TouchNet
PAYMENT GATEWAY

VERSION 4.6

ADMINISTRATOR'S GUIDE

TouchNet

Contents

About the Guide

The **TouchNet Payment Gateway 4.6 Administrator's Guide** describes how to process online payments with TouchNet® Payment Gateway.

TouchNet Payment Gateway allows you to easily process electronically submitted credit card, or ACH payments. With Payment Gateway, you can track authorizations and settlements through detailed, searchable reports.

Note: You may be licensed to use additional modules that extend Payment Gateway's functionality. These modules include controls for enterprise-wide interface between your applications and Payment Gateway. Each module is documented separately from this administrator's guide.

In this guide, we assume that the reader has prior knowledge of credit card processing systems, software operations, and host systems. This is not intended as a guide to host system operation or banking processes, nor does it explain how to use software operating systems or database management systems with which TouchNet Payment Gateway may work.

If you are processing ACH payments, we assume that you have previous knowledge of the operating rules of bodies governing ACH transactions. This guide does not describe procedures you might use to pass ACH files to your bank.

About Security

Security is complex and requires you to make decisions about your network and the software you run. TouchNet Payment Gateway provides a high level of internal security by encrypting your sensitive payment data. To fully protect your data, however, you must provide the security measures applicable to your own network.

In particular, TouchNet suggests you review your security practices related to the use of:

- Web servers
- Firewalls
- SSL technology
- FTP, Telnet, and e-mail as means of transferring sensitive data

To discuss security measures for the system where you run Payment Gateway, contact TouchNet Client Services at 888-621-4451 or 913-599-6699.

Please visit the TouchNet web site for the latest releases, updates, and information about this product.

To Contact Client Services

For technical assistance, continuing customer support, or other questions, contact us at:

Telephone: 888-621-4451 or 913-599-6699

Fax: 913-599-5588

E-mail: support@touchnet.com

Web site: www.touchnet.com

Address: TouchNet Information Systems, Inc.
             15520 College Boulevard
             Lenexa, Kansas 66219

TouchNet Client Services representatives are available Monday through Friday between 7:00 a.m. and 5:00 p.m. Central Time. Extended support hours are available by agreement with TouchNet.

1.0 TouchNet Payment Gateway Concepts

TouchNet Payment Gateway processes payments from your customers, sending payment data to your credit card processor or, for ACH payments, to an ACH-standard file.

Payment Gateway stores payment transaction information in a database and in encrypted data files. In the Payment Gateway Operations Center, you can review payment data in searchable reports.

Payment Gateway can process payments for multiple merchant accounts that use a single credit card processor. In the Payment Gateway Operations Center, you can set up the merchant accounts allowed by your license, change system configuration, and perform further processing on payment transactions.

If you accept online payments through TouchNet commerce solutions like TouchNet eBill, Cashiering, or webCheck, then in the Operations Center you also configure the commerce options that let you route the data and funds from those payments.

1.1 Payment Gateway and Credit Card Processors

A credit card processor provides services to the bank where your merchant account is located. The credit card processor authorizes and settles credit card payments. It also coordinates the resulting transfers of funds between the card-issuing bank and your bank.
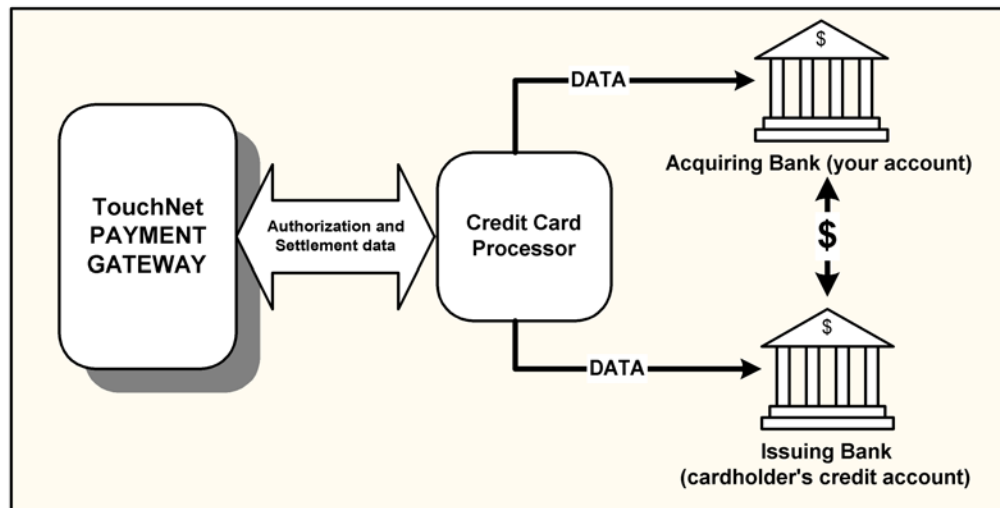
Data and Funds Transfer for a Credit Card Payment

TouchNet Payment Gateway is certified for use with the following credit card processors, on the Microsoft Windows NT®, Microsoft Windows® 2000, Microsoft Windows 2003, Sun Solaris™ for SPARC, and IBM® AIX platforms. In this list, we have noted the credit card processors that support IP connectivity with Payment Gateway.

- Concord *(Supports IP connectivity.)*
- First Data Merchant Services (FDC)
- FDC South *(Supports both IP connectivity.)*
- First Horizon
- Global Payment Systems - East (GPS East)
- Global Payment Systems - Central (GPS Central)
- Moneris *(Supports IP connectivity.)*
- NCR Canada
- Nova *(Supports both IP and modem connectivity. IP connectivity is for Microsoft Windows NT, Windows 2000, or Windows 2003 users only.)*
- Paymentech
- Vital *(Supports both IP and modem connectivity.)*

Note: TouchNet Payment Gateway support for IP connectivity does not include direct connectivity using leased lines or ISDN.

Note: AIX users or those considering AIX, contact TouchNet about availability.

1.2   Credit Card Payment Processes

When a person submits a credit card payment through your online payment application, it is authorized, then settled, by your bank's credit card processor. Payment Gateway sends all required data to the credit card processor for both the authorization and settlement.

Authorizations

In an authorization, the credit card processor approves the payment transaction on behalf of the bank that issued the credit card account.

When a payment is submitted, your online payment application sends the authorization request to Payment Gateway. Payment Gateway verifies that the request includes all needed data, then sends the authorization request to the credit card processor over a modem or IP connection.

When the credit card processor responds with an authorization, rejection, or error, Payment Gateway logs the response to the Payment Gateway database

and sends the response back to the server where your online payment application is running. Successful authorizations are added to a batch for later settlement. For applications that support real-time settlement, the authorization can be settled immediately.

About Payment Gateway's Piggy-Backing Feature

Payment Gateway provides multiple-authorization processing for all credit card processors that allow it. Authorization requests that are received while Payment Gateway is connecting to the credit card processor are processed during that connection. This process is called "piggy-backing." When used, it decreases the number of connections you must make to the credit card processor and increases the amount of data that can be sent with one connection.

Settlements

In a settlement, previously authorized transactions are submitted to the credit card processor for final payment processing. Each successful transaction settlement results in a funds transfer between the bank that issued the credit card and your acquiring bank.

For each successfully settled transaction, the credit card processor sends a charge to the appropriate card-issuing bank. The issuing bank then sends the amount of the charge to your acquiring bank, minus any applicable fee. Your bank deposits the funds, minus any applicable discount rate, in the correct merchant account.

Settlement attempts can be made in one of three ways: Payment Gateway can run an automatic, daily batch settlement that you have scheduled; you can send a command to settle the current, pending batch at any time; or, for applications that support real-time settlement, the authorization can be settled immediately.

Note: Settlement for host-based processors, such as Concord and Moneris, works differently. Transactions are authorized and settled by the processor without the use of batch files.

1.3   ACH Transaction Processing

TouchNet Payment Gateway includes features and functions to process ACH transactions. If you are licensed to process ACH transactions, then you can accept online payments from personal checking or savings accounts and use Payment Gateway to process the ACH transactions.

If you are not licensed for ACH processing but you wish to use it, contact TouchNet. You will need a new license and an additional license key.

Note: All users see some ACH processing features in the Operations Center, regardless of license.
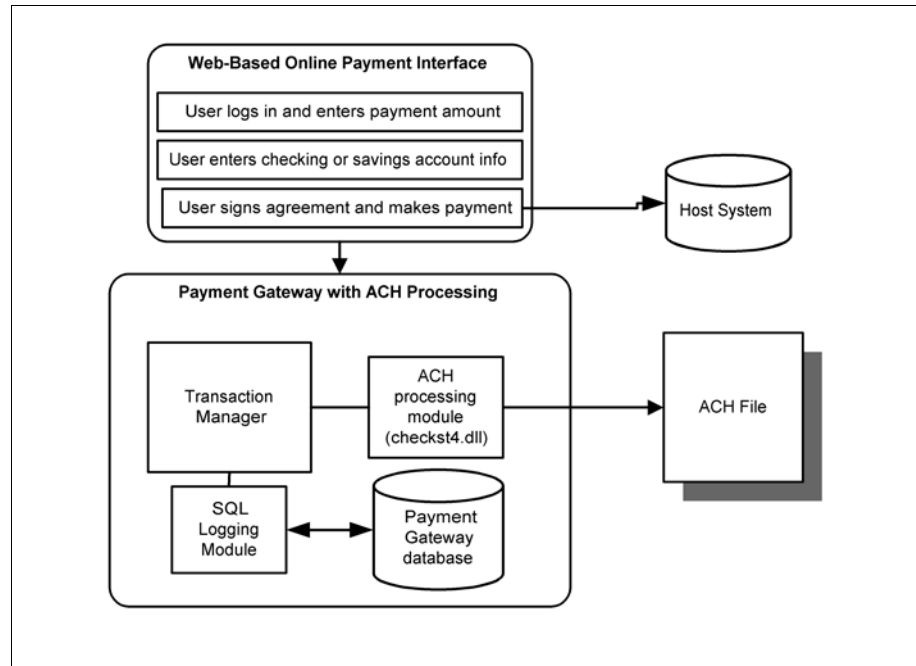
Payment Gateway with ACH Transaction Processing

1.4   Host System Account Balance Update

When configured to work with a TouchNet host integration module (such as Banner Connect or PeopleSoft Connect), Payment Gateway can send account balance information to your host system.

Payments submitted through a TouchNet solution, such as TouchNet eBill or webCheck, are accompanied by information that will allow Payment Gateway to update the payer's account balance on the host system.

When Payment Gateway updates a host system account, the payment amount, account identification, and payer identification data are sent to the host using the TouchNet host integration module appropriate for your host system type.

1.5   Payment Gateway and Data Security

Payment Gateway encrypts all payment data stored in data or debug files. Data associated with ACH payments that is sensitive is encrypted in the Payment Gateway database; unencrypted sensitive data is not stored in the database.

SSL security is supported between your application server and the Payment Gateway computer; we assume that you have implemented SSL with tools of your choice. The encryption between Payment Gateway and your credit card processor is specified by the credit card processor.

For those processing ACH transactions, all bank routing numbers, checking or savings account numbers, and payment agreements are encrypted in the Payment Gateway databases.

1.6   Payment Gateway System Design
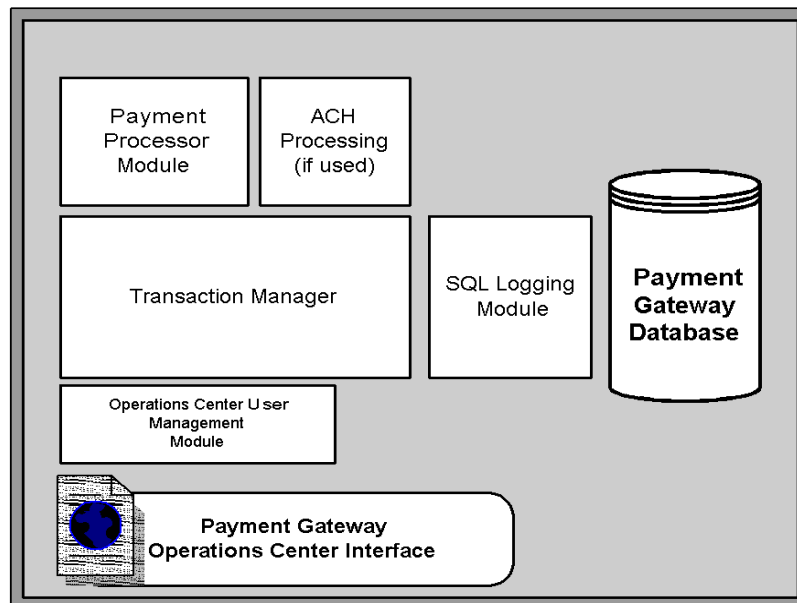
System Components of TouchNet Payment Gateway

The Payment Gateway Operations Center

The Payment Gateway Operations Center interface allows users to perform tasks depending on their assigned roles and assigned merchant accounts. At login, every Operations Center user sees only the merchant accounts, tasks, and reports for his or her access rights.

In the Operations Center, a user's role may include rights to view reports, configure Payment Gateway, set up Operations Center users, set up merchant and host accounts, process credits, or complete single credit card authorizations.

Note: The Payment Gateway Operations Center requires Microsoft Internet Explorer version 5.5 or later or Netscape Navigator® version 6.0 or later. Some variation in the display occurs for different browsers.

The Payment Gateway Database

The Payment Gateway database stores all information related to payment transactions and responses to authorization and settlement attempts. The Operations Center reports display stored data from authorizations, pending transactions, batch settlements, and transactions within successful batches.

For security, full credit card numbers are not stored in the Payment Gateway database. Only the card type and the last four, unencrypted digits of the card number are visible in reports generated from the database.

Note: In the Payment Gateway Operations Center, you can also look up transactions using the full card number. The full card number is not stored unencrypted in the database, but is stored in encrypted data files.

About Transaction Manager

Within Payment Gateway, the Transaction Manager routes transactions and provides transaction validation, error handling, and transaction logging. It also encrypts and decrypts transaction requests and responses. Transaction Manager routes data to and from other Payment Gateway components that perform specific functions, such as communicating with a particular credit card processor.

Note: A "transaction" is any transfer of data that consists of a request from a client and a response from a host. In this guide, the term "payment transaction" means an online payment processed through Payment Gateway.

The Payment Processor Module

The payment processor module contains the business logic to communicate with your credit card processor. For instance, if your credit card processor is First Data Merchant Services (FDC), your payment processor module is designed to process authorizations and settlements exactly as FDC requires.

Note: As credit card processor requirements change, TouchNet releases each update to the payment processor module as a DLL file for Windows operating system users or shared library for Solaris users. To keep your system current with these requirements, install updates as they become available from TouchNet.

SQL Logging and Operations Center Modules

The SQL logging module (tpgutil) contains the business logic to log your payment transaction data to the Payment Gateway database. The Operations Center User Management module contains the logic needed to allow user access to the appropriate roles and accounts at login.

About the webCheck Application

The webCheck online payment application is one of several TouchNet commerce solutions that allow a user to submit electronic ACH payments. When webCheck version 2.2 is used with Payment Gateway 4.6, users can submit payments from either a checking or savings account. The webCheck application is available from TouchNet separately from Payment Gateway.

In any of the commerce solutions that accept ACH payments, a user enters amount and bank account information, then signs an electronic ACH agreement. Payment Gateway saves this agreement for your records.

1.7   Payment Gateway Installation Review

You should now have installed Payment Gateway 4.6, migrated data from a previous version if needed, and tested your system.

Installation Notes

Services for Microsoft Windows NT, Windows 2000, or Windows 2003 users, or shell scripts for Solaris users, as well as all required dependencies, were set up during installation.

On a Windows-based system, these services run when you start Payment Gateway.

- TN_TMGR[port]. Service name includes the Payment Gateway port number. Runs Payment Gateway's Transaction Manager component.
- TN_PG46_SQLLOG. Runs the module that connects to the database that holds payment information.
- TN_PG46_TPGUTIL. Runs the module that connects to the database that holds Operations Center user information.

Note: Payment Gateway was installed to use a different port from any previous version of Payment Gateway you may have been running. For Windows users, the service name for Transaction Manager is "TN_TMGR" plus the port number where Payment Gateway is installed.

About the License Keys

To set up credit card merchant accounts, you must have a license key for credit card processing. To set up ACH merchant accounts, you must have a license key that allows ACH processing. You can use only the number of merchant accounts allowed by each license key.

You must contact TouchNet for a new license key in any of the following cases:

- If you increase the number of merchant accounts for which you are licensed.
- If you change the IP address of the computer where Payment Gateway is installed.
- If you change the credit card processor used with Payment Gateway. (In this case, you must also reinstall and reconfigure Payment Gateway.)
- If you want to process ACH payments and you are not yet licensed to do so.

Please have this information ready when you call for a license key:

- The name of your credit card processor.
- The number of merchant accounts you are licensed to use.
- The IP address for the server where Payment Gateway is installed.

About Your Credit Card Processor Choice

If you change your credit card processor, you must reinstall and reconfigure Payment Gateway, and you must obtain a new license key. Contact TouchNet Client Services for assistance.

Important! Improper uninstallation or reinstallation could severely impair your Payment Gateway performance or your stored payment data. Do not attempt to make this change without the help of Client Services. If you believe you need to reinstall for reasons other than a credit card processor change, contact Client Services. Most problems can be resolved without reinstalling Payment Gateway.

Critical Information About the Database

Your Payment Gateway database actually comprises three databases. The databases and the usernames for each are shown in the table below.

• Do not move or delete these users. If these users are moved or deleted, you will not be able to use your payment data. If these users are accidentally moved or deleted, contact TouchNet Customer Support for help repairing your database.

• Your database passwords are encrypted. For instructions on changing your database passwords, see "Changing Database Passwords" on page 71.

Databases and Usernames

Database	Username for Oracle or SQL Server	Username for MySQL
payment_gateway_46	payment_gateway_46	pg_46
tpg_log_46	tpg_log_46	tpg_log_46
tpg_checks_46	tpg_checks_46	tpg_checks_46

1.8   Starting and Stopping Payment Gateway

This section describes startup and shutdown procedures for users with a Microsoft Windows operating system or UNIX-based operating environment.

Starting and Stopping (for Windows Users)

Start your web server before you start Payment Gateway.

To start Payment Gateway, navigate from the Start menu to Programs > TouchNet Payment Gateway 4.6 > Start TPG.

To stop Payment Gateway, navigate from the Start menu to Programs > TouchNet Payment Gateway 4.6 > Stop TPG.

Note: Services for Windows NT, Windows 2000, or Windows 2003 users, or shell scripts for Solaris or AIX users, as well as all required dependencies, were set up during Payment Gateway installation. Further service configuration for startup is not required.

Starting and Stopping Payment Gateway (Solaris)

Start your web server before you start Payment Gateway. To start all Payment Gateway processes as background processes, run this command.

```
/usr/local/touchnet/payment46/bin/start-tpg.sh
```

To stop Payment Gateway, run the command:

```
stop-tpg.sh
```

To start the Payment Gateway Operations Center, open a web browser and navigate to https://[your server name]/tpgadmin46/web/login.jsp.

Note: This URL may differ depending on your use of SSL and your choices in web application setup.

1.9   Setting up Boot Time Startup

To set up processes so they start up automatically at boot time, copy the *S99tpg46.sh* file from your */usr/local/touchnet/payment46/bin* directory to the */ect/rc2.d* directory.

1.10 Starting Individual Processes

To run Payment Gateway processes individually in the foreground, run the following commands:

```
tmgr.sh

sqllog.sh

tpgutil.sh
```

To stop a process that is running in the foreground, press CTRL+c for the active window where the process is running.

Opening the Payment Gateway Operations Center

To start the Payment Gateway Operations Center, open a web browser and navigate to https://[your server name]/tpgadmin46/web/login.jsp.

Note: This URL may differ depending on your use of SSL and your choices in web application setup.

2.0 Processing Credit Card Payments

To manage the payments you accept, you will settle batches, process credits, and sometimes process single payments for authorization. You will also review reports to see totals or details of payments made.

You may need to perform these tasks for more than one merchant account, so first, we will review how to set up and maintain merchant accounts.

Note: For step-by-step details on any of these tasks, refer to the Payment Gateway Operations Center online help.

Note for Concord and Moneris Users

Concord and Moneris process credit card transactions differently from other credit card processors that work with Payment Gateway. Therefore, many Operations Center tasks and features do not apply to Concord and Moneris the same way as other processors.

In addition to notes throughout this chapter, Concord and Moneris users should review "About Concord and Payment Gateway" or "About Moneris and Payment Gateway" in the Operations Center online reference.

Note: Moneris users should use the Payment Gateway Operations Center interface to process credits or voids or enter single transactions as described in this chapter. Do not use the Moneris interface; if you use the Moneris interface for these operations, the related data will not appear in Payment Gateway reports.

2.1   Managing Merchant Accounts

All of your merchant accounts that use the same credit card processor can accept payments through Payment Gateway. You can settle batches, process credits or single authorizations, and view reports for each separate merchant account. Click the Merchant Activity link in the Operations Center home page to use these functions.

Updating Credit Card Merchant Account Data

Your credit card processor expects to receive certain merchant account information with authorizations and settlements. If the merchant information does not match the data expected by the credit card processor, payment transactions may fail.

Your bank gives you your merchant account information. Always update this information promptly whenever your bank informs you of changes.

Note: Your bank does not provide the entries for short description, long description, and subdirectory in Merchant Configuration. You choose these entries, which are used by Payment Gateway and the Operations Center.

> **Operations Center Task Basics: Updating Merchant Account Configuration Information**
>
> Requires administrator's rights.
>
> 1 Click Configuration, then click the Credit Card Configuration link.
>
> 2 In General, Modem, and Merchant Configuration, change and save settings as needed.
>
> Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

Important! Never change the name of a subdirectory for an existing merchant account. If you change the subdirectory name, your payment data will be stored in multiple locations and you will not be able to see it all in one report. The subdirectory name should not be a full path, but only a directory name.

Never use the same subdirectory name for more than one merchant.

To update information, you may need to change fields in General Configuration, Merchant Configuration, and Modem Configuration as shown in the following table.

Merchant Account Information Fields

Operations Center Configuration Page	Merchant Account Data to Update
General Configuration	If you are using multiple merchants, Enable multiple merchant must be set to yes. To use IP connectivity (when available), Connect via IP must be set to yes.
Merchant Configuration	The entries you must update vary among credit card processors. For details, see the Merchant Information topic for your credit card processor in the Operations Center online help. Here, you can also choose which credit cards the merchant accepts and set the automated batch settlement time. (Concord users should leave Batch Time set to OFF.)
Modem Configuration	Phone number; if you are using modem connectivity, this number is used to dial the credit card processor. With the number, include any prefixes and suffixes required for dialing. Some credit card processors require separate numbers for authorization and settlement; in those cases, two phone number fields are provided.

Adding A New Credit Card Merchant Account

You configured one or more merchant accounts during your initial Payment Gateway setup.

When you add a new merchant, its fields will be automatically filled in using the values from the default merchant. You must change any values that are different for the new merchant.

- **Short and long descriptions.** These are seen in the Operations Center and are not used by your bank.
- **Subdirectory.** Do not enter a full path in the subdirectory field. Enter only the name of the subdirectory. Do not use a subdirectory name that you have already used for another merchant.

Operations Center Task Basics: Adding a Merchant Account

Requires administrator's rights.

1 Click Configuration, then click the Credit Card Configuration link.

2 In General Configuration, set the Enable multiple merchant option to yes.

3 In Merchant Configuration, click the Add New Merchant link, then enter your account's information.

Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

Note: TouchNet suggests you use the same entry for the merchant's short description and subdirectory. The short description is your name for the merchant account. You can more easily locate the account's files, when needed, if the subdirectory has the same name.

- **Batch time.** (Concord users, enter OFF in this field.) All other users, enter the time that the daily automated batch settlement will run. To turn off automated settlement, enter OFF. See an example of batch time entries on page 22.

- **Merchant Cards.** Select the credit cards the merchant can accept.

Important! You can use only the number of merchant accounts allowed by your license. If you believe you may exceed the number of merchants, for instance, if you use multiple subtranscodes per merchant account, contact TouchNet Client Services for assistance.

Removing a Credit Card Merchant Account

After you remove a merchant account, you cannot view reports, process credits, or settle batches for the account.

Removing the account permanently removes access to its information.

Before removing an account, be sure you no longer need to work with any transactions from the account.

Note: You cannot delete the default merchant account.

Important! Never delete text from your primary merchant account to leave its merchant fields blank. Its fields must contain values. Leaving the primary merchant account fields blank will result in an inability to view or use merchant data in the Operations Center.

> **Operations Center Task Basics: Removing a Merchant Account**
>
> Requires administrator's rights.
>
> 1 Click Configuration, then click the Credit Card Configuration link.
>
> 2 Click Merchant Configuration, then select the account.
>
> 3 Click the Delete Merchant button.
>
> Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

Granting Users Access to Merchant Accounts

After you add a merchant account, designate the Operations Center users who will work with that account. Operations Center users see only the merchant accounts they have been assigned. Under each merchant account name, users see the tasks that their roles allow.

For instance, a bursar for "Account One" will see the tasks to settle batches and process credits and single authorizations for the account. A cashier for "Account Two" will not see Account One at all, but will see Account Two's tasks for processing credits and single authorizations.

Note: For more details on adding users and changing roles, see "Managing Operations Center Users" on page 73.

Operations Center Task Basics: Giving Users Access to Merchant Accounts

Requires administrator's rights.

1 Click Operation Center Users.

2 Click the user's Edit User link, then change roles and merchant account assignments as needed.

For detailed steps, see the Operations Center online reference.

2.2 Settling the Pending Batch

Successfully authorized credit card payments are added to a batch of payment transactions to be settled together. You can schedule the daily time for Payment Gateway to automatically submit the batch for settlement.

You can turn automatic batch scheduling off for any merchant account. Or, for any merchant account, you can settle the current batch of pending transactions whenever you choose.

Note: Concord users must leave automatic batch scheduling set to OFF. Concord does not use a pending batch.

Operations Center Task Basics: Settling the Pending Batch

Requires bursar's rights.

1 Click Merchant's Activity, then click the merchant's Settle Batch link.

2 Review transactions in the batch, then click the Settle Batch button.

For detailed steps, see the Operations Center online reference.

Note: The Pending Transactions report shows the same information as the Settle Batch page. In the Pending Transaction report, however, bursars can remove transactions or settle the batch.

Remove	Date▲	Time▲	Type▲	Card▲	Card #▲	Exp. Date▲	Amount▲	Reference #▲	Approval▲	Ancillary Data▲
☐	02/11/2004	10:26:33	PUR	VISA	xxxxxxxxx6780	02/05	46.35	20040211000002	TESTVI	
	02/11/2004	10:26:48	VOID	VISA	xxxxxxxxx6780	02/05	0.00	20040211000003	TESTVI	
☐	02/11/2004	10:27:03	PUR	VISA	xxxxxxxxx6780	02/05	322.00	20040211000004	TESTVI	
	02/11/2004	10:27:18	VOID	VISA	xxxxxxxxx6780	02/05	0.00	20040211000005	TESTVI	

Pending Transactions for Merchant A

Remove Rows: 4 368.35 Settle Batch

Settle Batch page, showing two payments pending and two payments removed

Note: If transactions have been voided, which removes them from the pending batch, their amounts in the pending batch will appear in red as **0.00**.

Note: Concord users do not settle a pending batch. Transactions are sent directly to the credit card processor for settlement. Moneris users do not settle a pending batch; instead, when a Moneris user clicks Settle Batch, Payment Gateway issues the command to Moneris to close the batch that has been built at Moneris.

Removing Transactions from the Pending Batch

After you remove a transaction from the pending batch, you can no longer perform credits or other actions on that transaction. The transaction removal is processed as a void.

Note: Concord users cannot remove transactions as described here.

Note: TouchNet recommends using a credit to process voids in most cases. Using a credit allows you to make further changes to the charge up until the time of settlement. For steps, see "Voiding a Payment Before Settlement" on page 28.

You will still see the voided transaction in the pending batch, with an amount of 0.00. The pending batch shows the voids so that you can always see all batch activity.

After you remove the transaction, you can either settle the batch or exit the page without settling the batch.

Operations Center Task Basics: Removing Pending Transactions

Requires bursar's rights.

1 Click Merchant's Activity, then click the merchant account's Settle Batch link.

2 Mark the transaction's checkbox, then click the Remove button.

For detailed steps, see the Operations Center online reference.

Note: Most credit card processors will not unencumber the payer's credit card when processing a void. The amount will be restored to the card after a time period specified by the credit card processor.

You can see removed transactions in these reports:

- **Pending Transactions Report** and **Settle Batch page—**Removed transactions will appear in these reports with **0.00** amounts, displayed in red.

- **Activity report**—The original transaction appears in the Activity report with the designation **PUR**, or purchase. Another record appears showing the same transaction as a **VOID**. The two records include the same reference number, so you can see that both the purchase and the void belong to the same payment transaction.

Automating Batch Settlements

When you use automatic, daily batch scheduling, Payment Gateway begins to check for an available connection at the time you schedule. The batch is processed as soon as possible after the scheduled time.

Important! Concord users must not use this feature. Concord users, leave your setting to OFF.

Important! Moneris users, do not use the Moneris interface to schedule batch settlement. Use this feature in Payment Gateway instead. Disable batch scheduling through Moneris.

You can schedule the batch settlement time for each of your merchant accounts, or you can turn off automatic batch scheduling for any merchant account.

Although your scheduled batch runs automatically, you can settle a pending batch at any time by logging into the Operations Center with bursar's rights and selecting the Settle Batch link.

If you have more than one merchant account, you can schedule a different batch time for each. If batches are scheduled to run at the same time, Payment Gateway will settle them in the order it finds them. For you to know the

---

**Operations Center Task Basics:
Scheduling Batch Settlements**

Requires administrator's rights.

1 Click Configuration, then click the Credit Card Configuration link.

2 Click Merchant Configuration, then select the merchant account.

3 In the Batch Time field, schedule the batch time.

Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

order in which batches will run, you must schedule a different time for each merchant account.

When you schedule batch settlement, use the format 00:00:00, which shows hours, minutes, and seconds. Other options are:

- To turn off automatic batch scheduling, enter **OFF**. (Concord users, enter OFF.) If you leave the time field empty, Payment Gateway will begin automatic batch settlement processes at midnight.

Batch Schedule Time Examples

Time to Run Batch	Batch Time Format
2:30 a.m.	02:30:00
1 p.m.	13:00:00
12:15 a.m.	00:15:00
No automatic batch scheduled	OFF

2.3 Processing Credits

When you process a credit in the Operations Center, you enter the correct amount to charge the card. You can enter a credit amount either before or after the payment transaction is settled. When you enter a credit, you can modify the adjusted amount up until the time the credit is settled.

Payment Gateway limits the amount you can credit so that it is never greater than the original purchase amount. Once you have settled a credit, Payment Gateway limits further credits to the amount currently settled. (For instance, if a $10 credit is issued on a $100 transaction, future credits are limited to a total amount of $90.)

Reviewing Amounts in the Process Credit Page

The Process Credit page displays several amounts so that you can quickly see the payment's current status.

- **Settled Balance.** Shows the last settled balance for the transaction. This balance will be $0.00 in these cases: if the transaction has not yet been settled, if a void has been settled for it, or if a credit for the full amount has been settled. If a void has been settled, that record will appear in the Batch Settlement History below the Process Credit pane.

- **Pending Activity.** Shows the amount waiting to be settled for the transaction. The next batch to settle will include this amount. Pending Activity of $0.00 occurs in two cases: either the transaction has no pending activity, or a void has been entered and settled.

  If a void has been entered, that record will appear in the Activity pane with an amount of 0.00, below the Process Credit pane.

  If a void has been entered but not yet settled, Pending Activity will show the amount to be credited.

- **Adjusted Balance.** Shows the amount currently charged to the card, including any credits, partial reversals, or voids that have not yet been settled.

- **Adjusted Amount.** In this field, enter a new amount to charge the card. For example, if the adjusted balance is $5.00 and you want to charge only $4.00, enter 4.00 in this field. To credit the full amount, enter 0.

The example at right shows a transaction for $10.00 that has not yet been settled.

A new adjusted amount of $4.00 has been entered. When the credit is processed, the pending activity and adjusted balance will change to $4.00. When the batch is settled, the settled balance will also be $4.00.

Process Credit	
Transaction Date/Time:	02/11/2004 10:30:21
Card Type:	VISA
Credit Card Number:	xxxxxxxxx6780
Authorization Reference Number:	20040211000006
Ancillary Data:	Credit example
Settled Balance:	$ 0.00
Pending Activity:	$ 10.00
Adjusted Balance:	$ 10.00
Adjusted Amount(in dollars):	$ 4 (e.g. 25.95)

Note: The above dollar amounts are not affected by failed activity.

Process Credit

Viewing Previous Credit Activity

In the Process Credit page, the Activity pane shows previous credits, partial reversals, and voids entered against the transaction. If the Display failed activity option on the page is set to yes, the Activity pane shows all attempts at changing the transaction amount, including those that failed and do not affect the charged amount. If the option is set to no, the Activity pane shows only the changes that have actually affected the charged amount.

In this example, the Activity pane shows the original purchase for $10.00, and that an adjusted amount has been successfully entered for $4.00. Because there is no settlement history, you can see that neither the original purchase nor the credit has been settled.

Activity						
Date	Time	Type	Amount	Approval	Ancillary Data	TPG RC
02/11/2004	10:32:36	REV	4.00	TESTVI	Credit example	Success (0)
02/11/2004	10:30:21	PUR	10.00	TESTVI	Credit example	Success (0)

Display failed activity: ○ No ● Yes

No settlement history for this transaction.

Process Credit example: Activity pane

The Batch Settlement History pane shows the settlement of each activity associated with the original transaction. The settlement of the original purchase and any settled credits, reversals, or voids are shown. The table also shows the last settled balance.

In this example, the Batch Settlement History shows that the transaction has been settled for a $4 amount.

Activity						
Date	Time	Type	Amount	Approval	Ancillary Data	TPG RC
02/11/2004	10:32:36	REV	4.00	TESTVI	Credit example	Success (0)
02/11/2004	10:30:21	PUR	10.00	TESTVI	Credit example	Success (0)

Display failed activity: ○ No ◉ Yes

Settlement History						
Date	Time	Type	Amount	Batch #	Ancillary Data	TPG RC
02/11/2004	10:36:03	PUR	4.00	GBOK 58002111136	Credit example	Success (0)
	Settled Balance:		4.00			

Process Credit example: Activity and Batch Settlement panes

Notes on Credits

- **Credits, partial reversals, and voids**—Refunded amounts are submitted to your credit card processor as credits, partial reversals, or voids, depending on the amount of the credit and whether it has been settled. When you process a credit, Payment Gateway automatically processes the correct type of refund for the payment and for your credit card processor.

- **Credits disallowed before settling**—Some credit card processors will not allow you to change the authorized amount before settling. In those cases, you must settle first, then process a credit against the settled amount.

- **Amounts remaining encumbered**—Most credit card processors will not unencumber the payer's credit card when processing a void (a credit for the entire amount before the authorization has been settled). The amount will be restored to the card after a time period specified by the credit card processor.

- **Concord users—**The Concord payment processor does not allow partial reversals or credits to be voided.

- **Moneris users—**Moneris provides an interface for transaction processing, but Payment Gateway will not recognize transactions completed through the Moneris interface, and those transactions will not appear on Payment Gateway reports. TouchNet recommends you use only Payment Gateway for processing transactions.

- **Moneris users**—once you enter a credit, you cannot continue to change the resulting amount charged. However, you can void a credit.

Entering a Credit

Important! Credits may already have been processed for the payment. Before processing a credit, always review its activity and settlement history, which appear below the Process Credit form. The activity pane shows the original payment amount and any credits that have already been processed; the settlement history shows amounts that have been settled for the transaction.

When you enter a credit, do not enter the dollar sign. Enter only the amount to charge, in dollars and cents.

For example, to change a $100 charge to a $25.50 charge, you would enter **25.50** in the Adjusted Amount field. This would result in a $74.50 credit to the cardholder's card.

Use the Ancillary Data field for information about the credit. For instance, you might enter the name of the person performing the credit or the reason for the credit.

When you see this ancillary data in reports, you can quickly differentiate the original purchase from the credit and review a record of your work with the transaction.

Note: When you select a transaction to credit, it does not matter whether you select the original purchase record or a record showing other activity.

Operations Center Task Basics: Entering a Credit

Requires bursar's or cashier's rights.

1 Click Merchant's Activity, then click the merchant's Manage Credit Payments link.

2 Set search criteria. Click the Search button.

3 Click the transaction's Process Credit button.

4 For the Adjusted Amount, enter the new amount to charge, then click the Process Credit button.

For detailed steps, see the Operations Center online reference.

Process Credit Example

In this example, a purchase was made for $160.00, and a credit is made for a new charge amount of $100.00.

In the form, the user has entered the new amount of 100 dollars. When the credit is processed, the adjusted balance and pending activity will change from $160.00 to $100.00.

Here, the user is beginning to process a second credit against the same purchase. The Settlement History pane shows that the transaction has been settled at its new amount of $100.

Note: Moneris users cannot process a second credit against the purchase as shown here. Moneris users would need to settle the batch, then process a credit.

Voiding a Payment Before Settlement

To void a payment before it has been settled, process a zero-amount for the payment. To do this, enter **0** in the Adjusted Amount field when you process the credit. In your reports, you will see the same results that you see when you remove a transaction from the pending batch. The payment will be voided and the full payment amount returned to the cardholder's account.

Note: Concord users cannot void payments as described here. Concord users cannot perform a void on a credit.

Note: If a payment has been voided but not settled, its Pending Activity and Adjusted Balance will both be $0.00. Until the zero amount has been settled, you can keep changing the adjusted amount, increasing it if needed up to the amount of the original purchase. After the zero amount is settled, the payment is voided and you cannot change the charged amount.

Note: Most credit card processors will not unencumber the payer's credit card when processing a void (a credit for the entire amount before the authorization has been settled). The amount will be restored to the card after a time period specified by the credit card processor.

Viewing Credits in Reports

To see credits before settlement, use these reports:

- **Activity report**—One record shows the originally charged amount. For reversals, another record shows the new amount charged with a transaction type of **REV**, or partial reversal. The same reference number and approval code appear in both records. For credits, the record shows type **CR**, and for voids, shows type **VOID**.

- **Pending Transactions report**—Only the currently charged amount is shown.

To see credits after settlement, use these reports:

- **Activity report**—One record shows the originally charged amount. Another record shows the new amount charged with a transaction type of **CR**, or credit. The same reference number and approval code appear in both records.

- **Batch Settlement report**—The batch total is reduced by the amount returned to the cardholder's account.

  Note: Concord users, use the Batch Details report, not the Batch Settlement report.

- **Batch Details report**—For credits, the payment record shows a transaction type of **CR**, or credit. The amount returned to the cardholder's account is shown as a negative dollar amount.

  For reversals, the payment record shows a transaction type of **PUR**, or settled purchase, with the amount charged at the time of settlement. The amount

shown is not the amount removed from the purchase; it is the new amount charged to the card.

For voids, the payment record shows type **VOID**.

Note: The reports also show any ancillary data you entered with each credit.

2.4   Processing a Single Authorization

Important! Single authorization amounts are not transmitted to your host system records. If you charge a single authorization amount to a cardholder's account, you must update that payer's account in your host system.

When you process a single authorization, you enter all the credit card information that a cardholder would have entered through your online payment application.

If you use single authorizations to test payment transactions, you must use a valid card number. You may use a test card number provided by your bank.

Note: For test transactions, TouchNet suggests that you always include "test" or a similar indicator in the ancillary data. This will help you locate test transactions in your reports.

When you enter a single authorization, do not include spaces in the credit card number. Spaces between digits will cause an error. Use the ancillary data field to record information about the cardholder or payment.

Operations Center Task Basics: Processing Single Authorization

Requires bursar's or cashier's rights.

1 Click Merchant's Activity, then click the merchant's Single Authorization link.

2 Enter payment and credit card information, then click the Submit button.

3 Click Settle With Next Batch to add the payment to the pending batch.

For detailed steps, see the Operations Center online reference.

The example here shows a single authorization for $100.

Single Authorization Example

Settling Single Authorizations

After you submit a single authorization, the Operations Center prompts you to settle the authorization. Click the Settle With Next Batch button to add the payment to the current batch. It will appear in the Pending Transactions report.

Note: If "settle now" functionality is enabled, you will also see a Settle Now link. If you click this link, the payment will settle alone; the entire pending batch will not settle with the payment. "Settle now" functionality can be disabled, and for certain processors must always remain disabled. For more details, see "Disabling the "Settle Now" Feature" on page 79.

Note: If an Operations Center user exits without choosing a settlement option, the approved authorization will not be added to the pending batch. To return to the authorization and select its settlement method, follow the steps in "Checking the Settlement Status of an Authorization" on page 32.

Capturing an Authorized Transaction

Infrequently, an authorized transaction may fail to be added to the pending batch. This is typically due to connectivity issues when they occur between the times of authorization and capture.

When this happens, you can add the transaction to the pending batch by using the S link in the Process Credit report.

When you click the S link for a transaction, the display shows the authorization's reference number, currently charged amount, and the last four digits of the credit card number.

It also displays the settlement status with one of these four status messages:

- **Authorization has already been settled.** The authorization was successful. You can process credits for the transaction if it was in a successful batch and it has not been voided.

- **Authorization is already in the pending batch.** You can process a credit for the transaction or remove it from the pending batch.

- **Authorization is already in the pending batch as a void.** The transaction has a current charge amount of zero. You can change this amount if needed, because it has not been settled. See "Voiding a Payment Before Settlement" on page 28 for details.

- **Settle With Next Batch button and Settle Now link.** The authorization has not been settled but was not added to the pending batch. Click Settle With Next Batch (or Settle Now, if available) to ensure that the authorization is settled.

Operations Center Task Basics: Capturing an Authorized Transaction

Requires accountant's and bursar's or cashier's rights.

1 Click Merchant's Activity, then click the merchant's Manage Credit Payments link.

2 Enter a date range and other search criteria. Click the Search button.

3 Click the transaction's at the report's far right, then take further action as indicated by status.

For detailed steps, see the Operations Center online reference.

Checking the Settlement Status of an Authorization

You can check the status of any authorized transaction, whether it was submitted through an online payment application or as a single authorization through the Operations Center.

Use the activity report or the Process Credit page to view the status of a transaction. In the Process Credit page, look at the Activity and Settlement History panes to see a history for the transaction. For more details about using the Process Credit page, go to "Reviewing Amounts in the Process Credit Page" on page 23.

Note: Use the error log report to see information about authorized transactions in failed batches.

3.0 Processing ACH Transactions

TouchNet Payment Gateway version 4.6 includes features and functions used to process ACH payments. If your license includes ACH processing, then you can accept online payments from personal checking or savings accounts and use Payment Gateway to process the ACH transactions.

3.1   Adding a License Key for ACH Processing

If your license does not include ACH processing but you wish to use it, contact TouchNet. You will need a new license key. When you obtain this license key, open the Payment Gateway Operations Center and navigate to Configuration > ACH Configuration > General Configuration. Enter the new license key in this page, then restart Payment Gateway so the change will take effect.

Note: All users see some ACH processing features in the Operations Center, regardless of license.

3.2   ACH Transaction Processing Overview

A user who submits an ACH payment through a TouchNet commerce solution (such as webCheck, eBill, or Cashiering) enters required information: the name and address from the checking or savings account, the payment amount, and the bank account's routing and account numbers.

After Payment Gateway validates the routing number, the user must then explicitly authorize the transaction by accepting the detailed payment agreement. The user's payment information, the agreement text, and the time and date of the agreement are encrypted and saved in the Payment Gateway database.

The Payment Gateway user with bursar's rights generates ACH files from the submitted payment information and sends this information to a bank. The following diagram shows the typical work flow for processing ACH transactions.

.
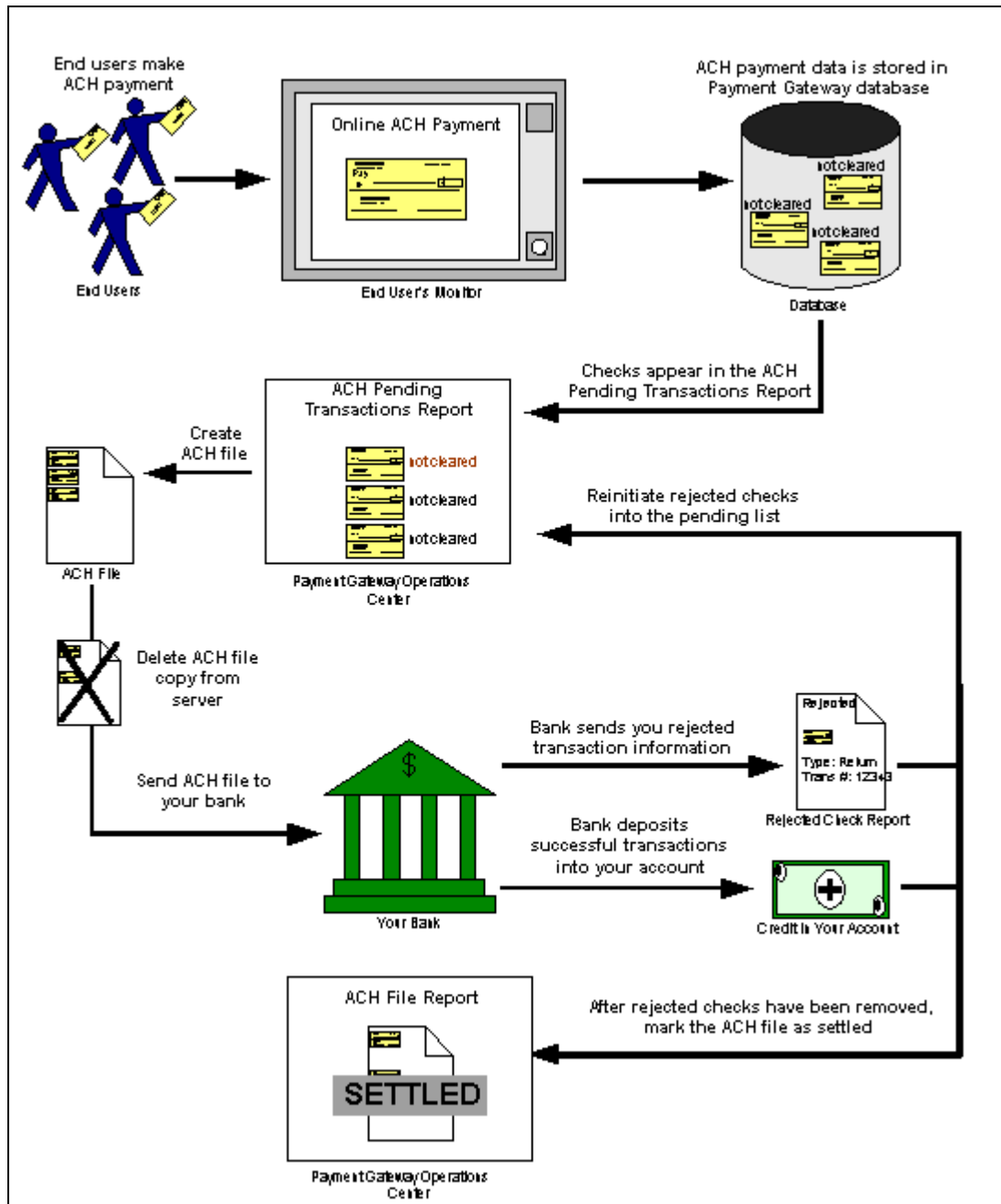
ACH Transaction Processing in TouchNet Payment Gateway

3.3   Managing ACH Merchant Accounts

ACH merchant accounts are your bank accounts to which ACH payment amounts are transferred. These may be the same bank accounts you use to collect credit card payment funds. However, the merchant account information used with ACH is different from the account information for credit card payments.

Important! You can use only the number of merchant accounts allowed by your license. If you believe you may exceed the number of licensed merchants, contact TouchNet Client Services for assistance.

Editing or Adding ACH Merchant Accounts

Important! Always maintain your ACH merchant configuration with current data. This data is used in the header information of your ACH files. Your bank may reject your ACH files if they contain incorrect header information.

Before accepting online ACH payments, verify that your ACH merchant account information is correct, and add any new merchant accounts needed.

Your bank will provide most of the information needed in merchant configuration. Enter the information exactly as your bank has given it to you.

The Short Description and Long Description entries are not provided by your bank. They are used for display in the Operations Center.

Note: When changing merchant account entries, be sure that the correct merchant account is selected in the Edit Merchant list.

> **Operations Center Task Basics: Editing a Merchant Account**
>
> Requires administrator's rights. In Configuration:
>
> 1 Click Configuration, then click the ACH Configuration link.
>
> 2 Click Merchant Configuration.
>
> 3 Select the account, then make and save changes.
>
> Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

Adding an ACH Merchant Account

You can add only the number of merchant accounts allowed by your license.

To add an ACH merchant account, open the Operations Center and navigate to Configuration > ACH Configuration > Merchant Configuration. Click the Add New Merchant link, enter the account's information exactly as your bank has given it to you, then restart Payment Gateway to use the new settings.

3.4   Generating and Reviewing ACH Files

To process ACH payments, you will generate ACH files and send them to your bank, using the method your bank recommends. These ACH files are written in the standard format used by banks and described by the current *NACHA Operating Rules and Guidelines*.

You will also mark ACH files as settled, regenerate ACH files as needed, and reinitiate payment transactions rejected for reasons such as insufficient funds.

Generating the ACH File

To submit ACH payments to your bank, you must first generate the ACH file.

Each time you generate the ACH file, it contains all transactions that have not been captured previously in an ACH file. It also contains the configuration information needed by the bank to process the file.

Each ACH file name includes the unique, seven-digit, sequential number that identifies the file.

When you generate the file, the Operations Center displays the file name as a link. Click the link to see the file's details.

> **Operations Center Task Basics: Generating an ACH File**
>
> Requires bursar's rights.
>
> 1 Click Merchant's Activity, then click the merchant's Generate ACH file link.
>
> 2 Click the Generate ACH File button.
>
> For detailed steps, see the Operations Center online reference.

Note: Payment Gateway does not impose upper or lower limits on the number of transactions within an ACH file.

Selecting a Storage Location for ACH Files

All generated ACH files (and regenerated files) are stored in this directory for Windows users:

\touchnet\payment46\data\checks

or in this directory for Solaris users:

/usr/local/touchnet/payment46/data/checks

To save a copy of the file to another location, generate the file. When its file name appears onscreen, click the file name link. Use your browser's commands to save a copy of the file; when you save the file, select "all files" as the file type.

Deleting the ACH File from the Server

Always delete the generated ACH file from your server. The ACH file contains sensitive data, which might be obtained or transmitted improperly if you do not delete the file.

You will still be able to submit the file to your bank from its saved location. You also can see information about the file and its transactions in the ACH reports.

You can regenerate any ACH file. For details, see "Regenerating an ACH File" on page 39.

Operations Center Task Basics: Deleting an ACH File

Requires bursar's rights.

1 Click Merchant's Activity, then click the merchant's Manage ACH File link.

2 Search for the file by ID or date, then view the report.

3 Select the file, then click the Delete button.

For detailed steps, see the Operations Center online reference.

Voiding an ACH Payment

You can remove an ACH transaction from your pending transactions or from a generated ACH file.

Removing the check voids the ACH payment in reports and in the ACH file.

Important! If you remove a transaction from a generated file, always regenerate the file.

Note: To remove a pending ACH transaction, click the Generate ACH File link and remove the transaction from the list that appears.

Operations Center Task Basics: Removing an ACH Payment from a Generated File

Requires bursar's rights.

1 Click Merchant's Activity, then click the merchant's Manage ACH File link.

2 Enter search criteria, then click the Search button.

3 In the report, click the file's Details button.

4 Locate the transaction, mark its Remove box, click the Remove button, then regenerate the file.

For detailed steps, see the Operations Center online reference.

Managing an ACH File

Use the Manage ACH File feature to look up an ACH file for further processing, including regenerating the file or marking the file as settled.

You can also look up a file using the ACH File Report, but you will not be able to perform further processing on the file.

For more information about the ACH File Report, see "ACH File Report" on page 57.

> **Operations Center Task Basics: Looking Up an ACH File**
>
> Requires bursar's rights.
>
> 1 Click Merchant's Activity, then click the merchant's Manage ACH File link.
>
> 2 Enter the ID or date, then click the Search button.
>
> For detailed steps, see the Operations Center online reference.

Managing ACH Transactions

Use the Manage ACH Payments feature to look up an ACH transaction for further processing, including reinitiating the transaction or marking it as rejected.

After you search for a transaction, click the Details button to see information about the payment.

You can also look up a transaction using the ACH File Details Report, but you will not be able to perform further processing on the transaction.

For details, see "ACH File Details Report" on page 57.

> **Operations Center Task Basics: Viewing ACH Payment Details**
>
> Requires bursar's rights.
>
> 1 Click Merchant's Activity, then click the merchant's Manage ACH Payments link.
>
> 2 Enter the transaction ID or date, then click the Search button.
>
> For detailed steps, see the Operations Center online reference.

3.5   Post-Settlement Processing of ACH Files

Banks use a variety of methods to confirm and notify you about successful and rejected ACH transactions. Typically, your institution will use the same method of confirmation currently used in paper check processing.

When you need to perform further processing for your ACH files, you can:

• Regenerate your ACH file if it was initially rejected due to incorrect header information.

• Mark ACH files as "settled."

Regenerating an ACH File

You can regenerate an ACH file if it has not been marked as settled. If you need to resubmit an ACH file to your bank, you must resolve any problems related to the file, then regenerate the file.

Note: All regenerated ACH files are stored in the same directory as the originally generated files.

Resolving ACH File Problems

If your bank rejects an ACH file, the file probably contains incorrect header information.

If your ACH file is rejected for this reason, correct the information in your ACH merchant configuration before you regenerate the ACH file.

For more details, see "Editing or Adding ACH Merchant Accounts" on page 35.

Note: If your bank indicates that an invalid payment transaction within the ACH file has caused the entire file to fail, please contact TouchNet Client Services for assistance in resolving the problem.

Operations Center Task Basics: Regenerating an ACH File

Requires bursar's rights.

1 Click Merchant's Activity, then click the merchant's Manage ACH File link.

2 Enter a date range and the file ID if known, then click Search. Then, click Details for the transaction.

3 Select the file, mark the Regenerate ACH file box, then click the Regenerate button.

For detailed steps, see the Operations Center online reference.

Marking an ACH File as Settled

After your bank has processed your ACH transactions and you have removed rejected transactions from your ACH file, mark the ACH file as settled.

To remove a rejected transaction from an ACH file, see "Rejecting an ACH Transaction" on page 41.

Important! Once an ACH file has been marked as settled, you cannot reverse its status to pending, you cannot perform further actions on transactions in the file, and you cannot regenerate the file.

Operations Center Task Basics: Marking an ACH File as Settled

Requires bursar's rights.

1 Click Merchant's Activity, then click the merchant's Manage ACH File link.

2 Enter a date range and file ID if known, then click Search.

3 Select the file, then click the Settle ACH File button.

For detailed steps, see the Operations Center online reference.

3.6   Processing a Returned ACH Payment

If the bank returns an ACH-standard file detailing rejected transactions, first mark the transactions as rejected. You can then reinitiate payment transactions that were rejected for reasons such as insufficient funds. When you build and send the next ACH file, reinitiated transactions are submitted with that file.

Current NACHA guidelines allow a total of three submissions for a payment transaction. The ACH Rejections Report shows the number of times a payment has been submitted. For details, see "Report Details for Payment Type: ACH" on page 55.

Note: Payment transactions that fail for NOC (Notification of Change) reasons cannot be resubmitted. An NOC does not represent a failed financial transaction. It is a notification that a correction was made to some data associated with the ACH transaction during the settlement.

Note: The ACH transaction ID is required for this process. Your bank's ACH-standard information will include the transaction ID, which may be labeled as the "individual identification number."

Rejecting an ACH Transaction

Rejected transactions returned by the bank are marked with the bank's rejection code, either C or R, followed by two digits.

- If the code begins with a C (Notification of Change), the ACH payment cannot be reinitiated after it is rejected.

- If this code begins with an R (Return), you can reinitiate the ACH payment after you have rejected it. (See "Reinitiating a Rejected Payment,"below.)

Note: Rejected transactions are removed from the ACH file information and are not shown in the ACH File or ACH File Details reports.

Operations Center Task Basics: Processing a Returned ACH Payment

Requires bursar's rights.

1 Click Merchant's Activity, then click the merchant's Manage ACH Payments link.

2 Enter the transaction ID, then click Search.

3 Enter the rejection code, then click the Reject Check button.

For detailed steps, see the Operations Center online reference.

Reinitiating a Rejected Payment

When you reject an ACH payment using a code that begins with **R**, you return in the Operations Center to the Check Selection Criteria page. Enter the payment's transaction ID again and click the Search button. In the Reinitiation Fee field, enter any fee to charge. Do not enter the dollar sign. Then, click the Reinitiate Check button.

You can reinitiate an ACH payment two times, for a total of three transaction submissions to the bank.

Note: Or, to open an ACH transaction for reinitiation, search for the transaction through Merchant's Activity > Manage ACH Payments, then click the Details button for the transaction.

3.7   Resolving Payment Disputes

When you need to resolve a disputed payment, you can retrieve the ACH agreement that the payer signed.

To look up an ACH agreement, you can search by the payment's transaction ID or by the date. If you know details such as the payer's name or payment amount, you can search for the transaction ID in the Current Status report.

The ACH agreement information includes:

- The IP address of the browser from which the terms and conditions were agreed to.

- The terms and conditions that were current when the agreement was signed.

- The name submitted with the payment.

- The amount submitted for the payment.

- The routing number and account number submitted with the payment.

> **Operations Center Task Basics: Looking Up an ACH Agreement**
>
> Requires bursar's or cashier's rights.
>
> **1** Click Merchant's Activity, then click the merchant's Manage ACH Payments link.
>
> **2** Search for the file by ID or date, then click Search.
>
> **3** Click the transaction's Details button.
>
> **4** Click the View ACH Agreement button at the bottom of the screen.
>
> For detailed steps, see the Operations Center online reference.

Note: If the **debug.Transactions** property in your *\touchnet\payment46\webapp\tpgadmin\critical.prp* file is set to true, the agreement text is also stored in the debug file for the user's session. Depending on how recently the disputed transaction occurred, you may be able to search your session debug files for the agreement text. These files are stored in the *\debug* directory for the application through which the ACH payment was submitted.

4.0 Payment Gateway Reports

Payment Gateway's reports show you all payment activity for credit card and ACH processing at both the transaction and batch or ACH file level. The reports also show information about errors incurred in processing. In the following pages, we will review each report and the ways to search for data in reports.

4.1 Searching Payment Gateway Reports

You must have the accountant's role to view reports in the Operations Center. This role can be assigned to any user, along with other roles.

What you see in reports depends on your license and your assigned merchants. If you are licensed for both credit card and ACH processing, you can show reports for both.

However, if you are not assigned as an accountant for a particular merchant, you won't be able to include that merchant in the reports.

> **Operations Center Task Basics: Searching and Viewing Reports**
>
> Requires accountant's rights.
>
> **1** Click Payment Gateway Reports.
>
> **2** Select the payment type, report, and merchants.
>
> **3** Select additional search criteria as needed, then click the View Report button.
>
> For detailed steps, see the Operations Center online reference.

Using Search Criteria

You filter reports using search criteria. In addition to required criteria, you can enter optional general criteria and optional, highly specific criteria for either credit card or ACH transactions.

The report you choose may not use all search criteria. Depending on your browser, the unavailable search criteria will be either grayed out or ignored in the generated report.

Required Search Criteria

You must narrow the report by selecting a payment type, a report, and the merchants to include in the report.

Each payment type has its own list of available reports. To see more about individual reports, go to 4.2 "Available Reports" on page 47.

Once you set required criteria, you can click the View Report button or narrow your search using optional criteria.

Optional General Criteria

The date range is used in all reports, but you aren't required to change the date range to run a report.

The default date range produces a month-to-date report. To show a report for the current day only, click the Today button. The date range is not used with Pending Transactions reports for credit card or ACH.

Below the Merchants selection boxes are optional general criteria to help you narrow the report.

- **Ancillary Data**—Ancillary data is information, such as the payer's ID, that may have been submitted with the payment. You can search for transactions that contain specific data. Select the Exactly option to search for exact matches, or select the Partial Match option if you know only part of the ancillary data.

- **Amount**—To search for transactions with a specific dollar amount, select the Exactly option and enter the amount in whole dollars (for example, 300) or in the format 00.00 (for example, 50.25). Do not include the dollar sign.

  To set a dollar amount range, select the From option and enter amounts in the To and From fields. You can leave the To field empty to look for all transactions above the "From" amount, or leave the From field empty to look for all transactions below the "To" amount.

- **Response Code**—Search for all records, only records with no errors, or only records with error responses.

Optional Specific Criteria for Credit Card Transactions

To use highly criteria that will narrow your report to specific types of credit card transactions, mark the Additional Fields: Show option.

Fields appear for both credit card and ACH transactions; only the criteria allowed for the report type will be available.

Additional Fields: ○ Hide ⦿ Show		
Credit Card fields:		
Card Number (last 4 digits only)	**Card Type**	**Reference Number**
	- All -	
Batch Number	**View Batch In Progress (settle.inp)**	**View Rejected Batch (settle.RB)**
	⦿ NO ○ YES	File: settle.RB

- **Card number**—Search for a specific transaction by credit card number. Enter the last four digits of the card number in the Card Number field.

- **Card type**—Search for transactions using a specific credit card type.

- **Reference number**—Enter the reference number to limit the search to a specific authorization. For some processors, this number is unique only within a merchant's transactions; two merchants may have a transaction with the same reference number. You may need to limit your search to a single merchant to find a specific authorization.

- **Batch number**—Narrow the search to a specific batch number.

- **View Batch in Progress (settle.INP)**—Select "Yes" and enter the settle.INP file name to view a batch in progress, if one exists. This option is available when Credit Card payment type and Pending Transactions report type are selected and is used primarily for troubleshooting. (Some processors do not use this file.)
- **View Rejected Batch (settle.RB)**—Enter the settle.RB file number to view a rejected batch. Settle.RB file names appear in your Batch Settlement report. This option is available when Credit Card payment type and Pending Transactions report type are selected, and is used in troubleshooting. (Some processors do not use this file.)

Optional Specific Criteria for ACH Transactions

To use highly criteria that will narrow your report to specific types of ACH transactions, mark the Additional Fields: Show option.

Fields appear for both credit card and ACH transactions; only the criteria allowed for the report type will be available.

ACH Fields:		
Transaction Id	**ACH Transaction Status**	**Name**
	- All -	
ACH File Name	**ACH File Number**	**ACH File Status**
		- All -

- **Transaction ID**—Limit the report to a single ACH transaction by entering its ID.
- **ACH Transaction Status**—Select an available status to show only transactions of that status.
- **Name**—Search using the name entered when the original payment was submitted.
- **ACH File Name**—The ACH file is assigned a name in Payment Gateway. Enter the name to limit your search to a specific file as it is named on the server.
- **ACH File Number**—Enter the ACH File number to limit your search to a specific file.
- **ACH File Status**—Select an available status to show only the results from files of that type.

Sorting Report Results

To sort report results, click the heading of the column you want to sort. For example, to sort by date and time, click either the Date or Time heading. Each time you click a column heading, the report will be re-sorted by that criteria. The arrow beside the heading indicates whether the column has been sorted in ascending or in descending order. Click the arrow to switch the sort order from ascending to descending, or descending to ascending.

Printing Reports

To print a report, right-click the report and select your browser's print option. Because Payment Gateway reports are designed primarily for online viewing, the information viewed onscreen may print across multiple pages.

Note: To increase the amount of data visible in the printout, use your printer's landscape printing option. If needed, also use a paper size (such as 8.5 x 14) that allows more columns to be included on the page. To change the number of report rows that print on a page, adjust the page margin.

4.2   Available Reports

Payment Gateway builds reports for three payment types: Credit Card, ACH, and All. If you are licensed for both credit card and ACH processing, you can see all reports for all three payment types. In your reports, however, you can only include the merchants for which you have the accountant's role.

This table shows the reports available for each payment type.

Payment Gateway Report Types

Reports for Payment Type: All	
Payment Transactions	Use this report to see all payment activity from both credit card and ACH payments.
Payment Transactions - Merchant Summary	Use this report to see all payment activity, totaled at the merchant level. The report totals counts and amounts of successful, failed, and attempted transactions.
Batch and ACH File	Use this report to see summary information about batch settlements and attempted batch counts and amounts for the selected credit card and ACH merchants.
Batch and ACH File - Merchant Summary	Use this report to see batch and ACH file information, totaled at the merchant level. The report sums transaction counts and amounts of batches and generated ACH files.
Reports for Payment Type: CREDIT CARD	
Activity	This report shows all attempted authorizations and credits within your search. Use this report to review payment activity and credits, and see authorization success-or-fail responses.
Credit Card Types Usage	This report is a merchant-level report. It shows the number of times each type of credit card was used, the total amount charged to that card type, and the average amount (across all cards) per successful transaction.
Pending Transactions	This report shows all purchases and credits that have been authorized and are pending settlement. This list of pending transactions constitutes the current batch. Concord users will not use this report.
Error Log	This report shows details of error responses from batch settlements and logging to the Payment Gateway database. It also shows errors from host updates of payments from TouchNet commerce solutions like eBill or Cashiering. The report does not reflect errors from authorizations.
	When the Batch Settlement report shows an error, the corresponding Error Log report can help you pinpoint the error's cause.
	From the Error Log report you can also see the details of any settle.RB files that have been created for failed batches.

Payment Gateway Report Types

Batch Settlement	This report summarizes attempted batch settlements and shows the net total dollar amount for all settled batches. Use this report to review batch success-or-fail responses. **Note:** Concord users, do not use the Batch Settlement report. Use the Batch Details report instead.
Batch Details	This report shows transaction data for each batch within the date range you choose. Use this report to reconcile settlements with your banking records, or to look up records of settled transactions.
Reports for Payment Type: ACH	
Pending Transactions (next ACH file)	This report shows all ACH transactions that have been submitted but not yet included in an ACH file.
Current Status (Transactions)	This report shows the current status of all transactions within your search. Use this report to review ACH activity, including rejected transactions.
ACH File	This report shows transaction, status, and amount information for ACH files within the search date range.
ACH File Details	This report shows all transactions from the ACH files included in the search date range. The report separately totals current, removed, and all attempted payments.
Rejections	This report shows transaction data for each ACH payment you have marked as rejected.

4.3 Report Details for Payment Type: Credit Card

This section describes the reports available when you select the Credit Card payment type. To see the details on all report columns, look up the report in the Operations Center online reference. Several report fields are common in many Credit type reports:

- **Type**—Identifies the transaction type. Common types are **PUR**, or purchase; **REV**, or reversal, which is a credit processed before settlement; **CR**, or credit processed after settlement; or **VOID**, for voided payment.

- **Reference #**—Shows the unique transaction number assigned by Payment Gateway. A **REV**, **CR**, or **VOID** type will have the same reference number and approval code as the original payment.

  For some processors, this number is unique only within a merchant's transactions; two merchants may have a transaction with the same reference number.

- **Response Codes**—The **RC** column shows the success-or-fail response from the credit card processor. The format for this code varies among credit card processors. The **TPG RC** column shows the success-or-fail response from Payment Gateway. A negative number in either column is an error code and indicates that the transaction failed. For details about errors, review your Error Log report or the Operations Center online help.

- **Ancillary Data**—shows information about the payer or transaction, such as a payer's ID number. This data is typically passed from your payment application to Payment Gateway. For a **REV**, **CR**, or **VOID** type, the column shows any ancillary data you entered while processing the credit or void.

  Note: If your credit card processor places limits on AVS data, the ancillary data, when it includes AVS data, will include up to the number of characters allowed.

Activity Report

The Activity report shows all attempted authorizations, reversals, voids, and credits for the date range and other search criteria you select. All search criteria are allowed with this report.

Use this report to review payment activity, including declined payment attempts. Also, use this report to see any credits that have been processed for a payment. In the report, a payment transaction and any credits against it share the same reference number or approval code. When you sort the report by these columns, all transactions related to a payment are listed together.

Finally, use the report to review authorization success-or-fail responses from the credit card processor and Payment Gateway. These responses, including any error codes, appear in the RC and TPG RC columns.

Credit Card Activity Report
02/01/2004 to 02/02/2004

Merchant▲	Date▲	Time▲	Type ▲	Card ▲	Card # ▲	Exp. Date ▲	Amount ▲	Reference #▲	Approval▲	RC▲	TPG RC▲	Ancillary Data▲
Merchant A	02/02/2004	15:48:44	PUR	VISA	xxxxxxxxx2222	02/05	152.00	20040202000002	TESTVI	AA	0	example
Merchant A	02/02/2004	15:48:28	PUR	VISA	xxxxxxxxx2222	02/05	25.00	20040202000001	TESTVI	AA	0	example
Merchant A	02/02/2004	13:45:56	PUR	VISA	xxxxxxxxx6781	02/05	1.00	20040202000000	TESTVI	AA	0	

		Success:	178.00
Rows: 3		Failure:	0.00
		Attempted:	178.00

Credit Card Types Usage Report

The Credit Card Usage report is a merchant-level report. It shows the number of times each type of credit card was used, the total amount charged to that type of card, and the average amount (across all card types) per successful transaction.

Credit Card Usage
02/01/2004 to 02/02/2004

	Visa		MasterCard		Amex		Discover		Other		Total		
Merchant ▲	Cnt ▲	$ ▲	Cnt ▲	$ ▲	Cnt ▲	$ ▲	Cnt ▲	$ ▲	Cnt ▲	$ ▲	Cnt ▲	$ ▲	Avg $ ▲
Merchant A	3	178.00	0	0.00	0	0.00	0	0.00	0	0.00	3	178.00	59.33
Merchant B	0	0.00	2	271.00	0	0.00	1	433.00	0	0.00	3	704.00	234.67
Rows: 2	3	$ 178.00	2	$ 271.00	0	$ 0.00	1	$ 433.00	0	$ 0.00	6	$ 882.00	$ 147.00

Pending Transactions Report

Use the Pending Transactions report to view the current batch. It shows all payments and credits that have been authorized and are pending settlement. This list of pending transactions constitutes the current batch. No search criteria are allowed for this report.

Note: Concord users do not use this report. Your transactions are sent to the credit card processor and are not collected in a pending batch.

Pending Transactions for Merchant B									
Date▲	Time▲	Type▲	Card▲	Card #▲	Exp. Date▲	Amount▲	Reference #▲	Approval▲	Ancillary Data▲
02/02/2004	16:53:49	PUR	MC	xxxxxxxxx2124	02/05	46.00	20040202000000	TESTMC	example
02/02/2004	16:54:18	PUR	MC	xxxxxxxxx2124	02/05	225.00	20040202000001	TESTMC	example
02/02/2004	16:54:46	PUR	DISC	xxxxxxxx1117	02/05	433.00	20040202000002	043300	example
Rows: 3						704.00			

The Error Log Report

The Error Log report gives you troubleshooting data for error responses from batch settlements and logging to the Payment Gateway database. It also shows errors from host updates of payments from TouchNet commerce solutions like eBill or Cashiering. The report does not reflect errors from authorizations.

When the Batch Settlement report shows an error, the corresponding Error Log report can help you pinpoint the cause of the error.

Note: Depending on your credit card processor, the Error Log report may show which transaction failed within the batch. In some cases, Payment Gateway is able to remove failed transactions and resend the batch. For more details, see "Batch Settlements Report" on page 53.

In addition to the date, time, and reference number for the error, the report shows three possible error types and descriptions, shown in the following table.

Errors in the Error Log Report

Type	Description
BAT Batch-level failure	If a batch has failed, click its Details button or Settle.RB link to view the details of the Settle.RB file.
LOG Payment log posting failure	If a payment log has not posted, data could not be posted to the Payment Gateway database. You will see the filename for the log file that was not posted. (Transactions missing from reports may indicate this error has occurred.)
UPDT Host update unsuccessful or failed.	You will see a message noting whether the transaction is unsuccessful (further attempts to update the host are pending) or failed (no further attempts are pending). The description also includes error messages if any are returned from the host. Longer messages may be truncated.

Batch Settlements Report

The Batch Settlement report summarizes each attempted batch settlement for the selected date range. Use this report to review batch success-or-fail responses from the credit card processor and from Payment Gateway. These responses, including any error codes, are shown in the RC and TPG RC columns.

You can search this report by date and amount. To open batch details from the report, click a batch's number or its Details button.

Note: Payment Gateway will not attempt to settle an empty batch. If a scheduled batch does not appear in the Batch Settlement report, log into the Operations Center with bursar's rights and click the Settle Batch link. If no transactions are pending, the batch was empty and no settlement was attempted.

Note: Payment Gateway will split a settlement into multiple batches when the batch reaches a limit of dollars or transactions set by your credit card processor. In this case, the Batch Settlement report shows records for each batch created.

Note: For some credit card processors, Payment Gateway is able to automatically remove a failed transaction from a batch and resubmit the batch. In these cases, the failed transaction will appear in the Batch Details report, while the Batch Settlement report will show a successful batch.

Note: Concord users, do not use this report. Use the Batch Details report instead.

Credit Card Batch Settlement Report
02/01/2004 to 02/02/2004

Merchant▲	Date▲	Time▲	Batch #▲	Trx Count▲	Amount▲	RC▲	TPG RC▲
Merchant B	02/02/2004	15:59:54	GBOK 57402021659 (Details)	3	704.00	0	0
Merchant A	02/02/2004	15:59:43	GBOK 57302021659 (Details)	4	178.00	0	0
Rows: 2				**7**	**882.00**		

Batch Details Report

The Batch Details report shows transaction details for batches in the selected date range. Use this report to reconcile settlements with your banking records, or to look up records of settled transactions. All search criteria are allowed with this report.

Negative response codes in the report indicate errors. When this occurs, check the error codes help in the Operations Center online reference for more information.

Note: For some credit card processors, Payment Gateway is able to automatically remove a failed transaction from a batch and resubmit the batch. In these cases, the failed transaction will appear in the Batch Details report, while the Batch Settlement report will show a successful batch.

Credit Card Batch Detail Report
02/01/2004 to 02/02/2004

Merchant▲	Date▲	Time▲	Type▲	Card▲	Card #▲	Exp. Date▲	Amount▲	Reference #▲	Batch #▲	RC▲	Ancillary Data▲
Merchant B	02/02/2004	15:59:54	PUR	MC	xxxxxxxxx2124	02/05	46.00	20040202000000	GBOK 57402021659	0	example
Merchant B	02/02/2004	15:59:54	PUR	MC	xxxxxxxxx2124	02/05	225.00	20040202000001	GBOK 57402021659	0	example
Merchant B	02/02/2004	15:59:54	PUR	DISC	xxxxxxxxx1117	02/05	433.00	20040202000002	GBOK 57402021659	0	example
Rows: 3							**704.00**				

4.4 Report Details for Payment Type: ACH

This section describes the reports available when you select the ACH payment type. To see the details on all report columns, look up the report in the Operations Center online reference. Several report fields are common in many ACH type reports:

- **Type**—Identifies the transaction type, either PUR, for ACH payments submitted, or RCK, for returned transactions.
- **Reinitiations**—Shows how many times the ACH payment has been rejected and then reinitiated as a pending transaction.
- **Memo**—Shows a student ID, if applicable, and any information typed in the memo field for the online payment.
- **Origin**—Displays the SEC code for the method of payment presentment.
- **Status (of transaction)**—Identifies the status of a transaction as one of the following types:
    - **UNSETT**, if the payment has not been sent to the bank.
    - **WAIT**, if the payment has been put into an ACH file, but not settled.
    - **RETURN**, if the payment has been rejected as a Return.
    - **NOC**, if the payment has been rejected as NOC (Notice of Change).
    - **SETTLED**, if the payment has cleared.
    - **VOIDED**, if the payment was removed from pending transactions or a generated file.
- **Status (of a file)**—Identifies the status of the file as one of the following types:
    - **Create**, if the ACH file has been created.
    - **Settled**, if the ACH file has been marked as settled.
    - **Deleted**, if the ACH file has been deleted.

ACH Pending Transactions Report

The Pending report shows all ACH payments that have been submitted and are pending inclusion in an ACH file. This list of pending transactions constitutes the next ACH file to be generated. The Date Range search criteria is disabled when this report is selected.

ACH Pending Transaction Report									
Merchant▲	Date▲	Time▲	Origin▲	Type▲	Trans ID▲	Amount▲	Check Name▲	Reinit▲	Check Memo▲
Default webCheck A	02/11/2004	09:58:31	PPD	PUR	27 (Details)	19.83	JOHN MCGLOTHIN	0	Ancillary Data
Default webCheck A	02/11/2004	09:58:32	WEB	PUR	28 (Details)	235.90	KENNETH MILGROVE	0	Ancillary Data
Default webCheck A	02/11/2004	09:58:34	POP	PUR	29 (Details)	0.60	CATHERINE HIERSTEINER	0	Ancillary Data
Rows: 3						256.33			

ACH Current Status Report

The Current Status report shows the status of all transactions within the search criteria you have selected. Use this report to review payment activity, including rejected transactions. All criteria are available for this search.

ACH Current Status Report 02/11/2004 - 02/11/2004										
Mrch Id▲	Date▲	Time▲	Origin▲	Type▲	Trans ID▲	Amount▲	Check Name▲	Reinit▲	Check Memo▲	Status▲
Default webCheck A	02/11/2004	09:58:31	PPD	PUR	27 (Details)	19.83	JOHN MCGLOTHIN	0	Ancillary Data	UNSETT
Default webCheck A	02/11/2004	09:58:32	WEB	PUR	28 (Details)	235.90	KENNETH MILGROVE	0	Ancillary Data	UNSETT
Default webCheck A	02/11/2004	09:58:34	POP	PUR	29 (Details)	0.60	CATHERINE HIERSTEINER	0	Ancillary Data	UNSETT
Rows: 3						256.33				

ACH File Report

The ACH File report shows transaction, status, and amount information for ACH files. To view transaction information in an ACH file, click the Details button to the right of the ACH File ID.

The Amount and Ancillary Data search criteria are disabled when this report is selected.

ACH File Report
02/01/2004 to 02/11/2004

Merchant▲	Date▲	Time▲	ACH File ID▲	File▲	Status▲	Current File		Removed		Attempted	
						Count▲	Amount▲	Count▲	Amount▲	Count▲	Amount▲
Default webCheck A	02/02/2004	10:07:43	6 (Details)	tpgc0000006.ach	SETTLED	2	20.43	1	235.90	3	256.33
Default webCheck A	02/02/2004	10:07:53	7 (Details)	tpgc0000007.ach	CREATE	3	256.33	0	0.00	3	256.33
Default webCheck A	02/02/2004	10:08:03	8 (Details)	tpgc0000008.ach	CREATE	3	256.33	0	0.00	3	256.33
Default webCheck A	02/09/2004	17:47:01	9 (Details)	tpgc0000009.ach	CREATE	2	246.00	0	0.00	2	246.00
Rows: 4						10	779.09	1	235.90	11	1,014.99

ACH File Details Report

The ACH File Details report shows detailed information about transactions in an ACH file. Removed transactions are shown in red. The report separately totals current, removed, and all attempted payments. You can search this report by date, transaction amount, and ancillary data. The Amount search criteria is disabled when this report is selected.

ACH File Details Report
(File ID= 6, File Name= tpgc0000006.ach)

Merchant▲	Date▲	Time▲	Type▲	ACH File ID▲	Trans ID▲	Amount▲	Check Name▲	Check Memo▲	Status▲
Default webCheck A	02/02/2004	10:07:31	PUR	6	16 (Details)	19.83	JOHN MCGLOTHIN	Ancillary Data	SETTLED
Default webCheck A	02/02/2004	10:07:32	PUR	6	17 (Details)	235.90	KENNETH MILGROVE	Ancillary Data	VOIDED
Default webCheck A	02/02/2004	10:07:34	PUR	6	18 (Details)	0.60	CATHERINE HIERSTEINER	Ancillary Data	SETTLED
Rows: 3					Current File:	20.43			
					Removed:	235.90			
					Attempted:	256.33			

Rejections Report

The Rejections report shows transaction data for each ACH payment you have marked as rejected. This data includes the amount of the payment and number of reinitiations. All criteria are available for this search.

Merchant▲	Date▲	Time▲	Origin▲	Type▲	Trans ID▲	Amount▲	Reinit▲	Check Memo▲	Reason▲
ACH Rejection Report 02/01/2004 to 02/11/2004									
Default webCheck A	01/26/2004	15:49:37	PPD	PUR	7 (Details)	19.83	0	Ancillary Data	R01 Insufficient Funds
Rows: 1						19.83			

4.5   Report Details for Payment Type: All

This section describes the reports available when you select the All payment type. To see the details on all report columns, look up the report in the Operations Center online reference. Several report fields are common in many "All" type reports:

- **Trx Type**—Identifies transactions as one of the following types:
  - **PUR**, for payments submitted.
  - **RCK**, for returned transactions.
  - **CR**, for credits that refund part of a previously settled payment
  - **Void**, for credits that refund all of a previously settled payment.
  - **REV**, for partial reversal.
- **Ancillary Data**—Shows information about the payer or transaction, such as a payer's ID number. This data is typically passed from your payment application to Payment Gateway. For a **REV**, **CR**, or **VOID** type, the column shows any ancillary data you entered while processing the credit.

Payment Transactions Report

The Payment Transactions report lists all transactions for selected merchants within the report's date range. If the transaction failed, a TouchNet Payment Gateway response code is displayed.

ALL Payment Transaction Report
02/11/2004 to 02/11/2004

Merchant▲	Date▲	Time▲	Pay Type▲	Trx Type▲	Reference #▲	Amount▲	TPG RC▲	Ancillary Data▲
Default webCheck A	02/11/2004	09:58:32	ACH	PUR	27	19.83	0	Ancillary Data
Default webCheck A	02/11/2004	09:58:34	ACH	PUR	28	235.90	0	Ancillary Data
Default webCheck A	02/11/2004	09:58:35	ACH	PUR	29	0.60	0	Ancillary Data
Merchant B	02/11/2004	10:20:54	CREDIT	PUR	20040211000000	50.00	0	
Merchant B	02/11/2004	10:21:16	CREDIT	PUR		321.36	-1703	
Merchant B	02/11/2004	10:21:32	CREDIT	PUR	20040211000001	342.98	0	

Rows: 6				Success:	649.31
				Failure:	321.36
				Attempted:	970.67

Payment Transactions Merchant Summary Report

Use this report to see all payment activity, totaled at the merchant level. The report totals counts and amounts of successful, failed, and attempted transactions.

ALL Payment Merchant Summary Report
02/01/2004 to 02/11/2004

Merchant▲	Pay Type▲	Success		Failure		Attempted	
		Count▲	Amount▲	Count▲	Amount▲	Count▲	Amount▲
Merchant A	CREDIT	986	4,850.88	19	1,261.56	1005	6,112.44
Merchant B	CREDIT	916	4,287.83	17	376.36	933	4,664.19
Merchant C	CREDIT	1	0.00	0	0.00	1	0.00
Default webCheck A	ACH	15	1,271.32	0	0.00	15	1,271.32
Rows: 4		1,918	10,410.03	36	1,637.92	1,954	12,047.95

Batch and ACH File Report

The Batch and ACH File report provides summary information for batch settlement and ACH file generation for the merchants and date range selected.

Note: Concord users will not see this report unless licensed for ACH processing.

All Payment Batch and ACH File Report
02/09/2004 to 02/11/2004

Merchant▲	Date▲	Time▲	Pay Type▲	Batch Id/File Nbr▲	Trx Count▲	Amount▲	RC▲	TPG RC▲
Merchant A	02/11/2004	09:13:27	CREDIT	GB EMPTY BATCH	2	0.00	0	0
Default webCheck A	02/09/2004	17:51:20	ACH	tpgc0000008.ach	3	256.33	0	0
Default webCheck A	02/09/2004	17:48:48	ACH	tpgc0000006.ach	2	20.43	0	0
Default webCheck A	02/09/2004	17:47:03	ACH	tpgc0000009.ach	2	246.00	0	0
Default webCheck A	02/09/2004	17:46:01	ACH	tpgc0000006.ach	3	256.33	0	0
Merchant A	02/09/2004	17:25:42	CREDIT	GBOK 57702091825	1	-1.50	0	0
Merchant A	02/09/2004	17:24:39	CREDIT	GBOK 57602091824	1	2.50	0	0
Rows: 7					**14**	**780.09**		

Batch and ACH File Merchant Summary Report

Use this report to see batch and ACH file information, totaled at the merchant level. The report sums transaction counts and amounts in batches and generated ACH files.

Note: Concord users will not see this report unless licensed for ACH processing.

ALL Payment Batch Merchant Summary Report
02/01/2004 to 02/11/2004

Merchant▲	Pay Type▲	Success		Failure		Attempted	
		Count▲	Amount▲	Count▲	Amount▲	Count▲	Amount▲
Merchant A	CREDIT	19	3,619.61	0	0.00	19	3,619.61
Merchant B	CREDIT	1	704.00	0	0.00	1	704.00
Merchant C	CREDIT	1	-200.00	0	0.00	1	-200.00
Default webCheck A	ACH	7	1,548.08	0	0.00	7	1,548.08
Rows: 4		**28**	**5,671.69**	**0**	**0.00**	**28**	**5,671.69**

5.0 Commerce Configuration

TouchNet commerce solutions like Cashiering and eBill allow you to accept many kinds of campus commerce payments and process them through Payment Gateway.

When you use a TouchNet commerce solution, you configure both Payment Gateway and the commerce solution. Settings for payments sent from your commerce solution must match settings for payments processed in Payment Gateway. Then, payment information is recorded correctly and funds are deposited to the correct merchant account.

5.1　Commerce Elements Overview

The elements of commerce configuration are the host system, host system account, and payment method.

Each of these elements corresponds to information sent with payments from TouchNet commerce solutions.

- **Host System**—The typical school will have two host systems: The student information system (SIS), and a financial records system. In Payment Gateway, you name your host systems so that payment information can be routed to the correct data storage framework.

- **Host System Account**—Each host system includes one or more accounts. These are the accounts where information about individual payments is stored on your host system. For example, on your SIS host system there might be an account for "Student Payments," where students make payments toward their individual accounts.

- **Payment Methods**—A payment method is any way that you can accept money through a commerce solution. Payment methods typically include cash, credit cards, and different types of checks. Each commerce solution allows certain payment methods. For instance, Cashiering allows cash payments, but eBill allows only credit card or ACH.

Example of Commerce Configuration

In this example, a school is setting up payments from commerce applications. Payments will be recorded in the Student Information System.

EXAMPLE: Payment Gateway with TouchNet eBill and Cashiering
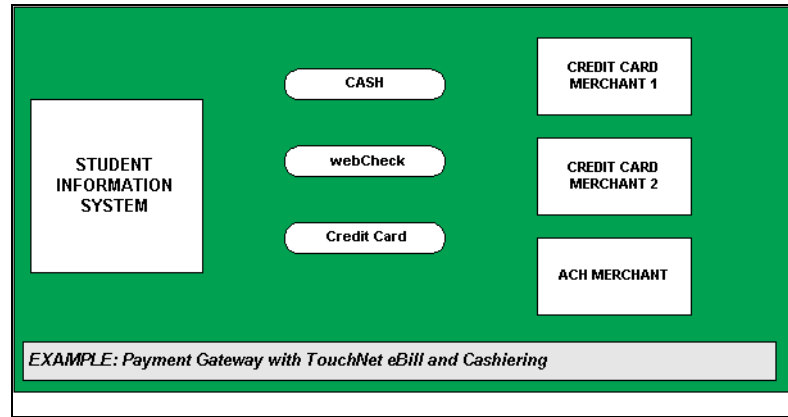
This school has set up three merchant accounts in Payment Gateway. The first two are credit card merchants, and the third is an ACH merchant.

The school will be accepting ACH payments, cash payments, and credit card payments through the online commerce solutions.

Note: The typical payment methods list would include many more methods than those shown here.

Next, we'll see how the school links these elements together in commerce configuration.

EXAMPLE: Payment Gateway with TouchNet eBill and Cashiering
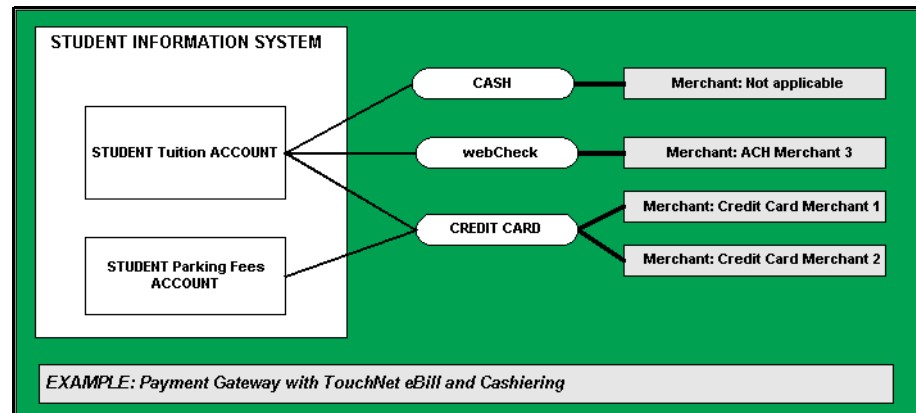
In Payment Gateway, the school selects the Student Information host system and adds host system accounts to it. In this case, because funds from tuition payments and funds from parking fees go to separate merchant accounts, the school adds a host system account for each.

The first account, Student Tuition Account, is used for tuition. The second host system account is used for parking fees.

The school links payment methods to the Student Tuition and Student Parking fees accounts. The school knows that tuition can be paid with all the methods available, so it links each method to the account.

As shown here, the parking fees account uses only the credit card payment method. (It is likely that other methods would be used as well; for the purposes of this example only credit card is shown.)

When linking payments, the school fills in several fields about the payment method. One of the fields is Merchant. Here, the school can show which Payment Gateway merchant account should receive funds processed with the payment method.

When the school links the Student Tuition Account to the Credit Card payment method, funds are processed using Credit Card Merchant 1. For the parking fees account, funds are processed with Credit Card Merchant 2.

Note: In Payment Method setup, the school also sets up the code used within the host system framework to record payments; for instance, a detail code, subcode, or tracer number.

5.2 Adding a Host System

The typical school will have two host systems: The student information system, and a financial records system.

In commerce configuration, you name your host systems so that payment information can be routed to the correct data storage framework.

After you name a host system, the next step is to name the accounts in that host system. Go to 5.3 "Adding a Host System Account" on page 64.

Note: In the Host System Accounts page, you can click the Change link to change a host system account's name or convenience fee use. However, it is best not to change names often once they are in common use, to keep continuity for campus users of your system.

Operations Center Task Basics: Adding a Host System

Requires administrator's rights.

1 Click Configuration, then click the Commerce Configuration link.

2 Click the Host Systems link.

3 Enter a host system name, then click Add New.

For detailed steps, see the Operations Center online reference.

5.3 Adding a Host System Account

Each host system includes one or more accounts. These are the accounts where information about individual payments is stored on your host system.

Before you can send commerce solution payments to the host system account, you must also add payment methods.

Then, you will link those payment methods to the host system account. Go to 5.4 "Adding Payment Methods" on page 65.

Note: In the Host System Accounts page, you can click the Change link to change a host system account's name or convenience fee use. However, it is best not to change names often once they are in common use, to keep continuity for campus users of your system.

Operations Center Task Basics: Adding a Host System Account

Requires administrator's rights.

1 Click Configuration, then click the Commerce Configuration link.

2 Click the Host Systems link, then click the View [Host system name] Accounts link.

3 Enter a host system account name, then click Add New.

For detailed steps, see the Operations Center online reference.

5.4   Adding Payment Methods

A payment method is any way that you can accept money through a commerce solution. Payment methods typically include cash, credit cards, and different types of checks.

Each commerce solution allows certain payment methods. For instance, TouchNet Cashiering allows cash payments, but eBill allows only credit card or ACH.

When you set up a commerce solution, some payment methods are pre-loaded into Payment Gateway. These provide a standard list of payment methods such as cash or credit card, and an expanded list that includes more specific methods, such as various credit card types. You can also define your own payment methods.

Name additional payment methods when:

- A method you need is not in the pre-loaded list.
- You will need payments processed using the same payment type (such as credit card) but different host payment method IDs (different subcodes or detail codes, for instance).

Note: Settings in your commerce solution must match settings in Payment Gateway. Your commerce solution specifies the use of payment methods named in Payment Gateway.

To use the payment method with a commerce solution, you must link the payment method to a host system account and specify further information to show how the payment method is used with that account. Go to 5.5 "Linking Payment Methods to Host System Accounts" on page 66.

Operations Center Task Basics: Adding a Payment Method

Requires administrator's rights.

1 Click Configuration, then click the Commerce Configuration link.

2 Click the Payment Methods link.

3 Enter a payment method name, then click the Add Payment Method button.

For detailed steps, see the Operations Center online reference.

5.5 Linking Payment Methods to Host System Accounts

When you link payment methods to a host system account, you are saying that payments can be made into that account using those methods.

For each linked payment method, you will also specify what Payment Gateway merchant processes the payments, and what code your school uses to record the payments in your information system.

Note: Before you can link payment methods, you must set up the host system and host system account that will use the payment method.

Settings in your commerce solution must match settings in Payment Gateway. When you take payments using your commerce solutions, you can use only the payment methods that have been linked to host system accounts in Payment Gateway.

When you link a payment method to an account, you will:

- Choose a payment methods list. Standard methods include general methods like cash or credit card. The Expanded methods list includes more specific methods, such as various credit card types.

- Choose the Payment Gateway merchant that will process payments using this method with this account.

- Enter a Host Payment Method ID. This is the code your school uses in host system accounting to record payments using this method for this account. For instance, you might enter a detail code, a subcode, or a tracer number.

In the Currently Linked Payments methods box, you can also:

- Delete a payment method if no host accounts are using it.

- Change the merchant, host method ID, or convenience fee information for the payment method as used with this account. Click the method name to open the fields for editing.

Operations Center Task Basics: Linking a Payment Method

Requires administrator's rights.

1 Click Configuration, then click the Commerce Configuration link.

2 Click the Host Systems link, then click the View [host system name] Accounts link.

3 Click Link Payment Methods for the account.

4 Fill in the Add Payment Method Link fields, then click Link Payment Method.

For detailed steps, see the Operations Center online reference.

5.6 Adding a Convenience Fee Schedule

If you use convenience fees, you must add a convenience fee schedule, then edit a linked payment method to use the schedule. If needed, you can also modify or add a host system account to be used only for the collection of convenience fees.

See the Payment Gateway Operations Center online reference for details related to setup of convenience fee schedules.

5.7 Removing Unused Commerce Elements

Settings in your commerce solution must match settings in Payment Gateway. Do not remove commerce configuration elements that are currently in use in any of your commerce solutions.

Important! Do not delete a host system which may have transactions pending. First, you must be sure that for all its host system accounts, pending transactions have been settled.

Important! Do not delete a host system account which may have transactions pending. Ensure that all of its transactions have been settled before deleting the host system account.

You cannot remove payment methods that were pre-loaded during commerce solutions setup. You cannot delete a convenience fee that is used in linking a payment method to a host system account.

> **Operations Center Task Basics: Removing Commerce Elements**
>
> Requires administrator's rights.
>
> 1 Click Configuration, then click the Commerce Configuration link.
>
> 2 Click the Host Systems link or Payment Methods link to navigate to items to remove.
>
> 3 Click the trash can icon for the element to remove, then confirm its removal at the prompt.
>
> For detailed steps, see the Operations Center online reference.

5.8   Renaming a Payment Method

You can rename any payment method that you created. You cannot change payment methods that were pre-loaded as part of your commerce solution setup.

Payment method names are limited to twenty characters.

Note: Settings in your commerce solutions must match settings in Payment Gateway. Be sure that if you rename a payment method in Payment Gateway, you also change your commerce solution settings to use the new payment method name.

**Operations Center Task Basics:
Renaming a Payment Method**

Requires administrator's rights.

1   Click Configuration, then click the Commerce Configuration link.

2   Click the Payment Method's link, then the Rename link for the method.

3   Enter a new name and click Save.

For detailed steps, see the Operations Center online reference.

6.0 Maintaining TouchNet Payment Gateway

This chapter covers the tasks you should perform regularly to maintain system performance, such as archiving the system log and maintaining credit card processor or bank information.

The chapter also describes how to manage your Operations Center users and change some configuration settings to improve system performance.

6.1   Required Maintenance

You should periodically archive your Payment Gateway system log file and back up your database. You must also keep your merchant account information current, updating it when your bank provides new data.

Archiving the System Log

Your system log file, *tsyslog.txt*, records the ongoing functions of your Payment Gateway system. This file is used primarily as an aid when you troubleshoot system problems or payment processing errors. (For more details on troubleshooting, see "Archiving Your System Log File For Troubleshooting" on page 86.)

To keep the log file size manageable, TouchNet recommends you archive the file at least once a month. If the *tsyslog.txt* file is not archived and becomes too large, it may slow your system performance. To archive the system log file:

1 Open a command prompt.

2 Navigate to *\touchnet\payment46\bin* to run the tclient command. (Solaris users, navigate to */usr/local/touchnet/payment46/bin*.)

3 Enter the command shown below, replacing the bracketed values with your actual values. (Do not enter the brackets in the command.)

```
tclient -c[admin] -t61466 -p[port] "-r[tsyslog.old]"
```

- For [admin], enter the administrative client ID for the computer where Payment Gateway is running.

- For [port], enter the port where Payment Gateway is running. The default from installation is 9460.

- For [tsyslog.old], enter the unique name for the archived file. You may want to use a file name that identifies the archive date.

A response of zero in the transcode value indicates success; a response of a negative number means the command failed. This command will fail if the

archive file name is already in use. If the command fails, enter it again, using a different archive file name.

Note: Your archived log file will be saved in the *touchnet\payment46\data* directory. To separate archived files from current data, you may want to create a new directory in which to store the files.

Maintaining Data Files

Payment Gateway stores credit card payment transaction data in encrypted data files (DAT file format). Payment Gateway uses these files when you process credits, partial reversals, or voids against purchase transactions.

TouchNet recommends that you do not delete old data files. Your merchant agreement likely governs how long you are required to keep data files. However, you may want to remove older data files from your Payment Gateway environment.

If you no longer need an older data file for payment dispute resolution or further processing, archive it to a safe location and back up the file. Do not delete the file. The location of your data files is shown in the Data directory field; in the Operations Center, navigate to Configuration > Credit Card Configuration > General Configuration.

Other File Maintenance Notes

Payment Gateway creates and stores several files that are used to process credit card payments. The types and numbers of files vary among credit card processors. These files do not require any maintenance, and should not be touched unless you are instructed to do so by TouchNet.

Important! Never open, move, or delete a file with a *.dat, .seq,* or *.inp* extension except as directed by TouchNet. Changes to these files may result in a permanent loss of pending transaction data.

Database Backups

Your Payment Gateway database actually comprises three databases:

- tpg_log_46, which contains the logged data from payment transactions.
- payment_gateway_46, which contains user data for the Operations Center.
- tpg_checks_46, which contains ACH transaction data for webCheck users.

TouchNet recommends that you back up databases at least once a week. In periods of high payment activity or depending on your institution's data storage and recovery policies, you may need to back up the databases more frequently. Follow your database vendor's instructions to complete your backup.

Changing Database Passwords

At the first startup, Payment Gateway automatically encrypts the database passwords stored in the Payment Gateway properties files. If you change a password in your database, you must also change it in the Payment Gateway files as shown here.

Changing Passwords for tpg_log_46 and payment_gateway_46

When you change the password for the tpg_log_46 or payment_gateway_46 database, update the password entry in the corresponding properties file. Payment Gateway will encrypt the new password and store it in a serialized object file. Follow these steps to change your password entry for either database.

1 In a text editor, open the database properties file.

- For tpg_log_46, open \touchnet\payment46\bin\sqllog\sqllog.prp
- For payment_gateway_46, open \touchnet\payment46\bin\tpgutil\tpgutil.prp

2 At the end of the file, add the following lines.

```
USER=
PASSWORD=
```

3 Enter the correct username for the database and your new password as the values. For example:

```
USER=myuser
PASSWORD=mynewpwd
```

4 Save and close the file, then restart Payment Gateway. The new password is encrypted, and the unencrypted value is removed from the properties file.

Changing the Password for tpg_checks_46

If you are licensed for ACH processing, your ACH payment information is stored in the tpg_checks_46 database.

When you enter a new password for the tpg_checks_46 database, update the password entry in the *checks.xml* file. Payment Gateway will encrypt the password and flag it as encrypted. Follow these steps.

1 In a text editor, open the *\touchnet\payment46\bin\checks\checks.xml* file.

2 Locate the <Database> section, then find this line inside that section:

```
<Password Encrypted="true">[encrypted password here]</Password>
```

3 Change the line so that the encryption attribute is set to false, and replace the encrypted password with your new, plain text password. For example:

```
<Password Encrypted="false">mynewpwd</Password>
```

4 Save and close the file, then restart Payment Gateway. When the webCheck module is restarted, it will find the unencrypted password and encrypt it.

Maintaining Merchant Account Information

Your bank or credit card processor may occasionally send you updated merchant account information. You must enter the correct, current information in the Payment Gateway Configuration section of the Operations Center.

If you receive updated merchant account information from your bank and do not update your configuration, then your credit card processor might not process your payment transactions properly.

For details on changing merchant account configuration, see "Managing Merchant Accounts" on page 16, or read the Operations Center online reference topics about merchant configuration.

Important! Never delete text from your primary merchant account to leave its merchant fields blank. All its fields must contain values. Leaving the primary merchant account fields blank will result in an inability to view or use merchant data in the Operations Center.

6.2   Managing Operations Center Users

In the Payment Gateway Operations Center, you control who at your institution can perform different Payment Gateway management tasks. Some users may need the ability to perform all payment processing and configuration tasks; others may only need to view reports.

Some users may need to work with all merchant accounts; others may only need access to one merchant account. When you add a new Operations Center user, you assign both the user's role and access to merchant accounts.

Adding Operations Center Users

When you add a user, the username and password you assign become the initial login for the new user. The user will be able to change the password, but will not be able to change the username.

The e-mail address you enter enables a link from the user list to open an e-mail addressed to the user.

You can assign only one role to the new user. After you add the user, you can assign additional roles. (See "Changing Users' Roles" on page 74.)

You must assign a merchant account to all users except those who have only the administrator role. The administrator role does not include access to merchant account payment data.

This example shows a new user added with the accountant role.

> **Operations Center Task Basics: Adding a New User**
>
> Requires administrator's rights.
>
> 1   Click Operation Center Users, then click the Add New User link.
>
> 2   Enter the new user's information, then click the Submit button.
>
> For detailed steps, see the Operations Center online reference.

Example: Adding a New User with the Accountant Role

Updating Personal Data

Personal data includes the user's name and contact phone numbers. You can enter this information, or let the user update it later in the profile. To update your own profile, click the Edit Profile icon, then enter your name and contact numbers.

Changing Users' Roles

You can assign Operations Center users any combination of the four available roles for any merchant account.

At login, Operations Center users see only the merchant accounts they have been assigned. Under each merchant account name, users see the tasks for their assigned roles.

> **Operations Center Task Basics: Changing a User's Roles**
>
> Requires administrator's rights.
>
> 1 Click Operation Center Users, then click the user's Edit User link.
>
> 2 Change roles and merchant account assignments as needed.
>
> For detailed steps, see the Operations Center online reference.

- **Administrator**–Can change Payment Gateway configuration, add Operations Center users, and assign users' roles and access to merchant accounts. Can change ACH configuration, if used.

- **Accountant**–Can review all Payment Gateway reports and ACH reports, if used.

- **Bursar**–Can process credits and single authorizations, settle batches, and remove payment transactions from batches. For ACH processing, bursars can generate ACH files and mark them as settled, void transactions, and delete ACH files. A bursar can also mark ACH transactions as rejected and reinitiate ACH transactions.

   Note: For ACH merchant accounts, bursars are allowed to see sensitive data in the ACH agreement. Do not assign the bursar's role for a ACH merchant to a user who is not authorized to see this data.

- **Cashier**–Can process single authorizations and credits. For ACH processing, the cashier can view payment details, mark payments as rejected, and reinitiate payments.

The following example shows how the accountant and bursar roles are added within the "Main Merchant" account, and how the accountant role is added for the "webCheck Default" account.

Back to User Management	
Current Roles	**Available Roles**
☐ TPG ADMINISTRATOR	
MAIN MERCHANT	
	☑ Accountant
	☐ Cashier
	☐ Bursar
webCheck Default	
☐ Cashier	☑ Accountant
	☐ Bursar
(Remove Roles)	(Add Roles)

Example: Adding Roles for a User

Note: You cannot remove a user from the Operations Center. To prevent a user from performing tasks in the Operations Center, remove all roles for that user.

Changing a User's Password

An Operations Center administrator can assign a new password to a user who has forgotten the current password.

When you change the password, notify the user of the change.

Note: If you change a password to block a user's Operations Center access, consider whether you also want to remove the user's roles in the Operations Center. Changing the password temporarily prevents the user from logging in until he or she knows the new password; removing roles prevents the user from performing any actions after logging in.

Operations Center Task Basics: Changing a User's Password

Requires administrator's rights.

1 Click Operation Center Users, then click the user's Change Password link.

2 Enter and confirm the new password, then click the Change Password button.

For detailed steps, see the Operations Center online reference.

Tracking User Access of the Operations Center

You can use the Operations Center application log files to see who has logged into the Operations Center, the date and time of each login, and the duration of each user's session.

Use this tracking to figure out which user may have performed a task in the Operations Center. For example, if you wanted to know which user processed a particular credit, you would check the Activity report for the day and time the credit was processed. Then, in the application log for that day, you could determine which users were logged in at that time.

About Log Files

A log file's name shows the year, month, and day the file was created. The log files record session events in XML. In XML, data is contained in elements. For instance, a person's name might be contained in an element like this:

```
<NAME>John Smith</NAME>
```

Reviewing User Access

In a text editor, open the Operations Center log file for the day under review. The log files are located on the computer where you have installed the Payment Gateway web server components, in this directory:

touchnet\payment46\webapp\tpgadmin\logs\pending

For Solaris users:

/usr/local/touchnet/payment46/webapp/tpgadmin/logs/pending

In the log files, each session event is described within an `<EVENT></EVENT>` element. A user's login event includes the username and the time that the user logged in.

Every session event includes the session ID element, `<SESSID>`. All events with the same session ID apply to the same user.

Note: Login and session end times are shown using a 24-hour clock. For example, an `<HR>` value of "16" indicates that the user logged in at 4 p.m.

6.3   Adjusting Payment Gateway Configuration

You can adjust several configuration settings to obtain optimum performance from your Payment Gateway software.

Note: Most configuration changes require you to restart Payment Gateway. The new settings do not take effect until you restart.

Setting Speaker Options for Modems

You can set your modem properties so that you can hear the modem dialing through the modem speakers. The speaker options are specified by the final two characters in the modem initialization string.

Important!   Never modify any characters in the string except for the M0/M1 setting described here. Other changes to your modem initialization string may result in malfunction.

Note: If your payment processor does not use a modem, ignore this section.

In the modem initialization string, select the final two characters, which will be either **M0** or **M1**. Adjust the characters as needed:

• **M0**—Sets the modem to "speaker off."

• **M1**—Sets the modem to "speaker on."

Operations Center Task Basics: Setting Speaker Options

Requires administrator's rights.

1 Click Configuration, then click the Credit Card Configuration link.

2 In Modem Configuration, find the Modem Initialization String.

3 Set the last two characters to M0 for "off" or M1 for "on."

Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

Setting Modem Dialing Properties

All modem dialing properties are located in Modem Configuration.

Note: If your payment processor does not use a modem, ignore this section.

- **With the Redial Count setting,** you can change the number of times that Payment Gateway will attempt to redial following a busy signal or no dial tone.

  Note: Payment Gateway will not redial in response to an authorization rejection.

- **With the Redial Delay setting,** you can change the amount of time to wait after hanging up before trying to dial again. This delay is shown in milliseconds. For example, a setting of 500 milliseconds will cause a half-second wait after hanging up before trying to dial again. (This option is not available for Nova users.)

- **With the Modem Configuration's Connection Timeout setting,** you can change the time needed to connect to an outside line. The timeout is shown in milliseconds. For example, a value of 20000 allows 20 seconds from call initiation to connection.

  To see how long the system takes to connect to an outside line, Windows users can view the tpg service window. The time stamps on the dialup and connection entries indicate how many seconds passed between the two.

- **With the Hangup time setting,** you can control the amount of time to wait for the modem to hang up before attempting to send the next transaction. TouchNet recommends that you do not change the default of 1000 milliseconds (1 second).

- **With the Com Port setting,** you can specify which communications port will be used by the primary modem connection.

- **With the Second Com Port,** you can specify which communications port will be used by a secondary modem, if one is available.

Changing Accepted Credit Card Types

Your configuration for each credit card merchant includes a list of the credit card types that the merchant accepts.

You can enable additional card types from Payment Gateway's list, or disable card types that the merchant no longer accepts.

Do not enable a credit card type that your bank does not accept.

Note: JCB in the credit card list designates the Japan Credit Bureau card type.

> **Operations Center Task Basics: Changing Accepted Card Types**
>
> Requires administrator's rights.
>
> **1** Click Configuration, then click the Credit Card Configuration link.
>
> **2** Click Merchant Configuration, then select the merchant.
>
> **3** Enable and disable card types as needed.
>
> Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

Disabling the "Settle Now" Feature

Important! GPS Central, Concord, Moneris, and NCR users, this feature was disabled for you at install. You must not use this feature. Leave it disabled. Use of "settle now" with those credit card processors will cause errors in payment processing.

The "Settle Now" feature allows an Operations Center user with bursar's rights to settle an individual transaction or a single authorization apart from the pending batch.

To ensure transactions are always settled in batches, not individually, disable the "Settle Now" feature.

1 Use a text editor to open the file, *touchnet\payment46\webapp\tpgadmin\config\critical.prp*.

2 Within the file, locate the following line:

```
ShowSettleNow=true
```

3 Change the line to read:

```
ShowSettleNow=false
```

4 Save and close the file.

To re-enable "Settle Now" functionality, change the value from **false** to **true**.

Increasing the Transaction Timeout Value

When a batch that contains a large number of transactions is settled by a bursar or cashier using the "Settle Batch" feature, the Operations Center may pass its timeout value before the response returns from the credit card processor.

When this happens, the batch may be successfully processed, but the Operations Center user will see an error message, and the successfully processed batch results will not appear in reports until the database has been updated.

If you encounter this problem, or if you routinely use the "Settle Batch" feature to immediately settle the pending batch, increase the transaction timeout value to reduce the risk of this error.

1 Use a text editor to open the file, *touchnet\payment46\webapp\tpgadmin\config\critical.prp.*

2 Within the file, locate the following line:

```
TransactionTimeoutSecs=300
```

3 Change the timeout value from 300 seconds to a larger number of seconds as needed.

4 Save and close the file.

Switching Between IP and Modem Connections

If you use IP connectivity but also have modems installed for use with Payment Gateway, you can switch to modem use if needed.

Important! Before you switch from IP to modem connectivity, TouchNet recommends that you remove public access to your payment application and test the changed configuration to ensure you can connect to your credit card processor through a modem. To test connectivity, use test data and a test credit card, and submit a single authorization through the Operations Center.

After you change your configuration, make sure that your modems are properly connected before you restart Payment Gateway.

To switch back to IP connectivity, reset the Enable IP option to **Yes** in the General Configuration page. Review the IP connectivity settings in your Merchant Configuration page to make sure they are correct, then save the settings and restart Payment Gateway.

> **Operations Center Task Basics: Switching to Modem Use**
>
> Requires administrator's rights.
>
> 1 Click Configuration, then click the Credit Card Configuration link.
>
> 2 In Modem Configuration, verify all modem settings.
>
> 3 In General Configuration, set the Enable IP option to No. Save your change.
>
> Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

Modifying TransMgr Configuration

Once Payment Gateway is set up and working properly, you should need to change its Transaction Manager configuration only when you have added or changed client or server addresses.

Important! Improper changes to Transaction Manager configuration can cause Payment Gateway to stop working. Always be certain the changes you make are necessary and correct.

To update Transaction Manager configuration, log into the Operations Center with administrator's rights and click the Payment Gateway Configuration link. In TransMgr configuration, click any of the following links to view or update the configuration entries:

- **Client ID Table–**These entries are used to validate the clients that send data requests. Add a new entry when a new client (such as a web server) will be sending data to Payment Gateway. If an existing client's address changes, update its entry with the new address. TouchNet recommends that you do not change the maximum simultaneous connection values; leave them at the default value of zero, for unlimited connections.

- **Server ID Table**–These entries identify the servers to which Transaction Manager passes data. If an existing server's IP address changes, update its entry with the new address. You should not need to add or remove a server in this list unless directed to do so by TouchNet.

Important! TouchNet strongly recommends that you do not change any values other than server IP addresses.

- **Transaction Attributes**–Defines all valid transactions and where to route data for each transaction. You should not need to make any changes in this list unless directed to do so by TouchNet.

6.4 Maintaining ACH Configuration

If you are licensed to process ACH transactions with Payment Gateway, you must update Payment Gateway's routing number table periodically so that all bank account routing numbers will be properly verified.

Updating Routing Number Tables

To update your routing number tables, download the newest version of the *routenum.sql* script for your database type from the TouchNet Client Services web site:

- MySQL users, download r*outenum_mysql.sql.*
- Oracle users, download r*outenum_ora.sql.*
- SQLServer users, download r*outenum_sqlsrv.sql.*

Run the script against the tpg_checks_46 database, then restart Payment Gateway.

Note: Update your Routing Number Validation table at least once a week.

About Routing Number Validation

Payment Gateway accepts only payments that are submitted with valid routing numbers. To validate routing numbers, Payment Gateway uses routing number data supplied by the United States Federal Reserve. These numbers are stored in the Payment Gateway database.

In some cases, the routing number is valid for ACH processing but is not the true bank routing code. Payment Gateway performs the lookup to validate the submitted routing code, and stores both the submitted routing number and corresponding bank routing code in the database.

Occasionally, the Federal Reserve will update routing number information. When this occurs, TouchNet uses the updated information to generate an updated *routenum.sql* script, which is placed on the Client Services web site for you to retrieve. When you run this script on your database, it will replace your outdated routing number table with the current, correct table.

Note: Payment Gateway does not validate bank account numbers, provide check verification, or check guarantee services.

Changing ACH Configuration Options

Once ACH processing features are set up and working properly, you should not need to change your configuration settings.

You can, however, manage some ACH features through the Operations Center.

The following table details the settings you can change in the General Configuration page.

Operations Center Task Basics: Changing ACH Options

Requires administrator's rights.

1 Click Configuration, then click the ACH Configuration link.

2 Click the task bar links to open pages where you can change and save options.

Restart Payment Gateway to use new settings. For detailed steps, see the Operations Center online reference.

ACH Configuration Options

Page	Setting	Description
General Configuration	License key	Enter the license key that TouchNet has assigned you for ACH processing.
	Data directory	You cannot edit this entry. It shows the location of your ACH files.
	Debug level	Keep the level set to 3 unless otherwise instructed by TouchNet.
	Enable multiple merchants	Set to yes if your institution uses more than one merchant to accept and process ACH payments.

7.0 Troubleshooting Payment Processes

In a properly functioning Payment Gateway environment, occasional errors can cause authorizations or batch settlements to fail. These failures can be caused by factors such as connectivity problems, problems in your credit card processor's operations, or invalid payment information submitted by payers.

The authorization, batch settlement, and batch details reports include records of errors that caused authorizations or settlements to fail. In these reports, you may see these types of error codes:

- **-1600 and -4xxx series errors.** These codes indicate that the credit card processor has signalled a failure. You must contact your credit card processor for assistance with this type of error. To look up your credit card processor's error codes, see your Payment Gateway Operations Center online help.

- **-1700 series errors.** These codes indicate that Payment Gateway has signalled a failure. When this type of error occurs, use the basic troubleshooting procedures below and the "Error Resolution Steps: -1700 Series Errors" on page 93 to resolve the problem.

- **-1300 series errors.** For users with IP connectivity, reports will display any -1300 series errors related to IP or SSL processes. For more information, see "-1300 Series Error Codes" on page 106.

7.1 Basic Troubleshooting Procedures

The following procedures apply whenever you troubleshoot an authorization or batch settlement error. Refer to these procedures as you follow the error resolution steps for the problem. (Error resolution steps begin on page 93.)

Before Contacting Client Services

If you need to contact TouchNet Client Services for help resolving problems, please have the following information ready. This will help us troubleshoot and resolve your problems.

- The name of your credit card processor.
- The version number of your payment processor module.
- The error code you have encountered.
- Information from your error report about the problem.
- The number of times you have tried to resubmit your batch.
- Whether you are able to process authorizations.

Troubleshooting With the Error Report

Some errors can occur for more than one reason. The Error Log report compiled by Payment Gateway contains details that may help you pinpoint causes of errors. To check the Error Log report:

1 Log into the Operations Center as an accountant.

2 In the home page, select the Payment Gateway Reports link.

3 Select Credit Card payment type, the Error Log report type, and a range of dates to search. Select a specific merchant or all merchants.

4 Click the View Report button to open the error report.

5 Click the *settle.RB* file link to view details of a failed batch.

Archiving Your System Log File For Troubleshooting

Your system log file, *tsyslog.txt*, contains information that will help TouchNet Client Services troubleshoot and resolve persistent errors.

When an error cannot be resolved through preliminary troubleshooting, archive your current *tsyslog.txt* file immediately so that the data pertaining to the error can be more easily located in the file.

To archive the system log file, follow these steps.

1 Open a command prompt.

2 Navigate to *\touchnet\payment46\bin* to run the tclient command. (Solaris users, navigate to */usr/local/touchnet/payment46/bin*.)

3 Enter the command shown below, replacing the bracketed values with your actual values. (Do not enter the brackets in the command.)

```
tclient -c[admin] -t61466 -p[port] "-r[tsyslog.old]"
```

- • For [admin], enter the administrative client ID for the computer where Payment Gateway is running.

- • For [port], enter the port where Payment Gateway is running. The default from installation is 9460.

- • For [tsyslog.old], enter the unique name for the archived file. You may want to use a file name that identifies the archive date.

After you enter the command, a response of zero in the transcode value indicates success. A response of a negative number means the command failed. This command will fail if the archive file name is already in use. If the command fails, enter it again, using a different archive file name.

Note: Your archived log file will be saved in the *touchnet\payment46\data* directory. To separate archived files from current data, create a new directory in which to store the files.

Confirming Your Payment Processor Module Version

When your credit card processor changes its operational requirements, TouchNet may release an updated payment processor module that complies with the new requirements. (For Microsoft Windows NT, Windows 2000, or Windows 2003 users, this update is provided in a DLL file. For UNIX users, it is provided in a shared library.)

Your credit card processor expects data to be delivered using its current requirements. Therefore, errors may occur in your system if you are using an outdated payment processor module.

To keep your system current with your processor's requirements, please install updates as they become available from TouchNet.

Important! Always settle your current batch and verify that the batch settled successfully before updating your payment processor module files.

To check the most recent version number or download the latest available payment processor module, visit the TouchNet Client Services web site at **http://www.touchnet.com**.

To check the version you are currently using, open the Operations Center and log in with administrator's rights. Navigate to Configuration > Credit Card Configuration. Your version information is displayed in the General Configuration page.

Troubleshooting Credit Card Configuration

If you see from the error report or the error resolution steps ("Error Resolution Steps: -1700 Series Errors" on page 93) that you need to troubleshoot your configuration, follow these steps.

1 Log into the Payment Gateway Operations Center with administrator's rights.

2 In the home page, click the Configuration link.

3 Click the Credit Card Configuration link.

4 Review the General Configuration tab. Ensure that settings for multiple merchant and enabling IP (if available) are set correctly.

5 Click the Modem Configuration link. In modem configuration, make sure the phone number entry is the correct number required by your credit card processor. If needed, update the number and click the Save Changes button.

6 Click the Merchant Configuration link. In merchant configuration, select the name of the merchant account to check from the Edit Merchant drop-down list.

7 In merchant configuration, verify that all entries contain the up-to-date, correct information required by your credit card processor. Check to make sure the credit card types you accept are correctly marked. If needed, update entries and click the Save Changes button.

Note: Do not change the Subdirectory entry. Do not use the same Subdirectory name for more than one merchant.

8 If you have made any changes to your configuration, restart Payment Gateway so that the changes will take effect.

About Debug Files and Levels

Your encrypted debug file can help TouchNet Client Services troubleshoot and resolve persistent errors. When errors occur, you may need to increase the level of detail shown in the debug file.

Keep your debug level set to the default of 3 unless otherwise instructed by TouchNet. Other debug levels should be used only under the direction of TouchNet Customer Support.

If TouchNet instructs you to change the debug level, you must restart Payment Gateway for the change to take effect.

Note: You do not need to archive the debug file manually. When the debug file size reaches 10 megabytes, Payment Gateway renames the file and starts a new debug log. Payment Gateway saves the two previous backups (with extensions of .bak and .del) in addition to the current debug file.

Note: Your debug files are encrypted and cannot be viewed. TouchNet may request these files to assist you as needed. Separate debug files are maintained for credit card and ACH processing.

7.2   Troubleshooting Batch and Update Problems

This section provides information about troubleshooting batch settlement, resubmitting batches, and troubleshooting errors related to data update problems.

Note: Moneris users, if you incur batch settlement errors, refer to the Operations Center online reference for troubleshooting steps.

Troubleshooting Batch Failures Due to Connectivity

When you run a batch, or when a scheduled batch is due to run, Payment Gateway checks at the scheduled time to see whether a connection is available. If Payment Gateway does not find a connection available, it continues checking periodically. This allows the batch to settle correctly even if a connection is unavailable for some time.

If the connection continues to be unavailable, your batch will result in an error. A long period of unavailability indicates a problem with the modem, for modem users, or network problems for IP users.

Note: If you had a batch scheduled but no record of it appears in reports, it is likely that no transactions were pending.

Note: Moneris users, batch failures may require additional troubleshooting. See "Troubleshooting Batch Settlement for Moneris" in the Operations Center online reference.

To start troubleshooting:

- **If the modem is not working** and TouchNet provides your hardware maintenance, contact TouchNet Client Services for further assistance. Otherwise, contact your hardware provider for assistance.

- **If the modem is working but was temporarily unavailable** (for example, if the connection was loose or unplugged):

  a   Resolve any problems related to the modem connection.

  b   Log into Payment Gateway Operations Center as a bursar, then in the home page, click the Settle Batch link.

  c   In the Settle Batch page, click the Settle Batch button.

- **If the modem is working properly** and you can find no reason for it to be unavailable:

  a   Contact your credit card processor to verify that the batch failed. Attempt to resubmit the batch if it hasn't settled.

  b   If the batch fails again, archive your system log file. (See "Archiving Your System Log File For Troubleshooting" on page 86.)

  c   Contact TouchNet Client Services.

- **IP users,** contact your credit card processor to find out if they are now using additional IP addresses. If so, you may need to reconfigure a firewall to allow the connection.

Resubmitting a Batch

When a batch failure occurs, Payment Gateway stops trying to send the batch and allows the next batch to be created and sent. The file for the failed batch is renamed to *settle.RB#####-yyyy-ddd-hhmmss*, where **#####** represents the batch number, **yyyy** represents the year, **ddd** represents the day of the year, and **hhmmss** the hour, minute, and second, with hours shown from the twenty-four-hour clock.

For example, if batch number 00025 failed on August 8 (the 221st day of the year), 2004 at 2:33 p.m., the file name would be *settle.RB00025-2004-221-143300*.

Important! Before resubmitting a batch, refer to the error resolution steps beginning on page 93. You may need to perform critical steps before attempting to resubmit the batch.

Note: Moneris users, do not use these steps to resubmit a batch. See "Troubleshooting Batch Settlement for Moneris" in the Operations Center online reference.

When the error resolution steps indicate that you should try to resubmit a batch settlement, follow these steps.

1 Check the Error Log report. If a batch has failed and has not yet been settled, the report should show the name of the *settle.RB* file that was created. If you do not have a settle.RB file, you may have a settle.INP file, which is a pending batch that has failed. In this case, go to step 3.

2 View the details of the settle.RB file using the View Details button on the report.

3 Contact your credit card processor to verify the status of the batch.

4 If the batch succeeded, navigate to your *touchnet\payment46\data\<processor name>* directory or the correct merchant account subdirectory. There, locate the settle.RB or settle.INP file.

- If the batch was successful, decide whether you need to keep your settle.RB or settle.INP file for viewing or whether you can go ahead and delete it. Deleting the file will prevent a user from settling the file and charging cards a second time. After you delete the file, you cannot view its contents in the Operations Center, though you will be able to process credits against its transactions.

- If there is no settle.RB or settle.INP file, contact TouchNet Client Services.

5 In the Operations Center, settle the current batch for the merchant account. To do this, click the Settle Batch link for the correct merchant account, then click the Settle Batch button.

6 Navigate to the *touchnet\payment46\data\<processor name>* directory or the correct merchant account subdirectory. If you see a new *settle.dat* file, repeat step the previous step to settle the batch. You cannot proceed until you have cleared any *settle.dat* files by settling their batches.

7 Rename the *settle.RB* file (or settle.INP file) to *settle.dat*. Do not include the date and time information. The new file name must be *settle.dat*.

8 Return to the Operations Center. Click the Settle Batch link for the correct merchant account. You should now see the transactions for the failed batch.

9 Click the Settle Batch button.

10 From the home page, click the Payment Gateway Reports link. Select Credit Card payment type, Batch Settlement report, and the merchant. Select the current date, then click the View Report button.

- If the report shows an error for the batch, review the Batch Details and Error Log reports for more information. If there is no entry for the batch in the report, check the Error Log report. Then, continue to the next error resolution step.

- If the report shows a successful settlement, you can resume normal Payment Gateway Operations.

Troubleshooting Payment Log Errors

A payment log error means problems occurred when posting data to the Payment Gateway database. If this happens, you will see an error of type LOG in the Error Log Report. If transactions are missing from reports, this type of error may have occurred.

Your payment data log files are encrypted for security. TouchNet can assist you in confirming and troubleshooting data posting errors. To start troubleshooting:

1 In Payment Gateway Reports, select the Credit Card payment type, the Error Log report type, and any merchants to search.

2 Click the View Report button, then sort the report results by clicking the Type column heading.

3 Confirm that a LOG error has occurred. The error entry will state that the pmtlog file has been renamed. Note the new name of the pmtlog.RP file, which contains the date and time the error occurred.

4 In Configuration > Credit Card Configuration > General Configuration, note the location of your data directory. Your renamed log file is in this directory.

5 Exit the Operations Center.

6 Create a backup copy of the files in your data directory, then contact TouchNet Client Services.

TouchNet Client Services will request you to send the renamed pmtlog.RP file and will work with you to confirm whether its data was correctly posted to your database and troubleshoot further as needed.

Troubleshooting Host Update Balance Errors

A host update balance error means that Payment Gateway has been unable to update the host for this particular transaction. If this happens, you will see one or more errors of type UPDT in the Error Log Report.

For any such errors, check the Description field. A description of "Unsuccessful" means that Payment Gateway is continuing to try to update the host balance.

Host update balance errors can occur for credit card or ACH payments. The host update balance error can also occur for cash transactions submitted through TouchNet Cashiering. To troubleshoot host balance update errors:

1 In Payment Gateway Reports, select the Credit Card payment type, the Error Log report type, and any merchants to search.

    Note: Although you select the Credit Card type, the report will show any host update balance errors for all payment types.

2 Click the View Report button, then sort the report results by clicking the Type column heading.

3 Review any UPDT errors with the same reference number.

    • If none of the errors is described as failed, then Payment Gateway is continuing to try unsuccessfully to update the host. In this case, check network or host availability problems.

    • If an error is described as failed, the likely cause is that invalid data has been submitted with the transaction.

4 Review any additional information in the error message to further pinpoint the problem.

Should you need assistance, note the reference number included in the error description. This number includes a date and time, and ends with a three-digit number, and allows location of the error within the update balance information posted to the host.

7.3   Other Problems and Solutions

In other chapters of this guide, we explain how to troubleshoot and solve various problems. For any of the following, refer to the section of the guide that describes the solution. For other system problems, check your Payment Gateway 4.6 Setup guide to confirm that all steps were properly completed.

- If a payment was authorized but not captured, check its settlement status through the Process Credit page, and add the transaction to the pending batch if needed. For details, see "Capturing an Authorized Transaction" on page 31.
- If the Operations Center reports a timeout when you settle large batches, check your transaction timeout and change it if needed. For details, see "Increasing the Transaction Timeout Value" on page 80.

7.4   Error Resolution Steps: -1700 Series Errors

Error codes beginning with **-17** typically indicate problems with modem connectivity or with your Payment Gateway configuration. When these errors occur, you will see them recorded in the Activity report or batch settlement report.

When a -1700 series error occurs, always check the error report, which may provide more exact information about the cause of the error. Then, follow the error's resolution procedure, below.

Important! If an error occurs during the response from the credit card processor, your reports might not show the completed settlement or authorization. Always contact your credit card processor when indicated in the steps below.

Note: All error troubleshooting topics are included in your Operations Center online help. TouchNet may periodically release updates to your online help that contain additional tips or information not found in this guide. If you have applied any updates to your Operations Center online help, please check there for current troubleshooting information.

-1701   A required value was not found in the configuration file. This error commonly occurs if your current license does not allow an attempted operation, or if you have added more merchant accounts than your license allows. It may also occur if your Payment Gateway configuration is incorrect or incomplete.

1 Check the Error Log report for additional information about the error's cause.

2 Troubleshoot and correct as needed:

- Payment processor module version should be the latest available. (Always successfully settle your current batch before updating the module version.)

- Modem configuration should be complete and include the correct phone number required by your credit card processor.

- Merchant configuration should be complete and up-to-date with any changes required by your credit card processor.

3 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

4 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1702   Authorization error; required card data was not present or failed verification check. May indicate an invalid card number or type submitted by the payer.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

If you receive this error when submitting a single authorization through the Payment Gateway Operations Center, you may have submitted an incorrect card number or type. You may verify the payment information and attempt to enter the payment again.

Note: For T-Serve-based web interface users, this code may indicate incorrect setup of the TBill utility. If repeated errors occur, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1703   Generic authorization error; occurs in any case that might cause a card issuer to deny a payment, such as insufficient funds.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

If you receive this error when submitting a single authorization through the Payment Gateway Operations Center, you may have submitted invalid or incorrectly formatted data. You may attempt to re-enter the payment. Do not include the dollar sign in the payment amount field.

Note: For T-Serve-based web interface users, this error may indicate incorrect setup of the TBill utility. If repeated errors occur, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1704

Generic settlement error. The error may occur in response to modem or other connection problems; if merchant or modem configuration is incorrect; or if incorrect characters appear in return data from the credit card processor.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

1 Check the Error Log report for additional information about the error's cause.

2 Troubleshoot and correct as needed:

- Payment processor module version should be the latest available. (Always successfully settle your current batch before updating the module version.)
- Modem configuration should be complete and include the correct phone number required by your credit card processor.
- Merchant configuration should be complete and up-to-date with any changes required by your credit card processor.

3 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

4 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1705

A "start" signal was not sent by credit card processor. Indicates a modem or other connection error.

For an authorization, this error indicates that the authorization was not started by the credit card processor.

For a settlement, this error may have occurred after part or all of the batch was settled by the credit card processor, but before Payment Gateway received a response from the settlement.

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out whether any transactions settled.

    a   If any transactions settled, contact TouchNet Client Services for further assistance. (See "Before Contacting Client Services" on page 85.)

    b   If no transactions settled, continue to the next step.

3 Attempt to resubmit the batch. If errors persist, continue to the next step.

4 Troubleshoot and correct as needed:

    •   Modem configuration should be complete and include the correct phone number required by your credit card processor.

5 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

6 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1708

The maximum number of retries was exceeded. This error may have occurred after part or all of the batch was settled by the credit card processor, but before Payment Gateway received a response from the settlement.

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out whether any transactions settled.

    a   If any transactions settled, contact TouchNet Client Services for further assistance. (See "Before Contacting Client Services" on page 85.)

    b   If no transactions settled, continue to the next step.

3 Attempt to resubmit the batch. If errors persist, continue to the next step.

4 Troubleshoot and correct as needed:

    •   Modem configuration should be complete and include the correct phone number required by your credit card processor.

5 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

6 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1709

Response character was not received before timeout. This error may have occurred after part or all of the batch was settled by the credit card processor, but before Payment Gateway received a response from the settlement.

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out whether any transactions settled.

    a   If any transactions settled, contact TouchNet Client Services for further assistance. (See "Before Contacting Client Services" on page 85.)

    b   If no transactions settled, continue to the next step.

3 Attempt to resubmit the batch. If errors persist, continue to the next step.

4 Troubleshoot and correct as needed:

    •   Modem configuration should be complete and include the correct phone number required by your credit card processor.

5 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

6 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1710

The request made for the transaction is not a valid request; the operation you have attempted on the transaction is not allowed. If using the Payment Gateway API, verify that the data passed to Payment Gateway is valid.

-1711

Bad batch write. The batch was processed, but the batch file could not be updated and may be corrupted.

1 Contact your credit card processor to verify that the batch settled.

2 Back up all data files. The location of your data files is shown in the Data directory field; in the Operations Center, navigate to Configuration > Credit Card Configuration > General Configuration.

3 Contact TouchNet Client Services for assistance.

-1712

Bad read from settlement batch file. Typically, this indicates that the settlement data expected by the credit card processor does not match the data sent with the batch settlement.

Contact TouchNet Client Services for assistance. (See "Before Contacting Client Services" on page 85.)

Note: For T-Serve-based web interface users, this code may indicate incorrect setup of the TBill utility. Contact TouchNet Client Services for assistance.

-1714

Modem processing failed. This error may have occurred after part or all of the batch was settled by the credit card processor, but before Payment Gateway received a response from the settlement.

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out whether any transactions settled.

   a   If any transactions settled, contact TouchNet Client Services for further assistance. (See "Before Contacting Client Services" on page 85.)

   b   If no transactions settled, continue to the next step.

3 Troubleshoot and correct as needed:

- Modem configuration should be complete and include the correct phone number required by your credit card processor.

4 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

5 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1715

Modem was unavailable.

Note: In addition to completing the steps below, check your modems. If a modem is not working and TouchNet provides your hardware maintenance, contact TouchNet Client Services. Otherwise, contact your hardware provider.

1 Check the Error Log report for additional information about the error's cause.

2 Attempt to resubmit the batch. If errors persist, continue to the next step.

3 Troubleshoot and correct as needed:

- Modem configuration should be complete and include the correct phone number required by your credit card processor.

4 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

5 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1716

A bad LRC accuracy check was received. Each request and response includes a single character that verifies whether the response corresponds to the request. This error indicates that the request and response characters did not match.

This error may have occurred after part or all of the batch was settled by the credit card processor, but before Payment Gateway received a response from the settlement.

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out whether any transactions settled.

   a If any transactions settled, contact TouchNet Client Services for further assistance. (See "Before Contacting Client Services" on page 85.)

   b If no transactions settled, continue to the next step.

3 Attempt to resubmit the batch. If errors persist, continue to the next step.

4 Troubleshoot and correct as needed:

- Modem configuration should be complete and include the correct phone number required by your credit card processor.

5 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

6 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1717

Modem dial failed; either no dial tone was found, or another modem, phone line, or other connection error has prevented the connection to the credit card processor. The error may also indicate incorrect modem configuration.

1 Check the Error Log report for additional information about the error's cause.

2 Attempt to resubmit the batch. If errors persist, continue to the next step.

3 Troubleshoot and correct as needed:

- Modem configuration should be complete and include the correct phone number required by your credit card processor.

4 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

5 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1720

This error may indicate that a modem, phone line, or other connectivity problem occurred during a response. Other conditions that cause this error are incorrect merchant or modem configuration or unexpected data received from the credit card processor.

Note: In addition to completing the steps below, check your modems. If a modem is not working and TouchNet provides your hardware maintenance, contact TouchNet Client Services. Otherwise, contact your hardware provider.

This error may have occurred after settlement but before Payment Gateway received a response. If this error occurred during settlement:

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out whether any transactions settled.

   a   If any transactions settled, contact TouchNet Client Services for further assistance. (See "Before Contacting Client Services" on page 85.)

   b   If no transactions settled, continue to the next step.

3 Attempt to resubmit the batch. If errors persist, continue to the next step.

4 Troubleshoot and correct as needed:

   •   Modem configuration should be complete and include the correct phone number required by your credit card processor.

   •   Merchant configuration should be complete and up-to-date with any changes required by your credit card processor.

5 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

6 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1721

The batch settlement failed because a record was flagged as invalid by the credit card processor. Contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1722

A duplicate batch was received.

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out the reference number for the latest batch they received, the number of transactions it contained, and its total amount. This information will help TouchNet Client Services in further troubleshooting.

3 Contact TouchNet Client Services for assistance. (See "Before Contacting Client Services" on page 85.)

-1723

An error occurred in receiving the batch. The error may indicate that the host was busy. It may also indicate incorrect merchant configuration or credit card processor phone number information.

1 Attempt to resubmit the batch. If errors persist, continue to the next step.

2 Troubleshoot and correct as needed:

- Modem configuration should be complete and include the correct phone number required by your credit card processor.
- Merchant configuration should be complete and up-to-date with any changes required by your credit card processor.

3 If you have made any changes during troubleshooting, restart Payment Gateway and resubmit the batch.

4 If you did not locate any problems during troubleshooting, or if errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1724

Authorization error; address verification failed. No correction is required.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

-1725

Authorization error; card is expired. No correction is required.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

-1726

The batch was out of balance; payment amounts expected by the credit card processor did not match the amount total of the batch.

1 Check the Error Log report for additional information about the error's cause.

2 Contact your credit card processor to find out whether any transactions settled.

(Also, inform your credit card processor that you have received a batch out of balance error; your processor may be able to provide additional information about the cause of the error.)

3 Contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1727

An invalid amount was specified; may indicate that you attempted to reverse or credit an invalid amount, or attempted an authorization for zero or fewer dollars.

Note: This error code indicates that the request could not be accepted as submitted. It does not indicate a system error.

Customers with T-Serve-based web interfaces may receive this error when changes have been made to the application that allow incorrectly formatted amounts to be passed to Payment Gateway.

1 Verify that all vendor updates have been correctly applied to your T-Serve-based web interface.

2 If errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1728

Reversals are not allowed for this transaction. The error occurs when you try to process a credit on a payment that has not yet been settled, with a credit card processor that does not allow reversals. If needed, you may remove the transaction from the pending batch, then process a single authorization for the correct amount.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

-1729   The operation has been attempted on a previously voided transaction. This error indicates that no further activity is permitted for the transaction you selected in the Operations Center.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

-1730   The operation is not valid for this transaction. This error indicates that your credit card processor does not allow the attempted operation. For example, your processor might not allow you to perform a credit on an item that has not been batched; this error would return if you attempted to process such a credit through the Operations Center.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

-1731   Bad settlement; error determined by clearinghouse. The credit card processor may have disconnected before completing the settlement process.

1   Check the Error Log report for additional information about the error's cause.

2   Contact your credit card processor to find out whether any transactions settled.

a   If any transactions settled, contact TouchNet Client Services for further assistance. (See "Before Contacting Client Services" on page 85.)

b   If no transactions settled, continue to the next step.

3   Attempt to resubmit the batch. If errors persist, contact TouchNet Client Services. (See "Before Contacting Client Services" on page 85.)

-1732   ACH agreement not found. This error provides security against the submission of an ACH payment without a signed electronic agreement. No troubleshooting is required.

-1733   ACH routing number not found. This error provides security against the submission of an ACH payment with an invalid routing number. No troubleshooting is required.

-1734   Operation is not allowed for this transaction. For ACH transactions, the error indicates that the current payment status does not allow the attempted operation. Consult the Operations Center online help for instructions on ACH operations.

-1735   Transaction reinitiated too many times. ACH transactions may only be included three times in generated ACH files. Payment Gateway allows two reinitiations. This error indicates that the transaction cannot be reinitiated again.

-1736   Settle now not allowed. This error will occur if a "settle now" command is given when the "settle now" functionality has been disabled for your system. In this case, the transaction must be settled with the next batch.

-1737   License exceeded. You may only process transactions for the number of merchants for which you are licensed. This error indicates that you have added more merchant accounts than your license allows. Contact TouchNet Client Services for assistance with additional merchant accounts.

-1738   Unlicensed transaction. Indicates an attempt to process a transaction type that is not allowed by the processor.

-1739   Invalid rejection code. For ACH transactions. Indicates that you have entered a rejection code not recognized by Payment Gateway. Check your bank's indicated rejection code; re-enter the code.

-1740   You have attempted to settle a batch when another batch is already in progress. Wait until the first batch has settled, then settle the second batch.

-1741   CVV2 verification failed and you have configured Payment Gateway not to settle the failed transaction. In this case, if the authorization was approved, the card has been encumbered.

This error will only occur if you have chosen not to settle transactions failed for CVV2 reasons. You can change this configuration so that you still settle

transactions when they fail CVV2 verification. Contact TouchNet Client Services for help changing your configuration.

-1742

An ACH transaction had an invalid origin or SEC code.

Note: This error code indicates that the request could not be filled as submitted. It does not indicate a system error.

-1743

You have attempted an operation that is not allowed on a payment from a savings account.

-1300 Series Error Codes

For users with IP connectivity, reports will display any -1300 series socket-related errors. Typically, these errors are related to IP or SSL processes.

If any of these errors occurs, contact your network administrator for assistance with the cause of the error, and contact TouchNet Client Services for assistance with affected batch settlements.

IP Connectivity and SSL Error Codes

Error Code	Description
-1301	Cannot create socket.
-1302	Cannot resolve host name.
-1303	Cannot connect socket.
-1304	Socket write error.
-1305	Socket read error.
-1311	Invalid socket error.
-1314	Socket closed error.
-1317	Socket timeout error.
-1353	SSL failed initialization.
-1357	SSL connect failed.
-1359	SSL write error.
-1360	SSL read error.
-1362	SSL certificate not found.

7.5 Other Error Codes

Other types of response codes you may see in reports include the -1600 series codes from your credit card processor and Transaction Manager rejection codes.

Credit Card Processor Error Codes

Errors beginning with **-16** or in the -4xxx range indicate problems occurring at your credit card processor. You must contact your credit card processor for assistance with this type of error. For most credit card processors, the Payment Gateway Operations Center online help includes a list of -1600 and -4xxx series codes, the related processor's codes, and error descriptions.

For some credit card processors, errors returned during authorization appear as "authorization failed" and errors returned during settlement appear as "failure." For response codes other than "success," contact your credit card processor for assistance.

Transaction Manager Rejection Codes

Error numbers -1 through -10 indicate problems in Transaction Manager setup. These errors typically do not occur after Payment Gateway is configured and operating properly. If you receive a Transaction Manager error, contact TouchNet Client Services for help with your configuration.

Note: For details on specific errors, see the Payment Gateway Operations Center online help, "About Transaction Manager Rejections."

Error Codes in Your Applications

Payment Gateway does not return error messages for display in online applications. All payment-related error messages in your applications are set up in that application's files. For T-Serve-based web interface users, these messages are recorded in the editable *respcode.txt* file.

8.0 Terms and Definitions

ACH file – The standard format in which banks receive information to process ACH payments.

Ancillary data – Additional data recorded with a payment transaction, for instance, a payer's ID number.

Acquiring bank – A bank that enables merchants to accept credit card transactions. This bank sets up the merchant account and deposits daily credit card sales, minus any applicable fees, into the merchant's account. An acquiring bank is sometimes called a "merchant bank."

Authorization – Approval of a credit card transaction by a credit card processor, on behalf of the issuing bank. All transactions must be authorized before they can be settled.

AVS – Address Verification System. This system checks the customer's billing address to make sure it matches the credit card. Use of AVS is determined by your credit card processor.

Batch – A set of authorized payment transactions that are settled together.

Capture – The credit card processor's record of the authorized amount as an amount to be billed to the cardholder's account. At settlement, the credit card processor compares the amount in the capture to the amount you submit for settlement.

Client – A computer or software component that sends transaction requests to a server. For instance, when a user makes a payment using a web browser, that web browser is a client to the web server that receives the request. When the web server passes the request on to Payment Gateway, the web server is a client to the computer where Payment Gateway is running.

Client ID – The ID that a client passes to Payment Gateway. Payment Gateway only accepts requests from clients that are listed in the Payment Gateway client ID table.

Commerce solutions – Applications such as TouchNet eBill or TouchNet Cashiering, that allow a school to accept payments online and process them through Payment Gateway.

Credit – An amount returned to a cardholder's account to refund part or all of a payment. (See also Reversal and Void.)

Credit card processor – An institution that provides banking services to your acquiring bank. The credit card processor authorizes and settles credit card transactions and coordinates transfers of funds between issuing banks and acquiring banks.

CVV2 – Card Verification Value. This number is printed, not imprinted, on a credit card and is usually located in the card's signature area or above the imprinted number on the card.

Data packet – For any transaction, the data that is passed together between programs or computers.

Decrypt – To decode encrypted data so that it can be processed or read.

Encrypt – To encode data to prevent unauthorized access.

Host system – A computer system or individual computer on which data is stored. Also, a computer that receives transaction requests. A host system may also be called a "host."

Host system account – An account on a host system where information about payments is stored.

IP – Internet Protocol. Defines rules for data transmission over an internet network.

IP address – The dotted decimal number that uniquely identifies a computer connected to the Internet or the local area network (LAN). It acts as the "return address" of an individual computer.

IP connectivity – For Payment Gateway, connectivity provided to your credit card processor through the Internet rather than through a modem.

Issuing bank – A bank that sets up credit accounts for cardholders, issues credit cards, and bills cardholders for purchases against their accounts.

JHost – Connects Payment Gateway's Transaction Manager to Java-based modules that provide specific functions (such as the SQL logging module).

Merchant account – The account where your acquiring bank deposits funds from purchases, retrieves funds for credits, and debits processing fees.

Merchant bank – See Acquiring Bank.

NACHA – NACHA is an electronic payments association that has developed rules and standards for processing ACH transactions.

NOC – Notification of Change. ACH payments rejected for this reason cannot be reinitiated. A NOC does not represent a failed financial transaction. It is a notification that a correction was made to some data associated with the transaction during the settlement.

Operations Center – Online interface provided with Payment Gateway for all payment processing operations and reporting.

Payment method – Any method you use for accepting money through a TouchNet commerce solution.

Payment processor module – The Payment Gateway component that provides the specific functionality required by your credit card processor.

Payment transaction – A transaction that results in the transfer of funds between a cardholder's account and your merchant account.

Piggy-backing – The process of sending multiple authorization requests during a single connection to the credit card processor.

Purchase – The cardholder's submission of a payment amount to be charged to a credit account.

RC – See Response Code.

Reference number – The unique transaction number assigned by Payment Gateway to every attempted authorization. The reference number appears in the Authorization and Batch Details reports. (For some processors, this number is unique only within a merchant's transactions; two merchants may have a transaction with the same reference number.)

Response – Data returned from a host as the result of a transaction request.

Response code – Indicates a transaction's success or failure. A response code beginning with -16 indicates a failure signalled by the credit card processor. A response code beginning with -17 indicates a failure signalled by Payment Gateway.

Request – Data passed from a client to prompt the retrieval of response data from a host.

Reversal – A type of credit in which the original purchase has not yet been settled. The amount to be settled is changed to a new, lower amount.

Rijndael encryption – Default encryption method used for request data sent to Payment Gateway. Rijndael encryption is also called "AES encryption."

Role – In the Operations Center, the designation that determines which tasks a user can perform for the merchant accounts assigned to that user.

Settlement – Submission of previously authorized transactions to the credit card processor for final payment processing. A successful settlement results in a funds transfer between the issuing and acquiring banks.

Server ID – Designates a server to which the Transaction Manager can pass data. Payment Gateway's Transaction Manager can pass data only to servers listed in the server ID table.

SSL – The Secure Sockets Layer protocol, which provides encrypted communications on the Internet. You may choose to implement SSL for your own payment applications that send data to a web server.

SQL logging module – The Payment Gateway component that provides functionality for logging payment data to the database.

System log – File containing a record of the ongoing, basic functions of your Payment Gateway system. Requires periodic archival to maintain the file at a smaller size.

TBill – Utility used only with T-Serve-based web interfaces. Sends authorization requests to Payment Gateway and updates host system records to reflect authorized amounts.

Transaction – A transfer of data that consists of a request from a client and a response from a host.

Transaction Manager – the program within Payment Gateway (and within TouchNet's T-Serve) that decrypts, encrypts, and routes client requests.

T-Serve – TouchNet software that routes data transactions between host integration programs and application servers and provides centralized management and error handling.

Void – As shown in the Payment Gateway Operations Center, a type of credit in which the full purchase amount is refunded to the cardholder's account.

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