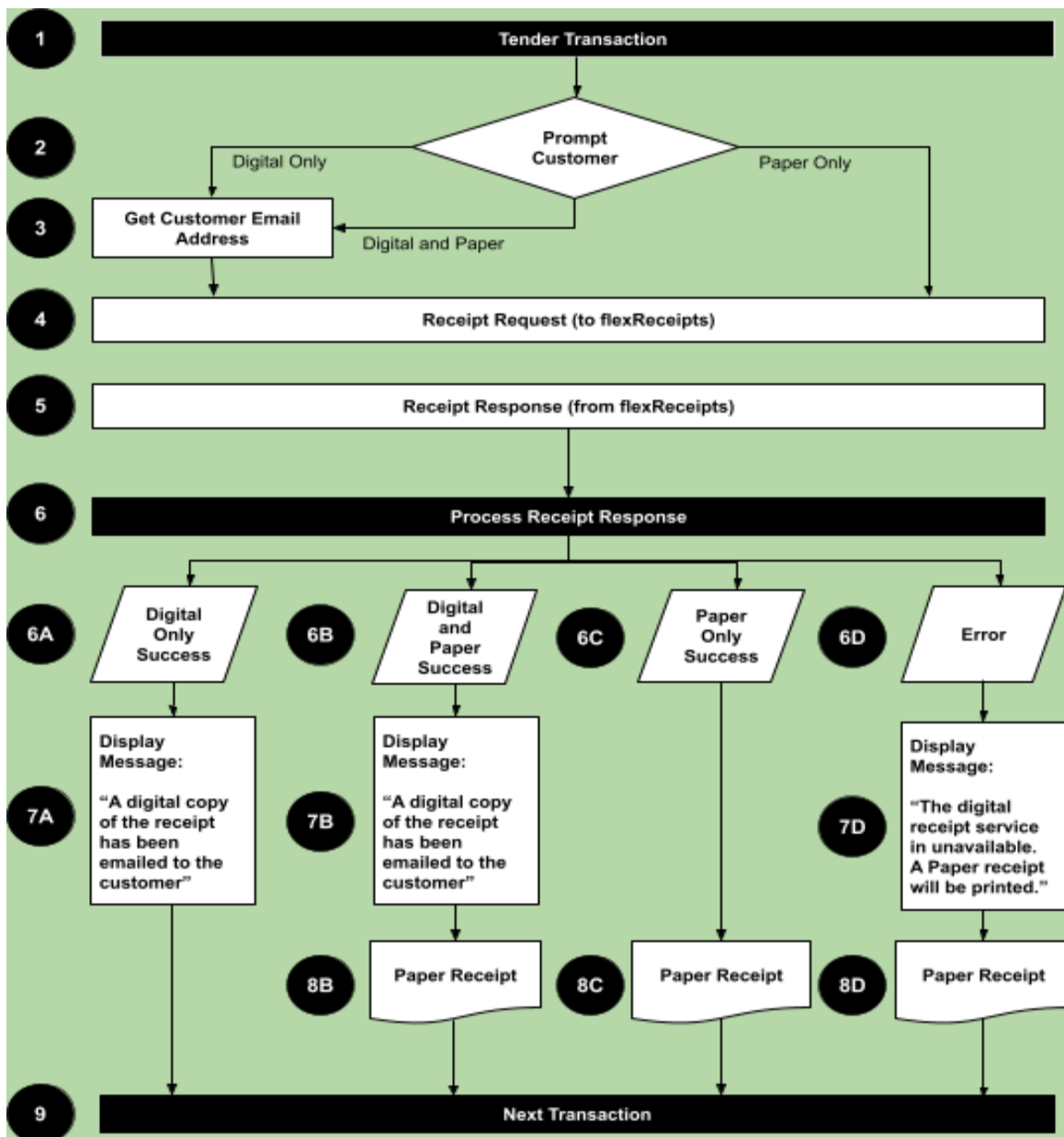
There is one (1) main service that the POS uses to create a digital receipt:

Receipt

This service sends as much customer, transaction, tender and item information, as possible to flexEngage. flexEngage then digitizes the entire transaction for the end consumer, and provides detailed statistics & analytics for the merchant.

<i>Receipt Request</i>	POS sends transaction information to flexEngage and determines whether to generate a digital receipt.
<i>Receipt Response</i>	<p>flexEngage returns a message to the POS, providing a digital receipt confirmation or errors/warnings.</p> <p><i>NOTE:</i> <i>The POS should not close out the transaction until the Receipt Response is received and processed.</i></p>

The below flow chart gives an overview of how flexEngage expects to interact with the POS during the checkout process.



Process Flow Step Breakdown:

Step 1: The POS tenders the current transaction.

Step 2: The POS prompts the Customer or Cashier for receipt type (i.e., Digital Only, Digital and Paper, or Paper Only).

Step 3: For 'Digital Only' and 'Digital and Paper', either the Customer enters their email address OR the POS automatically populates the Customer's email address from its database.

Step 4: The POS issues a *Request* web service call to flexEngage.

Step 5: flexEngage replies to the POS with a *Response*

Step 6: The POS processes the *Response* in 1 of 4 conditions:

6A: 'Digital Only' Success - A 'Digital Only' request was received and successfully processed.

6B: 'Digital and Paper' Success - A 'Digital and Paper' request was received and successfully processed.

6C: 'Paper Only' Success - A 'Paper Only' request was received and successfully processed.

6D: Error - An error occurred that prevented a digital receipt from being processed.

Steps 7: The POS may need to display a confirmation message.

7A: The POS displays a confirmation message, *"A digital copy of the receipt has been sent to the customer."*

7B: The POS displays a confirmation message, *"A digital copy of the receipt has been sent to the customer."*

7D: An error occurred. The POS displays a notification message, *"The digital receipt service is unavailable. A paper receipt will be printed."*

Step 8: The POS may need to print a paper receipt.

8B: Since the customer requested both a 'Digital and Paper' receipt, the POS must also print a paper receipt.

8C: Since the customer requested a 'Paper Only' receipt, the POS must print a paper receipt.

8D: Since an error occurred, a digital receipt cannot be created, and the POS must print a paper receipt.

Step 9: The POS proceeds with the next transaction.

NOTE: *The web service call follows a request/response protocol. Your integration is expected to read and*

process the flexEngage service responses. The responses contain info needed for your POS workflow.

3. RECEIPT SERVICE (SENDING THE DIGITAL RECEIPT)

The purpose of this service is to send customer, transaction, tender and item information to flexEngage. The entire transaction is then digitized for the end consumer. Detailed statistics and analytics are provided to the merchant.

Request: This is the web service call made by the POS to send transaction information to flexEngage. It determines whether to generate a digital receipt.

Response: This message is returned by flexEngage to provide the POS with additional instructions for if printing a receipt is required and to communicate a digital receipt confirmation or error/warning message.

NOTE: *The POS should not close out the transaction until the Response is received and processed.*

3.1 Request

You should be familiar with the Request JSON message. Refer to the online RAML for a full description of all of the elements.

3.1.1 Request Message

The Request Message is an REST web service call and the JSON contains 4 types of data:

- Customer Information
- Receipt / Transaction Information
- Store Information
- Workstation Information

Customer, Receipt/Transaction, Store, and Workstation Information varies depending on the transaction. Specific examples on how to send these elements are addressed later in this document.

3.1.2. Request Details

Review the complete JSON in the online RAML for complete information. This section only focuses on areas that require special attention.

Customer Information

Customer Information is required to uniquely identify the customer and associate them to the transaction. Send all types of Customer Information available, as they can be used to uniquely identify the customer.

1) Email Address

If a customer requests a digital receipt sent to one's email ('Digital Only' or 'Digital and Paper'), an email address must be sent.

SAMPLE	NOTES
"emailAddress": "jane.doe@email.com",	<p>Digital receipt transactions ('Digital Only' & 'Digital and Paper') <u>REQUIRE</u> an email address.</p> <p>'Paper Only' receipt transactions can set the "emailAddress" element to null if no email address is on file.</p>

2) Phone Number

If the customer record has a phone number, it should be sent.

SAMPLE	NOTES
"telephone": { "areaCode": "000", "localNumber": "0000000" }	US phone numbers should use both areaCode and localNumber and send only numeric values.

NOTE: If your flexEngage package includes SMS support, the content format is different. Refer **Appendix 8: SMS** for details on how to send an SMS number.

Receipt Information

The JSON contains information about the receipt and transaction. Send as much of this information as possible. See online RAML for details about the elements that should be sent.

Header

flexEngage has a **"header"** element in the JSON that allows multi-line text at the top of the receipt in a location determined by the receipt template. This is typically used for dynamic text that needs to appear for special cases, such as employee purchase information or "Customer Receipt Copy". **"header"** supports **"/n"** for a line break and **"/t"** for a tab.

EXAMPLE	WOULD DISPLAY AS
"header": "Customer Receipt Copy/nEmployee Discount",	Customer Receipt Copy Employee Discount

Receipt Footer (Dynamic)

flexEngage provides **additionalInfo1**, **additionalInfo2**, **additionalInfo3**, **additionalInfo4** and **additionalInfo5** multi-line elements for display at locations determined by the receipt template. This can be dynamic text sent by the POS (e.g., *****You Saved \$10.00*****)

EXAMPLE	WOULD DISPLAY AS
"additionalInfo1": " We Appreciate Your Business! ", "additionalInfo2": " *** You Saved \$10.00 *** ", "additionalInfo3": null,	We Appreciate Your Business! *** You Saved \$10.00 ***

Multiple Transaction Discounts

flexEngage supports multiple transaction level discounts (promos) per receipt and allows for custom labels for each discount (e.g., "AARP Discount")

EXAMPLE	WOULD DISPLAY AS
"discounts": [{ "amount": 10.0 , "name": " 10% Discount " } { "amount": 15.0 , "name": " AARP Discount " }],	10% Discount (10.00) AARP Discount (15.00)

Loyalty Information

If a loyalty number is associated with the customer, send as much loyalty information as is available. flexEngage collects the following loyalty information:

SAMPLE	NOTES
"loyalty": { "number": " 1234 ", "customerName": " Jim Smith ", "expirationDateTime": " 2014-01-01 ", "balance": 1.0 , "misc": " Points Earned Today: 20 " },	<ul style="list-style-type: none"> • Loyalty Number • Loyalty Customer's Name • Loyalty Expiration Date • Loyalty Point Balance • Misc. Loyalty information

Credit Card Information

For credit/debit transactions, send as much info as possible:



SAMPLE	NOTES
<pre>"tenders": [{ "tenderTypeCode": "CreditDebit", "dateTime": "2017-01-12T00:00:00+05:00", "amount": 5397.87, "creditDebit": { "first6Digits": "000000", "last4Digits": "0000", "typeCode": "Visa", "name": { "firstName": "Jane", "lastName": "Customer" }, "expirationDate": "0101" }, "authorizationCode": "123335", "miscInfo": null, "emv": { "aid": "123S805290823G09532A09", "appLabel": "VISA", "appPreferredName": "Chase Visa" }, "currency": "USD" }],</pre>	<p>First 6 and Last 4 digits of the credit/debit card.</p> <p>tenderTypeCode and typeCode must match the enumeration in the online RAML.</p> <p>First Name and Last Name should be sent from the card's track data.</p> <p>Expiration date should be sent in the format YYMM.</p>

Signature Images

flexEngage supports sending a BASE64BINARY image to be displayed on receipts. The signature areas that are available are:


EXAMPLE	NOTES
<pre>"signature": { "base64Image": "...base64binary...", "imageMimeType": "image/png", "dateTime": "2011-06-23", "text": "I agree to pay...." },</pre>	<p>Signatures are available for: Tenders, Terms, and Transaction Signature</p> <p>base64Image should contain the base64binary code for the image file.</p>

	signature can contain multi-line terms that are being signed.
--	--

Supporting Documents (Links)

flexEngage supports adding dynamic links in various places of the receipt data. Multiple links are available for any section that supports Supporting Documents.

EXAMPLE	NOTES
<pre> "items": [{ "name": "Whirlpool® 5.3 Cu. Ft. Cabrio® High Efficiency Top Load Washer and 8.8 Cu. Ft. Electric Dryer", "description": null, "classCode": null, "sku": "20170112029", "upc": "20170112029", "price": 164.64, "total": 164.64, "priceNotation": "T", "quantity": { "value": 1, "units": 1, "unitOfMeasureCode": "Each" }, "miscInfo": "Total Monthly Payment: \$164.64\nNumber of payments: 33\nTotal Price: \$5,432.57", "supportingDocuments": { "Review 1" : {"name" : "Write a review", "url" : "https://www.rentacenter.com/appliances/washers-and-dryers/ whirlpool-5-3-cu-ft-cabrio-high-efficiency-top-load-washer-and-8 -8-cu-ft-electric-dryer-%E2%80%93-chromeshadow-wtl850dcpair /p/100018878"}, "Financing 1" : {"name" : "Click here for Rental Agreement", "url" : "https://www.rentacenter.com/how-rac-works/s/how-rent-a-cent er-works"}, "Warrenty 1" : {"name" : "Click for Worry-Free Warranty Information", "url" : "https://www.rentacenter.com/how-rac-works/rent-a-center-wor ry-free-guarantee"} } }, </pre>	<p>Supporting Documents are available for: items, tenders, terms, and at a receipt level (bottom of receipt)</p> <p>supportingDocuments are optional and can be omitted if not required. There can be multiple supportingDocuments in any section.</p>



[Whirlpool® 5.3 Cu. Ft. Cabrio® High Efficiency Top Load Washer and 8.8 Cu. Ft. Electric Dryer](#)

20170112029

Total Monthly Payment: \$164.64

Number of payments: 33

Total Price: \$5,432.57




[Write a review](#)

[Click for Worry-Free Warranty Information](#)

[Click here for Rental Agreement](#)

\$164.64T

1 × \$164.64

Terms with Signatures (and without) and Links

flexEngage supports multiple multi-line text blocks for various types of terms and conditions. The terms can be sent with or without a BASE64BINARY signature image and date to be displayed on receipts. A link can be added as well.

EXAMPLE	NOTES
<pre> "terms": [{ "signature": { "base64Image": "...base64binary...", "imageMimeType": "image/png", "dateTime": "2017-01-06", "text": "I have read and accept the terms and conditions of my lease(s) and purchase." }, "description": "I acknowledge that I am entering into a lease agreement of 24 months with Aaron's and agree to the monthly payments and interest described in the Terms and Conditions at the link below. I am required to make monthly payments on time and agree to a late penalty and/or possible repossession of merchandise by Aaron's in the event that I fail to pay.", "supportingDocuments": { "term1": { "name": "Click for Terms & Conditions", "url": "https://www.yourstore.com/t-terms.aspx" } } }], </pre>	<p>Terms can contain an optional signature and date.</p> <p>text can be used for terms being signed if a signature is required.</p> <p>description can be used for terms if no signature is required.</p> <p>signature is optional and can be omitted if a signature is not required.</p> <p>supportingDocuments is optional and can be omitted if not required. There can be multiple supportingDocuments.</p>



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Terms and Conditions

I acknowledge that I am entering into a lease agreement of 24 months with Aaron's and agree to the monthly payments and interest described in the Terms and Conditions at the link below. I am required to make monthly payments on time and agree to a late penalty and/or possible repossession of merchandise by Aaron's in the event that I fail to pay.

[Click for Terms & Conditions](#)

I have read and accept the terms and conditions of my lease(s) and purchase.

John Smith
01/06/2017

Multiple Tender Types

flexEngage supports multiple tender types per receipt (i.e., Cash, Visa, Check). Each tender type now has the following structure:

SAMPLE	NOTES
<pre>"tenders": [{ "tenderTypeCode": "Cash", "dateTime": null, "amount": 1800, "creditDebit": null, "miscInfo": null, "currency": "USD" }, { "tenderTypeCode": "GiftCard", "dateTime": null, "amount": 250, "giftCard": { "accountNumber": "*****3222", "balance": 0, "authNumber": "1234556" }, "miscInfo": null, "emv": null, "currency": "USD" }, { "tenderTypeCode": "CreditDebit", "dateTime": "2014-01-01T00:00:00+05:00", "amount": 100, "creditDebit": {</pre>	<p>See online RAML for complete information on tender types.</p> <p>See online RAML for list of valid tender types.</p> <p>The JSON on the left shows a transaction that was tendered with cash, a gift card, and a credit card.</p>



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```
"first6Digits": null,  
"last4Digits": "6332",  
"typeCode": "VISA"  
},  
"authorizationCode": "98765",  
"miscInfo": null,  
"emv": {  
  "aid": "A0000000031010",  
  "appLabel": "VISA DEBIT",  
  "appPreferredName": null,  
  "additionalAttributes": {  
    "CARD ENTRY MODE": "Chip Read",  
    "EMV TAG 5F2A": "0840",  
    "EMV TAG 8A": "00",  
    "EMV TAG 95": "0000008000",  
    "EMV TAG 9B": "E800",  
    "EMV TAG 9F10": "06010A03600000",  
    "EMV TAG 9F34": "1E0300",  
    "EMV MODE": "ISSUER",  
    "EMV CVM": "SIGNATURE",  
    "EMV CHIP INDICATOR": "CONTACT"  
  }  
},  
"currency": "USD"  
}  
],
```

Payment Information

Cash	\$1,800.00
GiftCard	\$250.00
Gift Card: *****3222	
Auth Number: 1234556	
Balance: \$0.00	
VISA *****6332	\$100.00
Auth Num: 98765	
AID: A0000000031010	
App Label: VISA DEBIT	



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Multiple Taxes

flexEngage supports multiple taxes (e.g., Local, VAT) per receipt. Each tax has the following structure:

EXAMPLE	WOULD DISPLAY AS / NOTES				
<pre>"taxes": [{ "description": null, "percent": 0.06, "taxableAmount": 1499, "amount": 89.94, "taxTypeCode": "Sales" }, { "description": "County Tax", "percent": 0.045, "taxableAmount": 1000, "amount": 45, "taxTypeCode": "Sales" }],</pre>	<div><p>Taxes</p><table><tr><td>TAX: 6% on \$1,499.00</td><td>\$89.94</td></tr><tr><td>County Tax: 4.5% on \$1,000.00</td><td>\$45.00</td></tr></table></div> <p>Not sending description (or setting to null) results in the word "Tax:" being printed on the digital receipt.</p>	TAX: 6% on \$1,499.00	\$89.94	County Tax: 4.5% on \$1,000.00	\$45.00
TAX: 6% on \$1,499.00	\$89.94				
County Tax: 4.5% on \$1,000.00	\$45.00				

Multiple Fees

flexEngage supports multiple fees per receipt. It has the following structure:

EXAMPLE	WOULD DISPLAY AS / NOTES				
<pre>"fees": [{ "amount": 119.99, "description": "In-Home Delivery" }, { "amount": 20.99, "description": "Installation Fee" }],</pre>	<div><p>Fees</p><table><tr><td>In-Home Delivery</td><td>\$119.99</td></tr><tr><td>Installation Fee</td><td>\$20.99</td></tr></table></div> <p>amount is required for the fee to display on receipt.</p>	In-Home Delivery	\$119.99	Installation Fee	\$20.99
In-Home Delivery	\$119.99				
Installation Fee	\$20.99				

Item Information

Send as much of this information as possible for each item on the receipt. Limiting information only to what is displayed on the paper receipt limits the type of data that can be used by head office reporting. See online RAML for details about the elements to be sent.

ItemPrice and ItemTotal

Use **price** for the Unit Price if it is available. Use **total** for the Total Amount the customer is paying for the quantity purchased.

SAMPLE	NOTES
<pre> "items": [{ "price": 5.0, "total": 9.0, "priceNotation": "N", "quantity": { "value": 2, "units": 2, "unitOfMeasureCode": "EACH" } "discounts": [{ "amount": -1.0, "name": "Coupon" }] }] </pre>	<p>Note: flexEngage DOES NOT calculate totals or amounts. Calculations need to happen before sending the value to flexEngage through the payload.</p> <p>price is for the Unit Price, including Discounts. Do not send an empty element</p> <p>total is the Total Amount the customer paid for the Item, including quantity and discounts. Do not send an empty element:</p> <p>ItemTotal = (Unit Price * Quantity) - Discount</p> <p>In the example JSON, there are 2 items, \$5 each and a \$1 off coupon. The total for the item would be \$9.</p>



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Non-taxable and Other Price Notations

Use the **priceNotation** element for any codes added to the final price on the printed receipt (e.g., "N" for non-taxable).

EXAMPLE	WOULD DISPLAY AS								
<pre>"items": [{ "name": "Candy", "sku": "0002", "price": 2.0, "total": 2.0, "priceNotation": "N", "quantity": { "value": 1, "units": 1, "unitOfMeasureCode": "EACH" } }],</pre>	<p>NOTE: The exact display will depend upon your receipt template and based upon your requirements.</p> <table><tr><th>Item</th><th>SKU</th><th>Qty</th><th>Total</th></tr><tr><td>Candy</td><td>0002</td><td>1</td><td>\$2.00(N)</td></tr></table>	Item	SKU	Qty	Total	Candy	0002	1	\$2.00(N)
Item	SKU	Qty	Total						
Candy	0002	1	\$2.00(N)						

Multiple Item Discounts

flexEngage supports multiple item level discounts per receipt and allows for custom labels for each discount (e.g., "Member Discount")

EXAMPLE	WOULD DISPLAY AS
<pre>"discounts": [{ "amount": -1.0, "name": "Coupon" } { "amount": -2.0, "name": "Member Discount" }],</pre>	<p>Coupon (1.00)</p> <p>Member Discount (2.00)</p>

Multi-line elements (line breaks)

Several elements in the flexEngage JSON support multi-line text with line breaks and tabs using a '\n' newline symbol and '\t' tab symbol:

EXAMPLE	WOULD DISPLAY AS
"additionalInfo1": "Thanks for shopping!\nHave A Great Day\tBye",	Thanks for Shopping! Have A Great Day Bye

Elements that support '\n' and '\t'

header	signature.text	additionalInfo2
items.description	deliveryPickup.instructions	additionalInfo3
miscInfo / miscText	terms.description	additionalInfo4
loyalty.misc	additionalInfo1	additionalInfo5

Special Symbols & Characters

JSON/HTML have a specific set of symbols that cannot be used in normal strings. In order to use these symbols, they must be sent as escape strings. See the below table for some examples of these symbols and corresponding characters.

&	&	"	"	'	'	<	<	>	>
---	-------	---	--------	---	-------	---	------	---	------

Below is an example of how a Store Name with the '&' symbol must be sent in the JSON in order for flexEngage to accept it. Note that '&' in the Invalid JSON string has been replaced with '&' in the Valid JSON string.

INVALID	"name": "Bed Bath & Beyond",
VALID	"name": "Bed Bath & Beyond",

A good reference to learn more about XML entities and can be found at: http://en.wikipedia.org/wiki/List_of_XML_and_HTML_character_entity_references

Custom Fields

flexEngage supports the use of custom fields at the root level of the JSON object and also on any item objects. The name of a custom field should be alphanumeric (i.e. no special characters, spaces, etc). The value of a custom field can be an integer, decimal, boolean, string, list, or object.

NOTE: When adding custom fields to the payload that need to appear on the receipt, you must let the flexEngage representative know so the representative can coordinate with the appropriate

flexEngage teams to ensure the fields are added on the receipt.

Below is an example of a payload with custom properties in bold. The names are illustrative of the type of value but this is not necessary (Note: you should name the fields based on their business purpose).

```
{
  "customer":{
    "emailAddress":"customer@example.com"
  },
  "aCustomString":"this is a custom string",
  "aCustomNumber":1,
  "aCustomDecimal":1.1,
  "aCustomBoolean":true,
  "aCustomList":["a", "b","c","d"],
  "aCustomObject":{
    "prop1":"Custom prop within a custom object",
    "prop2":"Custom prop within a custom object"
  },
  "workstation":{
    "id":"ID",
    "store":{
      "id":"storeId",
      "name":"storeName",
      "address":{
        "addressLine1":"StoreAddressLine1",
        "city":"StoreCity",
        "territory":"StoreTerritory",
        "postalCode":"00000",
        "country":{
          "value":"StoreCountry",
          "code":"US"
        }
      }
    }
  },
  "receiptType":"DigitalAndPaper",
  "receiptDateTime":"2013-11-10T15:15:17-05:00",
  "transactionType":"SaleTransaction",
  "transactionNumber":"001",
  "items":[
```



flexEngage
GO BEYOND THE SALE

```
{
  "name":"ItemName",
  "sku":"SKUNumber",
  "upc":"UPCNumber",
  "price":1.0,
  "total":1.0,
  "quantity":{
    "value":1
  },
  "aCustomString":"this is a custom string",
  "aCustomNumber":1,
  "aCustomDecimal":1.1,
  "aCustomBoolean":true,
  "aCustomList":["a", "b", "c", "d"],
  "aCustomObject":{
    "prop1":"Custom prop within a custom object",
    "prop2":"Custom prop within a custom object"
  }
}
],
"grandAmount":0.0,
"tenders":[
  {
    "tenderTypeCode":"Cash",
    "amount":0.0
  }
]
}
```

3.2 Response

3.2.1 Response Message

The *Response* Message is sent in response to your *Request*. See the “Types” section of the online RAML for details. Below are some examples of error messages.

SUCCESS - Digital Only, and Digital and Paper

SAMPLE MESSAGE	NOTES
<pre>{ "customerEmailAddress": "JANE.DOE@EMAIL.COM", "receiptId": "773ac1fe-8927-4977-b488-246d0adadadf" }</pre>	<p>HTTP Status: 200</p> <p>This response is sent when a transaction is successfully received by flexEngage.</p> <p>A unique ReceiptID is returned that can be used with the flexEngage PDF retrieval web service to get a PDF version of the receipt for printing.</p> <p>Display a POS confirmation message stating: <i>“A digital copy of the receipt has been sent to the customer.”</i></p>

SUCCESS - Paper Only

SAMPLE MESSAGE	NOTES
<pre>{ "customerEmailAddress": null, "receiptId": "773ac1fe-8927-4977-b488-246d0adadadf" }</pre>	<p>HTTP Status: 200</p> <p>This response is sent when a transaction is successfully received by flexEngage.</p> <p>A unique ReceiptID is returned that can be used with the flexEngage PDF retrieval web service to get a PDF version of the receipt for printing.</p> <p>DO NOT Display a POS confirmation message stating: <i>“A digital copy of the receipt has been sent to the customer.”</i></p>

ERROR - Invalid Merchant ID

SAMPLE MESSAGE	NOTES
<pre>{ "message": "Unauthorized Access", "code": null, "referenceId": "87d29ffb-8fdb-4d22-88a2-0b40ecbd4b2f", "errors": {} }</pre>	<p>HTTP Status: 403</p> <p>This response is received if a Merchant ID is invalid or inactive.</p>

ERROR - Data Error, including validation errors

SAMPLE MESSAGE	NOTES
<pre>{ "message": "Validation error", "code": null, "referenceId": "1d7f54e4-67d6-41c2-a590-ac0ae72df10a", "errors": { "receiptDateTime": [{ "code": null, "message": "must use ISO 8061 date format." }] } }</pre>	<p>HTTP Status: 422</p> <p>This response is received if there is a problem with the data in the <i>Request</i> and flexEngage cannot process it.</p> <p>In this case, the receipt date was sent in the incorrect format.</p> <p>Display a POS error message stating: <i>"The Digital Receipt service is currently not available. A paper receipt will be printed."</i></p> <p>A paper receipt must be printed for the customer.</p>

APPENDIX 1 - POS USER INTERFACE REQUIREMENTS

The checkout process at the Point of Sale (POS) triggers an interaction with the cashier in order to gather customer information and determine if the customer wants a digital receipt. This section has example screenshots and explanations of what is required and the expected behavior of the POS UI.

Configurability

The following information should be configurable, either stored and changeable as part of the POS setup in a configuration file, or via a setup screen:

- Ability to independently turn the POS screen prompts ON/OFF per register.
 - This allows the Merchant to disable prompting for Customer Information. For example, the Merchant may not have time to obtain email address from each customer at a high velocity location such as a concession stand. The POS should still send all captured Customer Information in the web service requests.
- Ability to independently turn the flexEngage integration ON/OFF per register.
 - This allows the Merchant to disable the integration for individual registers. For example, the Merchant may be experiencing issues at only one specific register at a store, and would not want to disable the integration at the other working registers.
- URL for web services.
 - Should allow for fully qualified URL (including https://).
 - Can have editable presets for Production, Test, and Custom.
- Merchant ID (provided by flexEngage).
- API Keys used for HTTP Basic Authentication.
- Store Information (including address if not available directly from the POS).
- Timeout setting (in seconds).
- Email domain preset buttons to speed email address entry (e.g., @gmail.com, @yahoo.com, etc).

Setup Screens

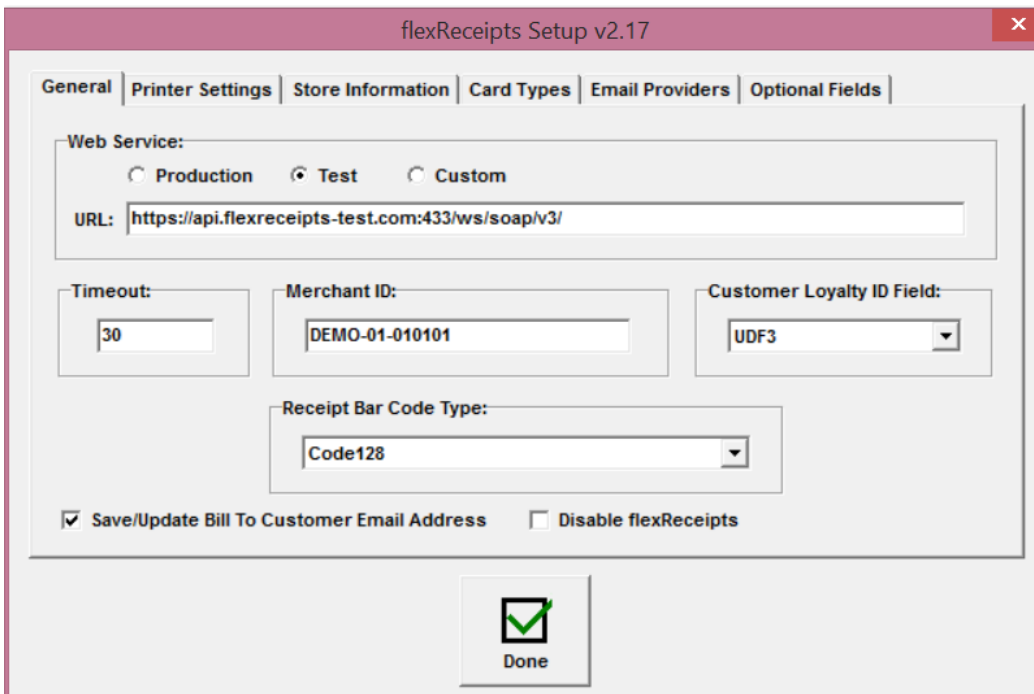
In order to make the integration configurable (per merchant, per store, per register), one or more setup screens should be created like the below examples:

General Settings

The following information is provided by flexEngage and should be configurable without modifying source code (i.e. changes in a setup screen or in a properties file):

- **Merchant ID:** This is a flexEngage Merchant ID that is provided by flexEngage and allows the merchant to send digital receipts.
- **Web Service URLs:** These are the URLs needed for different flexEngage environments:

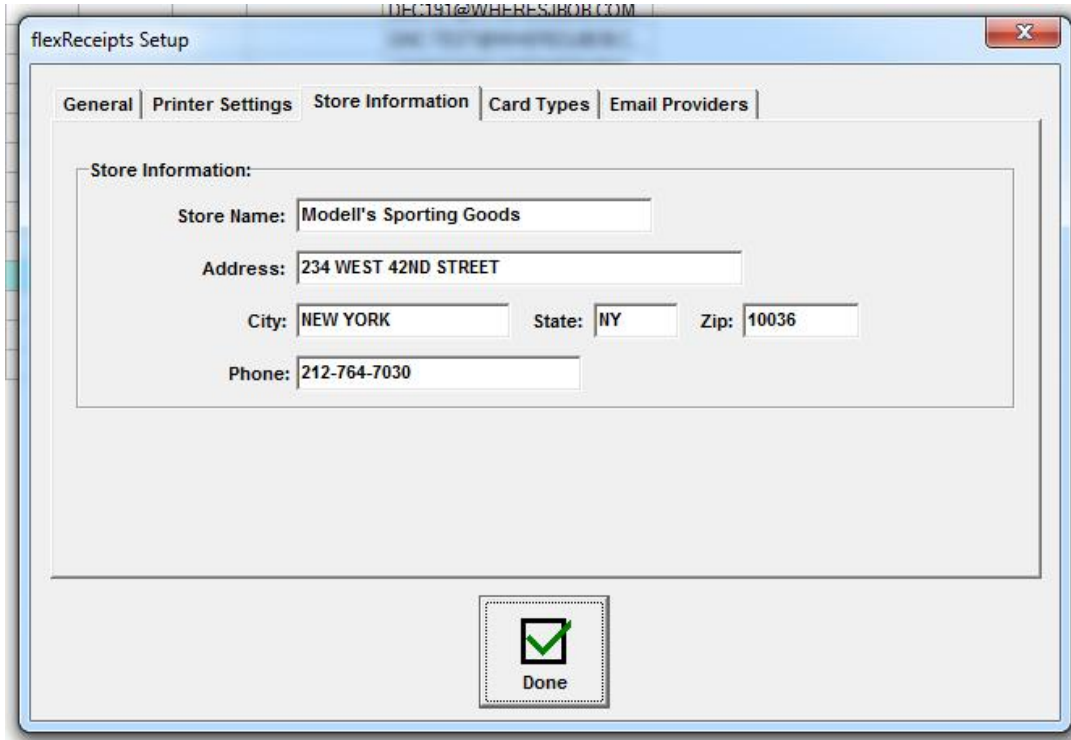
- Production - This is the URL for normal operation once a Merchant is live in production.
 - Test - This is the URL for testing purposes or troubleshooting.
 - Custom - This provides future flexibility to point to alternate environments if needed.
- All values should be written to a properties file for persistence. Updating the values on this screen should also update the properties file.
- URLs should be fully qualified (e.g., <http://flexEngage.com/>, <https://flexEngage.com/>).



The screenshot shows the 'flexReceipts Setup v2.17' window with the 'General' tab selected. The 'Web Service' section has radio buttons for 'Production', 'Test' (selected), and 'Custom'. The 'URL' field contains 'https://api.flexreceipts-test.com:433/ws/soap/v3/'. The 'Timeout' field is set to '30'. The 'Merchant ID' field contains 'DEMO-01-010101'. The 'Customer Loyalty ID Field' dropdown is set to 'UDF3'. The 'Receipt Bar Code Type' dropdown is set to 'Code128'. At the bottom, there are checkboxes for 'Save/Update Bill To Customer Email Address' (checked) and 'Disable flexReceipts' (unchecked). A 'Done' button with a green checkmark icon is at the bottom center.

Store Information

If the POS does not already store the Store Name and Store Address information in a compatible format, you may need to setup a Store Information configuration screen.



The image shows a screenshot of the 'flexReceipts Setup' application window. The window has a title bar with the text 'flexReceipts Setup' and a close button. Below the title bar is a tabbed interface with five tabs: 'General', 'Printer Settings', 'Store Information', 'Card Types', and 'Email Providers'. The 'Store Information' tab is currently selected. Inside this tab, there is a section titled 'Store Information:' followed by several input fields. The 'Store Name' field contains 'Modell's Sporting Goods'. The 'Address' field contains '234 WEST 42ND STREET'. The 'City' field contains 'NEW YORK', the 'State' field contains 'NY', and the 'Zip' field contains '10036'. The 'Phone' field contains '212-764-7030'. At the bottom center of the window, there is a button with a green checkmark icon and the text 'Done'.

flexReceipts Setup

General | Printer Settings | **Store Information** | Card Types | Email Providers

Store Information:

Store Name: Modell's Sporting Goods

Address: 234 WEST 42ND STREET

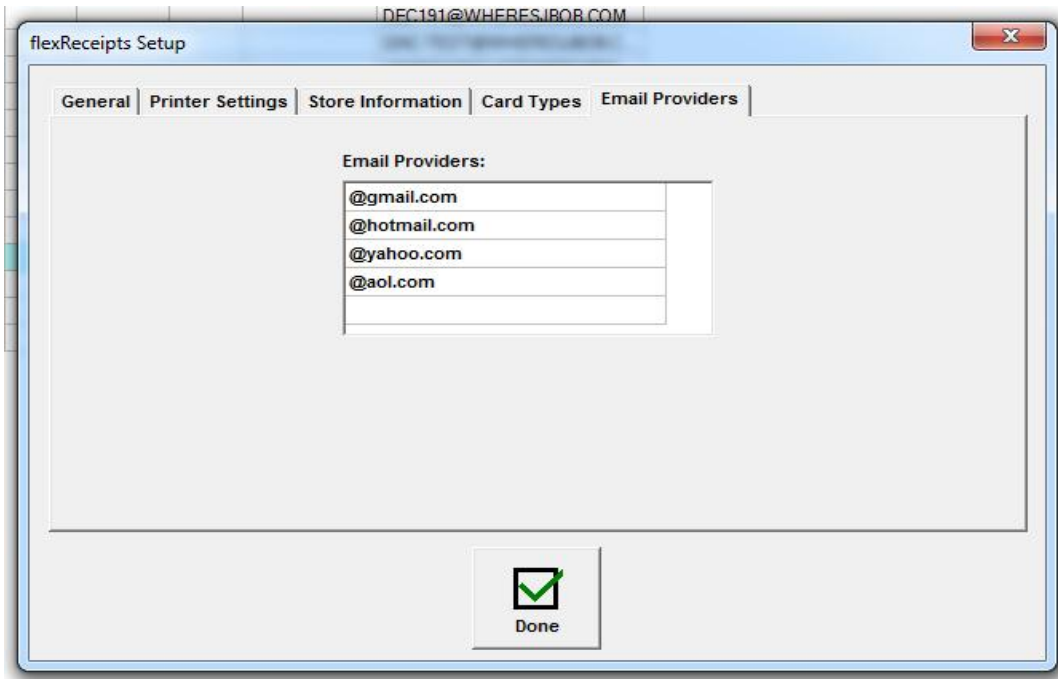
City: NEW YORK State: NY Zip: 10036

Phone: 212-764-7030

☒ Done

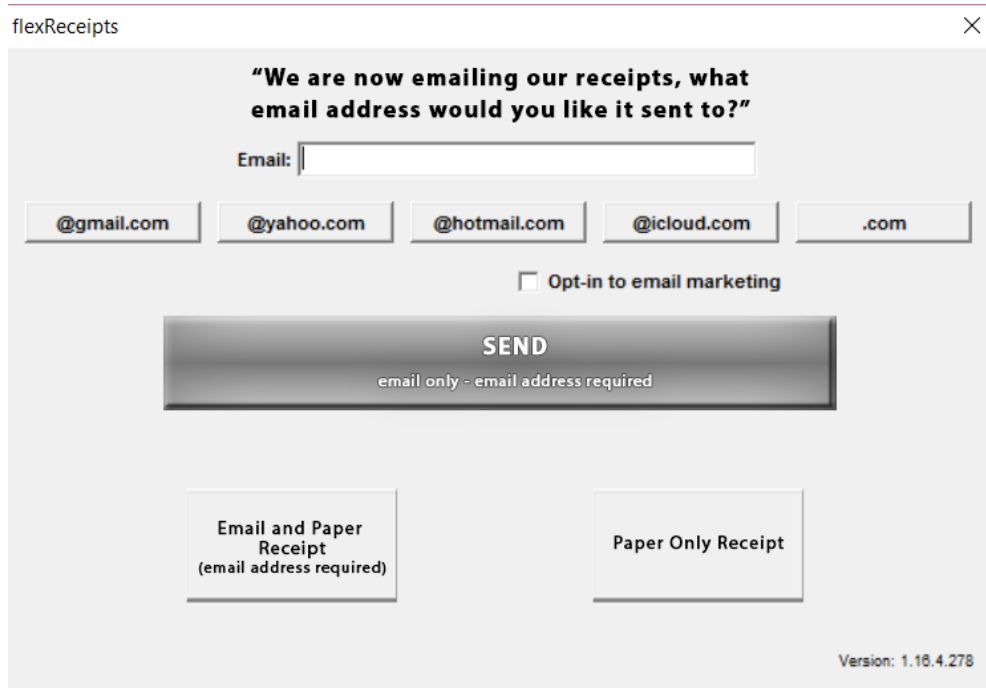
Email Providers

The email domain presets should be configurable and allow the store to add additional common domain names that are appended when pressed (e.g., @gmail.com, @hotmail.com, @yahoo.com, @aol.com, etc). Up to five configurable email domain presets should be available to speed email address entry.



Receipt Selection

When the customer is offered a digital receipt, a dialog box (such as the example below) should be presented at the POS to collect their email address and receipt option.



flexReceipts

"We are now emailing our receipts, what email address would you like it sent to?"

Email:

☐ Opt-in to email marketing

SEND
email only - email address required

Version: 1.18.4.278

Note: You will get a higher adoption rate if customers are told that you now email your receipts rather than just asking if they would like an email receipt.

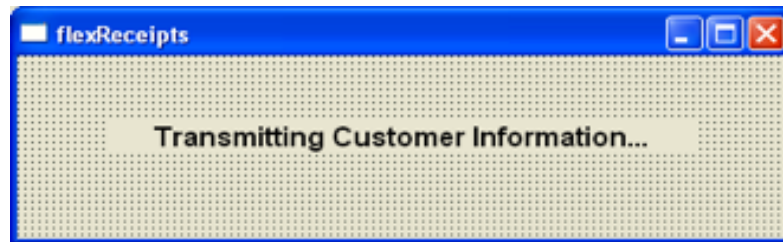
Populate the email field if the POS has the customer's email address on file for verification by the customer. **If the customer changes the pre-populated email address, you should update the POS customer record (if applicable) and send the updated email with the Request web service message.**

The email address structure should be validated before accepting the email in this form:

- The 'Email' field cannot be blank for 'Digital Receipt Only' and 'Digital Receipt + Printed Receipt'.
- The email address should not contain any illegal characters for email addresses.
- The email address should be complete with the format xxx@xxx.yyy where 'xxx' is at least 1 legal character and 'yyy' is a valid domain extension.

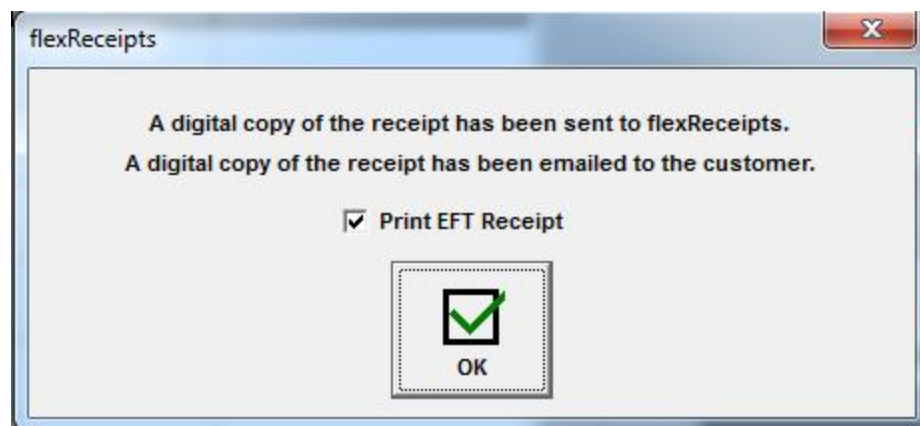
Transmission Message

When transmitting information to flexEngage an information box should be presented at the POS:



Confirmation Message

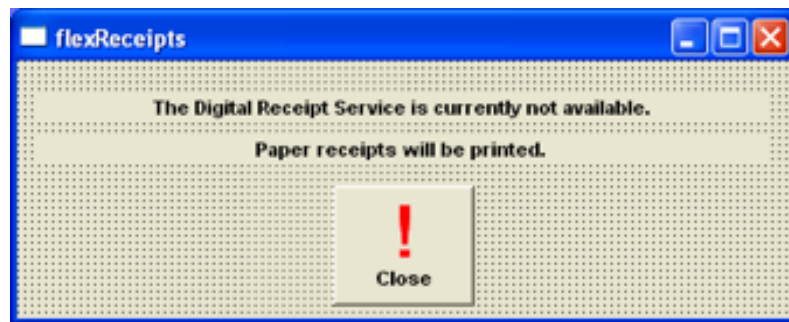
Upon a successful response from **Response** web service message (i.e., the digital receipt was successfully sent), a confirmation box should be presented at the POS to notify the cashier or customer:



Note: *Paper Only transactions should NOT display a confirmation message about the receipt being sent to flexEngage.*

Error Message

In the event that the flexEngage service is unavailable (e.g., network connection issues, power outage) or the digital receipt cannot be processed, an error message is displayed at the POS to notify the cashier or customer:



NOTE: flexEngage sends detailed error codes and error messages that will greatly reduce troubleshooting time. Descriptive exception codes and error messages should be included in the error dialog box. flexEngage will require the exception code and exception message returned by `getCustomerResponse` and `Response` in order to troubleshoot issues in a timely manner.

APPENDIX 2: RECEIPT DATA ELEMENTS

Request Message

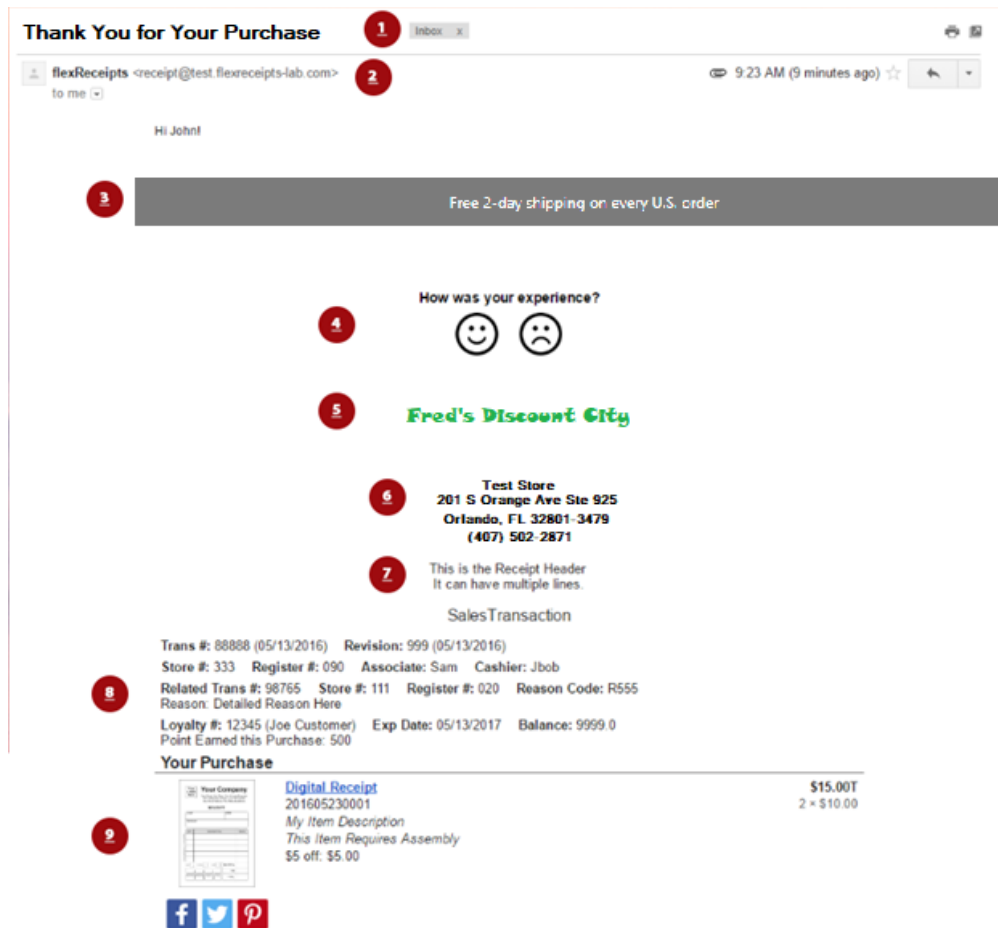
All the JSON elements referenced in the online RAML (<http://docs.flexEngage.com/receipts-api>) are expected unless otherwise indicated below or a written waiver is obtained from flexEngage. DO NOT send non-required elements that you do not use.

MAKE SURE THAT EVERYTHING THAT APPEARS ON THE PAPER RECEIPT IS SENT.

APPENDIX 3 - ANATOMY OF A DIGITAL RECEIPT

flexEngage will work with the merchant to create a suitable receipt template based on their requirements. Below is a sample email receipt that has been annotated followed by a table that identifies the JSON elements used for the annotated data. There are also expanded views of specific sections following this high level sample.

Figure 1: Sample Email Receipt Template



Sample Email Receipt Template (cont)



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13

Order Number: 00443 (Create)

Description of Order

12376

Backordered Product

\$200.00

2 × \$200.00

Prod description text

This is a cool product

BOGO Free: (\$200.00)

Fees

Fee

\$1.00

Taxes

Sale Tax: 10% on \$200.00

\$20.00

Total Amount

\$221.00

Deposits

Acct. #:34562

Deposit Amount

\$10.00

Balance

\$211.00

Payment Schedules

2nd payment

05/17/2016

\$100.00

3rd payment

06/17/2016

\$111.00

Sold To

Joe Customer (12643)

55 Main Street

Floor 2

My City, FL 33333

Phone 1: (212) 333-4444

Phone 2: (555) 222-4444

Delivery/Pickup

Date: 05/20/2016

500 Elm Street

Other town, FL 44444

Delivery/Pickup Instructions: These are the Delivery Pickup instructions.

They can be multi-line

14

Returns

Store: 77777

Register: 030

Transaction Number: 54321

Bad Item

(\$12.00)T

777777

3 × (\$5.00)

Bad Item Description

\$3 Dollars Off: \$3.00

15

Sub-Total

\$63.00

Additional Discounts

Transaction Promo

(\$10.00)

Fees

Transaction Fee

\$8.00

Tip

\$5.00

Service Charge

\$4.00

Net Amount

\$70.00

Taxes

Sales Tax: 10% on \$63.00

\$6.30

Total

\$76.30



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Sample Email Receipt Template (cont)

16	Payment Information Visa *****0000 Auth Num: 123456 AID: A0000000031010 App Label: VISA CREDIT App Preferred Name: CAPITAL ONE VISA I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS ON THIS SALES ORDER <i>John Smith</i> 05/13/2016 Joe Customer \$30.00
	GiftCard No. *****1724 Auth No. 43210 Balance: \$40.00 \$10.00
	Total Paid \$40.00 Change Due \$3.70
17	Deposit Information Acct. #555555 Deposit \$36.30 Balance Due \$40.00
18	Payment History 05/13/2016 GiftCard \$10.00 05/13/2016 Visa \$26.30
19	Sold To Joe 22 Main Street Orlando, FL 34734 Phone 1: (321) 000-0000
20	Delivery/Pickup Date: 06/01/2016 22 Elm Street New York, NY 10009 Delivery/Pickup Instructions: These are the delivery pickup instructions
21	Terms and Conditions These are the terms you just agreed to I have read and agree... <i>John Smith</i> 05/13/2016
22	This is the transaction signature <i>John Smith</i> 05/13/2016
23	Stay Connected
24	This is additional Info1 This is additional Info2 This is additional Info3 This is additional Info4
25	RETURN POLICY Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean lacinia, diam id malesuada faucibus, odio dolor tincidunt quam, et condimentum purus ex nec mauris. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Ut a dolor massa. In justo erat, rutrum et erat a, rutrum aliquam turpis. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur ipsum sapien, tincidunt id faucibus et, pellentesque nec lorem. Duis consectetur lobortis risus ac euismod. Phasellus molestie laoreet metus sit amet fringilla. Fusce gravida mollis bibendum. Praesent pulvinar, mi at aliquet porttitor, neque lectus venenatis massa, in semper ligula nibh sit amet nunc. Suspendisse ac convallis augue. Ut eros mauris, porttitor a consequat vitae, consectetur ac neque. Aliquam a tristique dui, at ornare arcu.
26	 12345678



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Sample Email Receipt Template (cont)

27



COUPONS

28

Send a *Smarter* Receipt



Valuable *Features* and Insights

 Supports Omnichannel Branding Ensures consistent messaging and quality across online and in-store receipts.	 Get Insights from Every Sale A rich analytics dashboard reveals sales trends, consumer behaviors, market basket analysis and more.	 Convenient User Portals Helps retailers and consumers manage their receipts in one central location.
 Simple POS Integration Our digital receipt technology is easy to integrate. It works with any retailer or POS company.	 Quick and Easy Checkout Save time with instant customer recognition via email, phone, loyalty or credit card.	 Robust Technology Does not infringe on PCI compliance. Utilizes the ARTS digital receipts schema.

29

This digital receipt has been sent using flexReceipts, a free service that allows you to easily store and organize all of your receipts in one central place. Never lose another receipt again! [Sign up now.](#)

To make sure our emails reach your inbox, please add receipt@test.flexreceipts-lab.com to your address book.


Sample Email Receipt Annotation Key

The table below identifies the Merchant (Web) Portal and RAML elements used in the annotated email receipt sample (above) and the PDF receipt sample (below).

1	Email Subject Line from Merchant Portal	2	Email Sender Name and Sender Email Address from Merchant Portal
3	Email Header from Merchant Portal	4	Survey from Merchant Portal
5	Logo from Merchant Portal	6	See "Store Information" below
7	ReceiptHeader	8	See "Receipt Transaction Header" - below
9	See "Item Information" below	13	See "Order Information" below
14	See "Return Information" - below	15	See "Receipt Summary Information" below
16	See "Tender Information" below	17	See "Deposit Information" below
18	See "Payment History" below	19	See "Sold To Information" below
20	See "Delivery Pickup Information" below	21	See "Terms and Conditions" below
22	See "Transaction Signature" below	23	Corporate Social Media Links from Merchant Portal
24	additionalInfo1 additionalInfo2 additionalInfo3 additionalInfo4 additionalInfo5	25	Receipt Footer from Merchant Portal
26	Barcode Graphic generated based on: barcodeType barcodeNumber	27	Marketing Campaign Content from Merchant Portal
28	Email Footer from Merchant Portal	29	Static content provided by flexEngage

Store Information

Below is the Store Information on the email receipt.

 <p>FLEXRECEIPTS RETAIL STORE 14 E Washington Street STE 370 Orlando, FL 32584 40760FLEX8</p>	<pre>"store": { "id": "001", "name": "flexEngage Retail Store", "address": { "typeCode": null, "addressLine1": "14 E Washington Street", "city": "Orlando", "territory": "FL", "postalCode": "32584", "country": { "value": "US", "code": "US" }, "postalCodeExtension": null }, "telephone": { "areaCode": "407", "localNumber": "60FLEX8" } },</pre>
--	--

Receipt Transaction Header

Below the Receipt Transaction Header on the email receipt.

8A	Trans #: 88888 (05/13/2016) Revision: 999 (05/13/2016)	8B
8D	Store #: 333 Register #: 090 Associate: Sam Cashier: Jbob	8C
8E	Related Trans #: 98765 Store #: 111 Register #: 020 Reason Code: R555 Reason: Detailed Reason Here	
	Loyalty #: 12345 (Joe Customer) Exp Date: 05/13/2017 Balance: 9999.0 Point Earned this Purchase: 500	

8A	"transactionNumber": "88888", "receiptDateTime": "2016-05-13T11:40:16-07:00",
8B	"revision": { "number": "999", "dateTime": "2016-05-13T11:40:16-07:00" },
8C	"workstation": { "id": "090", "operator": "Jbob", "associate": "Sam",



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	<pre>"store": { "id": "333", }</pre>
8D	<pre>"relatedTransactionReference": { "store": "111", "register": "020", "transactionNumber": "98765", "reasonCode": "R555", "reason": "Detailed Reason Here" },</pre>
8E	<pre>"loyalty": { "number": "12345", "customerName": "Joe Customer", "expirationDateTime": "2017-05-13", "balance": 9999, "misc": "Point Earned this Purchase: 500" },</pre>

Item Information

Below the Item Information on the email receipt.

    	<p>LIVING ROOM SET 20170220001 Reg: \$2,049.00 Sale: \$1,499.00 You Saved: \$550.97 flexReceipts In-Home Delivery (Assembly Included) Usually delivers in 3 to 4 weeks Write a review Warranty Information Sale: (\$550.97)</p>	<p>\$1,499.00T 1 × \$2,049.00</p>
<pre>"items": [{ "name": "LIVING ROOM SET", "description": null, "classCode": null, "sku": "20170220001", "upc": "20170220001", "price": 2049, "total": 1499, "priceNotation": "T", "quantity": { "value": 1, "units": 1,</pre>		



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```
"unitOfMeasureCode": "Each"
},
"discounts": [
  {
    "amount": -550.97,
    "name": "Sale"
  }
],
"miscInfo": "Reg: $2,049.00 Sale: $1,499.00 You Saved: $550.97\nflexEngage In-Home  
Delivery\n(Assembly Included)\nUsually delivers in 3 to 4 weeks",
"supportingDocuments": {
  "Review 1": {"name": "Write a review",
    "url": "https://www.flexEngage.com/review"},
  "WARRANTY1": {"name": "Warranty Information",
    "url": "https://www.flexEngage.com/warranty-information"}
}
},
],
```

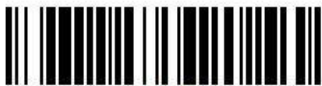
Order Information

Below is the Order Information on the email receipt.



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13

Order Number: 298323 (Create)		13A
Description of Order		
		
2342342		
Back Ordered Item		\$1.00TP
00000001		2 × \$1.00
<i>Prod Description Text</i>	13B	
<i>This is a cool product</i>		
BOGO Free: (\$1.00)		
		Fees
		Delivery Charge \$1.00
	13C	Taxes
		Sales Tax: 0% on \$1.00 \$1.00
		Total Amount \$1.00
Deposits		
Acct. #:Account Number	13D	Deposit Amount \$1.00
		Balance \$1.00
Payment Schedules		
First Payment	13E	12/12/2016 \$1.00
Second Payment		12/15/2016 \$2.00
Sold To		
Joe Customer (123643)		
14 Main Street		
Floor 2		
Orlando, FL 32054-0000		
Phone 1: (212) 333-4444		
Phone 2: (555) 222-4444		
Delivery/Pickup		
Date: 01/01/2014		
555 South Street		
Somewhere, FL 34444-1234		
Delivery/Pickup Instructions: Delivery-Pickup Instructions		

13A

```
"orders": [  
  {  
    "number": "298323",  
    "action": "Create",  
    "barcodeNumber": "2342342",  
    "barcodeType": "Code128",  
    "description": "Description of Order",
```

13B

```
"items": [  
  {  
    "name": "Backordered Item",  
    "description": "Prod Description Text",  
    "classCode": null,  
    "sku": "00000001",
```



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	<pre>"upc": "00000001", "price": 1.0, "total": 1.0, "priceNotation": "TP", "quantity": { "value": 2, "units": 2, "unitOfMeasureCode": "EACH" }, "discounts": [{ "amount": -1.0, "name": "BOGO Free" }], "miscInfo": "This is a cool product" }],</pre>
13C	<pre>"totalAmount": 1.0, "taxes": [{ "description": "Sales Tax", "percent": 0.0, "taxableAmount": 1.0, "amount": 1.0, "taxTypeCode": "Sales" }], "fees": [{ "amount": 1.0, "description": "Delivery Charge" }],</pre>
13D	<pre>"deposits": [{ "accountNumber": "Account Number", "amount": 1.0, "balanceDue": 1.0 }],</pre>
13E	<pre>"paymentSchedules": [{ "description": "First Payment",</pre>



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	<pre>"amountDue": 1.0, "dueDate": "2016-12-12" }, { "description": "Second Payment", "amountDue": 2.0, "dueDate": "2016-12-15" }],</pre>
13F	<pre>"soldTo": { "address": { "typeCode": null, "addressLine1": "14 Main Street", "addressLine2": "Floor 2", "city": "Orlando", "territory": "FL", "postalCode": "32054", "country": { "value": "Country", "code": "US" }, "postalCodeExtension": "0000" }, "customerName": "Joe Customer", "customerNumber": "123643", "telephone1": { "areaCode": "212", "localNumber": "3334444" }, "telephone2": { "areaCode": "555", "localNumber": "2224444" } },</pre>
13G	<pre>"deliveryPickup": { "address": { "typeCode": null, "addressLine1": "555 South Street", "city": "Somewhere", "territory": "FL", "postalCode": "34444", "country": { "value": "Country", "code": "US" }, "postalCodeExtension": "1234" }, "instructions": "Delivery-Pickup Instructions", "dateTime": "2014-01-01" }</pre>



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Return Information

Below is the Return Information on the email receipt.

14

Returns	
Store: 777	
Register: 030	
Transaction Number: 111111111	
Returned Item	(\$10.00)TP
222222	1 × (\$10.00)
Returned Item Description	
return1 Link	
return2 Link	
\$3 Off: \$3.00	

14A

14B

14A

```
"returns": [  
  {  
    "originalStoreNumber": "777",  
    "originalRegister": "030",  
    "originalTransactionNumber": "111111111",  
    ....  
  }  
],
```

14B

```
"items": [  
  {  
    "name": "Returned Item",  
    "description": "Returned Item Description",  
    "sku": "222222",  
    "upc": "222222",  
    "price": -10.0,  
    "total": -10.0,  
    "priceNotation": "TP",  
    "quantity": {  
      "value": 1,  
      "units": 1,  
      "unitOfMeasureCode": "EACH"  
    },  
    "supportingDocuments": {  
      "return1": {"name": "return1 Link", "url": "http://www.example.com/return1"},  
      "return2": {"name": "return2 Link", "url": "http://www.example.com/return2"}  
    },  
    "discounts": [  
      {  
        "amount": 3.0,  
        "name": "$3 Off"  
      }  
    ]  
  }  
]
```



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Receipt Summary Information

Below is the Receipt Summary Information on the email receipt.

<div>15</div>	Sub-Total	\$1,499.00	"grossAmount": 1499,
	Additional Discounts		"discounts": [
	Discount Name	(\$1.00)	{
	Fees		"amount": -1.0,
	In-Home Delivery	\$119.99	"name": "Discount Name"
	Installation Fee	\$20.99	}
	Tip	\$1.00],
	Service Charge	\$1.00	"netAmount": 1618.99,
	Net Amount	\$1,618.99	"taxes": [
	Taxes		{
	TAX: 6% on \$1,499.00	\$89.94	"description": null,
	County Tax: 4.5% on \$1,000.00	\$45.00	"percent": 0.06,
	Total	\$1,708.93	"taxableAmount": 1499,
			"amount": 89.94,
			"taxTypeCode": "Sales"
			},
			{
			"description": "County Tax",
			"percent": 0.045,
			"taxableAmount": 1000,
			"amount": 45,
			"taxTypeCode": "Sales"
			}
],
			"grandAmount": 1708.93,
			"tip": 1.0,
			"serviceCharge": 1.0,
			"fees": [
			{
			"amount": 119.99,
			"description": "In-Home Delivery"
			},
			{
			"amount": 20.99,
			"description": "Installation Fee"
			}
],

Tender Information

Below is the Tender Information on the email receipt.



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16

Payment Information

Cash	16A	\$1,800.00
GiftCard		\$250.00
Gift Card: *****3222		
Auth Number: 1234556	16B	
Balance: \$0.00		
VISA *****6332		\$100.00
Auth Num: 98765		
AID: A0000000031010	16C	
App Label: VISA DEBIT		
		16D
		Total Paid \$1,800.00
		Change Due \$91.07

16A

```
"tenders": [  
  {  
    "tenderTypeCode": "Cash",  
    "dateTime": null,  
    "amount": 1800,  
    "creditDebit": null,  
    "miscInfo": null,  
    "currency": "USD"  
  },  
]
```

16B

```
{  
  "tenderTypeCode": "GiftCard",  
  "dateTime": null,  
  "amount": 250,  
  "giftCard": {  
    "accountNumber": "*****3222",  
    "balance": 0,  
    "authNumber": "1234556"  
  },  
  "miscInfo": null,  
  "emv": null,  
  "currency": "USD"  
},
```

16C

```
{  
  "tenderTypeCode": "CreditDebit",  
  "dateTime": "2014-01-01T00:00:00+05:00",  
  "amount": 100,  
  "creditDebit": {  
    "first6Digits": null,  
    "last4Digits": "6332",  
    "typeCode": "VISA"  
  },  
  "authorizationCode": "98765",  
  "miscInfo": null,  
  "emv": {  
    "aid": "A0000000031010",  
    "appLabel": "VISA DEBIT",  
  },  
}
```



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	<pre> "appPreferredName" : null, "additionalAttributes" : { "CARD ENTRY MODE" : "Chip Read", "EMV TAG 5F2A" : "0840", "EMV TAG 8A" : "00", "EMV TAG 95" : "0000008000", "EMV TAG 9B" : "E800", "EMV TAG 9F10" : "06010A03600000", "EMV TAG 9F34" : "1E0300", "EMV MODE" : "ISSUER", "EMV CVM" : "SIGNATURE", "EMV CHIP INDICATOR" : "CONTACT" }, "currency": "USD" }] </pre>
16D	<pre> "tenderApplied": 1800, "changeDue": 91.07, </pre>

Deposit Information

Below is the Deposit Information on the email receipt.

17	Deposit Information		
	Acct. #555555	Deposit	\$36.30
		Balance Due	\$40.00

```

"deposit": {
  "accountNumber": "555555",
  "amount": 36.30,
  "balanceDue": 40.0
},

```

Payment History

Below is the Payment History on the email receipt.

18	Payment History		
	05/13/2016	GiftCard	\$10.00
	05/13/2016	Visa	\$26.30

```

"tenderHistory": [
  {
    "tenderTypeCode": "GiftCard",
    "dateTime": "2016-05-13T00:00:00+05:00",
    "amount": 10.00,
  },
  {
    "tenderTypeCode": "CreditDebit",
    "dateTime": "2016-05-13T00:00:00+05:00",
  },
]

```



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```
"amount": 26.30,  
"creditDebit": {  
  "first6Digits": "000000",  
  "last4Digits": "0000",  
  "typeCode": "Visa",  
}  
}  
],
```

Sold To Information

Below is the Sold To Information on the email receipt.

<div><div>19</div><div>Sold To</div><div>Joe 22 Main Street Orlando, FL 34734 Phone 1: (321) 000-0000</div></div>	<pre>"soldTo": { "address": { "typeCode": null, "addressLine1": "22 Main Street", "city": "Orlando", "territory": "FL", "postalCode": "34734", "country": { "value": "US", "code": "US" }, "postalCodeExtension": null }, "customerName": "Joe", "customerNumber": null, "telephone1": { "areaCode": "321", "localNumber": "0000000" } },</pre>
--	---

Delivery Pick-up Information

Below is the Delivery Pick-up Information on the email receipt.

<div><div>20</div><div>Delivery/Pickup</div><div>Date: 06/01/2016 22 Elm Street New York, NY 10009 Delivery/Pickup Instructions: These are the delivery pickup instructions</div></div>	<pre>"deliveryPickup": { "address": { "typeCode": null, "addressLine1": "22 Elm Street", "addressLine2": null, "addressLine3": null, "city": "New York", "territory": "NY", } }</pre>
--	---



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```
"postalCode": "10009",
"country": {
  "value": "Country",
  "code": "US"
},
"postalCodeExtension": null
},
"instructions": "These are the delivery pickup instructions",
"dateTime": "2016-01-06"
},
```

Terms and Conditions

Below is the Terms and Conditions on the email receipt.

21

Terms and Conditions

These are the terms you just agreed to
I have read and agree...

John Smith
05/13/2016

```
"terms": [
  {
    "signature": {
      "base64Image": "iVBORw0KGgoAAA.....",
      "imageMimeType": "image/png",
      "dateTime": "2016-05-13",
      "text": null
    },
    "description": "These are the terms you just agreed to\nI have read and agree...",
    "supportingDocuments": null
  }
],
```

Transaction Signature

Below is the Transaction Signature on the email receipt.

22

This is the transaction signature

John Smith
05/13/2016

```
"signature": {
  "base64Image": "iVBORw0KGgoAAAANSU.....",
  "imageMimeType": "image/png",
  "dateTime": "2016-05-13",
  "text": "This is the transaction signature"
},
```

APPENDIX 5: COMMON MISTAKES TO AVOID

This document makes some assumptions that the integrator should be aware of and conform to. You can greatly reduce your effort by reading this section as it contains steps to avoid the most common reasons for re-work and troubleshooting:

- **Special characters should be sent as Entity References.** XML rules apply when it comes to reserved characters.
See: http://en.wikipedia.org/wiki/List_of_XML_and_HTML_character_entity_references.
- **Do Not Send unused elements that are blank.** Do not return empty elements or elements with filler data (e.g., "0.00"). This helps keep the messages lean and efficient.
- **Strip out comments in JSON messages.** Do not include comments in JSON that you send to flexEngage (i.e., <!-- Optional-->). flexEngage includes comments in the RAML for your convenience, but they should not be included in the actual JSON messages.
- **Enumerations Matter.** When sending data as elements defined as enumerations, you must send the data EXACTLY as defined in the enumeration (case sensitive).
- **firstName and lastName in creditDebit are for Credit/Debit Card authentication only.** They are for the name on the Credit card and must be track data. Do not populate them from customer records in the POS.
- **barcodeType is for the receipt barcode, not item SKU.** If you print barcodes on the bottom of your receipt, you need to specify which enumeration matches the barcode type you use.
- **transactionNumber is the unique number of the receipt (or transaction).**
- **barcodeNumber is for the number used to generate the receipt Barcode. It is not the Transaction number.**
- **barcodeNumber must be compatible with barcodeType.** If you are using a barcode that require 12 digits, you must pad your receipt number to fill 12 digits. If <ReceiptBarcodeType> does not matter to you, use a variable length type like Code128. If <ReceiptBarcodeType> is blank, flexEngage defaults to "Code128".

APPENDIX 6: COMMON ERROR RESPONSES

Below are some example response messages for common error conditions. The integrations' ability to log or respond to these can greatly speed up troubleshooting.

HTTP Authentication Error **401 Unauthorized**

```
{
  "message": "Authentication Failed",
  "code": "auth_failure",
  "referenceId": "7862c339-9202-4863-be79-ec9bb97d28e9",
  "errors": {}
}
```

Merchant ID Inactive / Incorrect Merchant ID **403 Forbidden**

```
{
  "message": "Unauthorized Access",
  "code": null,
  "referenceId": "bd16b475-25e3-4361-bb3f-6fbf54587f0d",
  "errors": {}
}
```

Missing Required Element (Item Name Example) **422 Unprocessable Entity**

```
{
  "message": "Validation error",
  "code": null,
  "referenceId": "44c2d3c9-32a4-472a-9898-5a4a495ee51a",
  "errors": {
    "items[0].name": [
      {
        "code": null,
        "message": "may not be null"
      }
    ]
  }
}
```

Max Length Exceeded (Store Name Example) **422 Unprocessable Entity**



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```
{
  "message": "Validation error",
  "code": null,
  "referenceId": "deac476c-d55b-47d0-9d14-085d540ea448",
  "errors": {
    "workstation.store.name": [
      {
        "code": null,
        "message": "size must be between 1 and 100"
      }
    ]
  }
}
```

Invalid Format (Receipt Date & Revision Date Example) 422 Unprocessable Entity

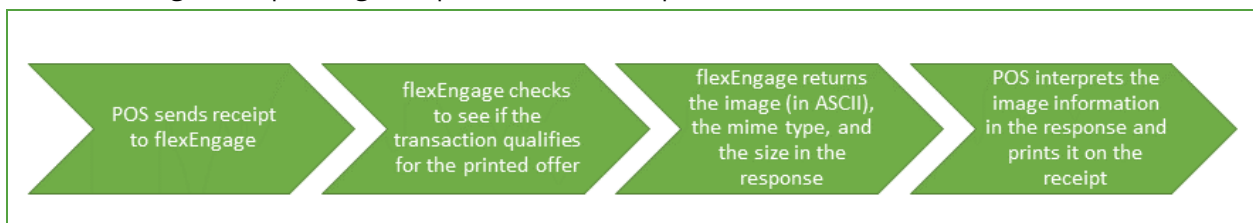
```
{
  "message": "Validation error",
  "code": null,
  "referenceId": "4efcb6fb-df32-48a9-97aa-2002aadd6ccd",
  "errors": {
    "revision.dateTime": [
      {
        "code": null,
        "message": "must use ISO 8061 date format."
      }
    ]
  }
}
```

APPENDIX 7: PRINTED OFFERS

This section is relevant to you if your flexEngage receipt services package includes support for printed offers.

Introduction

Below is a diagram explaining how printed offers are processed:



Sending the Request and Receiving the Responses

Sending the request to the flexEngage API works the same way as it does for digital receipts. If you are already sending receipts to the flexEngage API for digital receipts, no further coding is required *except if you are not currently sending the printed receipt transactions to flexEngage*. If you are not sending the printed receipts to flexEngage, you will need to make a modification to send printed receipts to the flexEngage API.

The API will then check the transaction and see if it qualifies for a configured printed offer. If the transaction qualifies for a printed offer, the response will contain additional information about the image that needs to print on the receipt, including:

- The ASCII representation of the image OR the HTML text OR the plain text
- The image MIME type (ex: image/jpg, image/png)
- The image width

You will need to add logic to check the response for image information, render the information into an image, and include the image on the printed receipt. You can decide whether the image appears at the top or bottom of the receipt. Based on what other merchants do and the responses that they receive from the offers, we recommend putting the offer at the bottom of the receipt.

Below is an example of the JSON payload response returned by flexEngage for a receipt that qualifies for a printed offer.

```
.{
```



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```
"customerEmailAddress": "SOME.PERSON@SOMESITE.COM",
"receiptId": "32c0b76b-516c-44a1-9fda-1e5a2f43b7d8",
"offers": [
  {
    "offerContentType": "IMAGE_PNG",
    "content":
      "iVBORw0KGgoAAAANSUhEUgAAAPoAAAEoCAIAAAAv+p3RAAAcOkleQVQR42u2deVgV193HAYqICoIBAUkUSRiJEoJbJUtBk
      2IqkpBEGnHBPSKNT4sLqTFNSaRjJBELsFzTusQHY2qDqalaYtSgWBXJY7Vq9KkFifuCcEH299fM+847PWfu3Ln3gzgDvd/
      PX8o9c+62mc898zszZ87voSYA3IaHcAgAdAcAugMA3QGA7gBAdwCgOwDQHQDoDgB0BwC6AwDdAXQHAlODAN0BgO4AQHcAo
      DsA0B0A6A4AdAcAugMA3QF0BwC6AwDdAYDuAlQ43RMTEx9ymrfeeouq+s1vfmOzJJURvvf48eM2Cz/55JNCYbtqltLQ0LB
      3797Zs2dTVUFBQV5eXj4+PiEhIeHh4UOGDHnuuedee+21LVu2nDx50mKx2HVATdgkBYNYGya2atOmTddBXUvLCyMiIhQu
      Qs//elPDDbDlyZzo6ioSPaouq/u/IkpLS1ljn7Hjh35zadOnSrqlRjKyRI1/ZzA0aNHrVnOo77mfv2tW3bVijTvn37pUu
      X0lmvqKioq6u7fft2QUFBWLqar6+v826ZsEkMM2bMYFpIvzro7jq637lzh+IEoYCHh8fBgwdlayspKenbt68xuhvZJOZ72
      7Vrx7Rw8uTJ0N1ldH/vvffeApGRkQRH52tvmnVqpUBuhvZJCKrVqzgwYRvb+8bN264o+5r164lZXft2uWY7uvXr6fN8/L
      yTKX7T37yE7HAD3/4Q+VDQ6NDA3Q3skkijY2Nfr0oaqCg4OZRMZkZOBGPn260xnO6qS7GA8Q/v7+FB8rtHbDhgOG6G5kk
      0T+8pe/UD301Tt27GAa2albt/r6eujuCroLXZpIQkLC/fv3dTqyJmySyLhx4+i7srKyADTcPUsXpp1/+tOfOlsr6D569Gi
      +8bNnz6berqqqll0N7JJAv/61788PT39/PyEK8nbb7/NNGDMmDHQ3RV0T09Pt3Yz28vLa9CgQcnJyb//e9JCMN0N7JJA
      osWLaLK58+fL/yXxqY0QpV+r4eHx71z56C79rrbhfoX679+/eGHH1bzXf3798/MzKyurtZbdyObRNDm9HXUu1+8eFH845Q
      pU5jvevXV6F7i9edOHZ4cKdOnVR+Y69evb755htddTeySQDRKKgSit2lf+SfZNM5rayshO4tO5gRL9/UelHwqkYvErGkp
      ERX3Q1rEkHREDWwb98+5u9Dhw51viUnJwe6u4LuAhaLJS8vjysJm+3j46OgV1JSkt66G90kv//977Rtv379+I+2bdvGfEV
      ERAR0dx3dpdTV1Z06dWrvqlXPPPOm8ORScnW6DQ0NBuiud5OER93qsTajAbq3bN2Z+3QjRoxgart8+bLBumvepFu3bokT0
      VQyYcIE6N6CdV+8eDF9NG/ePOV28vfmzp49q5PuhjXp3XffVTa4uLiYaXDr1q3Lysqge8vWvWvXrhQqKDeVmX10XaOuuuv
      dJIp8evbsKtTtIIRIVFaXVFQm6m0V3gmJihXY2NjY+8sgjYlWPPfaYfkNVY5q0e/du2qpHjx5Uj0Kx70xsps2hoaG1tbXQv
      WXR7uXltX37dmu1rVmzRlrv2rVrDdBdlybFxmTQVunp6crF7t69y8f3ubm50L116y7w9NNPb9269dtvv7VYLpx19RQe5Of
      nJyUleXh4iGvefv115R7R/E2i2mhzT09P0nc2C0+cOJFpNo2S3U53Na+QErLzV83zrmp5eTn1i0OHDpXaYw1//ly5fb6
      7qpmnTgwAG+kri40NnCoPn3spw6dQq6tyTdRa5du7Z58+a5c+eOGjWKhom+vr7U+fn4+AQHBw8ePHj69OkUVZg2EddUTYL
      uzgYzAEB3AKA7ANAdAoG0AHQHAlODAN0BgO4AQHcA3QGA7gBAdwCgOwDQHQAT6m5WkjIFfve73/HNcYxPnY7BaC7Qbo7n
      KcOukN3Jd2bMTcTERcXx+vuTJ46PXyKQHe9dHcyTx10h+4tSXcn89RBD+guT7Nn3pPFyTxleuWUcOubkYatMyOLtNnqnNk
      pAN0d1516UPr7qFGjZGvQKU8ddIfuZtRdpzx10B26m1F3nflUQXfoboTu1rCmu0556qA7dDej7k365Kmd7TddjMGMgOZ56
      qA7dDev7gIa5qmD7tDd7LpLcTJPHXSH7s2ju/M4kKcOukN3M+quU5466A7dzau75nnqoDt0b37d+Thepzx10B26m1p3bfp
      UQXfobmrddtclTb92h+3+hdyoylU9YtclT58x0Aeiuu+4imuSpg+7QHQDoDgB0BwC6AwDdAYDuAEB3AKA7ANAdAoG0AHQH0
      B0A6A4AdAcAugPQInVXP0+9Q4c03bt3j4uLy8rKunfVnsPl+Pj4hIaGjhw5cuHChSdOnHcmYeJ7UnPmzOE/9fx1LS4uvtj
      3U6dOyVbr7e3dQm08bWrq8ft09Ppf379mz55Ahq+bNm7d58+YbN25Ad7s1ZUz66KOPnK+HiI2N/e677/TQnQgLCystLXUr3
      WV3Z8qUKcqrkrhdMGpTtHdOampRtp0+npKTwr9Klpqagr6ehoYG6mZ07dw4YMIBf0/T69ev2NkyWGTNmMIXp62y+8XT06FE
      q2apVK+kfTzuWUKGexsbG27dvFvUVZWRkhISESAu0bds2MzPT5hu97q67CMUwfm/Bp0CyWU9VVVV0dDRTZtKkSTrpLqSyU
      V6yxmV010I/8meffVZNDWxd5Y/goEGDmDJ8Zjw19eTn5/MX3PLycpl0J2bNmuVuuhMPHjzo378/UzInJwe6qzqCdN5k5j
      IW0091Ne2adOGKVZYWKif7sSyZcvs0t2caQntrWf37t382g137tyB7raP4I4d03iNyBUHhgSfrWDFvn1a6d6jRw++nTT2+
      OSTT9Trbg0zrBervp76+vrAwECm8NKLs6G77SOYm5vLa3Ts2DF766mtrev7d2u3DhzQfc6cOW+88YbsPYpDhw6ZXHclq4H
      bdUwmTJjAFH788cehu+0jSPEA79C1a9fsrWf//v1MmT59+mg4VCXd6d+TJ0+WzfNx/vx5t9L9ztff5I/DlatXobuNI/jEE
      08wZaKjo+2tx2KxREVFU9GuzZo7nuNTU1J1sLifmyYtr6/7xxx/zB+HgwYPQXekIrly5kj9qNBJSf0v45s2b03fupCu
      p9F0KLPnhoCa6EzQmCw8P55s9d0hQaYrWZtTdgTtxt9h6TTz/91K+fTgr0t/qYKTk5mT9kaWlpDp/Rzp07x8bGrlu3rrKyU
      sPhHaM7cenSpaCgIL4B8fHxYnIb19b9iy++4OvfHEjdFeLn58fmePMPd26dUtnTb19+7a2dzN43QWbZdOY/epXv3KHYEb
      2ftpn30G3ZVol64dOTp+/PgPP/yQnyKmfCbq6uouXLgwd+5c5qO+ffvKTPjRVneCrt2y6wnTvri87ps2bULs3jy3hIVnj
      VJ+9rOfGaA7sXz5cv6sk+I0/HBt3f17svTLZ+6nQXdddL979y6fAP7zzz83QHfilVde4Y1v37499fGu+piJePHFF/lpc7j
      vbtCZWLvQFR/S1nbWgqB7fx392LFjeeOFZ14uqTufkfwDbD1Sf0J3+Xpqamp69erFlFm9erUBuhMVFRWRkZGygxOX1H3Xr
      11MyYCAALrGQnfjzst27duZMhThWDSH2upOXLLyJSwsrEXobi2OV11PdXu1/9jB2i016K6X7o2NjfyUd2tTsXXnSguLvb
      19Xvt3e/fvx8TE8MUST74cZOrYzrdiS//JiP5uXlndSjWN0Jf/bs2UN+u57ud+7csfY2k3KeWrfQXexRj/v371f+DrteL
      RXg37URGdJkSJNG76rOnz9foc050TngdTdDnj231X95z//2eQemFT306dPe3p6NqPuxIIFCLxMdZqkdLXp3r3714MGdK5O
      T/CHP9y8ebPJncA6MwC6AwDdAYDuAEB3AKA7ANAdAoG0AHQHAlODAN0BgO4AugMA3YHJsFgsKSkpQUFBYWFhb775Zn19P
      Y4JdHdZz2saJZ3c++677+KYaK/7+fPns7KyEhIS+vfvHxoa6u3t3a5d0+pgBg4cmJSUtH79+itXrihs7uT0bmHdSTNU4ka
```



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OMJV5BdXQ0NBah11aeUREBGzWUvfDhw+PHTtWdsEtZqWKxMTEM2fOQHfH8gpC92bWva6uLi0tTS06OZ2amnrq1KmKioq7d
+8WFBMRmzaNef0xOztboU7+1Ur1V4N/8IMf8KsK61SJtkmRHM4rqMz06dMRzGivO52t559/nlGZeng+5LZt25i+f9GiRdB
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V1Fx3oVh6evqla9dofLx169a2bdtKP33ppZfcV/eU1BREXJspk77++mt+K/4evPp8T3aZqmsljunucF5BPXSfOXOmtACNx
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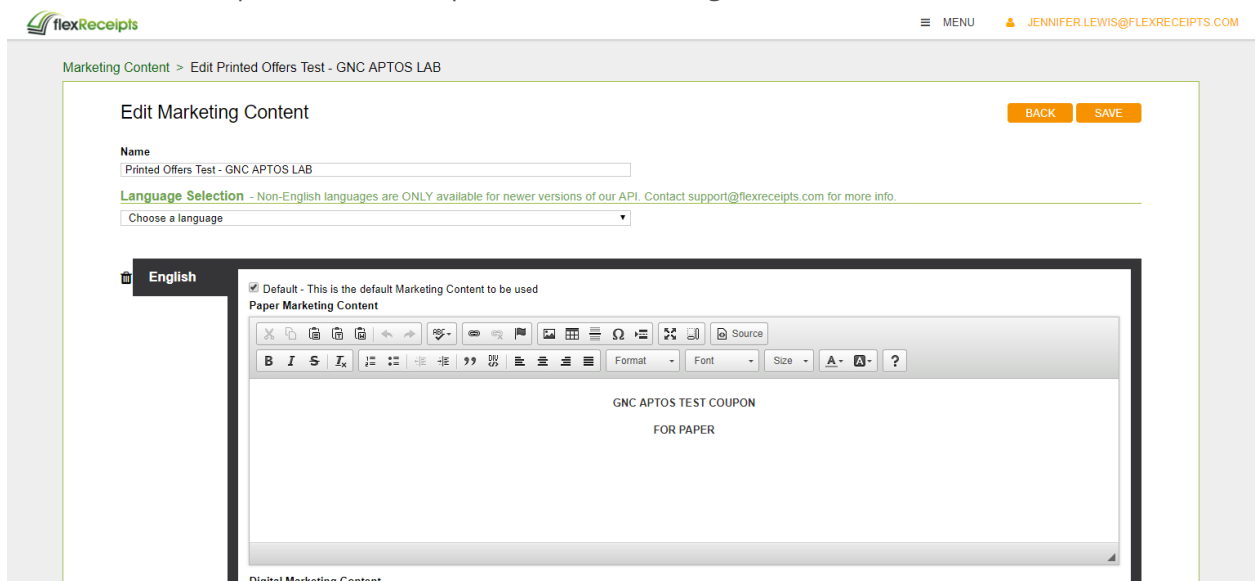
```
dCnHiEHXJa9asMb4GWRYSWMDs+4ABA6D7fynFp/akkKa2tpavin+qGhcXZ7MBYv0vvPCCC+h+6NAhMVfeiBEjLl26ZO02y
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vA/DZaBrQh1K5EAAAAASUVORK5CYII=",
    "imageWidth": 250
  }
}
}
```

Configuring the Offers

Once a merchant is set up to provide printed offers, configuring the images and campaigns happens in the merchant portal. The POS does not need to send images to the API; all the configuration happens in the merchant portal.

Setting up the campaigns in the merchant portal is similar to setting up campaigns for digital offers, but there are a few changes:

1. In the **Marketing Content** section under **Marketing Management**, there is a section to add the information to print on the receipts. It can be an image, text or both.



- In the **Campaigns** section under **Marketing Management**, there is an option to select **Paper Receipt**. While the example illustrates a campaign that applies to both a digital and printed offer, you can configure the campaign to be strictly a printed offer by selecting Paper Receipt only.

Campaigns > Edit Printed Offers Test - GNC APTOS LAB

Edit Campaign BACK SAVE PREVIEW

of Email Receipts: **296** # of Paper Receipts: **386** Open Rate: **0%** Unique Clicks: **0** Click to Open Rate: **0%**

Name
Printed Offers Test - GNC APTOS LAB

Start Date
03/27/2019 13:20 -0400 End Date
07/31/2019 13:20 -0400

☐ Show All Timezones

When Customer Segment is Printed Offers Test - GNC APTOS LAB






Change subject to This receipt should have a 'coupon' printed on it.

Include Marketing Content Printed Offers Test - GNC APTOS LAB on:

☒ Email receipt Below the Email Header

☒ Paper receipt

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APPENDIX 8: SMS RECEIPTS

This section is relevant to you if your flexEngage receipt services package includes support for sending receipts via SMS.

Configuring for SMS Support

The [flexEngage team](#) performs the following tasks in order for the merchant to be able to use SMS:

- The flexEngage team sets up the merchant account to support SMS receipts.
- The flexEngage team works directly with the merchant on provisioning the phone number to use (including short codes) as the “from” address for SMS receipt messages.
- The flexEngage team works directly with the merchant on setting up the content for the SMS messages.

Sending the API Request for SMS

You would continue to call the Receipts API as you would for the other receipts. In order to send an SMS receipt request, you will need to make the following changes to the values in the payload:

- **Do not** send the email address in the email address field (*customer > emailAddress* in REST v1, *CustomerEmailAddress* in SOAP v4.x). Including an email address in the request will cause the receipt to be delivered by email AND sms.
 - You can either send a blank or null value, or you can remove the field from the payload.
- **Do not** send the area code in the area code field (*customer > areaCode* in REST v1, *CustomerTelephone > v4:AreaCode* in SOAP v4.x). You can either send a blank or null value, or you can remove the field from the payload.
- Add the mobile number in the local number field (*customer > localNumber* in REST v1, *CustomerTelephone > v4:LocalNumber*) in the following format: a plus sign, the country code and the area code. Do not include dashes. A few example formats:
 - US and Canada number: +12121234567
 - UK number: +447911123456
 - Ireland number: +353831234567
 - Mexico number: +521234567890
- Send the value *DigitalOnly* in the receipt type field (*receiptType* in REST v1.x, *ReceiptType* in SOAP v4.x)

Below is an example payload for sending an SMS transaction. The affected fields are in **bold**. For a full explanation of the payload fields and the valid values, reference the RAML API Documentation (<http://docs.flexreceipts.com/receipts-api>):

```
{
  "customer": {
```



flexEngage
GO BEYOND THE SALE

```
"emailAddress": "",
"telephone": {
  "areaCode": "",
  "localNumber": "+12121234567"
},
"referenceId": null,
"workstation": {
  "id": "889",
  "operator": "Joe",
  "associate": "Carl",
  "store": {
    "id": "99999",
    "name": "Jennifer Test Store",
    "address": {
      "typeCode": null,
      "addressLine1": "Alex Test",
      "city": "flexReceipts Headquarters",
      "territory": "FL",
      "postalCode": " 32701",
      "country": {
        "value": "US",
        "code": "US"
      },
      "postalCodeExtension": "1234"
    },
    "telephone": {
      "areaCode": "407",
      "localNumber": "5551212"
    }
  },
  "mode": null,
  "header": null,
  "receiptType": "DigitalOnly",
  "barcodeType": "Code128",
  "barcodeNumber": null,
  "receiptDateTime": "2020-01-21T04:47:10-05:00",
  "loyalty": {
    "number": "23145",
    "customerName": "Joe Customer",
    "expirationDateTime": "2017-12-31",
    "balance": 45,
    "misc": "5 point until next offer"
  },
  "transactionType": "SaleTransaction",
  "relatedTransactionReference": null,
  "transactionNumber": "001",
  "items": [
```



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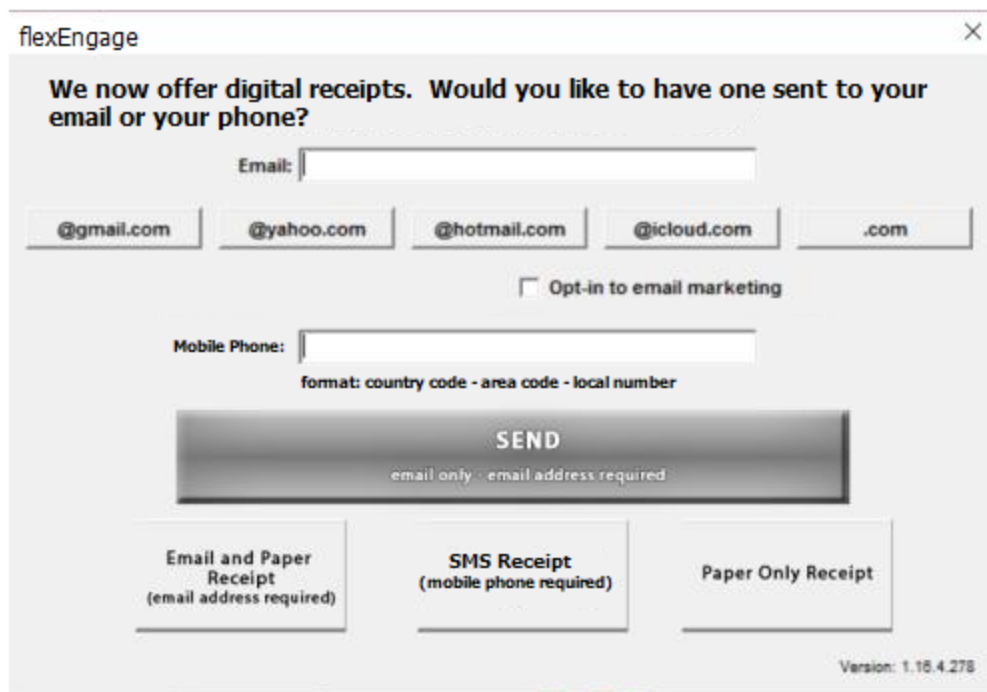
```
],
"netAmount": 0,
"grossAmount": 0,
"taxes": [
  {
    "description": "Sales Tax",
    "percent": 0.065,
    "taxableAmount": 0,
    "amount": 0,
    "taxTypeCode": "Sales"
  }
],
"grandAmount": 0,
"tenderApplied": 0,
"changeDue": 0,
"tenders": [
  {
    "tenderTypeCode": "Cash",
    "dateTime": null,
    "amount": 0,
    "creditDebit": null,
    "miscInfo": null,
    "currency": "USD"
  }
],
"soldTo": {
  "address": {
    "typeCode": null,
    "addressLine1": "500 Main Street",
    "city": "Orlando",
    "territory": "FL",
    "postalCode": "32805",
    "country": {
      "value": "US",
      "code": "US"
    },
    "postalCodeExtension": null
  },
  "customerName": "Joe Customer",
  "customerNumber": 12312,
  "telephone1": {
    "areaCode": "407",
    "localNumber": "5555555"
  }
},
"additionalInfo1": null,
"additionalInfo2": null,
"additionalInfo3": null,
"additionalInfo4": null,
"additionalInfo5": null,
```

```
"rawPosReceipt": null,
"currency": "USD"
}
```

Adding SMS Support to Front-End POS

Receipt Selection

When a customer is offered a digital receipt, a dialog box (such as the example below) should be presented at the POS to collect their mobile phone number and receipt option. For entering the mobile phone number, add support to enter the country code, area code, and local number.



The dialog box, titled "flexEngage", contains the following elements:

- Header:** "We now offer digital receipts. Would you like to have one sent to your email or your phone?"
- Email Field:** A text input field labeled "Email:".
- Domain Selection:** A row of buttons for email domains: "@gmail.com", "@yahoo.com", "@hotmail.com", "@icloud.com", and ".com".
- Marketing Opt-in:** A checkbox labeled "Opt-in to email marketing".
- Mobile Phone Field:** A text input field labeled "Mobile Phone:".
- Format Hint:** "format: country code - area code - local number" displayed below the mobile phone field.
- SEND Button:** A large button with the text "SEND" and a subtext "email only - email address required".
- Receipt Options:** Three buttons at the bottom:
 - "Email and Paper Receipt (email address required)"
 - "SMS Receipt (mobile phone required)"
 - "Paper Only Receipt"
- Footer:** "Version: 1.16.4.278" in the bottom right corner.

REVISION HISTORY

Rev. No	Rev. Date	Contributor	Notes
v1.2.1	05/05/2021	JA	Appendix 8: Clarified API behavior when a request includes customer's email address and customer phone number
v1.2.0	8/11/2020	JL	Added appendix section for Printed Offers and SMS; updated documentation to match new branding
v1.1.0	2/10/2020	JL	Add clarification and grammar updates; updated screenshots to current flexEngage standards
v1.0.5	2/1/2019	JL	Rebranded document from "flexReceipts" to "flexEngage"
v1.0.4	12/07/2018	JP	Added "Custom Fields" section
v1.0.3	10/03/2018	SG/JP	Added Section 1.5: Offline Mode
v1.0.2	02/24/2017	JB/JP	Minor edits
v1.0.1	02/22/2017	JB	Added brief explanation of RAML and external link
v1.0	02/20/2017	JB	Initial version