

epoch

PAYMENT SOLUTIONS



INQUIRIES + SUPPORT + FEEDBACK

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FLEXPOST™ INTERFACE MODULE

This document is intended to help experienced developers/programmers set up your web site to connect to Epoch's payment gateway using the FlexPost™ Interface Module.

FlexPost™ provides you with a great deal of flexibility for your transaction processing. It allows you to have your own custom signup form without maintaining the high security required to process credit card information and/or checking account information. The FlexPost™ API is available for your use, at no cost.

We created this interface because of Visa and Mastercard rules that specify who may accept, hold, transfer and/or request certain cardholder data. Under these strict guidelines, where a company uses a PSP (Payment Solution Provider) such as Epoch, the PSP may not disclose credit card numbers or card expiration dates to that company. You may not post customers' credit card numbers or expiration dates to our system or request such information from us. However, you may access all other customer data, such as email and physical addresses, denial codes, etc.

OVERVIEW OF FLEXPOST™ PROCESS AND IMPLEMENTATION

1. Use the GET method to the FlexPost™ URL by adding this line to your join page (signup form):

```
<form method="GET" action="https://wnu.com/secure/services/">
```
2. FlexPost™ ONLY supports secure (port 443) transport. Using the secure port requires RSA encryption support (OpenSSL, etc.).
3. All required fields must be passed in by the join page. (See: *Table 1: Join Form Required Fields*)
4. The reseller field is required even if an affiliate (reseller) program isn't used. Please pass the value as 'a' if there is no reseller associated with the sale.
5. You may collect information on your join page, such as the customer's name, address, etc., and post that information to FlexPost™. Certain designated fields are optional, but will be recorded in the FlexPost™ database. (See: *Table 2: Optional Fields Recorded in the Database*)
6. Other optional fields will not be recorded in the database, but will be included in the response query string and data post back. (See: *Pass-Thru Fields*)
7. FlexPost™ will ask the customer for credit card or checking/savings account information.
8. FlexPost™ will pre-populate the payment data collection page with information passed in by your join page (See: *Table 3: Fields on the Data Collection Form*). If values for the fields on this page are not passed in with the join page, FlexPost™ will prompt the customer to enter values for these fields.
9. You can customize FlexPost™ to your needs. Using control fields, you can set options such as password management and data post back. You can also set the minimum password length. (See: *Table 4: Optional Control Fields*)
10. Epoch offers multiple payment page layouts. Please contact support@epoch.com for examples of the layout versions and how to implement them on your account.
11. Using the PurchasePlus™ feature, you may allow one or two product offers to be displayed on the bottom of the payment data collection page. These PurchasePlus™ offers are in addition to your main offer, and may be for other products you offer, or for another company's products.

12. On the payment data collection page, you may modify the color scheme, top and bottom images, and email receipt (See: *Table 5: Customizing the Epoch Data Collection Page*). You may also modify the way PurchasePlus™ displays product offers. (See: *Table 6: Fields in Data Post Back*)
13. If you choose to use the FlexPost™ response handler, FlexPost™ will inform the customer whether the transaction has been approved or denied. It will then provide approved customers with account login information.
14. You may instead develop your own response handler. If you use your own response handler, FlexPost™ will send you the transaction data in a response query string. If the transaction was approved the customer will be displayed Epoch's confirmation page before being redirected to the URL you provided in the `pi_returnurl` field. If the transaction was denied, the response query string will include the reason for the denial (See: *Page 10*), and FlexPost™ will redirect the customer to your response page immediately.
15. You can let FlexPost™ handle approval responses, while handling denial responses yourself.
16. You may also receive data posted back from Epoch's server. (See: *Table 6: Fields in Data Postback*) See: *Figure 1* for a visual representation of data flow in FlexPost™.

PASS-THRU FIELDS

- Any field other than the ones specified in this document is considered a pass-thru field.
- Pass through fields will NOT be recorded in the FlexPost™ database, but will be passed back in the response query string.

All pass-thru fields must be preceded by 'x_' for information related to primary accounts and 'xs_' for secondary accounts. What is Primary and Secondary? (PurchasePlus™). For example: `x_sitename`, `x_font`, `x_field1` or `xs_sitename`, `xs_font`, `xs_field1`, etc.

PASSWORD MANAGEMENT

Once the password management script has been installed on your system, the FlexPost™ password management features are enabled by default. You can disable password management by passing in a value for the `no_userpass` field.

If password management is enabled, FlexPost™ will:

- Check to see whether the username a customer has chosen already exists in your password database (to disable, pass in the `no_userpassverify` parameter);
- Add usernames and passwords for new customers; and
- Delete usernames and passwords for expired accounts.

LOGOGPS

Epoch's LogoGPS (Geo-Targeted Payment Script), which you place on your websites, utilizes our industry-leading localization and geo-targeting technology to present consumers with the logos of the most popular payment types you accept in their countries. This allows you to create a custom, localized payment experience - even if you have not localized your websites. For more information visit: <https://epoch.com/logo-gps/logo-gps.html>

RESPONSE QUERY STRING

- Upon successfully verifying payment information and processing the transaction, FlexPost™ will redirect to the URL specified by the client when the account was created.
- The response query string will contain the Status Code, Member ID (if transaction approved) and all parameters associated with the sale, except for credit card number and expiration date.
- Please see the Postback section for data that is returned. (See: Page 10)

DATA POST BACK

- Data collected on a transaction will be posted back to the URL specified for the product, which can be configured at <https://epoch.com/manager>.
- If the sale involves another company's products, certain data will be posted back to your server (the primary account); certain data will be posted back to the server of the company whose product you are selling (the non-primary account); and certain data will be posted back to both servers.
- Data is not posted back to resellers, only to the companies whose products are actually sold.
- Data is POSTed back in name/value pair format.

PURCHASEPLUS™

- The PurchasePlus™ option allows one or two product offers (Purchase Plus™) to be displayed on the bottom of the credit card data collection page.
- The company making the main offer may also use PurchasePlus™ to sell the products of other companies that have valid product codes. To find products that may be offered using PurchasePlus™, go to Epoch's cross-sell network page at <https://epoch.com/csn/>.
- If the PurchasePlus™ offer is a sale of another company's product, pass in your referring reseller code (po_rf_code1 for the first PurchasePlus™ offer; po_rf_code2 for the second PurchasePlus™ offer.) The reseller code will be passed to the company whose product you are selling to notify them that you have made a sale of their product.
- Epoch will send an order confirmation email for each product offer purchased.
- Check boxes for product offers may be checked or unchecked by default (pending approval).
- If you use the default data collection page, you may modify the color scheme for the PurchasePlus™ offers. (See: Table 5)
- For offers of another company's product, password management is determined by the settings of that company's product.

SECURITY CONCERNS

- The Response Query String should NOT be used for any type of password management or sign-up processing. All password management and sign-up processing should be implemented using the Data Post Back feature.
- Sign-up processing would include such things as: adding a member to a client site or sending an additional confirmation email.
- The postback/password management requests will come from one of the IPs listed at https://epoch.com/ip_list.php
Postback requests will contain 'epoch_digest' value which should be used for validation. Please contact support@epoch.com if you need assistance calculating this value.

TEST CARD NUMBER

- Contact Epoch's Technical Support with your IP address for a test card number(s) at support@epoch.com.
- There are two types of test card numbers.
- Epoch's test card will return "YG00DTEST" in the response. This is used mainly to verify web site server to gateway communications. Do not do any account management if that is the response.
- The other test card will randomly return an approval or denial code but not do an actual credit card transaction. This is used mainly to verify complete web site operation and response handler operation/functionality.

Table 1: Join Form Required Fields

<u>FIELD NAME</u>	<u>DESCRIPTION</u>
api	For new signups use 'join' as the value. For MemberPlus use 'memberplus' as the value.
pi_code	Alphanumeric product code assigned by Epoch. Product code does not change unless client wants additional codes to differentiate in reporting. Note: The product_id product code field has been deprecated.
reseller	The reseller field is required even if not used. If you are not acting as a reseller for the product, set reseller to the lowercase letter 'a'. Maximum length 16 characters.

Table 2: Optional Fields Recorded

<u>OPTIONAL FIELD NAME</u>	<u>DESCRIPTION</u>	<u>MAX LENGTH</u> (in characters)
street	Customer's street address	80
phone	Customer's phone number	32
city	Customer's city	64
state	Customer's state (or region, if non-USA)	64

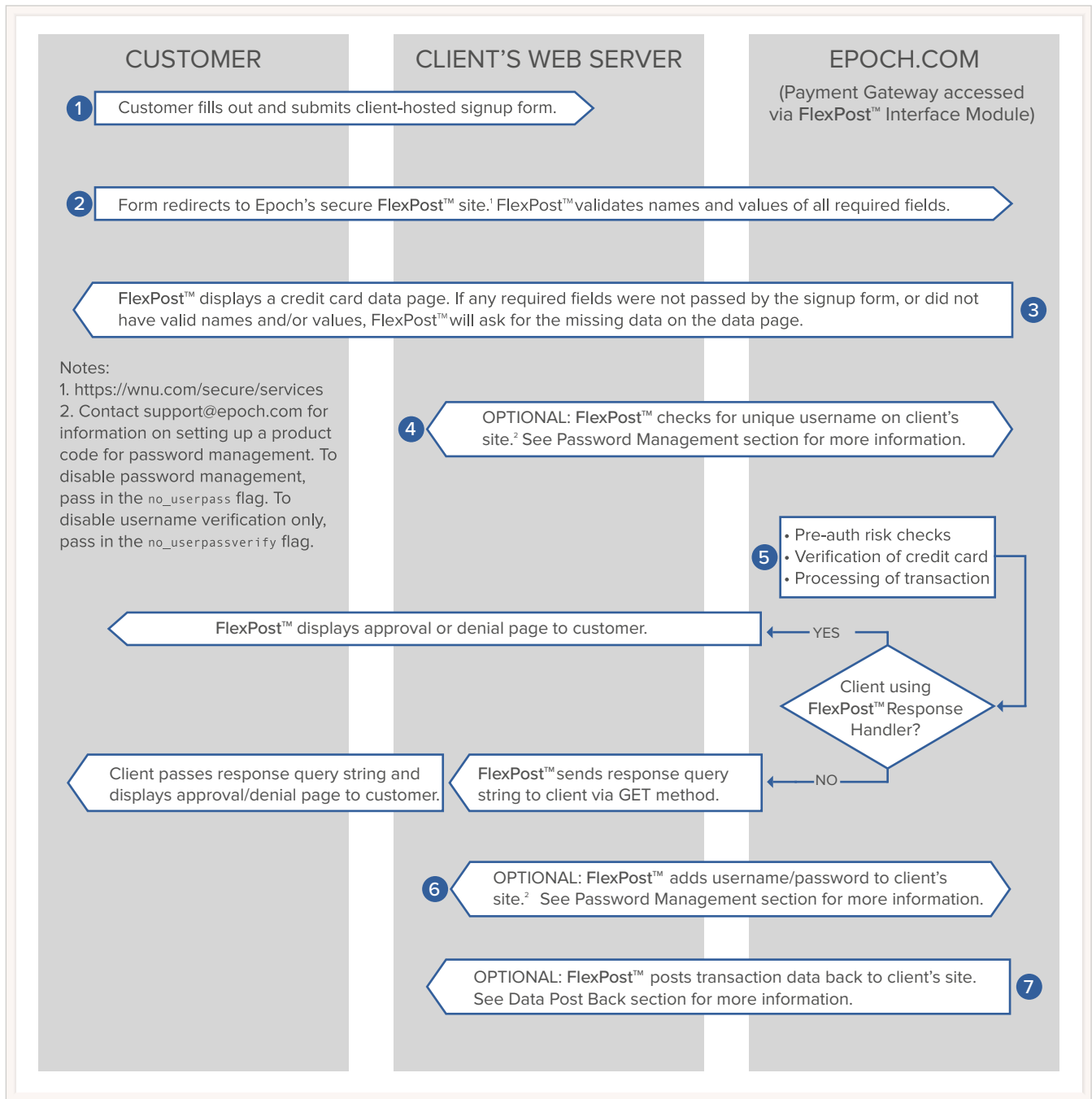


Table 3: Fields on the Database

<u>FIELD NAME</u>	<u>DESCRIPTION</u>
name	Customer's full name. Maximum length 128 characters.
zip	Customer's ZIP (five digit) or ZIP+4 (nine digit) code (USA customers only). UK and Canada customers are also required to enter their postal code. Enter ZIP/postal codes with no dashes or spaces.
email	Customer's email address. Maximum length 64 characters.
username	Customer's username for access to subscription site. Maximum length 32 characters; minimum length three characters. Required unless no_userpass is passed in.
password	Customer's password for access to subscription site. Maximum length 32 characters; minimum length three characters. Required unless no_userpass is passed in.

Table 4: Optional Control Fields

<u>OPTIONAL CONTROL FIELD NAME*</u>	<u>DESCRIPTION</u>
pi_returnurl	URL of client's approval / denial handler. The client's handler will parse the response from FlexPost™ and should notify the customer of the approval/denial decision.
selected_type	Controls the pre-selected payment type. Possible values are: CC - CreditCard(default), DD – DirectDebit, ID – iDeal, UK – Ukash, PN – Direct eBanking
include_css	Specifies a css template name to be used for a custom look and feel on the credit card data collection page. If no template is specified a default Epoch page will be displayed. A custom template and all graphics used have to be approved and reside on Epoch's servers. NOTE: This field may be passed in without a value and no template will be used. For more information, contact technical support.
no_userpass	Disables password management features. Used when username and password are handled on the Client's server. Epoch will not try to verify or add passwords to client's server via password postback.
no_userpassverify	Disables verification of username using password postback to client's server. Username/password will still be added to the client's server via postback. Only valid if the no_userpass field isn't passed in and the product code is setup for password management. Contact support@epoch.com for product code setup information.
pwdlen	Specifies the minimum username and password length allowed. The minimum and default lengths are both three characters.
address_info	Set this field to 'Y' for form to collect address, street and city data.
list_pi_code	The product code that you want to display as an option. You can specify upto a max of 5 list_pi_codes.
memoption_type	Display options for the products specified in the list_pi_code. The default is drop down style. The value of 'R' will display the products in a radio button selectable options.

* Unless otherwise indicated, no data validation is performed on these fields.

Table 5: Customizing the Epoch Data Collection Page

<u>FIELD NAME</u>	<u>DESCRIPTION</u>
bgcolor	Background Color (default: ffffff)
textcolor	Text Color (default: 000000)
titlecolor	Title Text Color (default: 000000)
errorcolor	Error Text Color (default: ff0000)
linkcolor	Link Color (default: 0000ff)
alinkcolor	Active Link Color (default: ffffff)
vlinkcolor	Visited Link Color (default: 000000)
topimage	Top Image: Specifies filename of image to be displayed on top of template.
bottomimage	Bottom Image: Specifies filename of image to be displayed on bottom of template.
email_template	Email Template Name: Specifies custom email template to use. An email template allows for customization of a section of customer's email receipt. Email templates are based upon the company code, but a company may have multiple templates including a default. Please submit templates with any images to support@epoch.com for approval and placement on servers.

Table 6: Fields in Data Postback

<u>FIELD NAME</u>	<u>DESCRIPTION</u>	<u>POSTED TO</u>
reseller	Reseller value	
site	Reseller value	P, NP
name	Customer's name	P, NP
address	Customer's street address	P, NP
city	Customer's city	P, NP
state	Customer's state	P, NP
zip	Customer's zip/postal code	
postalcode	Customer's zip/postal code	P, NP
country	Customer's country	P, NP
email	Customer's email address	P, NP
age	Customer is 18 yrs or older (always 'Y')	P, NP
ipaddress	Customer's IP address	P, NP
username	Customer's username	P, NP
password	Customer's password	P, NP

Table 6: Fields in Data Postback (continued)

<u>FIELD NAME</u>	<u>DESCRIPTION</u>	<u>POSTED TO</u>
submit_count	Number of times customer submitted the form before it was approved.	
payment_type	CC for credit cards	P, NP
payment_subtype	VS – Visa, MC – Mastercard, etc.	
member_id	Customer's Epoch assigned order ID (same as member ID). Maximum of 19 numeric	
order_id	Customer's Epoch assigned order ID (same as member ID). Maximum of 19 numeric	P
pi_code	Product code for the product purchased	P
trans_amount	Transaction amount in the customer's local currency	
trans_amount_usd	Transaction amount in USD	
trans_currency	Customer's payment currency	
transaction_id	Customer's Epoch assigned transaction ID.	
session_id	Original returned session ID from response query string. Value generated by the FlexPost™ interface. May be used for any repeated POSTs to https://wnu.com/secure/services (for example, resubmitting corrected form values.) The original session is valid for 10 minutes.	session_id
amount	Transaction dollar amount	
currency	Customer's payment currency.	
localamount	Transaction amount in the customer's local currency.	
ans	Bank approval code and member ID. See Sample Response Query Strings.	P
submit_count	Number of times data was submitted (at least 1).	P
x_*	Pass-thru fields for primary account.	P
po_referrer	The referring company code.	NP
xs_*	Pass-thru fields for non-primary account.	NP
po_rf_code	The referring company's reseller code, if passed in.	NP
order_id2 order_id3	Customer's Epoch assigned order ID from the first PurchasePlus™ product offer (order_id2) or the second PurchasePlus™ product offer (order_id3).	P if offering your product; NP if offering another company's product.
pi_code2 pi_code3	Product ID for the first PurchasePlus™ product offer (pi_code2) or the second PurchasePlus™ product offer (pi_code3)	P if offering your product; NP if offering another company's product.
ans2 ans3	Bank approval code and member ID. See: Sample Response Query Strings.	P if offering your product; NP if offering another company's product.

* [pass-thru]

```
ans=[STATUS][APPROVE/DENY CODE][AVS CODE][CVV2 CODE][BANK RESPONSE]||[MEMBER ID]&submit_count=[COUNT]
&co_code=[COMPANY CODE]&pi_code=[PRODUCT CODE]&ans2=[STATUS][APPROVE/DENY CODE][AVS CODE][CVV2 CODE][BANK
RESPONSE]||[MEMBER ID]&co_code2=[COMPANY CODE]&pi_code2=[PRODUCT CODE]&ans3=[STATUS][APPROVE/DENY CODE]
[AVS CODE][CVV2 CODE][BANK RESPONSE]||[MEMBER ID]&co_code3=[COMPANY CODE]&pi_code3=[PRODUCT CODE]&[PASS THRU
FIELDS]
```

Each of the parameters is explained below. The brackets do not appear in the response string. The above string shows the response query for a main product offer (parameters following “ans”) and two optional “PurchasePlus™” product offers (parameters following “ans2” and “ans3”). If there are no PurchasePlus™ offers, or the main product offer is denied, the response query will not contain the parameters in **blue** or **red** type. If there is only one PurchasePlus™ offer, the response query will not contain the parameters in **red** type.

STATUS: A one letter code with value Y (transaction approved) or N (denied). If the status of the main offer (following “ans”) is N, the status of the PurchasePlus™ offer(s) will also be N. If the status of the main offer is Y, the PurchasePlus™ offer(s) may have a status of either Y or N.

APPROVE/DENY CODE: If the status is Y, the approval code is a numerical code (up to six digits; may contain spaces). If the transaction is denied (status = N), the denial code is an abbreviated description of the reason for the denial. Explanations of the denial codes may be found in the denial code table below.

AVS CODE: A one-letter code that always follows an approval. An AVS code does not follow a denial.

CVV2 CODE: A one-letter code that may follow an approval. A CVV2 code does not follow a denial.

BANK RESPONSE: May follow an approval. Bank response text does not follow a denial. Example approval code with bank response: Y012356Z,0123532187,CAPTURED
(Note the pipe character after the Bank response field.)

MEMBER ID: Up to 19 digits. A member ID only follows an approval. If an PurchasePlus™ offer is also approved, it will be followed by a different member ID.

SUBMIT COUNT: The number of times the user submitted the payment data form (at least 1).

COMPANY CODE: The company code. The company code following an PurchasePlus™ offer may or may not be the same as the primary company code.

PRODUCT ID: The product ID code.

PASS THRU FIELDS: Any fields beginning with x_ (for the primary offer) or xs_ (for PurchasePlus™ offers) that were submitted with the payment data form.

DECLINE REASONS

NMYNEGDB	Transaction Data not allowed.
NMYCEH	Customer already has a membership.
NDECLINED	Declined by bank.
NMYBLOCKEDZIP	Postal code is not allowed by the merchant.
NMYSERVNOTALLOWED	Service not allowed.
NMYDNVEL	Too many denials.
NMYNOTACCEPTED	Payment type not accepted.
NDECLINEDE	Declined due to velocity.
NMYVSNOTACCEPTED	Visa not accepted for the site.
NMYMCNOTACCEPTED	Mastercard not accepted for the site.
NMYSWNOTACCEPTED	Switch not accepted for the site.
NMYSONOTACCEPTED	Solo not accepted for the site.
NMYDSNOTACCEPTED	Discover not accepted for the site.
NMYDDNOTACCEPTED	Direct Debit not accepted for the site.
NMYINVINFO	One of the required parameters contains an invalid value.
NINVCVV2	Invalid CVV2.
NMYDENIED	Denied.
NMYDUPLICATE	Duplicate membership.
NMYIDNOTACCEPTED	iDeal not accepted.
NMYGPNOTACCEPTED	Giropay not accepted.
NMYPNNOTACCEPTED	eBanking not accepted.
NMYDINOTACCEPTED	Dutch Incasso not accepted.
NMYDCNOTACCEPTED	Diners card not accepted.
NMYJCNOTACCEPTED	JCB not accepted.
NCALLCENTER	Declined by bank.
NDECLINEDINSFUNDS	Declined to insufficient funds.
NMYRETRY	There was a problem, please try again.
NMYINVAMT	Declined by bank.
NINVDATA	Declined, customer should contact bank for further info..
NDECLINEDCVV2	Invalid CVV2.
NBADZIP	Invalid Postal Code.
NEXPIRED	Declined by the bank.
NMYCNDB	Card is not accepted by merchant.
NMYINVALIDEXP	Card expiration is invalid.
NMYINVCARDEXPIRATION	Card expiration is invalid.
NMYTESTDENIAL	Test card denial.
NMY%NOTACCEPTED	Payment type not accepted, where % is the type. (Example: NMYVSNOTACCEPTED - Visa not accepted)

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