



Agency Guide to Collections

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This version of the *Agency Guide to the Collections Service* supersedes all previous versions.

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Revision History

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1 Introduction

This guide provides information to federal agencies regarding features of the Pay.gov collections services and the processes agencies should follow to implement them. It is intended for agency users who will be using these services.

1.1 Related Documents

Documents referenced in this guide and documents providing supplemental information can be downloaded from the Pay.gov documentation Web site located at <https://qa.pay.gov/agencydocs/>. Pay.gov's public website (<https://pay.gov/public>) includes comprehensive online help.

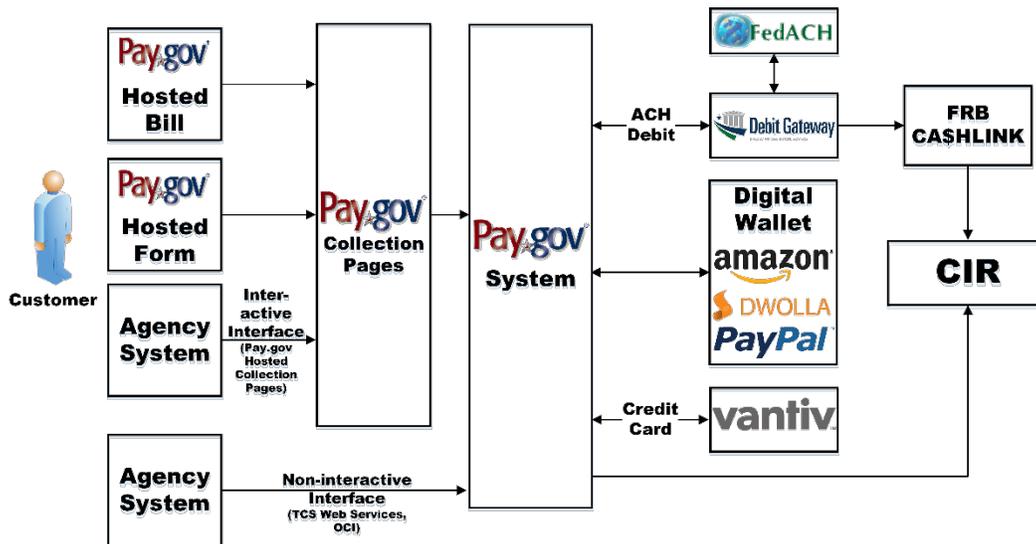
2 Overview of Pay.gov Collection Services

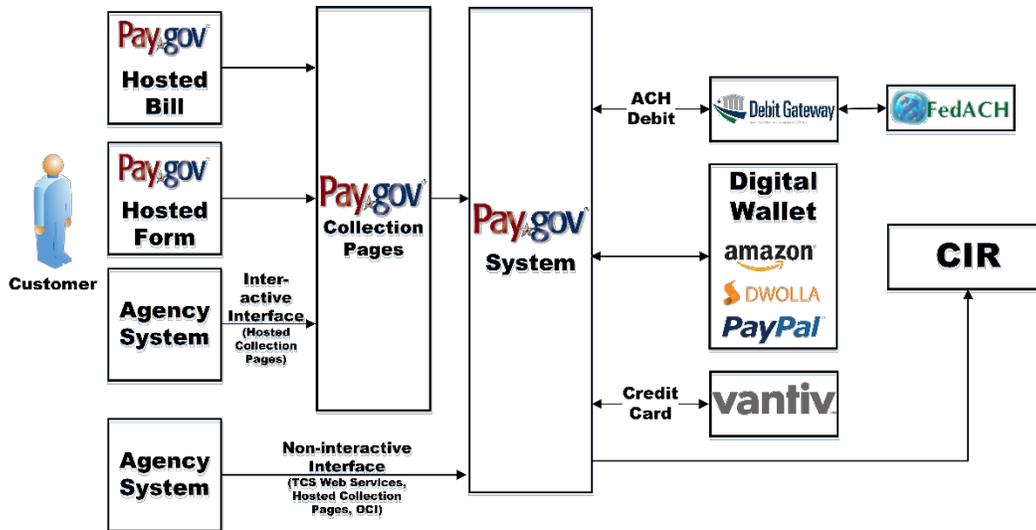
Pay.gov collection services collect and process the following types of Internet-authorized collections, available at the choice of the agency:

- *Plastic card*: American Express; Discover and Discover-branded such as JCB, Union Pay and some Diners Club, MasterCard and Visa with settlement provided by the Bureau of the Fiscal Service approved bank(s). Only MasterCard- and Visa-branded debit cards are accepted.
- *ACH direct debit*: Deductions from a checking, savings, or general ledger account via Automated Clearing House (ACH) debit entries processed at the Federal Reserve Bank of Cleveland.
- Digital Wallet funded and approved by Amazon Payments, Dwolla and PayPal. Other digital wallet service providers may be added in the future.

The collection methods shown in Figure 1 are described later in this guide.

Figure 1: High-level overview of the Pay.gov collection methods and flow





2.1 ACH Debit

The customer's bank account is debited with credits automatically created to the Treasury on the agency's behalf. Collections are processed by Pay.gov via the Debit Gateway at the Federal Reserve Bank of Cleveland and FedACH. Settled payments are forwarded to the Collections Information Repository (CIR).

2.2 Plastic Card

Pay.gov accepts plastic card (credit card and debit card) collections on behalf of Federal agencies and provides real-time authorization for each attempted plastic card transaction. Settlement is processed by Vantiv, the card acquiring processor of the Bureau of the Fiscal Service's financial agent, Fifth Third Bank, with settled payments forwarded to the CIR.

2.3 Digital Wallet

Payments using digital wallet providers Amazon Payments, Dwolla and PayPal are an option available with Pay.gov Hosted Forms, eBilling Online and the eBilling Web Service. If an agency customer selects one of the digital wallet services as the payment method, Pay.gov redirects the customer to the correct digital wallet provider's website to complete the payment. Pay.gov only records the payment amount and whether or not the payment was approved or rejected by the provider. Pay.gov is not aware of any customer account or funding details.

Digital wallet payment settlement is handled by the provider according to their schedule.

Amazon and PayPal accept both plastic cards and ACH for Pay.gov transactions, or can use the customer's account balance.

Customers using Dwolla must have a Dwolla account linked to their bank account or use a Dwolla proprietary credit account. No other funding method is permitted. Payment funded by a bank account are ACH transfers between the customer's

bank account and Dwolla's fiscal agent, which forwards payments for settlement separately from Pay.gov.

2.4 Pay.gov Processing Availability and Payment Settlement

Customers can submit payments on Pay.gov's public website twenty-four hours-a-day, seven-days-a-week, including holidays.

2.4.1 ACH Payments

ACH payment processing follows the Federal Reserve holiday schedule available at <http://www.federalreserve.gov/aboutthefed/k8.htm>.

Payments will not settle on the Federal Reserve designated holidays listed.

If the U.S. Treasury Department's designated depository is closed on a scheduled payment date, including weekends and some holidays, the payment will occur the next day the depository is open.

2.4.2 Plastic Card Payments

Credit card payments will be processed the next business day as determined by the settlement agent.

2.4.3 Digital Wallet Payments

Digital Wallet payments may be submitted twenty-four hours a day, seven-days-a-week, including holidays. Approval or rejection of a payment is returned to Pay.gov before the user can complete the transaction.

Digital wallet providers use their own settlement agents, separate from Pay.gov's. Settlement with a customer's ACH or plastic card account is opaque to Pay.gov.

From the Pay.gov and agency view, transaction information is sent from the digital wallet provider to Pay.gov by 9:00 a.m. on the business day following the day a payment is made. Pay.gov then processes the information and submits it to the Collections Information Repository (CIR). CIR then credits the agency accounts.

This means that digital wallet payment information is only processed by Pay.gov Monday through Friday. Payments made anytime on Saturday or Sunday do not appear in an agency's account until reported to the CIR on the following Monday, if that is a business day.

For example, assuming that Monday is not a holiday:

1. A digital wallet transaction is made at any time on Monday.
2. The digital wallet provider immediately accepts or rejects the payment, and informs Pay.gov so the transaction can be completed.
3. On Tuesday, by 9:00 a.m., the digital wallet provider sends the transaction information to Pay.gov.
4. Pay.gov processes the information and sends it to CIR, which then credits the individual agency accounts.

In a process that takes place every day between 9:00 a.m. and 5:00 p.m., including weekends, the digital wallet provider transfers funds from the previous day's

Pay.gov transactions to the Treasury's account. However, these funds may not appear in an agency's account until Pay.gov processing is complete and the corresponding transactions have been reported to the CIR. This means that funds for transactions taking place on Saturday or Sunday will not appear in agency accounts until they are reported to the CIR on Monday, even though the funds have already been moved to the Treasury's account. The same applies to transactions taking place on holidays, those funds will not appear in an agency's account until they are reported to CIR the following business day.

2.5 Payment Dates

In general, the date a payment is recognized as being made depends on the payment method's processing schedule and any processing cutoff times. Agencies can allow payments to be made on any calendar date allowed by the payment method, with the understanding that the payment may not be processed until the next business day (depending on the payment method).

In their application setup, agencies have the option to select a range of specific dates within which payments are allowed. Dates outside the range will not be selectable. For example, allowed payment dates might be restricted to an enrollment period.

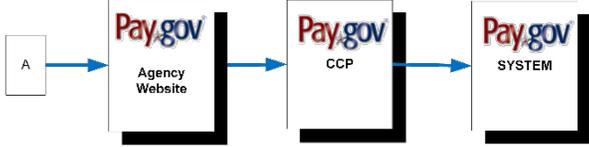
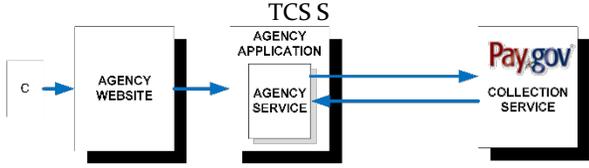
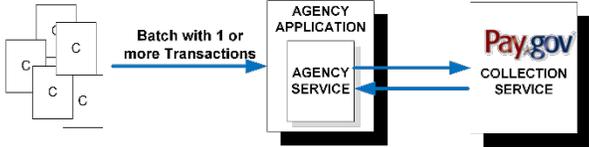
2.6 Recurring and Deferred Payments

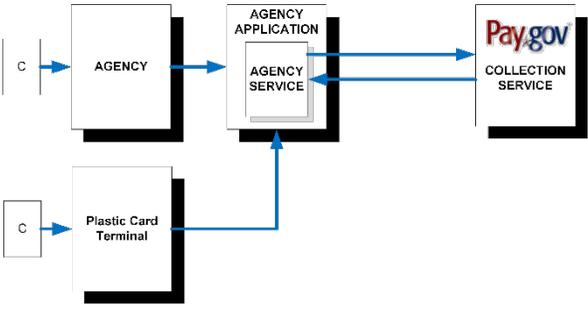
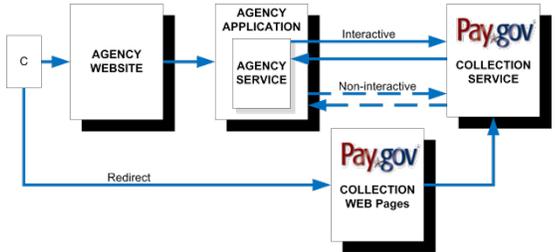
Agencies have the option to allow recurring and deferred payments for their applications. Payments can be entered in Pay.gov on any calendar date, but the actual payment date may be the next bank business day. For recurring payments, any payments that fall on a weekend or holiday during the recurring schedule will be shifted to the next bank business day.

3 Initiating a Collection

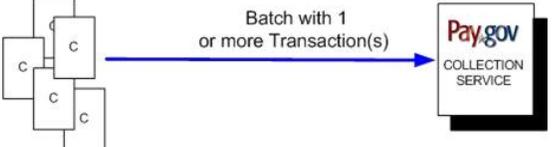
A collection can originate from an agency, from an agency form hosted on Pay.gov’s public website, from an agency user entering collection information on Pay.gov’s agency website on behalf of a customer, or by the customer responding to a bill notifying them of required payment.

Both interactive and non-interactive connectivity is used for collections. Interactive services allow agency users or customers to directly enter information on Pay.gov website pages. Non-interactive services are used when an agency system submits data directly to Pay.gov’s system. Some services combine interactive and non-interactive services.

Service	Flow
<p>Collections Control Panel (CCP) Interactive.</p> <p>On behalf of a customer, an agency user enters ACH or plastic card transaction data in the CCP on Pay.gov’s agency website. Pay.gov’s collection service processes the data and submits the transaction for settlement according to its processing schedule.</p>	 <p>The diagram shows a flow starting from a box labeled 'A' pointing to a 'Pay.gov Agency Website' box. An arrow points from the Agency Website to a 'Pay.gov CCP' box, which then points to a 'Pay.gov SYSTEM' box.</p>
<p>TCS Single Web Service Non-interactive.</p> <p>The agency sends the data for a single collection to Pay.gov for immediate processing. The customer submitting the payment never leaves the agency application or website.</p> <p>Pay.gov forwards the information to the appropriate settlement provider. When Pay.gov finishes settlement processing, the collection results are sent back to the agency application.</p>	 <p>The diagram shows an 'AGENCY WEBSITE' box with an arrow labeled 'C' pointing to an 'AGENCY APPLICATION' box. Inside the Agency Application is an 'AGENCY SERVICE' box. A double-headed arrow connects the Agency Service to a 'Pay.gov COLLECTION SERVICE' box. Above the Agency Application and Agency Service is the label 'TCS S'.</p>
<p>TCS Batch Web Service Non-interactive.</p> <p>The agency sends the data for multiple collections in a single transmission to pay.gov for offline processing</p>	 <p>The diagram shows a stack of boxes labeled 'C' with an arrow labeled 'Batch with 1 or more Transactions' pointing to an 'AGENCY APPLICATION' box. Inside the Agency Application is an 'AGENCY SERVICE' box. A double-headed arrow connects the Agency Service to a 'Pay.gov COLLECTION SERVICE' box.</p>

Service	Flow
<p>TCS Plastic Card Web Service</p> <p>Non-interactive.</p> <p>The agency sends data for a plastic card transaction to Pay.gov for immediate processing. Mail, phone and card-present magnetic stripe or EMV terminal transactions can be submitted.</p> <p>The service can also be used to set up recurring plastic card payments.</p>	 <p>The diagram illustrates the flow for TCS Plastic Card Web Service. A customer (C) interacts with the Agency and a Plastic Card Terminal. Both send data to the Agency Service (part of the Agency Application). The Agency Service then sends data to the Pay.gov Collection Service.</p>
<p>Hosted Collection Pages</p> <p>Combination of non-interactive and interactive.</p> <p>A customer enters data about the transaction is collected on the agency's website, but at the time of payment the customer is redirected to Pay.gov's payment pages to enter the financial information for their payment.</p> <p>The agency does not see any financial information. Only the success or failure of the payment is returned by Pay.gov.</p>	 <p>The diagram illustrates the flow for Hosted Collection Pages. A customer (C) interacts with the Agency Website. The Agency Website sends data to the Agency Service (part of the Agency Application). The Agency Service connects to the Pay.gov Collection Service via both Interactive and Non-interactive paths. Additionally, the Agency Website sends a Redirect to the Pay.gov Collection Web Pages, which then connects to the Pay.gov Collection Service.</p>
<p>Pay.gov Hosted Forms</p> <p>Interactive.</p> <p>An agency form is hosted on Pay.gov. Customers enter all transaction data on the form on Pay.gov's public website and then enter payment information on Pay.gov's payment pages.</p>	 <p>The diagram illustrates the flow for Pay.gov Hosted Forms. A customer (C) interacts with the Pay.gov Form. The Pay.gov Form sends data to the Pay.gov Collection Details, which then connects to the Pay.gov Collection Service.</p>

Service	Flow
<p>eBilling Web Services</p> <p>Non-interactive.</p> <p>Two separate web services are used to create an ebill; the ebilling service and the access code service.</p> <p>The agency uses the ebilling service to submit data that will be used to populate a bill form previously created for the agency by Pay.gov.</p> <p>The agency uses the access code service to request creation of an access code for the ebill. The access code controls who may view and pay.</p> <p>Separate bill and access code notices are sent to a customer. The customer may then access the ebill on Pay.gov's public website and complete the associated payment.</p>	<pre> graph TD subgraph Agency AA[AGENCY APPLICATION] AS[AGENCY SERVICE] end subgraph PayGov ES[eBILLING SERVICE] EWP[eBilling WEB Pages] CS[COLLECTION SERVICE] ACS[ACCESS CODE SERVICE] end subgraph Customer C[C] end AA -- "File with eBill Data" --> ES ES --> EWP EWP --> CS AS -- "Access Code Request File" --> ACS ACS -- "Access Code" --> AS ACS -- "Access Code eMAIL (Option)" --> C C -- "Bill Notification eMails with Security Question & Answer (Access Code Sent Separately If Not Sent by Pay.gov)" --> EWP </pre>
<p>eBilling Online</p> <p>Interactive.</p> <p>Agency users enter ebill and access code data on a Pay.gov website. Both individual and small batches of ebills and access codes can be submitted.</p> <p>Pay.gov processes the data immediately upon receipt.</p> <p>Separate bill and access code notices are sent to a customer. The customer may then access the ebill on Pay.gov's public website and complete the associated payment.</p>	<pre> graph LR A[Agency users] --> EOW[eBilling Online Website] EOW --> PS[Pay.gov SYSTEM] PS --> PW[Public Website] PW --> PP[Payment Pages] C[Customer] --> PW </pre>
<p>Open Collections Interface</p> <p>OCI Interactive</p> <p>The customer is redirected from the agency's site to a collection page hosted on Pay.gov to make their payment. After completing their payment, the customer is returned to the agency site.</p>	<pre> graph LR AW[AGENCY WEBSITE] -- User --> CD[Pay.gov COLLECTION DETAILS] CD --> CS[Pay.gov COLLECTION SERVICE] </pre>

Service	Flow
<p>Open Collections Interface</p> <p>OCI Non-Interactive</p> <p>Not available for new agency implementations. A TCS web service should be used instead.</p> <p>The agency site records the payment data and passes it to Pay.gov after the end-user completes the transaction on the agency site. The transaction information can either be sent to Pay.gov as a single item or a number of transactions can be collected together and sent as a batch.</p>	 <p>The diagram illustrates the data flow for the OCI Non-Interactive service. On the left, four overlapping rectangular boxes, each containing the letter 'C', represent individual transactions. A blue arrow points from these boxes to the right, with the text 'Batch with 1 or more Transaction(s)' positioned above the arrow. On the right side of the arrow is a logo for 'Pay.gov COLLECTION SERVICE', which consists of the 'Pay.gov' text in red and black, with 'COLLECTION SERVICE' in black below it, all enclosed in a white box with a black border.</p>

The TCS Single Query Web Service, TCS Multiple Item Query Web Service, TCS Batch Results Web Service, and the Reporting Service are used to retrieve transaction information or the status of batch transaction uploads.

4 Collections Implementation

4.1 Process

1. The agency signs the *Agency Participation Agreement* to conduct business with Pay.gov. If credit cards will be accepted, the agency will also have to complete and file a *Card Acquiring Service Agreement* and an *Internet Amendment* with the Bureau of the Fiscal Service to allow the acceptance of credit cards over the Internet. No additional agreement or account is needed if the agency will accept Digital Wallet payments. Payments made through a digital wallet service provider use a single Treasury agreement and account.
2. The agency decides how collections will be initiated: from a public or private form hosted on Pay.gov, from a form hosted on the agency's website, from an ebill sent to a user, or via another method such as payments via phone or mail that are then submitted using a TCS web service or the CCP.
3. The agency works with their Bureau of the Fiscal Service agency liaison to fill out the Agency Configuration Template (ACT), providing information about how collections will be initiated and the collection and connectivity configuration sections.
4. Where necessary, the agency works with Pay.gov developers to develop the form or bill template or to implement a TCS service. Refer to the appropriate Pay.gov guide and reference for the service being implemented.
5. The agency security contact submits access requests for application users to Pay.gov Application Security. Refer to the *Agency Guide to Access Control* for more information about application user roles and access control.
6. The agency tests the application in the QA environment to ensure collections are working correctly.
7. When all tests have been performed and collections are working satisfactorily, an agency representative signs a "Move to Production" form to indicate the application is ready for production.
8. The application is moved into the Pay.gov production environment.
9. While it is not required, we encourage agencies to submit test transactions for all the payment methods accepted in the production environment before opening up the application to their customers.

4.2 Agency Resource Requirements

Agency staff members need to have a good understanding of the ACH and credit card collection processes and of PayPal or Dwolla if the agency's application(s) accept either of those payment methods. They also need to generate tests that will fully test the application and be able to interpret the results. Whatever resources are used in the collection (such as forms, bills, TCS or OCI) will require development and possibly a degree of programming by the agency. The exact details for each resource are covered in the appropriate agency guide, which are listed in section 1.1.

4.3 Development Time

The collections service is usually developed in conjunction with a form or bill. If the collection uses OCI, time will be spent developing the connection between the agency's website and Pay.gov. If the collection uses TCS, time may be spent developing Web service interfaces and XML. The agency should also set aside time to fully test the ACH and credit card processes in the QA environment. A development estimate for forms and bills will be provided to the agency once the ACT document is completed and signed.

5 The Collections Service

Pay.gov's Collection Service is the central processing hub for data submitted by all the other collection services described in this guide.

In general and depending on the requirements of the agency application and the Pay.gov service used, the Collections Service:

- accepts transaction and payment data
- validates data as necessary
- submits payment data to the appropriate settlement service, according to Pay.gov's schedule
- receives status responses from the settlement services
- provides agencies with status and details for a transaction and payment, as required by the agency application
- submits transaction and settlement data to the Central Information Repository and any other US Treasury or Federal Reserve Bank services needed to make payment funds available to an agency
- stores transaction and payment data in Pay.gov databases where it can be retrieved by the Reporting and other services

Figure 2: Pay.gov Collections Service



Figure 2 is only a high-level approximation of the relationship between the collections service, other Pay.gov services and interfaces, and with external services. The collections service both sends and receives data.

6 Collections Control Panel (CCP)

The CCP is a set of functions available only to agency users on their agency website User Page after they log in. The functions available to a user are determined by the role assigned them by the agency; these may include:

- Searching transactions
- Creating plastic card sales, authorizations and force on behalf of a customer
- Refunding plastic card transactions
- Creating ACH debits on behalf of a customer
- Entering ACH prenotifications
- Editing ACH debits
- Canceling ACH debits
- Requesting digital wallet transaction refunds from Amazon or PayPal

Agency users can only perform their assigned CCP functions for the applications they have been given access to.

Transaction and payment data is entered on web pages on Pay.gov's agency website.

The CCP is available to agencies, no matter what Pay.gov service their collection applications use. Transactions may be entered through the CCP as well as via the other service used by the application.

In some cases, the CCP may be the only collection service needed.

See the *Agency Guide to the Collections Control Panel (CCP)* for more information.

7 Trusted Collection Web Services (TCS)

TCS provides secure interactive and non-interactive web services for single, batch and plastic card collections.

7.1 TCS Single Web Service

TCS Single is a non-interactive system-to-system service that allows an agency application to send a single non-interactive collection to Pay.gov for immediate processing. The end-user submitting the payment never leaves the agency application or website. Instead, the application will open an HTTPS session with Pay.gov and send only the relevant collection data. Pay.gov forwards the information to the appropriate settlement provider. When Pay.gov finishes settlement processing, it sends the results of the collection back to the agency application. The HTTPS session is closed and the transaction is complete.

7.2 TCS Batch Web Service

TCS Batch is a non-interactive system-to-system service that allows an agency application to send multiple non-interactive collection transactions in a single transmission to Pay.gov for offline processing. It is best suited for agencies that process large volumes of transactions, that do not require immediate transaction processing, or whose workflow is best suited to batch processing. Unlike TCS Single, TCS Batch only returns the status of the settlement submission back to the agency application (for example if the submission has been accepted).

7.3 TCS Plastic Card

TCS Plastic Card is a non-interactive system-to-system service that allows an agency application to submit plastic card transactions gathered via mail, phone and plastic card reader terminal (both magnetic stripe and EMV). Pay.gov processes transactions immediately upon receipt.

The service also accepts a non-interactive request to setup a schedule for recurring plastic card collections for a single plastic card account. If the first payment date in the schedule is the same as the current date, Pay.gov will immediately submit the payment for authorization. Otherwise, Pay.gov schedules the payment for authorization and the agency can query for the authorization results on the payment dates. This feature is only available to agency applications where the card-present indicator is mail or phone.

Agencies can also use TCS Plastic Card to authorize and force plastic card transaction, to get dates for recurring payments, and to cancel remaining transactions in a recurring payment series.

7.4 TCS Queries

TCS also supports secure methods by which agencies can query the status of collections. For more information about working with the Trusted Collection Service and TCS query services refer to the *Trusted Collection Services Technical Reference Manual*.

8 Hosted Collection Pages

Pay.gov Hosted Collection Pages combines non-interactive and interactive TCS web services to allow an agency application separate transaction information from customers' payment financial data. Customers begin by entering transaction data on the agency's site. When they choose to make a payment they are redirected to payment pages on Pay.gov where they enter their financial information. Pay.gov processes the transaction immediately and submitted for settlement according to Pay.gov's schedule. No financial information is collected or stored by the agency.

8.1 Transaction Details

Agencies can use the `getDetails` service to request details for one or more transactions previously made through Hosted Collection Pages. Details returned include any secondary actions taken on the transaction, even if that was done through another interface or service.

For example, a transaction is created through Hosted Collection Pages and then refunded (new transactions) through the CCP or voided through the TCS Single. The refund or void is included in the transaction details returned to the agency by Pay.gov.

8.1.1 Retrieving Details When Completing a Transaction or Force

When transactions are first completed or forced agencies can use a single request that also returns transaction details. See the *Hosted Collection Pages Technical Reference* for information.

9 Pay.gov Hosted Forms

Agencies can choose to have customers enter transaction data on Pay.gov's public website rather than the agency's website.

Once a customer completes entering transaction data and chooses to make the payment, they are taken to a Pay.gov payment page. On that page they select a payment method, enter their financial information, and are moved to Pay.gov pages to authorize the payment and receive a confirmation.

Available payment methods are limited to those allowed by the agency for the application and might be limited by what is being paid for or if a large payment is being made.

Once authorized by the customer, the payment is process by the Collection Service and submitted for settlement following Pay.gov's schedule. =

See the

10 eBilling Services

Agencies can bill customers using either of two services: the eBilling Web Services and eBilling Online. Both services allow agencies to create online bills (accessible on Pay.gov's public website), control access to the bills and notify customers of required payments. Both services use Pay.gov's Collection Service to process payments.

Agencies can specify whether or not a customer is required to log in to Pay.gov before being able to view an ebill. eBills requiring log in are associated with a specific Pay.gov account and are only accessible after the payer logs in. Payers are able to view past and present billing activity online.

To view eBills that do not require log in, the payer enters the access code and answers the security question on the Pay.gov public website. This must be done each time the payer wishes to view the bill until the bill is paid or the access code expires. Pay.gov does not keep an online record of activity accessible to payers.

See the *Agency Guide to the eBilling Service*, the *eBilling Services Technical Reference Manual* and the *Agency Guide to eBilling Online* for details.

11 Open Collections Interface (OCI)

The Open Collections Interface (OCI) provides for two types of collection initiation: interactive and non-interactive.

An *interactive* transaction begins with the end-user at the agency application. The user is forwarded to the Pay.gov hosted collection screens upon initiation of the payment process where they are guided through the payment process, entering information as necessary. At the end of the process, the user is returned to the agency-hosted page with an indication of transaction success or failure. OCI protocol version 5.1, available for OCI-Interactive (OCI-I) only, provides support for TRS' Treasury Account Symbol (TAS)/Business Event Type Code (BETC) accounting feature. This has been expanded in Pay.gov version 5.3 to allow for separate credit and debit BETCs for each TAS/BETC combination created. See Appendix [B](#) for TAS/BETC specifications.

Note: With the release of Pay.gov 5.1 non-interactive versions of OCI are no longer available for new agency implementations. New implementations should use the Trusted Collection Services (TCS) instead.

OCI Non-Interactive versions remain available for existing agency implementations.

Non-interactive transactions enable an agency to submit collections without having the end-user visit a Pay.gov-hosted collection page. The agency collects the payment information and then forwards it to Pay.gov. The information may be forwarded at the time of the transaction (OCI Non-Interactive Single) or at a time of the agency's choosing (OCI Non-Interactive Batch). The OCI Non-Interactive Single service allows a user to remain on the agency's site while the transaction is processed at Pay.gov; transaction details are returned to the agency for presentation to the user. OCI Non-Interactive does not support TAS/BETC.

OCI also supports secure methods by which agencies can query the status of collections. For more information about working with the Open Collections Interface, please refer to the *Open Collections Interface (OCI) Reference Manual*.

12 Reporting

Online reports and activity files are available through Pay.gov's Reporting Service. Summaries of transaction activity is summarized and report drilldowns provide detailed information for individual transactions. Reports and activity files are available for all payment methods.

Depending on the report, information may be available in HTML and Microsoft Excel format. Activity files provide details in electronic XML format.

See the *Agency Guide to the Reporting Service*, the *Agency Guide to Amazon Collections*, the *Agency Guide to PayPal Collections* and the *Agency Guide to Dwolla Collections* for more information about reports and activity files.

13 Agency-Specific Collections Data

Agencies may configure their applications to allow input of agency-specific data in addition to the standard data for a transaction. The data might be supplied by the agency user at the time the collection is created, the agency's system, or input by the customer.

If optional collections data is used, values can be required or optional for a transaction. For example, an agency issuing access permits for multiple areas could require the area to be specified and the dates of access. The data could be gathered from the customer in fields on a Pay.gov hosted form or included by the agency in transactions submitted via a TCS web service.

13.1 Custom Collection Fields

Pay.gov allows defining up to twelve custom collections fields during application configuration. These fields can be used to

- gather data from a customer;
- provide additional information to the customer and agency about the collection, such as an invoice number;
- provide information about the collection to the agency only, for example when viewing transaction details on a Pay.gov report.

Up to 255 characters may be collected in each custom collections field.

Data collected through these fields is available to the agency in online report details or as part of the activity files.

13.1.1 Field Configuration

Data collection and display is configured using the following options:

- *Required:* A value must be entered in this field for the transaction to proceed.
- *End-User Entry:* The user may enter data if they want to.
- *Display to End User:* This option displays the field name and any value in read-only fashion on the payment entry, summary and confirmation pages, and in any emails sent in regard to the transaction. This field can be used on its own to display any data that the agency sends with the transaction or used in conjunction with the end user entry field to allow the user to enter data displayed on the collection screens and emails.
- *Encrypted:* The entered data is encrypted and stored in the Pay.gov database. If a field is encrypted, it cannot be used as an addenda field. For all fields that have been set to "Encrypted," neither the field name nor the value will be displayed in any confirmation emails. Encrypted data will be decrypted and displayed in reports and activity files.
- *Addenda:* One of the fields can be selected to have the entered data passed along with the transaction information to the ACH settlement bank. The first 80 characters entered into this field will be passed along with the transaction to the account holder's financial institution. The financial

institution then has the option to report this information to the account holder.

The agency is responsible for submitting custom collection field values if the field is viewable but not editable or not viewable by the customer.

Note: NACHA guidelines state that transactions with the SEC code TEL may not contain payment-related information in the addenda record.

13.1.2 Allowed characters

Agencies can label the fields as they wish, subject to the allowable character restrictions in Table 1.

Table 1: Allowable characters in custom collection field names

Decimal Value	Character
10	line feed
13	carriage return
32	space
36	\$
39	' (apostrophe)
40	((left parenthesis)
41) (right parenthesis)
44	, (comma)
45	- (hyphen)
46	. (period)
48-57	Numbers 0-9
58	: (colon)
59	; (semicolon)
64	@ (at sign)
65-90	Uppercase letters (A-Z)
95	_ (underscore)
97-122	Lowercase letters (a-z)
124	(pipe delimiter)

13.2 Agency Memo Field

Pay.gov supports an agency memo field for both Collections Control Panel (CCP) transactions and for collections submitted to Pay.gov through OCI. The memo field enables an agency application to send agency-specific data along with a transaction for later reporting back to the agency in an activity file.

An agency memo field may contain up to 2,048 alphanumeric characters.

13.3 Custom Bill Data

eBilling Online only

When creating an ebill, agency users can create custom bill data that will appear on the bill. Generally, custom bill data is used to provide the customer and agency

with specific information about the bill. Examples of custom bill data include the name of the customer being billed or a permit number.

- Custom Bill Data is optional and can be left blank if not used.
- Bill Data consists of a label and a value.
- Each ebill can have up to ten custom bill data labels and their values.
- Each custom field label must be 40 characters or smaller.
- Each custom field value must be 40 characters or smaller.
- Use only the ASCIIz character set for custom field labels and values.

See the *Agency Guide to eBilling Online*.

13.4 TAS/BETC Classifications

The Treasury Account Symbol (TAS) and Business Event Type Code (BETC) combination is an accounting feature provided to agencies. It allows agencies to allot (split) credit and debit transactions for an application to multiple accounting categories. This data is gathered by Pay.gov through the TCS interface and then passed to CIR. See the Bureau of the Fiscal Service (formerly FMS) website (<http://www.fms.treas.gov>) for details.

TAS/BETCs are set up at the application level. Agencies wishing to use TAS/BETC must first contact the Bureau of the Fiscal Service for the initial set up and then have the TAS/BETC's added to their applications by Pay.gov. Pay.gov limits the number of TAS/BETCs set up for an agency application to a maximum of 99.

Use of TAS/BETC by an agency is optional and is implemented in TCS Single and TCS Batch by the optional `classification` element in the XML schema. If the classification element is included for a transaction two attributes are required: `classification_id` and `amount`.

13.4.1 TAS/BETC Configuration

TAS/BETCs are configured using the latest version of the Agency Configuration Template Appendix E spreadsheet, available in the ACT Information section of the Pay.gov documentation website (<https://qa.pay.gov/agencydocs/index.html>). Agencies must work with their Pay.gov Agency Implementation liaison to complete the spreadsheet.

13.4.2 TAS/BETC Types

Only the Component TAS type is supported by Pay.gov and Government-wide Accounting.

A component TAS is expressed as values in ten fields, which are passed by Pay.gov as a string. Values are required for five of the fields. Fields containing no values are passed as blanks or spaces within the string.

13.4.3 Credit and Debit BETCs

Each TAS/BETC combination set up for an agency is required to have two separate Business Event Type Codes (BETCs). One is to be used to identify for credit (incoming) collections. The other identifies debit transactions charged against the

agencies account (refunds issued by the agency, for example). TAS/BETC setup is performed by Pay.gov personnel, through the agency administration process.

13.4.4 Classification_id or TAS/BETC Label

When set up by Pay.gov all TAS/BETC's must be assigned a TAS/BETC Label. The label is an agency-defined string that identifies the actual TAS/BETC. Each allocation has its own TAS/BETC and so has its own label. For example a transaction could have three allocations labeled Fee, Penalty and Sales Tax correspondingly.

Each label must be unique within the application and cannot be longer than 80 characters. Only the following characters are valid:

A-Z, a-z, 0-9, space

Only one contiguous space is allowed between parts of a label, for example: Penalty 1, or Usage Fee 1. Leading and following spaces are not allowed.

When TAS/BETC is used for a collection, the agency passes the TAS/BETC Label string as the value for the `classification_id` attribute within the XML `classification` element in the collection request to Pay.gov. Pay.gov uses the label value to retrieve the actual component or string TAS, which is then passed to CIR along with the other collection details.

13.4.5 Refunds for Transactions with TAS/BETC Allocations

Full Refunds

The allocations for all TAS/BETCs are reversed.

Partial Refunds

No TAS/BETC allocations are reversed. This includes both transactions having a single TAS/BETC value and transactions having multiple TAS/BETC values.

This is because Pay.gov does not pass any TAS/BETC data to the CIR for partial refunds performed against a transaction. Pay.gov only passes the CKey value to the CIR, which passes it downstream to GWA. As a result, the TAS/BETC values submitted with the original transaction are not adjusted or reversed when the partial refund is processed.

14 Agency Tracking IDs

Agencies must supply a unique Agency Tracking ID for each transaction.

However, it is possible for agencies to assign the same Agency Tracking ID to both a bill and to another transaction within an agency.

For example:

1. A bill is created with the Agency Tracking ID of 1122334455. The bill is sent to a customer, but the customer does not immediately respond and make a payment. The bill remains pending for a period of time.
2. During the time the bill is pending, the agency creates a new transaction through the CCP. The transaction is assigned the same Agency Tracking ID of 1122334455 and is submitted.
3. After the CCP transaction has been submitted, the customer that received the bill attempts to pay it. Pay.gov prevents the payment because it detects that the Agency Tracking ID is a duplicate of one already used to complete a transaction.
4. The customer is unable to pay the bill and the bill remains in the system as a pending bill.
5. The agency is unable to correct the issue directly by correcting the bill's Agency Tracking ID. The only way to work around the issue is for the agency to create a new bill with a different Agency Tracking ID.

Workaround

Agencies can avoid this issue by ensuring that each bill or transaction is assigned a unique Agency Tracking ID.

15 Automated Clearing House (ACH) Direct Debit

When customers choose to pay by direct debit, their bank account is debited and credits are automatically created in the Treasury's CIR system on the agency's behalf. Pay.gov supports one-time, recurring, and deferred ACH debit payments. Agencies can view settlement in the Central Information Repository (CIR) for reconciliation purposes.

ACH debit transactions can be initiated by an end-user being transferred from an agency website to a collection page hosted on Pay.gov, by paying a form or bill hosted on Pay.gov, or by an agency submitting collection information from their application or the Collections Control Panel (CCP).

Note: Some banks do not allow electronic debits against savings accounts. The transaction will be returned. For this reason, agencies should consider whether or not their applications will allow debits from savings accounts.

15.1 Payment Cutoff Time

Pay.gov validated the time a payment is completed. Payments must be completed and submitted to Pay.gov before a business day's 8:55 pm ACH cutoff time to be recognized as being made on that date. Payments completed after the cutoff are assigned to the next business day.

Pay.gov assists agency customers by controlling the payment date they can select. Users can select the current date for a payment started before 8:55 pm. If a payment is started before 8:55 pm but completed after, Pay.gov returns the customer to the payment page to select a new payment date (the current date is no longer selectable). For ACH payments started after the cutoff time the current business date cannot be selected.

15.2 Recurring Payments

Pay.gov supports recurring payments for ACH direct debits; they are available for both interactive and non-interactive interfaces when an agency enables the feature for their application. The customer enters a set amount to be paid each period, selects how often a payment is to occur and confirms the transaction data. Once the recurring payment details have been set, the transaction will automatically proceed at the stipulated time period until all payments have been made or the payment schedule is cancelled.

Note: Recurring payments are only available if the agency has enabled this option for their application. Customers must be enrolled (have a Pay.gov account) to make recurring payments.

To allow recurring payment, agencies using OCI must have a process in place to cancel a recurring payment stream. Recurring payments presented through OCI can be cancelled programmatically or manually through the CCP.

For more information about the CCP, please refer to the *User Guide*.

15.2.1 Payment Dates

Users can select any first payment date, however if the first date or any subsequent date in the payment schedule falls on a weekend or bank holiday the actual payment date will be the following business day. Allowed payment dates for Pay.gov-hosted forms may be affected if the agency has selected a specific range of dates when payments are allowed.

15.2.2 Status

At any given time, a recurring payment may be in one of four statuses:

1. *Received*: While a recurring payment is in effect its status is received until the last payment is made.
2. *Settled*: Last payment has been made
3. *Failed*: A recurring payment has generated a failure – even if there were prior payments successfully collected on this recurring collection
4. *Cancelled*: A collection has been cancelled

Pay.gov follows a policy of “All OK – First Failed” with recurring payments. This allows the first failed payment to be identified even if subsequent payments have also failed.

15.2.3 Cancellation

A recurring payment can be cancelled up to two business days prior to the settlement date.

15.2.4 Application Configuration Changes and Recurring Payments

If an application is configured to allow recurring payments and the ALC or +2 values for that application change, any existing recurring payments for that application which contain the old values will be updated to the current ALC and +2 values when the transactions are submitted for collection.

15.3 Deferred Payments

Deferred (or future-dated) payments are available at the agency’s request for both interactive and non-interactive interfaces. ACH direct debit payments can be entered and scheduled for payment up to three years in advance, allowing a user to enter a payment prior to the actual due date. Deferred payments are not available for credit card transactions.

15.3.1 Status

A deferred payment has a status of “Received” until the payment is sent for settlement; it then behaves like a one-time payment. See section 15.7 for information about payment status for one-time ACH debit payments.

15.3.2 Settlement Date

A payment becomes deferred if an end-user is allowed to modify the payment date on the collection page. Pay.gov verifies that the payment date entered by the end-user is valid and correctly settles the ACH debit collection on that date.

15.3.3 Cancellation

A deferred payment can be cancelled up to two business days prior to the settlement date.

15.3.4 Application Configuration Changes and Deferred Payments

If an application is configured to allow deferred payments and the ALC or +2 values for that application change, any existing deferred payments for that application which contain the old values will be updated to the current ALC and +2 values when the transactions are submitted for collection.

If the deferred payments option is not active for an application and a deferred payment is received through the OCI non-interactive interface, the payment will be processed on the next settlement day, not the future date specified in the transaction.

15.4 Preauthorized ACH Debits

Some agencies allow their customers to authorize, in advance, ACH debits for payments that will be made on a regular, recurring basis. The agencies then submit those payments with no further action required on the customer's part. Pay.gov supports this workflow through the use of payer profiles in the collections control panel (CCP).

A payer profile containing the account number and the routing number can be created for each customer who wishes to preauthorize debits and identified with a unique ID. When the agency creates the recurring payment stream in the CCP, they simply enter the customer's payer profile ID and the payment amount; Pay.gov will automatically submit the customer's account information when the payment is processed and will check the information stored in the profile before each subsequent payment in the recurring payment stream is submitted to make sure the correct account information is included.

Both regular domestic US ACH accounts and international ACH accounts at US financial institutions may be used. An international ACH account is a domestic account that is linked to (and usually draws funds from) an account at a foreign financial institution. For example, a checking account at a US bank that draws funds from an account at a bank in Toronto, Canada. Foreign accounts not linked to US accounts may not be used for Pay.gov payments. Payments are always in US dollars.

Please refer to the *Agency Guide to Payer Profiles* for detailed information about creating and managing payer profiles; step-by-step instructions for submitting a transaction through the CCP are available in the *Pay.gov User Guide*.

15.5 Valid Accounts for ACH Debit

Pay.gov supports ACH debits from personal checking accounts, personal savings accounts, business checking accounts, business savings accounts, and general ledger accounts. These account types may be used with both interactive transactions, including forms, and non-interactive transactions.

Some types of bank accounts, such as some money market or passbook accounts, cannot be used for ACH debit transactions. Customers should contact their financial institution if they have questions about using their account for ACH debits.

15.6 Depositing to the Agency Account

Pay.gov ACH collections are processed through the Federal Reserve Bank of Cleveland. All money collected will be directly deposited with the Treasury on behalf of the agency. An entry to CIR will be generated automatically when the funds are credited. Deposit summary data will be available for the agency through the on-line Pay.gov ACH Debit CashLink summary report. The data will also be available in the ACH and collections activity files available via Pay.gov.

See the *Agency Guide to the Reporting Service* for more information about online reports and activity files.

15.7 Payment Status for ACH Collections

The payment status updates to reflect the current condition of the payment as it is processed:

- *Received*: Payment has been received by Pay.gov.
- *Settled*: Entry has been made into the CIR.
- *Retired*: Item has been returned.
- *Failed*: Transaction could not be processed.

Retired transactions are transactions that have previously settled and are then returned for credit. Transactions can be returned by a customer's bank for various reasons. Failed transactions usually result from invalid data being submitted in a Non-Interactive collection sequence.

15.8 Standard Entry Class (SEC) Codes

Each ACH transaction has a Standard Entry Class (SEC) code to identify the source of the transaction. Pay.gov uses four SEC codes: CCD for corporate customers and PPD, TEL, and WEB for private customers.

1. *CCD (Cash Concentration or Disbursement)*: This SEC code is a debit application where funds are either distributed or consolidated between corporate entities. This application can serve as a stand-alone funds transfer, or it can support a limited amount of payment related data with the funds transfer. It is also used for Treasury transactions because they do not qualify as consumer transactions.

2. *WEB (Internet-Initiated Entry)*: This SEC code is used for the creation of debit entries, either recurring or single-entry, to a consumer's account based on an authorization obtained from the consumer via the Internet.
3. *PPD (Prearranged Payment and Deposit Entry: Preauthorized Bill Payment)*: Preauthorized payment is a debit application. Companies with billing operations may participate in ACH through the electronic transfer (direct debit) of bill payment entries. The consumer grants the company authority through standing authorizations to make periodic charges to his or her account as bills become due. This application works with recurring payments that do not vary in amount, such as insurance premiums, mortgage payments, and installment loan payments, as well as recurring payments where the amount does vary, such as utility payments.
4. *TEL (Telephone-Initiated Entry)*: This SEC code is used by Pay.gov to create a single-entry ACH debit transaction to a consumer's account based on an oral authorization received from the consumer by telephone. This type of transaction may only be created when there is either an existing relationship between the agency and the consumer, or when there is no existing relationship between the agency and the consumer but the consumer initiated the telephone call.

15.9 Return Reason Codes

Table 2 lists a representative subset of ACH debit return reason codes that can be received from the customer’s bank and the subsequent action. Items with return reason codes “R01- Insufficient Funds” and “R09 - Uncollected Funds” may be represented if that option is chosen by the agency; all other items would be retired. An ACH debit collection may be represented up to two times after the initial presentment. If the collection is still not settled after the designated number of representments, it will be retired.

Table 2: ACH Return Reason Codes

Return Reason Code	Description	Pay.gov Disposition
R01	Insufficient Funds	Can be represented ¹
R02	Account Closed	Retired
R03	No Account/Unable To Locate Account	Retired
R04	Invalid Account Number	Retired
R06	Returned Per ODFI Request	Retired
R07	Authorization Revoked By	Retired
R08	Payment Stopped	Retired
R09	Uncollected Funds	Can be represented ¹
R10	Customer Advises Not Authorized	Retired
R14	Representative Payee Deceased	Retired
R16	Account Frozen	Retired
R20	Non-Transaction Account	Retired
R21	Invalid Company Identification	Retired
R22	Invalid Individual ID Number	Retired
R24	Duplicate Entry	Retired
R29	Corporate Customer Advises Not Authorized	Retired
R85	Incorrectly Coded Outbound International Payment	Retired

¹ The number of representment attempts is defined as part of the ACT.

15.10 ACH Prenotification

Agencies can send ACH prenotifications to Pay.gov. A prenotification must be a zero-dollar transaction, which Pay.gov sends to a customer's financial institution to confirm the account and routing numbers.

Prenotifications can be created using

- the CCP
- the TCS Single Web Service
- the TCS Batch Web Service

Note: ACH prenotifications cannot be created using OCI – non-interactive or OCI non-interactive single.

ACH prenotifications are processed through the FRB/ACH network to the financial institution. Response to an ACH prenotification is at the discretion of the receiving financial institution; a response is generally received only when the account information is incorrect and needs to be corrected. There is no requirement for a financial institution to respond to a prenotification request. However, it is in their best interest to do so if the account information is incorrect, because it will have to be corrected later when the credit entry is submitted. The Operating Rules of the National Automated Clearing House Association (NACHA) establishes that the financial institution or depository must initiate a return or Notification of Change (NOC) entry within six banking days of receipt of the original prenotification entry. Any subsequent transactions to that account must not be made until six banking days after the original prenotification was sent.

15.10.1 Required Configuration

The ACH payment option must be configured in the CCP for an agency application to use prenotification; this will also allow ACH debits from the CCP. The ACH option must also be configured to allow prenotifications to be sent through using the OCI-non-interactive batch service.

The application must be configured to allow the prenotification details to be provided in the ACH Debit Transaction Report and the ACH Activity File. They are searchable in the CCP by entering \$0.00 as the transaction amount.

15.11 Notification of Change Processing

Pay.gov provides the ability to receive and process Notification of Change (NOC) messages. The NOC informs the agency that the ACH information submitted is inaccurate or that something has changed requiring the account details to be updated. A typical example of a NOC would be when two banks merge, resulting in one bank altering its routing transit numbers in the process.

NOCs are initiated by the financial institution that had received a prenote or by an ACH debit item from Pay.gov. NOC information is automatically stored and updated by the Federal Reserve Bank as part of the Pay.gov processing. The information is accessed if the original account information is submitted in subsequent transactions.

The Notifications of Change report details any NOCs for an agency. The report includes the Change Reason Code in accordance with NACHA standards and the corrected account information (see the *Agency Guide to the Reporting Service*). The application must be configured to allow the NOC details to be provided in the ACH debit transaction report and the ACH activity file.

15.11.1 Notification of Change Reason Codes

Table 3 provides an abbreviated list of NOC Reason codes and the actions required to correct them. Reason codes beyond the agency’s control are not included here. These codes are displayed on the NOC report.

Table 3: NOC Reason codes

Code	Item	Reason	Action
Co1	Account Number	The account number is incorrect or is formatted incorrectly.	Change the customer’s account number record.
Co2	Transit/Routing Number	A once valid transit/routing number must be changed.	Change the customer’s financial institution routing number record.
Co3	Transit/Routing Number and Account Number	The transit/routing number and the account number are not correct.	Change the customer’s financial institution transit/routing number and account number records.
Co4	Account Name	The customer has changed the name on the account or the company has submitted the name incorrectly.	Change the customer’s (individual or company) name record.
Co5	Transaction Code	The transaction type code (a two-digit number meaning checking or savings account) is incorrect.	Change the type of transaction code (from checking account to savings, or vice versa) record. Contact the ODFI if clarification is needed.
Co6	Account Number and Transaction Code	The account number is incorrect and the type of transaction code is incorrect.	Change the customer’s account number and the type of transaction code records.
Co7	Transit/Routing Number, Account Number and Transaction Code	The transit/routing number, the account number, and the transaction type code are all incorrect.	Change the customer’s account number, the financial institution transit/routing number, and the type of transaction code records.
Co9	Individual ID Number	Individual ID number is incorrect (applies only to consumer initiated transactions).	Change the individual ID number record.

Code	Item	Reason	Action
C10	Company Name	Due to merger or consolidation, the company name is no longer valid (applies only to consumer initiated transactions).	Change the company name record.
C11	Company Identification	Due to merger or consolidation, the company ID is no longer valid.	Change the company ID record.
C12	Company Name and Company Identification	Due to merger or consolidation, the company name and the company ID number are no longer valid (applies only to consumer initiated transactions).	Change the company name and the company ID records.
C13	Addenda Format Error	The entry detail record is correct, but information in its addenda record is unclear or formatted incorrectly, that is, not formatted according to ANSI or NACHA-endorsed banking conventions.	(Review the formatting in the addenda record that accompanied the original entry detail record to determine errors), and make corrections using only ANSI standards or NACHA-endorsed banking conventions.
C14	Incorrect SEC Code for Outbound International Payment	The wrong SEC code was used for an international ACH transaction. The SEC code used indicates the payment is domestic instead of international or CBR (Corporate Cross-Border Payment).	Change the SEC code to either CBR (Corporate Cross-Border Payment) or PBR (Consumer Cross-Border Payment) to identify the payment as international ACH.
None	Data Mismatch	The original account information sent out with the prenote does not match the original account information returned with the NOC.	The NOC is rejected and the payer profile is not updated with any new account information.

15.12 ACH Addenda Support

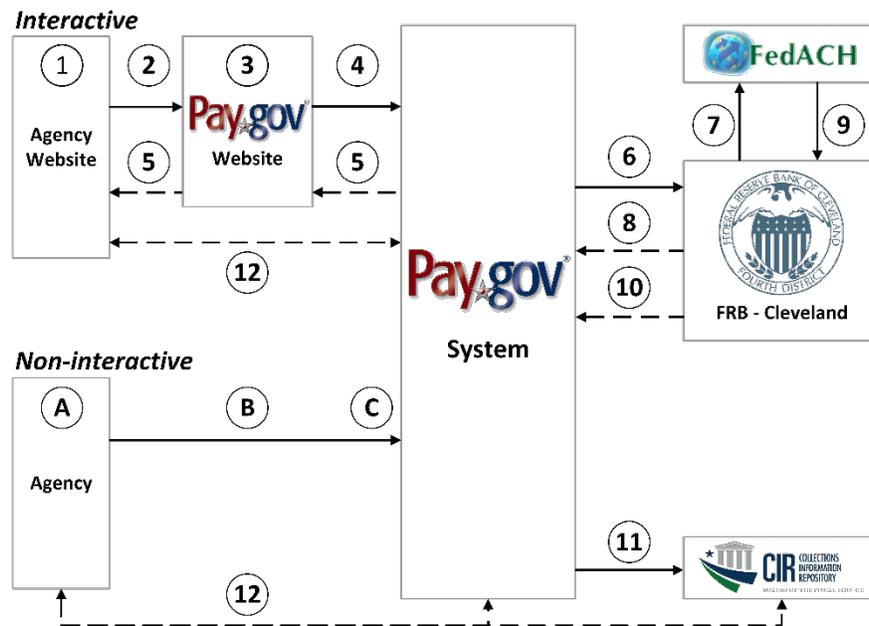
The NACHA file specification for ACH settlement provides for an addendum record that can contain additional information about the transaction. Pay.gov enables one of the custom collection fields (see section 7) to be defined as an ACH addenda field. The information entered in this field will be passed to the financial institution, along with the transaction information in the ACH settlement file, as the addenda. The financial institution can add the addenda information to their customer's statement. Even though the custom collection field may contain up to 255 characters, only the first 80 characters in the field will be forwarded as the

addenda field. An agency must designate a field to be used as the addenda in the ACT in order to use this feature.

15.13 ACH Direct Debit Interactive and Non-interactive Flowchart

The flowchart in Figure 3 depicts example interactive and non-interactive ACH transaction flows. In the interactive flow, the customer is forwarded from the agency’s website to a collection page hosted on Pay.gov (Hosted Collection Pages service). In the non-interactive flow (TCS Single service), the agency collects all of the payment information and submits to Pay.gov.

Figure 3: ACH interactive and non-interactive transactions



Interactive

1. A customer on the agency site elects to make a payment. The agency website sends a request to Pay.gov to initiate a collection process. Pay.gov responds with a token and indicating it is OK to proceed.
2. The customer is redirected to collection pages on Pay.gov website.
3. Customer enters the payment information and then submits and authorizes the payment.
4. Pay.gov either accepts or rejects the payment, assigning a status of received or failed.
5. Pay.gov replies to the agency with the collection results to the agency and may or may not redirect the customer back to the agency website, at the agency’s choice.

Non-Interactive

- A. Agency collects payment information and sends it in a message to the Pay.gov web service.

- B. The payment data is transferred to the Pay.gov website; this can be for one or for many payments.
- C. Pay.gov either accepts or rejects the payment(s), assigning a status of received or failed.

Common Process

6. Pay.gov sends an ACH file to FRB-Cleveland every hour from 3:00 A.M. to 8:55 P.M.
7. FRB-Cleveland processes payment into FedACH format. Files are accepted or failed during processing; typically, failure results from invalid Routing Transit Numbers (RTNs) that make it through the Pay.gov edits. The accepted payments are submitted to FedACH.
8. FRB-Cleveland updates Pay.gov with a status of ACCEPTED or FAILED.
9. After 3:00 A.M. on the next business day, FedACH settles payments.
10. The transaction's status is updated to SETTLED. The status, deposit ticket and debit voucher numbers are returned to the agency.
11. Pay.gov sends transaction information to the CIR.
12. Agencies may view transaction information in CIR reports and Pay.gov reports and activity files.

15.14 Transaction Timelines

Figure 4, Figure 5, Figure 6, and Figure 7 represent the transaction and settlement timelines for various ACH debit scenarios.

Note: The daily settlement cutoff time for ACH transactions is 8:55 pm Eastern Time. Transactions submitted at 8:55 pm or earlier will settle on the following business day. ACH transactions submitted after 8:55 pm (8:56, for example) will settle on the second business day following. Examples:

- An ACH transaction submitted at 8:55 pm or earlier on Monday will settle on Tuesday if that is business day.
- An ACH transaction submitted later than 8:55 pm on Monday will settle on Wednesday.

If the following day is not a business day, settlement will be delayed. For example, ACH transactions submitted on a Friday will not be settled on the weekend. Instead they will be settled on the following Monday. If the following Monday is a holiday, the transactions will be settled on Tuesday.

The following timelines illustrate transactions occurring during a period of consecutive business days. They do not illustrate transaction settlement delayed by a weekend or holiday.

Figure 4: Forward Item Processing for ACH

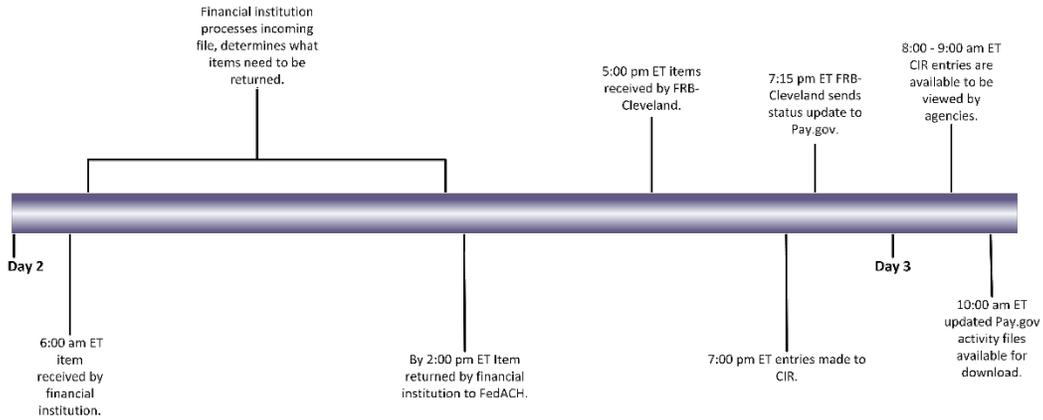


Figure 5: Immediate Return item processing

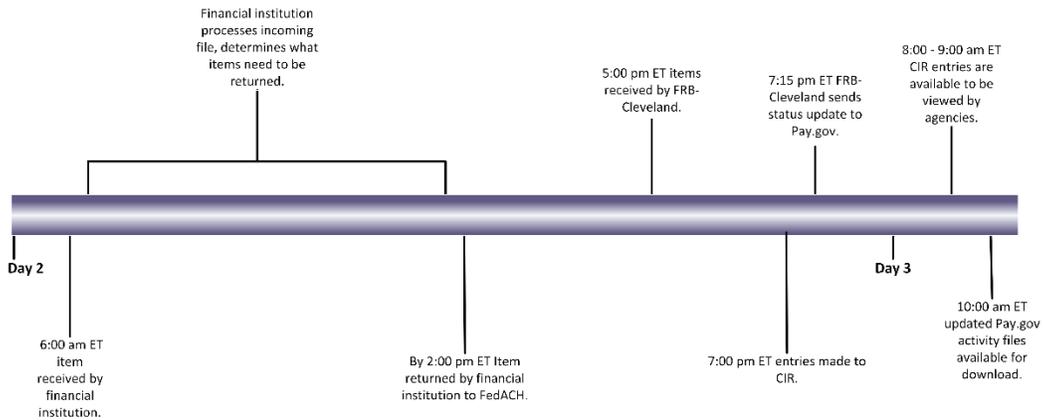


Figure 6: Account Closed, Next-Day Return item processing

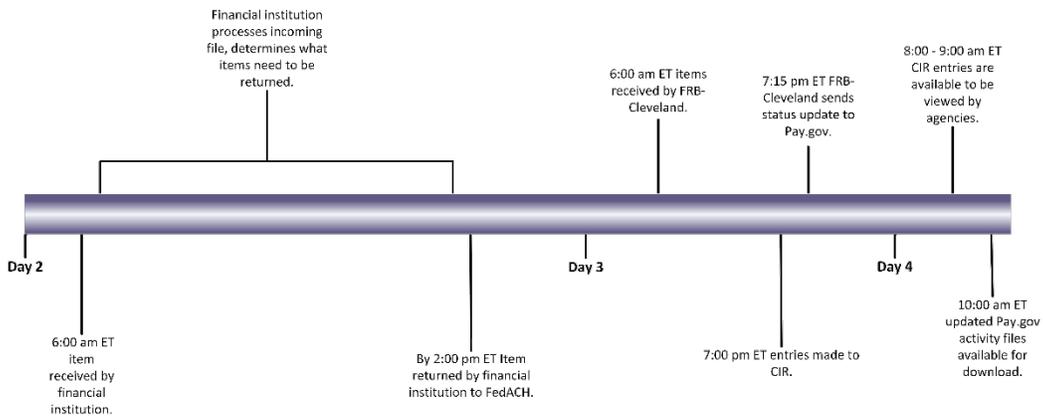
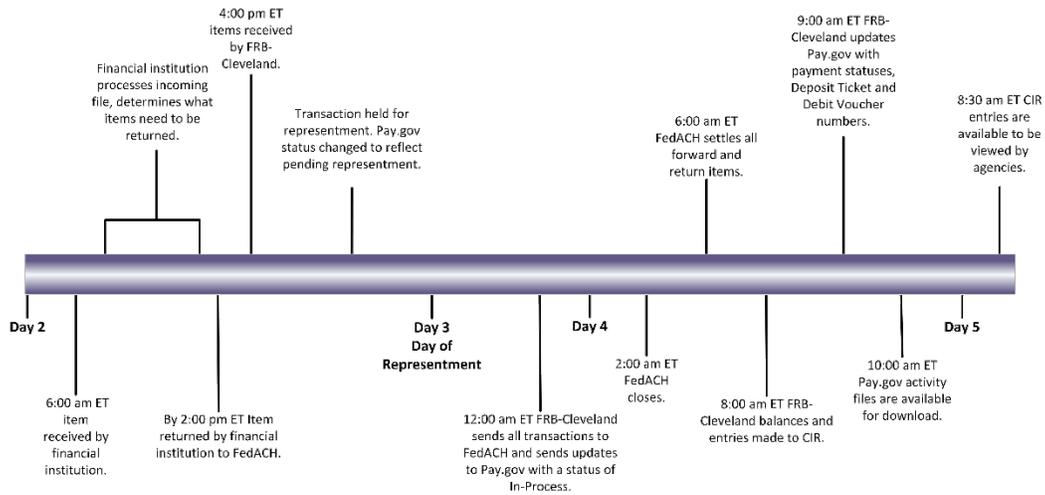


Figure 7: Insufficient Funds (NSF) with Next-Day Representation item processing



15.15 Pay.gov Reports

Details of Pay.gov transactions are available on-line through the ACH Debit Transaction and the Collection Search queries. Details can also be obtained agency in electronic format from the ACH activity and collections activity files. See the *Agency Guide to the Reporting Service* for more information about activity files.

15.16 Reconciling ACH Collections

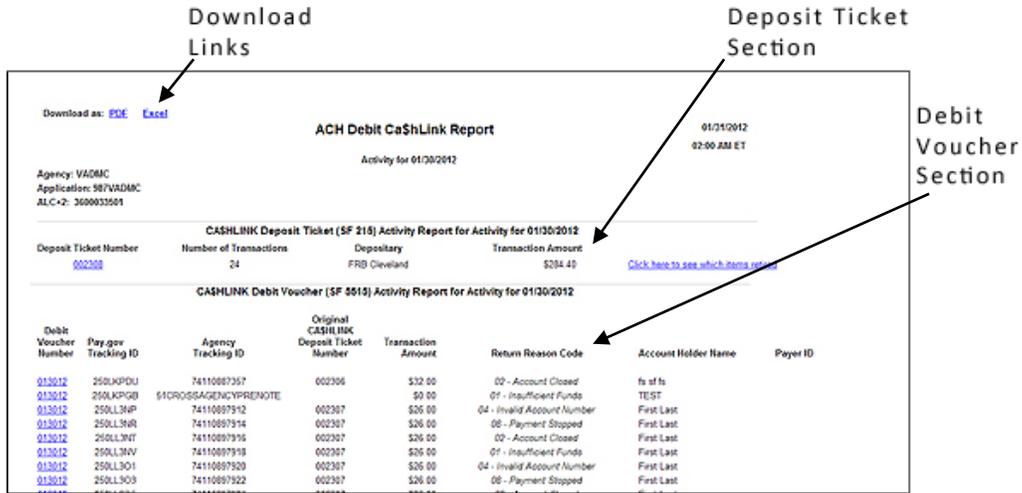
15.16.1 Reconciling Pay.gov ACH Collections with the CIR

Pay.gov provides a number of tools that the agency can utilize in the design of their reconciliation process. The reconciliation process consists of comparing/balancing transactions entered on the Pay.gov website (for example in the ACH Debit CashLink Report, see Figure 8) with the entries in CIR reports. All Pay.gov vouchers are entered in the CIR under ABA 042000437 and CAN number 000367.

Agencies should contact the CIR at cir@pnc.com to determine how to use CIR reports to compare and balance transactions entered on the Pay.gov website. Any

automated reconciliation process should also be reviewed to ensure that Pay.gov entries are correctly entered into the application.

Figure 8: ACH Debit CashLink report



15.16.2 Manual Reconciliation using Online Reports

1. Access the <https://www.pay.gov/agency/> website.
2. Enter your user name and password
3. Select “Reports” from the User Center page.
4. Select the Pay.gov ACH Debit CashLink Report from the report list.
5. Compare the following items from the Pay.gov ACH Debit CashLink Report and your CIR reports:
 - The deposit ticket number on the Pay.gov ACH Debit CashLink Report should match the voucher number on the CIR report.
 - Total dollars on the Pay.gov ACH Debit CashLink Report should match the amount field in on the CIR report.

15.17 Out-of-Balance Situations

If you have questions regarding report balancing, or you encounter a situation where you believe you are out of balance, please contact Pay.gov Customer Service. Contact information for Customer Service is listed in section 17.

15.18 ACH Payment Processing Considerations

If an agency has previously been using another processor for ACH payments and are now processing their payments processed through Pay.gov, the following items should be considered:

- *Originating Depository Financial Institution (ODFI):* FRB-C is the payment processor for ACH payments made through Pay.gov and will appear as the ACH ODFI. FRB-C processes Pay.gov ACH transactions under ABA numbers 041036046 and 042736141.

- *Trace Number:* ACH identifies each payment with a unique trace number. Trace numbers for ACH payments processed by Pay.gov will start with “041036046.
- *Company ID:* Every ACH batch contains a company ID number in accordance with NACHA requirements. The company ID number for Pay.gov payments is the ALC+2 identifier assigned to each application.
- *SEC Code:* Every item has an associated SEC code. Refer to Section 15.8 for more information regarding Pay.gov-supported SEC codes.
- *Receiving Depository Financial Institution (RDFI):* An RDFI may be using transaction filtering to detect unwanted, extraneous, or suspect debits. The agency should confirm that the items above will not cause valid payments to be rejected by an RDFI when Pay.gov is the new transaction provider.
- *CIR Account Number:* All Pay.gov vouchers are entered in the CIR under ABA 042000437 and CAN number 000367.
- *Payment Amount:* The payment amount cannot exceed \$99,999,999.99 per transaction.
- *Payment Date:* A direct debit authorization must be received before 8:55 P.M. Eastern Time (ET) if payment is to occur as early as the next business day. A direct debit authorization cannot be initiated more than 30 days in advance and the application must be configured to accept future-dated items if an agency wishes to allow them.
- *Returns:* According to NACHA regulations, a transaction submitted by a corporate customer can be returned up to two business days after settlement. For example, if a payment is received on a Monday, it will settle on Tuesday but can be returned through Thursday. For payments received from consumers, an item can be returned up to two business days after settlement for normal reasons, and for up to two statement cycles after it was settled if the payment was found to be fraudulent. The agency should bear this in mind before shipping products or merchandise. When an “Ro1-Insufficient Funds” or “Ro9-Uncollected Funds” item is received and the agency has chosen to represent items, a SF 5515 will not be generated to the associated ALC at that time. The SF 5515 will only be generated after the defined number of representments, when the item is deemed to be uncollectible.

15.19 Testing ACH Debit Collections

This section details the ACH debit testing process. The Pay.gov Agency Implementation team will work closely with the agency during testing to ensure all required information is available and the tests run as smoothly as possible.

15.19.1 Pre-Test

Please confirm the agency setups and business rules for any desired return items prior to the start of any testing. Agencies should provide contact information on all correspondence to facilitate communication and problem resolution.

15.19.2 Processing

Payment items need to be submitted to the test environment prior to 3:00 P.M. to receive next-day settlement and deposit ticket reporting. We recommend that large batch submissions be prearranged and submitted earlier in the day.

15.19.3 ACH Data

ACH payment items need to include valid ACH financial institution RTNs. Valid RTNs for testing are 042000424, 044000037, 041000124, 043000261, and 041001039.

If you prefer, you may access the Federal Reserve E-Payments Routing Directory (<http://www.fededirectory.frb.org/search.cfm>) to verify the validity of an RTN and to obtain information on its associated financial institution. The payment can contain any account number with a minimum of four digits to be processed in the test environment.

15.19.4 Return Items

All ACH returns are tested automatically.

Returns on payment items can only be created after a payment item settles. For example:

1. Payment is submitted on day one.
In order to utilize the automated ACH returns processing, payments to be returned must use one of the account numbers listed in Table 4

Table 4: Account numbers for ACH returns

Account Number	Return Reason Code	Description
80001	R01	NSF
80002	R02	Account Closed
80003	R03	No Account/Unable to Locate
80004	R04	Invalid Account
80005	R05	Unauthorized Debit to Consumer Account Using Corporate SEC Code
80006	R06	Return Per ODFI Request
80007	R07	Authorization Revoked
80008	R08	Stop Payment
80009	R09	Uncollected Funds
80010	R10	Not Authorized
80011	R11	Truncation Return
80012	R12	Branch Sold
80013	R13	RFDI Does Not Participate
80014	R14	Deceased
80015	R15	Beneficiary Deceased
80016	R16	Account Frozen

Account Number	Return Reason Code	Description
80017	R17	File Record Edit
80018	R18	Improper Effective Entry Date
80019	R19	Amount Field Error
80020	R20	Non-Transaction Account
80021	R21	Invalid Company ID
80022	R22	Invalid ID Number
80023	R23	Credit Entry Refused
80024	R24	Duplicate Entry
80025	R25	Addenda Error
80026	R26	Mandatory Field Error
80027	R27	Trace Number Error
80028	R28	Routing Number Check Digit Error
80029	R29	Corporate Customer Advises Not Authorized
80030	R30	RDFI Not TRX Participate
80031	R31	Permissible return
80032	R32	RDFI Non-Settlement
80033	R33	XCK Return
80034	R34	Limited Participation DFI
80035	R35	Return of Improper Debit Entry
80036	R36	Return of Improper Credit Entry
80037	R37	Source Document Presented for Payment
80038	R38	Stop Payment on Source Document
80039	R39	Improper Source Document
80040	R40	Return of ENR Entry by Federal Government Agency
80080	R80	Cross-Border Payment Coding Error
80081	R81	Non-Participant in Cross-Border Program
80082	R82	Invalid Foreign Receiving DFU ID
80083	R83	Foreign Receiving DFI Unable to Settle
80084	R84	Entry Not Processed by OGO
80085	R85	Incorrectly Coded Outbound International Payment
80090	R90	RTN and Account Number Cannot be the Same
80091	R91	Invalid RTN
80092	R92	NonACHable Transaction
80093	R93	Suspected Fraudulent Transaction
80094	R94	Treasury RTN
80095	R95	FRB RTN
80096	R96	Customer Request

Account Number	Return Reason Code	Description
80097	R97	Agency Request
80098	R98	Duplicate Transaction

There is no limit to the number of ACH returns submitted per day when using the account numbers listed above.

1. Payment settles on day two and a deposit ticket number is assigned.
2. Return item is created on day two.
3. Return item is reported on day three, including return reason code, status, debit voucher number, and effective date for the retired item.

Duplicate Detection

Duplicate detection for Pay.gov ACH transactions is based on the Debit Gateway Individual Reference Number (IRN).

15.19.5 Reporting

Reports are available for review after 10:00 A.M. on the Pay.gov test system.

16 Plastic Card Transactions

Pay.gov accepts plastic card collections (credit and debit cards) on behalf of federal agencies and provides real-time authorization for each attempted plastic card transaction.

Plastic card transactions can be initiated

- by an agency user through the CCP
- by a form hosted on Pay.gov
- in response to an ebill
- from an end-user being transferred from an agency website to a collection page hosted on Pay.gov (Hosted Collection Pages or an OCI-interactive collection)
- from an agency submitting transactions via the TCS Single or TCS Batch web services or via OCI non-interactive
- from a TCS Plastic Card transaction (one-time, recurring, magnetic stripe or EMV)

Depending on their configuration and the Pay.gov service, an agency application may allow all or some of the following transactions:

- Sale
- Authorize
- Force
- Refund (credit)
- void sale
- void credit (voiding a plastic card refund)

16.1 Merchant ID Required

Agencies must [apply for a Merchant ID with the Bureau of the Fiscal Service Card Acquiring Service \(CAS\)](#) prior to accepting plastic cards for their applications. (The link takes you to the application on Pay.gov.)

16.2 Payment Card Industry Data Security Standard (PCI DSS) Compliance

Pay.gov has been added to Visa's Global List of Payment Card Industry Data Security Standard (PCI DSS) Validated Service Providers. The Attestation of Compliance document is available on the Pay.gov documentation web site at <https://qa.pay.gov/agencydocs/html/references.html>.

16.3 Plastic Card Payment Amount Limit

In addition to the information below, please refer to the Treasury Financial Manual announcement available at <http://tfm.fiscal.treasury.gov/v1/p5/c700.html>.

Agencies having concerns or questions should contact the Bureau of the Fiscal Service directly at cir@pnc.com.

16.3.1 Credit Card Daily Limit

In accordance with the Bureau of the Fiscal Service “*Limitations on Credit Card Collection Transactions and Policy for Splitting Transactions*” Announcement No. A-2014-04, July, 2014, effective June 1, 2015, a total daily dollar amount limit of \$24,999.99 applies to the combination of all transactions made with any US Government entities using the same credit card. This limit has been implemented by Vantiv, the card acquiring processor of the Bureau of the Fiscal Service’s financial agent, Fifth Third Bank, and is lower than the previous limit of \$49,999.99.

Agencies are affected in the following ways:

The new credit card daily limit applies to the combined total of all transactions conducted with any US Government entities on a single day using a single credit card. This includes online transactions conducted via Pay.gov, transactions conducted via other channels, and direct over-the-counter transactions made at a US Government facility such as a store or ticket office.

Agencies and their customers are affected in the following ways:

- Any individual credit card transaction greater than \$24,999.99 will be declined by the Bureau of the Fiscal Service’s Card Acquiring Service (Vantiv).
- If a customer uses the same credit card to conduct multiple credit card transactions with multiple US Government entities on the same day, the card acquiring service will decline any of the individual transactions that cause the combined dollar-value total charged to the credit card to exceed the daily total limit of \$24,999.99. See the examples below.
- Agencies should be aware that large-dollar credit card and debit card transactions are costlier for the Federal Government than small-dollar transactions. When collecting large-dollar transactions, agencies should use other less expensive electronic alternatives such as Pay.gov’s ACH direct debit collections option.

Note: Individual credit card transactions larger than the \$24,999.99 total daily dollar amount limit may not be split into multiple transactions using the same credit card, whether or not the split transactions are assigned to multiple days. Splitting a transaction violates card network and Bureau of the Fiscal Service rules.

16.3.2 Credit Card Limit Testing

Agencies testing to determine how their systems will handle the decline return code (V2) for an over-the-limit credit card transaction should test with the Vantiv emulator using the \$1.72 amount. See section 10.10 and Appendix A.

Credit Card Transaction Examples:

1. A customer conducts an online credit card transaction with an agency through Pay.gov for \$25,000.00. The transaction will be declined by the

card acquiring service because it exceeds the daily credit card dollar-value limit.

2. A customer uses the same credit card on the same day to conduct three transactions with US Government entities. The first credit card transaction is conducted with an agency online via Pay.gov and totals \$15,000.00. The second credit card transaction is conducted with another agency via a different online channel and totals \$9,000.00. The third credit card transaction is an over-the-counter purchase at the US Mint for a total of \$9,000.00. The combined total of all three transactions conducted on that day is \$26,000.00.
The third transaction will be declined by the card acquiring processor because it causes the total of all the government entity transactions charged to the credit card on that day to exceed the total daily dollar-value limit of \$24,999.99.
3. A customer conducts two separate online credit card transactions with an agency via Pay.gov on a single day. Two different credit cards are used. The first credit card is used to pay \$24,000.00. The second credit card is used to pay \$15,000.00. Both transactions will be processed by the card acquiring service.

16.3.3 Debit Card Daily Limit

In accordance with the “*Limitations on Credit Card Collection Transactions and Policy for Splitting Transactions*” Announcement No. A-2014-04, July, 2014, effective June 1, 2015, the maximum dollar-value limit for debit card remains unlimited.

All debit card transactions conducted on any single day with one or more US Government entities will be processed by the Bureau of the Fiscal Service’s card acquiring processor.

Agencies should note that Pay.gov only accepts Visa and MasterCard branded debit cards.

16.4 Payment Dates

In general, plastic card payments may be made on any calendar date. The exception applies to Pay.gov-hosted forms where the agency has chosen to allow payments only on a specified range of dates.

16.5 Plastic Card Types

Pay.gov supports the following plastic card types:

- American Express
- MasterCard
- Visa
- Discover-branded cards, including Discover, JCB, Union Pay, and Diners Club. (Some international Diners Club cards are not Discover-branded and not accepted by Pay.gov. All Discover-branded cards are processed as Discover.)

- Debit cards processed through MasterCard or Visa

16.6 Plastic Card Authorization

16.6.1 Payment Status for Plastic Card Collections

There are two statuses for plastic card collections, determined by the authorization provider: success and failed.

- *Success*: Authorized transaction; the plastic card information was correct and sufficient funds exist.
- *Failed*: Failed plastic card transaction; a problem exists with the credit card information and/or insufficient funds

16.6.2 Payment Authorization Codes

During authorization plastic card details such as card number, account holder, and address are checked, and the account is checked to ensure that sufficient funds are available. Table 5 lists a number of authorization response and AVS codes, along with a description of the response. The response codes “00,” representing an approval, and “85,” representing a successful verification, have been included for completeness.

Table 5: Authorization response messages and codes for Vantiv

Response Code	Authorization Action	Card Display Message	Authorization Response Definition
00	Approve	Return	Transaction Approved
01	Refer	Return	Refer to Card Issuer
02	Refer	Return	Refer to Card Issuer, Special Conditions
03	Decline	Return	Invalid Merchant ID
04	Decline	Keep	Pick Up Card
05	Decline	Return	Generic Authorization Decline
06	Decline	Return	Error
07	Decline	Keep	Pick Up Card, Special Conditions
08	Approve	Return	Honor With Identification
10	Approve	Return	Approved For Partial Amount
11	Approve	Return	VIP Approval
12	Decline	Return	Invalid Transaction
13	Decline	Return	Invalid Amount
14	Decline	Return	Invalid Account Number
15	Decline	Return	No Such Issuer
17	Decline	Return	Customer Cancellation
19	Decline	Return	Re-try Transaction

Response Code	Authorization Action	Card Display Message	Authorization Response Definition
21	Decline	Return	Reversal Unsuccessful
25	Decline	Return	Unable to locate record on file
27	Decline	Return	File update field edit error
28	Decline	Return	Update file temporarily unavailable
30	Decline	Return	Message Format Error
32	Decline	Return	Partial Reversal
33	Decline	Keep	Pick Up Card - Expired
38	Decline	Keep	Allowable Number of PIN Tries Exceeded
39	Decline	Return	No Credit Account
40	Decline	Return	Requested Function Not Supported
41	Decline	Keep	Pick Up Card - Lost
43	Decline	Keep	Pick Up Card - Stolen
51	Decline	Return	Insufficient Funds
52	Decline	Return	No Checking Account
53	Decline	Return	No Savings Account
54	Decline	Return	Expired Card
55	Decline	Return	Incorrect PIN
56	Decline	Return	Cannot Process
57	Decline	Return	Transaction not Permitted to Cardholder
58	Decline	Return	Transaction not Permitted to Acquirer
61	Decline	Return	Exceeds Withdrawal Limit Vantiv ISO 8583 Specifications Confidential Page 131
62	Decline	Return	Restricted Card
63	Decline	Return	Security Violation / Invalid AMEX CID
65	Decline	Return	Exceeds Withdrawal Frequency Limit
67	Decline	Keep	Pick Up Card
68	Decline	Return	Response Received Late
69	Decline	Return	Bad Close (Gift Card)
70	Decline	Return	Card Already Active (Gift Card)
71	Decline	Return	Card Not Active (Gift Card)
72	Decline	Return	Card Already Closed (Gift Card)
73	Decline	Return	Over Max Balance (Gift Card)
74	Decline	Return	Invalid Activate (Gift Card)
75	Decline	Return	Allowable Number of PIN Tries Exceeded

Response Code	Authorization Action	Card Display Message	Authorization Response Definition
76	Decline	N/A	Late Reversal
77	Decline	N/A	Reversal Does Not Match Original Transaction
78	Decline	Return	No 'To' Account Specified
79	Decline	Return	No 'From' Account Specified
80	Decline	Return	Processor Link Out of Service, Will Cause Vantiv to Invoke Stand-in
81	Decline	Return	PIN Key Synchronization Error
82	Decline	Return	Invalid CVV
83	Decline	Return	Unable to Verify PIN
85	Approve	Return	No Reason to Decline on Verification Request
87	Approve	Return	Purchase Amount Approved, Not Cash
88	Decline	Return	Card Record Not Available
91	Decline	Return	Issuer or Switch Inoperative(MasterCard)
92	Decline	Return	Unable to Route Transaction
93	Decline	Return	Illegal Transaction
94	Decline	Return	Duplicate Transaction
95	Decline	Return	Reconciliation Error
96	Decline	Return	System Error
97	Approve	Return	American Express Rewards Approval
98	Decline	Return	Duplicate Transaction
99	Decline	Return	Preferred Debit Routing Denial -> Credit transaction can be performed as debit
D1	Decline	Return	Currency Conversion Complete, No Auth Performed (1stPass)
M1	Decline	Return	Multi-Currency DCC Fail
M2	Decline	Return	Multi-Currency Invert Fail
No	Decline	Return	Issuer or Switch Inoperative (Visa)
N7	Decline	Return	CVV2 Value Mismatch
Ro	Decline	Return	Stop Payment Order
R1	Decline	Return	Revocation of Auth Order
R3	Decline	Return	Revocation of All Auth Orders
RG	Approve	Return	P2PE Successful Registration Event
V1	Decline	Return	Velocity - Excessive Count
V2	Decline	Return	Velocity - Excessive Amount

Response Code	Authorization Action	Card Display Message	Authorization Response Definition
V3	Decline	Return	Velocity – Excessive Count/Amount
V4	Decline	Return	Velocity – Negative File Exception
V5	Decline	Return	Velocity – Fraud Exception
V6	Decline	Return	Velocity – ZIP Match Failure
XB	Decline	Return	Deconverted BIN (Gift Card)
XD	Decline	Return	Merchant Depleted (Gift Card)
XE	Decline	Return	Card Escheated (Gift Card)

16.6.3 Partial Authorizations

Agency applications that are configured as retail applications may accept up to three plastic cards in payment for a single transaction when processing the transaction through either the Collections Control Panel or TCS Single. This allows customers to use prepaid plastic cards when paying for services through Pay.gov. No other Pay.gov collections interfaces allow the use of multiple plastic cards.

If a customer presents a plastic card with an insufficient available balance in payment for a transaction, the system will request a second plastic card; if there are insufficient funds on the second card, the system will request a third card. No more than three plastic cards may be used to pay for a single transaction. If after presenting a third plastic card there are insufficient funds to pay for the transaction, and the application is not configured to allow an ACH payment after attempting plastic card settlement, the transaction will be declined and the customer must start the transaction over.

For customers using a prepaid plastic card, the remaining balance, if any, will either be displayed on the transaction receipt or returned as part of the TCS Single results. This value is current only at the time of the transaction and is not stored in the Pay.gov database.

16.6.4 Zero-Dollar Authorizations

Pay.gov allows applications to submit plastic card authorizations for \$0.00. These transactions are typically used to validate plastic card account and address information. They cannot be canceled, forced, or reversed. Additionally, Pay.gov will not accept zero-dollar manual authorizations through the CCP (see section 13.4.2 of the *User Guide*).

16.6.5 Real-Time Reversals

If a plastic card authorization or sale is canceled, Pay.gov will reverse the authorization in real time, restoring the amount of the transaction to the balance of the submitted plastic card.

If a plastic card authorization is forced for less than the amount of the authorization, Pay.gov will automatically reverse the difference between the authorized amount and the forced amount.

16.7 Pay.gov Reports

Details of Pay.gov plastic card transactions are available online through the Credit Card Transaction Search Query, the Credit Card Daily Batch Report and the Collection Search queries. Details can also be obtained by the agency in electronic format from the Credit Card Activity and Collections activity files. See the *Agency Guide to the Reporting Service* for more information about activity files.

16.8 Reconciling Plastic Card Transactions between Pay.gov and CIR

When reconciling, agencies may see a difference between the effective date for plastic card transactions in Pay.gov reports and the corresponding deposit date for vouchers in the CIR.

Pay.gov is unaware of the settlement date for plastic card transactions submitted to Vantiv for processing. As a result, the effective date for plastic card transactions on Pay.gov reports is the same as the transaction date, even if that date is not a business day, such as a Saturday or holiday.

Plastic card deposit vouchers sent to the CIR by Vantiv have been changed so the deposit date is always a business date. If a plastic card transaction is processed on a Saturday, the voucher deposit date is the following business date. This is the deposit date shown on CIR reports.

When there is a difference, determine if the Pay.gov report effective date is not on a business day and then determine what the following business day is to match the transaction to a voucher deposit date.

16.9 Plastic Card Payment Cancellation

Plastic card payments may be canceled by the customer or the agency while they are in pending status, that is, before Pay.gov includes them in a settlement file sent to Vantiv for processing. Pay.gov creates settlement files twice daily: in the AM just after midnight and in the PM just after 8:00 PM.

Once a plastic card payment is included in a Vantiv settlement file, it can no longer be canceled but, it can be refunded.

16.10 Plastic Card Refunds

Plastic card transactions can be issued through Pay.gov if the agency application is configured to allow them and the agency user has the correct access role. Services that support funds are

- CCP
- TCS Single Web Service
- TCS Batch Web Service

16.10.1 Refund Time Limit

Agencies may only issue refunds for plastic card transactions within 18 months of the original transaction date. After 18 months the transaction information will be archived and unavailable for refund. You will not be able to access the transaction information or issue a refund through the CCP, nor will you will be able to pull up the transaction information in a report (see the Agency Guide to the Reporting Service).

Once a transaction has been archived, Pay.gov will be unable to restore the transaction or initiate any refund. Your agency must handle the monetary return in some other agency-supported manner.

Note: The 18 month period during which transactions are available is approximate and may vary plus/minus one month for some agencies' transactions.

16.10.2 Void Refund (Void Credit)

Plastic card refunds are voided through the CCP via the Search Transactions Void link. See the *Agency Guide to the Collections Control Panes (CCP)* for instructions.

16.11 Plastic Card Features

16.11.1 Plastic Card Security Codes

Pay.gov supports plastic card security codes. Security codes are the three or four digit codes printed on the back of a plastic card which are used to verify that the purchaser has the credit card in hand when making a purchase on the internet or over the telephone in order to reduce fraud. Each brand of card uses a slightly different code and may use a different name, such as Card Security Code (CSC), Credit Card Verification 2 (CVV2) code, Credit Card Validation Code (CVC), Card Identification (CID), or Card Identification Number (CIN).

The card issuing bank does not make a decision for the agency on how the card security code response. However, the agency has the option to pre-configure, by application, Pay.gov actions based on the security code response. See section 16.11.3.

Table 6 lists a number of possible card security response codes along with brief descriptions of each code.

Table 6: Credit card security response codes

Response Code	Description
M	CVV2 match
N	No CVV2 match
P	Not processed
S	Issuer indicates that CVV2 data should be present on the card, but the merchant has indicated data is not present on the card
U	Issuer has not certified for CVV2, or issuer has not provided Visa with the CVV2 encryption keys
Empty	Transaction failed because wrong CVV2 number was entered or no CVV2 number was entered

16.11.2 Address Verification Service (AVS)

The customer's billing address on file with the card issuing bank is confirmed as part of the transaction verification. Plastic card details such as card number, account holder, and address are checked during the authorization, and the account is checked to ensure that sufficient funds are available. The AVS code returned can be forwarded on to the agency. Unless the application is otherwise pre-configured at the agency's request, Pay.gov will not fail a transaction based on the AVS results. Table 7 lists a number of possible AVS responses and codes, along with a description of the response.

Table 7: AVS response codes

AVS Code	Definition
X	Address and 9-digit ZIP match
Y	Address and 5 digit ZIP match
A	Address matches, ZIP does not
W	9-digit ZIP matches, address does not
Z	5-digit ZIP matches, address does not
N	Nothing matches
U	No data from issuer/auth system
R	Retry, system unable to process
S	Address verification not supported
G	Global non-AVS participant
E	Edit error
B ²	Street matches, postal code not verified
C ₂	Street and postal codes not verified
D ₂	Street and postal codes match
I ₂	Address information not verified
M ₂	Street and postal codes match
P ₂	Street not verified, postal code matches
Blank	No code

16.11.3 AVS- and Security Code-based Security

Agencies have the option to pre-configure applications as to how Pay.gov will automatically act on their behalf in regard to AVS or CVV₂ codes returned by a plastic card issuer. For example, Pay.gov could automatically fail a an approved transaction if the AVS code returned indicates that the billing address supplied does not match the billing address on file with the card issuer.

For new applications, this option is part of the initial configuration process. Agencies can also revise existing application configurations.

Note: For applications not pre-configured for Pay.gov actions based on AVS or Security Code responses, neither the card issuing financial institution nor Pay.gov makes a decision on whether or not to approve a transaction. It is the agency's responsibility to determine what action to take based on the response code returned.

² International AVS Processing

16.12 Track 2 Data

Pay.gov supports card-present transactions by transmitting, but not storing, Track 2 data. A plastic card contains three tracks of information on its magnetic strip; the third track is not widely used because of weak standards defining the data it can support. Track-2 capability enables cards to be accepted at Point-of-Service (POS) terminals. The additional information read from Track 2 on the magnetic strip potentially enables the transaction to qualify for lower rates, which translates into savings for the government, and provides additional information used to assist in fraud prevention. Track 2 data is standardized by the banking industry and contains the following information: primary account number, country code, expiration date, or separator, and up to 40 characters of discretionary data.

16.13 Level II and III Data

Pay.gov accepts Level II and Level III data for plastic card transactions. Level II and III data is supported to provide specific purchase information with each credit card sale; this data cannot be displayed for consumer cards, only for business cards or purchase cards. This information is not stored on the card but is associated with a particular purchase and is passed through to the settlement agent at time of settlement. Level II and III data appears on the purchase card or credit card statement and enables the purchaser to easily reconcile their purchase. The merchant may qualify for reduced credit card rates by collecting additional purchase information at the time of purchase.

Level II data includes order and tax account information. Level III data contains purchase order line item detail including unit of issue, order quantity, item descriptor, item quantity, unit of measure, shipping information, and unit cost.

Agencies can provide Level II and III data through OCI (non-interactive single, non-interactive batch, and interactive), TCS web services, and the CCP. Figure 9 illustrates a plastic card transaction submitted through the CCP by a user with the COS role.

Figure 9: Entering Level II and Level III data in the CCP

The screenshot shows a web form for entering transaction data. The fields are as follows:

- Expiration Month (MM): []
- Expiration Year (YYYY): []
- Amount (US Dollars xx.xx): []
- Card Security Code: []
- Order ID: [] (Note: if order ID is not provided, the system will automatically use the Agency Tracking ID for the order ID.)
- Tax Amount (US Dollars xx.xx): []
- Level 3 Data: []
- Agency Memo: []

Below the form, there are two checkboxes for email confirmations:

- Send email confirmation to customer
- Send email confirmation to gteamang@cleve.frb.org

There is also a CC field for additional email recipients, with a note: "Separate multiple email addresses with a comma".

At the bottom of the form are three buttons: "Continue", "Reset", and "Cancel".

Supplying data through OCI, TCS web services, or the CCP is easy because Level II data consists of only two string data elements: order ID and tax amount. Supplying

Level III data is more complicated. Because Level III data is purchase order line item detail, it must be provided in a certain XML format. However, there is no industry-standard XML format for this data and the nature of this data can vary widely depending on the agency's business or industry. Figure 10 and Figure 11 show two valid examples of Level III data.

Figure 10: Sample Level III XML data

```
<detail>
  <level-2>
    <dest-country>840</dest-country>
    <dest-zip>22201</dest-zip>
    <duty-amount>1.05</duty-amount>
    <from-zip>20151</from-zip>
    <order-date>061129</order-date>
    <tax-amount>0.12</tax-amount>
  </level-2>
  <line-item>
    <discount-amount>0.25</discount-amount>
    <product-code>W-76_1RL</product-code>
    <item-descriptor>gasoline</item-descriptor>
    <item-quantity>23</item-quantity>
    <unit-of-measure>GLI</unit-of-measure>
    <unit-cost>0.95</unit-cost>
    <type-of-supply>ts</type-of-supply>
    <item-commodity-code>15101506</item-commodity-code>
  </line-item>
</detail>
```

Figure 11: Another sample of Level III XML data

```
<detail>
  <level-2>
    <dest-country>840</dest-country>
    <dest-zip>22201-2500</dest-zip>
    <duty-amount>1.23</duty-amount>
    <from-zip>20151</from-zip>
    <order-date>061129</order-date>
    <tax-amount>0.12</tax-amount>
  </level-2>
  <line-item>
    <discount-indicator>Y</discount-indicator>
    <discount-amount>.25</discount-amount>
    <alternate-tax-identifier>123</alternate-tax-identifier>
    <product-code>SKU</product-code>
    <item-descriptor>gasoline</item-descriptor>
    <item-quantity>23</item-quantity>
    <unit-of-measure>GLI</unit-of-measure>
    <unit-cost>.8956</unit-cost>
    <net-indicator>Y</net-indicator>
    <db-cr-indicator>D</db-cr-indicator>
    <type-of-supply>ts</type-of-supply>
    <item-commodity-code>15101506</item-commodity-code>
  </line-item>
```

</detail>

Not all Level III data elements in the above examples are required, nor are they all sent to Vantiv. Table 8, Table 9, and Table 10 on the following pages detail the data elements required by Pay.gov and/or Vantiv. They also contain a listing of all possible data elements that Pay.gov sends to Vantiv. Level III data will only display on business card and p-card lines; it will not display on consumer card lines. Ultimately, Visa, MasterCard, and American Express determine which data appears on customers' statements. Neither Pay.gov nor Vantiv support Level III data for Discover.

Note: Pay.gov stores all Level III data received from agencies but validates the data before including it in the settlement file to Vantiv. Invalid data will not be sent to Vantiv and will not appear on Vantiv transaction reports.

Table 8: Level II data elements by card type

Level II Data Elements	
<i>Elements in Visa, MC, and AMEX</i>	<i>Elements in Discover</i>
17-character Order ID	N/A
9-digit Tax Amount	

Table 9: Level III data elements common to all card types

Level III Data Elements			
<i>Elements in Visa, MC, and American Express (AMEX)</i>			
24-character (V ³), 35-char (M ₃), or 40-character (A ₃) Item Description			
7-character (V ₃) or 3-char (M ₃) Unit of Measure			
12-character (V ⁴ , M ₃) Product Code			
3-digit (V ⁵ , M ₅) ISO Country Code (<i>Note: 840 = United States</i>)			
9-digit (V, M) Discount Amount			
9-digit (V, M) Duty Amount			
10-character (V, M) Shipping Postal Code			

³ Element required by either Vantiv or Pay.gov.

⁴ Line Item Total must also be supplied for the Product Code to be sent to Vantiv for Visa transactions

⁵ Required and must be valid. If invalid, no Level III data will be sent to Vantiv.

Level III Data Elements			
10- character (V, M) Destination Postal Code			

Table 10: Card-specific Level III elements

Level III Data Elements			
<i>Elements in Visa only</i>	<i>Elements in MC only</i>	<i>Elements in AMEX only⁶</i>	<i>Elements in Discover only</i>
12- character Level3 Item Commodity Code ₃	5-digit Level3 Item Quantity ₃	11-digit Level3 Unit Cost ₃	N/A
11-digit Level3 Unit Cost ₃	9-digit Level3 Item Amount/Unit Cost ₃	3-digit Level3 Quantity ₃	
10-digit Level3 Quantity ₃	1- character Level3 Item Amount Sign/DB CR Indicator ₃		
9-digit Level3 Line Item Total ₄	1- character Level3 Item Amount Net/Gross Indicator ₃		
	1- character Level3 Item Amount Net/Gross Indicator ₃		
	1- character Level3 Discount Indicator ₃		

16.14 Pay.gov Requirements

16.14.1 Agency Account

Pay.gov plastic card collections are currently settled with the plastic card settlement bank designated by the Bureau of the Fiscal Service as a financial agent (Fifth Third Bank). Vantiv is the card acquiring processor of the Bureau of the Fiscal Service’s financial agent. All collections will be directly deposited with the Treasury. The card acquiring processor makes entries for plastic cards to CIR on a daily basis and results in a deposit ticket (SF 215). A debit voucher (SF 5515) will be produced for any credits or chargebacks that are processed against the agency’s account.

Agencies that use plastic card collections should contact Vantiv for the latest information on their setup, including deposit schedules and reconciliation.

16.14.2 Draft Locator

The draft locator a unique number assigned to a plastic card transaction, allowing it to be tracked. This number is derived from the agency tracking ID by Pay.gov according to the settlement agent’s requirements. Vantiv truncates the agency

⁶ AMEX supports only four line items. If more than four items are supplied, none will be sent to Vantiv; default values will be sent instead.

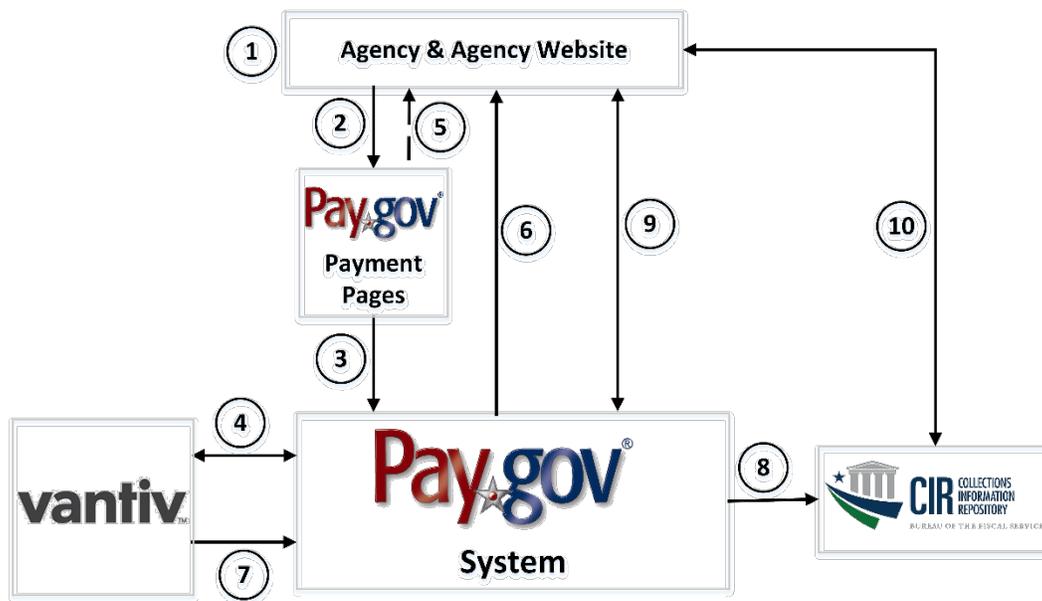
tracking ID to the eleven right-most alphanumeric characters. This is how the draft locator appears in TRS reports.

16.15 Plastic Card Collections Flowcharts

The flowchart in Figure 12 details the stages involved in a plastic card payment where either the customer is forwarded from the agency's website to a collection page hosted on Pay.gov (an OCI interactive collection), or the agency collects all of the payment information and submits it to Pay.gov (an OCI non-interactive collection).

16.15.1 Interactive Plastic Card Collection

Figure 12: Example plastic card interactive collection flow (Hosted Collection Pages)

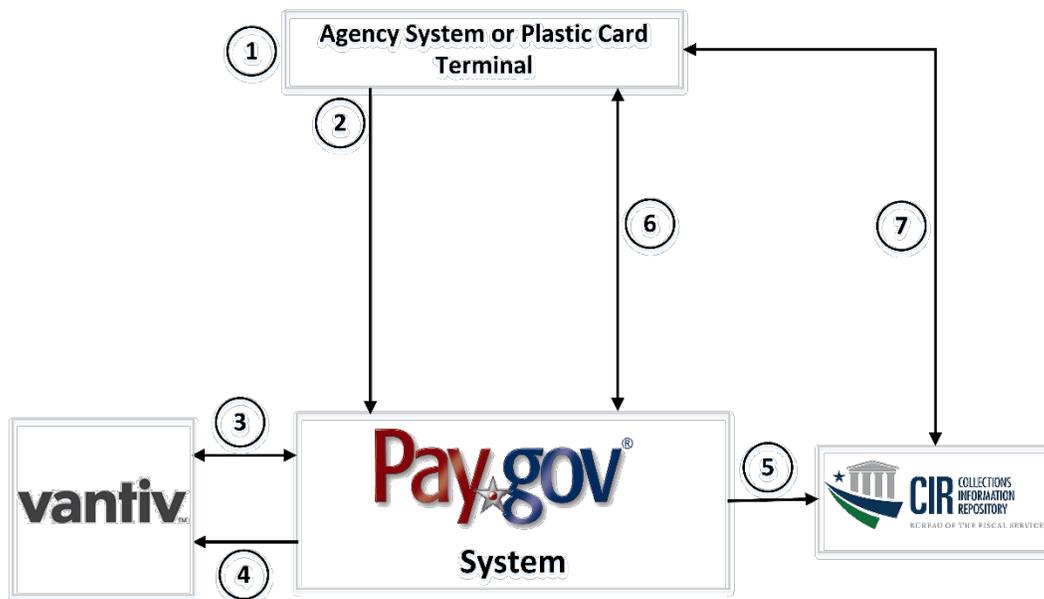


1. A customer on agency site elects to make a payment. The agency website sends a request to Pay.gov to initiate a collection process. Pay.gov responds with a token that identifies the transaction and indicates it is OK to proceed.
2. The customer is transferred to Pay.gov where the payment page is hosted.
3. The customer enters the transaction details — name, address, plastic card information, etc. — and submits the completed collection.
4. Pay.gov sends the plastic card information to the card authorization provider (Vantiv) where the transaction is either authorized or failed. Vantiv responds to Pay.gov with the status.
5. Pay.gov may redirect the user back to the agency's site (as configured for the application).
6. Pay.gov sends collection results to the agency. The agency is responsible for determining what to show the user, including a printable receipt if desired.

7. Pay.gov sends two settlement files for each day to Vantiv, the first at 8:55 pm Eastern Time and the second at 12:10 am the next morning, Pay.gov sends the files every day of the year. Contact Vantiv for details on their actual processing times from posting to settlement.
8. Pay.gov sends transaction information to the Central Information Repository (CIR).
9. Pay.gov includes plastic card transactions in online reports and activity files (see the *Agency Guide to the Reporting Service*).
10. The agency can access CIR to view the deposit ticket and debit voucher entries.

16.15.2 Non-interactive Plastic Card Collection

Figure 13: Example plastic card non-interactive collection flow (TCS web service)



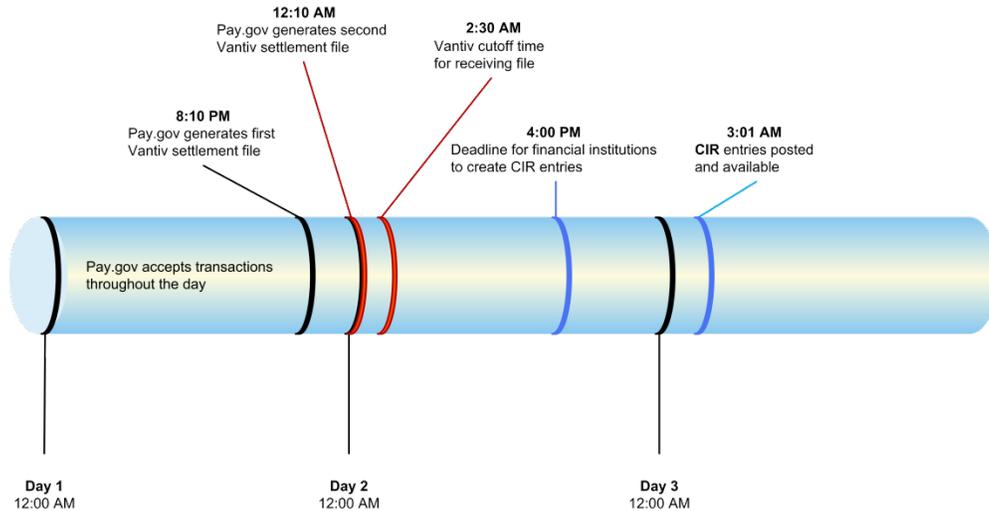
1. An agency collects payment information and submits it to Pay.gov web service.
2. The payment data is transferred to the Pay.gov system. This can be one or many payments, depending on the service used.
3. Pay.gov sends the plastic card information to the card authorization provider (Vantiv) where the transaction is either authorized or failed. Vantiv responds to Pay.gov with the status.
4. Pay.gov sends two settlement files for each day to Vantiv, the first at 8:55 pm Eastern Time and the second at 12:10 am the next morning, Pay.gov sends the files every day of the year. Contact Vantiv for details on their actual processing times from posting to settlement.
5. Pay.gov sends transaction information to the Central Information Repository (CIR).
6. Pay.gov includes plastic card transactions in online reports and activity files (see the *Agency Guide to the Reporting Service*).

7. The agency can access CIR to view the deposit ticket and debit voucher entries.

16.16 Plastic Card Payment Timeline

Figure 14 illustrates a typical Pay.gov plastic card collections processing timeline.

Figure 14: Processing timeline for plastic cards



16.17 Internet Merchant Account

Agencies use the Bureau of the Fiscal Service Card Acquiring Service (CAS) for Pay.gov plastic card collections. To use the Card Acquiring Service agencies must work with their Bureau of the Fiscal Service liaison to complete an application for a merchant account. To obtain this application, as well as more information about the Card Acquiring Service rules and regulations, please visit <http://fms.treas.gov/cas/index.html>.

Prior to completing the Card Acquiring Service application, agencies should have already spoken with Pay.gov.

The types of cards accepted through Pay.gov are defined in the Card Acquiring Service documents. It is important when applying for an Internet merchant account to carefully examine how the use of cards fits your business process. The Bureau of the Fiscal Service is responsible for payment of an agency's plastic card fees; however, other than in exceptional circumstances, agencies are responsible for fees associated with intra-governmental card payments collected by your agency.

You may also refer to the Federal Trade Commission rules governing credit card fulfillment at <http://www.ftc.gov/bcp/online/pubs/buspubs/mailorder.htm#Introduction>.

16.18 Testing Plastic Card Collections

In production, plastic card authorizations are provided by an authorization provider used by settlement providers to authorize plastic card transactions. In the

Pay.gov test environment, plastic card authorizations are processed through an authorization emulator. Agencies configured to use Vantiv will conduct testing using the Vantiv emulator.

16.18.1 Plastic Card Data

The Vantiv emulator processes any plastic card number that passes a Luhn check. All plastic card numbers used by providers will pass this check. Luhn checks are provided by Pay.gov in any interactive screens; agencies submitting non-interactive plastic card transactions should make sure that they are using the Luhn check on any numbers being passed to Pay.gov.

While the emulator does not have any ability to make connections outside the QA environment, we strongly suggest that agencies testing under the emulator not use real plastic card numbers. Table 11 provides a comprehensive list of valid account numbers for testing.

Table 11: Plastic card numbers for authorization testing

Type	Number	Character	Security Code
MasterCard	5105105105105100	16	998
	5555555555554444	16	998
	5111111111111118	16	998
	2223007060011	13	998
	22235250600014	13	998
Visa	422222222222	13	999
	4111111111111111	16	999
	4012888888881881	16	999
American Express	378282246310005	15	9997
	371449635398431	15	997
	378734493671000	15	997
	340000000000009	15	997
Discover	3566002020360000	16	996
	6011111111111117	16	996
	6011000990139424	16	996
	6011123456789019	16	996
	6011411111111111	16	996
	6221220990139424	16	996
Diners Club	3852000023267	14	996
	30569309025904	14	996
JCB	3530111333300000	16	n/a
	3566002020360505	16	n/a
Union Pay	6221260004598744	16	n/a

MasterCard numbers beginning with 2 should be used to test MasterCard's BIN range expansion.

16.18.2 Testing with the Vantiv Emulator

The Vantiv emulator provides a means for agencies to test plastic card transaction processing in the QA External environment and ensure that automated processes within their systems correctly handle both successful and failed transactions. This is done by simulating the response that Vantiv, the card acquiring processor of the Bureau of the Fiscal Service's financial agent, Fifth Third Bank, would provide for a given transaction from their lab or in the production environment. Please be aware while testing that, in some cases, there may be slight differences between the response provided by the emulator and the response provided by the Vantiv production environment.

The emulator generates specific response codes, authorization results, and AVS codes based on values placed in the transaction amount, address, ZIP/postal code, card expiration date, or card security code fields of a test transaction. The following sections of this guide contains tables which list the field values required to generate a given result, organized by the field value used to generate the given result. Appendix A provides information for generating specific test results with the Vantiv emulator.

16.18.3 Volume Testing with the Vantiv Emulator

The Vantiv emulator was specifically designed to allow for a high volume of authorizations during performance or load testing. However, we recommend that agencies notify Pay.gov customer service before conducting any large scale load or performance tests. Please remember that this is a shared environment.

16.18.4 Frequently Asked Questions about Testing with the Vantiv Emulator

Q: Are the approval codes generated unique?

A: There is no guarantee that the approval codes will be unique.

Q: What simulated authorization error codes can be returned?

A: Please refer to Appendix A for detailed information regarding error codes.

Q: Are there any restrictions on using the Vantiv emulator?

A: No, although as noted in section the emulator exists in a shared environment; we recommend that agencies notify Pay.gov customer service before conducting any large scale load or performance tests.

Q: Is an agency receiving enough information from the authorization emulator?

A: Yes. Pay.gov acts as a filter when providing authorizations. Much of the information returned during the authorization process in production is not passed on to agencies. This filtering limits the exposure of end-user information to the Internet. The Vantiv emulator is designed specifically to supply all necessary information to agencies. However, the emulator does not contain all possible message responses (such as approval codes, AVS code ranges, and so on) and agencies are expected to use this document to supplement their testing.

17 Digital Wallet Transactions

17.1 Payments

Your agency may allow digital wallet payment for applications using Pay.gov-Hosted Forms, Hosted Collection Pages, eBills. Agency users cannot enter digital wallet payments on behalf of their customers. Only the customer can make them.

Agency users are able to search for and view digital wallet transaction information through the CCP, Pay.gov online reports and activity files.

17.2 Refunds

17.2.1 Amazon and PayPal

Agencies may request refunds for Amazon and PayPal transactions through the CCP or by contacting Pay.gov. Note that this is only a request to the digital wallet provider. The provider's policies determine if the refund will be granted.

17.2.2 Dwolla

Refunds requests are not available for Dwolla transactions. Agencies should use another method such as issuing a check.

See the *Agency Guide to the Collections Control Panel*, the *Agency Guide to Amazon Collections*, the *Agency Guide to Dwolla Collections*, and the *Agency Guide to PayPal Collections* for more information.

18 Customer Support

Customer support is provided by the Federal Reserve Bank of Cleveland. Assistance with accessing the website, hosted forms processing, collections, and so on is provided for agency customers. Technical support is also available for problems such as balancing payments, database integrity, information security, and other issues relating to the smooth operation of the services provided to the agency.

18.1 Pay.gov Contact Information

Phone: (800) 624-1373, option 2

Email address: pay.gov.clev@clev.frb.org

18.2 CIR Contact Information

For questions or additional information regarding the Collections Information Repository (CIR) reports or schedules, contact CIR directly at CIR@pnc.com.

Appendix A Vantiv Emulator Test Results

A.1 Results Based on Transaction Amount

Amount	Response Code ¹⁰	Auth Result	AVS Result ¹¹	Approval Code ¹²	CVV2 Result ¹³	Partial Auth Amount	Remaining Balance	Response Delay	Recurring Advice
\$0.10	00	Approval	Y	Random6	P	None	None	0	
\$0.80	00	Approval	Random	Random6	M	None	None		
\$0.81	00	Approval	Random	Random6	N	None	None		
\$0.82	00	Approval	Random	Random6	P	None	None		
\$0.83	00	Approval	Random	Random6		None	None		
\$0.84	00	Approval	Random	Random6	S	None	None		
\$0.85	00	Approval	Random	Random6	U	None	None		
\$0.90	Random Decline	Decline	Random	None	Random	None	None		
\$0.92	None	None	None	None	Random	None	None	Error response	
\$0.93 ¹⁴	Random Approval	Approval	Random	None	Random	None	None	5	
\$0.93 ¹⁵	Random Approval	Approval	Random	None	Random	None	None		
\$0.94 ¹⁴	Random Approval	Approval	Random	None	Random	None	None	5	
\$0.94 ¹⁵	Random Decline	Decline	Random	None	Random	None	None		
\$0.99 ¹⁴	00	Approval	Random	Random6	Random	None	None	5	
\$0.99 ¹⁵	Random Approval	Approval	Random	None	Random	None	None		
\$1.01 ¹⁴	00	Approval	Random	Random6	Random	None	None	5	
\$1.01 ¹⁵	None	None	None	None	Random	None	None	Error response	

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Amount	Response Code ¹⁰	Auth Result	AVS Result ¹¹	Approval Code ¹²	CVV2 Result ¹³	Partial Auth Amount	Remaining Balance	Response Delay	Recurring Advice
\$1.02 ¹⁴	00	Approval	Random	Random6	Random	None	None	5	
\$1.02 ¹⁵	None	None	None	None	Random	None	None	No response	
\$1.71	V1	Decline	Random	None	Random	None	None		
\$1.72 ¹⁶	V2	Decline	Random	None	Random	None	None		
\$1.73	V3	Decline	Random	None	Random	None	None		
\$1.74	V4	Decline	Random	None	Random	None	None		
\$1.75	V5	Decline	Random	None	Random	None	None		
\$1.76	V6	Decline	Random	None	Random	None	None		
\$3.00	00	Approval	Random	Random6	Random	None	None		
\$3.01	01	Decline	Random	None	Random	None	None		
\$3.02	02	Decline	Random	None	Random	None	None		
\$3.03	03	Decline	Random	None	Random	None	None		
\$3.04	04	Decline	Random	None	Random	None	None		
\$3.05	05	Decline	Random	None	Random	None	None		
\$3.06	06	Decline	Random	None	Random	None	None		
\$3.07	07	Decline	Random	None	Random	None	None		
\$3.08	08	Decline	Random	None	Random	None	None		
\$3.09	09	Decline	Random	None	Random	None	None		
\$3.10	10	Approval	Random	Random6	Random	\$2.10	None		
\$3.11	11	Approval	Random	Random6	Random	None	None		
\$3.12	12	Decline	Random	None	Random	None	None		
\$3.13	13	Decline	Random	None	Random	None	None		
\$3.14	14	Decline	Random	None	Random	None	None		

Amount	Response Code ¹⁰	Auth Result	AVS Result ¹¹	Approval Code ¹²	CVV2 Result ¹³	Partial Auth Amount	Remaining Balance	Response Delay	Recurring Advice
\$3.15	15	Decline	Random	None	Random	None	None		
\$3.16	16	Decline	Random	None	Random	None	None		
\$3.17	17	Decline	Random	None	Random	None	None		
\$3.18	18	Decline	Random	None	Random	None	None		
\$3.19	19	Decline	Random	None	Random	None	None		
\$3.20	20	Decline	Random	None	Random	None	None		
\$3.21	21	Decline	Random	None	Random	None	None		
\$3.22	22	Decline	Random	None	Random	None	None		
\$3.23	23	Decline	Random	None	Random	None	None		
\$3.24	24	Decline	Random	None	Random	None	None		
\$3.25	25	Decline	Random	None	Random	None	None		
\$3.26	26	Decline	Random	None	Random	None	None		
\$3.27	27	Decline	Random	None	Random	None	None		
\$3.28	28	Decline	Random	None	Random	None	None		
\$3.29	29	Decline	Random	None	Random	None	None		
\$3.30	30	Decline	Random	None	Random	None	None		
\$3.31	31	Decline	Random	None	Random	None	None		
\$3.32	32	Decline	Random	None	Random	None	None		
\$3.33	33	Decline	Random	None	Random	None	None		
\$3.34	34	Decline	Random	None	Random	None	None		
\$3.35	35	Decline	Random	None	Random	None	None		
\$3.36	36	Decline	Random	None	Random	None	None		
\$3.37	37	Decline	Random	None	Random	None	None		

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Amount	Response Code ¹⁰	Auth Result	AVS Result ¹¹	Approval Code ¹²	CVV2 Result ¹³	Partial Auth Amount	Remaining Balance	Response Delay	Recurring Advice
\$3.38	38	Decline	Random	None	Random	None	None		
\$3.39	39	Decline	Random	None	Random	None	None		
\$3.40	40	Decline	Random	None	Random	None	None		
\$3.41	41	Decline	Random	None	Random	None	None		
\$3.42	42	Decline	Random	None	Random	None	None		
\$3.43	43	Decline	Random	None	Random	None	None		
\$3.44	44	Decline	Random	None	Random	None	None		
\$3.45	45	Decline	Random	None	Random	None	None		
\$3.46	46	Decline	Random	None	Random	None	None		
\$3.47	47	Decline	Random	None	Random	None	None		
\$3.48	48	Decline	Random	None	Random	None	None		
\$3.49	49	Decline	Random	None	Random	None	None		
\$3.50	50	Decline	Random	None	Random	None	None		
\$3.51	51	Decline	Random	None	Random	None	None		
\$3.52	52	Decline	Random	None	Random	None	None		
\$3.53	53	Decline	Random	None	Random	None	None		
\$3.54	54	Decline	Random	None	Random	None	None		
\$3.55	55	Decline	Random	None	Random	None	None		
\$3.56	56	Decline	Random	None	Random	None	None		
\$3.57	57	Decline	Random	None	Random	None	None		
\$3.58	58	Decline	Random	None	Random	None	None		
\$3.59	59	Decline	Random	None	Random	None	None		
\$3.60	60	Decline	Random	None	Random	None	None		

Amount	Response Code ¹⁰	Auth Result	AVS Result ¹¹	Approval Code ¹²	CVV2 Result ¹³	Partial Auth Amount	Remaining Balance	Response Delay	Recurring Advice
\$3.61	61	Decline	Random	None	Random	None	None		
\$3.62	62	Decline	Random	None	Random	None	None		
\$3.63	63	Decline	Random	None	Random	None	None		
\$3.64	64	Decline	Random	None	Random	None	None		
\$3.65	65	Decline	Random	None	Random	None	None		
\$3.66	66	Decline	Random	None	Random	None	None		
\$3.67	67	Decline	Random	None	Random	None	None		
\$3.68	68	Decline	Random	None	Random	None	None		
\$3.69	69	Decline	Random	None	Random	None	None		
\$3.70	70	Decline	Random	None	Random	None	None		
\$3.71	71	Decline	Random	None	Random	None	None		
\$3.72	72	Decline	Random	None	Random	None	None		
\$3.73	73	Decline	Random	None	Random	None	None		
\$3.74	74	Decline	Random	None	Random	None	None		
\$3.75	75	Decline	Random	None	Random	None	None		
\$3.76	76	Decline	Random	None	Random	None	None		
\$3.77	77	Decline	Random	None	Random	None	None		
\$3.78	78	Decline	Random	None	Random	None	None		
\$3.79	79	Decline	Random	None	Random	None	None		
\$3.80	80	Decline	Random	None	Random	None	None		
\$3.81	81	Decline	Random	None	Random	None	None		
\$3.82	82	Decline	Random	None	Random	None	None		
\$3.83	83	Decline	Random	None	Random	None	None		

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Amount	Response Code ¹⁰	Auth Result	AVS Result ¹¹	Approval Code ¹²	CVV2 Result ¹³	Partial Auth Amount	Remaining Balance	Response Delay	Recurring Advice
\$3.84	84	Decline	Random	None	Random	None	None		
\$3.85	85	Approval	Random	Random6	Random	None	None		
\$3.86	86	Decline	Random	None	Random	None	None		
\$3.87	87	Decline	Random	None	Random	None	None		
\$3.88	88	Decline	Random	None	Random	None	None		
\$3.89	89	Decline	Random	None	Random	None	None		
\$3.90	90	Decline	Random	None	Random	None	None		
\$3.91	91	Decline	Random	None	Random	None	None		
\$3.92	92	Decline	Random	None	Random	None	None		
\$3.93	93	Decline	Random	None	Random	None	None		
\$3.94	94	Decline	Random	None	Random	None	None		
\$3.95	95	Decline	Random	None	Random	None	None		
\$3.96	96	Decline	Random	None	Random	None	None		
\$3.97	97	Approval	Random	Random6	Random	None	None		
\$3.98	98	Decline	Random	None	Random	None	None		
\$3.99	99	Decline	Random	None	Random	None	None		
\$4.00	00	Approval	Random	Random6	Random	None	None		
\$4.01	M1	Decline	Random	None	Random	None	None		
\$4.02	XE	Decline	Random	None	Random	None	None		
\$4.03	XD	Decline	Random	None	Random	None	None		
\$4.04	D1	Decline	Random	None	Random	None	None		
\$4.05	00	Approval	Random	Random6	Random	None	\$1.00		
\$4.06	00	Approval	Random	Random6	Random	None	\$1.01		

Amount	Response Code ¹⁰	Auth Result	AVS Result ¹¹	Approval Code ¹²	CVV2 Result ¹³	Partial Auth Amount	Remaining Balance	Response Delay	Recurring Advice
\$4.07	00	Approval	Random	Random6	Random	None	\$1.02		
\$4.08	00	Approval	Random	Random6	Random	None	\$1.03		
\$4.66	00	Approval	Random	Random6	Random	None	\$1.66		
\$4.67	10	Approval	Random	Random6	Random	\$3.00	None		
\$4.68	10	Approval	Random	Ramdom6	Random	\$3.00	\$0.00		
\$4.69	10	Approval	Random	Ramdom6	Random	\$3.00	\$10.00		
\$4.70	00	Decline	Random	None	Random	None	\$1.66		
\$4.72	10	Approval	Random	Random6	Random	\$3.00	\$10.00		
\$4.73	RZ	Decline	A	None	N	None	None	0	3
\$4.74	RZ	Decline	A	None	N	None	None	40	3
\$9.22	Random Approval	Approval	Random	None	Random	None	None	5	
\$9.22	10	Approval	Random	None	Random	None	None	0	
\$9.23	Random Approval	Approval	Random	None	Random	None	None	5	
\$9.23	11	Approval	Random	None	Random	None	None	0	
\$9.24	Random Approval	Approval	Random	None	Random	None	None	5	
\$9.24	97	Approval	Random	None	Random	None	None	0	

¹⁰ See section A.4.1 for descriptions of the returned response codes.

¹¹ See section A.4.4 for details of the AVS results returned.

¹² See section A.4.3 for descriptions of the returned approval codes.

¹³ See section A.4.4 for descriptions of the CVV2 results.

¹⁴ Message type 200 (financial transaction request, used for plastic card authorization).

¹⁵ Message type 420 (reversal request).

¹⁶ May be used to test credit card over the daily limit response.

A.2 Results Based on Address Information

Address	ZIP Code	Response Code ¹⁷	Auth Result	AVS Result ¹⁸	Approval Code ¹⁹	CVV2 Result ²⁰	Partial Auth Amount	Remaining Balance	Response Delay
00004	Any ²¹	00	Approval	Random	None	Random	None	None	
00003	Any ²¹	00	Approval	Random	Random6	Random	None	None	
00002	Any ²¹	None	None	Random	None	Random	None	None	No response
00001	Any ²¹	Random Decline	Decline	Random	None	Random	None	None	
Any ²¹	00003	00	Approval	Random	Random6	Random	None	None	
Any ²¹	00002	None	None	Random	None	Random	None	None	No response
Any ²¹	000020002	None	None	Random	None	Random	None	None	No response
Any ²¹	00001	Random Decline	Decline	Random	None	Random	None	None	
Any ²¹	000010001	Random Decline	Decline	Random	None	Random	None	None	
83201	85284	00	Zip match ver	Z	Random	Random	None	None	
83201	99999	00	Ver unavailable	U	Random	Random	None	None	
83201	99998	00	Ver unavailable	G	Random	Random	None	None	
83201	999997001	00	Address match	B	Random	Random	None	None	
83201	999997002	00	Unavailable	C	Random	Random	None	None	
83201	999997003	00	Exact match	D	Random	Random	None	None	
83201	999997004	00	Unavailable	I	Random	Random	None	None	
83201	999997005	00	Exact match	M	Random	Random	None	None	
83201	999997006	00	ZIP match ver	P	Random	Random	None	None	
83201	999997007	00	Address match	A	Random	Random	None	None	
83201	999997008	00	Exact match	Y	Random	Random	None	None	

Address	ZIP Code	Response Code ¹⁷	Auth Result	AVS Result ¹⁸	Approval Code ¹⁹	CVV2 Result ²⁰	Partial Auth Amount	Remaining Balance	Response Delay
00004	Any ²¹	00	Approval	Random	None	Random	None	None	
83201	999997009	00	Address and 9 digit ZIP match	X	Random	Random	None	None	
83201	999997010	00	9 digit ZIP matches, address does not	W	Random	Random	None	None	
83201	999997011	00	Nothing matches	N	Random	Random	None	None	
83201	999997012	00	Retry, system unable to process	R	Random	Random	None	None	
83201	999997013	00	Address verification not supported	S	Random	Random	None	None	
83201	999997014	00	Edit error	E	Random	Random	None	None	
83201	999997015	10	Approval	Random	Random	Random	\$0.40	None	
83201	999997016	00	Approval	Random	Random	Random	None	Random	
83201	999997017	00 or 10 ²	Approval	Random	Random	Random	Difference25	Difference25	
83201 ²³	999997018	00	Approval	Random	Random	Random	None	None	No response
83201	999997019	00 or 10 ²²	Approval	Random	Random	Random	Difference1000	Difference1000	
83201	999997020	00 or 10 ²²	Approval	Random	Random	Random	Difference1000000000	Difference1000000000	

¹⁷ See section A.4.1.

¹⁸ See section A.4.2.

¹⁹ See section A.4.3.

²⁰ See section A.4.4.

²¹ The emulator looks at the fields in the following order to determine which result to return: Address, Zip Code, Address_Zip (the specified pairs of address and ZIP code values beginning in row nine), Amount, ExpirationDate, CardNumber, CardSecurityCode.

²² This scenario represents a \$xxxx.00 prepaid plastic card. If the emulator receives a request for less than \$xxxx.00, it will return a response code of 00, no partial authorization amount, and a remaining balance of \$0.00. If the emulator receives a request for more than \$xxxx.00, it will return a response code of 10, a partial authorization amount of the difference and no remaining balance.

²³ This scenario is for authorization reversal requests only. When the emulator receives a reversal request with this data, the emulator will intentionally not respond to Pay.gov, simulating a reversal request timeout. All other reversal request data scenarios will generate a response to Pay.gov.

A.3 Results Based on Plastic Card Information

Card Expiration Date	Response Code ²³	Auth Result	AVS Result ²⁴	Approval Code ²⁵	CVV2 Result ²⁶	Partial Auth Amount	Remaining Balance
> 10 years from current date	Random Decline	Expired Card	Random	None	Random	None	None
Plastic Card Number	Response Code	Auth Result	AVS Result	Approval Code	CVV2 Result	Partial Auth Amount	Remaining Balance
4005550000000000	Random Decline	Expired Card	Random	None	Random	None	None
Plastic Card Security Code	Response Code	Auth Result	AVS Result	Approval Code	CVV2 Result	Partial Auth Amount	Remaining Balance
1210 (AMEX)	Random Decline	Expired Card	Random	None	Random	None	None
350 (All others)	Random Decline	Expired Card	Random	None	Random	None	None

²³ See section A.4.1.

²⁴ See section A.4.2.

²⁵ See section A.4.3.

²⁶ See section A.4.4.

A.4 Keys to the Results Tables

A.4.1 Response Codes

Response	Results
Random Approval	00, 11, 85, or 97
Random Decline	03-10, 12-53, 55-84, 86-96, 98-99, D1, M1, XE, or XD

A.4.2 AVS Results

Code	Returns
Random	X, Y, A, W, Z, N, U, R, S, G, E, B, C, D, I, M, P, or blank
X	Address and 9 digit ZIP match
Y	Address and 5 digit ZIP match
A	Address matches, ZIP does not
W	9 digit ZIP matches, address does not
Z	5 digit ZIP matches, address does not
N	Nothing matches
U	No data from issuer/auth system
R	Retry, system unable to process
S	Address verification not supported
G	Global non-AVS participant
E	Edit error
Blank	No code
<i>International AVS Codes:</i>	
B	Street matches, postal not verified
C	Street and postal codes not verified
D	Street and postal codes match
I	Address information not verified
M	Street and postal codes match
P	Street not verified, postal matches

A.4.3 Approval Codes

Code	Results
Random6	A random alphanumeric string six characters long. <i>Note:</i> Supplying any number <i>x</i> after 'RANDOM' will produce a random alphanumeric string <i>x</i> characters in length.

A.4.4 CVV2 Results

Code	Random
Random	M, N, P, S, U, or blank