U.S. Bank E-Payment Service

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User Guide Revision History

Date	Release	Notes
3/2017	17.1	Added signature debit as stand-alone payment method
11/2016	16.5	Added new password security requirements and new payment alert.
6/2016	16.2	Added Bill Presentment feature. (Removed 3/2017.)
2/2016	N/A	Updated password information.
3/2015	14.7 – 15.3	Added mobile site features.
6/2014	N/A	Updated "Continue" and "Return Session Transfer" button locations. Added session transfer errors.
2/2014	N/A	Added "Continue" button option to Confirmation page and incorporated customization options.
11/2013	13.0	Revised payment process and payer account management for Customer Payment Site redesign
2/5/13	N/A	Update Forgot Password
5/15/12	N/A	Updated Country Code table
2/16/12	Kiosk	Added Bill Payment Kiosk payment channel. Updated parameters
5/06/11	10.2.1	Introduction of customized convenience fee label and message.
11/13/10	10.2	Introduction of Admin Single Sign-On, Real-time authorization registration, and single cut-off time for all payment types
9/10/10	10.1.1	Enhancement of electronic receipts.
6/5/10	10.1	Introduction of Remote Web Services & updated screen shots to reflect removal of credit card expiration date.
10/23/09	9.1.2	Introduction of Pre-Registration Extend User Profile Record and Bank Collection Program Convenience Fee Changes
6/15/09	9.1.1	Introduction of Recurring Payment Quarterly Custom Date
3/4/09	8.1.3	Introduction of Visa Account Updater
7/22/08	8.1	Introduction of ATM Pinless Debit payment method
12/28/07	7.2	Introduction of additional web customization and Return Non-Payment Notification message
5/16/07	7.1	Introduction of Bank Collection Program for Convenience Fees (credit cards)

| 3/13/07 | 6.4 | Introduction of Return Open Session Transfer |

Introduction

This User Guide defines the general features and functionality of U.S. Bank E-Payment Service. This robust and highly configurable remote collections solution is easy to deploy and integrate. E-Payment Service lets billers efficiently collect payments through multiple channels in a single, integrated solution:

- Internet (via computer or mobile device)
- Telephone (IVR)
- Live call center agents
- Kiosk (if hosted by your organization – via payment request to the E-Payment Service Remote Web Service "API" solution)

All payments, including one-time and recurring, e-check (ACH debit), credit card, ATM (PINless) debit card, signature-based debit card and stored value card (with a Visa or MasterCard logo) transactions, are consolidated for reporting and posting. Through the administrative site, your organization can also manage administrative users, provide payer customer service, and retrieve reports. Both consumer and business payments can be accepted.

Organizations that wish to host their own Web pages or bill payment kiosks also can use Remote Web Services to transmit payment information to E-Payment Service.

The E-Payment images contained in this document are shown for illustrative purposes only. The content, graphics, business rules and data parameters for your organization's application are configured based on the implementation questionnaire completed during setup.

The specifications for E-Payment Service are distributed into the following documents:

- *User Guide:* General functional specifications for E-Payment Service
- *Administrative Site User Guide:* This document provides general specifications for the E-Payment Service Administrative Application
- *Functional Specifications:* Specifications related to the Integrated Voice Response (IVR) functionality within E-Payment Service or the Remote Web Services (API)
- *Remote Web Services User Guide:* This document provides the general specifications for the E-Payment Service Remote Web Services
- *Technical Specifications:* These documents contain file layouts and other detailed technical specifications for E-Payment Service
- *File Layout Specifications:* These documents contain file layout and delivery specifications for all of the E-Payment Service versions
- *Feature Specifications:* These documents contain detailed information and specifications related to various E-Payment Service features (for example, Return Session Transfer)

Chapter 1:   Biller Hierarchy & Identification

1.1   Biller Hierarchy

E-Payment Service supports a three-tier organizational hierarchy (Biller Group > Biller > Product). Each level in the hierarchy defines various business rules and naming conventions.
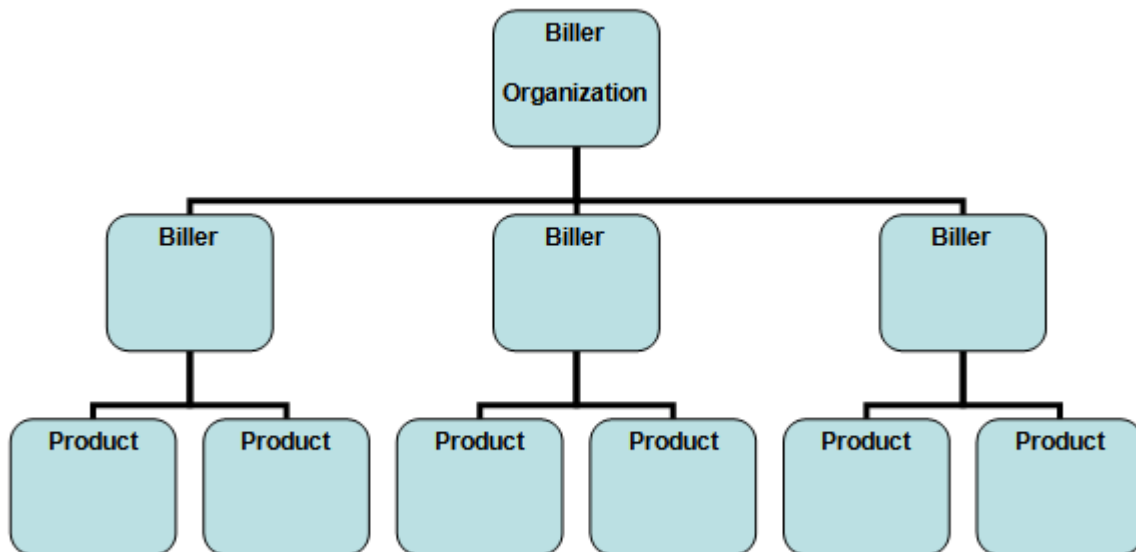
1.1.1   Biller Group

The Biller Group is the top-level hierarchy. Multiple billers can roll-up into one Biller Group.

Each Biller Group is assigned a three character Biller Group Identification Number (Biller Group ID).

1.1.2   Biller

The Biller level in the E-Payment Service Hierarchy lets organizations structure multiple entities under one Biller Group umbrella. Within a Biller, multiple Products can be created for payment options.

Each Biller is assigned a three character Biller Identification Number (Biller ID).

1.1.3   Product

A Product is the final level of the E-Payment Service hierarchy and rolls up into each Biller.

The Product level defines a majority of the payment business rules. Product examples include tax types, licenses, and services. When a payer is passed to E-Payment Service, the session transfer includes a product code that defines the business rules that E-Payment Service uses for that transaction.

1.1.3.1 Authorized Products

Authorized Products let your organization enable E-Payment Service to manage a payer's eligibility to initiate payments. When the payer is passed to E-Payment Service, the session transfer includes a product code of "Authorized Products" that instructs E-Payment Service to prompt the payer to select the Product for payment.

The use of Authorized Products requires that your organization pre-registers payers to define the products for which each payer is eligible to initiate payments. Your organization can pre-register users by sending in a Pre-Registration File. More information on these features can be found in later chapters.

Chapter 2:   Payment Processing

2.1   Payment Methods

2.1.1   Credit Card/Signature Debit Card

E-Payment Service accepts major credit cards, including Visa, MasterCard, American Express and Discover. If your organization chooses to accept credit cards, they may elect to accept all cards or just the specific card types that meet their business needs. In addition to the major credit card types, E-Payment Service can also process signature-based debit cards (offline debit cards). Signature-based debit cards have a Visa or MasterCard logo on the front of the card. If your organization accepts Visa and MasterCard, E-Payment Service automatically processes any signature-based debit cards entered by a payer. Your organization can also select to only accept signature-based debit cards and not accept credit card transactions. Stored value cards that have a Visa or MasterCard logo are also accepted by E-Payment Service.

E-Payment Service credit card payments are processed through Elavon via U.S. Bank Payment Solutions. Clients who wish to use an alternate merchant services provider can use the Fusebox Payment Gateway to connect through Elavon to a selection of merchant processors. For more information, contact your U.S. Bank Payment Solutions representative.

2.1.1.1 Card-Not-Present Transactions

Card-Not-Present transactions occur when the card and cardholder are not present — and fraud may be especially difficult to detect. Card acceptance procedures for these transactions are different from procedures for card-present transactions, but still must allow merchants to verify the cardholder's identity and the validity of the purchase.

To reduce the potential for fraudulent card-not-present payments, E-Payment Service offers the following fraud prevention features:
* Card Number Validations
* Address Verification Service (AVS)
* Card Verification Data (CVD)
* Credit Card Authorization Attempt Limit

Each of these features can be deployed independently or collectively and offer various configurations.

2.1.1.2 Card Number Validations

Prior to sending the payer's card information to the merchant processor, E-Payment Service performs several validations to ensure that invalid information is not being sent for authorization. These validations include:
* A mod-10 check is performed on the credit card number
* Verification that there are no spaces in the card number and all the characters are numeric
* Verification that the first digit of the card number is associated with the selected card type
* Verification that the expiration date is not a date in the past

2.1.1.3 Address Verification Service (AVS)

AVS compares the cardholder's billing address submitted on the payment with the cardholder's billing address on record with the issuing bank. The submitted transaction is authorized or rejected based on the standard criteria, which does not include AVS data. AVS is an additional check for detecting fraudulent transactions.

E-Payment Service uses a default AVS setting. For every transaction processed by E-Payment Service, the AVS response code from the credit card association is compared to the acceptable AVS response codes. If a response code for a transaction is one that the E-Payment Service does not accept, the transaction is voided with the merchant processor and the payer receives a message that their payment has been declined.

2.1.1.3.1 AVS Response messages for domestic addresses

AVS Response Code	Definition
Y	Both street address and five digit code match
A	Street address matches, but zip code does not
W	Nine-digit zip code matches, but street address does not
Z	Five-digit zip code matches, but street address does not
N	Street address and zip code do not match
R	The card issuer's system is not available; retry later
C	Street address and postal code in wrong formats
O	No response sent
P	Postal code match, but street address not verified due to incompatible formats
S	Service not supported by issuer
U	Address information is unavailable
E	AVS Error

2.1.1.3.2 AVS Response messages for international addresses

AVS Response Code	Definition
B	Street address matches, but postal code in wrong format
D	Street address and postal code match
G	Card issued by non-US issuer that does not participate in the AVS service
I	Address information not verified by international issuer

2.1.1.4 Card Verification Data (CVD)

CVD is a fraud prevention method for card-not-present applications. CVD is the three-or four-digit security code from the payer's card and is collected to ensure that the payer has the card and not just a card number. The CVD security code is sent with the payment for authorization and is compared to the value on file with the issuer. Based on this check, the merchant processor provides E-Payment Service with a response code that can be used to determine if the biller will accept the transaction. One exception to this rule is American Express payments. American Express evaluates the CVD value as part of their overall acceptance decision and does not provide a separate CVD response code that can be evaluated by E-Payment Service.

If a transaction is returned from the merchant processor with a CVD response code that is not accepted, E-Payment Service voids the transaction with the merchant processor and notifies the payer that their payment could not be processed. E-Payment Service uses a default setting for CVD processing.

2.1.1.4.1 Eligible CVD codes

CVD Result Code	Definition
M	Match
N	No Match
P	CVD Request Not Processed
S	Issuer indicates that the CVD data should be present on the card, but the merchant has indicated that the CVD data is not present on the card.
U	Card issuer does not support CVD

2.1.1.5 AVS & CVD Risk Considerations

There are risk management issues to consider when evaluating the benefits of using the AVS or CVD tools in your E-Payment Service processing. These fraud tools typically benefit merchants in higher risk situations, where tangible goods or services are being delivered to the cardholder and little recourse is available if a fraudulent credit card is used. For merchants who process lower-risk transactions, such as bill payment collection, the added value of using AVS or CVD should be evaluated. The likelihood of more declined transactions due to AVS or CVD mismatches should be weighed against the leverage the client maintains in the relationship with the cardholder. For example, if the cardholder is paying for a

utility service, the client has the option of denying future service as recourse. Potential losses from credit card fraud must be weighed against the opportunity cost of servicing good clients who may be falsely declined due to a data entry or data error.

2.1.1.6 Card Authorization Attempt Limit

The card authorization feature is intended to discourage payers from guessing credit or ATM debit card information or submitting the same card information multiple times after a decline. During implementation, your organization defines the number of authorization attempts a payer can submit within a unique payment session on the Web or IVR. An authorization attempt is defined as selecting "Submit" on the review payment page on the Web or selecting "1" to confirm a payment on the IVR. Once a payer reaches the authorization limit, they cannot initiate credit or ATM debit card payments, but can initiate an e-check payment if your organization is enabled to accept e-check payments. If your organization does not accept e-check payments, the payer is only permitted to perform account management.

2.1.1.7 Credit and Debit Card Cutoff Times

There are five cut-off times that billers can select from to define their business end of day:
- 1 p.m. CT
- 3 p.m. CT
- 5 p.m. CT
- 8 p.m. CT
- 1:30 a.m. CT

ACH cut-off times can be selected for the first four times to enable billers to have a single cutoff time for all payment types. The default cutoff time for card payments is 1:30 a.m. CT.

2.1.1.8 Visa Account Updater

E-Payment Service refreshes information on credit card data through the Visa Account Updater for billers that have registered with Visa. For billers who subscribe to this feature, E-Payment Service submits regular batch inquiries to Visa on credit card accounts that the payers have stored for warehoused or recurring payments with upcoming expiration dates. Visa processes these inquiries against its database and provides responses back to E-Payment Service on refreshed account information. E-Payment Service updates the payer's expiration date with the refreshed data before additional transactions are authorized, avoiding potential declines and streamlining the authorization process.

Please see your U.S. Bank Payment Solutions representative for more information.

2.1.1.9 PCI Data Security Standard Certification

E-Payment Service is a PCI Data Security Standard certified application.

The PCI Data Security Standard is a multifaceted security standard that includes requirements for security management, policies, procedures, network architecture, software design and other critical protective measures. For more information about the PCI Data Security Standard, please visit www.pcisecuritystandards.org

2.1.1.10 Level 2 Processing

E-Payment Service supports Level 1 & 2 merchant transactions. The Level 2 feature lets E-Payment Service clients receive reduced merchant interchange rates on commercial card transactions by providing additional payment data.

Visa and MasterCard offer government and business merchants the ability to use certain commercially issued credit cards for purchasing goods and services from suppliers. These cards are believed to have lower risk because they have less fraud and chargebacks. When these cards are used for payment and additional data is provided, the receiving merchant can be eligible for a lower interchange rate. The receiving merchant would need to process the credit card authorization with additional detailed information submitted about the payment authorization. This additional information is called Level 2 data. E-Payment Service clients who accept payments from corporate or business clients who use commercially issued cards are eligible to process payments with Level 2 data.

There are three additional data fields that need to be collected. These fields are set up in E-Payment Service as parameters. More information on parameters and how they can be collected can be found in the Product Parameters section of the Internet Setup Chapter in this guide. All three fields must be submitted with the payment. Visa and MasterCard are responsible for determining if a transaction is eligible for reduced interchange.

2.1.1.10.1 Visa and MasterCard required fields for Level 2 processing

Field	Description	Validation
Customer Code	Some customer identifier	
Sales Tax	The sales tax amount of the transaction	Must be between 0% - 22% of the transaction amount
Invoice Number	Some identifier of the transaction, such as a purchase number	

2.1.2 ACH Network

E-Payment Service accepts consumer and business e-check payments. E-checks are processed as ACH Debit transactions through U.S. Bank ACH Operations. E-Checks are a popular, low-cost electronic payment alternative to credit cards.

2.1.2.1 ACH Transaction Codes

The ACH Network supports a variety of payment applications. A Standard Entry Code (SEC) is assigned to every bank account payment in accordance with NACHA guidelines. The table below outlines the different SEC Codes assigned to payments based on the payment type, payment channel and type of account used by the payer.

Payment Channel	Account Type	Other Notes	SEC Code
Internet	Consumer		WEB
Internet	Business		CCD
IVR	Consumer		PPD

Payment Channel	Account Type	Other Notes	SEC Code
IVR	Business		CCD
Admin Site	Consumer	Admin User selects "Payer has signed an authorization document that I have on file" on the Payment Verification page	PPD
Admin Site	Consumer	Admin User selects 'Payer has a previous relationship with my organization because of past payments, or the Payer has initiated this call. Payer has also verbally authorized the above payment details and the Terms & Conditions below and consumer account'	TEL
Admin Site	Business		CCD

2.1.2.2 ACH Returned Payments

U.S. Bank processes transactions that are returned from a Receiving Depository Financial Institution (RDFI) based on the criteria your organization has set up with U.S. Bank ACH Operations. All returned payments are reported on your organization's E-Payment Service Remittance File once U.S. Bank ACH Operations completes processing.

2.1.2.3 ACH Cutoff Times

U.S. Bank provides four ACH cutoff times to choose from for payments:
- 1 p.m. CT
- 3 p.m. CT
- 5 p.m. CT
- 8 p.m. CT

Billers that select the 8 p.m. CT cutoff time will have two ACH settlement deposits:
- One for payments received by the 5 p.m. CT cutoff time
- Another for the 8 p.m. CT cutoff time

Payments for the 1 p.m., 3 p.m. and 5 p.m. CT cutoff times are processed in the 5 p.m. CT ACH run. The default cutoff time for ACH payments is 5 p.m. CT.

2.1.3 ACH Support Services

To reduce the potential for returned or fraudulent payments, E-Payment Service offers:
- Routing Transit Number (RTN) Checking
- Identification of Invalid Bank Accounts
- Disable Payers from E-Check Payments
- Notification of Change Updates.

2.1.3.1 Routing Transit Number (RTN) Checking

E-Payment Service performs a real-time mod-10 check on the Routing Transit Number (RTN) each time a payer enters bank account information. In addition, the RTN is checked against the Federal Reserve E-Payments Routing Directory to ensure that the RTN is an active number.

2.1.3.2 Identification of Invalid Bank Accounts

E-Payment Service maintains a history of invalid accounts for each Biller Group based on returned payments received from the Originating Depository Financial Institution (ODFI). When E-Payment Service receives a return for account closed (R02), unable to locate account (R03), invalid account number (R04), authorization revoked by customer (R07), customer advises not authorized (R10), payee deceased (R14), beneficiary deceased (R15), account frozen (R16) or corporation advises not authorized (R29), the bank account is tagged as an invalid bank account. Once an account is tagged as an invalid bank account, payers are no longer allowed to use this account. An Administrative User may enable the account for use again or delete via the Administrative Site.

2.1.3.3 Disable Payer from E-Check Payments

Billers have the option of disabling a registered payer from being able to initiate e-check payments. This can be done manually from the Administrative site or systematically after a defined number of returned payments within a specified time period. This is a configurable option that can be selected by your organization during setup. If this feature is selected during setup, your organization defines the number of returns within a defined number of days that will cause a payer to be disabled from making e-check payments. If your organization accepts credit card payments, a payer is permitted to initiate a credit card payment, even if they are disabled from e-check. The administrative site provides the ability to re-enable a payer should your organization choose to let them pay by e-check in the future. This feature is only available for payers who are registered in E-Payment Service and cannot be performed for unregistered payers.

2.1.3.4 Notification of Change (NOC) Updates

An NOC is issued by the Receiving Depository Financial Institution (RDFI — that is, the payer's bank), when an RTN, Account Number or Account Type (or any combination of the three) has changed. The payer's bank processes the current transaction and generates an NOC to the Originating Depository Financial Institution (U.S. Bank), providing the opportunity to correct the account information stored within E-Payment Service. E-Payment Service receives NOCs Monday through Friday, excluding federal holidays. Once E-Payment Service receives an NOC, the payer's account is updated to ensure that all future transactions use the correct bank account information.

2.1.3.5 Not Allow Payers to Cancel or Edit Same-day Pending ACH Payments

Billers can opt to not allow payers to cancel or edit single pending ACH payments scheduled to be released on the current day. This is an opt-in feature that can be set-up at the Biller level. Billers who accept ACH payments, but do not want payers to have the ability to cancel or edit same-day payments can select this option. Payments can still be canceled or edited by Admin Users through the administrative site.

2.1.4   ATM (Pinless) debit

ATM (Pinless) debit transactions allow merchants in certain industry segments the ability to accept ATM debit cards as payment in a card-not-present environment — specifically over the Internet or over an interactive voice response service. Traditionally, ATM debit card transactions are accepted in a card present environment — such as a point of sale — and require a card swipe and cardholder personal identification number (PIN) entry. Currently, "signature debit" cards issued by Visa and MasterCard are accepted online and do not require a PIN number. These transactions are processed through the credit card networks.

With ATM (Pinless) debit, payers can make payments with their ATM debit card through a client's E-Payment Service IVR or website payment page, without entering their PIN. The transaction settles through the ATM debit network as a true debit card transaction.

When a payer uses an ATM card to make a Pinless debit transaction online, the funds are verified and withdrawn from their account immediately and usually settled with the client within 24 hours.

2.1.4.1 Merchant Processor

E-Payment Service ATM (Pinless) debit payments are processed through Elavon through U.S. Bank Payment Solutions. Current E-Payment Service billers can use an existing Merchant Identification account. New E-Payment Service clients need to request a merchant identification number that processes ATM debit card transactions. Pinless debit payments are not available for clients who use the Fusebox Payment Gateway available through Elavon to process card payments through an alternative merchant processor.

2.1.4.2 ATM Networks Supported

E-Payment Service supports ATM (Pinless) debit payments from the following ATM Networks:
- NYCE
- Pulse
- Star
- Accel

2.1.4.3 Industries Supported

ATM (Pinless) debit payments are available only to specific merchant industry types, as identified by the participating ATM debit networks. Organizations in these industries typically have existing and trusted relationships with their clients. Currently, only the following industry types are eligible to accept ATM (Pinless) debit cards as payment:
- Utilities
- Government
- Insurance
- Lenders
- Education
- Collections

Please contact your U.S. Bank Merchant Services representative for more detailed information about specific eligible Merchant Classification Codes for this program.

2.1.4.4 ATM Debit Refunds

Due to restrictions with the ATM debit networks, administrative users cannot process refunds of ATM (Pinless) debit payments through the E-Payment Service Administrative Application. Your organization needs to process refund requests directly to the payer.

2.2   Payment Frequency

2.2.1 One-Time (Single) Payments

E-Payment Service provides billers with the option to accept one-time payments. For each product enabled, your organization can choose during setup to allow payers to initiate one-time payments.

2.2.2 Recurring Payments

E-Payment Service provides your organization the option to let payers initiate fixed installment or variable amount recurring payments.

2.2.2.1 Fixed Installment

If this option is selected during setup, payers have the ability to initiate a fixed installment payment. Also, payers have the ability to schedule a recurring payment for a specified number of instances, until a specified date, or until canceled. Each time an instance of a recurring payment is processed, the payer receives a confirmation email with a unique confirmation number. A recurring payment can be edited or stopped at any time. Please note that only one-time payments are accepted at the IVR and Bill Pay Kiosk channels.

2.2.2.2 Variable Installment

If this option is selected during setup, payers have the ability to schedule a variable amount recurring payment to pay their full amount due. Payers have the ability to schedule a recurring payment for a specified number of instances, until a specified date, or until canceled. Each time an instance of a recurring payment is processed, the payer receives a confirmation email with a unique confirmation number. A recurring payment can be edited or stopped at any time. Please note that only one-time payments are accepted at the IVR and Bill Pay Kiosk channels.

Billers can configure the duration and frequency of their recurring payment processing as defined in the table below.

	Description	Options
Duration	Defines how long a payer can elect to maintain their recurring payment schedule	Continue for x payments Continue until YYYY-MM-DD Continue until canceled
Fixed Frequency	Defines when a payer can schedule a recurring payment	Weekly Bi-Weekly Semi-Monthly Monthly Bi-Monthly Quarterly Due Date
Variable Frequency	Defines when a payer can schedule a variable recurring payment	On the Due Date Up to xx days before Due Date*
Custom Quarterly Frequency	Defines how a payer can schedule a quarterly recurring payment	Payers can choose up to four custom dates to process their quarterly recurring payments

* Billers who choose to offer their payers the option to schedule their payment to be paid prior to the due date must be able to report payment information to E-Payment Service via the Pre-Registration File in advance of the maximum number of days allowed.

2.3   Payment Rules

E-Payment Service can be configured to meet the varying needs of your organization's payment products during setup. Each product can have its own payment rules, such as:
- Minimum payment amount **-** The minimum payment amount a biller will accept
- Maximum payment amount -The maximum payment amount a biller will accept
- Late payments **-** Your organization allows the payer to select a payment date after the payment due date
- Over payments **-** Your organization allows the payer to pay more than the current amount due
- Partial payments **-** Your organization allows the payer to pay less than the current amount due
- Duplicate payments **-** Your organization can elect to enable duplicate payment rules that will warn the payer of any potential duplicate payments - See Section **4.6.6.1 Duplicate Payment Rules** for more information.

Due to payment network rules, maximum and minimum payment rules must be applied to all payment methods within a specific payment channel.

An additional check exists to alert payers who have an existing recurring payment schedule and are attempting to create a new schedule alerting them that the current schedule is active. Payers who have an active variable recurring payment cannot create additional recurring payment schedules.

2.4   Convenience Fees

A convenience fee is a separate charge added to an electronic payment for the convenience of processing the payment electronically. For example, a $75 fee to the local Department of Motor Vehicles for license sticker renewal might require a $2.50 convenience fee added to the payment for the convenience of making that payment online. Consequently, the amount paid by the vehicle owner/payer is $77.50.

E-Payment Service offers flexible convenience fee functionality that lets your organization define the convenience fees to be charged to the payer. The payer is provided a message early in the payment process that a convenience fee applies to their payment and is given the opportunity to stop the payment process if they do not wish to pay the fee. The convenience fee label, as well as the message, is customizable by your organization.

E-Payment Service supports three fee structures (flat, tiered, percentage) for the payment method (ACH debit, credit card, signature debit card or ATM debit card), payment type (single, recurring), and payment channel (Web, IVR, admin) combinations.

2.4.1   Collection Method

2.4.1.1   Biller Collected

Billers can collect convenience fees associated with a payment to offset the cost of service.

2.4.1.2   U.S. Bank Collected

U.S. Bank offers the Bank Collection Program for Convenience Fees for E-Payment Service clients. U.S. Bank will manage the costs, risk management and pricing of a convenience fee program and collect and retain the convenience fee revenue charged to payments.

E-Payment Service clients are typically not charged transaction, maintenance or payment network fees under this program.

There are three versions of the Bank Collection Program for Convenience Fees:
- Standard Payments **-** Any payment can be processed with a convenience fee under the Standard program except Property Tax and Community Association payments
- Government and Higher Education Payments - Special programs from the payment networks allow convenience fees to be assessed for any government or higher education payment
- Community Association Payments **-** Homeowner property assessment payments can be processed with convenience fees.

Payments from the following payment networks can be accepted with the Bank Collection Program:
- ACH (e-check)
- Credit & signature debit card: Visa, MasterCard and Discover Card
- ATM network: Star, NYCE, Pulse and Accel

2.4.2   Fee Structure

During setup, your organization can define the fee structure that is charged for each transaction. The fee structure can be defined separately for each payment method and payment type combination.

For example, your organization may charge a $1 flat fee for single, e-check payments initiated on the Web; but for recurring, e-check payments through a live agent, your organization may charge a 3% convenience fee. If a payment is edited, it maintains the convenience fee of the original payment channel.

2.4.2.1 Flat Convenience Fee

A flat convenience fee is a set amount charged to the payer for initiating the transaction, regardless of the dollar value of the transaction.

2.4.2.2 Percentage Convenience Fee

A percentage convenience fee is a calculated amount charged to the payer for initiating the transaction, based on the dollar value of the transaction. For example, if your organization chooses during setup to charge a 2% convenience fee, a payer initiating a payment for $100 would be charged a $2 convenience fee.

2.4.2.3 Tiered Convenience Fee

A tiered convenience fee is an amount charged to the payer for initiating the transaction, based on transaction value tiers defined by your organization during setup. For example, your organization may choose during setup to charge a $1 convenience fee for payments between $0 and $100 and a $2 convenience fee for payments between $100.01 and $200. Your organization can define as many tiers as necessary.

> **Note:**   Payment Network rules and guideline will frame the fee structure options available for convenience fee processing.

2.4.3 Number of Transactions

Payments that include a convenience fee can be processed as one or two transactions.

2.4.3.1 One Transaction

The payment and convenience fee are processed as one bundled payment. For example, if the payment is $100 and the convenience fee is $5, the payment is processed through the payment networks and settled as one transaction totaling $105.

2.4.3.2 Two Transactions

In the case of two transactions the payment is processed separately for the convenience fee. For example, if the payment is $100 and the convenience fee is $5, then there are two separate transactions processed and settled through the payment networks — one for $100 and a second for $5.

> **Note:**   Additional merchant and ACH fees apply in this scenario.

In the two-transaction scenario your organization can choose to have the convenience fee settle to a different account than the payment. This is typical of a situation where U.S. Bank collects the convenience fee on behalf of your organization to offset processing costs.

> **Note:**   Payment Network rules and guidelines will frame the number of payments available for convenience fee processing.

2.4.4 Refund of Convenience Fees

Billers can decide if they would like to refund convenience fees to their payers if they decide to refund the original payment. The following options are available to billers for refunding convenience fees when the original payment is refunded:
- Always refund the convenience fee

- Provide the option to their customer service representative to decide if the convenience fee should be refunded
- Never allow convenience fees to be refunded.

2.4.5 Payment Network Guidelines

Convenience fees for all payments must be compliant with all Payment Network Regulations and Laws, including the National Automated Clearing House Association (NACHA) and the major credit card associations.

For more detailed information about convenience fees, see the document, *E-Payment Service Convenience Fee Guidelines*.

Chapter 3:　Internet Application Setup

The U.S. Bank E-Payment Service Payer Application consists of several integrated payment channels, Internet, including a mobile enhanced site option, IVR, Bill Payment Kiosk (if hosted by your organization) and Live Agent. Each channel maintains the branding of your organization and can be fully integrated to let payers use the channels interchangeably. Your organization can choose to deploy any combination of channels. Billers who choose to deploy a single channel initially may add others later, although there are some cost advantages to implementing multiple channels simultaneously. The Internet channel lets payers access the service through any Internet connection, and the IVR and live agent channels are available with a simple phone call.

3.1　Payer Access

Internet payers access the U.S. Bank hosted site by selecting a "Pay" button on your organization's website. The payer is seamlessly linked to the payment site, which may be branded with your organization's look and feel as configured during implementation. Each E-Payment Service session is secured utilizing SSL with 128-bit encryption technology. Payers can access E-Payment Service utilizing a standard Internet browser. E-Payment Service supports the following browsers and settings:

- Microsoft Internet Explorer v8 and above
- Apple Safari
- Mozilla Firefox v5
- Google Chrome

Java script must be enabled within the browser.

Payers using smart phones can also access a mobile optimized site. More information on this site can be found in the Mobile Optimization Chapter.

The U.S. Bank implementation team provides the pay button and HTML code that are needed to link your organization's site to E-Payment Service once the payment site setup is complete.

3.2　Look and Feel

3.2.1　Graphics

The look and feel of the E-Payment Service site can be configured during setup. Your organization can provide a graphic for a logo and banner that is displayed at the top of each page on the E-Payment Service site.

Graphics that can be configured within E-Payment Service

Element	Location	Size	Format
Biller Logo/Banner	Top	750 pixels wide by unlimited height (minimum of 70 pixels)	PNG recommended; must be RGB format (JPG or GIF can also be provided. BMP not supported.)

Note: if your organization opts into displaying the mobile optimized site, a mobile banner can also be provided. See **Chapter 5: Mobile Optimization** for more information.

3.2.2 Content

The following content configuration options are available to E-Payment Service billers.

3.2.2.1 Navigation

Billers have the option of customizing or suppressing the following navigation buttons:
* Exit Link - this displays in the upper right corner of the page. Any customization will display when the payer hovers over the Exit link.
* Update Profile Button - this displays as its own tab under My Account

3.2.2.2 Payment Pages

Billers have the option of customizing the following Payment Page elements:
* Text on the Make a Payment, Confirmation, and Electronic Payment History pages
* Payment Type Labels
* Current Amount Due Label (Recurring Payments only)
* Current Due Date Label (Recurring Payments only)
* Convenience Fee Label (if applicable)
* First Scheduled Payment Date (Recurring Payments only)
* Terms & Conditions/Disclosures. The terms and conditions are static text presented to the payer on the Review Payment page for e-check (ACH) payments or Card Recurring payments. The ATM Disclosure is presented for ATM Debit payments. These are compliant with regulation and guidelines for both single and recurring payments. Billers can author their own custom text for Terms and Conditions or Disclosures to be displayed to their payers.

3.2.2.3 Non-Payment Pages

Billers have the option of customizing the following Non-Payment Page elements:
* Welcome Page. Billers can customize the welcome page text
* Welcome Page heading
* User Registration section heading
* Privacy Policy. Biller's can provide their own privacy policy content or they can use privacy policy content supplied by E-Payment Service.

3.2.2.4 Privacy Policy

At the bottom of each page is a "Privacy" link that opens a new window for privacy policy content that your organization defines during setup. Billers can provide their own privacy policy content or they can use privacy policy content supplied by E-Payment Service.

3.2.2.5 Customer Service

At the bottom of each page is a "Customer Service" link that opens a new window for customer service content that your organization provides during setup. The Customer Service link displays the text provided during setup, which may include up to 8,000 characters of free-form text, including html.

3.2.2.6 U.S. Bank Branding

Billers have the option of displaying the U.S. Bank logo on their payment pages.

3.2.2.7 Internationalization

Billers have the option of presenting payment pages that accommodate domestic or international address fields. See **Section 4.2.3 Address Formats** for more information on international and domestic address formats.

3.2.3 Compliance

All pages within the U.S. Bank hosted site are compliant with section 508 of the Americans with Disabilities Act. The goal of Section 508 of the Americans with Disabilities Act is to improve Internet accessibility for people with disabilities.

3.3   Product Parameters

Each product may include up to 99 unique product parameters. A product parameter is a value that your organization can pass in the session transfer or Pre-Registration File, or collect from the user during the payment process. The product parameters defined during setup that display on the site in the My Payment section of the Make Payment page. The order of the parameter display can be established by your organization during implementation. Your organization is not required to define product parameters for a product but these parameters can be very useful. All product parameters can be included in the remittance file and real-time payment confirmation as defined during setup. The parameters display in alphabetical order on the remittance file. A product parameter is typically used for any of the following purposes:

- To pass a value in the session transfer or pre-registration file that can be displayed on the payment page.
- To display a field on the payment page to collect a value entered or selected by the payer.
- To pass or collect a value to be included in the remittance file and/or the Real Time Payment Confirmation Message. This value may or may not also be displayed on the payment pages.

3.4   Session Transfer

To access the U.S. Bank E-Payment Service Payment site, your organization passes the appropriate parameters to E-Payment Service via an Internet session transfer. Payers cannot bookmark any of the pages in the E-Payment Service site. The payer must always be passed via the session transfer. The session transfer parameters are defined during the implementation process, with a customized session transfer provided to your organization during implementation.

Required Session Transfer Variables
- Biller Organization Identification Number (Biller Group ID)
- Biller Identification Number (Biller ID)
- Product Code

Optional Session Transfer Variables (Based on how your organization will process payments)
- Amount Due
- Due Date
- Payer ID
- Authorized Products

- Payment Method (ACH debit, credit or ATM debit card) - if a payment method is included in the session transfer, that will be the only method available to that payer
- Maximum Payment Amount
- Contact Information (Name, Address, Email Address, Phone Number)
- Product Parameters (Sensitive customer information should not ever be sent as a product parameter)

Please consult the *U. S. Bank E-Payment Service Web Session Transfer* user guide for more detailed information about the web session transfer component of the E-Payment Service.

3.4.1 Make a Payment

The following is an example of the session transfer HTML that a Biller may use to pass a Payer to E-Payment Service to make a payment.

<HTML>

<body>

<form action="https://epayment.epymtservice.com/epay.jhtml" method="post">

<input type="hidden" name="productCode" value="ProductOne">

<input type="hidden" name="MaximumAmountAllowed" value="100.00">

<input type="hidden" name="amountDue" value="nnn.nn">

<input type="hidden" name="dueDate" value="yyyy-mm-dd">

<input type="hidden" name="AccountName" value="Payment">

<input type="hidden" name="LatePaymentCharges" value="nnn.nn">

<input type="hidden" name="NewBalance" value="nnn.nn">

<input type="hidden" name="PreviousBalance" value="nnn.nn">

<input type="hidden" name="StatementDate" value="yyyy-mm-dd">

<input type="hidden" name="lastName" value="Payer">

<input type="hidden" name="firstName" value="Joe">

<input type="hidden" name="emailAddress" value="joe.payer@aol.com">

<input type="hidden" name="paymentType" value="Single">

<input type="hidden" name="billerId" value="AAA">

<input type="hidden" name="billerGroupId" value="BBB">

<input type="submit" value="Make Payment">

</body>

</HTML>

3.4.2 Manage Account

Billers may let users link to the payment system for purposes other than making a payment: to manage saved accounts, check payment history, or manage pending payments. When coding the session transfer for this situation, do not include a product code.

The following is an example of the session transfer HTML that a biller may use to pass a Payer to E-Payment Service in order to manage an account.

```
<HTML>
<body>
<form action="https://epayment.epymtservice.com/epay.jhtml" method="post">
<input type="hidden" name="billerId" value="ARN">
<input type="hidden" name="billerGroupId" value="ARN">
<input type="hidden" name="disallowLogin" value="Y">
<input type="submit" value="Payment Inquiry">
</form>
</body>
</HTML>
```

3.4.3 Session Transfer Encryption

The session transfer can be encrypted or unencrypted. Session transfer encryption is required by E-Payment Service is if your organization is utilizing the Auto-Login functionality and/or receiving a Return Session Transfer POST back from E-Payment Service. See **Section 4.5.2 Auto Login** for more information regarding Auto-Login. If your organization chooses to encrypt the session transfer, E-Payment Service provides the encryption components. Currently, the encrypted session transfer is available for java-based servers and Microsoft IIS servers. Thus, in order to utilize the encrypted session transfer, your organization must be using a java-based server or Microsoft IIS server to generate the page.

3.4.4 Session Transfer Errors
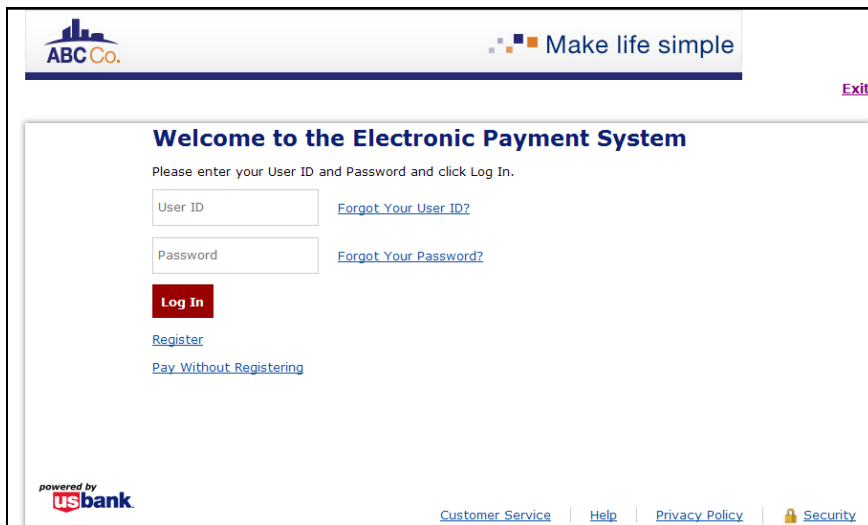
If the session transfer is missing information, your payer may be unable to access E-Payment Service, make a payment and may be presented with various messages, including:
- If the biller group ID and/or biller ID are not passed in the session transfer, the payer will get a system error page. This page will contain an Error Code that can be used by U.S. Bank to troubleshoot issues. If your organization does not allow late payments and a payer transfers in after the payment due date, the payer will be presented with the late payment message after they login
- If your organization requires information such as due date, amount due or parameters, and they are missing, an unable to make payment at this time message will display
- If the payer is unable to make a payment due to pending or scheduled payments already set up for that payer, the unable to make a payment at this time message will display.

Chapter 4: Internet Application Page Flows

4.1   Welcome Page

When a payer is transferred from your organization's site to E-Payment Service for the first time, the payer may be presented with the Welcome page, where the Welcome Header and text beneath it are customizable. Several options display that are configurable and include: Login, Register, Pay Without Registering and Find Payment.

4.1.1 Login

The payer can login with a previously created profile.

4.1.2 Register

The payer can register for the first time to create a profile and make payments.

4.1.3 Pay without Registering

The payer can proceed with the payment process without creating a user profile.

There are two optional features, Auto-Login and Bypass Welcome page, that your organization can select that allows payers to skip the Welcome page.

4.1.4 Find A Payment

An unregistered payer can check on the status of their payment without logging in by providing their confirmation number and email address. See the Find Payment section for more information.

4.2   Registration Options

Registration is a configurable feature that the biller can choose to offer that lets payers establish a User ID and password for repeat visits to the site. The same registration database is used across all products in a

Biller Group. A payer who registers can store all payment accounts for repeat usage. These payers have a single view of all their payments across the Biller Group.

When a payer registers, they are prompted to select a unique User ID and password. These labels can be customized by your organization.

User ID and password requirements for the E-Payment Service payment channels:

	Internet	**IVR**	**Internet and IVR**
UserID	6 to 16 characters	4 to 16 numbers	4 to 16 numbers
Password	8 to 16 characters with at least one number and one letter	N/A	8 to 16 characters with at least one number and one letter
Pay by phone PIN	N/A	4 to 16 numbers	4 to 16 numbers

User SSN, account number, credit card data, or other non-public information may not be used for or within user IDs, passwords or PINs used for applications for authentication.

The User ID and password or PIN cannot be set to the same value. In addition, the payer is required to enter other demographic information, as shown below. This registration information is collected to facilitate customer service, research, and collection on returned items. These fields are not configurable and the data collected must be used in a means consistent with your organization's stated privacy policy.

4.2.1 Registration

E-Payment Service offers two ways to register payers in the system: sending a pre-registration file or real-time registration.

The registration features were designed to reduce the need for payers to have to register on E-Payment Service if they are already one of your organization's existing clients. Registration is optional if your organization deploys the Internet and Live Agent channels. If your organization deploys the IVR channel, they are required either to pre-register payers or to register payers real-time.

4.2.1.1 Pre-Registration

The Pre-Registration of payers is facilitated by providing and updating E-Payment Service daily with an electronic file of payers. This file includes payer, payment and authentication information. U.S. Bank E-Payment Service uses the file to authenticate payers and process payments. See **Chapter 8: Pre-Registration** for additional information.

4.2.1.2 Real-Time Authorization & Registration (RTAR)

Billers can use the real-time authorization and registration feature to authorize payers to log into E-Payment Service real-time. Billers can also send registration information, new user profile information and existing user information updates, with the payer authorization. More information on this feature can be found in the *E-Payment Service Technical Specifications Guide*.

4.2.2 Multi-Channel Sign-On

One benefit of registration is that E-Payment Service supports sign-on for payers across all channels: Internet, IVR and Live Agent. If your organization chooses to deploy multiple payment channels, payers can use their User ID password combination for the Internet channel but will need a pay by phone PIN for the IVR channel. Multi-channel sign-on lets the payer view all payments made on any channel. If your organization chooses to deploy IVR, the User ID and PIN must be all numeric.

4.2.3 Address Formats

E-Payment Service supports two different address formats: Domestic and International. Address format can be configured during implementation or as a change request to an existing E-Payment Service implementation. The following table identifies the two address formats and differences in address fields, lengths and file format support. New billers will be set up with the latest file formats.

	Address Fields	Lengths	File Formats Supported*
Domestic	Address Line 1	30 Alpha/Numeric	Pre-Registration File V1.0, 2.0
	Address Line 2	30 Alpha/Numeric	
	City	30 Alpha/Numeric	Remittance File V1.0, 2.0
	State	2 State Code Abbreviation	
	Zip Code	5 Numeric	
	Zip Code +4	4 Numeric	
	Phone	10 Numeric	
International	Address Line 1	30 Alpha/Numeric	Pre-Registration File V3.0, 4.0
	Address Line 2	30 Alpha/Numeric	
	City/Town	30 Alpha/Numeric	Remittance File V 3.0, 4.0, 5.0, 6.0
	State/Province/Territory/County	40 Alpha/Numeric	
	Zip/Postal Code	12 Alpha/Numeric	
	Country**	2 Country Code Abbreviation	
	Phone	20 Alpha/Numeric	

* See **Chapter 7: Remittance File** and **Chapter 8: Pre-Registration** for more information.

** See **Appendix E: Country Codes** for a list of all countries supported and their valid country codes.

4.3   Payer Profile

Each time a payer self-registers on E-Payment Service or is registered through the Pre-Registration file or RTAR, a payer profile is created that is associated with the User ID. Payers for billers who allow self-registration and do not provide a Pre-Registration file, or do not use RTAR, can manage their profile at any time they are logged into E-Payment Service. However, payers for billers who provide a Pre-Registration file or use RTAR may not have access to their payer profile in E-Payment Service. Your organization has the option of letting their payers manage their payer profile, regardless of whether they were originally registered by your organization to use the service. If your organization chooses to let their payers manage their profile, then the Update Profile button (or other appropriately named button label) is available to the payer.

4.3.1 Security Questions

Payers who have the ability to change their password are required to have three security questions. One security question is required for users who are registered via the pre-registration file, API or RTAR. However, the first time these users log in (and if they have the ability to change their password), they will

be asked to provide two additional questions. The two additional security questions will display and can be updated on the Administrative site. These security questions and answers can also be included via API. Please refer to the E-Payment Service Remote Web Services User Guide for more information.

4.4   Unregistered Users

Allowing payers to make payments without registering is a configurable option selected by your organization during setup. If your organization chooses to accept payments from unregistered users, the payer is required to enter their payment account information for every payment.

4.4.1 Bypass the Welcome Page

In order to make the transfer to E-Payment Service as seamless as possible, your organization is provided with the option of letting unregistered users skip the Welcome page. This feature is optimal for billers who only offer unregistered users or who can identify unregistered users versus registered users. To use this feature, your organization simply passes a line of code in the session transfer (<input type="hidden" name="disallowLogin" value="Y">) to identify the payer as an unregistered user.

4.4.2 Contact and Payment Information

Your organization may pass payer contact information in the session transfer to E-Payment Service in order for E-Payment Service to pre-fill or suppress these elements from the payer's session. This may include name, address or email address. See **Section 3.4 Session Transfer** for more information about the session transfer.

4.5   Login

The payer selects a "Pay" Button on your organization's website and is seamlessly transferred to the E-Payment Service Welcome page. A registered payer enters their User ID and password to log in at the Welcome page.

If a pre-registration file is provided, your organization can provide customized labels for the User ID and password fields on the welcome page to better describe the login information requested of the payer.

4.5.1 Failed Login

After three failed login attempts, the payer is notified that their account is locked. Once the payer's account is locked, they must contact the customer service number specified during setup to have their password reset through the E-Payment Service Administrative Terminal.

4.5.2 Auto Login

For registered payers, Auto Login lets your organization pass a payer's User ID and password in the session transfer and log the payer into E-Payment Service. If deployed, this feature lets your organization provide a more seamless payment experience to their users by preventing them from having to enter separate login credentials to access E-Payment Service.

Auto login can be used when a payer is visiting E-Payment Service to make payments or manage accounts. If the payer is sent over to make a payment, they are taken directly to the Make a Payment page.

However, if the payer is sent over to perform account management, they are taken to the My Account tab to manage accounts or payments.

To use auto login, E-Payment Service requires that payers are registered through the pre-registration file. To comply with NACHA rules for ACH authentication, the payer is prompted to enter their password on the payment verification page prior to submitting the payment. Therefore, it is imperative that the password provided in the Pre-Registration file be a value known to the payer.

To use auto login, the session transfer must be encrypted to ensure the privacy of the payer's login information. If a biller uses auto login and sends the session transfer in clear text, an error page is presented to the payer. Also, if a biller sends a payer to E-Payment Service with a User ID and password combination that is not found in the database, the payer receives an error page. Each time an error page is presented to the payer, an email is sent to the U.S. Bank E-Payment Service support group so they can contact your organization to ensure there is not a systemic problem. This helps ensure your organization that the user's experience is not degraded with this feature.

4.5.3 Forgot User ID

If your organization allows user to self-registered, your users have the ability to select Forgot User ID from the Login page. After they select the link, they are asked for their email address. If the email exists in E-Payment Service and there is only one User ID associated with this email address, the User ID will be emailed to that email address after the user selects Submit.

Forgot User ID

Please enter your email address and click Submit. Your User ID will be sent to the email address you provided.
If you need assistance, please call customer service at 123-123-1234.

Email Address [   ]

Submit   Back

If the email address is not found or there is more than one User ID associated with the email address, the user will get a message telling them to contact customer service.

4.5.4 Forgot Password

If a payer forgets their password, there are two ways they can receive a copy of their password. The payer can call the customer service number provided through the "Customer Service" tab at the bottom of the page or select "Forgot Password" from the welcome page.

When the payer selects Forgot Password from the welcome page, they are prompted to enter their User ID.

Forgot Password

Please enter your User ID and click Submit.

User ID [   ]

Submit   Back

If a match is found, the payer is prompted to answer one of their shared secret questions.

If the payer answers the question correctly, they are prompted to choose a new password.

If the payer does not answer the questions correctly, they are prompted to answer another. For security reasons, the security questions will continue to loop if they are answered incorrectly.

4.6   Payment Process

When the payer selects the "Pay" button on your organization's site, they are seamlessly transferred to E-Payment Service, which may be branded to appear as part of your organization's website. The following illustrates the steps a payer would take to initiate a payment after logging into E-Payment Service.

After successful login or registration, the payer is navigated to the Make a Payment page where they will complete all payment information on a single page. The page is organized in modules which are described in the following sections.

4.6.1 Make a Payment Page Customization

4.6.1. 1 Active Payment Alert

Billers can opt to display to the payer any pending or active recurring payments at the top of the Make a Payment page. This setting is configured during implementation. An example of the active recurring payment message is shown below:

The pending payment message will display for any registered payer that has a pending payment. The recurring payment schedule alert displays when a payer has an active recurring payment schedule. If the payment amount and date are known (i.e. passed in the session transfer or provided in registration) they will display. If the payer has more than one active recurring payment, they will be directed to the My Account tab to view their payment schedules.

4.6.1. 2 Recurring Payment Alert

If your biller is configured to allow both one-time and recurring payments, an alert will display for a payer who logs into E-Payment Service to make a payment and has an active recurring payment schedule. This alert, shown below, provides a link to the recurring payment schedule or allows the payer to continue with the payment.

4.6.1.3 Welcome Message

Your organization can add a Welcome User message to the site. If enabled, this message will display for all registered users and show 'Welcome' followed by the First Name from the user's profile. This text will display above the last visit information for the user at the top of the Make a Payment page.

4.6.1.4 My Payment Customization

Custom text can be entered above or below the My Payment header. This text can be used to convey important messages to your payers or provide information to help them complete their payment.

4.6.2 My Payment

The My Payment section contains information that is passed in the payer's session transfer, included in the pre-registration file or sent as an API message that is set to display. The options are configurable during implementation. This may include product description, due date, amount due or any collected or passed. The below example shows two passed values for Amount Due and Due Date, a collected parameter value, Sample Parameter, where the user can input a value, and a selected parameter value, Account Selection, where the user selects from a dropdown list. These can be set up as optional or required.

If there is no information set to show on the page, this section will not display and the heading My Payment will be followed by the product description.

4.6.3 Payment Information

The next section is Payment Information where the payer enters the details of the payment which may include payment frequency, amount and date. This section varies significantly based on the business rules and payment details defined during setup.

4.6.3.1 Frequency

Depending on what options your organization offers, payers will be able to select a payment frequency of One Time or Recurring. The term "Recurring Payment" can be customized by your organization.

4.6.3.1.1 Recurring Payment Frequency – Fixed Amount (Installment)

Billers have the option of offering any or all of the following frequencies to their payers to use for scheduling recurring payments:
- Weekly
- Bi-Weekly
- Semi-Monthly
- Monthly
- Bi-Monthly
- Quarterly

4.6.3.1.2 Recurring Payment Frequency – Custom Quarterly

For billers that collect payments quarterly, they have the option of letting the payer select custom quarterly dates. From the Make-A-Payment page, payers would use the Custom Dates dropdown list to select custom quarterly dates.

On the Payment Information page, the payer may enter up to four payment dates. The payer has the option of clearing one or more dates from the page view if less than four payments are scheduled in a payment session. E-Payment Service validates that none of the dates selected is in the past, and that scheduled payment dates are at least one day apart from each other.

4.6.3.1.3 Recurring Payment Frequency – Variable

The variable recurring payment section displays as shown below. Configuration options include payment schedule on or x number of days before due date (up to 20), next payment date and duration.

If your organization chooses not to allow payment warehousing, the payer is shown the next available Scheduled Payment Date and does not have the ability to change it.

4.6.3.2 Payment Date

E-Payment Service offers two methods of calculating the Scheduled Payment Date that is displayed during the payment process for ACH debit (e-check) payments: Payment Effective Date and Biller Business Date. As a reminder, the Scheduled Payment Date page label may be redefined by your organization to a more appropriate page label.

Depending on your organization's configuration, payers will be able to select Pay Now or Pay on a Future Date. If Pay Now is selected, the payment will be made on the first available payment date. This date depends on the payment method used by the payer, the cut-off time used by your organization and, for ACH debit (e-check) payments, whether your organization uses the payment effective date or biller business date.

For organizations that do not user Biller Business Date (described below), if a recurring ACH payment is scheduled to be made on a date that falls on a weekend or holiday, the payment will be made one day earlier to avoid being late.

4.6.3.2.1 Payment Effective Date

The Payment Effective Date is defined as the date that the payment will settle. The earliest Scheduled Payment Date using Payment Effective Date is the next business date, assuming the payment is initiated prior to the e-check cutoff defined by your organization.

E-Payment Service offers two methods for calculating the Payment Effective Date:
- On the hour up until cutoff time of 1 p.m., 3 p.m., or 5 p.m. CT
- 8 p.m. CT

4.6.3.2.2   Biller Business Date

The recommended method for calculating the Scheduled Payment Date is Biller Business Date. This feature does not impact the settlement date or remittance data, but lets your organization show the payer that they are receiving credit for the payment on the current business day, or the next business day in the case of a payment initiated on a weekend or holiday. Billers may also choose to accept weekends and holidays as valid Biller Business Dates. If these options are enabled, payers can receive credit for making their payment on the Biller Business Date assigned by E-Payment Service, even if that date falls on a weekend or holiday.

E-Payment Service provides your organization with the following Biller Business Date options:

- Your organization can select a cutoff time for Biller Business Date on the hour.
- Your organization can select a time up until 6 a.m. CT the following day to be considered part of their Biller Business Date.
- Your organization can select to include Saturday and Sunday as Biller Business Dates.

If your organization has enabled Biller Business Date and elected not to accept Saturdays and Sundays, the date rolls to your organization's next non-weekend and non-holiday day.

If your organization has enabled Biller Business Date and has elected to accept Saturdays and Sundays, the date rolls to your organization's next non-holiday calendar day.

If a payment frequency is passed in the session transfer or only one frequency is available, that frequency will be pre-selected. The payer can select Pay Now which will give them the first available payment date depending on the payment method they select and the time they are making the payment. If Select a Future Date is available the payer can select an available date from a calendar.

If your organization is set up to accept installment recurring payments, depending on the configuration the payer will be able to select their frequency, amount, payment dates and duration. The Recurring Payment frequency label is also configurable.

4.6.3.2.3 Warehousing (Pay on a future date)

During setup, your organization can choose to let payers schedule future payments for a specified number of days. If selected, this feature lets payers schedule a payment up to 365 days (as defined in setup) in the future from the date that the payment was initiated. If this is enabled, "Pay on a future date" will display and payers will be able to select their payment date. Payment warehousing typically reduces the number of late payments, as it lets payers schedule future payments instead of having to remember to make the payment closer to the due date. If your organization chooses not to allow payment warehousing, the "Pay on a future date" selection does not display.

4.6.4 Contact Information

The next section, Contact Information, will display for unregistered users only. In this section payers will provide their contact information. If any of this information is passed in the session transfer, it will be pre-populated. Many fields will display helper text when the user clicks into the field which shows allowable characters and lengths.

If your organization allows payers to self-register, the Become a Registered User Link will display which takes payers to the My Profile page. Once their registration is completed, they are returned to the Make a Payment page to complete their payment.

4.6.5 Payment Method

The next section is Payment Method where the payer selects their payment method from the options offered by your organization. An unregistered payer or a registered payer who has not previously saved a payment method will select their method. If only one method is available, it will be pre-populated and that payment method section will display. If a payment method is passed in the session transfer that will be the only method available to that payer for this payment.

Registered payers have the option of selecting a payment account that has been stored in E-Payment Service or paying with a new payment account.

The payment options may include checking or savings account, credit card or debit card depending on the options selected by your organization.

4.6.5.1 ACH/Checking or Savings Account

Below is an example of the checking or savings account section.

To minimize unnecessary ACH returns the payer must enter the account number twice. The second box will dynamically display after the first Bank Account Number is populated. Also, a mod-10 check is performed on the routing transit number on all ACH debit (e-check) accounts. The bank name will display after the user enters their bank routing number.

> **Note:** If spaces are entered in the bank account number, E-Payment Service removes the spaces before the data is loaded in the database.

To maintain compliance with the NACHA rules for e-check payments, the payer is required to select the Account Category type. This lets E-Payment Service accept both business and consumer e-check payments. Consumer e-check payments initiated on the Web are processed as "WEB" transactions and business e-check payments initiated on the Web are processed as "CCD" transactions.

Registered payers will see the option to "Save this payment account for future use." If the payer has selected to make a recurring payment, the payment account will automatically be saved.

4.6.5.2 Credit/Debit Card Account

The credit card account section is shown below. After the card number is entered the system will automatically display the card type.

A mod-10 check is performed on all credit card and ATM debit card numbers.

4.6.5.3 Debit Card (signature debit)

Billers who accept debit cards but not credit will view the below page for debit card collection:

4.6.5.4 ATM Debit Card

The ATM debit card section is shown below.

4.6.6 Review Payment Page

After the payer selects continue, the Review Payment page displays. The Review Payment page includes all the payment account and payment detail information for review. For ACH debit (e-check) payments, the payer is required to accept the Terms and Conditions and re-enter their password before confirming the payment. For ATM debit payments, the payer is presented with appropriate disclosure information for the ATM networks. If the payer is setting up a recurring payment, they payer is presented with the recurring payment disclosure. These Terms & Conditions and disclosures can be customized or billers can use default language.

4.6.6.1 Duplicate Payment Rules

If your organization has elected, prior to processing the payment, E-Payment Service checks for possible duplicate payments submitted by a registered payer over any payment channel within the last 14 calendar days. If there is a possible match, E-Payment Service asks the payer to confirm before verifying the current payment.

If a payer has previously registered with E-Payment Service and is in the process of scheduling a one-time payment and ALL of the following conditions are met:
- Previously scheduled payment was initiated within the last 14 calendar days
- Payment status of a previously scheduled payment is "PROCESSED"
- Previously scheduled payment was made over any payment channel (Web, Admin, IVR)
- A match is detected on the payer's User ID
- A match is detected on the Product Code of this previously schedule payment
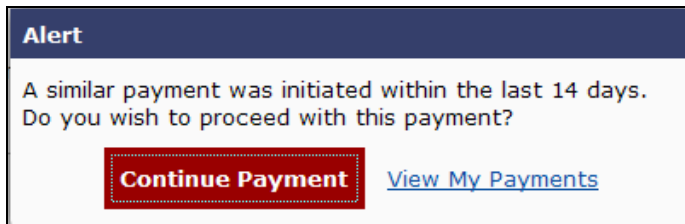
If a payer is not registered with E-Payment Service and is in the process of scheduling a one-time payment and ALL of the following conditions are met:
- Previously scheduled payment was initiated within the last 14 calendar days
- Payment status of a previously scheduled payment is "PROCESSED"
- A match is detected on the Product Code of this previously scheduled payment
- Previously scheduled payment was made over any payment channel (Web, Admin, IVR)
- A match on an identical dollar amount from a previously made payment is determined

- The same bank account or card account information from a previously made payment is presented

If a possible duplicate payment scenario is detected, an alert displays after the payer has selected Continue from the Make a Payment page. A registered payer may select Continue Payment or View My Payments to go to the My Account tab.
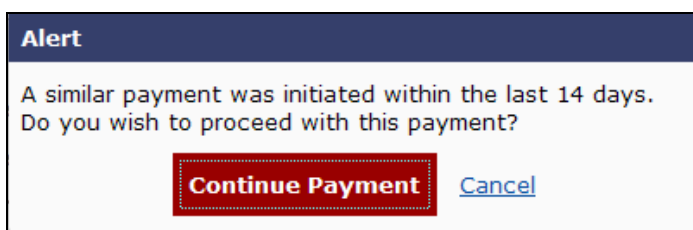
Alert

A similar payment was initiated within the last 14 days. Do you wish to proceed with this payment?

Continue Payment   View My Payments

An unregistered payer will be asked to either select Continue Payment or Cancel:

Alert

A similar payment was initiated within the last 14 days. Do you wish to proceed with this payment?

Continue Payment   Cancel

4.6.6.2 Late Payment Message

If your organization accepts late payments, the following message will display to payers on the review page for single payments that will be late that reads: This Payment is scheduled to be made after the due date and will be late.

4.6.6.3 Terms and Conditions

Your organization can author terms and conditions text and display it on the Review Payment page for e-check, ATM debit card and recurring payments. The terms and conditions must be compliant with the applicable payment network requirements and Regulation E guidelines for both single and recurring payments. E-Payment Service can provide default terms and conditions text in the event your organization chooses not to author custom terms and conditions. To initiate a payment, the payer must select the "I accept the Terms and Conditions" box.

4.6.6.4 Payer Authentication

Accepting e-check payments over the Internet requires that your organization employ commercially reasonable fraudulent detection systems to minimize the fraud potential. The definition of commercially reasonable varies based on several factors including transaction amount, type of good or service, and the type of client (new or existing). E-Payment Service assists your organization with meeting these requirements through the use of a shared secret called Payer ID.

During setup, your organization defines the type of information they have for clients that is not publicly available that can be used as the Payer ID. Every time your organization passes a payer to the E-Payment Service, this piece of information about the payer is passed in the session transfer. E-Payment Service prompts registered users for this information the first time they register and if entered correctly, the value is stored in the payer's profile. On subsequent visits to the site, registered users are not prompted to enter the value as long as the value passed in the session transfer matches the value in their payer profile.

Unregistered users are required to enter this information every time they initiate a payment. Billers that utilize the pre-registration file or only accept credit cards are not required to utilize the Payer ID feature.

On the Review Payment page, payers are required to authenticate in the context of payment authorization. To meet the similarly authenticated requirement of the NACHA operating rules, the consumer must re-authenticate in the context of an ACH authorization, for example, re-entering the PIN to prove consent to the authorization. Requiring a consumer to use a PIN to enter a secure site, but only requiring the consumer to click **"I agree"** under the authorization language, does not meet the similarly authenticated requirement.

For registered users, the authentication on the review page involves the entry of the password they entered in E-Payment Service, or that was passed in the session transfer (for example, auto-login). Therefore, if your organization is using Auto-Login, it is imperative that the password field be a value known to the payer. For unregistered users, they are prompted to enter their Payer ID on the review page. If the payer does not successfully enter their password or payer ID, they are not permitted to confirm the payment for processing.

4.6.6.5 Payment Authorization for Credit Card / ATM Debit Card Payments

Each time a payer initiates a card payment, the payment is submitted to the merchant processor for authorization. If the payment is scheduled for immediate processing, the payment information is submitted for authorization prior to providing a confirmation to the payer. If the authorization is approved and passes your organization's credit card AVS and CVD response code settings, the payer is presented with the confirmation page. If the card is declined, the payer is presented with a standard decline message shown below:

Your card could not be authorized. Please verify the information entered before attempting you payment again. If you feel you have received this message in error, please contact your card issuer for additional information.

If the payment is scheduled for a future date, the payment is not sent for authorization until that date because an authorization is only valid for a specified number of days (depending on the card type). However, if the biller requires CVD, a one-dollar authorization only transaction is sent to the merchant processor to verify the card and CVD information. If the card and CVD information is correct, the payer is presented with the confirmation page and the payment is processed as scheduled by the payer. If for some reason the payment is declined when it is processed in the future, the payer receives an email notifying them that the payment could not be processed.

4.6.7 Confirmation Page

When the payer selects "Confirm" on the Review Payment page, the payment is sent to the merchant processor for authorization if the payment method is credit card, ATM debit card, or stored value card. If the payment is authorized, the payer is presented with the Payment Confirmation page. If the payment is not authorized, the payer receives a message that their payment could not be processed. The payer is provided the option to make changes and submit their payment again as long as they have not exceeded the authorization attempt limit set by your organization during setup.

For ACH debit (e-check) payments, the payer is immediately presented with the Confirmation page. The Confirmation page provides all the details of the payment along with a unique Confirmation Number (one-time payments) or Reference Number (recurring payments) that can be used in the future to access the payment. After the Confirmation Number has been issued, if the payer attempts to use the Forward or Backward buttons on the browser, the page refreshes until the payer has navigated from the page.

Custom text can be added to the Confirmation page underneath the Confirmation header.

4.6.7.1 Confirmation Page 'Continue' Button

An optional "Continue" button can be added to the Confirmation Page. Payers can click **Continue** to be directed to the website address of your choice. The URL is provided during implementation. The default label for this button is "Continue" but it can be customized. If enabled, your organization can select to display the button at the bottom of the Confirmation Page as shown below or at the top of the page underneath the Confirmation Number. The default is to display the button on the bottom of the page.

Confirmation

Please keep a record of your Confirmation Number, or print this page for your records.

Confirmation Number **IRLDUB000001494**

Payment Details

~~~~~~

Continue

4.7 Find Payment

The Find a Payment feature lets payers view a payment by searching on the confirmation number and email address for the payment. For unregistered users, the Payment Inquiry feature is the only means of viewing a payment. Payers may enter a valid confirmation number and email address combination to view the View Payment Details page. If the payer does not know their confirmation number, they can enter the email address they used to make the payment. If the email address is located, the most recent payment confirmation will be emailed to that email address. The payer can then use that confirmation number to access the payment. The actions the payer can take from this page vary, depending on the status of the payment. If the payment is pending, the unregistered payer can view or delete the payment. However, if the payment has been processed, the payer can only view the payment. In both scenarios, the payer can choose to view another payment or end the session.

Find a Payment

To find a payment, enter the confirmation number and the email address. If you do not know the confirmation number, please enter the email address used for the payment. An email will be sent to you with the confirmation number for the most recent payment activity.

Confirmation Number   (Optional)

Email Address

Note: If you did not provide an email address when you made your payment, you will be unable to check the status of your payment through this site. If you need assistance, please call customer service at 123-123-1234.

Continue   Back

4.8 My Account

Registered payers can access the My Account tab to use multiple payment management tools. These are displayed in easy to view links and include My Profile, Payment Methods, Scheduled Payments and Electronic Payment History.

Your last visit was Wed 10/16/2013 03:10 PM CDT   **Make a Payment**   **My Account**

My Account

My Profile | Payment Methods | Scheduled Payments | Electronic Payment History

4.8.1 My Profile

Registered E-Payment Service users have the ability to update their profile stored within E-Payment Service. The user can update their name, address, email address, phone number, password and security questions and answers.

> **Note:**   Your organization may choose to allow their pre-registered payers the option of updating their own profile on the E-Payment Service website. Billers may also choose to rename the "My Profile" tab label to a label of their own choosing. Your organization may also choose to not allow payers to view their profile. If this is selected, the My Profile tab will not display.

4.8.1.1 My Contact Information

In the My Contact Information section, the user can update their name, address, email address and phone number. When the user clicks into each field, help text will display that shows the user which characters are acceptable to enter in that field. Your organization can create a custom header for the "My Contact Information" header.

4.8.1.2 Login Details

In the Login Details section, the user can change their password and update their security questions and answers. Your organization can provide a custom header for the "Login Details" header.

4.8.1.2.1 Change Password

For billers that do not utilize the Pre-Registration file, the Change Password feature is always available to the payer by clicking **Update Profile** (or biller-defined button label) from the side menu or main menu. This will allow the payer to select a new password to be utilized on subsequent visits. The new password must be different from the payer's previous six passwords.

Billers that utilize the Pre-Registration file will choose during setup whether or not to allow payers to change their passwords on E-Payment Service. If your organization chooses to allow payers to change their password, this feature is available to the payer by selecting **Change Password** from the **Login Details** section. It will not display for users who do not have the ability to change their password

4.8.1.2.2 Set and Change Pay-by-Phone PIN

If your biller is configured for the IVR channel, payers who were not added with a Pay-by-Phone will be able to create an all numeric PIN.

Once the PIN is created, the payer will be able to update their pay by phone PIN in the **Login Details** section.

Login Details

User ID	456456456
Password	**** [Change my Password](#)
Pay-by-Phone PIN	**** [Change my Pay-by-Phone PIN](#)
Security Question	In what city were you born?
Answer	city
Security Question	In what city was your first job?
Answer	main
Security Question	What is your father's middle name?
Answer	smith

Save Cancel

Old Pay-by-Phone PIN	••••
New Pay-by-Phone PIN	••••••
Re-Enter New Pay-by-Phone PIN	••••••

4.8.2 Payment Methods

Registered payers have the option to store payment accounts for future use. Payers are given the option to "Save this account for future use" when they use a new payment account to make a payment. Payment accounts used for recurring payments are automatically saved. Payers are given the option of providing a nickname for their saved payment method but it is not required.

Payment accounts (credit card, debit card, stored value card and e-check) can be managed any time the payer is logged in by selecting Payment Methods from the My Account tab.

My Account

My Profile | Payment Methods | Scheduled Payments | ABC Company Online Payments

Saved Payment Methods   Add a Payment Method

Nickname ▲	Method ⬍	Type ⬍	Number ⬍	Actions
My Visa	Credit	Visa	*1111	Edit | Delete
USB checking	Bank Account	Checking	*4567	Edit | Delete

Users can add a new payment account by selecting Add a Payment Method link at the top right. The user can select to add any of the payment methods available. Refer to the Payment Methods section under Make a Payment for information on the payment method modules.

4.8.2.1 Edit Checking or Savings Account

Payers can easily edit or delete their saved payment account by selecting the link next to the account. The edit a Checking or Savings Account page allows the user to update the bank account type, category and nickname. For security reasons, the bank routing and account numbers cannot be edited. If a payer needs to update this information, they must delete and re-add the account.

4.8.2.2 Edit Credit or Debit Card Account

The edit a credit card account page allows the user to update the card expiration date, billing address and account nickname. For security reasons if the user needs to update the card number they must delete and re-add the account.

4.8.3 Scheduled Payments

Under the Scheduled Payments tab, users can view any pending payments as well as any recurring payment schedules. In the Pending Payments table, users can edit, cancel or view their pending payment by selecting the action next to the payment. Payers have the option to edit any payments that have not been PROCESSED. This includes warehoused credit card and e-check payments that have not reached the scheduled payment date, and same day ACH debit (e-check) payments prior to your organization's ACH debit (e-check) cut-off time.

4.8.3.1 Not Allow Cancel/Edit of Pending Same-Day ACH Payment

Payers may not be able to cancel or edit pending ACH payments that are scheduled to be released that day on the public Web or via IVR. Billers have the option to not allow this for pending single same day payments. Payers can contact customer service, and administrative users can cancel or edit those payments on the administrative site.

4.8.3.2 Recurring Payments Table

The Recurring Payments table shows all active and cancelled recurring payment schedules. The user can select to edit, stop or view a recurring payment that has a status of "ACTIVE" by selecting the action next to the payment. Edits made by the payer take effect with the Next Scheduled Payment date as indicated on the payment. When a payer stops a recurring payment, all future instances of the recurring payment are cancelled. If the user selects to view the payment, the Recurring Payment Details page will display. This page shows all information about this payment including a table at the bottom that displays all payment activity associated with the recurring payment schedule.

My Account

My Profile | Payment Methods | Scheduled Payments | ABC Company Online Payments

Pending Payments

Show 25 entries

Confirmation Number	Payment Date	Amount	Payment Method	Actions
ABCABC000127610	10/31/2013	$75.00	*4567	Edit Cancel

Showing 1 to 1 of 1 entries

First   Previous   1   Next   Last

Recurring Payments

Show 25 entries

Reference Number	Payment Date	Amount	Status	Actions
ABCABCR00000556	11/12/2013	$75.00	ACTIVE	Edit Stop

Showing 1 to 1 of 1 entries

First   Previous   1   Next   Last

4.8.4 Electronic Payment History

The Electronic Payment History page shows users all of their payments made through E-Payment Service channels including the Customer Payment Site (Web), Administrative Site (CSR), Integrated Voice Response System (IVR), Bill Payment Kiosk, and Remote Web Services (API). The "Electronic Payment History" label can be customized and text may also be provided to display above the label on the page.

The table can be sorted by clicking on any of the columns. Users can enter a value into the search filter to search for a payment.

Your organization can provide a custom header for the "Electronic Payment History" header. Custom text can also be provided to display above the Electronic Payment History header. This can be used to provide helpful information such as explaining that the payment history shown is from payments made in E-Payment Service only.

My Account

My Profile | Payment Methods | Scheduled Payments | Electronic Payment History

Electronic Payment History

Show 25 entries   Search Filter: [   ]

Confirmation Number	Payment Date	Amount	Payment Method	Status
KATABC000001571	10/22/2013	$45.00	*1111	PROCESSED
KATCON000001566	10/22/2013	$60.50	*3883	PROCESSED
KATABC000001569	10/16/2013	$45.00	*1111	PROCESSED
KATABC000001568	10/15/2013	$45.00	*1111	PROCESSED
KATCON000001564	10/11/2013	$60.20	*0004	PROCESSED
KATABC000001562	10/10/2013	$45.00	*0004	PROCESSED
KATABC000001563	10/10/2013	$45.00	*0004	PROCESSED
KATKAT000001546	09/19/2013	$56.00	*1111	PROCESSED

Showing 1 to 8 of 8 entries   First   Previous   1   Next   Last

4.9   Page Navigation

At the bottom of each web page in E-Payment Service there may display four navigation links that provide additional information to the payer about your organization's application.

4.9.1 Customer Service

The "Customer Service" link displays information provided by your organization during setup including phone number, email address, hours of operations and any other text and HTML your organization may wish to provide, up to 4,000 characters. This information provides the payer with access to your organization's customer service center should they experience problems or questions that require the assistance of a live agent.

4.9.2 Help

If the payer has a question when they are on your organization's E-Payment Service website, they can click **Help** at the bottom of each page. When the payer clicks **Help**, they are directed to the E-Payment Service help site. On this site a list of the most commonly searched for questions will appear. The payer can search for information by entering a word and is able to narrow searches by subject. Payers can select from any of the help content on the site. When the payer clicks on the help content, additional related links will be shown that the payer can select for more information.

4.9.2.1   Custom Help

Your organization can direct this Help link to your own help content. This can be done by providing the URL for your organization's help content. If this is enabled, when payers select Help, they will go directly to the URL provided.

4.9.3   Privacy

The "Privacy" link displays the privacy policy provided by your organization. During setup your organization has the option to provide a copy of their privacy policy or select to display the standard U.S. Bank privacy policy. Your organization must comply with the privacy policy as displayed and must provide notice to customers of how the policy may be changed.

4.9.4   Security

The "Security" link contains information on the security features of the site as well as browser requirements for accessing the E-Payment Service site. It explains what the security standards are for U.S. Bank and lists the browsers that are supported. Links to upgrade browsers are also available.

4.9.5   Exit

The "Exit" link is located in the upper-right of the page. It transfers the payer's session to a URL defined by your organization during setup. Your organization has the option of transferring the payer to different URL's based on how the payer is passed in the session transfer to E-Payment Service. One URL is defined for payers passed to E-Payment Service to make payments and another for payers passed to only manage accounts and payments. Your organization also has the option of adding a text to the label that displays when the user hovers over the link, or suppressing the Exit button altogether from ever displaying in E-Payment Service. If suppressed, the payer will be forced to close the browser window containing the E-Payment Service application in order to leave the session.

Chapter 5:   Mobile Optimization

The E-Payment Service mobile optimized site provides pages designed for payers using smartphones.

5.1   How It Works/Opt-In

The mobile optimized site is an opt-in feature. If your organization has opted into mobile, E-Payment Service will automatically detect payers using smartphones and transfer them to the mobile site. Payers will be able to toggle to the full site from the mobile site to access features that are not yet available on the mobile site. As of March 2015, this includes account management items: viewing and editing profile, saved accounts, and pending and scheduled payments.

5.2   Browsers Supported

The E-Payment Service Mobile Site will support the following browsers:
* Mobile Android
* Mobile Firefox
* Mobile Chrome
* Mobile Safari

5.3   Mobile Customization Options

All the configurations that your organization has set up for your E-Payment Service Customer Payment Site will apply to the mobile enhanced site. The mobile site will use the same customization that is set up for the Customer Payment Site with the exception of the following options to customize the mobile site.
* Banner

    The default for the mobile site banner will display the biller group browser text. Optionally, a banner can be displayed. This can either be the same banner as what is displayed on your customer payment site or a separate mobile banner can be provided for your mobile optimized site. The specifications for the mobile banner are provided in the table below.

Element	Location	Size	Format
Mobile Banner	Top of mobile optimized site pages	480 pixels wide by 50 pixels high	PNG recommended (JPG or GIF can also be provided)

* Fonts and colors

    The mobile site fonts and colors can be customized using .CSS. Your organization can provide a CSS file from theme roller at http://themeroller.jquerymobile.com/, which will be uploaded to your mobile site. For detailed information on CSS formatting and the defaults for E-Payment Service, please see *E-Payment Service Technical Specifications*.
* Welcome Page

    Custom text can be provided for both the welcome page header and the welcome page text on the mobile login page.
* My Payment

Text can be provided on the My Payment page to provide instructions or information for payers.

• Confirmation Page

Client text can be provided for the mobile confirmation page.

5.4 Page Flows

The mobile page flows follow the same page flow as the customer payment site but are broken into segments to display on a smart phone. Please note that all configurations will apply to your organization's mobile site.

5.4.1 Welcome Page

The mobile welcome page is displayed below. Payers can log in to E-Payment Service, access forgot user ID or password by clicking **Need Help Logging In?**, register, or pay without registering. All pages also display a link to the full site and to exit at the bottom of the page.

5.4.2 Dashboard

The dashboard page displays information to the payer that may include any scheduled payments or messaging. If the payer has a pending or scheduled recurring payment, the payment alert message will display on the dashboard page.

Note: while the scheduled payment message only displays if enabled on the customer payment site, it will always display on the mobile site.

5.4.3 My Payment

The My Payment mobile page displays information such as amount due and due date as well as any passed or collected parameters that are configured to display on your organization's site.

5.4.4 Payment Information

The Payment Information page displays information about the payment which may include payment amount, payment date and frequency.

5.4.5   Contact Information

The Contact Information page will display for unregistered payers to collect their information. The optional fields are marked.

5.4.6   Payment Method

On the Payment Method page, payers can select to pay with a saved account or new card or bank account. The below examples show a new bank account and a saved card.

5.4.7   Review Payment

The review payment page shows the payer all of the payment information where they can confirm the payment. Examples of a bank account and card review payment pages are shown below.

5.4.8 Payment Confirmation

Examples of the payment confirmation pages for a bank account and card payment are shown below

5.4.9 Menu

The mobile menu page can be accessed by selecting the "hamburger" icon in the upper-left corner of the page. It displays links to all available pages that the payer can access. Pages that are not yet available on the mobile site will link to the full site. A message will display that tells the payer they will be transferred to the full site to access the feature. Payers using smart phones will be able to toggle back to the mobile site if there is an available corresponding mobile optimized page.

5.4.10 Payment History

The payment history mobile page shows an abbreviated confirmation number, payment date and amount. Payers can select the confirmation link to view payment detail. Payers can rotate their phone to landscape to view two additional fields, account number and payment status.

Chapter 6:   Payment Confirmation

E-Payment Service offers three confirmation messages that can be delivered to your organization: Real Time Payment Confirmation, Return Session Transfer, and Real Time Non-Payment Notification.

6.1   Real-Time Payment Confirmation

The real-time payment confirmation (RTPC) feature allows billers to receive payment information in real-time each time a payment is initiated or modified. This feature allows your organization to update their systems in real-time that might enable the ability to make time sensitive decisions or simply to provide real-time information to their clients.

6.1.1 Schedule

E-Payment Service sends the real-time payment confirmations immediately after a transaction is completed. They are sent every day, including weekends and holidays. A real time payment confirmation is sent to your organization for the following payment actions;

- Single Payments

  - Same day ACH debit (E-check), credit/ATM card, or cash payment is initiated
  - Warehoused ACH debit (E-check) or credit/ATM card payment is initiated
  - Warehoused ACH debit (E-check) or credit/ATM card payment is edited
  - Warehoused ACH debit (E-check) or credit/ATM card payment is cancelled
  - Warehoused credit/ATM card payment is declined
  - ACH debit (E-check) or credit/ATM card payment is refunded

- Recurring Payment Schedule

  - ACH debit (E-check) or credit/ATM recurring payment schedule is setup
  - ACH debit (E-check) or credit/ATM recurring payment schedule is edited
  - ACH debit (E-check) or credit/ATM recurring payment schedule is stopped

- Recurring Payment Instance

  - Recurring ACH debit (E-check) or credit/ATM payment instance is processed
  - Recurring ACH debit (E-check) or credit/ATM payment instance is refunded
  - Recurring credit card/ATM payment instance is declined

6.1.2 Format

The real time payment confirmations are sent in XML format:

- The XML message is sent in standard XML format and fields are tagged with field names, similar to HTML tags (i.e. the field called DueDate would appear as "<DueDate>yyyy-mm-dd</dueDate>"). The DTD for the XML message is posted on the E-Payment Service server and is referenced in the actual XML file for validation.

6.1.3 Processing

The real time payment confirmation message is sent over the Internet via either http or https.

Your organization must allow a "POST" to their server.

Your organization must provide the complete path during implementation, including IP address and sub-directories for the server accepting the message (this is included in the Implementation Questionnaire)
• For http, the IP address is required in the path name (i.e. http://123.45.678.90/echeck/payments)
• For https, the URL name associated with the certificate is required in the path name (i.e. https://www.biller.url/echeck/payments)

Your organization must open the appropriate port:
• Port 80 for http
• Port 443 for https

If no response or an invalid response is received from your organization, E-Payment Service will initiate up to three additional attempts at 20-minute intervals until an acceptable response is received or all four attempts are exhausted. E-Payment Service expects your organization to send a response in a single line, in standard http protocol response format. Once E-Payment Service receives a response message, it will stop sending the real-time payment confirmation messages for that transaction. The responses recognized by E-Payment Service are as follows:
• **EPAY_OK**: your organization has received and processed the message successfully
• **Failed_Auth**: your organization has received the message but could not authenticate the Client ID or Client Password

After the three additional attempts have failed, the message delivery is considered unsuccessful and E-Payment Service generates and sends an email informing your organization. If your organization chooses, they can contact U.S. Bank and have the failed RTPC message(s) re-sent at a later time.

6.1.4 Message Layout

E-Payment Service sends two separate message types: Single Payment and Recurring Payment Schedule. A Single Payment Message is sent to your organization for all Single Payments and Recurring Payment Instances as defined in the section above. A Recurring Payment Schedule Message is sent to your organization for all Recurring Payment Schedules as defined in the section above.

Two optional fields, Client ID and Client Password, can be sent in each real time payment confirmation to allow your organization to authenticate the message. These fields are provided by biller during setup and can each be up to 16 characters.

Please consult the document *E-Payment Service Real Time Confirmation Specifications* for a detailed layout of the Real-Time Payment Confirmation messages.

6.2   Return Session Transfer

The Return Session Transfer feature allows billers to receive payment information in real-time each time a payment is successfully completed and a payer exits E-Payment Service to return to your organization's originating website. This feature allows your organization to update their systems in real-time that might enable the ability to make time sensitive decisions or simply to provide real-time information to their clients.

The default location of the button on the Customer Payment Site is at the bottom of the Confirmation page. The button can optionally be moved to the top of the page underneath the Confirmation Number.

6.2.1 Schedule

The return session transfer is sent to your organization when a payer completes one of the following actions:

1. Makes a Payment (Single or Recurring Payment Type)
2. Edits a Payment (Single or Recurring Payment Type)
3. Cancels a Single Payment

The Return Session Transfer is sent to the URL address that is provided in the incoming session transfer. If there is no Return Session Transfer URL address, then your organization is not set up to receive the return session or your organization did not send a valid URL. In addition, billers may also pass a unique Return Value to be returned in the Session Transfer along with payer and payment information to more easily identity the origin of the Return Session Transfer.

6.2.2 Format

The file will be a secured HTTPS post.

6.2.3 Processing

When the payer selects the biller-defined button name on the Payment Confirmation page after being presented with the E-Payment Service confirmation number, the system will send the return session data as the payer is redirected to the passed URL. The return session data should reflect only the last payment action by the payer

6.2.4 Message Layout

Please consult the document *U.S. Bank E-Payment Service Web Session Transfer Specifications* for a detailed layout of the return session transfer.

6.3   Real-Time Non-Payment Notification

The Real-Time Non-Payment Notification feature allows billers to receive information in real time each time a payer is unsuccessful in making a payment or opts not to make a payment after entering E-Payment Service via the "Pay" button. This feature allows your organization to update their systems in real time.

6.4   Schedule

E-Payment Service sends the Real-Time Non-Payment Notification message to your organization for the following events:
- When a user exits/logs out of E-Payment Service at any point after entering E-Payment Service through the "Pay" button and without submitting a payment.
- When a session time-out occurs due to no activity for a set period of time (ex: 15 minutes). Session time-out policy is determined by U.S. Bank

   Note: Session time-out may occur for the following reasons:
- Payer is inactive in E-Payment Service for a determinate period of time
- Payer closes their web browser without exiting E-Payment Service
- Payer's computer experiences difficulties resulting in the payer having to shut down and reboot

- Payer does not have cookies enabled in the payer's web browser

An unsuccessful single credit card payment attempt will also result in an RTNN message being generated and sent to your organization. An unsuccessful credit or ATM card payment attempt may consist of any of the following events:
- Decline message from the merchant processor
- Decline from E-Payment Service based on the following credit card rules initiated by your organization:
- Address Verification Service
- Card Verification Data

6.5   Format

The Real-Time Non-Payment Notification messages are sent in XMLformat.
- XML: the message is sent in standard XML format and fields are tagged with field names, similar to HTML tags (i.e. the field called DueDate would appear as "<DueDate>yyyy-mm-dd</dueDate>"). The DTD for the XML message is posted on the E-Payment Service server and is referenced in the actual XML file for validation.

6.6   Processing

The Real-Time Non-Payment Notification message is sent over the Internet via either http or https as defined during set-up. In order to receive the message, your organization must:
- Open their firewall to the IP Address provided during implementation
- Open the appropriate port

  - Port 80 for http
  - Port 443 for https
- Allow a "POST" to their server
- Provide the complete path during implementation, including IP address and sub-directories for the server accepting the message (this is included in the Implementation Questionnaire)

  - For http, the IP address is required in the path name (i.e. http://123.45.678.90/echeck/payments)
  - For https, the URL name associated with the certificate is required in the path name (i.e. https://www.biller.url/echeck/payments)

6.7   Responses

E-Payment Service expects your organization to send a response in a single line, in standard http protocol response format. Below are valid responses from your organization and how they are processed by E-Payment Service:
- **EPAY_OK:** your organization has received and processed the message successfully
- **Failed_Auth:** your organization has received the message but could not authenticate the Client ID or Client Password; the send attempt is stopped and an e-mail is sent to your organization and U.S. Bank support
- **No response:** If no response or an invalid response is received from your organization, E-Payment Service will initiate up to three additional attempts at 20-minute intervals. If the message-send fails on the 4th attempt, the send attempt is stopped and an e-mail is sent to your organization and U.S. Bank support.

6.8   Message Layout

Two optional fields, Client ID and Client Password, can be sent in each Real-Time Non-Payment Notification message to allow your organization to authenticate the message. These fields are provided by your organization during set-up and can each be up to 16 characters.

See the document, *E-Payment Service Real Time Confirmation Specifications* for a detailed layout of the Real-Time Non-Payment messages.

Chapter 7:   Remittance File

A daily posting file is generated by E-Payment Service that provides your organization with the detail of all the processed transactions for the current or previous day(s).

7.1   Schedule

Billers have the option of selecting a same-day or next-day remittance file. Next-day remittance files are generated and sent to your organization by 8 a.m. CT, Monday through Friday, excluding Federal holidays. See **Appendix D: Federal Holidays**.

Same-day remittance files are generated depending on the last cutoff time selected by your organization and are available several hours after that cutoff time. The same cut-off time must be selected for all payment methods to utilize the same-day remittance feature. This same-day version of the file is made available Sunday through Friday, excluding Federal holidays.

7.2   Format

Remittance files are variable length files that are available in XML and CSV formats

7.3   Distribution

Remittance files are available for download through the E-Payment Service Administrative Application or using automatic transmission via U.S. Bank Data Distribution Services. Same-day files will be available by two hours after the cut-off time. Next-day files will be available by 8 a.m. CT. Files will be available on the administrative application for 60 days after they are posted.

7.4   Data

The remittance file contains a single detail record for each payment transaction. Fields contained on each record include: confirmation number, (payer's) user ID, payment amount, convenience fee, total amount, payment effective date, initiation date, payment type (ACH or credit card), payment authorization number, and product parameters.

The remittance file contains a summary record calculating the totals for the detailed transactions: number of transactions, payment amount total, convenience fee total, and transaction amount grand total.

For billers who choose to offset the cost of E-Payment Service by allowing U.S. Bank to collect a convenience fee on each payment, the convenience fee data will not be provided in the remittance file.

For a detailed file layout and technical specifications for the remittance file, reference the *U.S. Bank E-Payment Service Remittance File Specifications* document.

Chapter 8:   Pre-Registration

The pre-registration feature was designed to reduce the need for payers to have to register on E-Payment Service if they are already one of your organization's existing clients. E-Payment Service offers several ways to register payers including using the preregistration file, remote web services (API), and the real-time authorization and registration feature (RTAR). If your organization deploys the Internet and Live Agent channels, pre-registration is optional. If your organization deploys the IVR channel, however, pre-registration of payers using the pre-registration file or RTAR is required.

If a biller chooses to utilize the pre-registration feature, they will need to create a daily change file and transmit to U.S. Bank. Pre-registration files must be transmitted every calendar day. Each time a pre-registration file is processed by the U.S. Bank team, a response file will be generated and transmitted to your organization. If the pre-registration file was processed successfully, the response file will indicate that all records were processed. If any records were not processed successfully, they will be included in the response file along with a reason code indicating why the record wasn't processed successfully. See **Chapter 8: Pre-Registration** for additional information.

Billers can also use Remote Web Services to add, update, or delete payers to the pre-registration file. See the *E-Payment Service Remote Web Services User Guide* for more information.

Billers use the pre-registration file to send user registration information to E-Payment Service for payers initiating payments through the Web, IVR, or admin interfaces. Billers can send product-level information for their users as well. The file can contain one or many record types. Below are descriptions of the types of records and information that may be contained in the pre-registration file:

Record Name	Types	Record Description
User Profile Information	Add	Adds a new Payer Profile to E-Payment Service
	Update	Updates an existing payer's profile in E-Payment Service
	Delete	Removes an existing payer's profile from E-Payment Service
	Extend	Extends a payer's profile to a different UserID in E-Payment Service complete with payment history and stored account information (Version 4.0 Only)
Authorized Product Information	Update	Authorizes a payer to initiate payments for a specific product in E-Payment Service
	Delete	Prevents a payer from initiating payments for a specific product in E-Payment Service
Payment Information	Add	Adds payment information (due date and / or amt due) to a payer's profile for a specific product in E-Payment Service
	Update	Updates payment information (due date and / or amt due) to a payer's profile for a specific product in E-Payment Service
Bank Account Information (Requires GPG Encryption)	Add	Adds a payer's bank account information to their profile in E-Payment Service

Record Name	Types	Record Description
	Update	Updates a payer's bank account information in their profile in E-Payment Service
Card Account Information (Requires GPG Encryption)	Add	Adds a payer's credit or ATM Debit card account information to their profile in E-Payment Service
	Update	Updates a payer's credit or ATM Debit card account information in their profile in E-Payment Service
Product Parameters	Add	Adds a product parameter value to a payer's profile for a specific product in E-Payment Service
	Update	Updates a product parameter value in a payer's profile for a specific product in E-Payment Service
	Delete	Deletes a product parameter value in a payer's profile for a specific product in E-Payment Service
Recurring Payment Information	Add	Adds payer recurring payment information (i.e. creates a recurring payment schedule for a payer) to E-Payment Service
	Update	Updates payer recurring payment information (i.e. modifies or updates a previously created recurring payment schedule) for a payer in E-Payment Service
	Stop	Cancels a payer's recurring payment schedule in E-Payment Service
Bill Presentment Enrollment	Add	Add user for bill presentment feature
	Update	Update user for bill presentment feature

8.1   Schedule

E-Payment Service will process pre-registration files every day, including federal holidays. The files must be transmitted by 8 p.m. CT. If there are no changes to be processed, a file containing a header record and a trailer record with valid counts and no detail records must be made available for pickup.

8.2   Format

The pre-registration file must be in ASCII comma-delimited (CSV) variable-length format (no field filling).

8.3   File Layout

For a detailed file layout and technical specifications for the Pre-Registration File, see the *U.S. Bank E-Payment Service Pre-Registration File Specifications* document.

Chapter 9:   Pre-Registration Response File

Once a Pre-Registration File is processed, a Pre-Registration Response File is generated by the E-Payment Service and sent to your organization. The response file indicates either a total success or specifies records that have been rejected and their associated reject reason codes as described below.

9.1   Schedule

This file is generated and sent each time a Pre-Registration file is processed by E-Payment Service.

9.2   Format

The file is sent in ASCII comma-delimited (CSV) variable-length format. The version of the file format will be determined by the version indicated in the Header Record of the Pre-Registration File.

9.3   Processing

If an error is encountered while processing a record, the application will continue to perform validations on the record to determine if there are any additional errors. Therefore, you may receive multiple errors for a single record.

9.4   File Layout

For a detailed file layout, response codes listing, and other technical specifications for the Pre-Registration Response File, see the *U.S. Bank E-Payment Service Pre-Registration File Specifications* document.

Chapter 10:   Real-Time Authorization & Registration (RTAR)

10.1 Overview

Billers use the Real-Time Authorization & Registration (RTAR) feature to authorize payers real-time to login to E-Payment Service to make a payment. This feature also allows billers to register new payers and update existing payer profile information. RTAR can be used with the IVR payment channel to register and/or authorize payers who call to make a payment. RTAR can be used in place of the pre-registration file and offers the advantage of real-time functionality.

10.2 Process

When a payer goes to the Customer payment site, a request message from E-Payment Service is sent to your organization. Your organization sends back a response message. The response can simply authorize the user, it can provide user registration information, or it can update existing user profile information. This secure process requires the use of a key provided by E-Payment Service. For more information about RTAR see *E-Payment Service Technical Specifications guide*.

Chapter 11:   Email Communication

E-Payment Service generates several outbound email messages that are delivered to payers who provide an email address during the course of registration and/or completing a payment. This chapter defines each of the emails generated by E-Payment Service and provides a sample of each email type. The emails are sent to the payer regardless of the channel on which the payment is initiated. Emails returned for various reasons (incorrect email address, SPAM filter, etc.) are dropped and are not provided to your organization for any type of follow-up.

11.1 Email Selection

Billers have the option to decide which E-Payment Service emails they will have sent out on their behalf. See **Section 11.5 Email Types** for available email types.

11.2 Email Configuration

Billers can choose to have the default E-Payment Service emails distributed on their behalf or they can choose to author their own emails to be distributed by E-Payment Service. Biller-authored emails can include the display of E-Payment Service data fields. See **Section 11.6 Available Data Fields** for a list of available data fields.

To see sample default email text including fields that are displayed in the email confirmations, see the document *U.S. Bank E-Payment Service Email Communication Guide*.

Any configurable outbound email should comply with all payment network and government rules regarding electronic receipts.

11.3 Email Schedule

Emails are sent out under the following conditions:
- To unregistered payers who have provided an email address
- To registered payers who have provided an email address
- E-Payment Service requires email addresses to be collected from payers.

11.4 Email Delivery Protocol

E-Payment Service generates all confirmation emails from the domain:

"organization name or phrase" <noreply@epymtservice.com>

All E-Payment Service billers will have the option to customize the organization name or phrase that precedes the email address. This will allow you to continue to provide branding and/or identification information in your confirmation emails. For example, a U.S. Bank branded email from E-Payment Service might read: U.S. Bank Loan Payment <noreply@epymtservice.com>

11.5 Email Copies

Your organization can elect to receive copies of all payment related emails. The emails will include all that your organization has selected to send to payers with the exception of any emails for registration, user name or password. You can select to send the copies to as many email addresses as you would like. A detailed list of the email types that will be copied to your email addresses is provided in the chart below.

11.6 Email Types

Here are the email types available for various payment and registration activities within E-Payment Service:

11.6.1 One-Time Payments

Email Type	Description	Available to be copied to client
Make Single E-Check Payment	This email is sent to a payer after they make a single (non-Warehoused) ACH payment.	Yes
Make Single Credit Card Payment	This email is sent to a payer after they make a single, same-day Credit Card payment. If a payer edits a previously submitted payment and the edits to that payment change it to a same-day payment, they will also receive this message.	Yes
Make Single ATM Payment	This email is sent to a payer after they make a single ATM payment.	Yes
Edit Single E-Check (ACH) Payment	This message is sent to a payer after a successful edit to their Warehoused Single E- Check (ACH) Payment has been made.	Yes
Edit Single Credit Card Payment	This message is sent to a payer after a successful edit to their Warehoused Single Credit Card Payment has been made.	Yes
Edit Single ATM Payment	This message is sent to a payer after a successful edit to their Warehoused Single ATM Card Payment has been made.	Yes
Cancel Single Payment	This message is sent to a payer after a pending single payment for any payment method has been cancelled.	Yes
Returned E-Check (ACH) Payment	This email is sent to a payer when their E-Check (ACH) payment is returned.	Yes

Credit Card Payment is Declined	This email is generated when a Warehoused or Recurring Credit Card Payment is attempted but is declined by the credit card processor. Note: This email is not sent when a real-time Credit Card payment is submitted. This applies only to a Warehoused or Recurring Credit Card Payment.	Yes
ATM Card is Declined	This email is generated when a Warehoused or Recurring ATM Payment is attempted but is declined by the ATM card processor.	Yes
Stopped Warehoused E-Check (ACH) Payment	This email is generated when a Warehoused E-Check (ACH) payment is stopped by the system after a payer has received a specified number of ACH returns within a specified time period as defined by the your organization during setup. Note: Returns may be for insufficient funds, closed account, or any of the return reasons. A list can be found in the E-Payment Service User Guide.	Yes

11.6.2 Recurring Payments

Email Type	Description	Available to be copied to client
New Recurring Payment Setup Email (E- Check/Credit Card)	This email is sent when a new recurring ACH or Credit Card Payment is created.	Yes
New Recurring ATM Payment	This email is sent when a new recurring ATM Payment is created.	Yes
Edit Recurring Payment (E-check/Credit Card) Email	This email is sent to a registered payer after the following scenarios: • Payer modifies an existing Recurring ACH Payment Setup. • Payer modifies an existing Recurring Credit Card Payment Setup. • Administrative User modifies an existing Recurring ACH Payment Setup on behalf of the payer. • Administrative User modifies an existing Recurring CC Payment Setup on behalf of the payer. • Pre-Registration File modifies an	Yes

Email Type	Description	Available to be copied to client
	existing Recurring ACH Payment Setup on behalf of the payer. • Pre-Registration File modifies an existing Recurring Credit Card Payment Setup on behalf of the payer.	
Edit ATM Recurring Payment	This email is sent to a registered payer after the following scenarios: • Payer modifies an existing Recurring ATM Payment Setup. • Administrative User modifies an existing Recurring ATM Payment Setup on behalf of the payer. • Pre-Registration File modifies an existing Recurring ATM Payment Setup on behalf of the payer.	Yes
Stop Recurring Payment (E-Check/Credit Card) Email	This message is sent to a payer after a Recurring Payment is stopped in the following scenarios: • The payer stops the payment. • The admin stops the payment at the payer's request. • Pre-Registration File stops the recurring payment on behalf of the payer.	Yes
Stopped Recurring ATM Payment	This message is sent to a payer after a Recurring Payment is stopped in the following scenarios: • The payer stops the ATM payment. • The admin stops the ATM payment at the payer's request. • Pre-Registration File stops the recurring ATM payment on behalf of the payer.	Yes
2nd To Last Recurring Payment (E-Check/Credit Card) Warning Email	This email is sent to a registered payer after one of the following scenarios: • Second to last instance of an	Yes

Email Type	Description	Available to be copied to client
	Installment Recurring Payment Setup (ACH or CC) with durations of Number of Payments or Expire on Date. • Second to last instance of a Variable Recurring Payment Setup (ACH or CC) with a duration of Number of Payments. • 30 days prior to the expiration date for a Variable Recurring Payment Setup (ACH or CC) with a duration of Expire on Date.	
Recurring E-Check/Credit Card Payment info Update Email	This email is sent to a registered payer after E- Payment Service has initiated a recurring payment to be processed.	Yes
Recurring ATM Payment Information Update	This email is sent to a registered payer after E- Payment Service has initiated a recurring ATM payment to be processed.	Yes
Warehoused E-Check Payment Occurrence Email	This email message is sent to a payer when a Warehoused E-Check (ACH) Payment occurs. (has been release for settlement by your financial institution).	Yes
Warehoused Credit Card Payment Occurrence Email	This email message is sent to a payer when a Warehoused Credit Card Payment occurs successfully. Otherwise, the Declined Credit Card Email message is generated and sent.	Yes
Warehoused ATM Payment Occurrence	This email message is sent to a payer when a Warehoused ATM Payment occurs successfully. Otherwise, the Declined ATM Email message is generated and sent.	Yes
Credit Card Expiration Email	This email message is sent to a payer who has a registered credit card account when the credit card expiration date is set to expire within the next 30 days.	Yes
Stopped Recurring E-Check (ACH) Payment Email	This message is sent to a payer after a Recurring Payment is stopped by the system after the payer has received a specified number of returns within a specified time period as defined by the your organization during setup.	Yes

11.6.3 Registration & Passwords & Refunds

Email Type	Description	Available to be copied to client
Registration Confirmation Email	This email message is sent to a payer after they have successfully registered with E-Payment Service.	No
Login Credentials Update Email	This email message is sent to a payer who has successfully updated either their password or their security questions. Note: this email is not customizable.	No
Password Reset Email	This email message is sent to a payer after they have requested a password reset. Note: A user may have his password reset if he has forgotten it. They will then receive an e-mail containing a temporary password. They may use the temporary password to login and will immediately be prompted to change their password.	No
Refund E-Check (ACH)/Credit Card Payment Email	This email message is sent to a payer after they have requested a refund from a customer service representative. Note: In order for a payment to be eligible for refund, the following conditions must be met: • Payment is in a SENT status. • Admin user must have permission to refund payments. • If the payment was made via ACH, current date must be at least 10 calendar days beyond the payment effective date of the original payment.	Yes
Edit Bank Account / Changed Single ACH Payment Email	This message is sent to a payer after a successful edit to their bank account that has resulted in changes to the SEC code on the payer's pending ACH Payment(s). This email will only be sent out when the SEC code has been changed to TEL. The following circumstances will cause the payment's SEC code to be changed to TEL: An admin user initiated the payment via the admin site. The payer changed the account category of the saved bank account from business	Yes

		to consumer via the public site.	

11.7 Available Data Fields

The following table identifies the E-Payment Service data fields that are available to insert into any configurable email message.

Category Names	Field Names	Value/Description
Account Information	Account Category	The category of the account used for the payment.
Account Information	Account Nickname	The account nickname chosen by the payer for this saved account.
Account Information	Account Type	The type of account used for the payment.
Account Information	Bank Account Number	The Bank Account Number for the account used for the payment.
Account Information	Credit/ATM Card Number	The Credit or ATM Card number used for the payment.
Account Information	Card Type	The Card Type used for the payment (Visa, MasterCard, American Express, Discover, ATM)
Account Information	Payer Name	The first and last name from the contact information section.
Account Information	Routing Transit Number	The RTN for the Bank Account used for the payment.
Biller Information	Biller Business Date	The Biller Business Date on which the payment will be considered "made".
Biller Information	Biller Group Short Name	The short name assigned to the Biller Group during Biller Group Setup
Biller Information	Biller Short Name	The short name assigned to the Biller during Biller setup
Biller Information	Customer Service Phone	Customer Service Phone Number for this Biller
Biller Information	Merchant	The Biller_long_name field for this Biller.
Biller Information	Payment Inquiry URL	The Payment Inquiry URL for this Biller Product
Biller Information	Website	The website address for the Biller.
Email	Password	The payer's newly generated password.
Email	User Name	The payer's user name
Payment Information	Amount Due	The amount due of the payment.
Payment Information	Approval Code	The authorization code for card payments from Elavon.
Payment Information	Confirmation Number	The confirmation number for the payment.
Payment Information	Convenience Fee	The amount of the Convenience Fee.

Category Names	Field Names	Value/Description
Payment Information	Duration	The duration for which the payments will be made.
Payment Information	First Scheduled Payment Date	The first scheduled payment date of the recurring payment.
Payment Information	Frequency	The frequency which the recurring payments are being made
Payment Information	Initiation Date	The date the payment was initiated.
Payment Information	Next Scheduled Payment Date	The next scheduled payment date of the recurring payment.
Payment Information	Original Payment Due Date	The original due date for the Recurring Payment
Payment Information	Payment Amount	The amount of the payment.
Payment Information	Payment Due Date	The due date of the payment.
Payment Information	Payment Effective Date	The effective date of the payment.
Payment Information	Payment Status	The status of the payment.
Payment Information	Previous Reference Number	The Previous Reference ID Number.
Payment Information	Reference Number	The Recurring Reference Number for the Recurring Payment
Payment Information	Refund Amount	The amount of the refund.
Payment Information	Return Reason	The reason that the payment was returned.
Payment Information	Stop Date	The date the Recurring Payment was Stopped
Payment Information	Total Amount	The sum of the Payment Amount and Convenience Fee. This is the total amount of the payment.
Product Information	Product Description	Product Description for this payment
Product Information	Parameter Name	Biller Product Parameter code
Product Information	Parameter Value	Product Parameter description

Chapter 12:   Support and Maintenance

This chapter outlines the support and maintenance procedures in place for scheduled E-Payment Service upgrades, as well as planned and unplanned E-Payment Service maintenance needs. The types of communications that you can expect regarding these instances are also outlined below.

12.1 Standard Maintenance Window

Scheduled product upgrades and maintenance take place during our standard maintenance window of Saturday or Sunday morning from midnight to 5 a.m. CT.

12.2 Scheduled Product Upgrades

Several times per year U.S. Bank schedules product upgrades for E-Payment Service to introduce new enhancements. Release Notes will be provided to you detailing enhancements and indicating which features are opt-in or not. Most upgrades are opt-in, where you will have the option to initiate a change request with your Treasury Management Consultant to make the upgrade available. This is designed to eliminate any unnecessary development or training for clients who may not want to use a specific feature. If a product upgrade involves page, file layout, significant product changes, U.S. Bank will provide adequate advance notice to allow you time to adapt to the change.

12.3 Scheduled Maintenance

U.S. Bank periodically schedules maintenance for E-Payment Service. This maintenance typically revolves around security, network, or database systems designed to improve the overall performance of the product.

12.4 Communications for Scheduled Product Upgrades and Scheduled Maintenance

U.S. Bank will deliver up to four different communications to you regarding product upgrades and maintenance:

Notice	What is it?	When is it sent?
Advance Notice	The Advance Notice communication will detail which components of E-Payment Service will be unavailable during the upgrade. Release Notes will typically accompany the Advance Notice.	At least 2 weeks prior to the deployment date depending on the nature of the upgrade.
Release Notes (For Product Upgrade notices only)	The Release Notes will include a detailed explanation of the product upgrades including new screen shots of file layouts.	Release Notes will accompany the Advance Notice or will be sent in a separate communication.
Reminder Notice	The Reminder Notice will be sent out the week of the scheduled maintenance to remind you of the pending outage.	Typically, during the week of the maintenance outage.

Notice	What is it?	When is it sent?
Reminder Notice #2	A second Reminder Notice will be sent out just prior to the start of the scheduled maintenance to remind you of the pending outage.	Approximately 30 minutes prior to start of the maintenance outage.
All Clear Notice	The All Clear Notice will be sent following the successful completion of the maintenance and availability of the product.	After maintenance and system validations are complete.
Extension Notice	The Extension Notice will be sent prior to the end of the previously communicated period if additional time is required.	Before the previously communicated period of time is scheduled to end. Updates will follow the Unplanned Service Disruption communication plan listed below.

Notices are sent to the 'Contact for Outages' contact identified during the implementation process.

If there are exceptions to the standard maintenance window, U.S. Bank will provide advance notice.

12.5 Scheduled Emergency Maintenance

U.S. Bank occasionally has to schedule maintenance on short notice for E-Payment Service to address a system or security issue. U.S. Bank will provide as much advance notice as possible.

U.S. Bank will deliver up to two different communications regarding this type of scheduled maintenance:

Notice	What is it?	When is it sent?
Advance Notice	The Advance Notice communication will detail which components of E-Payment Service will be unavailable during the outage.	As much advance notice as possible.
Reminder Notice	The Reminder Notice will be sent out just prior to the start of the scheduled maintenance to remind you of the pending outage.	Approximately 30 minutes prior to start of the maintenance.
All Clear Notice	The All Clear Notice will be sent following the successful completion of the maintenance and availability of the product.	After maintenance and system validations are complete.
Extension Notice	The Extension Notice will be sent prior to the end of the previously communicated period if additional time is required.	Before the previously communicated period of time is scheduled to end. Updates will follow the Unplanned Service Disruption communication plan listed below.

12.6 Unplanned Service Disruption

E-Payment Service is monitored 24/7 from three locations around the United States. If a service disruption does occur, it may be a complete or partial unavailability of one or more of the following components:

- Payment Channel (Customer Payment Website, IVR, Administrative Site or Kiosk)
- Payment Method (ACH, card processing)
- Remittance File Processing
- Remote Web Service (API)
- File Transmissions
- Real Time Messaging

Here is a recap of communications you can expect to receive:
- Within 20 minutes of the service disruption, you will receive a notification regarding the system issue.
- Within 35 minutes of the service disruption, you will receive an update with an estimated resolution time if known.
- Additional updates will be sent every hour after the second email communication unless there is a resolution to report.
- Resolution notifications will be sent out within 20 minutes of confirmation that the unplanned disruption has been resolved.
- If an unplanned disruption lasts less than 20 minutes, an email communication will be sent out informing you of the disruption, impact and resolution.

When possible, email communications are sent only to clients who are impacted by a particular unplanned disruption. For example, if the E-Payment Service IVR channel is unavailable, the email communication will be sent out to clients who are using the E-Payment Service IVR channel.

Notices are sent to the 'Contact for Outages' contact identified during the implementation process.

In the event of an unplanned service disruption — where a component or the entire product is unavailable for a minimum of 5 minutes — notification will be sent out via email as soon as possible once verified.

The following information will be communicated in the notifications:
- Issue Timing
- E-Payment Service component(s) impacted
- Issue Description
- Type of disruption (full outage vs. sporadic availability)

Here is an example of an initial unplanned service disruption notice:

12.7 Reporting an Issue

All customer service calls are handled through our Commercial Customer Service Group (CCS). If CCS is unable to address your request, they will escalate to the next level of support. All issues are tracked and reviewed through resolution.

To report an E-Payment Service issue, including access, payment network or file transfer issues, please see the contact numbers below.

When to Call	Who to Call
During Normal Business Hours Normal business hours are defined as Monday thru Friday from 7 a.m. – 7 p.m. CT, excluding weekends and federal holidays. Please check with your local CCS team for their hours of availability.	Contact your Commercial Customer Service (CCS) Service Banker or call 800.216.3204 to be redirected to your local service team. The CCS Service Banker will track all questions/issues through a Call Tracking system and bring in the necessary resources to escalate and/or resolve the issue.
During non-business hours Non-business hours are defined as 7 p.m. to 7 a.m. CT.	Contact U.S. Bank Technical Support at 800.765.9549 (option 2).

Please have the following information available when calling Commercial Customer Service to report an E-Payment Service issue:
- U.S. Bank Checking Account Number (if known)
- Name of Product: E-Payment Service
- E-Payment Service Biller Organization and Biller Identification Number (ex: ABC ABC)

12.8 Company Contact Information

U.S. Bank collects your E-Payment Service contact information during the implementation process. This information is used to maintain multiple distribution lists for E-Payment Service maintenance and service disruption notifications. To update your contact information, please send your request to add or remove contacts (name and email address) to epaymentservice_operations@usbank.com.

To inquire about the contact information that is currently on our distribution lists for your organization, please send a list with your email domains (ex: '@usbank.com') to epaymentservice_operations@usbank.com and we will provide you your current contact list. To update your information, please send us updates to the list to the address above.

Chapter 13: Glossary

ACH	Automated Clearing House. The ACH network is an electronic funds transfer system that provides inter-bank clearing of electronic payments for participating depository financial institutions.
ATM Network	The ATM debit networks allow payments to be debited directly from a payer's bank account with the payer's Personal Identification Number.
Biller	The U.S. Bank client who is deploying E-Payment Service to accept payments from their clients.
Biller Group	The highest level in the E-Payment Service hierarchy. A Biller Group is typically a State or Corporation that includes several billers and products.
Credit Card	The credit card networks (Visa, MasterCard, Discover, and American Express) allow payments to be processed by a payer's credit card.
Confirmation Number	A unique number assigned to all one-time payments when they are initiated, edited, or canceled. Also assigned to each instance of a recurring payment when it is sent for processing.
E-check	An ACH Debit transaction initiated by a payer or on behalf of a payer.
Kiosk	A stand-alone machine that can be used to collect payments using cash, eCheck, or credit/debit card payments.
Merchant Processor	The organization that manages the authorization and settlement of credit card payments.
NOC	Notification of Change. Indicates the receiving depository institution has notified the originating depository institution that some of the banking information (account number, routing transit number) has changed.
Payment Initiation	The process by which a payer or an administrator on behalf of a payer schedules a payment for processing.
Payment Processing	The process by which E-Payment Service sends the payment to the merchant processor or originating depository financial institution for settlement.
Payer	Your organization's client who is making a payment using E-Payment Service.
Pending Payment	A one-time payment initiated by a payer that has not been processed. Pending payments can be edited or canceled prior to processing.
Pinless Debit Card	A debit card with a Visa or MasterCard logo that does not require PIN entry for processing. Also known as offline or signature-based debit card.
Reference Number	A unique number assigned to each recurring payment schedule defined by a payer.
Role(s)	A level of permission assigned to each admin user by your organization's Security Officer. Your organization's Security Officer defines each unique role.
Routing Transit Number	It is the code used by the Automated Clearing House to route the payer's payment instructions to the correct financial institution.
Session Transfer	The transfer of the payer's Internet session and related payer and payment information from your organization's application to E-Payment Service.

Security Officer	A member of your organization's organization designated during implementation to manage your organization's administrative users and roles.

Appendix A: Service Level Agreement

Service Level Description	Minimum Service Level Criteria
E-Payment Service Web Application Availability / Uptime	E-Payment Service Transaction System Web applications will be available to users ninety-nine percent (99%) of the total minutes available in each month. Availability is calculated excluding planned maintenance as scheduled during the defined available maintenance window of Saturday and Sunday, midnight – 5 a.m. CT.
E-Payment Service IVR Application Availability / Uptime	E-Payment Service Transaction System IVR applications will be available to users ninety-nine percent (99%) of the total minutes available in each month. Availability is calculated excluding planned maintenance as scheduled during the defined available maintenance window of Saturday and Sunday, midnight – 5 a.m. CT.
Web Page Response Time	Average Web page response time of less than 3 seconds as measured from the Web server to the database server back to the Web server.
Remittance File Transfers	Delivered or otherwise made available within two hours of the defined payment cutoff time for "same day" remittance files or by 8 a.m. CT for "next day" remittance files.
Credit/ATM Card authorization requests	Authorization request at or under industry standard response. At maximum, three seconds from receipt at Web server through generation of response by Web server to payer, excluding delays caused by merchant processor.

Appendix B: Payment Status Definition

Status	Definition
Processed	A one-time or recurring payment instance that has been processed for settlement
Returned	A one-time or recurring e-check payment instance returned by the payer's bank
Canceled	A one-time payment canceled by the payer prior to processing
Refunded	A one-time or recurring payment instance refunded by your organization
Scheduled	A one-time payment scheduled to be processed for settlement in the future
Processed	A one-time e-check payment that was completed after your organization's cut-of time (either 1 p.m. or 3 p.m. CT) but before the ACH processing time of 5 p.m. CT
Active	A recurring payment schedule that has been defined by the payer and has not been completed or ended
Stopped	A recurring payment schedule that has been cancelled (stopped) by the payer
Expired	A recurring payment schedule in which all payment instances have been processed for settlement

Appendix C: State Codes

For domestic payment processing, here are the state values accepted in E-Payment Service:

STATE CODE	STATE		STATE CODE	STATE
AL	Alabama		NY	New York
AK	Alaska		NC	North Carolina
AZ	Arizona		ND	North Dakota
AR	Arkansas		OH	Ohio
CA	California		OK	Oklahoma
CO	Colorado		OR	Oregon
CT	Connecticut		PA	Pennsylvania
DE	Delaware		RI	Rhode Island
FL	Florida		SC	South Carolina
GA	Georgia		SD	South Dakota
HI	Hawaii		TN	Tennessee
ID	Idaho		TX	Texas
IL	Illinois		UT	Utah
IN	Indiana		VT	Vermont
IA	Iowa		VA	Virginia
KS	Kansas		WA	Washington
KY	Kentucky		WY	West Virginia
LA	Louisiana		WI	Wisconsin
ME	Maine		WY	Wyoming
MD	Maryland		AS	American Samoa
MA	Massachusetts		DC	District of Columbia
MI	Michigan		FM	Federated States of Micronesia
MN	Minnesota		GU	Guam
MS	Mississippi		MH	Marshall Islands
MO	Missouri		MP	Northern Mariana Islands
MT	Montana		PW	Palau

STATE CODE	STATE		STATE CODE	STATE
NE	Nebraska		PR	Puerto Rico
NV	Nevada		VI	Virginia Islands
NH	New Hampshire		AA	Armed Forces Americas
NJ	New Jersey		AE	Armed Forces Europe
NM	New Mexico		AP	Armed Forces Pacific

Appendix D: Federal Holidays

Some functions are not available and some files not processed by E-Payment Service on federal holidays. Each of these functions is identified in the appropriate sections above. The federal holidays include:

- New Year's Day
- Martin Luther King's Birthday
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veterans Day
- Thanksgiving
- Christmas Day

Appendix E: Country Codes

Country Name	Country Value	Country Code
ANDORRA	ANDORRA	AD
UNITED ARAB EMIRATES	UAE	AE
UNITED ARAB EMIRATES	UNITED ARAB EMIRATES	AE
AFGHANISTAN	AFGHANISTAN	AF
ANTIGUA-BARBUDA	ANTIGUA	AG
ANTIGUA-BARBUDA	ANTIGUA-BARBUDA	AG
ANTIGUA-BARBUDA	BARBUDA	AG
ANTIGUA-BARBUDA	ANTIGUA AND BARBUDA	AG
ANGUILLA	ANGUILLA	AI
ALBANIA	ALBANIA	AL
ARMENIA	ARMENIA	AM
ANGOLA	ANGOLA	AO
ANGOLA	CABINDA	AO
ANTARTICA	ANTARTICA	AQ
ARGENTINA	ARGENTINA	AR
AMERICAN SAMOA	AMERICAN SAMOA	AS
AMERICAN SAMOA	SWAIN	AS
AMERICAN SAMOA	SWAINS ISLAND	AS
AUSTRIA	AUSTRIA	AT
AUSTRALIA	AUSTRALIA	AU
AUSTRALIA	CHRISTMAS ISLAND	AU
AUSTRALIA	COCOS (KEELING) ISLANDS	AU
AUSTRALIA	COCOS ISLANDS	AU
AUSTRALIA	KEELING ISLANDS	AU
AUSTRALIA	NORFOLK ISLAND	AU
AUSTRALIA	TASMANIA	AU
ARUBA	ARUBA	AW

Country Name	Country Value	Country Code
ALAND ISLAND	ÅLAND ISLANDS	AX
AZERBAIJAN	AZERBAIJAN	AZ
BOSNIA-HERZEGOVINA	BOSNIA	BA
BOSNIA-HERZEGOVINA	BOSNIA AND HERZEGOVINA	BA
BOSNIA-HERZEGOVINA	BOSNIA-HERZEGOVINA	BA
BARBADOS	BARBADOS	BB
BANGLADESH	BANGLADESH	BD
BELGIUM	BELGIUM	BE
BURKINA FASO	BURKINA	BF
BURKINA FASO	BURKINA FASO	BF
BURKINA FASO	FASO	BF
BURKINA FASO	UPPER VOLTA	BF
BULGARIA	BULGARIA	BG
BAHRAIN	BAHRAIN	BH
BURUNDI	BURUNDI	BI
BENIN	BENIN	BJ
BENIN	DAHOMEY	BJ
ST. BARTHELEMY	ST. BARTHELEMY	BL
ST. BARTHELEMY	ST. BARTS	BL
BERMUDA	BERMUDA	BM
BRUNEI	BRUNEI	BN
BOLIVIA	BOLIVIA	BO
BRAZIL	BRAZIL	BR
BAHAMAS	BAHAMAS	BS
BAHAMAS	BAHAMAS, THE	BS
BHUTAN	BHUTAN	BT
BOTSWANA	BOTSWANA	BW
BELARUS	BELARUS	BY
BELARUS	BYELARUS	BY
BELIZE	BELIZE	BZ

Country Name	Country Value	Country Code
BELIZE	BRITISH HONDURAS	BZ
CANADA	CANADA	CA
CANADA	MIQUELON	CA
CANADA	SAINT PIERRE AND MIQUELON	CA
CANADA	ST. PIERRE & MIQUELON	CA
CANADA	ST. PIERRE AND MIQUELON	CA
CANADA	ST. PIERRE ET MIQUELON	CA
COCOS (KEELING) ISLAND	COCOS (KEELING) ISLAND	CC
DEMOCRATIC REPUBLIC OF THE CONGO	CONGO, DEMOCRATIC REPUBLIC OF THE	CD
DEMOCRATIC REPUBLIC OF THE CONGO	CONGO-KINSHASA	CD
DEMOCRATIC REPUBLIC OF THE CONGO	DEMOCRATIC REPUBLIC OF THE CONGO	CD
DEMOCRATIC REPUBLIC OF THE CONGO	ZAIRE	CD
CENTRAL AFRICAN REPUBLIC	CAR	CF
CENTRAL AFRICAN REPUBLIC	CENTRAL AFRICAN REPUBLIC	CF
REPUBLIC OF THE CONGO	CONGO	CG
REPUBLIC OF THE CONGO	CONGO, REPUBLIC OF THE	CG
REPUBLIC OF THE CONGO	REPUBLIC OF THE CONGO	CG
SWITZERLAND	SWITZERLAND	CH
IVORY COAST	COTE D IVOIRE	CI
IVORY COAST	COTE DIVOIRE	CI
IVORY COAST	COTE D'IVOIRE	CI
IVORY COAST	D IVOIRE	CI
IVORY COAST	IVORY COAST	CI
COOK ISLANDS	COOK ISLANDS	CK
CHILE	CHILE	CL
CAMEROON	CAMEROON	CM
CHINA, PEOPLES REPUBLIC OF	CHINA	CN
CHINA, PEOPLES REPUBLIC OF	CHINA, PEOPLES REPUBLIC OF	CN

Country Name	Country Value	Country Code
CHINA, PEOPLES REPUBLIC OF	INNER MONGOLIA	CN
CHINA, PEOPLES REPUBLIC OF	MAINLAND CHINA	CN
CHINA, PEOPLES REPUBLIC OF	MANCHURIA	CN
CHINA, PEOPLES REPUBLIC OF	PEOPLES REPUBLIC OF CHINA	CN
CHINA, PEOPLES REPUBLIC OF	SINKIANG	CN
CHINA, PEOPLES REPUBLIC OF	TIBET	CN
COLOMBIA	COLOMBIA	CO
COSTA RICA	COSTA RICA	CR
CUBA	CUBA	CU
CAPE VERDE ISLANDS	CAPE VERDE	CV
CAPE VERDE ISLANDS	CAPE VERDE ISLANDS	CV
CAPE VERDE ISLANDS	CVI	CV
CURACAO	CURACAO	CW
CHRISTMAS ISLAND	CHRISTMAS ISLAND	CX
CYPRUS	CYPRUS	CY
CZECH REPUBLIC	CZECH REPUBLIC	CZ
CZECH REPUBLIC	CZECHOSLOVAKIA	CZ
GERMANY	EAST GERMANY	DE
GERMANY	FEDERAL REPUBLIC OF GERMANY	DE
GERMANY	FRG	DE
GERMANY	GDR	DE
GERMANY	GERMAN DEMOCRATIC REPUBLIC	DE
GERMANY	GERMANY, EAST	DE
GERMANY	GERMANY, WEST	DE
GERMANY	GERMANY	DE
GERMANY	WEST GERMANY	DE
DJIBOUTI	DJIBOUTI	DJ
DJIBOUTI	FRENCH SOMALILAND	DJ
DJIBOUTI	FRENCH TERRITORY OF THE AFARS AND ISSAS	DJ
DENMARK	DENMARK	DK

Country Name	Country Value	Country Code
DOMINICA	DOMINICA	DM
DOMINICAN REPUBLIC	DOMINICAN REPUBLIC	DO
ALGERIA	ALGERIA	DZ
ECUADOR	ECUADOR	EC
ESTONIA	ESTONIA	EE
EGYPT	ARAB REPUBLIC OF EGYPT	EG
EGYPT	EGYPT	EG
EGYPT	UAR	EG
EGYPT	UNITED ARAB REPUBLIC	EG
WESTERN SAHARA	WESTERN SAHARA	EH
ERITREA	ERITREA	ER
SPAIN	ALHUCEMAS	ES
SPAIN	BALEARIC ISLANDS	ES
SPAIN	CEUTA	ES
SPAIN	CHAFARINAS ISLANDS	ES
SPAIN	ISLAS CHAFARINAS	ES
SPAIN	MELILLA	ES
SPAIN	SPAIN	ES
SPAIN	SPANISH NORTH AFRICA	ES
ETHIOPIA	ETHIOPIA	ET
FINLAND	FINLAND	FI
FIJI	FIJI	FJ
FIJI	FUTUNA	FJ
FIJI	WALLIS & FUTUNA ISLANDS	FJ
FIJI	WALLIS AND FUTUNA	FJ
FIJI	WALLIS ISLANDS	FJ
FALKLAND ISLANDS	FALKLAND ISLANDS	FK
FALKLAND ISLANDS	FALKLAND ISLANDS (ISLAS MALVINAS)	FK
FALKLAND ISLANDS	MALVINAS ISLES	FK
FALKLAND ISLANDS	ISLAS MALVINAS	FK

Country Name	Country Value	Country Code
MICRONESIA	MICRONESIA	FM
FAROE ISLANDS	FAROE ISLANDS	FO
FRANCE	CORSICA	FR
FRANCE	FRANCE	FR
GABON	GABON	GA
UNITED KINGDOM, THE	CHANNEL ISLANDS	GB
UNITED KINGDOM, THE	ENGLAND	GB
UNITED KINGDOM, THE	GREAT BRITAIN	GB
UNITED KINGDOM, THE	ISLE OF MAN	GB
UNITED KINGDOM, THE	MAN, ISLE OF	GB
UNITED KINGDOM, THE	NORTHERN IRELAND	GB
UNITED KINGDOM, THE	SCOTLAND	GB
UNITED KINGDOM, THE	THE UNITED KINGDOM	GB
UNITED KINGDOM, THE	UK	GB
UNITED KINGDOM, THE	UNITED KINGDOM	GB
UNITED KINGDOM, THE	UNITED KINGDOM, THE	GB
UNITED KINGDOM, THE	WALES	GB
GRENADA	GRENADA	GD
GEORGIA	GEORGIA	GE
FRENCH GUIANA	FRENCH GUIANA	GF
GUERNSEY	GUERNSEY	GG
GHANA	GHANA	GH
GIBRALTAR	GIBRALTAR	GI
GREENLAND	GREENLAND	GL
GAMBIA	GAMBIA	GM
GAMBIA	GAMBIA, THE	GM
GUINEA	GUINEA	GN
GUADELOUPE	FRENCH ST. MARTINS ISLAND	GP
GUADELOUPE	GUADELOUPE	GP
EQUATORIAL GUINEA	EQUATORIAL GUINEA	GQ

Country Name	Country Value	Country Code
EQUATORIAL GUINEA	GUINEA ECUATORIAL	GQ
GREECE	CRETE	GR
GREECE	DODECANESE ISLANDS	GR
GREECE	GREECE	GR
SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS	GS
GUATEMALA	GUATEMALA	GT
GUAM	GUAM	GU
GUAM	PACIFIC ISLANDS	GU
GUAM	PALAU	GU
GUAM	TRUST TERRITORY	GU
GUAM	TRUST TERRITORY OF THE PACIFIC ISLANDS	GU
GUAM	FEDERATED STATES OF MICRONESIA	GU
GUAM	FSM	GU
GUAM	MICRONESIA	GU
GUAM	MICRONESIA, FEDERATED STATES OF	GU
GUAM	UNITED STATES MISC. PACIFIC ISLANDS	GU
GUINEA-BISSAU	GUINEA-BISSAU	GW
GUINEA-BISSAU	PORTUGUESE GUINEA	GW
GUYANA	BRITISH GUIANA	GY
GUYANA	GUYANA	GY
HONG KONG	HONG KONG	HK
HEARD ISLAND AND MCDONALD ISLAND	HEARD ISLAND AND MCDONALD ISLAND	HM
HONDURAS	HONDURAS	HN
HONDURAS	SWAN ISLAND	HN
HONDURAS	SWAN ISLANDS	HN
CROATIA	CROATIA	HR
HAITI	HAITI	HT
HUNGARY	HUNGARY	HU
INDONESIA	INDONESIA	ID

Country Name	Country Value	Country Code
INDONESIA	IRIAN BARAT	ID
INDONESIA	JAVA	ID
INDONESIA	PORTUGUESE TIMOR	ID
INDONESIA	TIMOR	ID
IRELAND, REPUBLIC OF	IRELAND	IE
IRELAND, REPUBLIC OF	IRELAND, REPUBLIC OF	IE
IRELAND, REPUBLIC OF	REPUBLIC OF IRELAND	IE
ISRAEL	ISRAEL	IL
ISRAEL	ISRAEL-JORDAN DEMILITARIZED ZONE	IL
ISRAEL	ISRAEL-SYRIA DEMILITARIZED ZONE	IL
ISLE OF MAN	ISLE OF MAN	IM
INDIA	ANDAMAN ISLANDS	IN
INDIA	GOA	IN
INDIA	INDIA	IN
INDIA	JUNAGADH	IN
INDIA	NICOBAR ISLANDS	IN
INDIA	SIKKIM	IN
IRAN	IRAN	IR
BRITISH INDIAN OCEAN TERRITORY	BRITISH INDIAN OCEAN TERRITORY	IO
ICELAND	ICELAND	IS
ITALY	ITALY	IT
ITALY	SAN MARINO	IT
ITALY	VATICAN CITY	IT
ITALY	VATICAN CITY (HOLY SEE)	IT
IRAQ	IRAQ	IQ
JERSEY	JERSEY	JE
JAMAICA	JAMAICA	JM
JAMAICA	MORANT CAYS	JM
JAMAICA	PEDRO CAYS	JM

Country Name	Country Value	Country Code
JORDAN	JORDAN	JO
JORDAN	PALESTINE	JO
JAPAN	BONIN ISLANDS	JP
JAPAN	HABOMAI ISLANDS	JP
JAPAN	JAPAN	JP
JAPAN	NORTHERN RYUKYU ISLANDS	JP
JAPAN	OKINAWA	JP
JAPAN	RYUKYU ISLANDS	JP
JAPAN	SHIKOTAN	JP
JAPAN	SOUTHERN RYUKYU ISLANDS	JP
JAPAN	SOUTHERN SAKHALIN	JP
JAPAN	VOLCANO ISLANDS	JP
KENYA	KENYA	KE
KYRGYZSTAN	KYRGYZSTAN	KG
CAMBODIA	CAMBODIA	KH
CAMBODIA	KAMPUCHEA	KH
KIRIBATI, REPUBLIC OF	BANABA	KI
KIRIBATI, REPUBLIC OF	CANTON AND ENDERBURY ISLANDS	KI
KIRIBATI, REPUBLIC OF	CENTRAL AND SOUTHERN LINE ISLANDS	KI
KIRIBATI, REPUBLIC OF	FANNING ISLANDS	KI
KIRIBATI, REPUBLIC OF	GILBERT ISLANDS	KI
KIRIBATI, REPUBLIC OF	KIRIBATI	KI
KIRIBATI, REPUBLIC OF	KIRIBATI, REPUBLIC OF	KI
KIRIBATI, REPUBLIC OF	OCEAN ISLAND	KI
KIRIBATI, REPUBLIC OF	REPUBLIC OF KIRIBATI	KI
KIRIBATI, REPUBLIC OF	WASHINGTON ISLANDS	KI
COMOROS	COMOROS	KM
ST. KITTS	SAINT KITTS AND NEVIS	KN
ST. KITTS	ST. KITTS	KN
ST. KITTS	ST. KITTS AND NEVIS	KN

Country Name	Country Value	Country Code
NORTH KOREA	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	KP
NORTH KOREA	KOREA, NORTH	KP
NORTH KOREA	NORTH KOREA	KP
SOUTH KOREA	KOREA, REPUBLIC OF	KR
SOUTH KOREA	KOREA, SOUTH	KR
SOUTH KOREA	SOUTH KOREA	KR
KUWAIT	AL-KUWAYT	KW
KUWAIT	KUWAIT	KW
CAYMAN ISLANDS	CAYMAN ISLANDS	KY
KAZAKHSTAN	KAZAKHSTAN	KZ
LAOS	LAOS	LA
LEBANON	LEBANON	LB
ST. LUCIA	ST. LUCIA	LC
LIECHTENSTEIN	LIECHTENSTEIN	LI
SRI LANKA	CEYLON	LK
SRI LANKA	SRI LANKA	LK
LIBERIA	LIBERIA	LR
LESOTHO	LESOTHO	LS
LITHUANIA	LITHUANIA	LT
LUXEMBOURG	LUXEMBOURG	LU
LATVIA	LATVIA	LV
LIBYA	LIBYA	LY
MOROCCO	MOROCCO	MA
MOROCCO	SPANISH SAHARA	MA
MOROCCO	TANGIER	MA
MONACO	MONACO	MC
MOLDOVA	MOLDOVA	MD
MONTENEGRO	MONTENEGRO	ME
ST. MAARTEN	SABA	MF
ST. MAARTEN	ST. MAARTEN	MF

Country Name	Country Value	Country Code
ST. MAARTEN	ST. MARTINS ISLAND	MF
MADAGASCAR	MADAGASCAR	MG
MARSHALL ISLANDS	MARSHALL ISLANDS	MH
MACEDONIA, REPUBLIC OF	MACEDONIA	MK
MACEDONIA, REPUBLIC OF	MACEDONIA, FORMER YUGOSLAV REPUBLIC OF	MK
MACEDONIA, REPUBLIC OF	MACEDONIA, REPUBLIC OF	MK
MACEDONIA, REPUBLIC OF	MACEDONIA, THE REPUBLIC OF	MK
MACEDONIA, REPUBLIC OF	REPUBLIC OF MACEDONIA	MK
MALI	MALI	ML
MYANMAR	BURMA	MM
MYANMAR	BURMA (MYANMAR)	MM
MYANMAR	MYANMAR	MM
MONGOLIA	MONGOLIA	MN
MONGOLIA	OUTER MONGOLIA	MN
MACAU	MACAU	MO
NORTHERN MARIAN ISLANDS	NORTHERN MARIAN ISLANDS	MP
MARTINIQUE	MARTINIQUE	MQ
MAURITANIA	MAURITANIA	MR
MONTSERRAT	MONTSERRAT	MS
MALTA	GOZO	MT
MALTA	MALTA	MT
MAURITIUS	MAURITIUS	MU
MALDIVES	MALDIVES	MV
MALAWI	MALAWI	MW
MEXICO	MEXICO	MX
MALAYSIA	BORNEO	MY
MALAYSIA	MALAYA	MY
MALAYSIA	MALAYSIA	MY
MALAYSIA	NORTH BORNEA	MY
MALAYSIA	SABAH	MY

Country Name	Country Value	Country Code
MALAYSIA	SARAWAK	MY
MALAYSIA	FEDERATION OF MALAYA	MY
MOZAMBIQUE	MOZAMBIQUE	MZ
NAMIBIA	NAMIBIA	NA
NAMIBIA	SOUTH-WEST AFRICA	NA
NEW CALEDONIA	HUON ISLANDS	NC
NEW CALEDONIA	LOYALTY ISLANDS	NC
NEW CALEDONIA	NEW CALEDONIA	NC
NIGER	NIGER	NE
NORFOLK ISLAND	NORFOLK ISLAND	NF
NIGERIA	NIGERIA	NG
NICARAGUA	NICARAGUA	NI
NETHERLANDS	HOLLAND	NL
NETHERLANDS	NETHERLANDS	NL
NORWAY	NORWAY	NO
NORWAY	SVALBARD	NO
NORWAY	SVALBARD AND JAN MAYEN	NO
NEPAL	NEPAL	NP
NAURU, REPUBLIC OF	NAURU	NR
NAURU, REPUBLIC OF	NAURU, REPUBLIC OF	NR
NAURU, REPUBLIC OF	REPUBLIC OF NAURU	NR
NIUE ISLAND	NIUE	NU
NIUE ISLAND	NIUE ISLAND	NU
NEW ZEALAND	CAMPBELL ISLAND	NZ
NEW ZEALAND	KERMANDEC ISLANDS	NZ
NEW ZEALAND	NEW ZEALAND	NZ
NEW ZEALAND	UNION ISLANDS	NZ
OMAN	MUSCAT	OM
OMAN	OMAN	OM
PANAMA	CANAL ZONE	PA

Country Name	Country Value	Country Code
PANAMA	PANAMA	PA
PANAMA	PANAMA CANAL ZONE	PA
PERU	PERU	PE
FRENCH POLYNESIA/TAHITI	AUSTRAL ISLANDS	PF
FRENCH POLYNESIA/TAHITI	FRENCH POLYNESIA	PF
FRENCH POLYNESIA/TAHITI	GAMBIER ISLANDS	PF
FRENCH POLYNESIA/TAHITI	LOW ISLANDS	PF
FRENCH POLYNESIA/TAHITI	LOWIS	PF
FRENCH POLYNESIA/TAHITI	MARQUESAS ISLANDS	PF
FRENCH POLYNESIA/TAHITI	PAUMOTU ISLANDS	PF
FRENCH POLYNESIA/TAHITI	RAPA ISLANDS	PF
FRENCH POLYNESIA/TAHITI	SOCIETY ISLANDS	PF
FRENCH POLYNESIA/TAHITI	TAHITI	PF
FRENCH POLYNESIA/TAHITI	TUAMOTU ISLANDS	PF
FRENCH POLYNESIA/TAHITI	TUBUAI ISLANDS	PF
PAPUA NEW GUINEA	PAPUA NEW GUINEA	PG
PAPUA NEW GUINEA	NEW GUINEA	PG
PHILIPPINES	PHILIPPINES	PH
PAKISTAN	PAKISTAN	PK
POLAND	DANZIG	PL
POLAND	POLAND	PL
ST. PIERRE AND MIQUELON	ST. PIERRE AND MIQUELON	PM
PITCAIRN ISLAND	PITCAIRN ISLAND	PN
PUERTO RICO	PUERTO RICO	PR
PALASTINIAN TERRITORY	PALASTINIAN TERRITORY	PS
PORTUGAL	AZORES	PT
PORTUGAL	MADEIRA	PT
PORTUGAL	PORTUGAL	PT
PALAU	PALAU	PW
PARAGUAY	PARAGUAY	PY

Country Name	Country Value	Country Code
QATAR	QATAR	QA
REUNION, ISLAND OF	ISLAND OF REUNION	RE
REUNION, ISLAND OF	REUNION	RE
REUNION, ISLAND OF	REUNION ISLAND	RE
REUNION, ISLAND OF	REUNION, ISLAND OF	RE
REUNION, ISLAND OF	MAYOTTE	RE
REUNION, ISLAND OF	TERRITORIAL COLLECTIVITY OF MAYOTTE	RE
ROMANIA	ROMANIA	RO
SERBIA	SERBIA	RS
RUSSIAN FEDERATION	RUSSIA	RU
RUSSIAN FEDERATION	RUSSIAN FEDERATION	RU
RWANDA	RWANDA	RW
SAUDI ARABIA	ARABIAN PENINSULA	SA
SAUDI ARABIA	IRAQ-SAUDI ARABIA NEUTRAL ZONE	SA
SAUDI ARABIA	SAUDI ARABIA	SA
SOLOMON ISLANDS	BRITISH SOLOMON ISLANDS	SB
SOLOMON ISLANDS	SOLOMON ISLANDS	SB
SEYCHELLES	SEYCHELLES	SC
SUDAN	SUDAN	SD
SWEDEN	SWEDEN	SE
SINGAPORE	SINGAPORE	SG
ST. HELENA	ST. HELENA, ASCENSION AND TRISTAN DA CUNHA	SH
SLOVENIA	SLOVENIA	SI
SVALBARD	SVALBARD	SJ
SLOVAKIA	SLOVAKIA	SK
SIERRA LEONE	SIERRA LEONE	SL
SAN MARINO	SAN MARINO	SM
SENEGAL	SENEGAL	SN
SOMALIA	SOMALIA	SO

Country Name	Country Value	Country Code
SURINAME	NETHERLANDS GUIANA	SR
SURINAME	SURINAME	SR
SOUTH SUDAN	SOUTH SUDAN	SS
SAO TOME	PRINCIPE	ST
SAO TOME	SAO TOME	ST
SAO TOME	SAO TOME & PRINCIPE	ST
SAO TOME	SAO TOME AND PRINCIPE	ST
EL SALVADOR	EL SALVADOR	SV
ST. MAARTEN	ST. MAARTEN (DUCTH PART)	SX
SYRIA	SYRIA	SY
SYRIA	SYRIAN ARAB REPUBLIC	SY
SWAZILAND	SWAZILAND	SZ
TURKS & CAICOS ISLANDS	CAICOS ISLANDS	TC
TURKS & CAICOS ISLANDS	TURKS & CAICOS ISLANDS	TC
TURKS & CAICOS ISLANDS	TURKS AND CAICOS ISLANDS	TC
CHAD	CHAD	TD
FRENCH SOUTHERN TERRITORIES	FRENCH SOUTHERN TERRITORIES	TF
TOGO	TOGO	TG
THAILAND	THAILAND	TH
TAJIKISTAN	TAJIKISTAN	TJ
TOKELAU	TOKELAU	TK
TURKMENISTAN	TURKMENISTAN	TM
TUNISIA	TUNISIA	TN
TONGA	FRIENDLY ISLANDS	TO
TONGA	TONGA	TO
EAST TIMOR	EAST TIMOR	TL
TURKEY	TURKEY	TR
TRINIDAD AND TOBAGO	TOBAGO	TT
TRINIDAD AND TOBAGO	TRINIDAD	TT

Country Name	Country Value	Country Code
TRINIDAD AND TOBAGO	TRINIDAD AND TOBAGO	TT
TUVALU	ELLICE ISLAND	TV
TUVALU	TUVALU	TV
TAIWAN	FORMOSA	TW
TAIWAN	REPUBLIC OF CHINA	TW
TAIWAN	TAIWAN	TW
TANZANIA	TANGANYIKA	TZ
TANZANIA	TANZANIA	TZ
TANZANIA	ZANZIBAR	TZ
UKRAINE	UKRAINE	UA
UGANDA	UGANDA	UG
UNITED STATES	UNITED STATES	US
UNITED STATES	US	US
UNITED STATES	USA	US
UNITED STATES	UNITED STATES OF AMERICA	US
UNITED STATES	U.S.	US
UNITED STATES	U.S.A.	US
UNITED STATES	US OF A	US
UNITED STATES	America	US
URUGUAY	URUGUAY	UY
UZBEKISTAN	UZBEKISTAN	UZ
HOLY SEE (VATICAN CITY STATE)	HOLY SEE (VATICAN CITY STATE)	VA
ST. VINCENT-GRENADINES	GRENADINES	VC
ST. VINCENT-GRENADINES	SAINT VINCENT AND THE GRENADINES	VC
ST. VINCENT-GRENADINES	ST. VINCENT	VC
ST. VINCENT-GRENADINES	ST. VINCENT AND THE GRENADINES	VC
ST. VINCENT-GRENADINES	ST. VINCENT-GRENADINES	VC
VENEZUELA	VENEZUELA	VE
VIRGIN ISLANDS (BRITISH)	BRITISH VIRGIN ISLANDS	VG
VIRGIN ISLANDS (BRITISH)	TORTOLA	VG

Country Name	Country Value	Country Code
VIRGIN ISLANDS (BRITISH)	VIRGIN ISLANDS (BRITISH)	VG
VIRGIN ISLANDS	U.S. VIRGIN ISLANDS	VI
VIRGIN ISLANDS	US VIRGIN ISLANDS	VI
VIRGIN ISLANDS	VIRGIN ISLANDS	VI
VIETNAM	DEMOCRATIC REPUBLIC OF VIET-NAM	VN
VIETNAM	INDO-CHINA	VN
VIETNAM	NORTH VIETNAM	VN
VIETNAM	REPUBLIC OF VIET-NAM	VN
VIETNAM	SOUTH VIETNAM	VN
VIETNAM	VIETNAM	VN
VANUATU	BANKS ISLANDS	VU
VANUATU	NEW HEBRIDES	VU
VANUATU	TORRES ISLANDS	VU
VANUATU	VANUATU	VU
WALLIS AND FUTUNA	WALLIS AND FUTUNA	WF
SAMOA	SAMOA	WS
SAMOA	SAMOA (WESTERN SAMOA)	WS
SAMOA	WESTERN SAMOA	WS
YEMEN	ADEN	YE
YEMEN	NORTHERN YEMEN	YE
YEMEN	SOUTHERN YEMEN	YE
YEMEN	YEMEN	YE
YEMEN	YEMEN-ADEN	YE
YEMEN	YEMEN (SANAA)	YE
YEMEN	YEMEN (ADEN)	YE
MAYOTTE	MAYOTTE	YT
SOUTH AFRICA	SAINT HELENA	ZA
SOUTH AFRICA	SOUTH AFRICA	ZA
SOUTH AFRICA	ST. HELENA	ZA
SOUTH AFRICA	UNION OF SOUTH AFRICA	ZA

Country Name	Country Value	Country Code
ZAMBIA	NORTHERN RHODESIA	ZM
ZAMBIA	ZAMBIA	ZM
ZIMBABWE	SOUTHERN RHODESIA	ZW
ZIMBABWE	ZIMBABWE	ZW