LitleXML Reference Guide

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CONTENTS

ABOUT THIS GUIDE

This manual serves as a reference to the LitleXML transaction formats used for payment processing with Vantiv, LLC. It also explains how to perform unattended transaction testing and attended certification testing with Vantiv.

Intended Audience

This document is intended for technical personnel who will be setting up and maintaining payment processing using the LitleXML format.

Revision History

This document has been revised as follows:

TABLE 1 Document Revision History

Doc. Version	Description	Location(s)
1.0	Initial release of LitleXML Reference Guide for schema V10.0, including information about new Query transaction and changes in duplicate transaction detection.	N/A
1.1	Amount correction in Partial Auth tests. Modified parameters for Gift Card tests. Added info about Funding Instruction Void transactions. Changed maxLength of fundsTransferId element from 25 to 36 characters for UUID support.	Chapter 2 Chapter 2 Chapter 1 & Appendix D Chapter 4

Document Structure

This manual contains the following sections:

Chapter 1, "Introduction"

This chapter provides an introduction to transaction processing using LitleXML.

Chapter 2, "Testing Your LitleXML Transactions"

This chapter provides information concerning the testing and certification process, which you must complete prior to submitting transactions to the Vantiv production environment.

Chapter 3, "LitleXML Transaction Examples"

This chapter provides information concerning the LitleXML structure for transaction submission, as well as examples.

Chapter 4, "LitleXML Elements"

This chapter provides definitions and other information concerning each LitleXML element.

Appendix A, "Payment Transaction Response Codes"

This appendix lists all of the possible response codes and messages.

Appendix B, "Credit Card Number Formats"

This appendix provides information about credit card number formats and Mod-10 validation.

Appendix C, "Test Card Numbers"

This appendix provides credit card number that can be used for testing.

Documentation Set

For additional information concerning the Vantiv application, see any of the following guides in the documentation set:

- *iQ Reporting and Analytics User Guide*
- *Vantiv Chargeback API Reference Guide*
- *Vantiv Chargeback Process Guide*
- *Vantiv eCommerce Partner Integration Overview Guide*
- *Vantiv PayPal Integration Guide*
- *Vantiv PayPal Credit Integration Guide*
- *Vantiv PayFac API Reference Guide*

- *Vantiv PayFac Portal User Guide*
- *Vantiv PayFac Integration Overview Guide*
- *Vantiv eProtect Integration Guide*
- *Vantiv Enterprise eProtect Integration Guide*
- *Vantiv XML Differences Guide*
- *Vantiv Secure Scheduled Reports Reference Guide*

Typographical Conventions

Table 2 describes the conventions used in this guide.

TABLE 2 Typographical Conventions

Convention	Meaning
. . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
`. . .`	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted.
`< >`	Angle brackets are used in the following situations: • user-supplied values (variables) • XML elements
`[ ]`	Brackets enclose optional clauses from which you can choose one or more option.
bold text	Bold text indicates emphasis.
Italicized text	Italic type in text indicates the name of a referenced external document.
blue text	Blue text indicates either a hypertext link or an element name (in xml examples).
`monospaced text`	Used in code examples and elsewhere to designate field/element names.

Contact Information

This section provides contact information for organizations within Vantiv

Implementation - For technical assistance to resolve issues encountered during the onboarding process, including LitleXML certification testing.

Implementation Contact Information

E-mail	implementation@litle.com
Hours Available	Monday – Friday, 8:30 A.M.– 5:30 P.M. EST

Chargebacks - For business-related issues and questions regarding financial transactions and documentation associated with chargeback cases, contact the Chargebacks Department.

Chargebacks Department Contact Information

Telephone	978-275-6500 (option 4)
E-mail	chargebacks@litle.com
Hours Available	Monday – Friday, 7:30 A.M.– 5:00 P.M. EST

Technical Publications - For questions or comments about this document, please address your feedback to the Technical Publications Department. All comments are welcome.

Technical Publications Contact Information

E-mail	TechPubs@litle.com

Customer Experience Management/Customer Service - For non-technical issues, including questions concerning the user interface, help with passwords, modifying merchant details, and changes to user account permissions, contact the Customer Experience Management/Customer Service Department.

Customer Experience Management/Customer Service Contact Information

Telephone	1-800-548-5326
E-mail	customerservice@litle.com
Hours Available	Monday – Friday, 8:00 A.M.– 6:30 P.M. EST

INTRODUCTION

The LitleXML data format supports two types of transaction submission methods – Online and Batch. With the Online method, you submit each transaction independently and receive a response in real-time. The Online method is used most often for Authorization and Void transactions. The Batch method enables you to submit multiple transactions simultaneously. Vantiv recommends the Batch method for all transaction submissions except Authorizations and Voids.

This chapter provides an overview of the LitleXML data format, including some basic XML coding requirements. Also discussed are the advantages of using batch processing for most of your transactional processing, duplicate transaction detection, report groups, and the various supported transaction types.

The topics discussed in this chapter are:

- The LitleXML Data Format
- Batch Transaction Processing
- Payment Integration Platform (LitleXML SDKs)
- Duplicate Transaction Detection
- Coding for Report Groups
- Recovery
- Recurring Engine
- Customer Insight Features
- Fraud Toolkit
- Tokenization Feature
- eCheck Processing
- Healthcare Card Feature
- Mobile Point of Sale
- eCommerce Solution for Apple Pay™
- Supported Transaction Types

1.1 The LitleXML Data Format

Although Vantiv supports transaction processing via many data formats, there are several advantages to using the LitleXML format. Some of the advantages are as follows:

- **Easier Implementation, Operations, and Debugging -** Compared to fixed length or binary formats, the XML format is considerably easier for operations staff to read and edit, using virtually any text editor. This allows Vantiv's Implementation, First Line Support, and Customer Experience Managers to quickly communicate any issues and work with your own operations staff to make necessary corrections without worrying about line lengths, padding or encoding.
- **Fewer Downgrades -** Since the LitleXML format allows you to explicitly tie deposits to their associated authorizations via the `<litleTxnId>` element, your transactions qualify for the best interchange rates at a higher frequency than with formats that do not support this transaction cross-referencing.
- **Simpler Capture (Deposit) and Refund Transactions -** Because the LitleXML format associates related transactions using the `<litleTxnId>` element, our format does not require you to resubmit all of the authorization information on a deposit nor all of the deposit information on a refund. When you submit the unique transaction id, Vantiv automatically pulls the information from the original transaction. Most other formats require you to resubmit the related data with each transaction.
- **Superior Reporting -** The LitleXML format allows you to separate your transactions into different categories by specifying a Report Group on each transaction. When accessing your data on the iQ reporting and Analytics Interface, this feature allows you to filter your financial reports by Report Groups, providing more granular detail based on a reporting hierarchy the Report Groups create. Most other formats restrict reporting categories to a batch or specific merchant id.
- **Improved Chargeback Management -** Unlike most other formats where transactional relationships can be a "best guess" proposition, the LitleXML format explicitly ties related transactions, allowing you and Vantiv to see authorization-to-deposit and deposit-to-refund relationships with precision. This knowledge is indispensable when fighting chargebacks.
- **New Features -** All new features introduced are first supported in the LitleXML format. In fact, some features may never be supported in other formats, since development is dependent upon a third party. For example, some features currently supported only in LitleXML are:
  - Auth/Sales Recycling Engine
  - Fraud Toolkit
  - Recovery
  - Customer Insights
  - Chargeback Management API
  - PayPal and PayPal Credit

1.1.1 Communications Protocols

There are two communication protocols supported for the submission of Batch transactions to Vantiv eCommerce platform for processing and one for Online submissions as shown in Table 1-1. For Batch submissions Vantiv recommends that you use one of the two FTP methods. Use the HTTPS Post method for Online transactions.

TABLE 1-1 Communication Protocol Support Matrix

Protocol	Encryption	Batch	Online
HTTPS Post	SSL	N/A	Required
TCP/IP Socket	SSL	N/A	N/A
FTP	PGP or GPG (open source)	Recommended	N/A
sFTP	SSH Key	Recommended	N/A

If you use the standard FTP method, you must use either the Pretty Good Privacy (PGP) or the open source GNU Privacy Guard (GPG) encryption for your submissions. Both of these encryption methods use key cryptography and support message authentication and integrity checking. The alternate method, Secure FTP (sFTP), uses Secure Shell (SSH) to secure the transmission.

1.1.2 General XML Coding Requirements

As part of the on-boarding process, you receive XML schema files from your Implementation Consultant. Using those files and this document as a guide, you create the required XML documents for submission of your transactions. You should validate all XML you create using the supplied schema. Also, working with your Implementation Consultant, you are required to perform various tests of your XML (see Chapter 2, "Testing Your LitleXML Transactions") prior to submitting transactions to the production environment.

In addition to the process outlined above, there are a few XML basics of which you should be aware.

- Encode all data using the UTF-8 format.
- Although it is not required, Vantiv recommends that when formatting your XML, you keep each element on its own line. This will aid in debugging situations where an error message specifies an issue in a particular line of XML code (for example, line 20).
- Be aware of special characters that require specific handling (see Table 1-2). For example, the less than (<) and greater than (>) symbols define element tags in the XML code. Using the entity names **&lt;** and **&gt;** instead of < and > prevents a browser from interpreting these characters as element brackets.

  Be sure to review data provided by customers for special character handling. For example, an address of "4th & Main," must be rewritten as "4th &amp; Main" (including quotes) before being submitted via XML. Failure to quote this type of input causes rejection of XML submissions due to syntax errors.

TABLE 1-2 Coding for Special Characters

Character	Description	Entity Reference (case sensitive)
<	less than	&lt;
>	greater than	&gt;
“	quotation	&quot;
‘	apostrophe	&apos;
&	ampersand	&amp;

1.1.3 Other XML Resources

There are several Internet sites that provide both reference and educational information that may help you when implementing your XML. A few of these sites are:

- http://www.w3schools.com/xml/xml_syntax.asp
- http://www.w3.org/
- http://www.utf-8.com/

1.2 Batch Transaction Processing

Batch processing involves a group of transactions submitted in a single file. In the case of a LitleXML Batch the parent or root element is the `<litleRequest>` element. A single `<litleRequest>`, referred to as a Session, can contain many batches and each batch can contain multiple transactions. We recommend that you use Batch processing for all transaction types except Authorizations and Voids (Online only).

Some of the advantages of using Batch processing are:

- **Better Performance -** We optimize batch processing by processing multiple transactions in the batch simultaneously. This allows you to process thousands of transactions quickly without writing complicated logic or managing complicated processes.
- **Easier Reconciliation -** When processing a batch, all transactions within that batch post on the same day. In the case of Online transactions, you could submit two transactions at the same time and one could post today and the other tomorrow. This can cause confusion in your accounting process.
- **Easier Error Recovery -** A batch processes as a single unit, thus if you experience any system or communication issue while processing a batch, you can easily determine if the file was processed. With Online transactions, determining which individual transactions were not processed can be more difficult.

1.2.1 Recommended Session File Size

As stated above, a Session file is a group of batches. A batch is a set of transactions for a single merchant. Normally, you send in a single file which has one batch for each merchant. This works well when the overall number of transactions is small. The number of transactions you should submit in any individual Session or Batch depend on a number of factors, including whether or not you are an individual merchant or a presenter submitting transactions for multiple merchants. In general, you should keep the following recommendations and rules in mind when determining the number of transactions you submit in an Session/Batch file:

- A Batch should not exceed 20,000 transactions. If the number of transaction for a single merchant exceeds 20,000, you should create multiple batches for the same merchant, each batch containing not more than 20,000 transactions.
- A Batch should not contain only one transaction, unless the merchant has only one transaction for the day.
- A Session file must never contain more than 9,999 Batches.
- A Session file must never contain more than 1,000,000 transactions across all Batches.
- Always allow sufficient time between your submission time and your cut-off time for the processing of the Session. Larger files take longer to process.

1.3 Payment Integration Platform (LitleXML SDKs)

In order to facilitate integration to the platform, Vantiv provides several language specific SDKs (Software Development Kits). The developers page on our website (http://www.vantiv.com/developers) provides links to SDK libraries for several popular languages, including:

- PHP
- Ruby
- Java
- .NET
- Python

Extensions for:

- Magento
- Opencart

In addition to the SDKs and extensions, Vantiv provides examples of each supported transaction type, as well as demonstration applications. Once you install the library appropriate to your language, the Vantiv Sandbox, which functions as an emulator of our production environment, is available to validate your transaction format.

1.4 Duplicate Transaction Detection

In order to help you avoid transaction errors, Vantiv performs duplicate transaction checking for both Online and Batch transaction submissions. While we use a robust duplicate checking methodology, we cannot guarantee our system will catch all duplicates and bear no responsibility for correcting the impact of erroneously submitted transactions. This section discusses the different checking methodologies used depending upon the type of submission.

NOTE: **For tokenized transactions, the token is used in place of the card numbers by the Duplicate Transaction Detection process.**

For PayPal transactions a combination of the PayPal Id + the (consumer's) email is used by the Duplicate Transaction Detection process.

For transactions submitted using other formats (e.g., PTI, Nabanco, etc.), the logic used to detect duplicates for these supported, but foreign APIs, is less robust and may miss duplicates in certain scenarios. Vantiv recommends, for better dupe checking, convert to the LitleXML format, as soon as possible.

1.4.1 Batch Duplicate Checking

When processing a Batch, the system acts to detect duplicate transactions for the following transaction types: Authorization, Auth Reversal, Capture, Force Capture, Capture Given Auth, Credit, Sales, eCheck Credit, and eCheck Sales.

For each of these transaction types, the application compares the transaction type, transaction amount, the `<orderId>` element from the request, credit card number, and credit card expiration date against transactions in other Batch processed within the previous five days. If the characteristics of the new transaction match a previously processed transaction, the system marks it as a duplicate.

The system only performs duplicate detection against valid transactions from the previous five days. For example, if an Authorization request matches a declined Authorization from the previous day, the system would not count it as a duplicate, because the declined Authorization was not a valid Authorization.

Also, a Batch must be processed completely to be included in the previous five days of data. For example, if multiple submitted Batches are processing simultaneously, the system will not compare the transactions in one batch with the transactions in the other, because neither has completed processing. For this same reason the system cannot detect duplicate transactions within the same Batch.

If the system detects ten consecutive duplicate transactions or if the number of duplicate transactions is greater than or equal to 25% of the total transactions in the batch, the system flags the Batch as a duplicate. When either threshold is met, Vantiv will not process the Batch. If neither threshold is met, Vantiv continues processing the Batch, including any transactions that may have been duplicates.

1.4.2 Online Duplicate Checking

When processing an Online transaction, the system acts to detect duplicate transactions for the following transaction types: Auth Reversal, Capture, Force Capture, Capture Given Auth, Credit, Sales, eCheck Credit, eCheck Sales, eCheckVoid, and Void, as well as Gift Card transactions.

For most transactions, the system compares the transaction type, the `id` attribute from the request, and the credit card number against other Online transactions processed within the previous two days. For transactions that reference other transactions (for example, a deposit referencing an authorization or a refund referencing a deposit), the system compares the transaction type, `id` attribute, and the card number from the referenced transaction (i.e. the transaction identified by the `<litleTxnId>` element) against other Online transactions processed within the previous two days.

The system only performs duplicate detection against valid transactions. For example, if a Capture request matches a declined Capture from the previous day, the system would not count it as a duplicate, because the declined Capture was not a valid transaction.

NOTE: **While it is uncommon, under certain circumstances network latency may cause a duplicate Sale transaction to go undetected as a duplicate. This can occur if you submit a second, duplicate Sale transaction while the response from the network for the Authorization portion of the first transaction is sufficiently delayed such that the first Sale has not been recorded as a valid transaction in the system.**

If you elect to submit Online Sale transactions, Vantiv recommends a timeout setting of not less than 60 seconds to reduce the chances of undetected duplicate Sale transactions.

If the system determines a transaction to be a duplicate, The duplicate transactions appears in the Declined Transaction report with a Response Reason Code of 251 - Duplicate Transaction. You can access this report in Vantiv iQ or via the Vantiv Secure Scheduled Report. The iQ version provides information in near real-time, while the SSR version runs daily, providing information for the transaction submitted the previous day.

NOTE: **If you do not receive a response for a submitted transaction, Vantiv recommends you use the queryTransaction to determine the status of the original transaction (see Status Query Transactions (Online Only) on page 268)**

1.5 Coding for Report Groups

You use Report Groups (`reportGroup` attribute) to separate your transactions into different categories, so you can view the financial reports by your specific report group names. If you are unsure what groupings to use, your Customer Experience Manager can help you determine the best practice for your business.

CAUTION: **Creation of an excessive number of Report Groups (in excess of 250) will impact the amount of time require to compile various reports in the iQ. Report Groups are intended to allow you to segregate transactions by logically grouping them into the different segments of your business.**

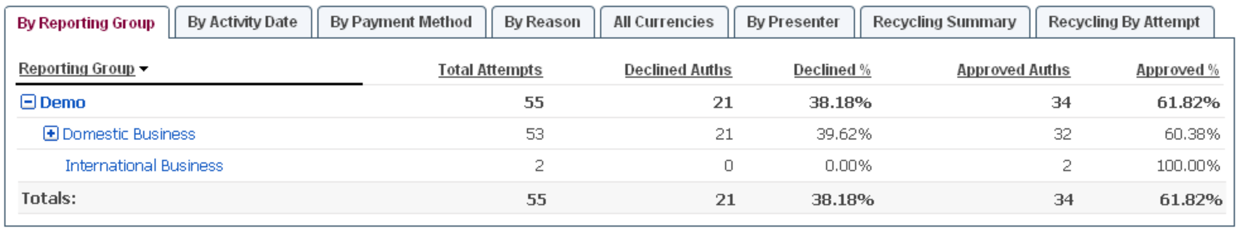
Report Groups are not intended to track sales or marketing programs that exist for limited times. For this type of tracking, Vantiv provides other transaction tagging methods detailed in Additional/Alternate Methods of Tagging Transactions on page 10.

Example: Report Groups

The merchant, Demo, wants to separate their domestic and international sales information. To do this the company submits all domestic transactions using reportGroup = "Domestic Business", and all international transactions using reportGroup = "International Business". When they access the Authorization Report in the iQ using the By Reporting Group tab, the transactions would be separated as shown in Figure 1-1.

NOTE: **The `reportGroup` attribute is case and space sensitive. A `reportGroup` = “Picture Frame” is a different report group than a `reportGroup` = “pictureframe”.**

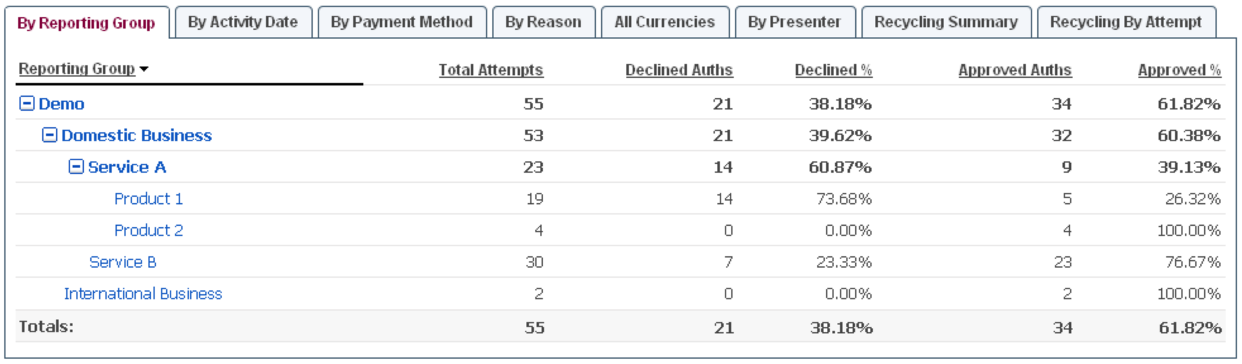
FIGURE 1-1 Report Group Example - 2 Groups



Reporting Group	Total Attempts	Declined Auths	Declined %	Approved Auths	Approved %
⊟ Demo	55	21	38.18%	34	61.82%
⊞ Domestic Business	53	21	39.62%	32	60.38%
International Business	2	0	0.00%	2	100.00%
Totals:	55	21	38.18%	34	61.82%

The plus sign next to the Domestic Business report group signifies that there are child groups present. When fully expanded (see Figure 1-2), the iQ shows a report group hierarchy with information for the Domestic Business group further separated into Service A and Service B groups and Service A containing two additional child groups. If you find it necessary to establish this type of nested hierarchy, your Implementation Consultant will assist you.

FIGURE 1-2 Report Group Example - Expanded to Show Child Groups



Reporting Group	Total Attempts	Declined Auths	Declined %	Approved Auths	Approved %
⊟ Demo	55	21	38.18%	34	61.82%
⊟ Domestic Business	53	21	39.62%	32	60.38%
⊟ Service A	23	14	60.87%	9	39.13%
Product 1	19	14	73.68%	5	26.32%
Product 2	4	0	0.00%	4	100.00%
Service B	30	7	23.33%	23	76.67%
International Business	2	0	0.00%	2	100.00%
Totals:	55	21	38.18%	34	61.82%

1.5.1 Additional/Alternate Methods of Tagging Transactions

If you are using schema version 7.x or above you can use the `merchantData` element and its children to tag transactions (Authorization, Sale, Credit, Force Capture, Capture Given Auth, eCheck Sale, and eCheck Credit) with additional information. The three children of `merchantData`: `campaign`, `affiliate`, and `merchantGroupingId`, allow you to designate transactions as members of different groups enabling a deeper analysis of sales patterns.

NOTE: **The merchantData element and its children were add to the schema in V8.8 and backported to V7.3. If you are using a schema version between 7.0 and 8.7, you can code for the use of these elements and still pass the LitleXML validation.**

For example, if the merchant from the previous example were trying a new sales initiative for Product 2 during the month of September. They plan to run ads in Boston and New York to test the new offering. To allow a deeper analysis of sales resulting from the new campaign, they can add the `campaign` element with a value of "September Ads" to the transactions originating in both test market. They can also include the `merchantgroupingId` with values that reflect the city where the order originates. By exporting either the Session report or the NSS by Transaction report from the iQ, the company can sort their sales data based upon these fields and gain a better understanding of the effectiveness of the sales campaign.

NOTE: **The transaction tagging elements described above appear in the exported Session and NSS by Transaction reports. They are also visible within the iQ in the new Transaction Detail reports.**

1.6 Recovery

Recovery is a bundle of services that include both Account Updater and Recycling Engine. By combining these two managed services into a single bundle, Vantiv simultaneously increases your approval rates, optimizes customer lifetime value, and improves your cash flow, while reducing the cost of implementing the individual features separately in terms of IT resources. For additional information about the capabilities included in this bundle, please refer to Recycling Engine on page 11, and (AAU) Account Updater Service on page 13.

1.6.1 Authorization/Sale Recycling

Authorization recycling is the process of retrying declined authorization attempts. Every merchant, especially those with a business model that uses recurring or installment payments, should devise a strategy for dealing with declined authorizations. As part of optimizing their operations, merchants must devise plans for both the timing and number of recycling attempts before contacting the cardholder or risking interruption of service. If a merchant does not recycle enough, they risk losing customers and revenue; whereas, if the merchant recycles too often, they risk increasing their total cost of payments. Implementing an optimal recycling strategy aids customer retention and therefore yields higher revenues, while lowering the costs of payment acceptance and improving cash flow.

1.6.1.1 Recycling Engine

The Recycling Engine is a managed service that automatically retries declined authorization attempts on your behalf. It requires little or no IT investment on your part. Also, implementing the Vantiv service removes the need to plan your own recycling strategy.

Recycling Engine has the following benefits:

- Increases approval rates
- Shortens time to approval, improving cash flow
- Reduces the number of authorization retries
- Lowers the risk of account/service cancellation

In order to determine the most effective recycle timing, Vantiv performs statistical analysis of past recycling attempts across our entire merchant portfolio. This analysis examines many factors, including method of payment, response codes, and transaction amount among others, to determine the optimum intervals between attempts to obtain a successful authorization. When you receive a declined Authorization, the system automatically queues the transaction for a retry at a designated time. Recycling of the Auth continues until it is either successful or the algorithm determines that it is no longer advantageous to retry.

NOTE: **For Visa transactions, the Recycling Engine will retry declined Authorizations a maximum of 4 times within 16 days, as limited by Visa regulations. For MasterCard and Discover transactions, the Recycling Engine will retry declined Authorizations a maximum of 8 times within 28 days**

Also, the Recycling Engine will not recycle transactions with certain declined response codes (for example, response code 328 - Cardholder requested that recurring or installment payment be stopped). The `<recycleEngineActive>` element in the response files indicate if the transaction is being handled by the Recycling Engine.

Vantiv provides the results of the recycling efforts to you in a Batch posted daily to your Vantiv sFTP account. This file contains transactions that either approved or exhausted the recycling pattern on the previous day. If you submit an Authorization for a transaction in the recycling queue, Vantiv returns the response from the last automatic recycling attempt. To halt recycling of a particular transaction, submit either an Authorization reversal transaction, if the original transaction was an Auth, or a Void transaction, if the original transaction was a Sale (conditional deposit).

Transaction Signature

The Recycling Engine analyzes each Authorization or Sale request message to determine if it is a new request. The result of the analysis determines if the transaction should be added to the recycling pool upon decline or if the system should intercept the transaction to prevent a duplicate transaction entering the recycling pool. To perform the analysis, the system checks the transaction signature. Depending upon your configuration, the transaction signature can be:

- Value of the <recycleId> element
- Value of the <orderId> element
- Values of the <orderId>, <number>, and <amount> elements

NOTE: **If you submit a transaction with the identical signature, but containing new information (for example, a new card number), the system updates the transaction in the recycling pool with the new info and continues to recycle.**

Additional Configuration Options

The Recycling Engine allows you the additional flexibility of excluding certain transactions from automatic recycling. You can exclude transactions manually by including the `<recycleBy>` element set to **None**. There are also global controls that allow you to exclude transactions based upon either submission by a particular presenter, or based upon the transaction type (authorization or sale). Please consult your Customer Experience Manager about the global options, since they must be configured in your Vantiv Merchant Profile.

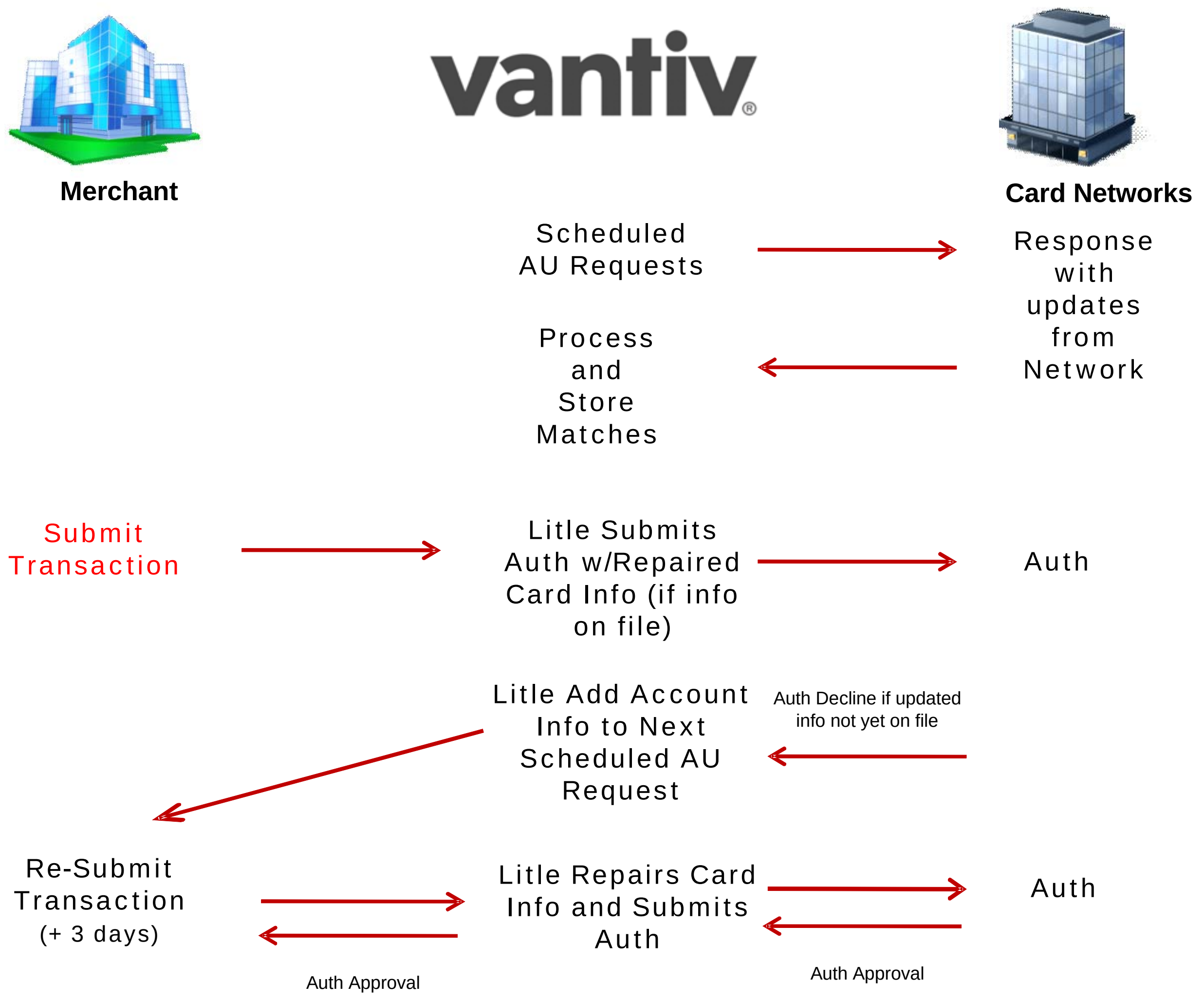
1.6.2 Account Updater Service

Credit and debit card numbers change for a variety of reasons including card expirations, card product type upgrades, portfolio conversions, and compromised account numbers among others. For merchants who offer services that are billed on a recurring or installment basis (for example, web hosting, gym memberships, specialized social networking, career services, monthly donation plans, etc.) out-of-date payment information can result in lost revenue, involuntary churn and decreased customer satisfaction.

Prior to the development of the Account Updater service, the standard method for merchants to obtain updated account information was to submit a Batch containing existing card information, requesting that Vantiv check for updates. Typically, merchants request updates for customer accounts scheduled to be billed in the next billing cycle. This legacy method is a relatively slow process, requiring several days for Vantiv to accumulate responses from the card networks/issuers and then to make the response file available to the merchant. Merchants must then update their billing systems with the new information, requiring IT processing cost. Failure to update their files can result in multiple requests (and charges) for the update information, as well as delays in or lost revenue, higher Authorization expenses, and possibly chargebacks when old account information is used.

The Account Updater service shifts the workload of obtaining and maintaining updated account information to Vantiv. Utilizing configurable scheduling algorithms, we initiate account update requests on your behalf and then stores the updated card information for use in future transactions. You simply submit billing transactions normally and, if necessary, Vantiv updates the transaction with the stored card information before submitting it to the networks for authorization. This fully managed service requires no code update on your systems.

FIGURE 1-3 Account Updater Overview

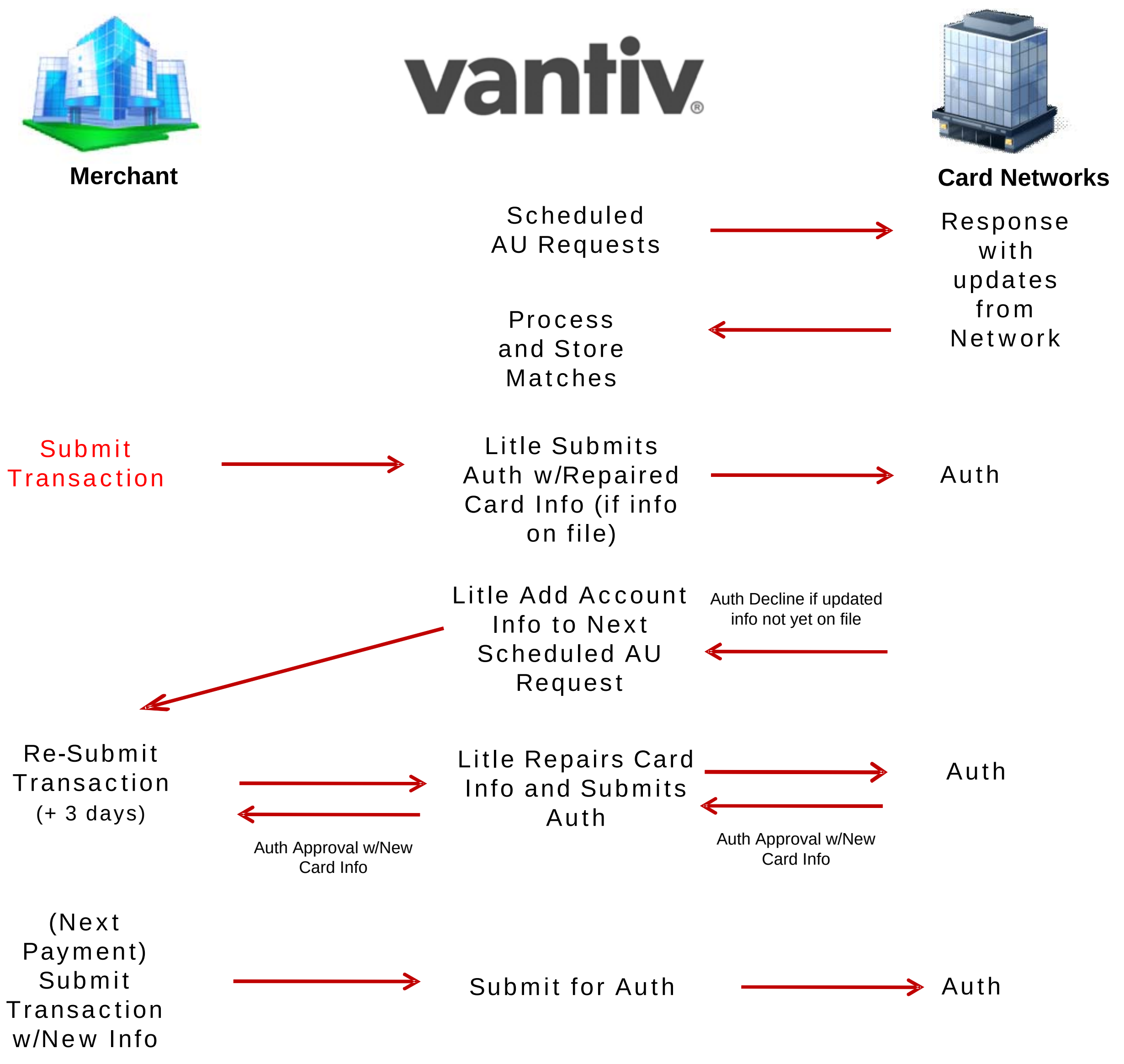

vantiv
Merchant
Card Networks
Scheduled AU Requests
Response with updates from Network
Process and Store Matches
Submit Transaction
Litle Submits Auth w/Repaired Card Info (if info on file)
Auth
Litle Add Account Info to Next Scheduled AU Request
Auth Decline if updated info not yet on file
Re-Submit Transaction (+ 3 days)
Litle Repairs Card Info and Submits Auth
Auth
Auth Approval
Auth Approval

1.6.2.1 Match Back

If you decide you wish to have the updated card information returned to you, Vantiv offers the Match Back option. In this case, you can opt to receive updated information either in a Batch deposited to the merchant sFTP account, or in the XML transaction response messages. Once you update your systems, you can resubmit the failed transaction with the new card information. If, after receiving an update, you submit a transaction with the old information, systems detect that you are using the old data and update the transaction for you prior to submitting it to the networks for authorization.

Please consult your Customer Experience Manager for additional information and configuration options.

FIGURE 1-4 Match Back Overview


vantiv
Merchant
Card Networks
Scheduled AU Requests
Response with updates from Network
Process and Store Matches
Submit Transaction
Litle Submits Auth w/Repaired Card Info (if info on file)
Auth
Litle Add Account Info to Next Scheduled AU Request
Auth Decline if updated info not yet on file
Re-Submit Transaction (+ 3 days)
Litle Repairs Card Info and Submits Auth
Auth
Auth Approval w/New Card Info
Auth Approval w/New Card Info
(Next Payment) Submit Transaction w/New Info
Submit for Auth
Auth

1.6.2.2 Merchant Requirements

In order to use the Account Updater service, you must first apply for membership to the following:

- MasterCard Automatic Billing Updater
- Visa Account Updater
- Discover Account Updater (not required by Discover for Vantiv acquired merchants)

Your Account Updater Welcome Kit includes the required application forms. If you have any questions about these forms, contact your Customer Experience Manager, who can walk you through the application process. Approval from Visa and MasterCard typically takes between 10-15 business days. Normally, merchants are approved without issue; however, you can be declined for a variety of reasons. For example, merchants on a risk mitigation program typically are not accepted.

NOTE: **Visa does not allow merchants with SIC numbers 5962, 5966, 5967, or 7995 to participate in their Account Updater service. MasterCard has no restrictions against any specific MCC numbers**

1.6.2.3 Account Updater Features

The Account Updater service can include the following features depending upon the implementation option you select:

- Vantiv initiates requests for updated account information to card networks based upon your billing cycle.
- Vantiv initiates requests for updated account information following certain failed Authorization attempts.
- All updated card information stored (per merchant) in our secure database.
- Automatic repair/replacement of outdated information with updated information in new Authorization/Sale transaction submissions.
- Return of the updated account information in the LitleXML response message when auto-repair occurs.
- Maintenance of card information history, so that the system can repair a card even if multiple updates have occurred during the card's billing lifecycle.
- All linked (to an Authorization) transactions will use the updated account information from the repaired parent transaction, including Captures, Refunds, and Reversals. If a re-Auth is needed on an attempted capture due to an expired authorization, the system uses the updated account information.
- Integration with Vault for merchants utilizing Vantiv’s tokenization solution.
- Return of Extended Response Codes in the LitleXML response messages.

1.7 Recurring Engine

The Recurring Engine is a managed service that relieves the burden of developing an in-house billing solution for merchant engaged in installment or recurring transactions. This powerful, but flexible service allows you to create virtually any payment Plan required by your business model, whether it is part of a predetermined campaign or a marketing test, and then apply the Plan to customers as part of the standard Authorization or Sale transaction.

The Recurring Engine provides the following benefits:

- **Reduced Infrastructure Costs -** since you do not need to program your own solution, you save the up-front development cost, as well as ongoing maintenance expenses.
- **Reduced Labor -** once you create a Subscription in the Recurring Engine via a standard Authorization or Sale transaction, no further action is required for the life of the Subscription.
- **Integration with other Vantiv Value Added Services -** if you include the Recovery Services (Account Updater and Recycling Engine) as part of your implementation, you eliminate any concerns (and reduce expenses) associated with issues such as account number changes and recycling of declined payments.
- **Flexible Plans -** You can define the billing interval (weekly, monthly, quarterly, etc.), number of payments (including open ended schedules), amount of payments, as well as trial periods within a Plan. To add flexibility you can override several of these settings and set a specific start date at the individual Subscription level.
- **Flexible Creation of Discounts -** if you wish to offer a discount to selected customers, simply include the information at the time of the Subscription creation, or add it anytime afterward by updating the Subscription.
- **Flexible Creation of Add Ons -** similar to a discount, you can apply changes for additional services at the time of the Subscription, or anytime afterward.
- **Integrated Reporting -** in addition to the normal revenue reconciliation information available in the iQ Reporting and Analytics platform, there are a number of recurring specific reports that allow you to better analyze your revenue stream associated with recurring payment plans and strategies.

1.7.1 Payment Plans

The first step in setting up recurring billing on the Vantiv eCommerce platform is to establish one or more payment Plans. To establish a payment Plan you use a Create Plan transaction type, which allows you to define the payment interval, the number of payments, and the amount. For example, you could easily define any number of Plans to fulfill your business needs.

For example, suppose you are a SaaS company that sells your product under 1, 2, or 3 year deals, with either monthly or quarterly payment schedules and reduced rates for longer deals. You could easily set-up six Plans as shown in the table below.

TABLE 1-3 Example Pans

Plan Code	Payment Interval	Amount per Payment	# of Payments	Total Subscription
1_Year_Monthly	Monthly	$50.00	12	$600.00
1_Year_Quarterly	Quarterly	$150.00	4	$600.00
2_Year_Monthly	Monthly	$46.66	24	$1119.84
2_Year_Quarterly	Quarterly	$140.00	8	$1120.00
3_Year_Monthly	Monthly	$41.66	36	$1499.76
3_Year_Quarterly	Quarterly	$125.00	12	$1500.00

As part of the Plan, you can also specify trial period. You want to have longer trials for longer Plans, so for either 1-year Plan, there is a 1 week trial, for either 2-year Plan there is a 2 week trial, and for the 3-year Plans, a 1 month trial. Below is a LitleXML example transaction to create the 3_Year_Monthly Plan.

Example: 3-Year Monthly Plan

```
<createPlan>
  <planCode>3_Year_Monthly</planCode>
  <name>3Year_Monthly</name>
  <description>3 Year, monthly Payments, 1 month trial</description>
  <intervalType>MONTHLY</intervalType>
  <amount>4166</amount>
  <numberOfPayments>36</numberOfPayments>
  <trialNumberOfIntervals>1</trialNumberOfIntervals>
  <trialIntervalType>MONTH</trialIntervalType>
  <active>true</active>
</createPlan>
```

1.7.2 Subscriptions

Subscriptions marry a customer order to a particular payment Plan and initiate the Recurring Engine to manage your future billing. You create a Subscription using either an Authorization or a Sale transaction. In the Auth/Sale you simply include a `<recurringRequest>` element to initialize the Subscription using a named Plan and set the start date for the first recurring bill. If you do not include a start date, the Recurring Engine uses the current date for the first payment.

If the recurring bill had an associated set-up or one-time fee use a Sale transaction. The amount of the Sale transaction would represent that fee, whereas the amount of future recurring payments are defined in the Plan. If you use an Authorization to create the Subscription, the transaction would normally be a $0 Auth (or small amount followed by a reversal) and would include the billing information for Address Verification.

As part of the Subscription creation, you can also override both the number of payments and the amount, as well as include Add Ons and Discounts (discussed in the next section). The overrides give you a granular control to modify a standard payments Plan for a particular consumer without creating additional Plans. For example, if you offered a 1-year Plan with monthly payments as shown in the previous section, you could allow a consumer to complete their payments in 10 months instead of a year. In this case you would override the number of payments defined in the Plan (12) with 10 payments, while increasing the amount of each payment from $50 to $60.

Example: Subscription with Overrides

```
<authorization id="834262" reportGroup="ABC Division" customerId="038945">
  <orderId>65347567</orderId>
  <amount>0</amount>
  <orderSource>ecommerce</orderSource>
  <billToAddress>
    .
    .
    .
  </billToAddress>
  <card>
    .
    .
    .
  </card>
  <recurringRequest>
    <subscription>
      <planCode>1_Year_Monthly</planCode>
      <numberOfPayments>10</numberOfPayments>
      <startDate>2013-09-21</startDate>
      <amount>6000</amount>
    </subscription>
  </recurringRequest>
</authorization>
```

1.7.2.1 Add Ons and Discounts

Occasionally, you might wish to modify a Subscription with either a Discount or an Add On without creating a new Plan that has limited use. A Discount reduces the recurring amount for one or more payments, while an Add On increases the payments in return for an added service or item. You can apply either of these payment modifications at the time you initialize the Subscription or anytime afterward by updating the Subscription. In both cases you define the start date, end date, and amount of the Discount/Add On.

For example, suppose as part of your standard offering, your customers received 2GB of cloud-based storage. You also offer additional storage in 2GB blocks for $10 each. One of your customers wants an additional 4GB of storage for the 8 months remaining on his contract and you are discounting the first month at 50%, or $10. The example below show the `updateSubscription` transaction with the Add On and Discount.

Example: Update Subscription with Discount and Add On

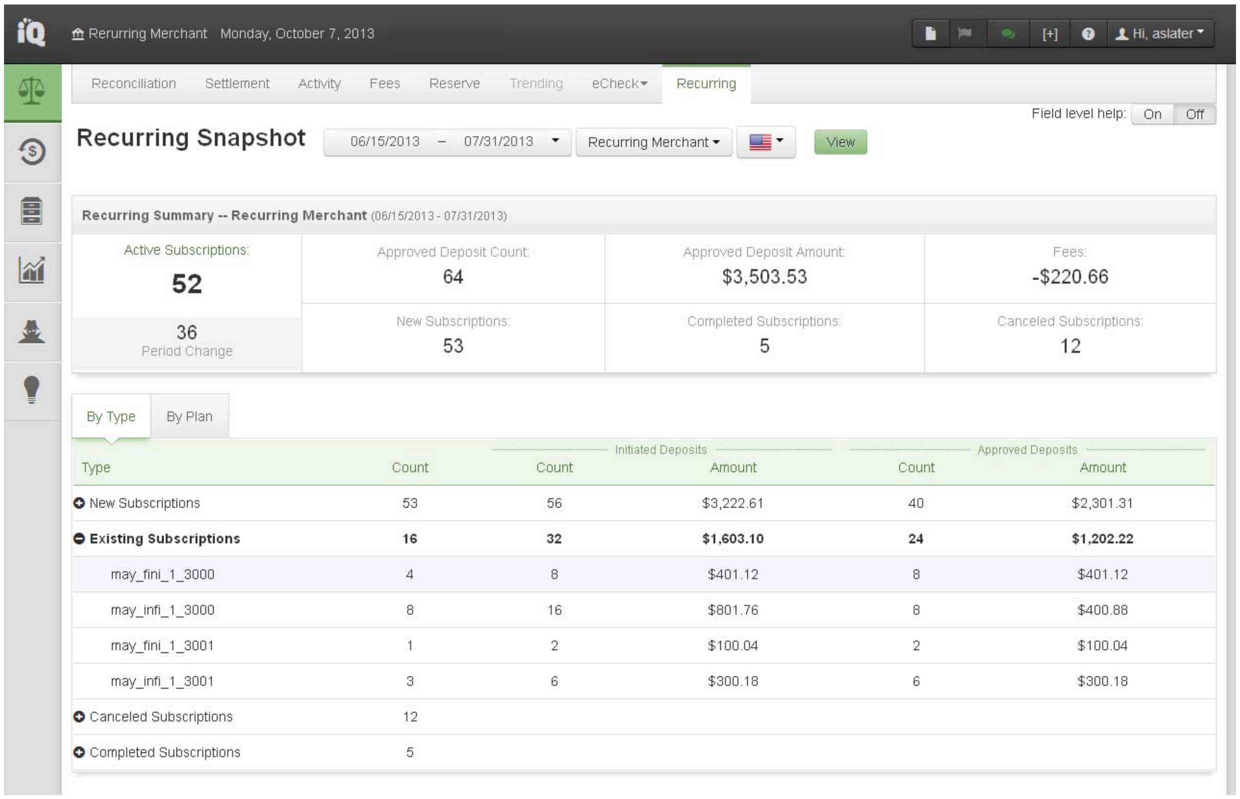
```
<updateSubscription>
  <subscriptionId>1234</subscriptionId>
  <createDiscount>
    <discountCode>4GBExtraDeal</discountCode>
    <name>Half-Off 1st Payment 4GB Extra</name>
    <amount>1000<amount>
    <startDate>2013-09-15</startDate>
    <endDate>2013-10-14</endDate>
  </createDiscount>
  <createAddOn>
    <addOnCode>4GB_Extra</addOnCode>
    <name>Four_GB_Extra</name>
    <amount>2000<amount>
    <startDate>2013-09-15</startDate>
    <endDate>2014-04-15</endDate>
  </createAddOn>
</updateSubscription>
```

1.7.3 Recurring Reports

In addition to recurring transactions appearing in the normal Vantiv reports (i.e., Payment Detail, Reconciliation report, etc.), there are currently two reports associated specifically with the Recurring Engine. The first report is a daily Recurring report available via sFTP. This report is in Batch format and contains LitleXML `saleResponse` messages for all recurring transactions run that day, including all approvals and declines (see the example, Batch Sales Response with Recurring Info on page 289).

The second report is the Recurring Snapshot report (see below). This report provides insights into the performance of each of your Plan offerings over a selected time period. The report includes metrics on Subscriptions added, completed, and cancelled, as well as information on any associated fees and amounts successfully deposited.

FIGURE 1-5 Recurring Snapshot Report



Recurring Summary -- Recurring Merchant (06/15/2013 - 07/31/2013)

Active Subscriptions:	Approved Deposit Count:	Approved Deposit Amount:	Fees:
52	64	$3,503.53	-$220.66
36 Period Change	New Subscriptions: 53	Completed Subscriptions: 5	Canceled Subscriptions: 12

		Initiated Deposits		Approved Deposits	
Type	Count	Count	Amount	Count	Amount
New Subscriptions	53	56	$3,222.61	40	$2,301.31
Existing Subscriptions	**16**	**32**	**$1,603.10**	**24**	**$1,202.22**
may_fini_1_3000	4	8	$401.12	8	$401.12
may_infi_1_3000	8	16	$801.76	8	$400.88
may_fini_1_3001	1	2	$100.04	2	$100.04
may_infi_1_3001	3	6	$300.18	6	$300.18
Canceled Subscriptions	12				
Completed Subscriptions	5				

1.7.4 Transaction Types and Uses

The table below provides information about the various Recurring Engine transaction types and their uses.

TABLE 1-4 Recurring Engine Transaction Types

Use Case/Intent	Parent Element	Description/Uses
Create Plan	createPlan	Used to create new Plans.

TABLE 1-4 Recurring Engine Transaction Types

Use Case/Intent	Parent Element	Description/Uses
Update Plan	updatePlan	Used to toggle a Plan between an active and inactive state. You can not associate an inactive Plan with a Subscription. Toggling a Plan to an inactive state does not affect existing Subscriptions associated with the Plan.

Create Subscription	<authorization> or <sale>
	  <recurringRequest>
	    <subscription>
		Used to initiate a Subscription with an associated Plan. The Subscription can include `amount` and `numberOfPayment` overrides to the Plan. Also, the Subscription can include `createAddOn` and `createDiscount` children.

Update Subscription	updateSubscription	Used to modify Subscription information including: changing the Plan, changing the billing name/address, and changing the method of payment. You can also use this transaction type to create/delete/update Add Ons and Discounts.
Cancel Subscription	cancelSubscription	Used to cancel an existing Subscription.

Create Add On	<authorization> or <sale>
	  <recurringRequest>
	    <subscription>
	      <createAddOn>
	Or
	<updateSubscription>
	  <createAddOn>
		Used to create an Add On charge associated with the Subscription.

Update Add On	<updateSubscription> <updateAddOn>	Used to modify one or more of the parameters associated with the Add On.
Delete Add On	<updateSubscription> <deleteAddOn>	Used to delete an Add On charge from the associated Subscription.

TABLE 1-4 Recurring Engine Transaction Types

Use Case/Intent	Parent Element	Description/Uses
Create Discount	<authorization> or <sale> <recurringRequest> <subscription> <createDiscount> Or <updateSubscription> <createDiscount>	Used to create a Discount charge associated with the Subscription.
Update Discount	<updateSubscription> <updateDiscount>	Used to modify one or more of the parameters associated with the Discount.
Delete Discount	<updateSubscription> <deleteDiscount>	Used to delete a Discount from the associated Subscription.

1.8 Customer Insight Features

The Customer Insight set of features are designed provide additional information to merchants, allowing them to improve authorization approval rates and lower the total cost of payments. Currently, Vantiv offers four features in the Customer Insight family of features: Prepaid Indicator, Affluence Indicator, Issuer Country Indicator, Card Type Indicator.

1.8.1 Prepaid Indicator

Studies show that branded prepaid cards are growing in popularity with consumers. These cards are available in the form of non-reloadable Gift cards, Consumer Rebate/Incentive cards, and Teen cards among others. The Prepaid Indicator feature acts to determine if the submitted card is a prepaid card. If so, the system returns the `type` element with a value of Prepaid and the `availableBalance` element stating the outstanding balance remaining on the card (if available).

Knowing that the card is prepaid, as well as the available balance, at the time of sale is especially useful for merchants engaged in recurring payment, installment payment, or deferred billing scenarios. Merchants in these situations can use the information made available by this feature to make intelligent decisions concerning the profitable management of prepaid card usage by avoiding several factors that may contribute to lost revenue, while taking advantage of other opportunities that may add to revenue and enhance the customer experience.

For example, one possible situation merchant can avoid is fraudulent deferred/installment payment purchases made with a prepaid card that does not have enough available balance to cover the subsequent payments. With the available balance known, merchants can determine if the card can meet the required payment structure. If the card's balance does not meet the required threshold, the merchant can request another payment method, which may result in eliminating fraudsters, while retaining legitimate customers.

Another more common situation occurs when the consumer is unaware of the card balance. If the transaction is rejected due to inadequate balance, perhaps repeatedly, it could result in an unsatisfied customer and an abandoned purchase. Alternately, the card could have slightly more that the required balance, which the consumer would spend, if they had the knowledge. If the available balance is insufficient for the purchase, the merchant can obtain a second or alternate payment method. If the balance is higher than required for the purchase, the merchant may be able to encourage additional purchases.

In addition to indicating if the submitted card is a prepaid card and the available balance, this feature includes information about whether the card is reloadable and the specific type of prepaid card (i.e., TEEN, GIFT, PAYROLL, etc.). You can use this information to further refine your sales and marketing strategies.

1.8.2 Affluence Indicator

Visa, MasterCard, and Discover provide enhanced credit card products for consumers with high disposable incomes and high card spending. These cards encourage usage by offering the cardholders additional benefits usually including reward incentives, no pre-set spending limit, higher authorization approval rates, faster access to a customer service representatives, and dedicated chargeback resolution support.

Vantiv analysis of payments data indicates that consumers using these cards types typically spend more per order than consumers using traditional credit and debit cards. The Affluence Indicator feature provides the ability for merchants to segment their consumers based on the affluence level as determined by the issuer. Within the LitleXML Authorization response, consumers using these enhanced card products are classified either as Mass Affluent or Affluent. Based upon the specific card type, high income consumers are classified as Mass Affluent, while high income-high spending consumers are classified as Affluent.

Having this information at the time of authorization, allows merchants the opportunity to adjust their sales approach to the needs and spending patterns of the consumer, potentially generating additional sales. Having this information on file for later analysis also may provide the opportunity for targeted marketing campaigns and future sales.

1.8.3 Issuer Country Indicator

Knowing the country of the Issuing bank helps you in two respects. From a sales and marketing standpoint, this knowledge allows you to better analyze the purchasing patterns of your customers based upon their country of origin. You can then tailor marketing campaigns to take advantage of this geographic information. Likewise, you can use this information to analyze the successfulness of tailored campaigns.

The second advantage to having this information readily available is that you can use it to help determine possible patterns of fraud. With this knowledge in hand, you can use the International Card Filtering feature to limit your exposure to international fraud originating in particular geographic locations.

1.8.4 Cardholder Type Indicator

The Card Holder Type indicator is an additional data point Vantiv can provide as part of the Customer Insight family of features. This indicator returns an element indicating whether the submitted card is a commercial or consumer card, providing you with additional data useful when analyzing sales patterns and/or planning marketing campaigns.

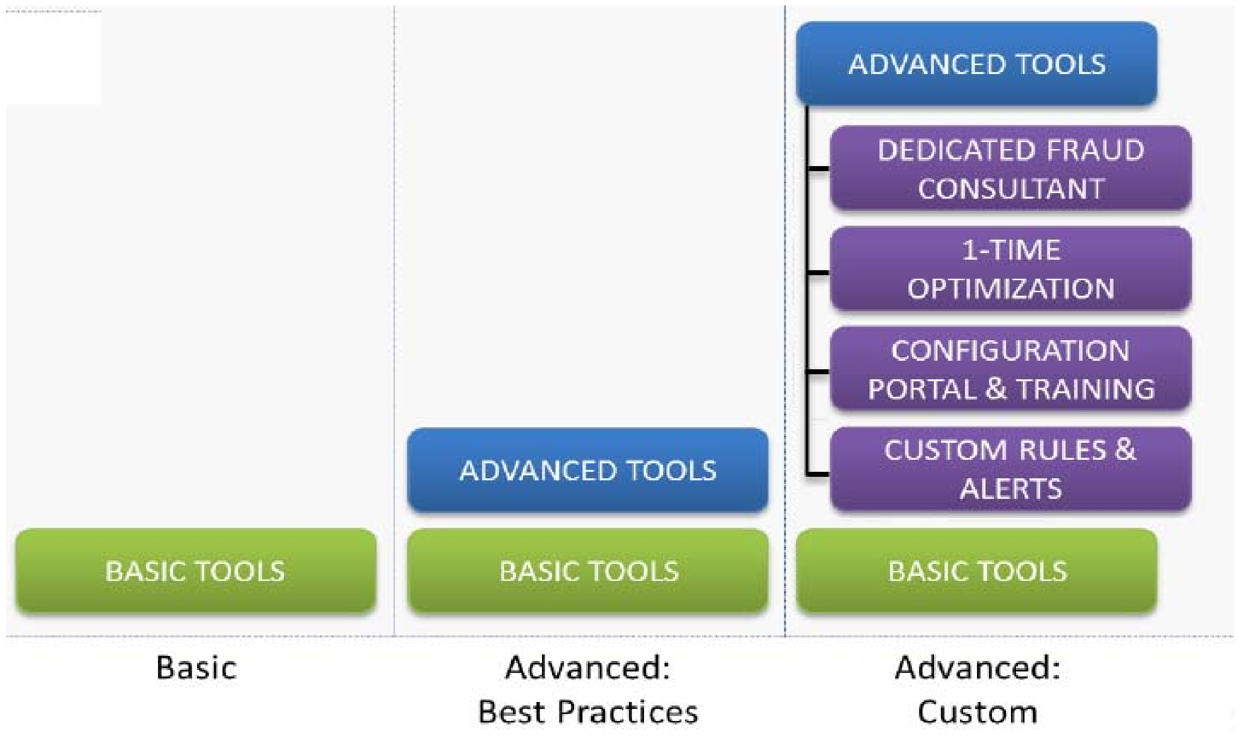
1.8.5 Flow Control for the Insights Feature

Vantiv provides flow control functionality that allows you to limit which transactions the system examines for which it returns indicators. Currently there are three flow control options: by Presenter, by report Group, and by Order Source. The by Presenter option allows you to limit the transactions considered for indicators to only those from one or more presenters. The by Order source option allows you to include or exclude transactions with a particular Order source tag (`orderSource` element in the XML request). You can combine these Flow Controls. For example, you could establish a flow control such that the system would consider all transaction from Presenter A except those with an Order source of recurring.

1.9 Fraud Toolkit

The Fraud Toolkit has three options or levels of implementation. The Basic Fraud tools includes a suite of Fraud Filters that you can apply individually or in combination. The Advanced tools offers an additional levels of fraud detection made available through Vantiv's partnership with ThreatMetrix. The Advanced option includes the Basic tools and can be implemented in one of two modes: Best Practices or Custom.

FIGURE 1-6 Fraud Toolkit Configuration Options



1.9.1 Basic Fraud Tools

With the Basic Fraud Tools, Vantiv offers a comprehensive suite of Fraud Filters for your use as part of an overall fraud prevention and mitigation strategy. You can apply each of the filters individually or in combinations by defining Filtering Rules (see Application of Filters - Filtering Rules on page 31). As part of the rule definition, you can define the application of the rules based upon MID, Report Group, Billing Descriptor, or order source (for PayFacs, flow control by MID or order source only). Vantiv currently offers seven types of card filtering services that may aid you in reducing certain types of fraud: Prepaid Card Filtering, International Card Filtering, Prior Chargeback Filtering, Prior Fraud Advice Filtering, Security Code No-match Filtering, Fraud Velocity Filtering, and AVS Filtering.

You can disable all filtering for a specific transaction by setting the `fraudFilterOverride` element to **true**. This setting take precedence over all other filter override settings.

1.9.1.1 Prepaid Card Filtering

Just because a credit card network/company returns a valid authorization for a purchase does not always mean that completing the transaction is in your best interest. There are several reasons you may wish to decline a sale on a particular card at a particular time. Many merchants engaged in recurring payment, installment payment, or deferred billing experience some loss due to fraud schemes that make use of prepaid cards. Consider the case of a consumer using a prepaid card with a balance of $100 to make a purchase that involves an initial charge of $50 followed by three installments of $50 each. The authorization would be approved for the initial transaction, and the card might have adequate balance for an additional charge, but if the consumer was attempting to defraud the merchant or simply used the card for other purchases, the card may not have sufficient balance for any additional payments. While the Prepaid Indicator feature provides you with the information necessary to make a decision at the time of the sale, and to request a secondary or different payment method, instead you may wish to have Vantiv filter these transactions automatically when you send the Authorization transaction.

If you elect to use the Prepaid Card Filtering Service, you can select one of two methods of implementation. Using the first filtering method, our system declines all Authorization and Sale transactions when the consumer uses a prepaid card. In this case, if you are using LitleXML schema version 8.3 or above, the system returns a Response Reason Code of **309 - Restricted Card - Prepaid Card Filtering Service**. If you use LitleXML version 8.2 or below, the system returns a Response Reason Code of **322 - Invalid Transaction**. This method also allows you to disable the filtering logic on a transactional basis by including the `<prepaid>` element set to a value of **false**, thus allowing you to accept a prepaid card for these transactions.

The second method of implementing the Prepaid Card Filtering Service is to use it only on selected transactions. To enable the filter on a particular transaction, set the `<prepaid>` element set to a value of **true**. This method would be useful to a merchant who offers products with both one-time payments and installment payments. For products involving a single payment, you may want to allow the use of prepaid cards, while for the product with multiple payments you may want to filter the use of prepaid cards.

NOTE: **Within either implementation method, you can elect to filter all prepaid cards, or only non-reloadable prepaid cards. Please consult your Implementation Consultant for additional information about setting these global parameters.**

1.9.1.2 International Card Filtering Service

An examination of your historical fraud data may show a high percentage of fraudulent transactions originating with certain international cards. You can limit your exposure to this type of fraud by taking advantage of the International Card Filtering Service. This feature allows you to filter MasterCard and Visa cards originating in either all foreign countries or selected foreign countries based upon the country of the card issuer.

If you elect to use this feature, when you submit an Authorization/Sale transaction, the system determines the country of origin of the card. If the card originates outside the United States and you have elected to filter all international cards, the system declines the transaction. Likewise, if you have elected to filter a specific country or countries and the card originates from a designated country, the system declines the transaction. If you are using LitleXML schema version 8.3 or above, the system returns a Response Reason Code of **312 - Restricted Card - International Card Filtering Service**. If you use LitleXML version 8.2 or below, the system returns a Response Reason Code of **322 - Invalid Transaction**.

You can override your settings on a transactional basis by including the `<international>` element set to **false** when you submit the Authorization/Sale transaction. In this case, the system ignores the filtering service and processes the transaction normally.

1.9.1.3 Prior Chargeback Filtering

If you elect to use the Chargeback Filter Service, there are two configuration options. You can elect to filter all transactions using a card for which you received a chargeback, or you can elect to filter only the subset of transactions for which you received a fraud related chargeback (determine by the associated chargeback reason code). In both cases, the system checks your historical data to see if you have received an applicable chargeback from the same account within the last 90 days. When a transaction is filtered, the system returns a Response Reason Code of **308 - Restricted Card - Chargeback**.

1.9.1.4 Security Code No-Match Filter

The 3- or 4-digit security code was added by the card brands to act as a verification that the person ordering your product in a card-not-present environment has physical possession of the card. While this validation can be a useful anti-fraud tool, typically, the issuing banks do not decline the transaction based upon a failure to match the security code. Declining the transaction is left to the discretion of the merchant.

NOTE: **The Security Code No-Match filter does not apply to American Express transactions, since American Express declines the transaction when the code does not match. Transaction declined by American Express for a failure to match the security code use the Response Reason Code of 352 - Decline CVV2/CID Fail.**

Similarly, if Visa, MasterCard, or Discover decline a transaction based upon the security code results, the filter is not applied and the transaction response contains the 352 Reason Code.

If you elect to use the Security Code No-Match Filter Service, the system takes action only if the submitted authorization/sale transaction is approved by the issuer, but includes a no-match code for the CVV2/CVC2/CID card validation check. In this case the transaction is declined with a Response Reason Code of **358 - Restricted by Litle due to security code mismatch**. The system also issues an Auth Reversal transaction on your behalf to remove the funds hold on the account.

1.9.1.5 Fraud Velocity Filtering

Often, when a person attempts to use a stolen credit card successfully, they will follow the initial purchase with a number of additional purchases within a short period of time. If you elect to use the Fraud Velocity Filter, the system filters the transaction based upon the number of previously approved Auth/Sale transactions for the same account within a configurable time period. Both the number of approved Auths/Sales and the time period are configured in the Vantiv Merchant Profile.

If you are using LitleXML V8.9 or above, the system returns a Response Reason Code of **315 - Restricted Card - Auth Fraud Velocity Filtering Service**. If you use LitleXML version 8.8 or below, the system returns a Response Reason Code of **322 - Invalid Transaction**.

1.9.1.6 Prior Fraud Advice Filtering

Vantiv maintains a database of Fraud Advice information received from the Visa and MasterCard networks for transactions you processed in the last 200 days. If you use the Prior Fraud Advice Filter, the system compares the account information from the new transaction against the database of accounts with prior Fraud Advice and filters the transaction if there is a match.

If you are using LitleXML schema version 8.11 or above, the system returns a Response Reason Code of **318 - Restricted Card - Auth Fraud Advice Filtering Service**. If you use LitleXML version 8.10 or below, the system returns a Response Reason Code of **307 - Restricted Card**.

1.9.1.7 AVS Filter

One of the fraud prevention tools provided by all card networks is an Address Verification System. By submitting the customer's address information in the `billToAddress` section of the LitleXML message, you can verify that the address/zip code supplied by the consumer matches the issuer's records. The card networks, however, do not decline transactions based upon the failure to match the address or zip code. Using the AVS Filter, you can filter potentially fraudulent transactions based upon failure to match any of the following:

- the address
- the zip/postal code
- the address + zip/postal code (ANDed)
- the address or zip/postal code (ORed).

If you are using LitleXML schema version 8.13 or above, the system returns a Response Reason Code of **319 - Restricted Card - Fraud AVS Filtering Service**. If you use LitleXML version 8.12 or below, the system returns a Response Reason Code of **322 - Invalid Transaction.**

1.9.1.8 Application of Filters - Filtering Rules

NOTE: Filter Rules are defined as part of your Merchant Profile. Please consult with your Customer Experience Manager and/or your Implementation Consultant concerning the provisioning of Filter Rules.

While you can have all submitted transactions flow through the Fraud toolkit, you likely want to exercise a finer control over the application of the filters based upon a particular product, service or other criteria. The system provides you the flexibility of restricting which transactions are submitted to the filtering service and which filters the system applies to which groups. This is accomplished by defining Filtering Rules.

For each Filtering Rule you first define a subgroup of transactions by selecting one of the following Flow Selectors: Report Group, Billing Descriptor, orderSource, or MID (for PayFacs, flow control by MID or order source only). Only one selector can be applied per rule. After selecting a particular Flow Selector, you then select which filters to have applied to that subset of transactions. You can define the Filter Rules so that filters are ORed (transaction filtered when any one of the filters conditions met), or ANDed (transaction filtered when multiple filter conditions met). Table 1-5 defines five rules that a merchant might define.

TABLE 1-5 Example - Fraud Filtering Service Rules

Filter	Flow Selector	Filters
1	Report Group="XYZ"	Prepaid
2	Report Group="XYZ"	International
3	orderSource="recurring"	Prepaid + Prior Chargeback
4	orderSource="ecommerce"	Fraud Velocity + Security Code No-match
5	Billing Descriptor = "GoldMember"	Prepaid + International

Table 1-5 defines five Filter Rules that a merchant might use. These rules would be applied as follows:

- Filters 1 and 2 are applied to the subset of transactions that are members of Report Group XYZ and use the Prepaid and International Filters. Since the Filter Rules are defined separately, the rules are ORed. So, if a transaction uses either a Prepaid card or a card of International origin, the transaction is filtered.
- Filter 3 is applied to the subset of transactions that have an orderSource value set to recurring. These transactions are filtered only if both the criteria for the Prepaid Filter AND the Prior Chargeback Filter are met.
- Filter 4 is applied to the subset of transactions that have an orderSource value set to ecommerce. These transactions are filtered only if both the criteria for the Fraud Velocity Filter AND the Security Code No-Match Filter are met.

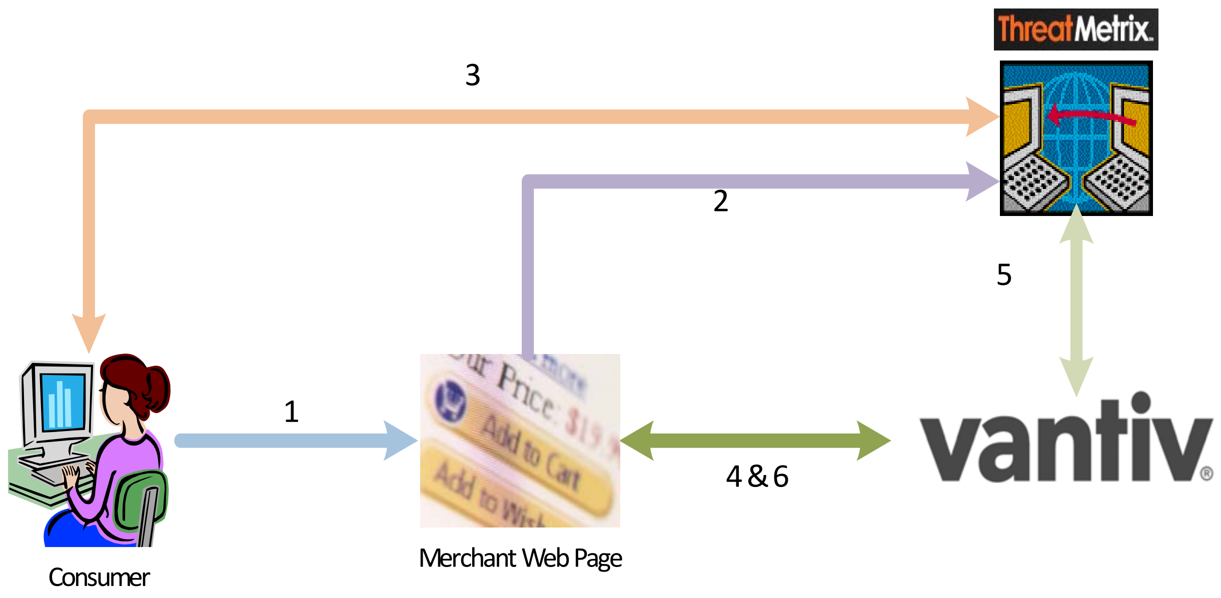
- Filter 5 is applied to the subset of transactions that have an Billing Descriptor value set to GoldMember. These transactions are filtered only if both the criteria for the Prepaid Filter AND the International Filter are met.

1.9.2 Advanced Fraud Tools

To further assist you in limiting fraudulent transactions, Vantiv has entered into a partnership with ThreatMetrix^{TM}, one of the foremost fraud prevention services in the world. The close integration of Vantiv and ThreatMetrix allows you to augment the existing Vantiv filters by taking advantage of several ThreatMetrix fraud detection features. In its simplest form, using the Best Practices option, use of this feature only requires a minor modification to code resident on your web page and the submission of an identifier with your Auth/Sale transaction. If you decided to use the Custom option, you have control of your rules and alert settings. With this option you receive training, access to a dedicated Vantiv Fraud Consultant, and a one-time optimization of your rules (see Figure 1-6).

The figure below provides a high level overview of the process.

FIGURE 1-7 Advanced Fraud Tools Process Overview



1. The consumer accesses your web page to make a purchase.
2. Code on your web page makes a call to the ThreatMetrix servers initiating several fraud check mechanisms. At this time, you also supply a unique session Id to ThreatMetrix.

NOTE: **While generated by you, each session Id must include a 5-character prefix, supplied by your Implementation Consultant, followed by a dash ("-"). The remainder of the session Id must be unique for each instance of the customer accessing your page.**

3. The ThreatMetrix servers examine several properties of the consumer's device and method of access. This process is invisible to the consumer.
4. You submit a normal Authorization/Sale transaction to Vantiv, including the session ID you designated when making the call to the ThreatMetrix Server. You also have the option of submitting up to five custom attributes with the transaction. Submission of these attributes is most appropriate if you use the Custom Level of Advanced Fraud Tools, since you can set specific rules to evaluate these custom attributes.

NOTE: **If you are using LitleXML version 8.25 or above, you also have the option of submitting a Fraud Check transaction. This transaction type will retrieve the results of the ThreatMetrix checks without initiating an Auth/Sale.**

5. Vantiv sends additional account markers (optional) to ThreatMetrix and queries the ThreatMetrix servers for the results of their analysis. These results reflect how the information about the consumer device/connection captured in the ThreatMetrix database evaluates against either the Best Practices rules or your Custom rules (ThreatMetrix policy), depending upon whether you chose the Best Practices or Custom implementation. All this information is distilled to a Device Reputation Score.
6. We return the Device Reputation Score in your LitleXML response message with one of three possible Review Statuses: Pass, Fail, or Review. Depending upon your configuration, one of the following scenarios will apply:
   - If you are configured for automatic decline of transactions with a Fail score, Vantiv will decline those transaction. On a Status of Pass or Review, Vantiv will proceed with normal processing. If a transaction with review Status is declined by the card network, you do not need to take action; however, if approved, you must decide whether to allow the transaction to stand or to take action to reverse/void the transaction.
   - If you are configured for information only, Vantiv returns the Advanced Fraud Check results and process the transaction normally. You must take action to reverse/void any approved transactions that your analysis determines to be fraudulent.

1.9.2.1 Modifications to Your Web Page

For ThreatMetrix to gather information for analysis, you must add certain profiling tags (see example below) to selected pages served by you web application. These tags allow ThreatMetrix to collect information by loading objects used for detection into the consumer's browser. These tags are invisible to the consumer and add only a fraction of a second to your page's rendering time. Once loaded, these objects require only 3-5 seconds to gather profiling information from the consumer device.

Place the tags as early as possible on the page, inside the `<body></body>` tags of the page HTML.

Example: ThreatMetrix Profiling Tags

```
<!-Begin ThreatMetrix profiling tags below -->

<!-note: replace 'UNIQUE_SESSION_ID' with a uniquely generated handle that
   includes the Vantiv supplied prefix

   note: the value for 'ORG-ID' is a Vantiv supplied value

   note: the pageid tag is not used at this time. the value for 'PAGE-ID'
   will default to 1

   note: for production, replace 'h.online-metrix.net' with a local URL and
   configure your web server to redirect to'h.online-metrix.net' -->

<script type="text/javascript"
src="https://h.online-metrix.net/fp/tags.js?org_id=ORG_ID&session_id=UNIQUE_SESS
ION_ID&pageid=PAGE_ID"></script>

  <noscript>

<iframe style="width: 100px; height: 100px; border: 0; position: absolute; top:
-5000px;"
src="https://h.online-metrix.net/tags?org_id=ORG_ID&session_id=UNIQUE_SESSION_ID
&pageid=PAGE_ID"></iframe>

         </noscript>

<!- End profiling tags -->
```

1.9.2.2 LitleXML Transactions

To subject a transaction to the advanced fraud checks performed by ThreatMetrix and retrieve the results, you simply submit the `<threatMetrixSessionId>` element as part of your LitleXML Authorization (or Sale) transaction. This session Id is the same unique value you assigned and sent to ThreatMetrix when your web page called the application (designated as UNIQUE_SESSION_ID in the ThreatMetrix Profiling Tags example). When we receive an Authorization/Sale that includes the `<threatMetrixSessionId>`, our system automatically queries the ThreatMetrix platform for the associated results. The LitleXML response message includes the `<advancedFraudResults>` element containing the score and status and information about any triggered rules. The following two examples show a standard Authorization transaction, including a `<threatMetrixSessionId>` and a **pass** response.

NOTE: **To bypass the ThreatMetrix fraud checks, simply omit the `<threatMetrixSessionId>` from the transaction.**

Example: Authorization including <threatMetrixSessionId> Element

```
<litleOnlineRequest  version="8.25" xmlns="http://www.litle.com/schema"
 merchantId="81601">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <authorization id="002" reportGroup="001601">
    <orderId>10102013_sessionId_app</orderId>
    <amount>1002</amount>
    <orderSource>ecommerce</orderSource>
    <billToAddress>
      <name>John Doe</name>
      <addressLine1>15 Main Street</addressLine1>
      <city>San Jose</city>
      <state>CA</state>
      <zip>95032-1234</zip>
      <country>USA</country>
      <phone>9782750000</phone>
      <email>nobody@litle.com</email>
    </billToAddress>
    <card>
      <type>MC</type>
      <number>5405102001000003</number>
      <expDate>1115</expDate>
    </card>
    <advancedFraudChecks>
      <threatMetrixSessionId>ASDFG-AXXXXAB999</threatMetrixSessionId>
    </advancedFraudChecks>
  </authorization>
</litleOnlineRequest>
```

Example: Authorization Response including <advancedFraudResults> Element

```
    <litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
    response="0" message="Valid Format">
      <authorizationResponse id="002" reportGroup="001601">
        <litleTxnId>82823534116454639</litleTxnId>
        <orderId>10102013_sessionId_app</orderId>
        <response>000</response>
        <responseTime>2013-11-08T21:36:50</responseTime>
        <postDate>2013-11-08</postDate>
        <message>Approved</message>
        <authCode>000003</authCode>
        <fraudResult>
          <avsResult>00</avsResult>
          <advancedFraudResults>
            <deviceReviewStatus>pass</deviceReviewStatus>
            <deviceReputationScore>50</deviceReputationScore>
            <triggeredRule>FlashImagesCookiesDisabled</triggeredRule>
          </advancedFraudResults>
        </fraudResult>
      </authorizationResponse>
    </litleOnlineResponse>
```

NOTE: **The other possible values for the `<deviceReviewStatus>` element are *fail*, *review*, *unavailable*, and *invalid_session*.**

The `<deviceReputationScore>` value can range from -100 to 100. The resulting pass, fail, or review value depends upon your profile settings.

The `<triggeredRule>` element can occur multiple times, once for each rule triggered.

1.9.2.3 Information Only Option

If you wish to retain full control of the decision to accept or decline transactions, Vantiv offers the option of using the Advanced Fraud Tools in an Information Only mode. In this configuration, you receive the same information in the response as you would with the full implementation; however, Vantiv will not automatically decline transactions with a failing score.

If the authorization is declined by the network, you can choose to recycle the transaction or do nothing. If an authorization with a failing score receives approval from the network, it would be up to you to reverse the authorization should you decide not to proceed with the transaction. This is similar to the case of an approved transaction that has a status of Review, but you decide not to proceed. Issuing an authorization reversal allows you to avoid any misuse of Auth fees otherwise imposed by the card networks.

1.9.2.4 Fraud Check Transactions

If you have coded to LitleXML V8.25 or above and wish to retrieve the Advanced Fraud results without introducing a Authorization or Sale transactions, use a Fraud Check transaction as shown in the example below. Fraud Check transactions are only supported as Online transactions.

Example: Fraud Check Transaction

```
<litleOnlineRequest  version="8.25" xmlns="http://www.litle.com/schema"
 merchantId="81601">
 <authentication>
   <user>User Name</user>
   <password>password</password>
 </authentication>
 <fraudCheck id="002" reportGroup="001601">
   <advancedFraudChecks>
     <threatMetrixSessionId>ASDFG-AXXXXAB999</threatMetrixSessionId>
   </advancedFraudChecks>
 </fraudCheck>
</litleOnlineRequest>
```

1.10 Tokenization Feature

Tokenization is the process by which a credit card number or eCheck account number is replaced by a reference number, referred to as a token. Unlike the card or account number, you can store the token on your system without concern of a security breach exposing critical customer information. Vantiv stores the information in a secure vault and accesses it only when you submit a transaction using the supplied token.

NOTE: **You must be enabled for card tokenization in order to use the eCheck tokenization feature.**

In the case of credit cards, since you do not store the customer's account information, the scope of PCI requirements to which you must comply may be minimized. This may greatly reduce the cost of compliance and may limit your liability if your systems are breached. You can further reduce the requirements, as well as the possibility of exposure from a breach through the use of the Vantiv eProtect. By sending the card information from your page directly to our systems you eliminate one more facet of handling the card information.

NOTE: **Vantiv recommends you consult your own PCI Compliance and Legal departments to determine the specific advantages of tokenization for your company.**

This section discusses the following topics:

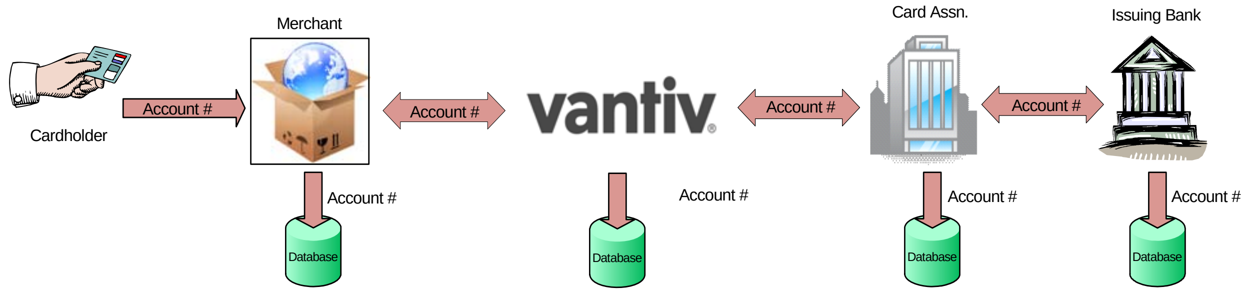
- How Tokenization Works
- Token Formats
- Obtaining Tokens
- Supported Token Transactions

NOTE: **Information about the use of and integration to the Vantiv eProtect is contained in the *Vantiv eProtect Integration Guide*.**

1.10.1 How Tokenization Works

In a non-tokenized environment, customer data, including the card/eCheck account number, is handled and stored by multiple parties for each transaction. From a merchant standpoint, they receive the information, store it in their own database, and transmit it to their processor with the transaction request, as Figure 1-8 shows for card information. While the access and transmission of the data may occur a single time, as in the case of a Sale transaction, frequently the data is transmitted multiple times in order to complete a single sale, as in the case of an Auth followed by a Capture or several partial Captures. The local storage and repeated transmission of the information creates additional possible breach points, where the information might be compromised by a malicious third party.

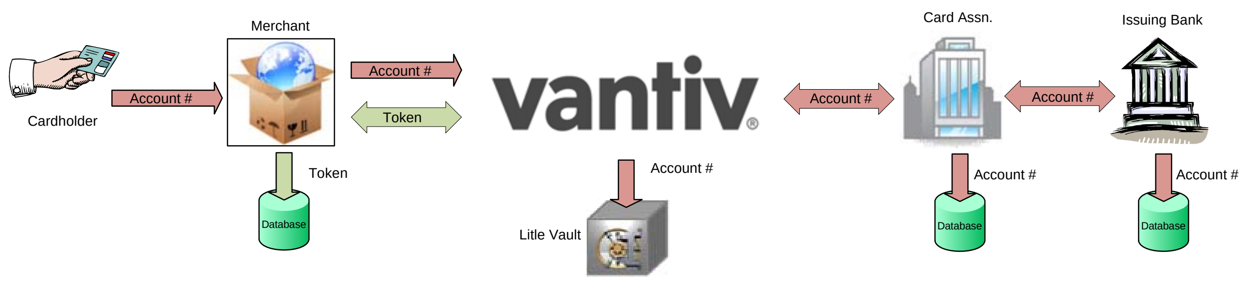
FIGURE 1-8 Card Information Flow in Non-Token Environment



In a tokenized environment customer data is ideally transmitted a single time and is never stored locally by the merchant, as Figure 1-9 shows for card data. Once the account number is registered, using either a `registerTokenRequest` or by submitting it with any supported transaction, Vantiv returns a token. You store the token locally and use it for all future transactions concerning that account. Vantiv takes responsibility for storing and safeguarding the account information.

NOTE: **The difference between card data flow and eCheck data flow is that the entities upstream of Vantiv are different. The principles remain the same from a merchant standpoint.**

FIGURE 1-9 Card Information Flow in Tokenized Environment



NOTE: **Depending upon implementation, the use of a pay page can allow the account information to come directly to Vantiv, so the merchant handles the token only.**

1.10.2 Token Formats

For credit cards, in an effort to minimize development requirements on the merchant side, Vantiv elected to use a format-preserving tokenization scheme. In simple terms this means that the length of the original card number is reflected in the token, so a submitted 16-digit number results in a 16-digit token. Also, all tokens use only numeric characters, so you do not have to change your systems to accept alpha-numeric characters.

The credit card token numbers themselves have two parts. The last four digits match the last four digits of the card number. The remaining digits (length can vary based upon original card number length) are a randomly generated. Unlike credit card numbers, which are Mod 10 compliant, tokens are Mod 10 + 1 compliant.

FIGURE 1-10 Token Format - Card

For an eCheck token, since the account number length can vary widely, we elected to make the tokens a uniform length of 17 digits. Unlike card tokens, the entire eCheck token number is a randomly generated. The system supplies the last three characters of the account number in a separate element. As with credit card tokens, eCheck tokens are Mod 10 + 1 compliant.

1.10.3 Obtaining Tokens

NOTE: **You must be token enabled and certified prior to using the Vault feature. Please consult your Customer Experience Manager concerning the requirements and details of this process.**

There are three ways for you to obtain tokens for account numbers. First, you can submit an existing card number/eCheck account information (account number and routing number) using a Register Token request. When Vantiv receives this transaction type, we generate a token and return it to you via a Register Token response (see Register Token Transactions on page 274.) Although you can use this method to tokenize an account number at any time, it is most useful when initially tokenizing your customer database. Vantiv recommends that you collect all distinct credit card numbers in your database and submit the information in one or more large Batch. When you receive the response file, parse the returned token information to your database, replacing the card numbers.

The second method you can use to obtain a token is to submit a supported transaction with the card information. If you are a tokenized merchant, Vantiv will automatically convert the submitted card number to a token and return it to you in the transaction response. Typically, you would use this method when taking and submitting a transaction during the normal course of business. When you receive the response, you store the token instead of the card information.

NOTE: **Once a card number has been converted to a token for a particular merchant, subsequent submissions of the same card number will return the same token.**

The third method of obtaining a token applies only to merchants using the Vantiv eProtect feature. In this case, upon submission of an account number via the eProtect API, Vantiv issues a Registration Id. You then submit the Registration Id in an Authorization or Sale transaction and receive the token in the response message.

1.10.3.1 Bulk Token Registration

If you are new to Vantiv, and have utilized tokens with a previous processor, Vantiv can perform a bulk token registration on all the card numbers that were vaulted with your previous processor. The following is an example of the process:

7. During your implementation with Vantiv, you contact your previous processor and request an encrypted mapping file containing the card and token numbers for your customers. A Implementation Consultant will work with you and your previous processor to facilitate the secure transfer of this file without impacting your PCI compliance. The file can be comma-delimited, tab-delimited, or any other common format.
8. Vantiv performs a bulk token registration of all of the card numbers contained in the file.

9. Vantiv returns a mapping file to your organization containing the old tokens and the new Vantiv-issued tokens, so that you can update your order processing system.

Note that Vantiv supports token-extractor formats of all major token service providers. Contact your Implementation Consultant for more information or to initiate this process.

1.10.4 Supported Token Transactions

The following transactions support the generation and use of tokens:

- **Authorization -** You can submit the transaction either with a token or card information. If you submit card information, Vantiv automatically generates the token and returns it in the response.
- **Capture Given Auth -** You can submit the transaction either with a token or card information. If you submit card information, Vantiv automatically generates the token and returns it in the response.
- **Credit -** You can submit the transaction either with a token or card information. If you submit card information, Vantiv automatically generates the token and returns it in the response.
- **Force Capture -** You can submit the transaction either with a token or card information. If you submit card information, Vantiv automatically generates the token and returns it in the response.
- **Register Token -** You use this transaction to convert a card number or eCheck account number to a Vantiv token without an associated authorization, verification or payment transaction.
- **Sale -** You can submit the transaction either with a token or card information. If you submit card information, Vantiv automatically generates the token and returns it in the response.
- **eCheck Credit -** You can submit the transaction either with a token or account information. If you submit account information, Vantiv automatically generates the token and returns it in the response.
- **eCheck Redeposit -** You can submit the transaction either with a token or account information. If you submit account information, Vantiv automatically generates the token and returns it in the response.
- **eCheck Sale -** You can submit the transaction either with a token or account information. If you submit account information, Vantiv automatically generates the token and returns it in the response.
- **eCheck Verification -** You can submit the transaction either with a token or account information. If you submit account information, Vantiv automatically generates the token and returns it in the response.
- **Update Card Validation Number -** This is a special transaction type provided to allow the update of a CVV2/CVC2/CID code supplied at the time of the token registration. You should only use this transaction type if you had previously submitted the account number and

security code in a `registerTokenRequest` transaction and now need to change the CVV2/CVC2/CID value.

1.10.5 Compliance with Visa Best Practices for Tokenization

As shown below, the Vault tokenization solution complies with 11 of the 12 items listed in the Visa Best Practices for Tokenization document. The twelfth item concerns the management of stored historical data (that may contain card information) within your systems. Tokenizing all historical card info when implementing the Vantiv solution would satisfy this item, as would protecting it per PCI DSS requirements.

TABLE 1-6 Visa Best Practices for Tokenization Compliance

Item #	Who	Domain	Best Practice	Complies?
1	Vantiv	Tokenization System	Network Segmentation	Yes
2	Vantiv	Tokenization System	Authentication	Yes
3	Vantiv	Tokenization System	Monitoring	Yes
4	Vantiv	Tokenization System	Token Distinguishability	Yes
5	Vantiv	Token Generation	Token Generation	Yes
6	Vantiv	Token Generation	Single- vs. Multi- use Tokens	Yes
7	Vantiv	Token Mapping	PAN Processing	Yes
8	Vantiv	Card Data Vault	PAN Encrypted in Storage	Yes
9	Vantiv	Card Data Vault	Covered by PCI DSS	Yes
10	Vantiv	Cryptographic Keys	Key Strength	Yes
11	Vantiv	Cryptographic Keys	Covered by PCI DSS	Yes
12	Merchant	Historical Data Management	Non-tokenized data protected	Merchant Implementation Decision

1.11 eCheck Processing

An eCheck is an alternative payment method that directly debits a consumer's account via the Automatic Clearing House (ACH) network. From a merchant’s standpoint offering eCheck as a payment method has several advantages, including a large consumer base in excess of 130 million accounts in the United States and no interchange fees.

This section provides information about several Vantiv eCheck processing features. Please consult with your Customer Experience Manager for additional information.

NOTE: **Beginning in March, 2015, Vantiv also supports eCheck processing for our merchants doing business in Canada. All eCheck transaction types, except Verification and Prenotification transaction are supported. Please consult your Customer Experience Manager for additional information.**

1.11.1 Validation Feature

Vantiv performs a validation of the eCheck routing number. This is done both to verify that the routing number is correctly formatted and that it exists in the Fed database. If the routing number fails this validation, the transaction is rejected. Vantiv performs this validation on all eCheck transactions automatically.

1.11.2 Verification Feature

Since there is no authorization process associated with eChecks allowing you to confirm the availability of funds and hold the purchase amount, there is a higher risk of certain types of fraud. The optional eCheck Verification feature allows you to submit an eCheck account number for comparison to a database containing historical information about the account, as well as the account holder. When you submit an eCheck Verification transaction the information you provide is compared to a negative database to see if the account is associated with activities, such as fraud, over drafts, or other items determined to be risk factors.

NOTE: **Vantiv makes use of a third party service, Certegy Check Services Inc., for all verification operations.**

The verification service is not supported for Canadian eChecks.

You can also initiate an account verification operation as part of an eCheck Sale transaction by setting the `<verify>` element to **true**. In this case, the eCheck Sale transaction is conditional upon the verification passing. If the verification fails, the sale is not processed.

1.11.2.1 Required Contents of Decline Notice

In the event you elect to perform verification on a transaction and also elect not to proceed with the transaction based upon a verification failure, you must provide your customer with the following Decline Notice. You can provide the notice orally, electronically, via e-mail, and/or via U.S Mail, depending upon the type of transaction. The notice must be substantially as the notice set forth below that contains the disclosures required under the Fair Credit Reporting Act and instructs your customer how to contact Certegy directly.

NOTE: **If the required language of the Decline Notice changes, Vantiv will notify you of the change. You must enact the changes within 10 days.**

Example: Decline Notice

We're sorry, but we are unable to proceed with your transaction. This determination was based on information provided by Certegy Check Services, Inc. ("Certegy"). To protect your privacy, Certegy did not provide any financial information to [Client's Name] during the authorization process.

The reason your transaction was not authorized was due to [mark one of the following based on applicable decline code transmitted by Certegy]:

- account closed
- dishonored check or transfer information contained in Certegy's files
- Certegy had insufficient information available
- the identification information you entered did not conform to established guidelines

You have the right under the Fair Credit Reporting Act to know the information Certegy utilized to make a determination regarding your check. If you find that any information Certegy utilized in its decision is inaccurate or incomplete, you have a right to dispute it with Certegy.

You may call Certegy toll free at 800-695-1854, or write to Certegy Check Services, Inc., P.O. Box 30046, Tampa, FL 33680-3046.

If you contact Certegy, please provide the following information so they can respond promptly to your request:

- First Name
- Current Address
- Date Declined
- Dollar Amount
- Check/Draft/Transfer Number
- Driver's License Number & State
- Home Telephone Number
- Date of Birth
- Social Security Number
- Merchant Name

- Checking Account Number
- Name of Financial Institution

1.11.3 Automatic Notice of Change (NoC) Updates

Similar to an issuing bank providing credit card Account Updater information, RDFIs provide Notification of Change (NoC) files and deliver them through the ACH network. These NoCs include updated account information including bank routing numbers, account numbers, and account names.

Vantiv makes available the NoC information to you for your use in updating your customer files. Additionally, if you submit a transaction containing information that has changed, we automatically update the information and forward the corrected transaction to the ACH network. The LitleXML response message to you also contains the updated information for your use in correcting your database.

1.11.4 Auto Redeposit Feature

NACHA rules allow merchants to redeposit entries when the initial deposit was returned for either Insufficient Funds or Uncollected Funds. Two redeposit attempts are allowed within 180 days of the settlement date of the initial deposit. Vantiv offers an optional service that allows you to preconfigure automatic redeposits of transactions returned for the those reasons. You define the number of days from the initial return for Vantiv to resubmit the transaction. You also define the number of days from the return of the first resubmission for the attempt of a second resubmission.

NOTE: **You track the current state of your transactions, returns, and resubmissions via the iQ User Interface. Please refer to the *iQ Reporting and Analytics User Guide* for additional information.**

For example, you submitted an eCheck Sale transaction on 29 January that is returned for Return Reason Code R01 - Insufficient Funds. The return occurs on 1 February. With the Auto Redeposit feature enabled and a preset period of 5 days for the first redeposit, the system would automatically generate a resubmission of the deposit on 6 February. If this transaction is also returned for the same reason code on 7 February and you have a preset time period for the second redeposit on 7 days, the system generates the second redeposit on 14 February.

1.11.5 eCheck Prenotification

An eCheck Prenotification is a non-monetary transaction used to verify the account information supplied by the consumer is valid. These transactions are sent to the ACH network to help ensure subsequent entries are posted appropriately. Since this is a verification of account information, typically, you would submit a Prenotification transaction in advance of processing the order, during the customer set-up process. There are two types of Prenotification transaction types:

`echeckPreNoteCredit` and `eCheckPreNoteSale`. Per NACHA requirements, you must submit the Prenotification transaction that corresponds to the intended, subsequent transaction. For example, if you are planning to submit an `echeckSale` transaction and want to verify the account information, you should submit a `echeckPreNoteSale`.

The possible ACH network responses to a prenotification are as follows:

- **No response -** applies when the account is open and the account information is correct.
- **Notification of Change -** provides updated account information, including correct routing number, e.g. C02 Incorrect routing/transit number (visible in the SSR eCheck NOC report).
- **Return code -** provides account status, e.g. R02 Account is closed, R03 No account on file, R04 Invalid account number.

NOTE: **Prenotification transactions are only supported in LitleXML V9.1 or above and only in Batch submissions. Prenotification transactions are not supported for Canadian eChecks.**

When you submit either of the Prenotification transaction types, the system sends an acknowledgement in the Batch response file. This response file does not provide the results of the prenotification check, but rather a verification that we received the transaction and it was properly formatted. You receive the results to the check in the SSR eCheck Notification of Change report. This report is run daily and you can expect to see the results for submitted prenotification checks by the second or third business day after the settlement day. The settlement day for a Prenotification transaction is defined as the next business day after submission to the ACH network. Remember, if the account you are attempting to verify is open and the account information is correct, the report will not contain an entry for that transaction. The report only contains NOCs (update information).

Per NACHA regulations, you can submit the eCheck Sale or eCheck Credit transaction on the third business day after the settlement day; however, there might still be a forthcoming NOC on that day. Due to the timing of the responses from NACHA, the generation of the reports, and the movement of the transactions, you should wait until the fourth day after the settlement day to submit the live transaction unless you receive a NOC earlier. This timing is illustrated in the example below.

1. You submit a Prenotification transaction on Monday prior to your cut-off time.
2. Our system forwards the transaction to NACHA on Tuesday. Note, this makes Wednesday the settlement day.
3. NACHA responds with a NOC/return, if any, by Thursday night.
4. On Friday, the information from NACHA is processed by our systems.
5. On Saturday morning, the SSR NOC report containing the information is available to you.
6. You can submit the eCheck Sale or eCheck Credit transaction before your cut-off time on Saturday night. This is the fourth day after settlement, the fifth day after submission.

1.12 Healthcare Card Feature

Today, there are several types of Healthcare accounts that allow participants to use pre-tax money for the purchase of IRS approved healthcare products and services, such as prescription medications and office visit payments/co-pays. The most common of these accounts are Flexible Spending Accounts (FSAs), Health Reimbursement Arrangements (HRAs), and Health Savings Accounts (HSAs). In order to provide consumers with a more convenient method of making use of these accounts, certain issuers provide signature based, MasterCard or Visa branded, healthcare payment debit cards.

To facilitate the processing of transactions related to these cards, Vantiv has augmented the LitleXML format with elements specific to Healthcare card purchases. The `healthcareIIAS` element has been added to the Authorization and (Conditional) Sale transaction types. You use this element and its children to detail the costs associated with Healthcare related, IIAS approved items purchased by the consumer. The example below shows an Authorization transaction with IIAS items.

Example: Authorization with healthcareIIAS Element

NOTE: **The example below includes the visionAmount and dentalAmount elements to show all available amount classifications. Since these are optional elements and have values of 0 in the example, they can be omitted.**

```
<litleOnlineRequest version="8.2" xmlns="http://www.litle.com/schema"
 merchantId="100">
 <authentication>
   <user>User Name</user>
   <password>Password</password>
 </authentication>
 <authorization id="834262" reportGroup="ABC Division" customerId="038945">
   <orderId>123456789</orderId>
   <amount>5500</amount>
   <orderSource>ecommerce</orderSource>
   <billToAddress>
     <name>John Smith</name>
     <addressLine1>100 Main St</addressLine1>
     <city>Boston</city>
     <state>MA</state>
     <zip>12345</zip>
     <email>jsmith@someaddress.com</email>
     <phone>555-123-4567</phone>
   </billToAddress>
   <card>
```

```
      <type>VI</type>
      <number>4000000000000001</number>
      <expDate>1211</expDate>
      <cardValidationNum>555</cardValidationNum>
    </card>
    <cardholderAuthentication>
      <authenticationValue>BwABBJQ1gJDUCAAAAAAA=</authenticationValue>
      <authenticationTransactionId>gMV75TmjAgk=</authenticationTransactionId>
    </cardholderAuthentication>
    <allowPartialAuth>true</allowPartialAuth>
    <healthcareIIAS>
      <healthcareAmounts>
        <totalHealthcareAmount>5500</totalHealthcareAmount>
        <RxAmount>4000</RxAmount>
        <visionAmount>0</visionAmount>
        <clinicOtherAmount>1500</clinicOtherAmount>
        <dentalAmount>0</dentalAmount>
      </healthcareAmounts>
      <IIASFlag>Y</IIASFlag>
    </healthcareIIAS>
  </authorization>
</litleOnlineRequest>
```

Please keep in mind the additional following requirements/recommendations:

IMPORTANT: **The information below is not intended as an exhaustive list of the requirements for the acceptance of Healthcare cards by merchants. While Vantiv may be able to provide some information, merchants are responsible for the awareness of and adherence to all applicable regulatory requirements imposed by the Internal Revenue Service, other government agencies, and other interested parties (for example, Visa, MasterCard, SIGIS, etc.)**

- Merchants must become a member of the Special Interest Group for IIAS Standards (SIGIS)
- Merchants must obtain and maintain SIGIS certification
- Merchants, except those with healthcare related MCCs, must have an Inventory Information Approval System (IIAS) used to identify eligible healthcare purchases as defined and required by the Internal Revenue Code.
- Merchants must obtain special account numbers from Visa and MasterCard to process these transactions

- Merchants must support data retention and retrieval of line item details for eligible healthcare products included in Healthcare Card transactions
- Merchants must complete Vantiv Certification Testing for the use of this feature, as well as the Partial Auth feature.
- Transactions must include the `IIASFlag` element set to **Y**.

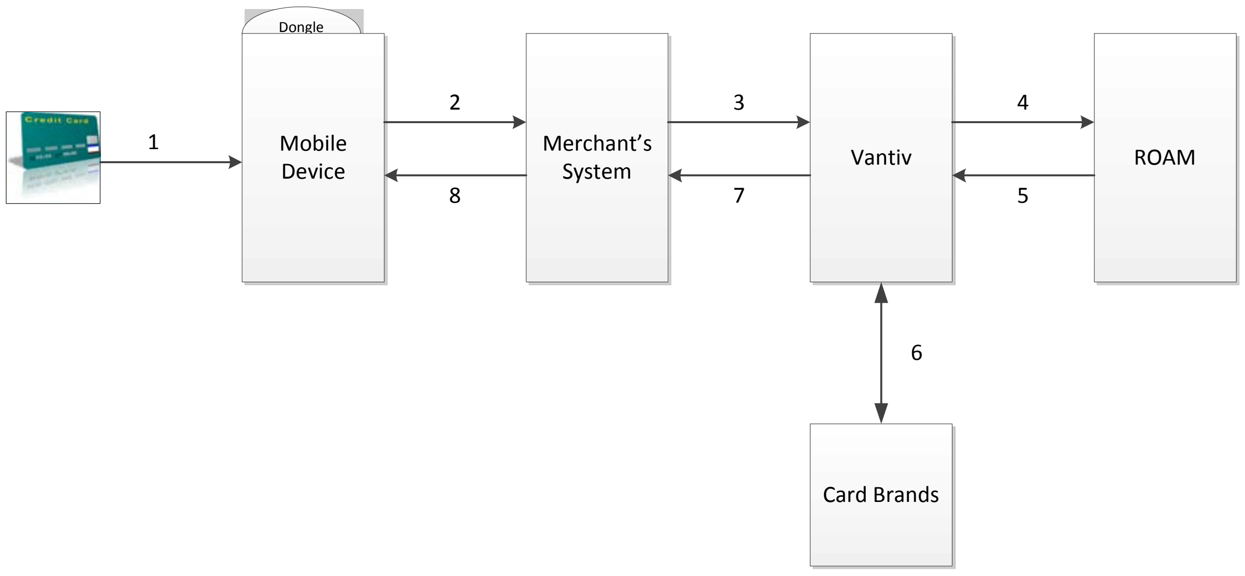
1.13 Mobile Point of Sale

In order to allow you to take advantage of the emerging area of mobile payments, Vantiv has partnered with ROAM™ to offer you a robust mobile solution. This section provides an overview of the transaction flow.

The illustration below shows an overview of the Authorization/Sale transaction flow.

1. Consumer supplied credit card is swiped through the dongle-coupled mobile device.
2. The mobile device sends the encrypted card information or the Auth/Sale transaction upstream to the merchant's systems.
3. The Merchant sends the Auth/Sale transaction, including the encrypted card information upstream to Vantiv.
4. Vantiv makes an API call to ROAM, submitting the encrypted card information for decryption.
5. ROAM returns the decrypted card information to Vantiv.
6. Vantiv submits the Auth/Sale transaction to the Card Brands for approval.
7. Vantiv returns the response file to the PayFac.
8. PayFac sends the transaction response to the mobile device.

FIGURE 1-11 Transaction Flow



1.14 eCommerce Solution for Apple Pay™

Apple recently introduced Apple Pay as a method of making in-store and in-app (mobile) purchases. For in-store transactions, a consumer can use the Near Field Communications (NFC) chip in their iPhone 6 device to make a purchase by simply touching the phone to an NFC compliant terminal. Identity verification is provided by Touch ID, a fingerprint reading application built into the device.

Apple Pay is also available for in-app purchases initiated on the iPhone 6. Merchants wishing to allow Apple Pay transactions from their native iOS mobile applications will have to build the capability to make secure purchases using Apple Pay into their mobile application. This document provides an overview of the operation of Apple Pay on an iPhone 6 along with the several methods you can use to submit Apple Pay purchases to the Vantiv eCommerce platform. The sections of this document are:

- Overview of Apple Pay Operation
- Vantiv Decryption of Apple Pay PKPaymentToken
- Merchant Decryption of Apple Pay PKPaymentToken
- LitleXML <applepay> Structure
- Vantiv Mobile API for Apple Pay HTTPS POST Components

1.14.1 Overview of Apple Pay Operation

The operation of Apple Pay on the iPhone 6 is relatively simple, but will require either the development of new native iOS applications or the modification of your existing applications that include the use of the Apple PassKit Framework and the handling of the encrypted data returned to your application by Apple Pay. The basic steps that occur when a consumer initiates an Apple Pay purchase using your mobile application are:

1. When the consumer selects the Apple Pay option from your application, your application makes use of the Apple PassKit Framework to request payment data from Apple Pay.
2. When Apple Pay receives the call from your application and after the consumer approves the Payment Sheet (using Touch ID), Apple creates a PKPaymentToken using your public key. Included in the PKPaymentToken is a network (Visa, MasterCard, or American Express) payment token and a cryptogram.
3. Apple Pay returns the Apple PKPaymentToken to your application (defined in Apple documentation; please refer to https://developer.apple.com/library/ios/documentation/PassKit/Reference/PaymentTokenJSON/PaymentTokenJSON.html).

The remainder of this section discusses the various options for handling the PKPaymentToken in the transaction flow.

1.14.2 Vantiv Decryption of Apple Pay PKPaymentToken

Vantiv recommends using one of the Vantiv Decryption methods. This transaction process relieves you from the burden of creating and maintaining public and private keys, as well as decrypting the PKPaymentToken. If you have already implemented eProtect in a mobile application, you should use eProtect for Apple Pay. A second, similar method, which still allows you to submit the PKPaymentToken without decryption, involves you sending the Authorization/Sale transaction with the PKPaymentToken key values in a new LitleXML element structure (see applepay), typically from your server. This method can be used even if you are not tokenized with Vantiv.

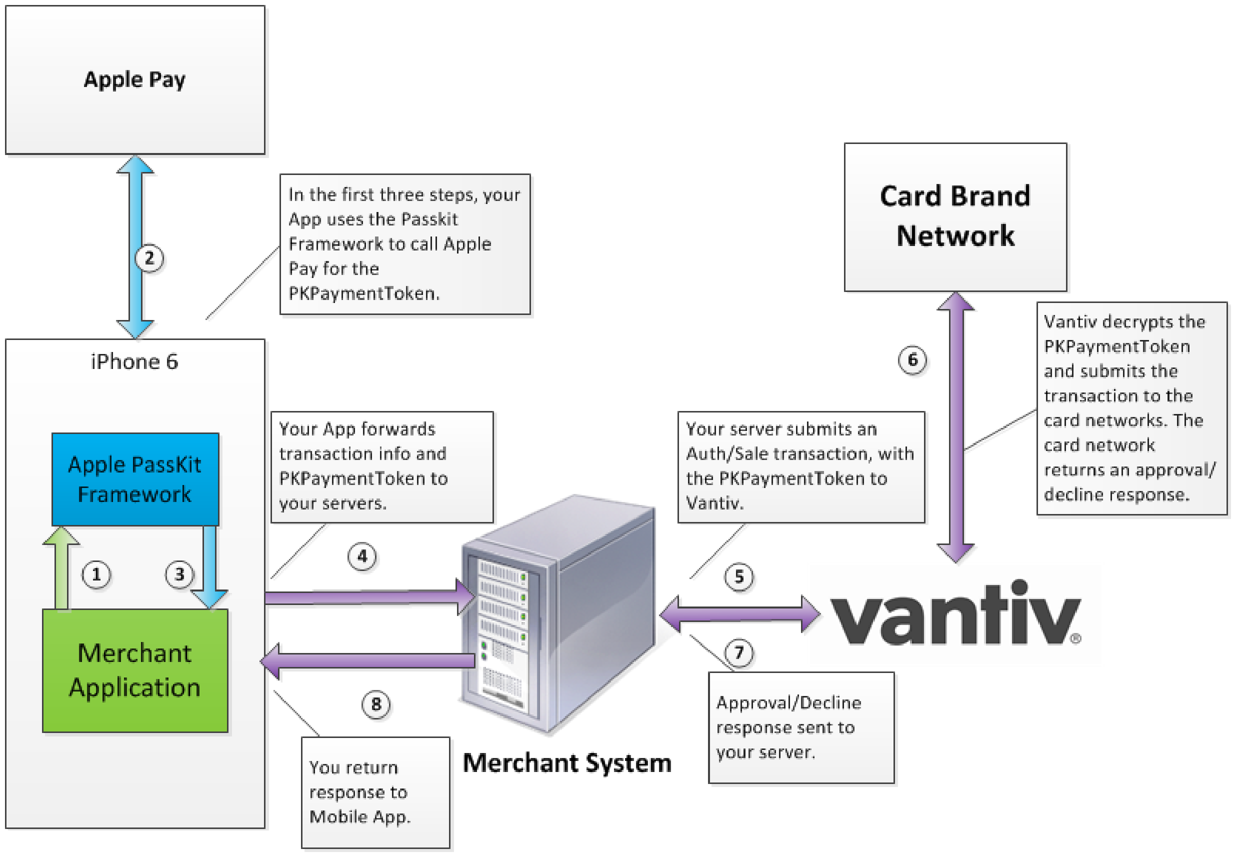
In both of these implementations, your Vantiv Implementation Consultant will provide a CSR (Certificate Signing Request) you use in your registration process with Apple Pay. The CSR provides Apple Pay with the public key used for encryption, while Vantiv retains the private key used for decryption.

1.14.2.1 Submitting the Apple Pay PKPaymentToken in LitleXML

In this scenario, you submit the Apple Pay PKPaymentToken to the Vantiv eCommerce platform using a new structure in LitleXML (see applepay), typically from your server. As with the previous scenario, Vantiv decrypts the PKPaymentToken from Apple Pay using the private key. After completing the first three steps of the process as detailed in the Overview of Apple Pay Operation section and depicted by the green and blue arrows in Figure 1-12, the process continues as follows:

4. Your mobile application forwards the PKPaymentToken from Apple Pay, along with other normal information from the transaction (such as Bill To and Ship To Address), to your order processing server.
5. You do not decrypt the PKPaymentToken, but rather forward the data to Vantiv in the Authorization/Sale transaction using the LitleXML `<applepay>` element structure instead of `<card>` (Server-side API submit) and setting the `<orderSource>` element to `applepay`.
6. Using the private key retained by Vantiv, we decrypt the PKPaymentToken and submit the transaction with the appropriate information to the card networks for approval.
7. Vantiv sends the Approval/Decline message back to your system. This message is the standard format for an Authorization or Sale response.
8. You return the Approval/Decline message to you mobile application.

FIGURE 1-12 Data/Transaction Flow with Direct Submission of Apple Pay PKPaymentToken via LitleXML


Apple Pay
2
In the first three steps, your App uses the Passkit Framework to call Apple Pay for the PKPaymentToken.
iPhone 6
Apple PassKit Framework
1
3
Merchant Application
Your App forwards transaction info and PKPaymentToken to your servers.
4
8
You return response to Mobile App.
Merchant System
Your server submits an Auth/Sale transaction, with the PKPaymentToken to Vantiv.
5
7
Approval/Decline response sent to your server.
vantiv
6
Card Brand Network
Vantiv decrypts the PKPaymentToken and submits the transaction to the card networks. The card network returns an approval/ decline response.

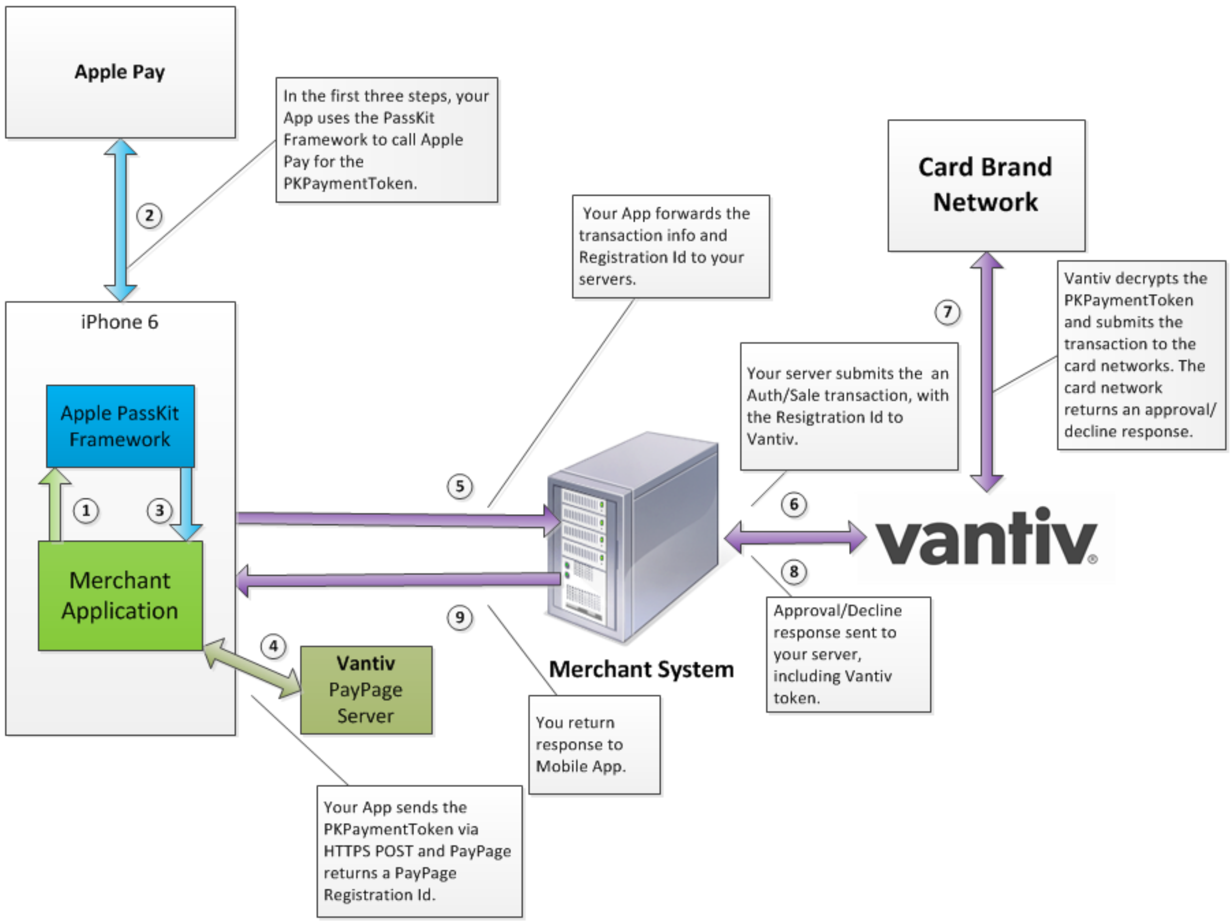
1.14.2.2 Using the Vantiv Mobile API for Apple Pay

In this scenario, your native iOS application performs an HTTPS POST of the Apple Pay PKPaymentToken using the Vantiv Mobile API for Apple Pay. From this point forward, your handling of the transaction is identical to any other eProtect transaction. The eProtect server returns a Registration ID and your Mobile App (or server) constructs the LitleXML transaction using that ID. In this case, the first three steps are identical as detailed in the Overview of Apple Pay Operation section The process after step 3 is detailed below and shown in Figure 1-13.

4. Your native iOS application sends the PKPaymentToken to our secure server via an HTTPS POST and eProtect returns a Registration ID. Please refer to the *Vantiv eProtect Integration Guide* for additional information.
5. Your native iOS application forwards the transaction data along with the Registration ID to your order processing server, as it would with any eProtect transaction.
6. Your server constructs/submits a standard LitleXML Authorization/Sale transaction using the Registration ID, setting the `<orderSource>` element to `applepay`.

7. Using the private key, Vantiv decrypts the PKPaymentToken associated with the Registration ID and submits the transaction with the appropriate information to the card networks for approval.
8. Vantiv sends the Approval/Decline message back to your system. This message is the standard format for an Authorization or Sale response and includes the Vantiv token.
9. You return the Approval/Decline message to your mobile application.

FIGURE 1-13 Data/Transaction Flow using the Vantiv Mobile API for Apple Pay

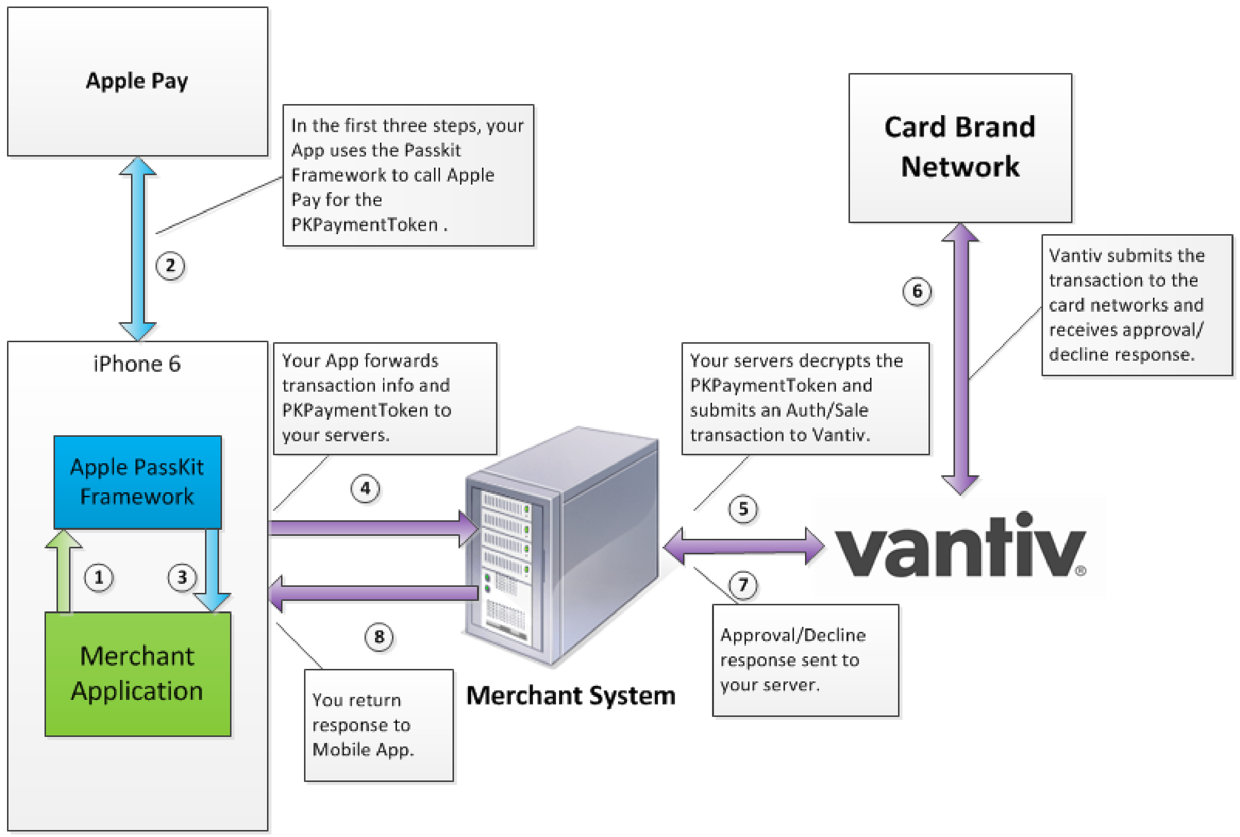

Apple Pay
In the first three steps, your App uses the PassKit Framework to call Apple Pay for the PKPaymentToken.
2
Card Brand Network
Your App forwards the transaction info and Registration Id to your servers.
Vantiv decrypts the PKPaymentToken and submits the transaction to the card networks. The card network returns an approval/ decline response.
7
iPhone 6
Apple PassKit Framework
Your server submits the an Auth/Sale transaction, with the Resigtration Id to Vantiv.
1
3
5
6
vantiv
Merchant Application
8
9
4
Vantiv PayPage Server
Merchant System
Approval/Decline response sent to your server, including Vantiv token.
You return response to Mobile App.
Your App sends the PKPaymentToken via HTTPS POST and PayPage returns a PayPage Registration Id.

1.14.2.3 Merchant Decryption of Apple Pay PKPaymentToken

Using this process, the responsibility for the decryption of the PKPaymentToken from Apple Pay falls to you. After completing the first three steps of the process as detailed in the Overview of Apple Pay Operation section and depicted by the green and blue arrows in Figure 1-14, the process continues as follows:

4. Your mobile application forwards the PKPaymentToken from Apple Pay, along with other normal information from the transaction (such as Bill To and Ship To Address), to your order processing server.
5. Using your private key, you decrypt the PKPaymentToken, construct the Authorization/Sale transaction, and submit it to Vantiv. In this case, you would populate the LitleXML `<number>` element with the device primary account number, the `<expDate>` element with the expiration date, and the `<authenticationValue>` field with the cryptogram extracted from the PKPaymentToken. Also, set the `<orderSource>` element to `applepay` (Server-side API submit).
6. Vantiv detects that this is an Apple Pay transaction and submits the transaction with the appropriate information to the card networks for approval.
7. Vantiv sends the Approval/Decline message back to your system. This message is the standard format for an Authorization or Sale response.
8. You return the Approval/Decline message to your mobile application.

FIGURE 1-14 Data/Transaction Flow with Merchant Decryption of Apple Pay PKPaymentToken


Apple Pay
In the first three steps, your App uses the Passkit Framework to call Apple Pay for the PKPaymentToken .
Card Brand Network
2
6
Vantiv submits the transaction to the card networks and receives approval/ decline response.
iPhone 6
Your App forwards transaction info and PKPaymentToken to your servers.
Your servers decrypts the PKPaymentToken and submits an Auth/Sale transaction to Vantiv.
Apple PassKit Framework
4
5
vantiv
1
3
7
Merchant Application
8
Approval/Decline response sent to your server.
You return response to Mobile App.
Merchant System

1.15 Supported Transaction Types

LitleXML Batch processing supports all transaction types except Voids, eCheck Voids and Private Label Gift Card reversal transactions, which are handled as Online transactions only. Online processing handles all transaction types. This section provides a description of each transaction type, information concerning its use, and any special considerations.

1.15.1 Authorization Transaction

The Authorization transaction enables you to confirm that a customer has submitted a valid payment method with their order and has sufficient funds to purchase the goods or services they ordered. Setting the `<allowPartialAuth>` element to **true** in the Authorization request enables the system to return authorizations for a portion of the order amount for cases where the card does not have an adequate credit limit or balance available for the full amount.

An approved Authorization reduces the customer's credit limit (or bank balance, in the case of a debit card) by the amount of the approval by placing the amount on hold. If you have the Prepaid Indicator feature enabled, the Authorization response also includes an element that indicates if the card is Prepaid, as well as an element indicating the available balance on the card.

NOTE: **To obtain better interchange rates, you should always perform an AVS check either as a standalone transaction, or as part of the Authorization/Sale transaction.**

While most merchants perform Authorizations as Online transactions, there is no requirement to do so.

The lifespan of an Authorization depends upon the payment method. Table 1-7 provides information concerning Authorization lifespans for various card types and alternate payment methods.

TABLE 1-7 Lifespan of Payment Authorizations

Payment Type	Lifespan of Authorization
MasterCard	7 days
Visa	7 days
American Express	7 days
Discover	10 days
PayPal	29 days total by default; Vantiv recommends capture submission within three days. For more information, see the *Vantiv PayPal Integration Guide*.

TABLE 1-7 Lifespan of Payment Authorizations

Payment Type	Lifespan of Authorization
PayPal Credit	30 days by default; for more information about PayPal Credit authorizations, see the *Vantiv PayPal Credit Integration Guide*.

As long as the authorization has not expired, or the amount exhausted, you can use it repeatedly to fulfill an order. This would be the case if the Authorization covered multiple items with staggered deliveries. In this scenario, you would issue a Partial Capture transaction as each item shipped until the order was completely fulfilled.

NOTE: **If you obtain an Authorization through approved vendors for voice and terminal authorizations, you would use a Capture Given Auth transaction to deposit the funds (see Capture Given Auth Transaction on page 61).**

1.15.1.1 AVS Only Transaction

An AVS Only transaction is a variation of an Authorization transaction that uses the Address Verification System to enable you to verify that a customer supplied address matches the billing address associated with the card. To submit an AVS Only transaction, submit an Authorization transaction with the `<amount>` element set to 000 and the optional `billToAddress` element with appropriate child values.

NOTE: **To obtain better interchange rates, you should always perform an AVS check either as a standalone transaction, or as part of the Authorization/Sale transaction.**

1.15.2 Authorization Reversal Transactions

The primary use of Authorization Reversal transactions is to eliminate any unused amount on an unexpired Authorization. Issuing an Authorization Reversal has the benefit of freeing any remaining held amount that reduces the buying power of your customer. Potentially, this both increases customer satisfaction and can allow them to proceed with additional purchases that may otherwise be blocked by credit limits. It also helps you avoid any misuse of Auth fees imposed by the card associations.

NOTE: **For American Express transactions, the reversal amount must match the authorization amount. Partial reversals and reversals against remaining amount after a partial capture are not allowed. Attempts to perform these types of reversals result in a Response Code of 336 - Reversal amount does not match Authorization amount.**

For example, consider the following scenario. A customer with a $6,000 credit limit orders a $3,000 stereo system, but the stereo is a discontinued item. The merchant notifies the customer, but does not perform and Authorization Reversal. The customer attempts to submit a new order for a $3,001 stereo.

- If the customer uses the same credit card for both orders, the second order could be denied, since the account's remaining credit limit is only $3,000.
- If the customer had used the same debit card for both orders, the second order places the customer's bank account in an overdraft situation (assuming a starting balance of $6,000).

Either of these situations can result in the merchant losing a sale, as well as receiving a call from an angry customer.

Another advantage of Authorization Reversal transactions occurs on Visa transactions. In order for you to qualify for the best possible interchange rates from Visa, the amount of the Capture must match the amount of the associated Authorization. In order to take advantage of this situation for you, if the Capture amount is less than the associated Authorization amount, Vantiv automatically performs a partial Authorization Reversal for the unused amount (also see Capture Request on page 209).

1.15.2.1 Notes on the Use of Authorization Reversal Transactions

This section provides additional information concerning the requirements of and exceptions to the use of Authorization Reversal transactions.

- Authorization Reversal transactions are supported for the following methods of payment: PayPal, MasterCard, Visa, Discover, Diners Club, and JC and American Express, but American Express and PayPal only support reversals of the entire Authorized amount (no partial reversals).
- All transactional data, including associated Authorizations, Captures, and Refunds, must be LitleXML format.
- Vantiv recommends that you send the Authorization Reversal transaction using the same submission method (Batch or Online) as used for the Capture transaction. This is to eliminate a possible race condition that may occur if you submit an Online Authorization Reversal prior to the processing of a Batch containing the associate Capture transaction.
- For Batch transactions, send Authorization Reversal transactions in a session separate from the both the associated Authorization and the associated Capture transactions.
- For Online transactions, when following an Authorization with an Auth Reversal, allow a minimum of one minute between the transactions.
- For Visa transactions, Vantiv automatically performs a partial Authorization Reversal, if the Capture amount is less than the associated Authorization amount.
- If you do not specify an amount (`<amount>` element) in the Authorization Reversal, Vantiv reverses the total amount of the associated Authorization.

- Do not send an Authorization Reversal against an expired Authorization. This results in a *306 - Auth expired, so amount does not need to be reversed* error. When an Authorization expires, the hold amount is automatically reversed.
- Do not send an Authorization Reversal against an Authorization that does not exist in our system. For example, if you sends a reversal against an Authorization that failed or an Authorization that was declined, the Authorization Reversal returns a *360 - No transaction found with specified litleTxnId* error.
- Do not send an Authorization Reversal against a payment type that does not support Authorization Reversals. This results in a *335 - This method of payment does not support reversals* error.
- Do not send an Authorization Reversal for a fully depleted Authorization. This results in a *111 - Authorization amount has already been depleted* error.

1.15.2.2 Using Authorization Reversal to Halt Recycling Engine

If you are using the Recycling Engine to optimize your authorizations and need to discontinue the automatic recycling of the transaction, you use an Authorization Reversal transaction to halt the retries. For example, if a customer cancels an order and the authorization for the order is being retried by the Recycling Engine, you submit an Authorization Reversal transaction to halt the automatic recycling of the authorization.

NOTE: **If the initial transaction you submitted is a Sale (conditional deposit) rather than an Authorization, you use a Void transaction to halt the recycling.**

1.15.3 Activate Transaction

You use an Activate transaction to change the status of a (Closed Loop) Gift Card from an inactive to an active state with a value as specified by the `amount` element. You can also use this transaction type to create a Virtual Gift Card.

1.15.4 Activate Reversal Transaction (Online Only)

You use as Activate Reversal transaction to change the status of a newly activated (Closed Loop) Gift Card from active to inactive, thus reversing the operation of an Active transaction. The Activate Reversal references the associated Activate transaction by means of the `litleTxnId` element returned in the Activate response.

1.15.5 Balance Inquiry Transaction

You use the Balance Inquiry transaction to determine the balance available for use on a (Closed Loop) Gift Card.

1.15.6 Cancel Subscription Transaction

If you are using the Recurring Engine, you create Subscriptions as part of an Authorization or Sale transaction. You use the Cancel Subscription transaction to cancel the specified subscription, removing the transaction stream managed by the Recurring Engine.

1.15.7 Capture Transaction

You use a Capture transaction to transfer previously authorized funds from the customer to you after order fulfillment. You can submit a Capture transaction for the full amount of the Authorization, or for a lesser amount by setting the `partial` attribute to **true**.

NOTE: **For a Visa transaction, if you submit a Capture for an amount less than the Authorized amount, Vantiv automatically issues a partial Authorization Reversal for the balance of the Authorized amount.**

1.15.8 Capture Given Auth Transaction

Similar to a Capture transaction, you use a Capture Given Auth transaction to transfer previously authorized funds from the customer to you after fulfillment. However, you typically use a Capture Given Auth transaction if the associated Authorization occurred outside of the system (for example, if you received a telephone Authorization). Another possible use for a Capture Given Auth transaction is if the Authorization transaction occurred within the system, but the `litletxnId` is unknown by the submitting party (for example, if the Auth was submitted by a merchant, but a fulfiller submits a Capture Given Auth).

Whenever you submit a Capture Given Auth transaction, Vantiv attempts to match it to an existing Authorization using COMAAR data (**C**ard Number, **O**rder Id, **M**erchant Id, **A**mount, **A**pproval Code, and (Auth) **R**esponse Date) in order to obtain a better Interchange rate for the transaction. The application uses the following matching logic:

- If the Order Id was either not submitted (blank, spaces, or null) or does not match any Auth in the system, it is ignored and the matching attempt proceeds using the remaining COMAAR data.
- If the matching operation results in multiple possible matches, the application selects the Authorization with the lowest amount that is greater than or equal to the Capture Given Auth amount.

NOTE: In all cases, the Authorization amount must always be greater than or equal to the Capture Given Auth amount.

- If necessary, the application further narrows the match candidates to the one with the most recent response date.

NOTE: If Vantiv is able to match the Capture Given Auth to an Authorization and the following conditions are met: the card type is Visa and the Capture Given Auth amount is less than the Authorization amount, then Vantiv will issue an Auth Reversal transaction for the balance of the Authorization.

This is done to obtain the best possible interchange rates from Visa.

1.15.9 Create Plan Transaction

You use the Create Plan transaction to define several attributes of a recurring payment schedule. Later, as part of an Authorization or sale transaction, you can associate existing, active plans with Subscriptions. This association establishes a recurring payment schedule managed by the Vantiv Recurring Engine.

1.15.10 Credit Transaction

You use a Credit transaction to refund money to a customer, even if the original transaction occurred outside of the system. You can submit refunds against any of the following payment transactions:

- Capture Transaction
- Capture Given Auth Transaction
- Force Capture Transaction
- Sale Transaction
- External Sale or Capture

NOTE: Vantiv recommends that all Credit transactions in a Batch be sent separate from the associated Capture or Sale transactions.

1.15.11 Deactivate Transaction

You use a Deactivate transaction to change the status of a (Closed Loop) Gift Card from an active to an inactive state.

1.15.12 Deactivate Reversal Transaction (Online Only)

You use a Deactivate Reversal transaction to change the status of a newly deactivated Gift Card from inactive to active, thus reversing the operation of an Deactivate transaction. The Deactivate Reversal references the associated Deactivate transaction by means of the `litleTxnId` element returned in the Deactivate response.

1.15.13 Deposit Reversal Transaction (Online Only)

Used only for (Closed Loop) Gift Card related transactions, a Deposit Reversal transaction to reverse the funds capture initiate by either a Capture or Sale transaction. The Deposit Reversal references the associated Capture/Sale transaction by means of the `litleTxnId` element returned in the Capture/Sale response. You should never attempt to use this transaction type to reverse credit card or eCheck transactions.

1.15.14 eCheck Credit Transaction

Similar to a Credit transaction, you use an eCheck Credit transaction to refund money to a customer, but only when the method of payment was an eCheck. You can submit an eCheck Credit transaction regardless of whether the original transaction occurred in or out of the system.

1.15.15 eCheck Prenotification Credit Transaction

You use this non-monetary transaction to verify the consumer's account information prior to submitting an eCheck Credit transaction (also see eCheck Prenotification on page 46). This transaction type is only supported for US transactions.

1.15.16 eCheck Prenotification Sale Transaction

You use this non-monetary transaction to verify the consumer's account information prior to submitting an eCheck Sale transaction (also see eCheck Prenotification on page 46). This transaction type is only supported for US transactions.

1.15.17 eCheck Redeposit Transaction

You use this transaction type to manually attempt redeposits of eChecks returned for either Insufficient Funds or Uncollected Funds. You can use this element in either Online or Batch transactions.

NOTE: **Do not use this transaction type if you are enabled for the Auto Redeposit feature. If you are enabled for the Auto Redeposit feature, the system will reject any `echeckRedeposit` transaction you submit.**

1.15.18 eCheck Sales Transaction

You use an eCheck Sales transaction to transfer funds from the customer to you after order fulfillment. It is the eCheck equivalent of a Capture transaction. Funding usually occurs within two days. You can also submit this transaction type as a conditional capture, which makes the processing of the deposit conditional upon a successful verification. If the verification fails, the deposit is not processed.

1.15.19 eCheck Verification Transaction

You use an eCheck Verification transaction to initiate a comparison to a database containing information about checking accounts. The database may include information as to whether the account has been closed, as well as whether there is a history of undesirable behavior associated with the account/account holder. This transaction type is only supported for US transactions.

1.15.20 eCheck Void Transaction (Online Only)

You use an eCheck Void transaction to either halt automatic redeposit attempts of eChecks returned for either Insufficient Funds or Uncollected Funds, or cancel an eCheck Sale transaction, as long as the transaction has not yet settled. This also applies to merchant initiated redeposits. You can use this element only in Online transactions.

1.15.21 Force Capture Transaction

A Force Capture transaction is a Capture transaction used when you do not have a valid Authorization for the order, but have fulfilled the order and wish to transfer funds.

CAUTION: **Merchants must be authorized by Litle & Co. before processing this transaction. In some instances, using a Force Capture transaction can lead to chargebacks and fines.**

1.15.22 Load Transaction

You use a Load transaction to add funds to an active Gift Card. The load amount cannot exceed the maximum allowed amount for the Gift Card. If you attempt to load more than the maximum amount, the transaction will be declined with a response Code of 221 - Over Max Balance.

1.15.23 Load Reversal Transaction (Online Only)

You use a Load Reversal transaction to reverse the operation of a Load transaction, removing the newly loaded amount from the Gift Card. The Load Reversal references the associated Load transaction by means of the `litleTxnId` element returned in the Load response. You cannot perform a partial Load Reversal. This transaction always reverses the full amount of the referenced Load transaction.

1.15.24 Refund Reversal Transaction (Online Only)

The Refund Reversal transaction is a (Closed Loop) Gift Card only transaction that reverses the operation of a Refund transaction on the Gift Card. The Refund Reversal references the associated Credit transaction by means of the `litleTxnId` element returned in the Credit response. You cannot perform a partial Refund Reversal. This transaction always reverses the full amount of the referenced Refund transaction.

1.15.25 Sale Transaction

The Sale transaction enables you to both authorize fund availability and deposit those funds by means of a single transaction. The Sale transaction is also known as a conditional deposit, because the deposit takes place only if the authorization succeeds. If the authorization is declined, the deposit will not be processed.

NOTE: **If the authorization succeeds, the deposit will be processed automatically, regardless of the AVS or CVV2 response.**

To obtain better interchange rates, you should always perform an AVS check either as a standalone transaction, or as part of the Authorization/Sale transaction.

1.15.26 Status Query Transaction

The Status Query Transaction allows you to verify that an Online transaction submitted within the prior six hours exists in the system. The response will be one of the following:

- A single transaction matching the search criteria
- Multiple transactions matching the search criteria
- Empty results, if no transactions matched the criteria
- A limited response, if a transaction was found, but processing was not complete

As search criteria, you must submit, at a minimum, the id (id attribute) and transaction type (i.e., authorization, deposit, void, etc.) of the original transaction, but to narrow the search, you can also include the transaction id, order id, and the account number (credit, debit, or gift card) from the original transaction. The response message contains one of four response codes, 150 through 153 (see Payment Transaction Response Codes on page 726), and the results for the search.

NOTE: **The Query Transaction is available in LitleXML V10.0 and above. Also, you must be specifically enable to use this transaction type. Please speak to your Vantiv Implementation Consultant for additional information.**

1.15.27 Unload Transaction

You use an Unload transaction to remove funds from an active Gift Card. The unload amount cannot exceed the available balance on the Gift Card. If you attempt to unload more than the available balance, the transaction will be declined with a response Code of 209 - Invalid Amount.

1.15.28 Unload Reversal Transaction (Online Only)

The Unload Reversal transaction reverses the operation of a Unload transaction, returning the value removed from the Gift Card by the Unload transaction. The Unload Reversal references the associated Unload transaction by means of the `litleTxnId` element returned in the Unload response. You cannot perform a partial Unload Reversal. This transaction always reverses the full amount of the referenced Unload transaction.

1.15.29 Update Plan Transaction

You use the Update Plan transaction to activate/deactivate Plans associated with recurring payments. When you deactivate a Plan, by setting the `active` flag to **false**, you can no longer reference that Plan for use with subscriptions. Existing subscriptions already using the deactivated Plan will continue to use the Plan until the subscription is either modified or completed. You can also reactivate a deactivated Plan by updating the Plan and setting the `active` flag to **true**.

1.15.30 Update Subscription Transaction

You use an Update Subscription transaction to change certain subscription information associated with a recurring payment. Using this transaction type you can change the plan, card, billing information, and/or billing date. You can also create, update, or delete a Discount and/or an Add On.

1.15.31 Void Transaction (Online Only)

The Void transaction enables you to cancel any settlement transaction as long as the transaction has not yet settled and the original transaction occurred within the system (Voids require a reference to a litleTxnId).

NOTE: **Do not use Void transactions to void an Authorization. To remove an Authorization use an Authorization reversal transaction (see Authorization Reversal Transactions on page 58.)**

1.15.31.1 Using Void to Halt Recycling Engine

If you use Recovery or the Recycling Engine service and use Sale transactions (conditional deposits) to authorize and capture the funds, you must use a Void transaction to discontinue the automatic recycling of the transaction should the need arise. For example, if a customer cancels an order and the Sale transaction is being retried by the Recycling Engine, you submit a Void transaction to halt the automatic recycling of the transaction.

NOTE: **If the initial transaction you submitted is an Authorization rather than an Sale, you use an Authorization Reversal transaction to halt the recycling.**

When using a Void transaction to halt recycling, there is a possibility that the recycled transaction has already been approved and captured. If this condition occurs, depending upon your configuration, the system takes one of two actions:

- If you are not configured for the Automatic Refund option (default = disabled), the system declines the Void transaction. You must issue the Credit transaction to refund the money to the consumer. The daily Recycling file will include the approved/captured transaction.
- If you are configured for the Automatic Refund option, the system issues a Credit transaction on your behalf. The system returns the transaction Id for the Credit transaction in the Void response message (`creditLitleTnxId` element). The daily Recycling file will include the approved/captured transaction only if the file was generated prior to the system receiving the Void and issuing the automatic refund.

1.15.32 Instruction-Based Dynamic Payout Transactions

If you are a PayFac using the Instruction-Based Dynamic Payout model, there are a number of Batch only transaction types you use to move funds between various accounts, including funding Sub-merchants. This section provides information about these transaction types. For additional information, please refer to the Appendix D, "PayFac™ Dynamic Payout".

- **Funding Instruction Void -** You use this transaction type to void a submitted funding instruction. You must submit the void prior to your daily cutoff time for an instruction not yet processed.
- **PayFac Credit Transaction -** You use this transaction type to move funds from the PayFac Settlement Account to your Operating Account.
- **PayFac Debit Transaction -** You use this transaction type to move funds from your Operating Account to the PayFac Settlement Account.

- **Physical Check Credit -** You use this transaction type to move funds from the PayFac Settlement Account to the account of a third party that issues physical checks on your behalf.
- **Physical Check Debit -** You use this transaction type to move funds from the physical check issuer's Account to the PayFac Settlement Account.
- **Reserve Credit Transaction -** You use this transaction type to move funds from the PayFac Settlement Account to the Reserve Account.
- **Reserve Debit Transaction -** You use this transaction type to move funds from the Reserve Account to the PayFac Settlement Account.
- **Sub-merchant Credit Transaction -** You use this transaction type to move funds from the PayFac Settlement Account to the Sub-merchant Account, funding the Sub-merchant.
- **Sub-merchant Debit Transaction -** You use this transaction type to move funds from the Sub-merchant Account to the PayFac Settlement Account.
- **Vendor Credit -** You use this transaction type to move funds from the PayFac Settlement Account to the account of a third party involved in the sale transactions, but are not the sub-merchant.
- **Vendor Debit -** You use this transaction type to move funds from the Vendor Account to the PayFac Settlement Account.

2

TESTING YOUR LITLEXML TRANSACTIONS

The information provided in this chapter enables you to test and verify that your submitted transaction data conforms to the required LitleXML schema. This chapter contains the following topics:

- Certification and Testing Environments
- Overview of Testing
- Transferring Files
- Performing the Required Certification Tests
- Performing the Optional Tests

IMPORTANT: **Per PCI DSS Requirements and Security Assessment Procedure, Section 6.4.3, "Production data (live PANs) are not used for testing or development."**

NOTE: **This chapter does not include Certification tests for the PayFac Instruction-Based Dynamic Payout transaction types. Additional information about these transactions, as well as the Certification tests are in Appendix D, "PayFac™ Dynamic Payout".**

2.1 Certification and Testing Environments

Vantiv has several testing and certification platforms optimized for different uses. These environments are called: Sandbox, Pre-Live, and Post-Live. This section discusses the various environments, their uses, and limitations. The certification and testing environments do not have the full capacity, performance, or availability of the Vantiv Production platform.

2.1.1 Sandbox Environment

The Sandbox environment is a simulator that provides a basic interface for functional level testing of transaction messages. Typically, merchants using one of the available Software Development Kits (SDKs) would use the Sandbox to test basic functionality, but it could also be used by any merchant using LitleXML. This is a stateless simulator, so it has no historical transactional data, and does not provide full functionality. This environment is not intended for certification or regression testing.

NOTE: **At his time, the Sandbox does not support Batch transactions (Online transactions only).**

Use of the Sandbox does not require a password. The environment is available on the public internet (at www.testlitle.com/sandbox/communicator/online). Supporting documentation, including test case documentation, is available at www.litle.com/developers/litle-sandbox.

2.1.2 Pre-Live Environment

The Pre-Live test environment is the platform used for all merchant Certification testing. This environment should be used by both newly on-boarding Vantiv merchants (for example, coding a direct XML integration for the first time), and existing Vantiv merchants seeking to incorporate additional features or functionalities into their current XML integrations. While the Pre-Live system provides a working version of the Vantiv production system, it does not have the full capacity or performance of the production platform and operates using simulators rather than communicating with the card associations.

The Pre-Live environment provides for the self-provisioning of a basic test account via www.testlitle.com/sandbox/. Using this account, you can submit most standard transaction types, including those specified in the Certification test sections provided later in this chapter. You will not be able to test many of the Vantiv eCommerce Value Added Services (VAS) using this basic account. To add the capability to perform test scenarios for the VAS services, please contact a Vantiv Implementation Consultant. They will adjust the configuration of your test account to enable the additional, desired features.

2.1.2.1 Pre-Live Environment Limitations and Maintenance Schedules

When using the Pre-Live environment for testing, please keep in mind the following limitations and maintenance schedules:

- The number of merchants configured per organization will be limited to the number necessary to perform the required certification testing.
- Data retention is limited to a maximum of 30 days.

NOTE: **Depending upon overall system capacity and/or system maintenance requirements, data purges may occur frequently. Whenever possible, advanced notification will be provided.**

- Merchant profile and data deleted after 7 consecutive days with no activity.
- Maintenance window - each Tuesday and Thursday from 8:00-11:00 AM ET.
- Daily limit of 1000 Online transactions.
- Daily limit of 10000 Batch transactions.

2.1.3 Post-Live Environment

The Post-Live testing environment is intended for merchants that are already fully certified and submitting transactions to the Vantiv production platform, but wish to perform regression or other tests to confirm the operational readiness of modifications to their own systems. Upon completion of the initial certification and on-boarding process, Vantiv migrates merchants that are Production-enabled to the Post-Live environment for any on-going testing needs.

In Post-Live, the merchant profile matches your profile from the Vantiv Production environment. Similar to Pre-Live, the Post-Live system provides a working version of the Vantiv production system, but it does not have the full capacity or performance of the production platform and operates using simulators rather than communicating with the card associations. Unlike the Pre-live platform, all Merchant accounts/IDs are synchronized with the Vantiv production environment.

2.1.3.1 Post-Live Environment Limitations and Maintenance Schedules

When using the Post-Live environment for testing, please keep in mind the following limitations and maintenance schedules:

- Daily limit of 1000 Online transactions.
- Daily limit of 10000 Batch transactions.
- Maintenance window - each Tuesday and Thursday from 8:00-11:00 AM ET.
- Data retention limited to a maximum of 30 days.

NOTE: **Depending upon overall system capacity and/or system maintenance requirements, data purges may occur frequently. Whenever possible, advanced notification will be provided.**

2.2 Overview of Testing

The purpose of the testing and certification process is to verify that your order entry and supporting systems construct and send XML messages that comply with the LitleXML requirements. The Litle & Co. testing process involves submitting Vantiv supplied data for specific fields in a request, and receiving specific data back in a response. The response returned by Vantiv allows you to verify that you parse the LitleXML Response file correctly.

Various tables in this chapter provide the data you use while testing, including card numbers, expiration dates, transaction amounts, and other values as required by the testing process. You use this data as input to your systems resulting in structured requests that conform to the required LitleXML schema.

IMPORTANT: The test data supplied does not necessarily account for all data fields/xml elements in a particular request. Where test data is not supplied, you should provide appropriate information. You should never override your own system to enter supplied data. If you are unable to enter the supplied data without overriding your system, please consult your Implementation Consultant concerning the test and how to proceed.

Typically, Vantiv assigns an Implementation Consultant to work with you after the completion of contract negotiations. Before you begin the testing phase, your assigned Implementation Consultant establishes a test account and supplies you with instruction for accessing the account along with the username and password. You must supply the IP address from which the data originates so we can grant access.

NOTE: Until you complete all required testing, you will only have access to the test and certification environment.

The testing process involves the following steps:

2.2.1 Planning for Certification Testing

Before you begin testing, determine which transaction types you will use according to your business needs. Virtually everyone will make use of the following basic transaction types: Authorization, Capture, Sale, Credit, and Void. There are several other transaction types and most transaction types offer many options/optional fields that you may wish to utilize and therefore test. For example, if you decide to offer eChecks as a alternate payment method, there are several associated certification tested required. Similarly, if you elect to make use of the Insights feature set, there are additional Authorization tests required for certification.

NOTE: **For information about certification testing for PayPal, PayPal Credit, eProtect, Chargeback API, and the PayFac API, please refer to the following documents:**

- ***Vantiv PayPal Integration Guide***
- ***Vantiv PauPal Credit Integration Guide***
- ***Vantiv eProtect Integration Guide***
- ***Vantiv Chargeback API Reference Guide***
- ***Vantiv PayFac API Reference Guide***

2.2.2 Required Certification Testing

Certification testing is a required phase of implementing the LitleXML format. During the certification testing, a Litle & Co. Implementation Consultant works with you to verify that your transaction submissions meet the requirements of the LitleXML specifications. Each transaction type has specific test scenarios that use specific data sets simulating real transactions. The Vantiv Certification environment responds to each submission with an XML response message, allowing you to verify that you have coded correctly to parse and store the transaction data returned to you. For more detailed information, see Performing the Required Certification Tests on page 83.

2.2.3 Optional Testing

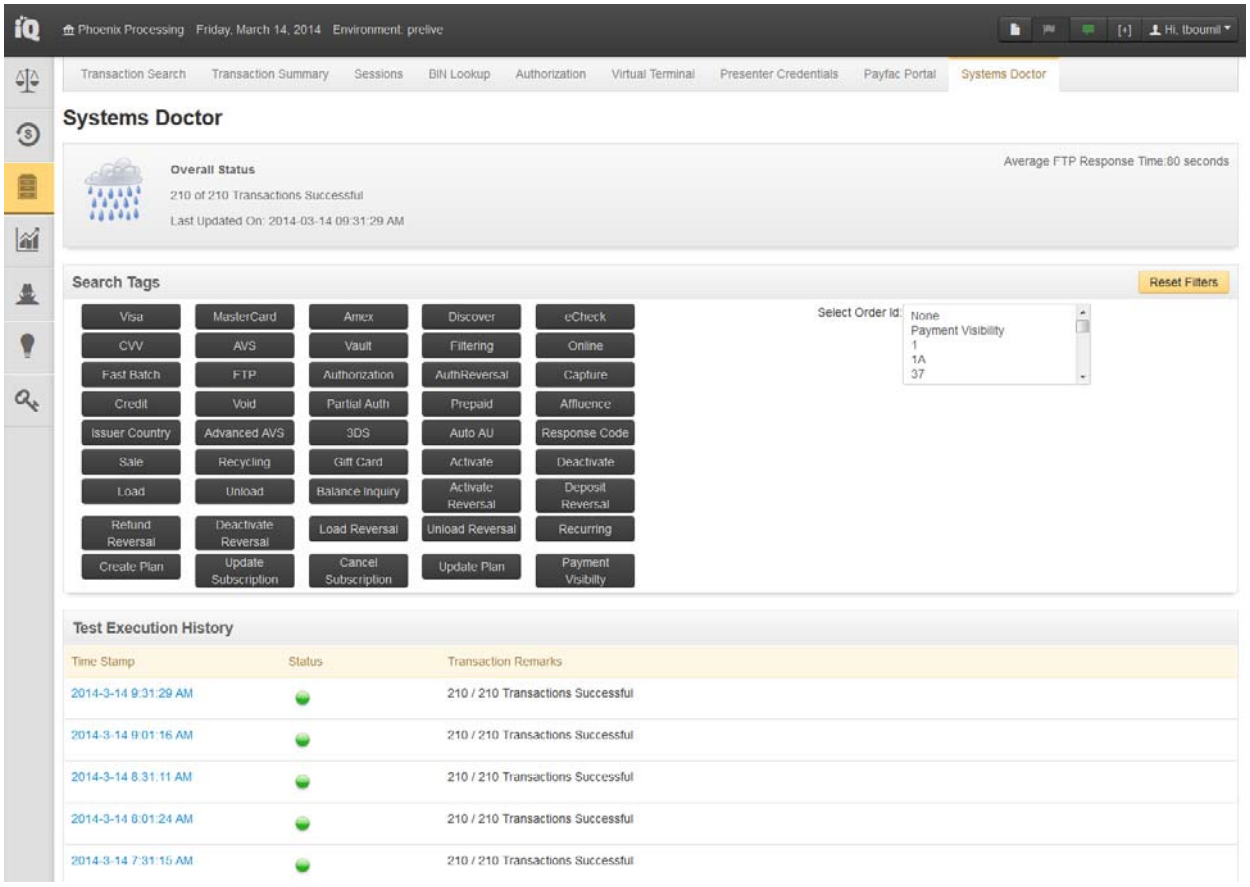
Litle & Co. provides you with test data, test scenarios, a test environment, and credentials for using that test environment so you can perform these tests on your own keeping in mind the limitations of the certification environment (see Certification and Testing Environments on page 70). During unattended testing, you use these resources to perform all of the tests that apply to your business needs.

NOTE: **If you have questions or need assistance while performing unattended testing, feel free to call your assigned Implementation Consultant or email implementation@litle.com.**

2.2.4 System Doctor

The System Doctor is a tool you can use to both verify the operation of the Pre-Live environment and to verify operation and message structures of individual certification tests. Every 30 minutes the System Doctor runs each certification test specified in this chapter, except the Recycling and Recurring tests. You access the System Doctor through the Pre-Live iQ (Operations>System Doctor).

FIGURE 2-1 System Doctor



Systems Doctor

Overall Status

210 of 210 Transactions Successful

Last Updated On: 2014-03-14 09:31:29 AM

Average FTP Response Time:80 seconds

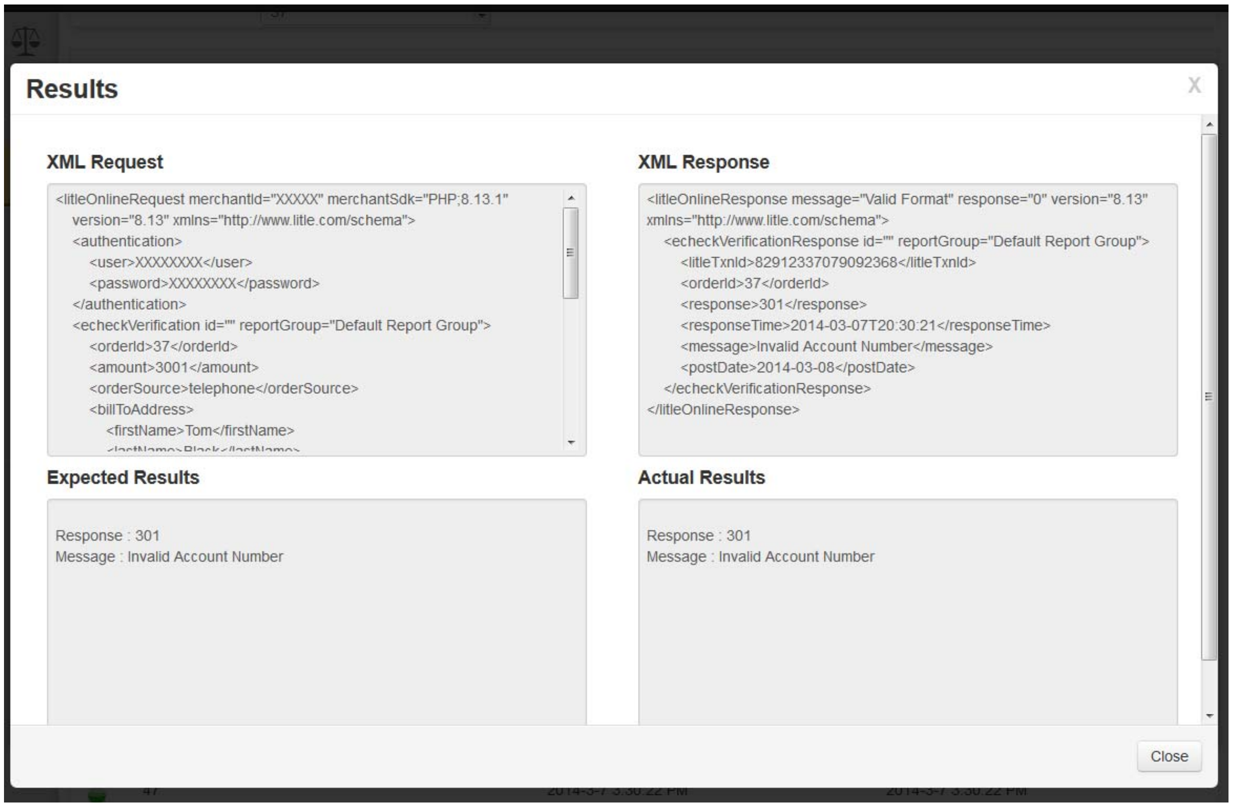
Test Execution History

Time Stamp	Status	Transaction Remarks
2014-3-14 9:31:29 AM	●	210 / 210 Transactions Successful
2014-3-14 9:01:16 AM	●	210 / 210 Transactions Successful
2014-3-14 8:31:11 AM	●	210 / 210 Transactions Successful
2014-3-14 8:01:24 AM	●	210 / 210 Transactions Successful
2014-3-14 7:31:15 AM	●	210 / 210 Transactions Successful

As shown in Figure 2-1, the system displays an overall assessment of the system status in the top panel and the results from each test set in the Test Execution History section (bottom panel). The center panel has a list of all individual tests by Order Id (pull-down), which you can filter by clicking on or more of the Search Tag buttons. Selecting one of the Order Ids from the list displays the XML request and response for that test (see Figure 2-2). You can also display the XML request and response information by selecting a test run from the Test Execution History and then selecting an individual test from the expanded list.

NOTE: **The search tags filter the Order Ids shown in the selection pull-down, but do so in an ORed manner. For example, if you select the Visa Filter and the Prepaid Filter, the pull-down displays Order Ids for tests that either use a Visa card OR a Prepaid card, rather than tests for a Prepaid Visa card.**

FIGURE 2-2 XML Request and Response Messages



```
<litleOnlineRequest merchantId="XXXXX" merchantSdk="PHP;8.13.1"
   version="8.13" xmlns="http://www.litle.com/schema">
   <authentication>
      <user>XXXXXXXX</user>
      <password>XXXXXXXX</password>
   </authentication>
   <echeckVerification id="" reportGroup="Default Report Group">
      <orderId>37</orderId>
      <amount>3001</amount>
      <orderSource>telephone</orderSource>
      <billToAddress>
         <firstName>Tom</firstName>
```

```
<litleOnlineResponse message="Valid Format" response="0" version="8.13"
xmlns="http://www.litle.com/schema">
   <echeckVerificationResponse id="" reportGroup="Default Report Group">
      <litleTxnId>82912337079092368</litleTxnId>
      <orderId>37</orderId>
      <response>301</response>
      <responseTime>2014-03-07T20:30:21</responseTime>
      <message>Invalid Account Number</message>
      <postDate>2014-03-08</postDate>
   </echeckVerificationResponse>
</litleOnlineResponse>
```

```
Response : 301
Message : Invalid Account Number
```

```
Response : 301
Message : Invalid Account Number
```

If one of your certification tests did not yield the expected results, you can use the System Doctor to determine if the test is performing as expected in the environment and if there is a discrepancy between your submitted XML and the XML message used in the automated test. If the test failed in the last automated run, you will know that there is a system issue and can contact your Implementation Consultant to determine when it will be resolved. If the test passed in the automated run, you can compare the automated XML message to your submission to determine why you are not receiving the expected results.

2.3 Transferring Files

As discussed in Communications Protocols on page 3, there are several protocols you can use to submit your transactions to Vantiv for processing. This section provides additional information concerning the recommended methods for transferring your LitleXML Batch and Online transaction files.

2.3.1 Transferring Session Files

This section describes how to FTP your files (not test system specific) and includes the following topics:

- Submitting a Session File for Processing
- Retrieving Processed Session Files

NOTE: **Before you begin transferring files via FTP, Vantiv provides the FTP Host and a username/password for the Vantiv test system.**

2.3.1.1 Submitting a Session File for Processing

CAUTION: **File naming conventions are crucial to the file submission process. Incorrect file names will prevent the file from being processed or may stop processing due to an incomplete file transfer.**

Do not append .asc to the end of the filename (Step 3). You must replace the .prg extension with .asc. If .prg appears in the filename, the system will not process the file

1. On your local system, add the extension .prg (lowercase) to the name of the file you want to submit. For example, you could name the file MerchantName_YYMMDD.prg. Keep in mind the following rules:
   - Spaces are not allowed in the file name
   - The .prg extension must be lower case
2. Open your FTP connection to the Vantiv inbound directory and move your file to the Vantiv directory.
3. After the FTP process completes, change the extension of the transmitted file (in the Vantiv inbound directory) from .prg to .asc (lowercase). The system polls the directory for files with an .asc extension every thirty seconds. When the system encounters files with the proper extension, it retrieves them for processing.

2.3.1.2 Retrieving Processed Session Files

Depending on the size of your file, your response should be ready within a few minutes. Batches containing large number of transactions take longer. For example, a batch of 10,000 transactions may require as long as ten minutes to process.

The initial response represents an acknowledgement that we received the transactions and notification that we will deliver them upstream to Visa and/or MasterCard for review. Since we perform validation operations against the credit card number and the expiration date, you may also receive a decline responses containing the appropriate response code.

To retrieve response files from the outbound directory:

NOTE: **Vantiv removes response files from the outbound directory after 24 hours. Plan to retrieve your files daily.**

1. Open your FTP connection to the Vantiv outbound directory.
2. Locate the response file, which will have the same name as the file you submitted. If the response file has a .prg extension, it is still transferring. The extension changes to .asc when the transfer to the outbound directory completes.
3. Retrieve the response file.

2.3.2 Transferring Online Files

The recommended method for submitting Online transactions is via HTTPS POST. The sections that follow provide examples of ASP and Java programming methods for submitting your data using HTTPS POST.

- ASP Programming Example
- Java Programming Example
- Helpful Web Sites

NOTE: **Before you begin testing, Vantiv provides the test system URL, a username/password, and any additional information required to test your XML transactions.**

2.3.2.1 ASP Programming Example

The following code is an example of a LitleXML Authorization transaction submitted via HTTPS Post using ASP.

```
Dim xml
 Dim strXML
 strXML = strXML & "<litleOnlineRequest version=""8.8""
xmlns=""http://www.litle.com/schema"" merchantId=""MERCHANTID"">"
  strXML = strXML & "<authentication>"
  strXML = strXML & "<user>USERNAME</user>"
  strXML = strXML & "<password>########</password>"
  strXML = strXML & "</authentication>"
  strXML = strXML & "<authorization id=""834262""
reportGroup=""123"" customerId=""038945"">"
  strXML = strXML & "<orderId>3235059</orderId>"
  strXML = strXML & "<amount>54399</amount>"
  strXML = strXML & "<orderSource>ecommerce</orderSource>"
   strXML = strXML & "<billToAddress>"
    strXML = strXML & "<name>Todd Wilson</name>"
    strXML = strXML & "<addressLine1>123 Blue
Street</addressLine1>"
    strXML = strXML & "<addressLine2>Suite 108</addressLine2>"
    strXML = strXML & "<addressLine3>Address Line 3</addressLine3>"
    strXML = strXML & "<city>Lowell</city>"
    strXML = strXML & "<state>MA</state>"
    strXML = strXML & "<zip>01851</zip>"
    strXML = strXML & "<country>USA</country>"
    strXML = strXML & "<email>twilson@email.com</email>"
    strXML = strXML & "<phone>323-222-2222</phone>"
   strXML = strXML & "</billToAddress>"
   strXML = strXML & "<card>"
    strXML = strXML & "<type>VI</type>"
    strXML = strXML & "<number>#############</number>"
    strXML = strXML & "<expDate>0516</expDate>"
    strXML = strXML & "<cardValidationNum>###</cardValidationNum>"
   strXML = strXML & "</card>"
```

```
    strXML = strXML & "</authorization>"
  strXML = strXML & "</litleOnlineRequest>"
set xml = CreateObject("Microsoft.XMLHTTP")
xml.setRequestHeader "Content-type", "text/html; charset=UTF-8"
xml.Open "POST", "https://site.info.com/from_Litle", False
xml.Send strXML
Response.write (xml.responseText)
set xml = Nothing
```

2.3.2.2 Java Programming Example

The following is an example of Java code used for HTTPS Post.

```
PostMethod and HttpClient are both part of the Apache HttpClient
library located at http://jakarta.apache.org/commons/httpclient/.


PostMethod post = new PostMethod(url); // url = fully qualified url
of the server to which you are posting
post.setRequestHeader("Content-type", "text/html; charset=UTF-8");
post.setRequestBody(data); //data = request data in XML format


HttpClient client = new HttpClient();
client.setTimeout(10000); //10 second timeout (in milliseconds) is
suggested minimum, 30 second recommended for alternate payment
methods
client.executeMethod(post);


String response = post.getResponseBodyAsString();


//if the server throws an exception you get a null response
//to get around this set it to ""
if (response == null) {
    response = "";
}
post.releaseConnection();
```

2.3.2.3 Notes on Timeout Settings

While Vantiv optimizes our systems to ensure the return of Authorization responses as quickly as possible, some portions of the process are beyond our control. The round-trip time of an Authorization can be broken down into three parts, as follows:

1. Transmission time (across the internet) to Vantiv and back to the merchant
2. Processing time by the card association or authorization provider
3. Processing time Vantiv

Under normal operating circumstances, the transmission time to and from Vantiv does not exceed 0.6 seconds and processing time by Vantiv occurs in 0.1 seconds. Typically, the processing time by the card association or authorization provider can take between 0.5 and 3 seconds, but some percentage of transactions may take significantly longer.

Because the total processing time can vary due to a number of factors, Vantiv recommends using a timeout setting of 10 seconds minimum for card transactions and 30 seconds minimum for alternate payment methods. These settings should ensure that you do not frequently disconnect prior to receiving a valid authorization causing dropped orders and/or re-auths and duplicate auths.

NOTE: **While it is uncommon, under certain circumstances network latency may cause a duplicate Online Sale transaction to go undetected as a duplicate. This can occur if you submit a second, duplicate Sale transaction while the response from the network for the Authorization portion of the first transaction is sufficiently delayed such that the first Sale has not been recorded as a valid transaction in the system.**

If you elect to submit Online Sale transactions, Vantiv recommends a timeout setting of not less than 60 seconds to reduce the chances of undetected duplicate Sale transactions.

2.3.2.4 Notes on Persistent Connections

In order to provide a highly scalable service that meets the needs of high-throughput merchants, while reducing the number of idle connections that could result in some merchants exceeding their connection limits, systems allow for 10 seconds of idle time before closing a persistent connection. We selected this value because it is the midpoint between the Apache httpd 2.0 default value of 15 seconds and the Apache 2.2 default value of 5 seconds. If you plan to use persistent connection, please code keeping the 10 second idle time limit in mind.

2.3.2.5 Helpful Web Sites

The following web sites provide additional information, helpful hints, and examples of different programming methods used in combination with HTTPS POST.

- http://p2p.wrox.com
- http://en.allexperts.com/q/Active-Server-Pages-1452/XML-ASP-Parser-2.htm
- http://www.java-samples.com/java/POST-toHTTPS-url-free-java-sample-program.htm

2.4 Performing the Required Certification Tests

You are required to complete a number of certification tests prior to submitting real transactions to the Vantiv production system. This testing process allows you to verify that your system not only submits correctly formatted transaction data, but also correctly parses the data returned to you in the response messages. To facilitate the certification process, Vantiv has established a certification environment that simulates the production environment.

IMPORTANT: All linked transactions return a 001 - Transaction received Response Code. To determine the final response Code of the declined or duplicate transactions, please refer to the Declined Transaction Report in Vantiv iQ. Once in the production environment, you can also obtain this daily report via Secure Scheduled Reports.

During certification testing, a Vantiv Implementation Consultant will guide you through each required test scenario. For each transaction type specific data is supplied that you must use in your LitleXML transactions. Use of this data allows the validation of your transaction structure/syntax, as well as the return of a response file containing known data.

NOTE: The test data supplied does not account for all data fields/xml elements in a particular request. Where data is not supplied, you should provide appropriate information. You should never override your own system to enter supplied data. If you are unable to enter the supplied data without overriding your system, please consult your Implementation Consultant concerning the test and how to proceed.

Never use the supplied test data in the production environment.

2.4.1 Testing Authorization (including Indicators), AVS Only, Capture, Credit, Sale, and Void Transactions

Table 2-1 provides 26 data sets you use to test your construction of Authorization, AVS Only, Sale and Force Capture transactions, as well as your ability to parse the information contained in the XML response messages. You also use some of the approved authorizations as the basis for testing Capture and Credit transactions.

You do not necessarily have to perform all Authorization test. The tests you perform depend upon the Vantiv features you have elected to use. The tests are divided as follows:

- Order Ids 1 through 9 - used to test standard Authorization requests and responses. Also used for AVS Only test and Sale test. (Capture test use the `litleTxnId` returned in the response messages.)
- Order Ids 10 through 13 - include if you plan to use **Partial Authorization**

- Order Ids 14 and 20 - include if you plan to use the **Prepaid Indicator** feature (see Prepaid Indicator on page 24)
- Order Ids 21 through 24 - include if you plan to use the **Affluence Indicator** feature (see Affluence Indicator on page 25)
- Order Id 25 - include if you plan to use the **Issuer Country** feature (see Issuer Country Indicator on page 25)
- Order Ids 26 through 31 - include if you plan to use the **Healthcare Card** feature (see Healthcare Card Feature on page 48)

To test **Authorization** transactions:

1. Verify that your Authorization XML template is coded correctly (refer to Authorization Transactions on page 187.)
2. Submit `authorization` transactions using the data shown in the Supplied Data Elements of Order Ids 1 through 9 of Table 2-1.
3. Verify that your response values match those shown in Key Response Elements for Order Ids 1 through 9 as shown in Table 2-1.
4. If you wish to test **AVS only** transactions, re-submit Order Ids 1 through 5, 7, 8, and 9 (skip order 6), but substitute 000 for the amount. The AVS result returned will be the value shown in the Key Response Elements section.
5. If you plan to use **Partial Authorizations**, submit `authorization` transactions using the data shown in the Supplied Data Elements of Order Ids 10 through 13 of Table 2-1.
6. Verify that your response values match those shown in Key Response Elements for Order Ids 10 through 13 as shown in Table 2-1.
7. If you elected to receive **Prepaid Indicators**, submit `authorization` transactions using the data shown in the Supplied Data Elements of Order Ids 14 through 20 of Table 2-1. Verify that your response values match those shown in Key Response Elements for Order Ids 14 and 15 as shown in Table 2-1.
8. If you elected to receive **Affluence Indicators**, submit `authorization` transactions using the data shown in the Supplied Data Elements of Order Ids 21through 24 of Table 2-1. Verify that your response values match those shown in Key Response Elements for Order Ids 16 through 19 as shown in Table 2-1.
9. If you elected to receive **Issuer Country** information, submit an `authorization` transaction using the data shown in the Supplied Data Elements of Order Id 25 of Table 2-1. Verify that your response values match those shown in Key Response Elements for Order Id 25 as shown in Table 2-1.
10. If you plan to handle transactions using **Healthcare (IIAS)** cards, submit `authorization` transactions using the data shown in the Supplied Data Elements of Order Ids 26 through 31 of Table 2-1. Verify that your response values match those shown in Key Response Elements for Order Ids 26 through 31 as shown in Table 2-1.

NOTE: **Some Issuers do not return an Auth Code for $0 Authorizations. You should code your systems to handle this possibility.**

To Test **Sale** transactions:

1. Verify that your Sale XML template is coded correctly (refer to Sale Transactions on page 281.)
2. Submit `sale` transactions using the data shown in the Supplied Data Elements of Order Ids 1 through 9 of Table 2-1.
3. Verify that your response values match those shown in Key Response Elements for Order Ids 1 through 9 as shown in Table 2-1.

To Test **Capture** transactions:

1. Verify that your Capture XML template is coded correctly (refer to Capture Transactions on page 209.).
2. Submit `capture` transactions for Order Ids 1A through 5A using the `litleTnxId` value returned in the response messages for Authorization Order Ids 1 through 5.
3. Verify that your response values match those shown in Key Response Elements for Order Ids 1A through 5A as shown in Table 2-1.

To test **Credit** transactions:

1. Verify that your Credit XML template is coded correctly (refer to Credit Transactions on page 225.)
2. Submit `credit` transactions for Order Ids 1B through 5B using the `litleTnxId` value returned in the response messages for Capture Order Ids 1A through 5A.
3. Verify that your response values match those shown in Key Response Elements for Order Ids 1B through 5B as shown in Table 2-1.

To test **Void** transactions (in this test you have the option of voiding either Credit or Sale transactions):

1. Verify that your Void XML template is coded correctly (refer to Void Transactions (Online Only) on page 300.)
2. Submit `void` transactions for Order Ids 1C through 5C (and 6Bif voiding Sale transactions) using the `litleTnxId` value returned in either the response messages for Credit Order Ids 1B through 5B, or the response messages for Sale (not Auth) Order Id 1 through 6.
3. Verify that your response values match those shown in Key Response Elements for Order Ids 1C through 5C (include 6B only if you elect to void the Sales transactions) as shown in Table 2-1.

TABLE 2-1 Authorization Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
1	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	000
	<name>	John & Mary Smith	<message>	Approved
	<addressLine1>	1 Main St.	<authCode>	11111
	<city>	Burlington	<avsResult>	01
	<state>	MA	<cardValidationResult>	M
	<zip>	01803-3747		
	<country>	US		
	<type>	VI		
	<number>	4457010000000009		
	<expDate>	0116		
	<cardValidationNum>	349		
1A	**Capture:**		**Capture Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 1	<response>	001
			<message>	Transaction received
1B	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value returned in Capture response for Order Id 1A	<response>	001
			<message>	Transaction received
1C	**Void:**		**Void Response:**	
	<litleTxnId>	Use either the value returned in the Credit response for Order Id 1B, or the value returned in the Sale response (not Auth) for Order Id 1.	<response>	001
			<message>	Transaction received

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
2	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	000
	<name>	Mike J. Hammer	<message>	Approved
	<addressLine1>	2 Main St.	<authCode>	22222
	<addressLine2>	Apt. 222	<avsResult>	10
	<city>	Riverside	<cardValidationResult>	M
	<state>	RI	<authenticationResult>	**Note:** Not returned for MasterCard
	<zip>	02915		
	<country>	US		
	<type>	MC		
	<number>	5112010000000003		
	<expDate>	0216		
	<cardValidationNum>	261		
	<authenticationValue>	BwABBJQ1AgAAAAAgJDUCAAAAAAA=		
2A	**Capture:**		**Capture Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 2	<response>	001
			<message>	Transaction received
2B	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value returned in Capture response for Order Id 2A	<response>	001
			<message>	Transaction received
2C	**Void:**		**Void Response:**	
	<litleTxnId>	Use either the value returned in the Credit response for Order Id 2B, or the value returned in the Sale response (not Auth) for Order Id 2.	<response>	001
			<message>	Transaction received

TABLE 2-1 Authorization Test Data (Continued)

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
3	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	000
	<name>	Eileen Jones	<message>	Approved
	<addressLine1>	3 Main St.	<authCode>	33333
	<city>	Bloomfield	<avsResult>	10
	<state>	CT	<cardValidationResult>	M
	<zip>	06002		
	<country>	US		
	<type>	DI		
	<number>	6011010000000003		
	<expDate>	0316		
	<cardValidationNum>	758		
3A	**Capture:**		**Capture Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 3	<response>	001
			<message>	Transaction received
3B	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value returned in Capture response for Order Id 3A	<response>	001
			<message>	Transaction received
3C	**Void:**		**Void Response:**	
	<litleTxnId>	Use either the value returned in the Credit response for Order Id 3B, or the value returned in the Sale response (not Auth) for Order Id 3.	<response>	001
			<message>	Transaction received

TABLE 2-1 Authorization Test Data (Continued)

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
4	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	000
	<name>	Bob Black	<message>	Approved
	<addressLine1>	4 Main St.	<authCode>	44444
	<city>	Laurel	<avsResult>	13
	<state>	MD		
	<zip>	20708		
	<country>	US		
	<type>	AX		
	<number>	375001000000005		
	<expDate>	0416		
4A	**Capture:**		**Capture Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 4	<response>	001
			<message>	Transaction received
4B	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value returned in Capture response for Order Id 4A	<response>	001
			<message>	Transaction received
4C	**Void:**		**Void Response:**	
	<litleTxnId>	Use either the value returned in the Credit response for Order Id 4B, or the value returned in the Sale response (not Auth) for Order Id 4.	<response>	001
			<message>	Transaction received

TABLE 2-1 Authorization Test Data (Continued)

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
5	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	000
	<type>	VI	<message>	Approved
	<number>	4100200300011001	<authCode>	55555
	<expDate>	0516	<avsResult>	32
	<cardValidationNum>	463	<cardValidationResult>	M
	<authenticationValue>	BwABBJQ1AgAAAAAgJDUCAAAAAAA=		
5A	**Capture:**		**Capture Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 5	<response>	001
			<message>	Transaction received
5B	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value returned in Capture response for Order Id 5A	<response>	001
			<message>	Transaction received
5C	**Void:**		**Void Response:**	
	<litleTxnId>	Use either the value returned in the Credit response for Order Id 5B, or the value returned in the Sale response (not Auth) for Order Id 5.	<response>	001
			<message>	Transaction received

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
6	**Authorization/Sale:**		**Authorization Response:**	
	<amount>	10100	<response>	110
	<name>	Joe Green	<message>	Insufficient Funds
	<addressLine1>	6 Main St.	<avsResult>	34
	<city>	Derry	<cardValidationResult>	P
	<state>	NH		
	<zip>	03038		
	<country>	US		
	<type>	VI		
	<number>	4457010100000008		
	<expDate>	0616		
	<cardValidationNum>	992		
6A	**Void:**		**Void Response:**	
	<litleTxnId>	Use the value returned in the Sale response (not Auth) for Order Id 6.	<response>	001
			<message>	Transaction received
			Declined Transaction report result = 360 - No transaction found with specified litleTxnId	
7	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	301
	<name>	Jane Murray	<message>	Invalid Account Number
	<addressLine1>	7 Main St.		
	<city>	Amesbury	<avsResult>	34
	<state>	MA	<cardValidationResult>	N
	<zip>	01913		
	<country>	US		
	<type>	MC		
	<number>	5112010100000002		
	<expDate>	0716		
	<cardValidationNum>	251		

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
8	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	123
	<name>	Mark Johnson	<message>	Call Discover
	<addressLine1>	8 Main St.	<avsResult>	34
	<city>	Manchester	<cardValidationResult>	P
	<state>	NH		
	<zip>	03101		
	<country>	US		
	<type>	DI		
	<number>	6011010100000002		
	<expDate>	0816		
	<cardValidationNum>	184		
9	**Authorization/Sale/AVS:**		**Authorization Response:**	
	<amount>	10100	<response>	303
	<name>	James Miller	<message>	Pick Up Card
	<addressLine1>	9 Main St.	<avsResult>	34
	<city>	Boston	<cardValidationResult>	P
	<state>	MA		
	<zip>	02134		
	<country>	US		
	<type>	AX		
	<number>	375001010000003		
	<expDate>	0916		
	<cardValidationNum>	0421		
NOTE:	**The data sets for orderId 10 through 13 are designed to test Authorization transactions resulting in partial authorizations. If you are not coding to use partial authorizations, you may skip these tests.**			
10	<amount>	40000	<response>	010
	<type>	VI	<message>	Partially Approved
	<number>	4457010140000141	<approvedAmount>	32000
	<expDate>	0916		
	<allowPartialAuth>	true		

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
11	<amount> <type> <number> <expDate> <allowPartialAuth>	60000 MC 5112010140000004 1116 true	<response> <message> <approvedAmount>	010 Partially Approved 48000
12	<amount> <type> <number> <expDate> <allowPartialAuth>	50000 AX 375001014000009 0416 true	<response> <message> <approvedAmount>	010 Partially Approved 40000
13	<amount> <type> <number> <expDate> <allowPartialAuth>	15000 DI 6011010140000004 0816 true	<response> <message> <approvedAmount>	010 Partially Approved 12000
NOTE:	**The data sets for orderId 14 through 20 are designed to test Authorization transactions that return Prepaid Indicator information in the response message. If you are not coding to use the optional Prepaid Indicator feature of the Insights feature set, you may skip these tests.**			
14	<amount> <type> <number> <expDate>	10100 VI 4457010200000247 0816	<response> <message> <type> <availableBalance> <reloadable> <prepaidCardType>	000 Approved PREPAID 2000 NO GIFT
15	<amount> <type> <number> <expDate>	10100 MC 5500000254444445 0316	<response> <message> <type> <availableBalance> <reloadable> <prepaidCardType>	000 Approved PREPAID 2000 YES PAYROLL

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
16	<amount>	10100	<response>	000
	<type>	MC	<message>	Approved
	<number>	5592106621450897	<type>	PREPAID
	<expDate>	0316	<availableBalance>	0
			<reloadable>	YES
			<prepaidCardType>	PAYROLL
17	<amount>	10100	<response>	000
	<type>	MC	<message>	Approved
	<number>	5590409551104142	<type>	PREPAID
	<expDate>	0316	<availableBalance>	6500
			<reloadable>	YES
			<prepaidCardType>	PAYROLL
18	<amount>	10100	<response>	000
	<type>	MC	<message>	Approved
	<number>	5587755665222179	<type>	PREPAID
	<expDate>	0316	<availableBalance>	12200
			<reloadable>	YES
			<prepaidCardType>	PAYROLL
19	<amount>	10100	<response>	000
	<type>	MC	<message>	Approved
	<number>	5445840176552850	<type>	PREPAID
	<expDate>	0316	<availableBalance>	20000
			<reloadable>	YES
			<prepaidCardType>	PAYROLL
20	<amount>	10100	<response>	000
	<type>	MC	<message>	Approved
	<number>	5390016478904678	<type>	PREPAID
	<expDate>	0316	<availableBalance>	10050
			<reloadable>	YES
			<prepaidCardType>	PAYROLL

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
NOTE:	**The data sets for orderId 21 through 24 are designed to test Authorization transactions that return Affluence Indicator information in the response message. If you are not coding to use the optional Affluence Indicator feature of the Insights feature set, you may skip these tests.**			
21	<amount> <type> <number> <expDate>	10100 VI 4100200300012009 0916	<response> <message> <affluence>	000 Approved AFFLUENT
22	<amount> <type> <number> <expDate>	10100 VI 4100200300013007 1116	<response> <message> <affluence>	000 Approved MASS AFFLUENT
23	<amount> <type> <number> <expDate>	10100 MC 5112010201000109 0416	<response> <message> <affluence>	000 Approved AFFLUENT
24	<amount> <type> <number> <expDate>	10100 MC 5112010202000108 0816	<response> <message> <affluence>	000 Approved MASS AFFLUENT
NOTE:	**The data set for orderId 25 is designed to test Authorization transactions that return Issuer Country information in the response message. If you are not coding to use the optional Issuer Country feature of the Insights feature set, you may skip these tests.**			
25	<amount> <type> <number> <expDate>	10100 VI 4100200310000002 1116	<response> <message> <issuerCountry>	000 Approved BRA

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
NOTE:	**The data sets for orderId 26 through 31 are designed to test Authorization transactions involving Healthcare Care (IIAS) transaction. If you are not coding to use the optional Healthcard feature of the Insights feature set, you may skip these tests.**			
26	<amount>	18698	<response>	341
	<type>	MC	<message>	Invalid healthcare amounts
	<number>	5194560012341234		
	<expDate>	1216		
	<allowPartialAuth>	true		
	<totalHealthcareAmount>	20000		
27	<amount>	18698	<response>	341
	<type>	MC	<message>	Invalid healthcare amounts
	<number>	5194560012341234		
	<expDate>	1216		
	<allowPartialAuth>	true		
	<totalHealthcareAmount>	15000		
	<RxAmount>	16000		
28	<amount>	15000	<response>	000
	<type>	MC	<message>	Approved
	<number>	5194560012341234		
	<expDate>	1216		
	<allowPartialAuth>	true		
	<totalHealthcareAmount>	15000		
	<RxAmount>	3698		
29	<amount>	18699	<response>	341
	<type>	VI	<message>	Invalid healthcare amounts
	<number>	4024720001231239		
	<expDate>	1216		
	<allowPartialAuth>	true		
	<totalHealthcareAmount>	31000		
	<RxAmount>	1000		
	<visionAmount>	19901		
	<clinicOtherAmount>	9050		
	<dentalAmount>	1049		

TABLE 2-1 Authorization Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
30	<amount>	20000	<response>	341
	<type>	VI	<message>	Invalid healthcare amounts
	<number>	4024720001231239		
	<expDate>	1216		
	<allowPartialAuth>	true		
	<totalHealthcareAmount>	20000		
	<RxAmount>	1000		
	<visionAmount>	19901		
	<clinicOtherAmount>	9050		
	<dentalAmount>	1049		
31	<amount>	25000	<response>	010
	<type>	VI	<message>	Partially Approved
	<number>	4024720001231239	<approvedAmount>	18699
	<expDate>	1216		
	<allowPartialAuth>	true		
	<totalHealthcareAmount>	18699		
	<RxAmount>	1000		
	<visionAmount>	15099		

2.4.1.1 Testing Recycling Advice

If you have elected to receive Authorization Recycling Advice, you must complete the certification tests in this section. The primary purpose of these tests are for you to verify that your systems correctly parse the recycle advice returned in the response message and that your systems can act on the recommendations.

If you are not coding to receive Recycling Advice, skip this test and go to Testing Authorization Reversal Transactions on page 99.

To test the Recycling Advice feature:

1. Submit `authorization` transactions using the orders shown in Table 2-2.
2. The response messages for each transaction will contain a `recycling` element (see recycling on page 609). Verify that your system parses the advice correctly and sets-up to recycle the Auth according to the advice provided in the Key Response Elements for the given orderId.
3. Recycle the Auth according to the advice provided.
   - For Order Id **VIcredit12401** the response message for the second recycle attempt (third Auth transaction) will contain the `recycleAdviceEnd` element.
   - For Order Id **VIcredit13201** the response message for the second recycle attempt (third Auth transaction) will contain additional recycling advice, but you can discontinue the testing at this point.

TABLE 2-2 Authorization Recycling Advice Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
VIcredit12401	<amount>	12401	**Initial Auth Response:**	
	<type>	VI	<response>	322
	<number>	4457012400000001	<message>	Invalid Transaction
	<expDate>	1220	<nextRecycleTime>	*Auth Date + 1 Day*
			First Recycle Attempt:	
			<response>	322
			<message>	Invalid Transaction
			<nextRecycleTime>	*(Original) Auth Date + 2 Days*
			Second Recycle Attempt:	
			<response>	322
			<message>	Invalid Transaction
			<recycleAdviceEnd>	End of Advice

TABLE 2-2 Authorization Recycling Advice Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
VIprepaid13201	<amount>	13201	**Initial Auth Response:**	
	<type>	VI	<response>	349
	<number>	4457013200000001	<message>	Do Not Honor
	<expDate>	1220	<nextRecycleTime>	*Auth Date + 1 Day*
			First Recycle Attempt:	
			<response>	349
			<message>	Do Not Honor
			<nextRecycleTime>	*(Original) Auth Date + 3 Days*
			Second Recycle Attempt:	
			<response>	349
			<message>	Do Not Honor
			<recycleAdviceEnd>	*(Original) Auth Date + 5 Days*

2.4.2 Testing Authorization Reversal Transactions

If you plan to use Authorization Reversal Transactions, you must perform this test. If you do not plan to use Authorization Reversal transactions, skip this test and go to Testing eCheck Transactions on page 103.

To test Authorization Reversal Transactions:

1. Verify that your Authorization Reversal XML templates are coded correctly (refer to Authorization Reversal Transactions on page 199).
2. Submit the Authorizations, Captures (if applicable), and Authorization Reversal Transactions using the orders shown in Table 2-3.
3. Verify that your response values match those shown in Key Response Elements as shown in Table 2-3.

TABLE 2-3 Authorization Reversal Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
32	**Authorization:**		**Authorization Response:**	
	<amount>	10010	<response>	000
	<name>	John Smith	<message>	Approved
	<addressLine1>	1 Main St.	<authCode>	11111
	<city>	Burlington	<avsResult>	01
	<state>	MA	<cardValidationResult>	M
	<zip>	01803-3747		
	<country>	US		
	<type>	VI		
	<number>	4457010000000009		
	<expDate>	0116		
	<cardValidationNum>	349		
32A	**Capture:**		**Capture Response:**	
	<amount>	5050	<response>	001
	<litleTxnId>	Value returned in Auth response for Order Id 32	<message>	Transaction received
32B	**Authorization Reversal:**		**Auth Reversal Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 32	<response>	001
	<amount>	Do Not Submit an Amount	<message>	Transaction received
			Declined Transaction report result = 111 - Authorization amount has already been depleted **Note:** This transaction returns 111 instead of 000, because it is unnecessary to submit an Authorization Reversal for the Visa payment card.	

TABLE 2-3 Authorization Reversal Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
33	**Authorization:**		**Authorization Response:**	
	<amount>	20020	<response>	000
	<name>	Mike J. Hammer	<message>	Approved
	<addressLine1>	2 Main St.	<authCode>	22222
	<addressLine2>	Apt. 222	<avsResult>	10
	<city>	Riverside	<cardValidationResult>	M
	<state>	RI	<authenticationResult>	**Note:** Not returned for MasterCard
	<zip>	02915		
	<country>	US		
	<type>	MC		
	<number>	5112010000000003		
	<expDate>	0216		
	<cardValidationNum>	261		
	<authenticationValue>	BwABBJQ1AgAAAAAgJDUCAAAAAAA=		
33A	**Authorization Reversal:**		**Auth Reversal Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 33	<response>	001
	<amount>	Do Not Submit an amount	<message>	Transaction received
34	**Authorization:**		**Authorization Response:**	
	<amount>	30030	<response>	000
	<name>	Eileen Jones	<message>	Approved
	<addressLine1>	3 Main St.	<authCode>	33333
	<city>	Bloomfield	<avsResult>	10
	<state>	CT	<cardValidationResult>	M
	<zip>	06002		
	<country>	US		
	<type>	DI		
	<number>	6011010000000003		
	<expDate>	0316		
	<cardValidationNum>	758		

TABLE 2-3 Authorization Reversal Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
34A	**Authorization Reversal:**		**Auth Reversal Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 34	<response>	001
	<amount>	Do Not Submit an Amount	<message>	Transaction received
35	**Authorization:**		**Authorization Response:**	
	<amount>	10100	<response>	000
	<name>	Bob Black	<message>	Approved
	<addressLine1>	4 Main St.	<authCode>	44444
	<city>	Laurel	<avsResult>	13
	<state>	MD		
	<zip>	20708		
	<country>	US		
	<type>	AX		
	<number>	375001000000005		
	<expDate>	0416		
35A	**Capture:**		**Capture Response:**	
	<amount>	5050	<response>	001
	<litleTxnId>	Value returned in Auth response for Order Id 35	<message>	Transaction received
35B	**Authorization Reversal:**		**Auth Reversal Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 35	<response>	001
	<amount>	5050	<message>	Transaction received
			Declined Transaction report result = 336 - Reversal amount does not match Authorization amount	
36	**Authorization:**		**Authorization Response:**	
	<amount>	20500	<response>	000
	<type>	AX	<message>	Approved
	<number>	375000026600004		
	<expDate>	0516		

TABLE 2-3 Authorization Reversal Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
36A	**Authorization Reversal:**		**Auth Reversal Response:**	
	<litleTxnId>	Value returned in Auth response for Order Id 36	<response>	001
	<amount>	10000	<message>	Transaction received
			Declined Transaction report result = 336 - Reversal amount does not match Authorization amount	

2.4.3 Testing eCheck Transactions

If you have elected to offer eChecks as an alternate payment method, you are required to complete the tests in this section. Data sets are provided for you to use to test your construction of XML request messages, as well as the parsing of the response messages for eCheck transactions.

NOTE: **The eCheck Verification test is required only if you plan to perform eCheck Verifications.**

To test **eCheck Verification** transactions:

1. Verify that your eCheck XML template is coded correctly (refer to eCheck Verification Transactions on page 254.)
2. Submit the eCheck Verification transactions using the data sets supplied in Table 2-4.

NOTE: **In addition to the test data provided in the table, you must also provide appropriate data for other child elements of the `billToAddress` element, such as `Address1` (2, 3), `city`, `state`, phone, etc.**

For Corporate accounts (Order ID 39 and 40) you must include the `firstName`, `lastName`, and `companyName` in the `echeckVerification` request.

3. Verify that your response values match those shown in the Key Response Elements section of Table 2-4.
4. After you complete this test, go to the next eCheck test.

TABLE 2-4 eCheck Verification Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
37	<amount>	3001	<response>	301
	<orderSource>	telephone	<message>	Invalid Account Number
	<firstName>	Tom		
	<lastName>	Black		
	<accType>	Checking		
	<accNum>	10@BC99999		
	<routingNum>	053100300		
38	<amount>	3002	<response>	000
	<orderSource>	telephone	<message>	Approved
	<firstName>	John		
	<lastName>	Smith		
	<accType>	Checking		
	<accNum>	1099999999		
	<routingNum>	011075150		
39	<amount>	3003	<response>	950
	<orderSource>	telephone	<message>	Declined - Negative Information on File
	<firstName>	Robert		
	<lastName>	Jones		
	<companyName>	Good Goods Inc		
	<accType>	Corporate		
	<accNum>	3099999999		
	<routingNum>	053100300		
40	<amount>	3004	<response>	951
	<orderSource>	telephone	<message>	Absolute Decline
	<firstName>	Peter		
	<lastName>	Green		
	<companyName>	Green Co		
	<accType>	Corporate		
	<accNum>	8099999999		
	<routingNum>	011075150		

To test **eCheck Prenotification** transactions:

NOTE: **The eCheck Prenotification tests are required only if you plan to perform eCheck Prenotification.**

You can only submit eCheck Prenotification transactions in Batches.

1. Verify that your eCheck XML templates are coded correctly (refer to eCheck Prenotification Credit Transactions (Batch Only) on page 243 and eCheck Prenotification Sale Transactions (Batch Only) on page 245.)
2. Submit the eCheck Verification transactions using the data sets supplied in Table 2-5.
3. Verify that your response values match those shown in the Key Response Elements section of Table 2-5.
4. After you complete this test, go to the next eCheck test.

TABLE 2-5 eCheck Prenotification Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
ECPreNoteSale	<orderSource>	ecommerce	<response>	000
	<name>	PreNote Sale Corp	<message>	Approved
	<accType>	Corporate		
	<accNum>	1092969901		
	<routingNum>	011075150		
ECPreNoteCredit	<orderSource>	ecommerce	<response>	000
	<name>	PreNote Credit Corp	<message>	Approved
	<accType>	Corporate		
	<accNum>	1099339999		
	<routingNum>	011075150		
PreNoteSaleAccNumErr	<orderSource>	ecommerce	<response>	301
	<name>	PreNote Sale Corp	<message>	Invalid Account Number
	<accType>	Corporate		
	<accNum>	10@2969901		
	<routingNum>	011100012		

TABLE 2-5 eCheck Prenotification Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
PreNoteCredit AccNumErr	<orderSource>	ecommerce	<response>	301
	<name>	PreNote Credit Personal	<message>	Invalid Account Number
	<accType>	Savings		
	<accNum>	10@2969901		
	<routingNum>	011100012		
PreNoteSaleR outNumErr	<orderSource>	ecommerce	<response>	900
	<name>	PreNote Sale Personal	<message>	Invalid Bank Routing Number
	<accType>	Checking		
	<accNum>	6099999992		
	<routingNum>	053133052		
PreNoteCredit RoutNumErr	<orderSource>	ecommerce	<response>	900
	<name>	PreNote Credit Personal	<message>	Invalid Bank Routing Number
	<accType>	Checking		
	<accNum>	6099999992		
	<routingNum>	053133052		

To test **eCheck Sale** transactions:

1. Verify that your eCheck XML template is coded correctly (refer to eCheck Sale Transactions on page 251).
2. Submit the `echeckSale` transactions using the Supplied Data elements shown in Table 2-6.

NOTE: **In addition to the test data provided in the table, you must also provide appropriate data for other child elements of the `billToAddress` element, such as `Address1` (2, 3), `city`, `state`, phone, etc.**

3. Verify that your response values match those shown in Table 2-6.
4. After you complete this test, go to the next test.

TABLE 2-6 eCheck Sale Test Data

	Supplied Data Elements		**Key Response Elements**	
orderId	**Element**	**Value**	**Element**	**Value**
41	<amount> <orderSource> <firstName> <middleInitial> <lastName> <accType> <accNum> <routingNum>	2008 telephone Mike J Hammer Checking 10@BC99999 053100300	<response> <message>	301 Invalid Account Number
42	<amount> <orderSource> <firstName> <lastName> <accType> <accNum> <routingNum>	2004 telephone Tom Black Checking 4099999992 011075150	<response> <message>	000 Approved
43	<amount> <orderSource> <firstName> <lastName> <companyName> <accType> <accNum> <routingNum>	2007 telephone Peter Green Green Co Corporate 6099999992 011075150	<response> <message>	000 Approved **Note:** This response will include the accountUpdater element (see accountUpdater on page 313).
44	<amount> <orderSource> <firstName> <lastName> <companyName> <accType> <accNum> <routingNum>	2009 telephone Peter Green Green Co Corporate 9099999992 053133052	<response> <message>	900 Invalid Bank Routing Number

To test **eCheck Credit** transactions:

1. Verify that your eCheck XML template is coded correctly (refer to eCheck Credit Transactions on page 240.)

NOTE: In addition to the test data provided in the table, you must also provide appropriate data for other child elements of the `billToAddress` element, such as `Address1` (2, 3), `city`, `state`, phone, etc.

2. Submit the `echeckCredit` transactions using the data in the Supplied Data Elements section of Table 2-7.
3. Verify that your response values match those shown in the Key Response Elements section of Table 2-7.
4. After you complete this test, go to the next test.

TABLE 2-7 eCheck Credit Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
45	<amount>	1001	<response>	301
	<orderSource>	telephone	<message>	Invalid Account Number
	<firstName>	John		
	<lastName>	Smith		
	<accType>	Checking		
	<accNum>	10@BC99999		
	<routingNum>	053100300		
46	<amount>	1003	<response>	001
	<orderSource>	telephone	<message>	Transaction received
	<firstName>	Robert		
	<lastName>	Jones		
	<companyName>	Widget Inc		
	<accType>	Corporate		
	<accNum>	3099999999		
	<routingNum>	011075150		

TABLE 2-7 eCheck Credit Test Data (Continued)

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
47	<amount> <orderSource> <firstName> <lastName> <companyName> <accType> <accNum> <routingNum>	1007 telephone Peter Green Green Co Corporate 6099999993 211370545	<response> <message>	001 Transaction received **Note:** This response will include the accountUpdater element (see accountUpdater on page 313.)
48	<litleTxnId>	Value returned in eCheck Sale response for Order Id 43	<response> <message>	001 Transaction received
49	<litleTxnId>	2	<response> <message> Declined Transaction report result = 360 - No transaction found with specified litleTxnId	360 Transaction received

To test **eCheck Void** transactions:

1. Verify that your eCheck XML template is coded correctly (refer to eCheck Void Transactions (Online Only) on page 258.)
2. (Re)Submit the `echeckSale` transaction for Order ID #42 as shown in Table 2-6 with a different value for the id attribute.
   a. Using the `litleTxnId` returned in the `echeckSaleResponse` message, submit an `echeckVoid` transaction.
   b. The system returns an `echeckVoidResponse` Response Code of “**000**” and a message of “**Approved**”.
3. Using the `litleTxnId` returned in the `echeckCreditResponse` message for Order ID #46, submit an `echeckVoid` transaction.
   a. The system returns an `echeckVoidResponse` Response Code of “**000**” and a message of “**Approved**”.
4. Submit an `echeckVoid` request using a value of “2” for the `litleTxnId`.

a. The system returns an `echeckVoidResponse` Response Code of “**360**” and a message of “**No transaction found with specified litleTxnId**”.

5. After you complete this test, go to the next test.

2.4.4 Testing Token Transactions

You can obtain tokens in two ways. The first method is explicit registration using the `registerTokenRequest` transaction. The second method is implicit registration, which is achieved by submitting the card or account information (for eChecks) in a normal payment transaction. This section provides test data sets using both methods for both credit card and eCheck tokenization.

Perform this test only if you plan to use the Vault feature.

NOTE: **The test data does not include values for all elements. You should use appropriate values for all elements as required to create a properly structured LitleXML request.**

To test explicit Token Registration transactions:

1. Verify that your LitleXML template is coded correctly for this transaction type (refer to registerTokenRequest on page 614.)
2. To test credit card tokenization, submit `registerTokenRequest` transactions using the data for Order Ids 50 through 52 from Table 2-8.
3. If you also use eCheck transactions and have elected to tokenize eCheck account numbers, submit `registerTokenRequest` transactions using the data for Order Ids 53 and 54 from Table 2-8; otherwise, skip those two tests.
4. Verify that your `registerTokenResponse` values match those shown in the Key Response Elements section of Table 2-8. The complete token values are not defined in the table, because the system generates the tokens dynamically.
5. After completing this test, proceed to the next set of tests for implicit tokenization.

TABLE 2-8 Register Token Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
50	<accountNumber>	4457119922390123	<litleToken> <bin> <type> <response> <message>	xxxxxxxxxxxx0123 445711 VI 801 Account number was successfully registered **Note:**
51	<accountNumber>	4457119999999999	<litleToken> <response> <message>	none returned 820 Credit card number was invalid
52	<accountNumber>	4457119922390123	<litleToken> <bin> <type> <response> <message>	xxxxxxxxxxxx0123 445711 VI 802 Account number was previously registered
53	<accNum> <routingNum>	1099999998 011100012	<litleToken> <type> <eCheckAccountSuffix> <response> <message>	xxxxxxxxxx EC 998 801 Account number was successfully registered
54	<accNum> <routingNum>	1022222102 1145_7895	<response> <message>	900 Invalid bank routing number

To test the submission of card data in an tokenized environment using Authorization transactions, as well as the submission of tokens in transactions, do the following:

1. Verify that your LitleXML template is coded correctly for this transaction type (refer to Authorization Transactions on page 187.)
2. Submit three `authorization` transactions using the Supplied Data Elements from Order Ids 55 through 57 from Table 2-9.
3. Verify that your `authorizationResponse` values match those shown in the Key Response Elements section of Table 2-9 for Order Ids 55 through 57.
4. To verify that your LitleXML template is coded correctly for the submission of tokens in `authorization` transactions, submit `authorization` transactions using the Supplied Data Elements from Order Ids 58 through 60 from Table 2-9.

To test the submission of eCheck data in an tokenized environment, as well as the submission of tokens in eCheck transactions, do the following:

1. Verify that your LitleXML template is coded correctly for these transaction types as applicable (refer to eCheck Sale Transactions on page 251 and eCheck Credit Transactions on page 240).
2. Submit the four transactions, Order Ids 61 through 64, using the Supplied Data Elements from Table 2-9.
3. Verify that your response values match those shown in the Key Response Elements section of Table 2-9 for Order Ids 61 through 64.

TABLE 2-9 Implicit Registration Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
55	<amount>	15000	<response>	000
	<type>	MC	<message>	Approved
	<number>	5435101234510196	<litleToken>	xxxxxxxxxxxx0196
	<expDate>	1116	<tokenResponseCode>	801
	<cardValidationNum>	987	<tokenMessage>	Account number was successfully registered
			<type>	MC
			<bin>	543510

TABLE 2-9 Implicit Registration Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
56	<amount> <type> <number> <expDate> <cardValidationNum>	15000 MC 5435109999999999 1116 987	<<response> <message>	301 Invalid account number
57	<amount> <type> <number> <expDate> <cardValidationNum>	15000 MC 5435101234510196 1116 987	<response> <message> <litleToken> <tokenResponseCode> <tokenMessage> <type> <bin>	000 Approved xxxxxxxxxxxx0196 802 Account number was previously registered MC 543510
58	<amount> <litleToken> <expDate> <cardValidationNum>	15000 xxxxxxxxxxxx0196 1116 987 **Note:** Use the token returned in Order Id 57.	<response> <message>	000 Approved
59	<amount> <litleToken> <expDate>	15000 1111000100092332 1116	<response> <message>	822 Token was not found
60	<amount> <litleToken> <expDate>	15000 1112000100000085 1116	<response> <message>	823 Token was invalid

TABLE 2-9 Implicit Registration Test Data (Continued)

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
61	**eCheck Sale:**		<litleToken>	xxxxxxxxxxxxxxxxx
	<accType>	Checking	<tokenResponseCode>	801
	<accNum>	1099999003	<tokenMessage>	Account number was successfully registered
	<routingNum>	011100012	<type>	EC
			<eCheckAccountSuffix>	003
62	**eCheck Sale:**		<litleToken>	xxxxxxxxxxxxxxxxx
	<accType>	Checking	<tokenResponseCode>	801
	<accNum>	1099999999	<tokenMessage>	Account number was successfully registered
	<routingNum>	011100012	<type>	EC
			<eCheckAccountSuffix>	999
63	**eCheck Credit:**		<litleToken>	xxxxxxxxxxxxxxxxx
	<accType>	Checking	<tokenResponseCode>	801
	<accNum>	1099999999	<tokenMessage>	Account number was successfully registered
	<routingNum>	011100012	<type>	EC
			<eCheckAccountSuffix>	999

TABLE 2-9 Implicit Registration Test Data (Continued)

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
64	**eCheck Sale:**		<originalTokenInfo>	(*parent element*)
	<accType>	Corporate	<accType>	Checking
	<accNum>	6099999993	<litleToken>	11190000001003001
	<routingNum>	211370545	<routingNum>	211370545
			<newTokenInfo>	(*parent element*)
			<accType>	Checking
			<litleToken>	11190000001154101
			<routingNum>	211370545
			<litleToken>	xxxxxxxxxxxxxxxxx
			<tokenResponseCode>	801
			<tokenMessage>	Account number was successfully registered
			<type>	EC
			<eCheckAccountSuffix>	993

NOTE: **Order ID 64 returns accountUpdater information. This test allows you to test responses you might receive when a NOC exists against the eCheck account, but you submit the old account information. In this case, the system provides the old token information, but issues a new token based upon the new account information and provides it as well.**

2.4.5 Testing Query Transactions

You can use the following test scenarios to verify your coding of the `queryTransaction`, as well as various responses. To test the query transaction, please do the following:

NOTE: **If you are enabled for the use of the queryTransaction, you will not be able to test for response code 153 - Query Transaction not enabled.**

1. Submit a `queryTransaction` with the following elements:
   - `<origId>newTransaction</origId>` (**Note:** You can use any value never used as an `id` attribute.)
   - `<origActionType>A</origActionType>` (**Note:** You can use any valid action type as detailed in the enumerations table of origActionType on page 559.)

Verify that you receive a `response` value of **151** and `message` of **Original transaction not found**.

2. Submit an `authorization` or `sale` transaction using a unique `id` attribute.
3. Submit a `queryTransaction` using the `id` attribute value from Step 2 as the value for the `<origId>` element and the `<origActionType>` element set to the transaction type you submitted in Step 2.

   Verify that you receive a `response` value of **150** and `message` of **Original transaction found**, a `<matchCount>` value of 1, and the and the response message for the transaction submitted in Step 2, as a child of the `<result_Max10>` element.
4. Submit a second `authorization` or `sale` transaction (use the same transaction type as Step 2), using the same value for the `id` attribute. **Note:** If you use a `sale` transaction for this test, you must change the credit card number from the one you used in Step 2 to avoid having the transaction flagged as a duplicate.
5. Submit a `queryTransaction` using the `id` attribute value from Step 2 as the value for the `<origId>` element and the `<origActionType>` element set to the transaction type you submitted in Step 2.

   Verify that you receive a `response` value of **150** and `message` of **Original transaction found**, a `<matchCount>` value of 2, and the and the response messages for the transactions submitted in Steps 2 and 4, as a children of the `<result_Max10>` element.
6. **Note:** To perform this test you must use a value supplied by your Vantiv Implementation Consultant for the `origId` attribute. Submit a `queryTransaction` using the supplied `origId` value.

   Verify that you receive a `response` value of **152** and `message` of **Original transaction found but response not yet available**, a `<matchCount>` value of 1, and the `<queryTransactionUnavailableResponse>` element as a child of the `<result_Max10>` element.

2.5 Performing the Optional Tests

This section describes data that you can use to test different response codes, messages, and AVS response codes from the Litle & Co. system for American Express, Visa, MasterCard, Discover, and Diner’s Club cards. You can perform these tests after completing the certification testing.

This section contains the following topics:

- Testing AVS and Card Validation
- Testing Address Responses
- Testing Advanced AVS Response Codes
- Testing Response Reason Codes and Messages
- Testing 3DS Responses
- Testing the Prepaid Filtering Feature
- Testing the International Card Filter Feature
- Testing Security Code No-Match Filtering
- Testing Advanced Fraud Tools
- Testing Account Updater
- Testing Tax Billing
- Testing Convenience Fees
- Testing the Recycling Engine
- Testing Recurring Engine Transactions
- Testing Gift Card Transactions
- Testing Mobile Point of Sale
- Testing MasterPass Transactions
- Testing Apple Pay Transaction Processing
- Testing Online Duplicate Transaction Processing
- Testing Transaction Volume Capacity

2.5.1 Testing AVS and Card Validation

Use the AVS tests to test all of the possible AVS response codes that the system can produce, including those response codes that cannot be produced by varying the address and ZIP code data. For these tests the AVS response codes are independent of any address or ZIP code data that you submit.

To test AVS response codes:

1. Submit transactions using the card data in Table 2-10. If you are using Card Validation, include the `cardValidationNum` element. The Card Validation test will return all possible Card Validation response codes. The response codes that are returned are independent of the card validation value that you submit.
2. Verify that the AVS tests return the following response:

```
<response>000</response>

<message>Approved</message>

<authCode>654321</authCode>

<avsresult>See Table 2-10</avsresult>

<cardValidationResult>See Table 2-10</cardValidationResult>
```

NOTE: **For a list of all possible AVS response codes, see AVS Response Codes on page 748.**

For a list of all possible card validation response codes, see Card Validation Response Codes on page 752.

TABLE 2-10 AVS and Card Validation Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
65	<type>	VI	<avsResult>	00
	<number>	4457000300000007	<cardValidationResult>	U
66	<type>	VI	<avsResult>	01
	<number>	4457000100000009	<cardValidationResult>	M
67	<type>	VI	<avsResult>	02
	<number>	4457003100000003	<cardValidationResult>	M
68	<type>	VI	<avsResult>	10
	<number>	4457000400000006	<cardValidationResult>	S
69	<type>	VI	<avsResult>	11
	<number>	4457000200000008	<cardValidationResult>	M

TABLE 2-10 AVS and Card Validation Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
70	<type> <number>	MC 5112000100000003	<avsResult> <cardValidationResult>	12 M
71	<type> <number>	MC 5112002100000009	<avsResult> <cardValidationResult>	13 M
72	<type> <number>	MC 5112002200000008	<avsResult> <cardValidationResult>	14 N
73	<type> <number>	MC 5112000200000002	<avsResult> <cardValidationResult>	20 N
74	<type> <number>	MC 5112000300000001	<avsResult> <cardValidationResult>	30 P
75	<type> <number>	MC 5112000400000000	<avsResult> <cardValidationResult>	31 U
76	<type> <number>	MC 5112010400000009	<avsResult> <cardValidationResult>	32 S
78	<type> <number>	MC 5112000600000008	<avsResult> <cardValidationResult>	34 P
80	<type> <number>	AX 374313304211118 **Note:** American Express CID failures are declined by American Express.	<cardValidationResult> <response> <message>	N 352 Decline CVV2/CID Fail

2.5.2 Testing Address Responses

Use the address tests to test different AVS responses by varying the address and ZIP code data. The address tests are intended to return a realistic AVS response code.

To test address responses:

1. Submit Authorization or Sale transactions in Table 2-11. The AVS tests always return an `avsResult` of 00 when submitting 95 Main St. and 95022. If you extend the Zip Code to 9 digits, by appending 1111, the system returns an `avsResult` of 01, as shown in the second test.

2. The AVS response code depends on the Address Line 1 and ZIP Code that are passed in with the transaction. Submit additional transactions using the card data from the table, but varying the address/zip information to receive other `avsResult` codes in the response messages as shown in the tests for orderIds AVS3 and AVS4.

   For a detailed list of all possible AVS response codes, see AVS Response Codes on page 748.

TABLE 2-11 AVS and Card Validation Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
AVS1	<type>	VI	<avsResult>	00
	<number>	4457000600000004		
	<addressLine1>	95 Main St.		
	<zip>	95022		
AVS2	<type>	VI	<avsResult>	01
	<number>	4457000600000004		
	<addressLine1>	95 Main St.		
	<zip>	950221111		
AVS3	<type>	VI	<avsResult>	10
	<number>	4457000600000004		
	<addressLine1>	100 Main St.		
	<zip>	95022		
AVS4	<type>	VI	<avsResult>	20
	<number>	4457000600000004		
	<addressLine1>	100 Main St.		
	<zip>	02134		

2.5.3 Testing Advanced AVS Response Codes

The Advanced AVS (AAVS) feature is an offering from American Express that allows you to check several parameters not normally covered by a standard AVS check, including name, phone, and email.

To test AAVS Response Codes:

1. Submit an Authorization transaction using the data supplied in Table 2-13.
2. Verify that you handle the response correctly.
3. Enter additional transaction varying the values for name, phone, and/or email to trigger other AAVS results (see AAVS Response Codes on page 749 for other result codes). To obtain a value of 3 in any position, use one of the following values in the appropriate position:
   - **`<name>Jane Doe</name>`**
   - **`<phone>5555551234</phone>`**
   - **`<email>badtest@test.com</email>`**

   For example, if you submit a second transaction using the name Jane Doe Instead of John Doe, the AAVS result would be 311 indicating No Match for name, but Match for phone and email.

TABLE 2-12 Advanced AVS Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
81	<amount>	12523	<advancedAVSResults>	111
	<name>	John Doe		
	<addressLine1>	95 Main St.		
	<city>	Palo Alto		
	<state>	CA		
	<zip>	950221111		
	<country>	US		
	<email>	test@test.com		
	<phone>	6178675309		
	<type>	AX		
	<number>	341234567890127		
	<expDate>	1116		

2.5.4 Testing Response Reason Codes and Messages

Use the data provided in this section to test Response Reason Codes and Messages.

NOTE: **If you submit account numbers not specified in the tables, you will receive the following response:**

```
<response>000</response>
<message>Approved</message>
<authCode>123457</authCode>
<avsResult>00</avsResult>
```

To test Response Codes and Messages:

1. Submit transactions using the data in Table 2-13. In each case use the supplied card number with a prefix of **RRC-** as the orderId.
2. Verify that you handle the response correctly.

NOTE: **The messages listed are samples of messages that the system can return. Since the messages are subject to change at any time, you should use them only for human readability purposes and not for coding purposes. Always code to the response codes, since these do not change.**

- For a list of all possible response reason codes, see Payment Transaction Response Codes on page 726.
- For a list of all possible AVS response codes, see AVS Response Codes on page 748.

TABLE 2-13 Response Code Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
RRC-card #	<type>	VI	<response>	000
	<number>	4457000800000002	<message>	Approved
	<type>	VI	<response>	000
	<number>	4457000900000001	<message>	Approved
	<type>	VI	<response>	000
	<number>	4457001000000008	<message>	Approved
	<type>	MC	<response>	000
	<number>	5112000900000005	<message>	Approved

TABLE 2-13 Response Code Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
RRC-card #	<type> <number>	AX 375000030000001	<response> <message>	120 Call Issuer
	<type> <number>	DI 6011000400000000	<response> <message>	123 Cal Discover
	<type> <number>	VI 4457001200000006	<response> <message>	120 Call Issuer
	<type> <number>	VI 4457001300000005	<response> <message>	120 Call Issuer
	<type> <number>	VI 4457001400000004	<response> <message>	120 Call Issuer
	<type> <number>	MC 5112001000000002	<response> <message>	101 Issuer Unavailable
	<type> <number>	VI 4457001900000009	<response> <message>	321 Invalid Merchant
	<type> <number>	VI 4457002000000006	<response> <message>	303 Pick Up Card
	<type> <number>	VI 4457002100000005	<response> <message>	110 Insufficient Funds
	<type> <number>	VI 4457002200000004	<response> <message>	120 Call Issuer
	<type> <number>	AX 375000050000006	<response> <message>	350 Generic Decline
	<type> <number>	VI 4457002300000003	<response> <message>	349 Do Not Honor
	<type> <number>	VI 4457002500000001	<response> <message>	340 Invalid Amount
	<type> <number>	MC 5112001600000006	<response> <message>	301 Invalid Account Number

TABLE 2-13 Response Code Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
RRC-card #	<type> <number>	MC 5112001700000005	<response> <message>	301 Invalid Account Number
	<type> <number>	MC 5112001800000004	<response> <message>	321 Invalid Merchant
	<type> <number>	VI 4457002700000009	<response> <message>	101 Issuer Unavailable
	<type> <number>	MC 5112001900000003	<response> <message>	305 Expired Card
	<type> <number>	VI 4457002800000008	<response> <message>	322 Invalid Transaction
	<type> <number>	VI 4457002900000007	<response> <message>	350 Generic Decline
	<type> <number>	VI 4457003000000004	<response> <message>	101 Issuer Unavailable
	<type> <number>	MC 5112002000000000	<response> <message>	101 Issuer Unavailable
	<type> <number>	VI 4457000100000000	<response> <message>	301 Invalid Account Number

2.5.5 Testing 3DS Responses

The cardholder authentication value should only be included by merchants who support 3DS (3 Domain Secure) electronic commerce transactions. Your systems must be in compliance with the Verified by Visa or MasterCard Secure Code implementations of 3DS.

To test 3DS responses:

1. Submit Authorization transactions or Sale transactions using the data in Table 2-14. For all cards, set the `orderSource` element to either `3dsAuthenticated` or `3dsAttempted` and the `cardholderAuthentication` element to the following base64 encoded string:

   `BwABBJQ1AgAAAAAgJDUCAAAAAAA=`

The response from a 3DS test will be the same as an Authorization or Sale response, except the `authenticationResult` element will be included in the response as a child of the `fraudResult` element.

TABLE 2-14 3DS Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
3DS1	<type> <number>	VI 4100200300000004	<authenticationResult>	0
3DS2	<type> <number>	VI 4100200300000012	<authenticationResult>	1
3DS3	<type> <number>	VI 4100200300000103	<authenticationResult>	2
3DS4	<type> <number>	VI 4100200300001002	<authenticationResult>	A
3DS5	<type> <number>	VI 4100200300000020	<authenticationResult>	3
3DS6	<type> <number>	VI 4100200300000038	<authenticationResult>	4
3DS7	<type> <number>	VI 4100200300000046	<authenticationResult>	5
3DS8	<type> <number>	VI 4100200300000053	<authenticationResult>	6
3DS9	<type> <number>	VI 4100200300000061	<authenticationResult>	7

TABLE 2-14 3DS Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
3DS10	<type> <number>	VI 4100200300000079	<authenticationResult>	8
3DS11	<type> <number>	VI 4100200300000087	<authenticationResult>	9
3DS12	<type> <number>	VI 4100200300000095	<authenticationResult>	B
3DS13	<type> <number>	VI 4100200300000111	<authenticationResult>	C
3DS14	<type> <number>	VI 4100200300000129	<authenticationResult>	D
3DS15	<orderSource> <type> <number>	3dsAttempted MC 5112010200000001	<authenticationResult>	N/A
3DS16	<orderSource> <type> <number>	3dsAttempted MC 5112010200000001	<authenticationResult>	N/A

2.5.6 Testing the Prepaid Filtering Feature

Complete this test only if you are planning on using the Prepaid Filtering Feature and are using schema version 8.3 or above.

To test the Prepaid Filtering feature:

1. Submit authorization transactions using the values provided in Supplied Data Elements of Table 2-15.
2. Verify that your response values match those shown in the Key Response Elements section of Table 2-15.
3. After you complete this test, go to the next test.

TABLE 2-15 Prepaid Filtering Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
filterPrepaidMC	<amount>	9100	<response>	309
	<orderSource>	recurring	<message>	Restricted Card - Prepaid Card Filtering Service
	<name>	John Doe	<avsResult>	02
	<addressLine1>	10 Main St.		
	<city>	San Jose		
	<state>	CA		
	<zip>	95032		
	<country>	US		
	<email>	jdoe@phoenixProcessing.com		
	<phone>	7812701111		
	<type>	MC		
	<number>	5500000958501839		
	<expDate>	1116		
	<prepaid>	true		
filterPrepaidVI	<amount>	9100	<response>	309
	<orderSource>	recurring	<message>	Restricted Card - Prepaid Card Filtering Service
	<name>	John Doe	<authCode>	none
	<addressLine1>	10 Main St.	<avsResult>	34
	<city>	San Jose		
	<state>	CA		
	<zip>	95032		
	<country>	US		
	<email>	jdoe@phoenixProcessing.com		
	<phone>	7812701111		
	<type>	VI		
	<number>	4650002010001478		
	<expDate>	1116		
	<prepaid>	true		

2.5.7 Testing the International Card Filter Feature

Complete this test only if you are planning on using the International Card Filtering Feature and are using schema version 8.3 or above.

To test the International Card Filtering feature:

1. Submit authorization transactions using the values provided in Supplied Data Elements of Table 2-16.
2. Verify that your response values match those shown in Key Response Elements section of Table 2-16.
3. After you complete this test, go to the next test.

TABLE 2-16 International Filtering Test Data

orderId	Supplied Data Elements: Element	Supplied Data Elements: Value	Key Response Elements: Element	Key Response Elements: Value
filterInternational1	<amount>	9100	<response>	312
	<orderSource>	recurring	<message>	Restricted Card - International Card Filtering Service
	<name>	John Doe	<avsResult>	34
	<addressLine1>	10 Main St.		
	<city>	San Jose		
	<state>	CA		
	<zip>	95032		
	<country>	US		
	<email>	jdoe@phoenixProcessing.com		
	<phone>	7812701111		
	<type>	VI		
	<number>	4100200309950001		
	<expDate>	1116		

TABLE 2-16 International Filtering Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
filterInternational2	<amount>	9100	<response>	000
	<orderSource>	recurring	<message>	Approved
	<name>	John Doe	<authCode>	123457
	<addressLine1>	10 Main St.	<avsResult>	00
	<city>	San Jose		
	<state>	CA		
	<zip>	95032		
	<country>	US		
	<email>	jdoe@phoenixProcessing.com		
	<phone>	7812701111		
	<type>	VI		
	<number>	4100200309950001		
	<expDate>	1116		
	<international>	false		

2.5.8 Testing Security Code No-Match Filtering

Complete this test only if you are planning on using the Security Code No-Match Filtering Feature.

To test the Security Code No-Match feature:

1. Submit authorization transactions using the values provided in Supplied Data Elements of Table 2-17.
2. Verify that your response values match those shown in Key Response Elements section of Table 2-17.

After you complete this test, go to the next test.

TABLE 2-17 Security Code No-Match Filtering Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
securityCodeFilter1	<amount>	9100	<response>	358
	<orderSource>	ecommerce	<message>	Restricted by Litle due to security code mismatch.
	<name>	John Doe	<avsResult>	14
	<addressLine1>	10 Main St.	<cardValidationResult>	N
	<city>	San Jose		
	<state>	CA		
	<zip>	95032		
	<country>	US		
	<type>	MC		
	<number>	5112002200000008		
	<expDate>	1116		
	<cardValidationNum>	123		
securityCodeFilter2	<amount>	9100	<response>	358
	<orderSource>	ecommerce	<message>	Restricted by Litle due to security code mismatch.
	<name>	Jane Doe	<avsResult>	20
	<addressLine1>	10 Main St.	<cardValidationResult>	N
	<city>	San Jose		
	<state>	CA		
	<zip>	95032		
	<country>	US		
	<type>	MC		
	<number>	5112000200000002		
	<expDate>	1116		
	<cardValidationNum>	123		
	<international>	false		

2.5.9 Testing Advanced Fraud Tools

Complete this test only if you are planning on using the Advanced Fraud Tools Feature.

To test the Advanced Fraud Tools feature:

1. Submit authorization transactions using the values provided in Supplied Data Elements of Table 2-18. For each test, replace "Your Prefix-" with the prefix supplied by your Implementation Consultant.
2. Verify that your response values match those shown in Key Response Elements section of Table 2-18.

NOTE: **You can submit these tests as `sale` transactions using the supplied data, or as standalone `fraudCheck` transactions using just the designated `orderId` and `threatMetrixsessionId`. The results for each test type will be as shown in the Key response elements section.**

Also, please note that the third test, `orderId` = tmx_fail_order_id, has two possible results depending upon whether you are configured for Info Only or Auto-Decline.

After you complete this test, go to the next test.

TABLE 2-18 Advanced Fraud Tools Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
tmx_pass_order_id	<amount>	150	<response>	000
	<type>	VI	<message>	Approved
	<number>	4111111111111111	<deviceReviewStatus>	pass
	<expDate>	1230	<deviceReputationScore>	50
	<threatMetrixSessionId>	***Your Prefix-***A980A93LP2O3-KNP0050	<triggeredRule>	FlashDisabled

TABLE 2-18 Advanced Fraud Tools Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
tmx_review_order_id	<amount>	150	**Result if Info Only:**	
	<type>	VI	<response>	000
	<number>	4111111111111111	<message>	Approved
	<expDate>	1230	<deviceReviewStatus>	review
	<threatMetrixSessionId>	***Your Prefix-***A0S9D8F7G6H5J4-KMR-020	<deviceReputationScore>	-20
			<triggeredRule>	PossibleVPNConnection
			<triggeredRule>	PossibleCookieWipingWeek
tmx_fail_order_id	<amount>	150	**Result if Info Only:**	
	<type>	VI	<response>	000
	<number>	4111111111111111	<message>	Approved
	<expDate>	1230	<deviceReviewStatus>	fail
	<threatMetrixSessionId>	***Your Prefix-***Q1W2E3R4T5Y6U7I8-KHF-100	<deviceReputationScore>	-100
			<<triggeredRule>	5PaymentsOnExactDevice
			<triggeredRule>	ProxyHasNegativeReputation
			<triggeredRule>	TrueIPProxyIPCityMismatch
			Result if Auto-decline:	
			<response>	550
			<message>	**Restricted Device or IP - ThreatMetrix Fraud Score Below Threshold**
			<deviceReviewStatus>	fail
			<deviceReputationScore>	-100
			<triggeredRule>	5PaymentsOnExactDevice
			<triggeredRule>	ProxyHasNegativeReputation
			<triggeredRule>	TrueIPProxyIPCityMismatch

TABLE 2-18 Advanced Fraud Tools Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
tmx_unavail_order_id	<amount>	150	<response>	000
	<type>	VI	<message>	Approved
	<number>	4111111111111111	<deviceReviewStatus>	unavailable
	<expDate>	1230		
	<threatMetrixSessionId>	***Your Prefix***-Q1W2E3R4T5Y6U7I8-XLP0050		

2.5.10 Testing Account Updater

To test Account Updater, you submit a normal Authorization transaction. The certification system returns an Authorization response that includes Account Update information. You should verify that you correctly parse the update information.

NOTE: **You can also perform the tests in this section using Sale transactions instead of Authorization transactions.**

To test the Account Updater service:

1. Submit authorization transactions using the values provided in Supplied Data Elements of Table 2-19.
2. Verify that your response values match those shown in Key Response Elements section of Table 2-19.
3. If you have coded to receive Extended Response Codes, proceed to the next test.

TABLE 2-19 Account Updater Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
100	<amount>	10000	<originalCardInfo>	(*parent element*)
	<type>	VI	<type>	VI
	<number>	4457000300000007	<number>	4457000300000007
	<expDate>	0115	<expDate>	0115
			<newCardInfo>	(*parent element*)
			<type>	MC
			<number>	5112000100000003
			<expDate>	0115
101	<amount>	10000	<originalCardInfo>	(*parent element*)
	<type>	DI	<type>	DI
	<number>	6500102087026221	<number>	6500102087026221
	<expDate>	0115	<expDate>	0115
			<newCardInfo>	(*parent element*)
			<type>	DI
			<number>	6011102077026225
			<expDate>	0115

2.5.10.1 Testing Account Updater Extended Response Codes

To test the Account Updater Extended Response Codes feature:

NOTE: **You are required to code to LitleXML schema version 8.5 or above to receive the `<extendedCardResponse>` child of `<accountUpdater>`.**

1. Submit `authorization` transactions using the values provided in Supplied Data Elements of Table 2-20.
2. Verify that the response values match those shown in Key Response Elements section of Table 2-20 and that your systems parse the data correctly. The second test case does not include account repair information only the Extended Response Code.

TABLE 2-20 Account Updater Extended Response Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
102	<amount>	10000	<originalCardInfo>	(*parent element*)
	<type>	MC	<type>	MC
	<number>	5112000101110009	<number>	5112000101110009
	<expDate>	1199	<expDate>	1199
			<newCardInfo>	(*parent element*)
			<type>	VI
			<number>	4457000302200001
			<expDate>	1199
			<extendedCardResponse>	(*parent element*)
			<code>	501
			<message>	The account was closed.
103	<amount>	10000	<extendedCardResponse>	(*parent element*)
	<type>	VI	<code>	504
	<number>	4457000301100004	<message>	Contact the cardholder for updated information.
	<expDate>	1199		

2.5.10.2 Testing Account Updater for Tokenized Merchants

If you are a tokenized merchant using the Account Updater service, you can test this service using the card information provided in Table 2-19. In this case you will receive an original and new token in the `<accountUpdater>` section of the Authorization response message (see accountUpdater Structure - Credit Cards (tokenized Merchant) on page 315).

2.5.11 Testing Tax Billing

This test applies only to merchants with MCC 9311.

To test Tax Billing and Convenience Fee transactions:

1. Submit `authorization` transactions using the values provided in Supplied Data Elements of Table 2-21. Note: The second transactions omits the `<taxType>` element.
2. Verify that the system returns a response code of 000 - Approved for the first transaction and response code of 851 - MCC 9311 requires taxType element for the second.

TABLE 2-21 Tax Billing Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
MCC9311Test	<amount>	3000	<response>	000
	<type>	VI	<message>	Approved
	<number>	4457010200000247		
	<expDate>	1116		
	<taxType>	fee		
MCC9311Test2	<amount>	3000	<response>	851
	<type>	VI	<message>	MCC 9311 requires taxType element
	<number>	4457010200000247		
	<expDate>	1116		

2.5.12 Testing Convenience Fees

You include Convenience Fees through the use of the `secondaryAmount` element.

To test the use of Convenience Fees submit the transactions detailed below:

1. Submit `authorization` or `sale` transactions for the first five transactions of Table 2-22 using the values provided in Supplied Data Elements columns.
2. Verify that the response values match those shown in Key Response Elements section of Table 2-22 for those transactions and that your systems parse the data correctly.
3. Submit `sale` transactions for Order Id SaleWOSecondary using the data provided.
4. After receiving an approval for the `sale` transaction, submit a credit transaction using the `litleTnxId` from the `sale` transaction and including the `secondaryAmount` element with the value provided.
5. Verify that the response values match those shown in Key Response Elements section for the credit transaction using Order Id SaleWOSecondary and that your systems parse the data correctly.

TABLE 2-22 Convenience Fee Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
Visa_secondary Amount	<amount>	10500	<response>	000
	<type>	VI	<message>	Approved
	<number>	4457010200000247		
	<expDate>	1116		
	<secondaryAmount>	10000		
SecondaryAmt_Higher	<amount>	2500	<response>	380
	<type>	VI	<message>	Secondary Amount cannot exceed the sale amount
	<number>	4111111111111111		
	<expDate>	1230		
	<secondaryAmount>	3000		
MOP_Unsupported	<amount>	6002	<response>	381
	<type>	AX	<message>	This method of payment does not support secondary amount
	<number>	375001010000003		
	<expDate>	0421		
	<secondaryAmount>	1100		
Negative_Secondary	<amount>	1000	<response>	382
	<type>	VI	<message>	Secondary Amount cannot be less than zero
	<number>	4457010200000247		
	<expDate>	1116		
	<secondaryAmount>	-500		
Partial_Not_Allowed	<amount>	2500	<response>	383
	<type>	VI	<message>	Partial transaction is not supported when including a secondary amount
	<number>	4111111111111111		
	<expDate>	1230		
	<secondaryAmount>	3000		
	<allowPartialAuth>	true		
SaleWOSecondary **(Sale TXN)**	<amount>	1000	<response>	000
	<type>	MC	<message>	Approved
	<number>	5112010140000004		
	<expDate>	1116		

TABLE 2-22 Convenience Fee Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
SaleWOSecondary **(Credit Txn)**	<litleTxnId>	Value from previous transaction	<response>	001
	<amount>	1000	<message>	Transaction received
	<secondaryAmount>	400	Declined Transaction report result = 385 - Secondary amount not allowed on refund if not included on deposit	

2.5.13 Testing the Recycling Engine

The Certification test cases for the Recycling Engine serve two purposes. First, you use the test transactions to verify your handling of the responses you receive if you submit additional Authorization transactions for a declined auth being handled by the engine. Second, you can verify your process for retrieving and processing recycling completion files via sFTP.

There are three test scenarios you can use to test the Recycling Engine and your ability to parse the response messages and/or result Batches. The particular data sets and scenarios you use depends upon the version of LitleXML you use, as well as your plans for retrieving the response messages. Use the following to determine which tests you should run:

- If you plan to retrieve recycling results via the results Batches posted daily to the FTP site, perform the tests in Scenario 1.
- If you are using LitleXML schema version V8.5 or below, perform the tests in Scenario 2.
- If you are using LitleXML schema version V8.6 or above, perform the tests in Scenario 3.

Scenario 1

To test your handling of the Recycling Results Session file:

1. Submit `authorization` (or `sale`) transactions using the values provided in the Supplied Data Elements column of Table 2-23. Please use the same value for the `orderId` and if applicable, the `recycleId` elements.

NOTE: **If your configuration is set for Vantiv to recycle by default, you can omit the <recycleBy> element.**

2. Wait a minimum of 2 hours after submitting the last transaction. After 2 hours, retrieve the Results Session file from the FTP site.

TABLE 2-23 Recycling Engine Test Data - Results Session File Pick-up

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase1Order1	<amount>	10000	**Initial Response:**	
	<type>	VI	<response>	110
	<number>	4457012400000027	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (in FTP Session File):**	
			<response>	000
			<message>	Approved
XXXCase1Order2	<amount>	10000	**Initial Response:**	
	<type>	MC	<response>	110
	<number>	5160124000000029	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (in FTP Session File):**	
			<response>	000
			<message>	Approved
XXXCase1Order3	<amount>	10000	**Initial Response:**	
	<type>	VI	<response>	110
	<number>	4100200700000059	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (in FTP Session File):**	
			<response>	110
			<message>	Insufficient Funds

TABLE 2-23 Recycling Engine Test Data - Results Session File Pick-up

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase1Order4	<amount>	10000	**Initial Response:**	
	<type>	MC	<response>	110
	<number>	5500010000000052	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (in FTP Session File):**	
			<response>	110
			<message>	Insufficient Funds
XXXCase1Order5	<amount>	10000	**Initial Response:**	
	<type>	VI	<response>	110
	<number>	4457032800000047	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (in FTP Session File):**	
			<response>	328
			<message>	Cardholder requests that recurring or installment payment be stopped
XXXCase1Order6	<amount>	10000	**Initial Response:**	
	<type>	MC	<response>	110
	<number>	5160328000000042	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (in FTP Session File):**	
			<response>	120
			<message>	Call Issuer

TABLE 2-23 Recycling Engine Test Data - Results Session File Pick-up

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase1Order7	<amount>	10000	**Initial Response:**	
	<type>	VI	<response>	302
	<number>	5160328000000042	<message>	Account Number Does Not Match Payment Type
	<expDate>	1220		
	<recycleBy>	Litle	<recyclingEngineActive>	false
			Final Response (in FTP Session File):	
			None - This type of decline is not recycled.	

Scenario 2

To test your handling of the Recycling Results Session file and Normal Batch/Online response for schema version V8.5 or below:

1. Submit `authorization` (or `sale`) transactions using the values provided in the Supplied Data Elements column of Table 2-24. Please use the same value for the `orderId` and if applicable, the `recycleId` elements.

NOTE: **If your configuration is set for Vantiv to recycle by default, you can omit the <recycleBy> element.**

2. Wait a minimum of 2 hours after submitting the last of the initial transactions. After 2 hours, you can retrieve the Results Session file from the FTP site and/or resubmit the transaction. The responses will contain the data shown for the Final Response.

TABLE 2-24 Recycling Engine Test Data - Online or Results Session File Pick-up V8.5 and below

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase2Order1	<amount>	20000	**Initial Response:**	
	<type>	VI	<response>	110
	<number>	4457012400000027	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (Online/Normal Batch, or in FTP Session File):**	
			<response>	000
			<message>	Approved
XXXCase2Order2	<amount>	20000	**Initial Response:**	
	<type>	MC	<response>	110
	<number>	5160124000000029	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response (Online/Normal Batch, or in FTP Session File):**	
			<response>	000
			<message>	Approved

TABLE 2-24 Recycling Engine Test Data - Online or Results Session File Pick-up V8.5 and below

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase2Order3	<amount>	20000	**Initial Response:**	
	<type>	VI	<response>	110
	<number>	4100200700000059	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response in Online or Normal Session File):**	
			<response>	110
			<message>	Insufficient Funds
			<recyclingEngineActive>	false
			Final Response in FTP Session File):	
			<response>	110
			<message>	Insufficient Funds
XXXCase2Order4	<amount>	20000	**Initial Response:**	
	<type>	MC	<response>	110
	<number>	5500010000000052	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Final Response in Online or Normal Session File):**	
			<response>	110
			<message>	Insufficient Funds
			<recyclingEngineActive>	false
			Final Response in FTP Session File):	
			<response>	110
			<message>	Insufficient Funds

TABLE 2-24 Recycling Engine Test Data - Online or Results Session File Pick-up V8.5 and below

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase2Order5	<amount>	20000	**Initial Response:**	
	<type>	VI	<response>	302
	<number>	5160328000000042	<message>	Account Number Does Not Match Payment Type
	<expDate>	1220		
	<recycleBy>	Litle	<recyclingEngineActive>	false
			Final Response (in Session File):	
			None - This type of decline is not recycled.	

Scenario 3

To test your handling of the Intercept Response Codes/Messages, as well as the Recycling Results Session file and Normal Batch/Online responses:

1. Submit `authorization` (or `sale`) transactions using the values provided in the Supplied Data Elements column of Table 2-25. Please use the same value for the `orderId` and if applicable, the `recycleId` elements.

   NOTE: **If your configuration is set for Vantiv to recycle by default, you can omit the <recycleBy> element.**

2. If you are using schema version V8.6 or above, resubmit any of the first four transactions within 36 hours to receive a response message containing the intercept Response Reason Code 372 - Soft Decline - Auto Recycling In Progress. If you are using schema version 8.5 or below, you will receive a response message with the same Response Reason Code as in the initial response message.
3. Wait a minimum of 36 hours after submitting the last of the initial transactions. After 36 hours, you can retrieve the Results Session file from the FTP site and/or resubmit the transaction. The responses will contain the data shown for the Final Response.

TABLE 2-25 Recycling Engine Test Data - Intercept and Online or Results Session File Pick-up

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase3Order1	<amount>	20000	**Initial Response:**	
	<type>	DI	<response>	350
	<number>	6223012400000025	<message>	Generic Decline
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Intermediate Attempts (V8.6):**	
			<response>	372
			<message>	Soft decline - Recycling In Progress
			<recyclingEngineActive>	true
			Final Response (Online/Normal Batch, or in FTP Session File):	
			<response>	000
			<message>	Approved

TABLE 2-25 Recycling Engine Test Data - Intercept and Online or Results Session File Pick-up

orderId or recycleId (replace XXX with your merchantId)	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
XXXCase3Order2	<amount>	20000	**Initial Response:**	
	<type>	AX	<response>	350
	<number>	377201240000025	<message>	Generic Decline
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Intermediate Attempts (V8.6):**	
			<response>	372
			<message>	Soft decline - Recycling In Progress
			<recyclingEngineActive>	true
			Final Response (Online/Normal Batch, or in FTP Session File):	
			<response>	000
			<message>	Approved

TABLE 2-25 Recycling Engine Test Data - Intercept and Online or Results Session File Pick-up

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase3Order3	<amount>	20000	**Initial Response:**	
	<type>	DI	<response>	350
	<number>	6223012400000033	<message>	Generic Decline
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Intermediate Attempts (V8.6):**	
			<response>	372
			<message>	Soft decline - Recycling In Progress
			<recyclingEngineActive>	true
			Final Response (Online/Normal Batch, or in FTP Session File):	
			<response>	373
			<message>	Hard Decline - Auto Recycling Complete

TABLE 2-25 Recycling Engine Test Data - Intercept and Online or Results Session File Pick-up

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase3Order4	<amount>	20000	**Initial Response:**	
	<type>	DI	<response>	101
	<number>	6011002078551608	<message>	Issuer Unavailable
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle	**Intermediate Attempts (V8.6):**	
			<response>	372
			<message>	Soft decline - Recycling In Progress
			<recyclingEngineActive>	true
			Final Response (Online/Normal Batch, or in FTP Session File):	
			<response>	373
			<message>	Hard Decline - Auto Recycling Complete
XXXCase3Order5	<amount>	20000	**Initial Response:**	
	<type>	VI	<response>	302
	<number>	377203280000048	<message>	Account Number Does Not Match Payment Type
	<expDate>	1220	<recyclingEngineActive>	false
	<recycleBy>	Litle	**All Responses:**	
			None - This type of decline is not recycled.	

2.5.13.1 Testing Recycling Engine Cancellation

You use an `authReversal` transaction to halt the automatic recycling of an authorization. For a sale transaction, use a `void` transaction to halt recycling.

NOTE: **You can perform this test either after completing the Recycling Engine test or prior to starting that test.**

To test recycling cancellation:

1. Submit a `sale` transaction using the values provided for Case1Order1a and an authorization transaction using the values provided for Case1Order2a in the Supplied Data Elements of Table 2-26.
2. Two (2) hours after receiving the decline message, submit a `void` transaction using the `litleTxnId` returned in the response message for Case1Order1a. If you are not enabled for Auto-refunding an approved Sales on Void, the Declined transaction report will contain a response code of 362 - Transaction not Voided - Already Settled.

NOTE: **If you submit the Void transaction (Step 2) within 2 hours of the initial transaction submission, you will receive a voidResponse with a response code of 000 - Approved.**

3. After receiving the decline messages, submit an `authReversal` transaction using the `litleTxnId` returned in the response message for Case1Order2a. This will halt the recycling of the order.

TABLE 2-26 Recycling Engine Cancellation Test Data

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase1Order1a			**Initial Response:**	
	<amount>	11000		
	<type>	VI	<response>	110
	<number>	4457012400000027	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle		
	Submit Void using litleTxnId from Initial Response		**Void Response (if enabled for Auto-Refund):**	
			<response>	001
			<message>	Transaction received
			<creditLitleTxnId>	(Random Value)
			Void Response (if not enabled for Auto-Refund:	
			<response>	001
			<message>	Transaction received
			Declined Transaction report result = 362 - Transaction Not Voided - Already Settled	

TABLE 2-26 Recycling Engine Cancellation Test Data

orderId or recycleId (replace XXX with your merchantId)	**Supplied Data Elements**		**Key Response Elements**	
	Element	**Value**	**Element**	**Value**
XXXCase1Order2a	<amount>	11000	**Initial Response:**	
	<type>	MC	<response>	110
	<number>	5160124000000029	<message>	Insufficient Funds
	<expDate>	1220	<recyclingEngineActive>	true
	<recycleBy>	Litle		
	Submit authReversal using litleTxnId from Initial Response		**authReversalResponse:**	
			<response>	001
			<message>	Transaction received

2.5.14 Testing Recurring Engine Transactions

Use the following Certification tests to verify transactions associated with the Recurring Engine functionality. For testing purposes, the Certification environment will process the first recurring transaction within 2 hours. The system cancels subsequent recurring transactions in the payment stream. For example, if you submitted an Authorization at 9:00 AM that set-up a subscription for twelve monthly payments, the Cert Recurring Engine would process the first payment by 11:00 AM and cancel the remaining eleven payments.

IMPORTANT: **The test data supplied does not necessarily account for all data fields/xml elements in a particular request. Where test data is not supplied, you should provide appropriate information.**

You should never override your own system to enter supplied data. If you are unable to enter the supplied data without overriding your system, please consult your Implementation Consultant concerning the test and how to proceed.

To test the Recurring Engine functionality using the data supplied in Table 2-27:

1. Submit `createPlan` transactions for Order Ids R1.1, R1.2, R1.3, R1.4, R1.5, and R1.6. These transactions establish Plans used in the remaining tests, as well as verify your LitleXML used to create Plans. You can use whatever values you wish for the `<planCode>`

and `<name>` elements. Verify that each transaction receives an approval code in the response message.

2. Submit `createPlan` transactions for Order Id R1.7 using the same `<planCode>` value you used in R1.3. This transaction is declined, because the Plan Code already exists. Verify that the transaction receives a response code of 487 - Plan code already exists.
3. Submit a `sale` transaction for Order Id R2.1. This transaction creates a subscription using the plan established in Order R1.1. The amount in the sale transaction represents a set-up fee and not the initial payment. Verify that the transaction receives an approval code in the response message.
4. Submit an `authorization` transaction for Order Id R2.2. This transaction creates a subscription using the plan established in Order R1.1. Because the Authorization did not specify a start date, the Recurring Engine schedules the first payment for the current date. Verify that the transaction receives an approval code in the response message.

NOTE: **The transaction specified in Order 2.2 is a $0 Auth. If you include an amount when using an Auth to establish a subscription, you should plan on reversing the Auth to avoid a Misuse of Auth fee. The Recurring Engine obtains its own Auth for the first payment.**

5. Submit an `updateSubscription` transaction for Order Id R2.3. This transaction updates the subscription initiated with Order Id 2.1, changing the Plan to the plan you created in R1.2.
6. Submit a `sale` transaction for Order Id R3.1. This transaction utilizes a Sale transaction to initialize a subscription based upon the plan created in R1.3, but overrides both the number of payments and the amount specified in the Plan. Verify that the transaction receives an approval code in the response message.
7. Submit an `authorization` transaction for Order Id R3.2. This transaction utilizes an Authorization transaction to initialize a subscription based upon the plan created in R1.3, but overrides both the number of payments and the amount specified in the Plan. Verify that the transaction receives an approval code in the response message.
8. Submit an `updateSubscription` transaction for Order Id R3.3. This transaction updates an existing subscription, changing the billing date.
9. Submit an `authorization` transaction for Order Id R4.1. This transaction utilizes an Authorization transaction to initialize a subscription that overrides the default amount in the Plan and has a trial period. Verify that the transaction receives an approval code in the response message.
10. Submit an `updateSubscription` transaction for Order Id R4.2. This transaction updates an existing subscription with a new credit card number.
11. Submit an `authorization` transaction for Order Id R5.1. This transaction utilizes an Authorization transaction to initialize a subscription based upon the SEMIANNUAL_PLAN, but overrides the number of payments. Verify that the transaction receives an approval code in the response message.

12. Submit an `updateSubscription` transaction for Order Id R5.2. This transaction updates an existing subscription with new billing information.
13. Submit an `updateSubscription` transaction for Order Id R5.3. Since the transaction does not include any updated information, the Declined Transaction report will contain a response code of 484 **-** Insufficient data to update subscription. Verify the response code by accessing the Declined Transaction report in Vantiv iQ.
14. Submit an `updateSubscription` transaction for Order Id R5.4. Since the transaction specifies a new billing date in the past, the Declined Transaction report will contain a response code of 485 **-** Invalid billing date. Verify the response code by accessing the Declined Transaction report in Vantiv iQ.
15. Submit an `authorization` transaction for Order Id R6.1. The system declines this transaction, since it uses an invalid Plan Code. Verify that the transaction receives a response code of 472 **-** Invalid plan code.
16. Submit an `updateSubscription` transaction for Order Id R6.2. Since this order uses an invalid subscription Id, The system declines this transaction, the Declined Transaction report will contain a response code of 482 **-** Invalid start date. Verify the response code by accessing the Declined Transaction report in Vantiv iQ.
17. Submit an `authorization` transaction for Order Id R6.3. The system declines this transaction, since it uses a start date in the past. Verify that the transaction receives a response code of 475 **-** Invalid Subscription Id.
18. Submit an `authorization` transaction for Order Id R7.1. This transaction utilizes an Authorization transaction to initialize a subscription based upon the PLAN_WITH_PROMOTIONS Plan with an add On and a Discount applied. Verify that the transaction receives an approval code in the response message.
19. Submit an `updateSubscription` transaction for Order Id R7.2. This transaction attempts to update an existing subscription with a new Add On, but is declined because the Add On already exists. Verify that the Declined Transaction report contains a response code of 476 **-** Add On already exists.
20. Submit an `updateSubscription` transaction for Order Id R7.3. This transaction attempts to update an Add On for an existing subscription, but is declined because the specified Add On is not associated with the Subscription. Verify that the Declined Transaction report contains a response code of 478 **-** No matching Add On code for the subscription.
21. Submit an `updateSubscription` transaction for Order Id R7.4. This transaction attempts to update an Add On for an existing subscription, but is declined because the specified Add On is not associated with the Subscription. Verify that the Declined Transaction report contains a response code of 478 **-** No matching Add On code for the subscription.
22. Submit an `updateSubscription` transaction for Order Id R7.5. This transaction attempts to update a Discount for an existing subscription, but is declined because the specified Discount is not associated with the Subscription. Verify that the Declined Transaction report contains a response code of 480 **-** No matching Discount code for the subscription.

23. Submit an `authorization` transaction for Order Id R8.1. This transaction utilizes an Authorization transaction to initialize a subscription, but includes duplicate Add Ons. Verify that the transaction receives a response code of 477 - Duplicate add-on codes in request.
24. Submit an `authorization` transaction for Order Id R8.2. This transaction utilizes an Authorization transaction to initialize a subscription, but includes duplicate Discounts. Verify that the transaction receives a response code of 481 - Duplicate discount codes in request.
25. Submit an `authorization` transaction for Order Id R9.1. In this case the parent Authorization transaction is declined with a response code of 301 - Invalid Account Number. The response code associated with the recurring request is 471 - Parent transaction declined - Recurring subscription not created.PREMIUM_MONTHLY
26. Submit an `cancelSubscription` transaction for Order Id R10.1. Verify that the transaction receives an approval code in the response message.
27. Submit an `updatePlan` transaction for Order Id R11.1. This transaction changes the Plan to an inactive state. Verify that the transaction receives an approval code in the response message.

TABLE 2-27 Recurring Engine Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
R1.1	<createPlan>	(*parent element*)	<response>	000
	<planCode>	*Your Value*	<message>	Approved
	<name>	*Your Value*	<planCode>	*Your Value*
	<description>	Basic monthly plan		
	<intervalType>	MONTHLY		
	<amount>	5000		
	<numberOfPayments>	12		
R1.2	<createPlan>	(*parent element*)	<response>	000
	<planCode>	*Your Value*	<message>	Approved
	<name>	*Your Value*	<planCode>	*Your Value*
	<description>	Premium monthly plan		
	<intervalType>	MONTHLY		
	<amount>	7000		
	<numberOfPayments>	12		

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R1.3	<createPlan>	(*parent element*)	<response>	000
	<planCode>	*Your Value*	<message>	Approved
	<name>	*Your Value*	<planCode>	*Your Value*
	<description>	An annual plan		
	<intervalType>	ANNUAL		
	<amount>	14000		
R1.4	<createPlan>	(*parent element*)	<response>	000
	<planCode>	*Your Value*	<message>	Approved
	<name>	*Your Value*	<planCode>	*Your Value*
	<description>	A monthly plan with trial period		
	<intervalType>	MONTHLY		
	<amount>	5000		
	<trialIntervalType>	MONTH		
	<trialNumberOfIntervals>	2		
R1.5	<createPlan>	(*parent element*)	<response>	000
	<planCode>	*Your Value*	<message>	Approved
	<name>	*Your Value*	<planCode>	*Your Value*
	<description>	A semi-annual plan		
	<intervalType>	SEMIANNUAL		
	<amount>	7000		
R1.6	<createPlan>	(*parent element*)	<response>	000
	<planCode>	*Your Value*	<message>	Approved
	<name>	*Your Value*	<planCode>	*Your Value*
	<description>	A plan with Add Ons and Discounts		
	<intervalType>	MONTHLY		
	<amount>	5000		

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
R1.7	<createPlan>	(*parent element*)	<response>	487
	<planCode>	*Value from R1.3*	<message>	Plan code already exists
	<name>	*Value from R1.3*	<planCode>	*Value from R1.3*
	<description>	An annual plan		
	<intervalType>	ANNUAL		
	<amount>	5000		
R2.1	<sale>	(*parent element*)	<recurringResponse>	(*parent element*)
	<amount>	1000	<responseCode>	470
	<recurringRequest>	(*parent element*)	<responseMessage>	Approved - Recurring subscription created
	<subscription>	(*parent element*)		
	<planCode>	*Value from R1.1*		
	<startDate>	Use any date		
R2.2	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<amount>	000	<responseCode>	470
	<recurringRequest>	(*parent element*)	<responseMessage>	Approved - Recurring subscription created
	<subscription>	(*parent element*)		
	<planCode>	*Value from R1.1*		
R2.3	<updateSubscription>	(*parent element*)	<subscriptionId>	(*parent element*)
	<subscriptionId>	Value returned in R2.1 response	<response>	001
			<message>	Transaction Received
	<planCode>	*Value from R1.2*		
R3.1	<sale>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<responseCode>	470
	<subscription>	(*parent element*)	<responseMessage>	Approved - Recurring subscription created
	<planCode>	*Value from R1.3*		
	<startDate>	Use any valid date in the future.		
	<numberOfPayments>	6		
	<amount>	4000		

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R3.2	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<responseCode>	470
	<subscription>	(*parent element*)	<responseMessage>	Approved - Recurring subscription created
	<planCode>	*Value from R1.3*		
	<startDate>	Use any valid date in the future.		
	<numberOfPayments>	6		
	<amount>	4000		
R3.3	<updateSubscription>	(*parent element*)	<response>	001
	<subscriptionId>	Value returned in R3.1 response	<message>	Transaction received
	<billingDate>	Use any valid date in the future and different from date used in R3.1.		
R4.1	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<responseCode>	470
	<subscription>	(*parent element*)	<responseMessage>	Approved - Recurring subscription created
	<planCode>	*Value from R1.4*		
	<startDate>	Use any valid date in the future.		
	<amount>	4000		
R4.2	<updateSubscription>	(*parent element*)	<response>	001
	<subscriptionId>	Value returned in R4.1 response	<message>	Transaction received
	<card>	(*parent element*)		
	<type>	VI		
	<number>	4457010000000009		
	<expDate>	1216		

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R5.1	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<responseCode>	470
	<subscription>	(*parent element*)	<responseMessage>	Approved - Recurring subscription created
	<planCode>	*Value from R1.5*		
	<startDate>	Use any valid date in the future.		
	<numberOfPayments>	6		
R5.2	<updateSubscription>	(*parent element*)	<subscriptionId>	Value returned in R5.1 response
	<subscriptionId>	Value returned in R5.1 response	<response>	001
	<billToAddress>	(*parent element*)	<message>	Transaction received
	<name>	John		
	<addressLine1>	900 Chelmsford St.		
	<city>	Lowell		
	<state>	MA		
	<zip>	01781		
	<country>	US		
	<email>	john@gmail.com		
	<phone>	8559658965		
R5.3	<updateSubscription>	(*parent element*)	<response>	001
	<subscriptionId>	Value returned in R5.1 response	<message>	Transaction received
			Declined Transaction report result = 484 - Insufficient data to update subscription	
R5.4	<updateSubscription>	(*parent element*)	<response>	001
	<subscriptionId>	Value returned in R5.1 response	<message>	Transaction received
	<billingDate>	2000-10-01	Declined Transaction report result = 485 - Invalid billing date	

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R6.1	<authorization>	(*parent element*)	<responseCode>	472
	<recurringRequest>	(*parent element*)	<responseMessage>	Invalid plan code
	<subscription>	(*parent element*)		
	<planCode>	INVALID_PLAN		
R6.2	<updateSubscription>	(*parent element*)	<response>	001
	<subscriptionId>	1111111111	<message>	Transaction Received
	<billToAddress>	(*parent element*)		
	<name>	John	Declined Transaction report result = 475 - Invalid Subscription Id	
	<addressLine1>	900 Chelmsford St.		
	<city>	Lowell		
	<state>	MA		
	<zip>	01781		
	<country>	US		
	<email>	john@gmail.com		
	<phone>	8559658965		
R6.3	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<responseCode>	482
	<subscription>	(*parent element*)	<responseMessage>	Invalid start date
	<planCode>	*Value from R1.1*		
	<startDate>	2000-04-04		

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R7.1	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<responseCode>	470
	<subscription>	(*parent element*)	<responseMessage>	Approved - Recurring Subscription Created
	<planCode>	*Value from R1.6*		
	<createAddOn>	(*parent element*)		
	<addOnCode>	SSL_ADDON		
	<name>	Additional Service		
	<amount>	1000		
	<startDate>	2013-08-30		
	<endDate>	2050-08-30		
	<createDiscount>	(*parent element*)		
	<discountCode>	PROMO_DISCOUNT		
	<name>	Special Offer		
	<amount>	1000		
	<startDate>	2013-08-30		
	<endDate>	2050-08-30		
R7.2	<updateSubscription>	(*parent element*)	<recurringResponse>	(*parent element*)
	<subscriptionId>	Value returned in R7.1 response	<response>	001
	<createAddOn>	(*parent element*)	<message>	Transaction received
	<addOnCode>	SSL_ADDON	Declined Transaction report result = 476 - Add-on code already exists	
	<name>	Additional Service		
	<amount>	1000		
	<startDate>	2013-08-30		
	<endDate>	2050-08-30		

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R7.3	<updateSubscription>	(*parent element*)	<response>	001
	<subscriptionId>	Value returned in R7.1 response	<message>	Transaction received
	<createDiscount>	(*parent element*)	Declined Transaction report result = 486 - discount code already exists	
	<discountCode>	PROMO_DISCOUNT		
	<name>	Special Offer		
	<amount>	1000		
	<startDate>	2013-08-30		
	<endDate>	2050-08-30		
R7.4	<updateSubscription>	(*parent element*)	<response>	478
	<subscriptionId>	Value returned in R7.1 response	<message>	No matching Add-on code for the subscription
	<updateAddOn>	(*parent element*)	Declined Transaction report result = 478 - No matching Add-on code for the subscription	
	<addOnCode>	INVALID_ADDON_CODE		
	<name>	Extra Features		
	<amount>	1000		
R7.5	<updateSubscription>	(*parent element*)	<response>	480
	<subscriptionId>	Value returned in R7.1 response	<message>	No matching Discount code for the subscription
	<updateDiscount>	(*parent element*)	Declined Transaction report result = 480 - No matching Discount code for the subscription	
	<discountCode>	INVALID_DISCOUNT_CODE		
	<name>	Special Offer		
	<amount>	1000		
	<startDate>	2013-08-30		
	<endDate>	2050-08-30		

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R8.1	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<response>	477
	<subscription>	(*parent element*)	<message>	Duplicate Add-on codes in request
	<planCode>	*Value from R1.6*		
		(*parent element*)		
	<createAddOn>	SSL_ADDON		
	<addOnCode>	Additional Service		
	<name>	1000		
	<amount>	2013-08-30		
	<startDate>	2050-08-30		
	<endDate>	(*parent element*)		
	<createAddOn>	SSL_ADDON		
	<addOnCode>	Additional Service		
	<name>	1000		
	<amount>	2013-08-30		
	<startDate>	2050-08-30		
	<endDate>			

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R8.2	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<recurringRequest>	(*parent element*)	<responseCode>	481
	<subscription>	(*parent element*)	<responseMessage>	Duplicate discount codes in request
	<planCode>	*Value from R1.6*		
	<createDiscount>	(*parent element*)		
	<discountCode>	PROMO_DISCOUNT		
	<name>	Discount		
	<amount>	1000		
	<startDate>	2013-08-30		
	<endDate>	2050-08-30		
	<createDiscount>	(*parent element*)		
	<discountCode>	PROMO_DISCOUNT		
	<name>	Discount		
	<amount>	1000		
	<startDate>	2013-08-30		
	<endDate>	2050-08-30		
R9.1	<authorization>	(*parent element*)	<recurringResponse>	(*parent element*)
	<card>	(*parent element*)	<responseCode>	471
	<type>	MC	<responseMessage>	Parent transaction declined - Recurring subscription not created
	<number>	5112010100000002		
	<expDate>	07146		
	<recurringRequest>	(*parent element*)		
	<subscription>	(*parent element*)		
	<planCode>	*Value from R1.6*		
R10.1	<cancelSubscription>	(*parent element*)	<recurringResponse>	(*parent element*)
	<subscriptionId>	Value returned in R7.1 response	<subscriptionId>	Submitted value
			<response>	001
			<message>	Transaction received

TABLE 2-27 Recurring Engine Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
R11.1	<updatePlan>	(*parent element*)	<response>	000
	<planCode>	*Value from R1.2*	<message>	Approved
	<active>	false		

2.5.15 Testing Gift Card Transactions

Use the following Certification tests to verify transactions associated with the Private Label Gift Card functionality. The tests are designed so that you can verify your XML structure for each transaction type, as well as your ability to parse the response data.

To test the Gift Card functionality using the data supplied in Table 2-28:

1. Submit an `activate` transaction for Order Id GC1. Verify that the data in the response message matches the Key Response Elements specified in the table.
2. Submit an `activate` transaction for Order Id GC1A. This transaction activates a Virtual Gift Card. Verify that the data in the response message matches the Key Response Elements specified in the table.
3. Submit an `authorization` transaction for Order Id GC2. Verify that the data in the response message matches the Key Response Elements specified in the table.
4. Submit a `capture` transaction for Order Id GC2A. Verify that the data in the response message matches the Key Response Elements specified in the table.
5. Submit a `credit` transaction for Order Id GC2B. Verify that the data in the response message matches the Key Response Elements specified in the table.
6. Submit a `deactivate` transaction for Order Id GC3. Verify that the data in the response message matches the Key Response Elements specified in the table.
7. Submit a `load` transaction for Order Id GC4. Verify that the data in the response message matches the Key Response Elements specified in the table.
8. Submit a `unload` transaction for Order Id GC5. Verify that the data in the response message matches the Key Response Elements specified in the table.
9. Submit a `balanceInquiry` transaction for Order Id GC6. Verify that the data in the response message matches the Key Response Elements specified in the table.
10. Submit an `activate` transaction for Order Id GC7. Verify that the data in the response message matches the Key Response Elements specified in the table.
11. Submit an `activateReversal` transaction for Order Id GC7A. Verify that the data in the response message matches the Key Response Elements specified in the table.
12. Submit an `activateReversal` transaction for Order Id GC1A. Verify that the data in the response message matches the Key Response Elements specified in the table.

13. Submit an `authorization` transaction for Order Id GC8. Verify that the data in the response message matches the Key Response Elements specified in the table.
14. Submit an `authorizationReversal` transaction for Order Id GC8A. Verify that the data in the response message matches the Key Response Elements specified in the table.
15. Submit a `sale` transaction for Order Id GC9. Verify that the data in the response message matches the Key Response Elements specified in the table.
16. Submit a `depositReversal` transaction for Order Id GC9A. Verify that the data in the response message matches the Key Response Elements specified in the table.
17. Submit a `sale` transaction for Order Id GC10. Verify that the data in the response message matches the Key Response Elements specified in the table.
18. Submit a `credit` transaction for Order Id GC10A. Verify that the data in the response message matches the Key Response Elements specified in the table.
19. Submit a `refundReversal` transaction for Order Id GC10B. Verify that the data in the response message matches the Key Response Elements specified in the table.
20. Submit a `deactivate` transaction for Order Id GC11. Verify that the data in the response message matches the Key Response Elements specified in the table.
21. Submit a `loadReversal` transaction for Order Id GC12. Verify that the data in the response message matches the Key Response Elements specified in the table.
22. Submit an `unload` transaction for Order Id GC13. Verify that the data in the response message matches the Key Response Elements specified in the table.
23. Submit an `unloadReversal` transaction for Order Id GC13A. Verify that the data in the response message matches the Key Response Elements specified in the table.
24. Submit an `activate` transaction for Order Id GC14. This transaction is declined with a response code of 301 - Invalid Account Number. Verify that the data in the response message matches the Key Response Elements specified in the table.
25. Submit an `activate` transaction for Order Id GC15. This transaction is declined with a response code of 217 - Already active, because it attempts to activate the same card already activated in Order Id GC1. Verify that the data in the response message matches the Key Response Elements specified in the table.
26. Submit an `authorization` transaction for Order Id GC16. This transaction is declined with a response code of 110 - Insufficient Funds. Verify that the data in the response message matches the Key Response Elements specified in the table.
27. Submit an `authorization` transaction for Order Id GC17. This transaction is declined with a response code of 281 - Card not active. Verify that the data in the response message matches the Key Response Elements specified in the table.
28. Submit a `capture` transaction for Order Id GC18. For this transaction the Declined Transaction report will contain a response code of 360 - No transaction found with the specified litleTxnId.
29. Submit a `sale` transaction for Order Id GC19. Verify that the data in the response message matches the Key Response Elements specified in the table.

30. Submit a `credit` transaction for Order Id GC19A. For this transaction the Declined Transaction report will contain response code of 304 - Lost/Stolen Card.
31. Submit a `balanceInquiry` transaction for Order Id GC20. This transaction is declined with a response code of 352 - Invalid CVV2. Verify that the data in the response message matches the Key Response Elements specified in the table.

TABLE 2-28 Private Label Gift Card Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
GC1	**Activate:**		**Activate Response:**	
	<amount>	15000	<response>	000
	<type>	GC	<message>	Approved
	<number>	Supplied by Implementation Consultant	<cardValidationResult>	M
	<expDate>	1215	<availableBalance>	15000
	<cardValidationNum>	123		
GC1A	**Virtual Activate:**		**Activate Response:**	
	<amount>	8000	<response>	000
	<accountNumberLength>	16	<message>	Approved
	<giftCardBin>	Supplied by Implementation Consultant	<availableBalance>	8000
			<accountNumber>	603571xxxxxxxxxx
GC2	**Authorization:**		**Authorization Response:**	
	<amount>	1500	<response>	000
	<type>	GC	<message>	Approved
	<number>	Number from GC1	<authCode>	11111
	<expDate>	1215	<cardValidationResult>	M
	<cardValidationNum>	123	<availableBalance>	13500
GC2A	**Capture:**		**Capture Response:**	
	<litleTxnId>	Value received in response message for Order Id GC2.	response>	001
			<message>	Transaction received

TABLE 2-28 Private Label Gift Card Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
GC2B	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value received in response message for Order Id GC2A.	response>	001
	<amount>	500	<message>	Transaction received
CG3	**Deactivate:**		**Deactivate Response:**	
	<type>	GC	response>	000
	<number>	Supplied by Implementation Consultant	<message>	Approved
			<availableBalance>	0
GC4	**Load:**		**Load Response:**	
	<amount>	5000	<response>	000
	<type>	GC	<message>	Approved
	<number>	Supplied by Implementation Consultant	<cardValidationResult>	M
	<expDate>	0116	<availableBalance>	5000
	<cardValidationNum>	123		
GC5	**Unload:**		**Unload Response:**	
	<amount>	2500	<response>	000
	<type>	GC	<message>	Approved
	<number>	Number from GC4	<cardValidationResult>	M
	<expDate>	0116	<availableBalance>	2500
	<cardValidationNum>	123		
GC6	**Balance Inquiry:**		**Balance Inquiry Response:**	
	<type>	GC	<response>	000
	<number>	Number from GC1	<message>	Approved
	<expDate>	0116	<cardValidationResult>	M
	<cardValidationNum>	123	<availableBalance>	2500

TABLE 2-28 Private Label Gift Card Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
GC7	**Activate:**		**Activate Response:**	
	<amount>	8000	<response>	000
	<type>	GC	<message>	Approved
	<number>	Supplied by Implementation Consultant	<cardValidationResult>	M
	<expDate>	1215	<availableBalance>	8000
	<cardValidationNum>	123		
GC7A	**Activate Reversal:**		**Activate Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC7.	<response>	001
			<message>	Transaction received
GC7B	**Activate Reversal:**		**Activate Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC1A.	<response>	001
			<message>	Transaction received
GC8	**Authorization:**		**Authorization Response:**	
	<amount>	2000	<response>	000
	<type>	GC	<message>	Approved
	<number>	Supplied by Implementation Consultant	<authCode>	11111
	<expDate>	1215	<cardValidationResult>	M
	<cardValidationNum>	123	<availableBalance>	4000
GC8A	**Auth Reversal:**		**Auth Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC8.	<response>	001
			<message>	Transaction received

TABLE 2-28 Private Label Gift Card Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
GC9	**Sale:**		**Sale Response:**	
	<amount>	2000	<response>	000
	<type>	GC	<message>	Approved
	<number>	Supplied by Implementation Consultant	<authCode>	11111
	<expDate>	1215	<cardValidationResult>	M
	<cardValidationNum>	123	<availableBalance>	8000
GC9A	**Deposit Reversal:**		**Deposit Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC9.	<response>	001
			<message>	Transaction received
GC10	**Sale:**		**Sale Response:**	
	<amount>	2000	<response>	000
	<type>	GC	<message>	Approved
	<number>	Number from GC9	<authCode>	11111
	<expDate>	1215	<cardValidationResult>	M
	<cardValidationNum>	123	<availableBalance>	8000
GC10A	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value received in response message for Order Id GC10.	<response>	001
			<message>	Transaction received
GC10B	**Refund Reversal:**		**Refund Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC10A.	<response>	001
			<message>	Transaction received

TABLE 2-28 Private Label Gift Card Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
GC11	**Deactivate Reversal:**		**Deactivate Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC3.	<response>	001
			<message>	Transaction received
GC12	**Load Reversal:**		**Load Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC4.	<response>	000
			<message>	Approved
			<availableBalance>	0
GC13	**Unload:**		**Unload Response:**	
	<amount>	2500	<response>	000
	<type>	GC	<message>	Approved
	<number>	Supplied by Implementation Consultant	<cardValidationResult>	M
			<availableBalance>	1500
	<expDate>	0116		
	<cardValidationNum>	123		
GC13A	**Unload Reversal:**		**Unload Reversal Response:**	
	<litleTxnId>	Value received in response message for Order Id GC13.	<response>	001
			<message>	Transaction received
GC14	**Activate:**		**Activate Response:**	
	<amount>	15000	<response>	301
	<type>	GC	<message>	Invalid Account Number
	<number>	Supplied by Implementation Consultant		
	<expDate>	1216		
	<cardValidationNum>	123		

TABLE 2-28 Private Label Gift Card Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
GC15	**Activate:**		**Activate Response:**	
	<amount>	10000	<response>	217
	<type>	GC	<message>	Already active
	<number>	Number from GC1	<availableBalance>	14000
	<expDate>	1216		
	<cardValidationNum>	123		
GC16	**Authorization:**		**Authorization Response:**	
	<amount>	1500000		
	<type>	GC	<response>	352
	<number>	Number from GC1	<message>	Decline CVV/CID Fail
	<expDate>	1216		
	<cardValidationNum>	123	<cardValidationResult>	M
			<availableBalance>	14000
GC17	**Authorization:**		**Authorization Response:**	
	<amount>	15000		
	<type>	GC	<response>	281
	<number>	Supplied by Implementation Consultant	<message>	Card not active
	<expDate>	1216		
	<cardValidationNum>	123		
GC18	**Capture:**		**Capture Response:**	
	<litleTxnId>	5555	<response>	001
			<message>	Transaction received
			Declined Transaction report result = 360 - No transaction found with specified litleTxnId	

TABLE 2-28 Private Label Gift Card Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	**Value**	**Element**	**Value**
GC19	**Sale:**		**Sale Response:**	
	<amount>	1000	<response>	000
	<type>	GC	<message>	Approved
	<number>	Supplied by Implementation Consultant	<authCode>	11111
	<expDate>	1215	<cardValidationResult>	M
	<cardValidationNum>	123	<availableBalance>	1500
GC19A	**Credit:**		**Credit Response:**	
	<litleTxnId>	Value received in response message for Order Id GC19.	<response>	001
	<amount>	10000	<message>	Transaction received
			Declined Transaction report result = 304 - Lost/Stolen Card	
GC20	**Balance Inquiry:**		**Balance Inquiry Response:**	
	<type>	GC		
	<number>	Number from GC4	<response>	352
	<expDate>	0116	<message>	Invalid CVV2
	<cardValidationNum>	476		

2.5.16 Testing Mobile Point of Sale

In addition to other normal required certification testing, you should submit the following transactions to test the Mobile Point of Sale offering. Because these test cases require you to submit specific values, they are not end-to-end test (i.e., mobile device to response message). They are intended to verify your system's handling of the various response codes and messages associated with the mobile solution.

To test end-to-end operation swipe a test card. Is long as the LitleXML message and the submitted data is valid the certification system returns a response message indicating that the transaction was approved.

NOTE: **These test cases require the substitution of specific values for the `<encryptedTrack>` element. If a value for a required element is not provided, submit any valid value.**

Submission of any transactions not using the specified values will result in an approved response, as long as the message contains valid data and the `track1Status` and `track2Status` elements are set to 0.

1. Using the data provided in Table 2-29 for orderId mpos_auth1, submit a Sale transaction. Verify that the response data matches the values for the Key Response Elements for that orderId.
2. Using the data provided in Table 2-29 for orderId mpos_credit, submit a Credit transaction. Verify that the response data matches the values for the Key Response Elements.
3. Using the data provided in Table 2-29 for orderId mposAuthFailure1, submit a Sale transaction. This transaction simulates the failure to properly read the Track1 and Track 2 data. Verify that the response data matches the values for the Key Response Elements and that your system properly handles this response.
4. Using the data provided in Table 2-29 for orderId mposAuthFailure2, submit a Sale transaction. This transaction simulates a timeout error encountered while waiting for the decrypted card information. Verify that the response data matches the values for the Key Response Elements and that your system properly handles this response.
5. Using the data provided in Table 2-29 for orderId mposAuthFailure3, submit a Sale transaction. This transaction simulates a failure to decrypt the card information. Verify that the response data matches the values for the Key Response Elements and that your system properly handles this response.

NOTE: **When in production, if you receive the soft declines in Steps 4 and 5, the best practice would be to re-swipe the card and resubmit the transactions.**

TABLE 2-29 Mobile Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
mpos_sale	<encryptedTrack>	CASE1...(see below)	<response>	000
	<ksn>	77853211300008E00016	<message>	Approved
	<formatId>	30	<authCode>	22222
	<track1Status>	0	<avsResult>	34
	<track2Status>	0		

TABLE 2-29 Mobile Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
mpos_credit	<encryptedTrack> <ksn> <formatId> <track1Status> <track2Status>	CASE1...(see below) 77853211300008E00016 30 0 0	<response> <message>	000 Approved
mposAuthFailure1	<encryptedTrack> <ksn> <formatId> <track1Status> <track2Status>	CASE8...(see below) 77853211300008E00016 30 1 1	<response> <message>	524 Hard Decline - Input data is invalid
mposAuthFailure2	<encryptedTrack> <ksn> <formatId> <track1Status> <track2Status>	TimeOut 77853211300008E00016 30 0 0	<response> <message>	521 Soft decline - Card reader decryption service is not available
mposAuthFailure3	<encryptedTrack> <ksn> <formatId> <track1Status> <track2Status>	CASE2...(see below) 77853211300008E00016 30 0 0	<response> <message>	523 Soft decline - Decryption failed

CASE1 encryptedTrack value -
CASE1E185EADD6AFE78C9A214B21313DCD836FDD555FBE3A6C48D141FE80AB9172B963265AFF72111895FE415DEDA162CE8CB7AC4D91EDB611A2AB756AA9CB1A000000000000000000000000000000005A7AAF5E8885A9DB88ECD2430C497003F2646619A2382FFF205767492306AC804E8E64E8EA6981DD

CASE2 encryptedTrack value -
CASE2E185EADD6AFE78C9A214B21313DCD836FDD555FBE3A6C48D141FE80AB9172B963265AFF72111895FE415DEDA162CE8CB7AC4D91EDB611A2AB756AA9CB1A000000000

00000000000000000000000005A7AAF5E8885A9DB88ECD2430C497003F2646619A2382FFF20
5767492306AC804E8E64E8EA6981DD

CASE8 encryptedTrack value -
CASE8E185EADD6AFE78C9A214B21313DCD836FDD555FBE3A6C48D141FE80AB9172B9
63265AFF72111895FE415DEDA162CE8CB7AC4D91EDB611A2AB756AA9CB1A000000000
00000000000000000000000005A7AAF5E8885A9DB88ECD2430C497003F2646619A2382FFF20
5767492306AC804E8E64E8EA6981DD

2.5.17 Testing MasterPass Transactions

If you are planning to support MasterPass transaction, in addition to other required certification testing, you should submit the following transactions to test the use of the additional LitleXML elements required for a MasterPass transaction.

To test the MasterPass functionality using the data supplied in Table 2-30:

1. Submit an Authorization transaction using the data supplied for Order Id MCWalletAuth. Verify that the response data matches the values for the Key Response Elements for that orderId.
2. Submit a Sale transaction using the data supplied for Order Id MCWalletSale. Verify that the response data matches the values for the Key Response Elements for that orderId.

TABLE 2-30 MasterPass Test Data

	Supplied Data Elements		Key Response Elements	
orderId	**Element**	**Value**	**Element**	**Value**
MCWalletAuth	<wallet>	(*parent element*)	<response>	000
	<walletSourceType>	MasterPass	<message>	Approved
	<walletSourceTypeId>	102		
MCWalletSale	<wallet>	(*parent element*)	<response>	000
	<walletSourceType>	MasterPass	<message>	Approved
	<walletSourceTypeId>	102		

2.5.18 Testing Apple Pay Transaction Processing

The following Apple Pay tests allow you to verify your submission of valid XML for two Apple Pay scenarios. The first test scenario applies to the case where you decrypt the Apple Pay PKPaymentToken, while the second scenario applies to the Vantiv decryption PKPaymentToken components submitted in a LitleXML transaction.

NOTE: **For information about testing the submission of the PKPaymentToken using the Mobile eProtect, please refer to the *Vantiv eProtect Integration Guide*.**

2.5.18.1 Testing the Submission of the Decrypted PKPaymentToken in LitleXML

To test the submission of an Apple Pay transaction in LitleXML when you decrypt the PKPaymentToken, you must include the information listed in the table below in an Authorization or Sale transaction. Assuming you submit valid XML with appropriate values, the test environment will return an approved response message.

TABLE 2-31 LitleXML Elements for Merchant Decrypted PKPaymentToken

LitleXML Element	Value
number	Use any valid (Mod-10 compliant) card number. You can find test numbers in Chapter 2 of the *Vantiv LitleXML Reference Guide*.
expDate	Use any valid expiration date (i.e., a date in the future).
authenticationValue	Any Base-64 encoded value between 40 and 56 characters in length. This value simulates the cryptogram extracted from the PKPaymentToken.
orderSource	Set to applepay

2.5.18.2 Testing the Submission of PKPaymentToken in LitleXML

When you receive a PKPaymentToken, you muse parse (not decrypt) the component parts and use the data to populate the LitleXML <`applepay`> child elements. This test is designed to allow you to verify your ability to parse the PKPaymentToken data and construct well formed LitleXML. The test uses the data from the example PKPaymentToken shown below (data element names in bold **red** type) to construct an Authorization or Sale transaction (see applepay). The system returns a Response Code of 000 - Approved.

Example: PKPaymentToken

```
{"version":"EC_v1","data":"Ww9EI+10VVpyZrAb3nxu9c8PG4JEnIh4oTkDhZi4axj5QqC5WIir6
TJcFmk/3wkrNL/KaRXz3aan4WRO6cPL+cUTRpQUO9ECqTBItmQbJxGbN42713TyI+y97k3msl7bd5rJO
MIOpkCtfp2ua+3lnBhjGFnUzdCxq+/K6eoIEwYlAEfX9Sdpjm+plVfvSK7vj0BQCcXo1dXGkNUKwKWA4
GYPUE3qwbuiQWcZwLxAEF43274pACV4LBmdv0HYgYpcgCY0+U6/YSVKdpPrhHLDeLOlO7T4WwuimHojs
KA/BknpPY1uJfP+YJxj1fYghaAOAR0tA5cYJftlWLXaV9lZu113Ns1rxColh4PR8wsuw81CdOruvoURG
NaNyX+hG1suQoHeE8ECzKIE6DlHEeVMcdxXySwFPY7hxEY1QKSSXw==","signature":"MIAGCSqGSI
b3DQEHAqCAMIACAQExDzANBglghkgBZQMEAgEFADCABgkqhkiG9w0BBwEAAKCAMIICvzCCAmWgAwIBAg
IIQpCV6UIIb4owCgYIKoZIzj0EAwIwejEuMCwGA1UEAwwlQXBwbGUgQXBwbGljYXRpb24gSW50ZWdyYX
Rpb24gQ0EgLSBHMzEmMCQGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxEzARBgNVBA
oMCkFwcGxlIEluYy4xCzAJBgNVBAYTAlVTMB4XDTE0MDUwODAxMjMzOVoXDTE5MDUwNzAxMjMzOVowXz
ElMCMGA1UEAwwcZWNjLXNtcC1icm9rZXItc2lnbl9VQzQtUFJPRDEUMBIGA1UECwwLaU9TIFN5c3RlbX
MxEzARBgNVBAoMCkFwcGxlIEluYy4xCzAJBgNVBAYTAlVTMFkwEwYHKoZIzj0CAQYIKoZIzj0DAQcDQg
AEwhV37evWx7Ihj2jdcJChIY3HsL1vLCg9hGCV2Ur0pUEbg0IO2BHzQH6DMx8cVMP36zIg1rrV1O/0ko
mJPnwPE6OB7zCB7DBFBggrBgEFBQcBAQQ5MDcwNQYIKwYBBQUHMAGGKWh0dHA6Ly9vY3NwLmFwcGxlLm
NvbS9vY3NwMDQtYXBwbGVhaWNhMzAxMB0GA1UdDgQWBBSUV9tv1XSBhomJdi9+V4UH55tYJDAMBgNVHR
MBAf8EAjAAMB8GA1UdIwQYMBaAFCPyScRPk+TvJ+bE9ihsP6K7/S5LMDQGA1UdHwQtMCswKaAnoCWGI2
h0dHA6Ly9jcmwuYXBwbGUuY29tL2FwcGxlYWljYTMuY3JsMA4GA1UdDwEB/wQEAwIHgDAPBgkqhkiG92
NkBh0EAgUAMAoGCCqGSM49BAMCA0gAMEUCIQCFGdtAk+7wXrBV7jTwzCBLE+OcrVL15hjif0reLJiPGg
IgXGHYYeXwrn02Zwcl5TT1W8rIqK0QuIvOnO1THCbkhVowggLuMIICdaADAgECAghJbS+/OpjalzAKBg
gqhkjOPQQDAjBnMRswGQYDVQQDDBJBcHBsZSBSb290IENBIC0gRzMxJjAkBgNVBAsMHUFwcGxlIENlcn
RpZmljYXRpb24gQXV0aG9yaXR5MRMwEQYDVQQKDApBcHBsZSBJbmMuMQswCQYDVQQGEwJVUzAeFw0xND
A1MDYyMzQ2MzBaFw0yOTA1MDYyMzQ2MzBaMHoxLjAsBgNVBAMMJUFwcGxlIEFwcGxpY2F0aW9uIEludG
VncmF0aW9uIENBIC0gRzMxJjAkBgNVBAsMHUFwcGxlIENlcnRpZmljYXRpb24gQXV0aG9yaXR5MRMwEQ
YDVQQKDApBcHBsZSBJbmMuMQswCQYDVQQGEwJVUzBZMBMGByqGSM49AgEGCCqGSM49AwEHA0IABPAXEY
QZ12SF1RpeJYEHduiAou/ee65N4I38S5PhM1bVZls1riLQl3YNIk57ugj9dhfOiMt2u2ZwvsjoKYT/VE
WjgfcwgfQwRgYIKwYBBQUHAQEEOjA4MDYGCCsGAQUFBzABhipodHRwOi8vb2NzcC5hcHBsZS5jb20vb2
NzcDA0LWFwcGxlcm9vdGNhZzMwHQYDVR0OBBYEFCPyScRPk+TvJ+bE9ihsP6K7/S5LMA8GA1UdEwEB/w
QFMAMBAf8wHwYDVR0jBBgwFoAUu7DeoVgziJqkipnevr3rr9rLJKswNwYDVR0fBDAwLjAsoCqgKIYmaH
R0cDovL2NybC5hcHBsZS5jb20vYXBwbGVyb290Y2FnMy5jcmwwDgYDVR0PAQH/BAQDAgEGMBAGCiqGSI
b3Y2QGAg4EAgUAMAoGCCqGSM49BAMCA2cAMGQCMDrPcoNRFpmxhvs1w1bKYr/0F+3ZD3VNoo6+8ZyBXk
K3ifiY95tZn5jVQQ2PnenC/gIwMi3VRCGwowV3bF3zODuQZ/0XfCwhbZZPxnJpghJvVPh6fRuZy5sJiS
FhBpkPCZIdAAAxggFfMIIBWwIBATCBhjB6MS4wLAYDVQQDDCVBcHBsZSBBcHBsaWNhdGlvbiBJbnRlZ3
JhdGlvbiBDQSAtIEczMSYwJAYDVQQLDB1BcHBsZSBDZXJ0aWZpY2F0aW9uIEF1dGhvcml0eTETMBEGA1
UECgwKQXBwbGUgSW5jLjELMAkGA1UEBhMCVVMCCEKQlelCCG+KMA0GCWCGSAFlAwQCAQUAoGkwGAYJKo
ZIhvcNAQkDMQsGCSqGSIb3DQEHATAcBgkqhkiG9w0BCQUxDxcNMTQxMDAzMjE1NjQzWjAvBgkqhkiG9w
0BCQQxIgQgg8i4X6yRAU7AXS1lamCf02UIQlpUvNPToXUaamsFUT8wCgYIKoZIzj0EAwIERzBFAiBe17
NGTuuk+W901k3Oac4Z90PoMhN1qRqnij9KNEb/XAIhALELZyDWw0fQM8t0pXO86gg9xXFz424rEMlJ01
TM1VxhAAAAAAAA","header":{"applicationData":"496461ea64b50527d2d792df7c38f301300
085dd463e347453ae72debf6f4d14","transactionId":"f9b0d3cfbb64cd155249c691aca3c521
de03725720616b810d90341f97f347b7","ephemeralPublicKey":"MFkwEwYHKoZIzj0CAQYIKoZI
zj0DAQcDQgAEarp8xOhLX9QliUPS9c54i3cqEfrJD37NG75ieNxncOeFLkjCk","publicKeyHash":"
jAMRQqg4nffHrXvfwRfbaEc11bk3QD3rv5K9xLqLgu0="}}
```

2.5.19 Testing Online Duplicate Transaction Processing

When you submit certain Online transactions, the system acts to detect if it is a duplicate by comparing the `id` attribute and the credit card number against other successful Online transactions of the same type processed within the previous two days. The system performs this checking routine for the following transaction types: Capture, Force Capture, Capture Given Auth, Credit, Sales, eCheck Credit, eCheck Sales, eCheckVoid, and Void, as well as Gift Card transactions.

If the system determines a transaction to be a duplicate, The transaction appears in the Declined Transaction report. This report is available in near real-time via Vantiv iQ, and as an Secure

Scheduled Report, which is generated daily for the previous days transactions. Please refer to Online Duplicate Checking on page 8 for additional information.

To test your handling of duplicate transactions:

NOTE: **When you submit the duplicate transaction, make sure that all information, including the `id` attribute, is identical.**

1. Send any of the following Capture transactions more than once within a two day period: Order numbers 1A, 2A, 3A, 4A, or 5A. The second submission will appear in the Declined Transaction report with a response Reason Code of 251 - Duplicate Transaction. Note: You may have to submit the corresponding Authorization transaction prior to submitting the Capture transaction.
2. Send any of the following Credit transactions more than once within a two day period: Order numbers 1B, 2B, 3B, 4B, or 5B. The second submission will appear in the Declined Transaction report with a response Reason Code of 251 - Duplicate Transaction. Note: You may have to submit the corresponding Capture transaction prior to submitting the Credit transaction.
3. Send any of the following Void transactions more than once within a two day period: Order numbers 1C, 2C, 3C, 4C, or 5C. The second submission will appear in the Declined Transaction report with a response Reason Code of 251 - Duplicate Transaction. Note: You may have to submit the corresponding Sale transaction prior to submitting the Void transaction.
4. Send either of the following eCheck Sale transactions more than once within a two day period: Order numbers 42 or 43. The second submission will appear in the Declined Transaction report with a response Reason Code of 251 - Duplicate Transaction.
5. Send any of the following eCheck Credit transactions more than once within a two day period: Order numbers 46, 47, or 48. The second submission will appear in the Declined Transaction report with a response Reason Code of 251 - Duplicate Transaction.

2.5.20 Testing Transaction Volume Capacity

Volume testing is useful if you plan to send large files. This is an optional test you can perform during certification testing. Volume testing enables you to verify how many transactions (the number of requests and responses) you can process within a specific time frame.

Litle & Co. recommends you submit transactions for a 15-minute time interval. Submit the approximate number of transactions that you anticipate to be normal volume for any 15-minute period. You can send in any valid transaction data; the actual data you send will not be verified.

3

LITLEXML TRANSACTION EXAMPLES

This chapter contains information and examples concerning the structure of LitleXML transaction messages. Where differences exist between the structure of Batch and Online transactions, the sections present examples of both structures.

NOTE: **In the LitleXML, the order of the elements is enforced. Failure to adhere to the element order as defined in the schema will result in XML validation errors.**

This chapter discusses the following topics:

- Overview of Online and Batch Processing Formats
- Transaction Types and Examples

NOTE: **This chapter does not include examples of the PayFac Instruction-Based Dynamic Payout transaction types. For additional information about these transactions, please refer to Appendix D, "PayFac™ Dynamic Payout".**

3.1 Overview of Online and Batch Processing Formats

There are two methods of submitting payment transactions using the LitleXML format: Online (one transaction at a time), or Batch. This section provides a high level overview of the request and response structures used for each submission type.

3.1.1 Batch Process Format

Each Batch transmission you send to us is considered to be a single request. You can think of the entire Batch request as a session composed of one or more individual batches, each containing one or more transactions. You can also use a Batch as a request for retrieval of the response for a previously processed session. Each request results in a response transmission sent from us to you.

Batch processing supports the following transaction types;

- Activate Transactions
- Authorization Transactions
- Authorization Reversal
- Balance Inquiry Transactions
- Cancel Subscription Transactions
- Capture Transactions
- Capture Given Auth Transactions
- Create Plan Transactions
- Credit Transactions
- Deactivate Transactions
- Force Capture Transactions
- Load Transactions
- eCheck Sale Transactions
- eCheck Credit Transactions
- eCheck Redeposit Transactions
- eCheck Verification Transactions
- RFR Batch Transactions (Batch Only)
- Sale Transactions
- Unload Transactions
- Update Card Validation Number Transactions
- Update Plan Transactions

- Update Subscription Transactions

NOTE: **This chapter does not include examples of the PayFac Instruction-Based Dynamic Payout transaction types. For additional information about these transactions, please refer to the *PayFac Instruction-Based Dynamic Payout* document.**

For more information about Batch processing, see Batch Transaction Processing on page 5.

3.1.1.1 Supported Communication Protocols

We supports the following communication protocols for Batch processing:

- Encrypted FTP (PGP or GPG key encryption)
- sFTP

For additional information concerning the recommended transmission methods, see Transferring Session Files on page 77.

3.1.1.2 Batch Processing Request Format

The Batch processing request is made up of the following elements:

- Header information - one <`litleRequest`> element
- Merchant authentication information - one <`authentication`> element
- Batch information - one or more <`batchRequest`> elements
- Payment transactions (for example, an Authorization, Capture, Credit, etc.) - at least one per <`batchRequest`> element

NOTE: **Each of the `num` and `amount` attributes used in a batchRequest defaults to 0 (zero) if not specified in the request. In any of the `amount` fields (`authAmount`, `captureAmount`, etc.), the value is an implied decimal (for example 500=5.00).**

3.1.1.3 Batch Processing Response Format

The Batch processing response is composed of the following elements:

- Header information - one <`litleResponse`> element
- One or more <`batchResponse`> elements - contains payment transactions response.
- At least one payment transaction response (for example, an Authorization response, Capture response, Credit response, etc.).

NOTE: **For information on the XML Validation response and message attributes, please refer to XML Validation Error Messages on page 770.**

3.2 Online Processing Format

Each Online request you send to us is a single transaction. We process Online transactions upon receipt and return a response file.

Online processing supports the following transaction types:

- Activate Transactions
- Activate Reversal Transactions (Online Only)
- Authorization Transactions
- Authorization Reversal
- Balance Inquiry Transactions
- Cancel Subscription Transactions
- Capture Transactions
- Capture Given Auth Transactions
- Create Plan Transactions
- Credit Transactions
- Deactivate Transactions
- Deactivate Reversal Transactions (Online Only)
- Deposit Reversal Transactions (Online Only)
- Force Capture Transactions
- Load Transactions
- Load Reversal Transactions (Online Only)
- eCheck Sale Transactions
- eCheck Credit Transactions
- eCheck Redeposit Transactions
- eCheck Verification Transactions
- eCheck Void Transactions (Online Only)
- Refund Reversal Transactions (Online Only)
- Sale Transactions
- Unload Transactions
- Unload Reversal Transactions (Online Only)
- Update Card Validation Number Transactions
- Update Plan Transactions
- Update Subscription Transactions

- Void Transactions (Online Only)

3.2.1 Supported Communication Protocols

Litle & Co. supports the HTTPS POST communication protocol for Online processing.

For additional information concerning the recommended transmissions methods, see Transferring Online Files on page 78.

3.2.2 Online Processing Request Format

The Online processing request is made up of the following elements:

- Header information - one <`litleOnlineRequest`> element
- Merchant authentication information - one <`authentication`> element
- Payment transaction - one payment transaction

3.2.3 Online Processing Response Format

An Online processing response is composed of the following elements:

- Header information - one <`litleOnlineResponse`>
- Payment transaction - one payment transaction

NOTE: **For information on the XML Validation response and message attributes, please refer to XML Validation Error Messages on page 770.**

3.3 Transaction Types and Examples

This section presents structural information of each transaction type for both Online and Batch submission methods. The structural information is followed by one or more examples of the LitleXML transaction. Each structural example shows the parent and all child elements, but does not show grandchildren. The LitleXML examples do show child elements to multiple levels.

The element names in the structural examples provide links to the element definitions in Chapter 4.

NOTE: **The XML examples in this section are intended to present typical LitleXML transactions. The examples may not include every possible element for a particular transaction type. When coding your XML, always consult the LitleXML schema files for information concerning all available elements.**

This section contains examples of the following transaction types:

NOTE: **In the LitleXML, the order of the elements is enforced. Failure to adhere to the element order as defined in the schema will result in XML validation errors.**

- Authorization Transactions
- Authorization Reversal Transactions
- Activate Transactions (Private Label Gift Card transaction)
- Activate Reversal Transactions (Online Only) (Private Label Gift Card transaction)
- Balance Inquiry Transactions (Private Label Gift Card transaction)
- Cancel Subscription Transactions (Recurring Engine transaction)
- Capture Transactions
- Capture Given Auth Transactions
- Create Plan Transactions (Recurring Engine transaction)
- Credit Transactions
- Deactivate Transactions (Private Label Gift Card transaction)
- Deactivate Reversal Transactions (Online Only) (Private Label Gift Card transaction)
- Deposit Reversal Transactions (Online Only) (Private Label Gift Card transaction)
- eCheck Credit Transactions
- eCheck Prenotification Credit Transactions (Batch Only)
- eCheck Prenotification Sale Transactions (Batch Only)

- eCheck Redeposit Transactions
- eCheck Sale Transactions
- eCheck Verification Transactions
- eCheck Void Transactions (Online Only)
- Force Capture Transactions
- Load Transactions (Private Label Gift Card transaction)
- Load Reversal Transactions (Online Only) (Private Label Gift Card transaction)
- Status Query Transactions (Online Only)
- Refund Reversal Transactions (Online Only) (Private Label Gift Card transaction)
- Register Token Transactions
- RFR Transactions (Batch Only)
- Sale Transactions
- Unload Transactions (Private Label Gift Card transaction)
- Unload Reversal Transactions (Online Only) (Private Label Gift Card transaction)
- Update Plan Transactions (Recurring Engine transaction)
- Update Subscription Transactions (Recurring Engine transaction)
- Update Card Validation Number Transactions
- Void Transactions (Online Only)

3.3.1 Authorization Transactions

The Authorization transaction enables you to confirm that a customer has submitted a valid payment method with their order and has sufficient funds to purchase the goods or services they ordered.

The lifespan of an authorization varies according to the payment type being used, as shown in Table 3-1. During the lifespan, you can use a valid authorization multiple times as needed.

NOTE: To submit an AVS Only request, submit an Authorization request with the `<amount>` element set to 000. The response is identical to an Authorization response message.

TABLE 3-1 Lifespan of a Payment Authorization

Payment Type	Lifespan of Authorization
American Express	7 days
PayPal Credit	30 days by default; for more information about PayPal Credit authorizations, see the *Vantiv PayPal Integration Guide*.
Discover	10 days
MasterCard	7 days
PayPal	29 days total; Vantiv recommends three days. For more information about PayPal authorizations, see the *Vantiv PayPal Integration Guide*.
Visa	7 days

This section describes the format you must use for an Authorization request, as well as the format of the Authorization Response you receive from us.

3.3.1.1 Authorization Request Structure

You must structure an Authorization request as shown in the following examples. The structure of an Authorization request is identical for either an Online or a Batch submission.

```
<authorization id="Authorization Id" reportGroup="iQ Report Group"
customerId="Customer Id">

  <orderId>Order Id</orderId>

  <amount>Authorization Amount</amount>

  <secondaryAmount>Secondary Amount</secondaryAmount>

  <orderSource>Order Entry Source</orderSource>
```

```
    <customerInfo>
    <billToAddress>
    <shipToAddress>
    [ <card> | <paypal> | <paypage> | <token> | <mpos> | <applepay>]
    <billMeLaterRequest>
    <cardholderAuthentication>
    <processingInstructions>
    <pos>
    <customBilling>
    <taxType>payment or fee</taxType>
    <enhancedData>
    <amexAggregatorData>
    <allowPartialAuth>
    <healthcareIIAS>
    <filtering>
    <merchantData>
    <recyclingRequest> (for Recycling Engine merchants)
    <fraudFilterOverride>
    <recurringRequest> (for Recurring Engine merchants)
    <debtRepayment>true or false</debtRepayment>
    <advancedFraudChecks>
    <wallet>
    <processingType>accountFunding</processingType>
  </authorization>
```

Example: Batch Authorization Request - Card Not Present

The example below shows a batch request with a single card-not-present Authorization request. If the batch included additional Authorization requests, each would have it's own `<authorization>` element with all applicable attributes and child elements. Also, the `numAuths` attribute of the `<batchRequest>` element would increment for each additional `<authorization>` element and the `authAmount` attribute would increase by the new amounts from each authorization.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema"
 numBatchRequests = "1">
 <authentication>
   <user>userName</user>
   <password>password</password>
```

```
    </authentication>
    <batchRequest numAuths="1" authAmount="2500" merchantId="000902">
      <authorization id="test1" reportGroup="core" customerId="test1">
        <orderId>visa_test1</orderId>
        <amount>2500</amount>
        <orderSource>telephone</orderSource>
        <billToAddress>
          <name>John Doe</name>
          <addressLine1>15 Main Street</addressLine1>
          <city>San Jose</city>
          <state>CA</state>
          <zip>95032-1234</zip>
          <country>USA</country>
          <phone>9782750000</phone>
          <email>jdoe@litle.com</email>
        </billToAddress>
        <shipToAddress>
          <name>Jane Doe</name>
          <addressLine1>15 Main Street</addressLine1>
          <city>San Jose</city>
          <state>CA</state>
          <zip>95032-1234</zip>
          <country>USA</country>
          <phone>9782750000</phone>
          <email>jdoe@litle.com</email>
        </shipToAddress>
        <card>
          <type>VI</type>
          <number>4005550000081019</number>
          <expDate>1110</expDate>
        </card>
        <customBilling>
          <phone>8009990001</phone>
          <descriptor>bdi*001</descriptor>
        </customBilling>
        <allowPartialAuth>true</allowPartialAuth>
      </authorization>
    </batchRequest>
  </litleRequest>
```

Example: Batch Authorization Request - Card Present

The following example contains two Authorization requests, each defined in its own `<authorization>` element. The first is a card present transaction, which uses the `<track>` child of the `<card>` element.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numAuths="2" authAmount="68336"
  merchantId="100">
    <authorization id="AX54321678" reportGroup="RG27">
      <orderId>12z58743y1</orderId>
      <amount>12522</amount>
      <orderSource>retail</orderSource>
      <billToAddress>
        <zip>95032</zip>
      </billToAddress>
      <card>
      <track>%B40000001^Doe/JohnP^06041...?;40001=0604101064200?</track>
      </card>
      <pos>
        <capability>magstripe</capability>
        <entryMode>completeread</entryMode>
        <cardholderId>signature</cardholderId>
      </pos>
    </authorization>
    <authorization id="AX54325432" reportGroup="RG12">
      <orderId>12z58743y7</orderId>
      <amount>55814</amount>
      <orderSource>retail</orderSource>
      <billToAddress>
        <zip>01854</zip>
      </billToAddress>
      <card>
        <type>VI</type>
        <number>4005550000081019</number>
        <expDate>0911</expDate>
      </card>
      <pos>
        <capability>keyedonly</capability>
        <entryMode>keyed</entryMode>
        <cardholderId>directmarket</cardholderId>
      </pos>
      <allowPartialAuth>true</allowPartialAuth>
    </authorization>
  </batchRequest>
</litleRequest>
```

Example: Online Authorization Request

NOTE: **The example below uses `3dsAuthenticated` as the `<orderSource>` value. If you submit the wrong `<orderSource>` value, we return the response code 370 - Internal System Error - Contact Litle.**

Also, the values for the `<authenticationValue>` and `<authenticationTransactionId>` elements in the example below have been truncated.

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <authorization id="834262" reportGroup="ABC Division" customerId="038945">
    <orderId>65347567</orderId>
    <amount>40000</amount>
    <orderSource>3dsAuthenticated</orderSource>
    <billToAddress>
      <name>John Smith</name>
      <addressLine1>100 Main St</addressLine1>
      <city>Boston</city>
      <state>MA</state>
      <zip>12345</zip>
      <email>jsmith@someaddress.com</email>
      <phone>555-123-4567</phone>
    </billToAddress>
    <card>
      <type>VI</type>
      <number>4000000000000001</number>
      <expDate>1209</expDate>
      <cardValidationNum>555</cardValidationNum>
    </card>
    <cardholderAuthentication>
      <authenticationValue>BwABBJQ1gJDUCAAAAAAA=</authenticationValue>
      <authenticationTransactionId>gMV75TmjAgk=</authenticationTransactionId>
    </cardholderAuthentication>
  </authorization>
</litleOnlineRequest>
```

Example: Authorization Request using token Element

The example below uses the following token related elements (click name to jump to element definition): token and litleToken.

NOTE: **When you submit the CVV2/CVC2/CID in a registerTokenRequest, the platform encrypts and stores the value on a temporary basis for later use in a tokenized Auth/Sale transaction submitted without the value. To use the store value when submitting an Auth/Sale transaction, set the cardValidationNum value to 000.**

```
<authorization id="99999" customerId="444" reportGroup="RG1">
  <orderId>F12345</orderId>
  <amount>15000</amount>
  <orderSource>telephone</orderSource>
  <billToAddress>
    <name>John Doe</name>
    <addressLine1>15 Main Street</addressLine1>
    <city>San Jose</city>
    <state>CA</state>
    <zip>95032-1234</zip>
    <country>USA</country>
    <phone>9782750000</phone>
    <email>jdoe@litle.com</email>
  </billToAddress>
  <shipToAddress>
    <name>Jane Doe</name>
    <addressLine1>15 Main Street</addressLine1>
    <city>San Jose</city>
    <state>CA</state>
    <zip>95032-1234</zip>
    <country>USA</country>
    <phone>9782750000</phone>
    <email>jdoe@litle.com</email>
  </shipToAddress>
  <token>
    <litleToken>1111000101039449</litleToken>
    <expDate>1112</expDate>
    <cardValidationNum>987</cardValidationNum>
  </token>
 </authorization>
```

Example: Authorization Request with Recurring Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <authorization id="834262" reportGroup="ABC Division" customerId="038945">
    <orderId>65347567</orderId>
    <amount>40000</amount>
    <orderSource>3dsAuthenticated</orderSource>
    <billToAddress>
      <name>John Smith</name>
      <addressLine1>100 Main St</addressLine1>
      <city>Boston</city>
      <state>MA</state>
      <zip>12345</zip>
      <email>jsmith@someaddress.com</email>
      <phone>555-123-4567</phone>
    </billToAddress>
    <card>
      <type>VI</type>
      <number>4000000000000001</number>
      <expDate>1209</expDate>
      <cardValidationNum>555</cardValidationNum>
    </card>
    <cardholderAuthentication>
      <authenticationValue>BwABBJQ1gJDUCAAAAAAA=</authenticationValue>
      <authenticationTransactionId>gMV75TmjAgk=</authenticationTransactionId>
    </cardholderAuthentication>
    <recurringRequest>
      <subscription>
        <planCode>Gold_Monthly_1</planCode>
        <numberOfPayments>12</numberOfRemianingPayments>
        <startDate>2013-07-21</startDate>
        <amount>1500</amount>
        <createDiscount>
          <discountCode>New_Customer_Discount_1</addOnCode>
          <name>New_Customer</name>
          <amount>750</amount>
          <startDate>2013-07-21</startDate>
          <endDate>2013-07-22</endDate>
        </createDiscount>
        <createAddOn>
          <addOnCode>Extra_Feature_1</addOnCode>
          <name>Extra_1</name>
          <amount>900</amount>
          <startDate>2013-08-21</startDate>
          <endDate>2014-07-21</endDate>
        </createAddOn>
      </subscription>
    </recurringRequest>
  </authorization>
</litleOnlineRequest>
```

3.3.1.2 Authorization Response Structure

An Authorization response has the following structure. The response message is identical for Online and Batch transactions except Online includes the `<postDate>` element.

```
<authorizationResponse id="Authorization Id" reportGroup="iQ Report
Group" customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <orderId>Order Id</orderId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date transaction posted</postDate> (Online Only)
  <message>Response Message</message>
  <authCode>Approval Code</authCode>
  <approvedAmount>Approved amount for partial Auth<approvedAmount>
  <accountInformation>
  <accountUpdater>
  <fraudResult>
```

```
    <billMeLaterResponseData>
    <tokenResponse> (for Tokenized merchants submitting card data)
    <enhancedAuthResponse>
    <recycling> (included for declined Auths if feature is enabled)
    <recurringResponse> (for Recurring Engine merchants)
    <giftCardResponse> (included if Gift Card is Method of Payment)
    <applepayResponse>
    <cardSuffix>Card Last 4</cardSuffix> (included for ApplePay using VI or MC)
  </authorizationResponse>
```

Example: Batch Authorization Response

The example below shows a batch Authorization response that contains two transactions.

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema" id="123"
 response="0" message="Valid Format" litleSessionId="987654321">
 <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
  <authorizationResponse id="AX54321678" reportGroup="RG27">
   <litleTxnId>84568456</litleTxnId>
   <orderId>12z58743y1</orderId>
   <response>000</response>
   <responseTime>2011-03-01T10:24:31</responseTime>
   <message>Approved</message>
   <authCode>123456</authCode>
   <fraudResult>
    <avsResult>00</avsResult>
   </fraudResult>
  </authorizationResponse>
  <authorizationResponse id="AX54325432" reportGroup="RG12">
   <litleTxnId>84568457</litleTxnId>
   <orderId>12z58743y7</orderId>
   <response>000</response>
   <responseTime>2011-03-01T10:24:31</responseTime>
   <message>Approved</message>
   <authCode>123456</authCode>
   <fraudResult>
    <avsResult>00</avsResult>
    <authenticationResult>2</authenticationResult>
   </fraudResult>
   <enhancedAuthResponse>
    <fundingSource>
     <type>PREPAID</type>
```

```
        <availableBalance>5000</availableBalance>
        <reloadable>NO</reloadable>
        <prepaidCardType>GIFT</prepaidCardType>
      </fundingSource>
    </enhancedAuthResponse>
  </authorizationResponse>
 </batchResponse>
</litleResponse>
```

Example: Online Authorization Response including Advanced Fraud Results

NOTE: **The online response format contains a <postDate> element, which indicates the date the financial transaction will post.**

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
 response="0" message="Valid Format">
 <authorizationResponse id="834262" reportGroup="ABC Division">
  <litleTxnId>969506</litleTxnId>
  <orderId>65347567</orderId>
  <response>000</response>
  <responseTime>2011-07-25T15:13:43</responseTime>
  <postDate>2011-07-25</postDate>
  <message>Approved</message>
  <authCode>123457</authCode>
  <fraudResult>
   <avsResult>00</avsResult>
   <cardValidationResult>N</cardValidationResult>
   <authenticationResult>2</authenticationResult>
   <advancedFraudResults>
    <deviceReviewStatus>pass</deviceReviewStatus>
    <deviceReputationScore>70</deviceReputationScore>
    <triggeredRule>FlashImagesCookiesDisabled</triggeredRule>
   </advancedFraudResults>
  </fraudResult>
   <enhancedAuthResponse>
    <fundingSource>
     <type>PREPAID</type>
     <availableBalance>0</availableBalance>
     <reloadable>YES</reloadable>
     <prepaidCardType>TEEN</prepaidCardType>
    </fundingSource>
   </enhancedAuthResponse>
  </authorizationResponse>
</litleOnlineResponse>
```

Example: Authorization Response for Tokenized Merchant Sending Card Data

If a tokenized merchant submits card data in the Authorization request, the response includes the `tokenResponse` element. The example below is a response for an Online request (`litleOnlineresponse` element not shown); therefore, it includes the `postDate` element.

```
<authorizationResponse id="99999" reportGroup="RG1" customerId="444">
  <litleTxnId>21200000001108</litleTxnId>
  <orderId>F12345</orderId>
  <response>000</response>
  <responseTime>2011-10-08T21:38:32</responseTime>
  <postDate>2011-10-08</postDate>
  <message>Approved</message>
  <authCode>270005</authCode>
  <fraudResult>
    <avsResult>11</avsResult>
    <cardValidationResult>P</cardValidationResult>
  </fraudResult>
  <tokenResponse>
    <litleToken>1111100100240005</litleToken>
    <tokenResponseCode>801</tokenResponseCode>
    <tokenMessage>Account number was successfully registered</tokenMessage>
    <type>VI</type>
    <bin>402410</bin>
  </tokenResponse>
</authorizationResponse>
```

Example: Online Authorization Response with Account Updater Token Info

In this example. the <`accountUpdater`> contains both original and new card information as well as the <`extendedCardResponse`> element. This signifies that the card number changed from the original to the new and (from the extended response code) that the issuer reported the new account as closed. Although the Authorization was approved, this information allows you to make an informed decision about how to proceed with the sale.

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <authorizationResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>969506</litleTxnId>
    <orderId>65347567</orderId>
    <response>000</response>
    <responseTime>2011-07-25T15:13:43</responseTime>
    <postDate>2011-07-25</postDate>
    <message>Approved</message>
    <authCode>123457</authCode>
    <accountUpdater>
      <originalCardTokenInfo>
        <litleToken>1111100100240005</litleToken>
        <type>VI</type>
        <expDate>1112</expDate>
        <bin>400555</bin>
      </originalCardTokenInfo>
      <newCardTokenInfo>
        <litleToken>1111100100250017</litleToken>
        <type>VI</type>
        <expDate>1114</expDate>
        <bin>400555</bin>
      </newCardTokenInfo>
      <extendedCardResponse>
        <code>501</code>
        <message>The account was closed</message>
      </extendedCardResponse>
    </accountUpdater>
    <fraudResult>
      <avsResult>00</avsResult>
      <cardValidationResult>N</cardValidationResult>
      <authenticationResult>2</authenticationResult>
    </fraudResult>
  </authorizationResponse>
</litleOnlineResponse>
```

Example: Online Authorization Response with Recurring Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <authorizationResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>969506</litleTxnId>
    <orderId>65347567</orderId>
    <response>000</response>
    <responseTime>2013-07-25T15:13:43</responseTime>
    <postDate>2013-07-25</postDate>
    <message>Approved</message>
    <authCode>123457</authCode>
    <fraudResult>
```

```
        <avsResult>00</avsResult>
        <cardValidationResult>N</cardValidationResult>
        <authenticationResult>2</authenticationResult>
      </fraudResult>
      <recurringResponse>
        <subscriptionId>1234567890</subscriptionId>
        <responseCode>000</responseCode>
        <responseMessage>Approved</responseMessage>
      </recurringResponse>
    </authorizationResponse>
  </litleOnlineResponse>
```

3.3.2 Authorization Reversal Transactions

The Authorization Reversal transaction enables you to remove the hold on any funds being held by an Authorization. The original Authorization transaction must have been processed within the system. For information on how to use the Authorization Reversal transaction, see Notes on the Use of Authorization Reversal Transactions on page 59. Also, if you use our Recycling Engine, you can use the `authReversal` transaction to halt the recycling of an `authorization` transaction.

3.3.2.1 Authorization Reversal Requests

You must structure an Authorization Reversal request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
<authReversal id="Authorization Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <amount>Authorization Amount to Reverse</amount>
  <actionReason>SUSPECT_FRAUD</actionReason>
</authReversal>
```

Example: Batch Authorization Reversal Request

The following example contains three Authorization Reversal Requests.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema"
  numBatchRequests="1">
   <authentication>
     <user>userName</user>
     <password>password</password>
```

```
    </authentication>
    <batchRequest numAuthReversals="3" authReversalAmount="3005"
   merchantId="000057">
      <authReversal id="ID" customerId="customerId" reportGroup="000057">
        <litleTxnId>12345678</litleTxnId>
        <amount>1002</amount>
      </authReversal>
      <authReversal id="ID" customerId="customerId" reportGroup="000057">
        <litleTxnId>81234567</litleTxnId>
        <amount>1003</amount>
      </authReversal>
      <authReversal id="ID" customerId="customerId" reportGroup="000057">
        <litleTxnId>78123456</litleTxnId>
        <amount>1000</amount>
      </authReversal>
    </batchRequest>
  </litleRequest>
```

Example: Online Authorization Reversal Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <authReversal id="12345" customerId="Customer Id" reportGroup="Auth
  Reversals">
    <litleTxnId>12345678</litleTxnId>
    <amount>2999</amount>
  </authReversal>
</litleOnlineRequest>
```

3.3.2.2 Authorization Reversal Responses

The basic structure of an Authorization Reversal response is identical for Batch and Online responses.

```
<authReversalResponse id="Authorization Id" reportGroup="iQ Report
Group" customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
```

```
    <responseTime>Date and Time in GMT</responseTime>
    <message>Response Message</message>
  </authReversalResponse>
```

Example: Batch Authorization Reversal Response

The following example shows a Batch Response containing three Authorization Reversal responses.

```
<litleResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="ValidFormat" litleSessionId="21500040809">
  <batchResponse litleBatchId="21500040908" merchantId="000902">
    <authReversalResponse id="ID" reportGroup="core" customerId="Rev1">
      <litleTxnId>21200000002700</litleTxnId>
      <response>000</response>
      <responseTime>2011-10-14T13:15:43</responseTime>
      <message>Approved</message>
    </authReversalResponse>
    <authReversalResponse id="ID" reportGroup="core" customerId="viRev2">
      <litleTxnId>21200000002809</litleTxnId>
      <response>001</response>
      <responseTime>2011-10-14T13:15:43</responseTime>
      <message>Transaction received</message>
    </authReversalResponse>
    <authReversalResponse id="ID" reportGroup="core" customerId="mcRev3">
      <litleTxnId>21200000002908</litleTxnId>
      <response>001</response>
      <responseTime>2011-10-14T13:15:43</responseTime>
      <message>Transaction received</message>
    </authReversalResponse>
  </batchResponse>
</litleResponse>
```

Example: Online Authorization Reversal Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <authReversalResponse id="12345" customerId="Customer Id"
  reportGroup="Auth Reversals">
    <litleTxnId>12345678</litleTxnId>
    <response>001</response>
    <responseTime>2011-08-30T13:15:43</responseTime>
    <message>Transaction received</message>
  </authReversalResponse>
```

```
</litleOnlineResponse>
```

3.3.3 Activate Transactions

The Activate transaction changes the status of a (Closed Loop) Gift Card from inactive to active with a value as specified by the `amount` element. You can also use this transaction type to create a Virtual Gift Card.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.3.1 Activate Request

You must structure an Activate request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
<activate id="Activate Id" reportGroup="iQ Report Group" customerId="Customer
Id">
  <orderId>Order Id</orderId>
  <amount>Activation Amount</amount>
  <orderSource>Order Entry Source</orderSource>
  [ <card> | <virtualGiftCard> ]
</activate>
```

Example: Activate Request - Gift Card

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <activate id="834262" reportGroup="ABC Division" customerId="038945">
    <orderId>65347567</orderId>
    <amount>40000</amount>
    <orderSource>ecommerce</orderSource>
    <card>
      <type>GC</type>
      <number>9000000000000001</number>
    </card>
  </activate>
</litleOnlineRequest>
```

Example: Activate Request - Virtual Gift Card

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <activate id="834262" reportGroup="ABC Division" customerId="038945">
    <orderId>65347567</orderId>
    <amount>40000</amount>
    <orderSource>ecommerce</orderSource>
    <virtualGiftCard>
      <accountNumberLength>16</accountNumberLength>
      <giftCardBin>900000</giftCardBin>
    </virtualGiftCard>
  </activate>
</litleOnlineRequest>
```

3.3.3.2 Activate Response

An Activate response has the following structure. The response message is identical for Online and Batch transactions except Online includes the `<postDate>` element.

```
<activateResponse id="Activate Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date transaction posted</postDate> (Online Only)
  <message>Response Message</message>
  <fraudResult>
  <giftCardResponse>
  <virtualGiftCardResponse>
</activateResponse>
```

Example: Activate Response - Gift Card

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <activateResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-25T15:13:43</responseTime>
    <postDate>2015-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>5000</availableBalance>
    </giftCardResponse>
  </activateResponse>
</litleOnlineResponse>
```

Example: Activate Response - Virtual Gift Card

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <activateResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2013-07-25T15:13:43</responseTime>
    <postDate>2013-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>5000</availableBalance>
    </giftCardResponse>
    <virtualGiftCardResponse>
      <accountNumber>9000000000000001</accountNumber>
      <cardValidationNum>978</cardValidationNum>
    </virtualGiftCardResponse>
  </activateResponse>
</litleOnlineResponse>
```

3.3.4 Activate Reversal Transactions (Online Only)

The Activate Reversal transaction changes the status of a newly activated Gift Card from active to inactive, thus reversing the operation of an Active transaction. The Activate Reversal references the associated Activate transaction by means of the `litleTxnId` element returned in the Activate response. This transaction type is available only for Online transactions.

NOTE: You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.

3.3.4.1 Activate Reversal Request

You must structure an Activate Reversal request as shown in the following examples.

```
<activateReversal id="Activate Reversal Id" reportGroup="iQ Report Group"
customerId="Customer Id">

  <litleTxnId>Transaction Id from Activate Response</litleTxnId>

</activateReversal>
```

Example: Activate Reversal Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <activateReversal id="12345" customerId="Customer Id"
  reportGroup="Activate Reversals">
    <litleTxnId>12345678</litleTxnId>
  </activateReversal>
</litleOnlineRequest>
```

3.3.4.2 Activate Reversal Response

An Activate Reversal response has the following structure.

```
<activateReversalResponse id="Activate Reversal Id" reportGroup="iQ
Report Group" customerId="Customer Id">

  <litleTxnId>Transaction Id</litleTxnId>

  <response>Response Code</response>
```

```
        <responseTime>Date and Time in GMT</responseTime>
        <postDate>Date transaction posted</postDate> (Online Only)
        <message>Response Message</message>
        <giftCardResponse>
      </activateReversalResponse>
```

Example: Activate Reversal Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <activateReversalResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-25T15:13:43</responseTime>
    <postDate>2015-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>0</availableBalance>
    </giftCardResponse>
  </activateReversalResponse>
</litleOnlineResponse>
```

3.3.5 Balance Inquiry Transactions

A Balance Inquiry transaction returns the available balance of a Gift Card.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.5.1 Balance Inquiry Request

You must structure an Balance Inquiry request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
<balanceInquiry id="Balance Inquiry Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <orderId>Order Id</orderId>
  <orderSource>Order Entry Source</orderSource>
  <card>
```

```
    </balanceInquiry>
```

Example: Balance Inquiry Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <balanceInquiry id="834262" reportGroup="ABC Division"
  customerId="038945">
    <orderId>65347567</orderId>
    <orderSource>ecommerce</orderSource>
    <card>
      <type>GC</type>
      <number>9000000000000001</number>
    </card>
  </balanceInquiry>
</litleOnlineRequest>
```

3.3.5.2 Balance Inquiry Response

An Balance Inquiry response has the following structure. The response message is identical for Online and Batch transactions except Online includes the `<postDate>` element.

```
    <balanceInquiryResponse id="Balance Inquiry Id" reportGroup="iQ
    Report Group" customerId="Customer Id">
      <litleTxnId>Transaction Id</litleTxnId>
      <orderId>Order Id</orderId>
      <response>Response Code</response>
      <responseTime>Date and Time in GMT</responseTime>
      <postDate>Date transaction posted</postDate> (Online Only)
      <message>Response Message</message>
      <fraudResult>
      <giftCardResponse>
    </balanceInquiryResponse>
```

Example: Balance Inquiry Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <balanceInquiryResponse id="834262" reportGroup="ABC Division">
```

```
    <litleTxnId>9695064321</litleTxnId>
    <orderId>65347567</orderId>
    <response>000</response>
    <responseTime>2013-07-25T15:13:43</responseTime>
    <postDate>2013-07-25</postDate>
    <message>Approved</message>
    <fraudResult>
      <cardValidationResult>N</cardValidationResult>
    </fraudResult>
    <giftCardResponse>
      <availableBalance>2000</availableBalance>
    </giftCardResponse>
  </activateReversalResponse>
</litleOnlineResponse>
```

3.3.6 Cancel Subscription Transactions

The Cancel Subscription transaction cancels the specified subscription, removing the transaction stream managed by the Recurring Engine.

3.3.6.1 Cancel Subscription Request

You must structure an Cancel Subscription request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
<cancelSubscription>
  <subscriptionId>ID of Subscription to Cancel</subscriptionId>
</cancelSubscription>
```

Example: Cancel Subscription Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <cancelSubscription>
    <subscriptionId>1234</subscriptionId>
  </cancelSubscription>
</litleOnlineRequest>
```

3.3.6.2 Cancel Subscription Response

A Cancel Subscription response has the following structure. The response message is identical for Online and Batch transactions except Online includes the `<postDate>` element.

```
<cancelSubscriptionResponse>
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <message>Response Message</message>
  <responseTime>Date and Time in GMT</responseTime>
  <subscriptionId>ID of Subscription Canceled</subscriptionId>
</cancelSubscriptionResponse>
```

Example: Cancel Subscription Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <cancelSubscriptionResponse>
    <litleTxnId>1100030055</litleTxnId>
    <response>001</response>
    <message>Transaction received</message>
    <responseTime>2015-07-11T14:48:46</responseTime>
    <subscriptionId>123457</subscriptionId>
  </cancelSubscriptionResponse>
</litleOnlineResponse>
```

3.3.7 Capture Transactions

The Capture transaction transfers funds from the customer to the merchant. The Capture references the associated Authorization by means of the `litleTxnId` element returned in the Authorization response.

You send a Capture after the order has been fulfilled. In some cases, it is not possible to fulfill a customer's entire order in one shipment (for example, if some items are backordered, or some shipped from an off-site DCS). In this situation, you can send a Partial Capture transaction by setting the `partial` attribute to **true**. A Partial Capture contains only the data relevant to the items that were actually shipped, enabling you to settle the funds related to those items.

3.3.7.1 Capture Request

You must structure a Capture request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
<capture id="Capture Id" reportGroup="iQ Report Group" customerId="Customer Id"
partial="false">
  <litleTxnId>Transaction Id</litleTxnId>
  <amount>Authorization Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <enhancedData>
  <processingInstructions>
  <payPalOrderComplete>Set to true for final Capture</payPalOrderComplete>
</capture>
```

Example: Batch Capture Request - Full Capture

The following Capture example is for a full capture. Although the `<capture>` element includes an `<amount>` child, it is not required for a full Capture. If you omit the `<amount>` child element, the capture amount defaults to the full amount from the associated Authorization.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
 numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numAuths="0" authAmount="0" numCaptures="1"
 captureAmount="55814" numCredits="0" creditAmount="0" numSales="0"
 saleAmount="0" merchantId="100">
    <capture id="AX54325432" reportGroup="RG12" partial="false">
      <litleTxnId>84568457</litleTxnId>
      <amount>55814</amount>
      <enhancedData>
        <customerReference>PO12346</customerReference>
        <salesTax>1500</salesTax>
        <taxExempt>false</taxExempt>
        <discountAmount>0</discountAmount>
        <shippingAmount>3714</shippingAmount>
        <dutyAmount>0</dutyAmount>
        <shipFromPostalCode>01851</shipFromPostalCode>
        <destinationPostalCode>01851</destinationPostalCode>
        <destinationCountryCode>USA</destinationCountryCode>
        <invoiceReferenceNumber>123456</invoiceReferenceNumber>
        <orderDate>2011-09-14</orderDate>
        <detailTax>
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>500</taxAmount>
```

```
                <taxRate>0.01667</taxRate>
                <taxTypeIdentifier>00</taxTypeIdentifier>
                <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
              </detailTax>
              <lineItemData>
                <itemSequenceNumber>1</itemSequenceNumber>
                <itemDescription>table</itemDescription>
                <productCode>TB123</productCode>
                <quantity>1</quantity>
                <unitOfMeasure>EACH</unitOfMeasure>
                <taxAmount>1500</taxAmount>
                <lineItemTotal>30000</lineItemTotal>
                <lineItemTotalWithTax>31500</lineItemTotalWithTax>
                <itemDiscountAmount>0</itemDiscountAmount>
                <commodityCode>301</commodityCode>
                <unitCost>300.00</unitCost>
                <detailTax>
                  <taxIncludedInTotal>true</taxIncludedInTotal>
                  <taxAmount>500</taxAmount>
                  <taxRate>0.01667</taxRate>
                  <taxTypeIdentifier>03</taxTypeIdentifier>
                  <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
                </detailTax>
              </lineItemData>
              <lineItemData>
                <itemSequenceNumber>2</itemSequenceNumber>
                <itemDescription>chair</itemDescription>
                <productCode>CH123</productCode>
                <quantity>1</quantity>
                <unitOfMeasure>EACH</unitOfMeasure>
                <lineItemTotal>20000</lineItemTotal>
                <itemDiscountAmount>0</itemDiscountAmount>
                <commodityCode>301</commodityCode>
                <unitCost>200.00</unitCost>
              </lineItemData>
            </enhancedData>
          </capture>
        </batchRequest>
      </litleRequest>
```

Example: Batch Capture Request - Partial Capture

A partial Capture has the `partial` attribute set to **true** and must include an `amount` child element.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
 numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numAuths="0" authAmount="0" numCaptures="1"
 captureAmount="45814" numCredits="0" creditAmount="0" numSales="0"
 saleAmount="0" merchantId="100">
    <capture id="AX54325432" reportGroup="RG12" partial="true">
      <litleTxnId>84568457</litleTxnId>
      <amount>45814</amount>
      <enhancedData>
        <customerReference>PO12346</customerReference>
        <salesTax>2100</salesTax>
        <taxExempt>false</taxExempt>
        <discountAmount>0</discountAmount>
        <shippingAmount>3714</shippingAmount>
        <dutyAmount>0</dutyAmount>
        <shipFromPostalCode>01851</shipFromPostalCode>
        <destinationPostalCode>01851</destinationPostalCode>
        <destinationCountryCode>USA</destinationCountryCode>
        <invoiceReferenceNumber>123456</invoiceReferenceNumber>
        <orderDate>2011-09-14</orderDate>
        <detailTax>
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>500</taxAmount>
          <taxRate>0.01667</taxRate>
          <taxTypeIdentifier>00</taxTypeIdentifier>
          <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
        </detailTax>
        <lineItemData>
          <itemSequenceNumber>1</itemSequenceNumber>
          <itemDescription>table</itemDescription>
          <productCode>TB123</productCode>
          <quantity>1</quantity>
          <unitOfMeasure>EACH</unitOfMeasure>
          <taxAmount>1500</taxAmount>
          <lineItemTotal>30000</lineItemTotal>
          <lineItemTotalWithTax>31500</lineItemTotalWithTax>
          <itemDiscountAmount>0</itemDiscountAmount>
          <commodityCode>301</commodityCode>
          <unitCost>300.00</unitCost>
          <detailTax>
            <taxIncludedInTotal>true</taxIncludedInTotal>
            <taxAmount>500</taxAmount>
            <taxRate>0.01667</taxRate>
            <taxTypeIdentifier>03</taxTypeIdentifier>
            <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
          </detailTax>
        </lineItemData>
        <lineItemData>
          <itemSequenceNumber>2</itemSequenceNumber>
          <itemDescription>chair</itemDescription>
          <productCode>CH123</productCode>
          <quantity>1</quantity>
          <unitOfMeasure>EACH</unitOfMeasure>
          <lineItemTotal>20000</lineItemTotal>
          <itemDiscountAmount>0</itemDiscountAmount>
          <commodityCode>301</commodityCode>
          <unitCost>200.00</unitCost>
        </lineItemData>
      </enhancedData>
    </capture>
  </batchRequest>
</litleRequest>
```

Example: Online Capture Request - Full Capture

The following Capture example is for a full capture. Although the `<capture>` element includes an `<amount>` child, it is not required for a full Capture. If you omit the `<amount>` child element, the capture amount defaults to the full amount from the associated Authorization.

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <capture id="2" reportGroup="ABC Division" customerId="038945"
  partial="false">
    <litleTxnId>13254123434</litleTxnId>
    <enhancedData>
```

```
<customerReference>PO12345</customerReference>
<salesTax>125</salesTax>
<taxExempt>false</taxExempt>
<discountAmount>0</discountAmount>
<shippingAmount>495</shippingAmount>
<dutyAmount>0</dutyAmount>
<shipFromPostalCode>01851</shipFromPostalCode>
<destinationPostalCode>01851</destinationPostalCode>
<destinationCountryCode>USA</destinationCountryCode>
<invoiceReferenceNumber>123456</invoiceReferenceNumber>
<orderDate>2011-08-14</orderDate>
<detailTax>
  <taxIncludedInTotal>true</taxIncludedInTotal>
  <taxAmount>55</taxAmount>
  <taxRate>0.0059</taxRate>
  <taxTypeIdentifier>00</taxTypeIdentifier>
  <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
</detailTax>
<lineItemData>
  <itemSequenceNumber>1</itemSequenceNumber>
  <itemDescription>chair</itemDescription>
  <productCode>CH123</productCode>
  <quantity>1</quantity>
  <unitOfMeasure>EACH</unitOfMeasure>
  <taxAmount>125</taxAmount>
  <lineItemTotal>9380</lineItemTotal>
  <lineItemTotalWithTax>9505</lineItemTotalWithTax>
  <itemDiscountAmount>0</itemDiscountAmount>
  <commodityCode>300</commodityCode>
  <unitCost>93.80</unitCost>
  <detailTax>
    <taxIncludedInTotal>true</taxIncludedInTotal>
    <taxAmount>55</taxAmount>
    <taxRate>0.0059</taxRate>
    <taxTypeIdentifier>03</taxTypeIdentifier>
    <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
  </detailTax>
</lineItemData>
<lineItemData>
  <itemSequenceNumber>2</itemSequenceNumber>
  <itemDescription>table</itemDescription>
  <productCode>TB123</productCode>
  <quantity>1</quantity>
```

```
        <unitOfMeasure>EACH</unitOfMeasure>
        <lineItemTotal>30000</lineItemTotal>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>300.00</unitCost>
      </lineItemData>
    </enhancedData>
  </capture>
</litleOnlineRequest>
```

Example: Online Capture Request - Partial Capture

A partial Capture has the `partial` attribute set to **true** and must include an `<amount>` child element.

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <capture id="2" reportGroup="ABC Division" customerId="038945"
  partial="true">
    <litleTxnId>13254123434</litleTxnId>
    <amount>100</amount>
    <enhancedData>
      <customerReference>PO12345</customerReference>
      <salesTax>125</salesTax>
      <taxExempt>false</taxExempt>
      <discountAmount>0</discountAmount>
      <shippingAmount>495</shippingAmount>
      <dutyAmount>0</dutyAmount>
      <shipFromPostalCode>01851</shipFromPostalCode>
      <destinationPostalCode>01851</destinationPostalCode>
      <destinationCountryCode>USA</destinationCountryCode>
      <invoiceReferenceNumber>123456</invoiceReferenceNumber>
      <orderDate>2011-08-14</orderDate>
      <detailTax>
        <taxIncludedInTotal>true</taxIncludedInTotal>
        <taxAmount>55</taxAmount>
        <taxRate>0.0059</taxRate>
        <taxTypeIdentifier>00</taxTypeIdentifier>
        <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
      </detailTax>
      <lineItemData>
        <itemSequenceNumber>1</itemSequenceNumber>
        <itemDescription>chair</itemDescription>
        <productCode>CH123</productCode>
        <quantity>1</quantity>
        <unitOfMeasure>EACH</unitOfMeasure>
        <taxAmount>125</taxAmount>
        <lineItemTotal>9380</lineItemTotal>
        <lineItemTotalWithTax>9505</lineItemTotalWithTax>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>93.80</unitCost>
        <detailTax>
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>55</taxAmount>
          <taxRate>0.0059</taxRate>
          <taxTypeIdentifier>03</taxTypeIdentifier>
          <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
        </detailTax>
      </lineItemData>
      <lineItemData>
        <itemSequenceNumber>2</itemSequenceNumber>
        <itemDescription>table</itemDescription>
        <productCode>TB123</productCode>
        <quantity>1</quantity>
        <unitOfMeasure>EACH</unitOfMeasure>
        <lineItemTotal>30000</lineItemTotal>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>300.00</unitCost>
      </lineItemData>
    </enhancedData>
  </capture>
</litleOnlineRequest>
```

3.3.7.2 Capture Response

A Capture response has the following structure. The response message is identical for Online and Batch transactions except Batch always includes the <`orderId`> element, while Online includes the <`postDate`> element.

```
<captureResponse id="Authorization Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date Of Posting</postDate> (Online Only)
  <message>Response Message</message>
  <accountUpdater>
</captureResponse>
```

Example: Batch Capture Response

```
<litleResponse version="10.0" xmlns="http://www.litle.com/schema"  id="123"
  litleSessionId="987654321" response="0" message="Valid Format">
  <batchResponse id="01234567" litleBatchId="4455667788"  merchantId="100">
    <captureResponse id="AX54321678" reportGroup="RG27">
      <litleTxnId>84568456</litleTxnId>
      <response>001</response>
      <responseTime>2015-09-01T10:24:31</responseTime>
      <message>Transaction received</message>
    </captureResponse>
    <captureResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <response>000</response>
      <responseTime>2015-09-01T10:24:31</responseTime>
      <message>message</message>
    </captureResponse>
  </batchResponse>
</litleResponse>
```

Example: Online Capture Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <captureResponse id="2" reportGroup="ABC Division" customerId="038945">
    <litleTxnId>1100030204</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-11T14:48:48</responseTime>
    <postDate>2015-07-11</postDate>
    <message>Transaction received</message>
  </captureResponse>
</litleOnlineResponse>
```

3.3.8 Capture Given Auth Transactions

You typically use a Capture Given Auth transaction when the associated Authorization occurred outside of the system (for example, if you received a telephone Authorization). Another possible use for a Capture Given Auth transaction is if the Authorization transaction occurred within the system, but the `<litleTxnId>` is unknown by the submitting party (for example, if the Auth was submitted by a merchant, but a fulfiller submits a Capture Given Auth).

3.3.8.1 Capture Given Auth Request

You must specify the Capture Given Auth request as follows. The structure of the request is identical for either an Online or a Batch submission.

```
<captureGivenAuth id="Capture Given Auth Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <orderId>Order Id</orderId>
  <authInformation>
  <amount>Authorization Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <orderSource>Order Entry Source</orderSource>
  <billToAddress>
  <shipToAddress>
  [ <card> | <token> | <paypage> | <mpos>]
  <customBilling>
  <taxType>payment or fee</taxType>
  <billMeLaterRequest>
  <enhancedData>
  <processingInstructions>
  <pos>
  <amexAggregatorData>
  <merchantData>
  <debtRepayment>true or false</debtRepayment>
  <processingType>accountFunding</processingType>
</captureGivenAuth>
```

Example: Batch Capture Given Auth Request

The following example shows a single Capture Given Auth request. The example uses the `<card>` child element, but a tokenized merchant could use the `<token>` child element in its place.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema"
 numBatchRequests="1">
 <authentication>
   <user>User Name</user>
   <password>password</password>
 </authentication>
 <batchRequest id="batchId" numCaptureGivenAuths="1"
 captureGivenAuthAmount="10000" merchantId="100">
   <captureGivenAuth id="AX54321678" reportGroup="RG27">
     <orderId>orderId</orderId>
     <authInformation>
       <authDate>2011-09-21</authDate>
       <authCode>123456</authCode>
     </authInformation>
     <amount>10000</amount>
     <orderSource>ecommerce</orderSource>
     <card>
       <type>VI</type>
       <number>4005550000081019</number>
       <expDate>0910</expDate>
     </card>
     <enhancedData>
       <customerReference>PO12345</customerReference>
       <salesTax>125</salesTax>
       <taxExempt>false</taxExempt>
       <discountAmount>0</discountAmount>
       <shippingAmount>495</shippingAmount>
       <dutyAmount>0</dutyAmount>
       <shipFromPostalCode>01851</shipFromPostalCode>
       <destinationPostalCode>01851</destinationPostalCode>
       <destinationCountryCode>USA</destinationCountryCode>
       <invoiceReferenceNumber>123456</invoiceReferenceNumber>
       <orderDate>2011-09-21</orderDate>
       <detailTax>
         <taxIncludedInTotal>true</taxIncludedInTotal>
         <taxAmount>55</taxAmount>
         <taxRate>0.0055</taxRate>
         <taxTypeIdentifier>00</taxTypeIdentifier>
         <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
       </detailTax>
       <lineItemData>
         <itemSequenceNumber>1</itemSequenceNumber>
         <itemDescription>chair</itemDescription>
```

```
          <productCode>CH123</productCode>
          <quantity>1</quantity>
          <unitOfMeasure>EACH</unitOfMeasure>
          <taxAmount>125</taxAmount>
          <lineItemTotal>9380</lineItemTotal>
          <lineItemTotalWithTax>9505</lineItemTotalWithTax>
          <itemDiscountAmount>0</itemDiscountAmount>
          <commodityCode>300</commodityCode>
          <unitCost>93.80</unitCost>
        </lineItemData>
      </enhancedData>
    </captureGivenAuth>
  </batchRequest>
</litleRequest>
```

Example: Online Capture Given Auth Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
 merchantId="100">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <captureGivenAuth id="AX54321678" reportGroup="RG27">
    <orderId>orderId</orderId>
    <authInformation>
      <authDate>2011-08-24</authDate>
      <authCode>123456</authCode>
    </authInformation>
    <amount>10000</amount>
    <orderSource>ecommerce</orderSource>
    <card>
      <type>VI</type>
      <number>4005550000081019</number>
      <expDate>0910</expDate>
    </card>
    <enhancedData>
      <customerReference>PO12345</customerReference>
      <salesTax>125</salesTax>
      <deliveryType>TBD</deliveryType>
      <taxExempt>false</taxExempt>
      <discountAmount>0</discountAmount>
      <shippingAmount>495</shippingAmount>
      <dutyAmount>0</dutyAmount>
      <shipFromPostalCode>01851</shipFromPostalCode>
      <destinationPostalCode>01851</destinationPostalCode>
      <destinationCountryCode>USA</destinationCountryCode>
      <invoiceReferenceNumber>123456</invoiceReferenceNumber>
      <orderDate>2011-08-14</orderDate>
      <detailTax>
        <taxIncludedInTotal>true</taxIncludedInTotal>
        <taxAmount>55</taxAmount>
        <taxRate>0.0059</taxRate>
        <taxTypeIdentifier>00</taxTypeIdentifier>
        <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
      </detailTax>
      <lineItemData>
        <itemSequenceNumber>1</itemSequenceNumber>
        <itemDescription>chair</itemDescription>
        <productCode>CH123</productCode>
        <quantity>1</quantity>
        <unitOfMeasure>EACH</unitOfMeasure>
        <taxAmount>125</taxAmount>
        <lineItemTotal>9380</lineItemTotal>
        <lineItemTotalWithTax>9505</lineItemTotalWithTax>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>93.80</unitCost>
      </lineItemData>
    </enhancedData>
  </captureGivenAuth>
</litleOnlineRequest>
```

Example: Capture Given Auth Request using token Element

The example below uses the following token related elements (click name to jump to element definition): token and litleToken.

```
<captureGivenAuth id="99999" customerId="444" reportGroup="RG1">
  <orderId>F12345</orderId>
  <authInformation>
    <authDate>2011-10-25</authDate>
    <authCode>500005</authCode>
  </authInformation>
  <amount>15000</amount>
  <orderSource>ecommerce</orderSource>
```

```
    <billToAddress>
      <name>John Doe</name>
      <addressLine1>10 Main Street</addressLine1>
      <city>San Jose</city>
      <state>CA</state>
      <zip>95032-1234</zip>
      <country>USA</country>
    </billToAddress>
    <token>
      <litleToken>1112000100010085</litleToken>
      <expDate>1112</expDate>
      <cardValidationNum>987</cardValidationNum>
    </token>
  </captureGivenAuth>
```

3.3.8.2 Capture Given Auth Response

A Capture Given Auth response has the following structure. The response message is identical for Online and Batch transactions except Online includes the `<postDate>` element.

```
<captureGivenAuthResponse id="Capture Id" reportGroup="iQ Report Group"
customerId="Customer Id">

  <litleTxnId>Transaction Id</litleTxnId>

  <response>Response Code</response>

  <responseTime>Date and Time in GMT</responseTime>

  <postDate>Date of Posting</postDate> (Online Only)

  <message>Response Message</message>

  <tokenResponse> (for Tokenized merchants submitting card data)

</captureGivenAuthResponse>
```

Example: Batch Capture Given Auth Response

```
<litleResponse version="10.0" xmlns="http://www.litle.com/schema" id="123"
  litleSessionId="987654321" response="0" message="Valid Format">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <captureGivenAuthResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <response>001</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Transaction received</message>
    </captureGivenAuthResponse>
  </batchResponse>
```

```
</litleResponse>
```

Example: Online Capture Given Auth Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <captureGivenAuthResponse id="2" reportGroup="ABC Division"
  customerId="038945">
    <litleTxnId>1100030204</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-11T14:48:48</responseTime>
    <postDate>2015-07-11</postDate>
    <message>Transaction received</message>
  </captureGivenAuthResponse>
</litleOnlineResponse>
```

Example: Capture Given Auth Response for Tokenized Merchant Sending Card Data

```
<captureGivenAuthResponse id="99999" reportGroup="RG1" customerId="444">
  <litleTxnId>21200000022005</litleTxnId>
  <response>000</response>
  <responseTime>2011-10-25T04:00:00</responseTime>
  <postDate>2011-10-26</postDate>
  <message>Approved</message>
  <tokenResponse>
    <litleToken>1111000100409510</litleToken>
    <tokenResponseCode>801</tokenResponseCode>
    <tokenMessage>Account number was successfully registered</tokenMessage>
    <type>VI</type>
    <bin>432610</bin>
  </tokenResponse>
</captureGivenAuthResponse>
```

3.3.9 Create Plan Transactions

The Create Plan transaction allows you to define several attributes of a recurring payment schedule. Later, you can associate existing, active plans with subscriptions, which establishes a recurring payment schedule managed by the Recurring Engine.

3.3.9.1 Create Plan Request

You must specify the Create Plan transaction as follows. The structure of the request is identical for either an Online or a Batch submission.

```
<createPlan>
  <planCode>Plan Reference Code</planCode>
  <name>Name of Plan</name>
  <description>Description of Plan</description>
  <intervalType>The Type of Interval</intervalType>
  <amount>Amount of Recurring Payment</amount>
  <numberOfPayments>1 to 99</numberOfRemianingPayments>
  <trialNumberOfIntervals>Number of Trial Intervals</trialNumberOfIntervals>
  <trialIntervalType>Type of Trial Period Interval</trialIntervalType>
  <active>true or false</active>
</createPlan>
```

Example: Online Create Plan Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
 merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <createPlan>
    <planCode>Gold12</planCode>
    <name>Gold_Monthly</name>
    <description>Gold Level with Monthly Payments</description>
    <intervalType>MONTHLY</intervalType>
    <amount>5000</amonut>
    <numberOfPayments>4</numberOfPayments>
    <trialNumberOfIntervals>1</trialNumberOfIntervals>
    <trialIntervalType>MONTH</trialIntervalType>
    <active>true</active>
  </createPlan>
</litleOnlineRequest>
```

3.3.9.2 Create Plan Response

The Create Plan response message is identical for Online and Batch transactions.

```
<createPlanResponse>
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <message>Response Message</message>
  <responseTime>Date and Time in GMT</responseTime>
  <planCode>Plan Reference Code</subscriptionId>
</createPlanResponse>
```

Example: Online Create Plan Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <createPlanResponse>
    <litleTxnId>1100030055</litleTxnId>
    <response>000</response>
    <message>Approved</message>
    <responseTime>2011-07-11T14:48:46</responseTime>
    <planCode>Gold12</planCode>
  </createPlanResponse>
</litleOnlineResponse>
```

3.3.10 Credit Transactions

The Credit transaction enables you to refund money to a customer, even if the original transaction occurred outside of our system. You can submit refunds against any of the following payment transactions:

- Capture Transactions
- Capture Given Auth Transactions
- Force Capture Transactions
- Sale Transactions
- External Sale or Capture Transactions

NOTE: **Although there are two different scenarios for Credit requests, there is only one scenario for the Credit response.**

3.3.10.1 Credit Request for a Vantiv Processed Transaction

You must specify the Credit request for a Vantiv processed transaction as follows. The structure of the request is identical for either an Online or a Batch submission.

```
<credit id="Credit Id" reportGroup="iQ Report Group" customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <amount>Authorization Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <customBilling>
  <enhancedData>
  <processingInstructions>
  <actionReason>SUSPECT_FRAUD</actionReason>
</credit>
```

Example: Batch Credit Request for a Vantiv Processed Transaction

To request a Credit against a sale settled by us, you only need to specify the `<litleTxnId>` element. The application uses the `<litleTxnId>` to look-up the Capture referenced and obtain all the necessary information including the amount.

NOTE: **Although it is not required, if you choose to include `<amount>` elements in your Credit transaction, you must include the total amount in the `creditAmount` attribute of the `<batchrequest>`. If you do not specify amounts, set the creditAmount attribute to 0.**

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
 numBatchRequests="1">
 <authentication>
  <user>userName</user>
  <password>password</password>
 </authentication>
 <batchRequest id="01234567" numAuths="0" authAmount="0" numCaptures="0"
 captureAmount="0" numCredits="1" creditAmount="10000" numSales="0"
 saleAmount="0" merchantId="100">
  <credit id="AX54321678" reportGroup="RG27">
   <litleTxnId>84568456</litleTxnId>
   <amount>10000</amount>
   <enhancedData>
    <customerReference>PO12345</customerReference>
    <salesTax>125</salesTax>
    <taxExempt>false</taxExempt>
    <discountAmount>0</discountAmount>
```

```
        <shippingAmount>3017</shippingAmount>
        <dutyAmount>0</dutyAmount>
        <shipFromPostalCode>01851</shipFromPostalCode>
        <destinationPostalCode>01851</destinationPostalCode>
        <destinationCountryCode>USA</destinationCountryCode>
        <invoiceReferenceNumber>123456</invoiceReferenceNumber>
        <orderDate>2011-09-14</orderDate>
        <detailTax>
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>55</taxAmount>
          <taxRate>0.0059</taxRate>
          <taxTypeIdentifier>00</taxTypeIdentifier>
          <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
        </detailTax>
        <lineItemData>
          <itemSequenceNumber>1</itemSequenceNumber>
          <itemDescription>chair</itemDescription>
          <productCode>CH123</productCode>
          <quantity>1</quantity>
          <unitOfMeasure>EACH</unitOfMeasure>
          <taxAmount>125</taxAmount>
          <lineItemTotal>9380</lineItemTotal>
          <lineItemTotalWithTax>9505</lineItemTotalWithTax>
          <itemDiscountAmount>0</itemDiscountAmount>
          <commodityCode>300</commodityCode>
          <unitCost>93.80</unitCost>
          <detailTax>
            <taxIncludedInTotal>true</taxIncludedInTotal>
            <taxAmount>55</taxAmount>
            <taxRate>0.0059</taxRate>
            <taxTypeIdentifier>03</taxTypeIdentifier>
            <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
          </detailTax>
        </lineItemData>
      </enhancedData>
    </credit>
  </batchRequest>
</litleRequest>
```

Example: Online Credit Request for a Vantiv Processed Transaction

To request a Credit against a sale settled by us, you need only specify the `<litleTxnId>` element. The application uses the `<litleTxnId>` to look up the Capture referenced and obtain all the necessary information including the amount. The example below includes the optional `<customBilling>` and `<enhancedData>` elements.

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
 merchantId="100">
 <authentication>
   <user>User Name</user>
   <password>password</password>
 </authentication>
 <credit id="2" reportGroup="ABC Division" customerId="038945">
   <litleTxnId>13254123434</litleTxnId>
   <customBilling>
     <phone>8888888888</phone>
     <descriptor>descriptor</descriptor>
   </customBilling>
   <enhancedData>
     <customerReference>PO12345</customerReference>
     <salesTax>125</salesTax>
     <taxExempt>false</taxExempt>
     <discountAmount>0</discountAmount>
     <shippingAmount>495</shippingAmount>
     <dutyAmount>0</dutyAmount>
     <shipFromPostalCode>01851</shipFromPostalCode>
     <destinationPostalCode>01851</destinationPostalCode>
     <destinationCountryCode>USA</destinationCountryCode>
     <invoiceReferenceNumber>123456</invoiceReferenceNumber>
     <orderDate>2011-07-14</orderDate>
     <detailTax>
       <taxIncludedInTotal>true</taxIncludedInTotal>
       <taxAmount>55</taxAmount>
       <taxRate>0.0059</taxRate>
       <taxTypeIdentifier>00</taxTypeIdentifier>
       <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
     </detailTax>
     <lineItemData>
       <itemSequenceNumber>1</itemSequenceNumber>
       <itemDescription>chair</itemDescription>
       <productCode>CH123</productCode>
       <quantity>1</quantity>
       <unitOfMeasure>EACH</unitOfMeasure>
```

```
        <taxAmount>125</taxAmount>
        <lineItemTotal>9380</lineItemTotal>
        <lineItemTotalWithTax>9505</lineItemTotalWithTax>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>93.80</unitCost>
        <detailTax>
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>55</taxAmount>
          <taxRate>0.0059</taxRate>
          <taxTypeIdentifier>03</taxTypeIdentifier>
          <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
        </detailTax>
      </lineItemData>
      <lineItemData>
        <itemSequenceNumber>2</itemSequenceNumber>
        <itemDescription>table</itemDescription>
        <productCode>TB123</productCode>
        <quantity>1</quantity>
        <unitOfMeasure>EACH</unitOfMeasure>
        <lineItemTotal>30000</lineItemTotal>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>300.00</unitCost>
      </lineItemData>
    </enhancedData>
  </credit>
</litleOnlineRequest>
```

3.3.10.2 Credit Request for a Non-Vantiv Processed Transaction

You must specify the Credit request for a Non-Vantiv processed transaction as follows. The structure of the request is identical for either an Online or a Batch submission.

NOTE: **Although the schema shows <paypal> as an optional element for a Credit against a non-Vantiv processed transaction, refunds of this type are not supported for PayPal. If you need to refund non-Vantiv processed transactions and have not maintained a temporary relationship with your former processor for this purpose, please ask your Customer Experience Manager for alternative options.**

```
<credit id="Credit Id" reportGroup="iQ Report Group" customerId="Customer Id">
```

```
    <orderId>Order Id</orderId>
    <amount>Authorization Amount</amount>
    <orderSource>Order Entry Source</orderSource>
    <billToAddress>
    [ <card> | <token> | <paypage> | <mpos> ]
    <customBilling>
    <taxType>payment or fee</taxType>
    <billMeLaterRequest>
    <enhancedData>
    <processingInstructions>
    <pos>
    <amexAggregatorData>
    <merchantData>
      <actionReason>SUSPECT_FRAUD</actionReason>
  </credit>
```

Example: Batch Credit Request for a Non-Vantiv Processed Transaction

If the sale occurred outside of our system, you must specify the following elements in your Credit request: `<orderId>`, `<amount>`, and `<card>`, or `<token>` (`<paypal> not supported for this transaction type`).

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numCredits="1" creditAmount="10000"
  merchantId="100">
    <credit id="AX54321678" reportGroup="RG27">
      <orderId>12z58743y1</orderId>
      <amount>10000</amount>
      <orderSource>ecommerce</orderSource>
      <billToAddress>
        <name>John Doe</name>
        <addressLine1>123 4th street</addressLine1>
        <addressLine2>Apt. 20</addressLine2>
        <addressLine3>second floor</addressLine3>
        <city>San Jose</city>
        <state>CA</state>
        <zip>95032</zip>
        <country>USA</country>
        <email>jdoe@isp.com</email>
        <phone>408-555-1212</phone>
      </billToAddress>
      <card>
        <type>MC</type>
        <number>5186005800001012</number>
        <expDate>1110</expDate>
      </card>
      <enhancedData>
        <customerReference>PO12345</customerReference>
        <salesTax>125</salesTax>
        <taxExempt>false</taxExempt>
        <discountAmount>0</discountAmount>
        <shippingAmount>495</shippingAmount>
        <dutyAmount>0</dutyAmount>
        <shipFromPostalCode>01851</shipFromPostalCode>
        <destinationPostalCode>01851</destinationPostalCode>
        <destinationCountryCode>USA</destinationCountryCode>
        <invoiceReferenceNumber>123456</invoiceReferenceNumber>
        <orderDate>2011-09-14</orderDate>
        <detailTax>
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>55</taxAmount>
          <taxRate>0.0059</taxRate>
          <taxTypeIdentifier>00</taxTypeIdentifier>
          <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
        </detailTax>
        <lineItemData>
          <itemSequenceNumber>1</itemSequenceNumber>
          <itemDescription>chair</itemDescription>
          <productCode>CH123</productCode>
          <quantity>1</quantity>
          <unitOfMeasure>EACH</unitOfMeasure>
          <taxAmount>125</taxAmount>
          <lineItemTotal>9380</lineItemTotal>
          <lineItemTotalWithTax>9505</lineItemTotalWithTax>
          <itemDiscountAmount>0</itemDiscountAmount>
          <commodityCode>300</commodityCode>
          <unitCost>93.80</unitCost>
        </lineItemData>
      </enhancedData>
```

```
    </credit>
  </batchRequest>
</litleRequest>
```

Example: Online Credit Request for a Non-Vantiv Processed Transaction

If the sale occurred outside of our system, you must specify the following elements in your Credit request: `<orderId>`, `<amount>`, and `<card>`, or `<token>` `(<paypal> not supported for this transaction type).`

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <credit id="2" reportGroup="ABC Division" customerId="038945">
    <orderId>56789</orderId>
    <amount>10000</amount>
    <orderSource>ecommerce</orderSource>
    <billToAddress>
      <name>Mike J. Hammer</name>
      <addressLine1>Two Main Street</addressLine1>
      <addressLine2>Apartment 222</addressLine2>
      <addressLine3></addressLine3>
      <city>Riverside</city>
      <state>RI</state>
      <zip>02915</zip>
      <country>US</country>
      <email>mike@sample.com</email>
      <phone>5555555555</phone>
    </billToAddress>
    <card>
      <type>VI</type>
      <number>4005550000081019</number>
      <expDate>0907</expDate>
    </card>
    <customBilling>
      <phone>5555555555</phone>
      <descriptor>descriptor</descriptor>
    </customBilling>
```

```
<enhancedData>
  <customerReference>PO12345</customerReference>
  <salesTax>125</salesTax>
  <taxExempt>false</taxExempt>
  <discountAmount>0</discountAmount>
  <shippingAmount>495</shippingAmount>
  <dutyAmount>0</dutyAmount>
  <shipFromPostalCode>01851</shipFromPostalCode>
  <destinationPostalCode>01851</destinationPostalCode>
  <destinationCountryCode>USA</destinationCountryCode>
  <invoiceReferenceNumber>123456</invoiceReferenceNumber>
  <orderDate>2011-08-14</orderDate>
  <detailTax>
    <taxIncludedInTotal>true</taxIncludedInTotal>
    <taxAmount>55</taxAmount>
    <taxRate>0.0059</taxRate>
    <taxTypeIdentifier>00</taxTypeIdentifier>
    <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
  </detailTax>
  <lineItemData>
    <itemSequenceNumber>1</itemSequenceNumber>
    <itemDescription>chair</itemDescription>
    <productCode>CH123</productCode>
    <quantity>1</quantity>
    <unitOfMeasure>EACH</unitOfMeasure>
    <taxAmount>125</taxAmount>
    <lineItemTotal>9380</lineItemTotal>
    <lineItemTotalWithTax>9505</lineItemTotalWithTax>
    <itemDiscountAmount>0</itemDiscountAmount>
    <commodityCode>300</commodityCode>
    <unitCost>93.80</unitCost>
  </lineItemData>
  <lineItemData>
    <itemSequenceNumber>2</itemSequenceNumber>
    <itemDescription>table</itemDescription>
    <productCode>TB123</productCode>
    <quantity>1</quantity>
    <unitOfMeasure>EACH</unitOfMeasure>
    <lineItemTotal>30000</lineItemTotal>
    <itemDiscountAmount>0</itemDiscountAmount>
    <commodityCode>300</commodityCode>
    <unitCost>300.00</unitCost>
  </lineItemData>
```

```
    </enhancedData>
  </credit>
</litleOnlineRequest>
```

3.3.10.3 Credit Response

The Credit response message is identical for Online and Batch transactions except Online includes the `postDate` element.

```
<creditResponse id="Credit Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date of Posting</postDate> (Online Only)
  <message>Response Message</message>
  <tokenResponse> (for Tokenized merchants submitting card data)
</creditResponse>
```

Example: Credit Response

The example below illustrates a Batch Credit response. A response for an Online transaction uses a `litleOnlineResponse` element as the parent.

```
<litleResponse version="10.0" xmlns="http://www.litle.com/schema" id="123"
  litleSessionId="987654321" response="0" message="Valid Format">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <creditResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <response>001</response>
      <responseTime>2015-09-01T10:24:31</responseTime>
      <message>Transaction received</message>
    </creditResponse>
  </batchResponse>
</litleResponse>
```

Example: Credit Response for a Tokenized Merchant Sending Card Data

When a tokenized merchant submits card data in the Credit request, the response includes the `tokenResponse` element. The example below is a response for an Online request (`<litleOnlineResponse>` element not shown), so it includes the `<postDate>` element.

```
<creditResponse id="99999" reportGroup="RG1" customerId="444">
  <litleTxnId>21200000473208</litleTxnId>
  <response>001</response>
  <responseTime>2015-10-19T19:29:45</responseTime>
  <postDate>2015-10-19</postDate>
  <message>Transaction received</message>
  <tokenResponse>
    <litleToken>1111102200202001</litleToken>
    <tokenResponseCode>801</tokenResponseCode>
    <tokenMessage>Account number was successfully registered</tokenMessage>
    <type>VI</type>
    <bin>402410</bin>
  </tokenResponse>
</creditResponse>
```

3.3.11 Deactivate Transactions

The Deactivate transaction changes the status of a (Closed Loop) Gift Card from active to inactive.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.11.1 Deactivate Request

You must structure a Deactivate request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
<deactivate id="Activate Id" reportGroup="iQ Report Group" customerId="Customer
Id">

  <orderId>Order Id</orderId>

  <orderSource>Order Entry Source</orderSource>

  <card>

</deactivate>
```

Example: Online Deactivate Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
```

```
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <deactivate id="834262" reportGroup="ABC Division" customerId="038945">
    <orderId>65347567</orderId>
    <orderSource>ecommerce</orderSource>
    <card>
      <type>GC</type>
      <number>9000000000000001</number>
    </card>
  </deactvate>
</litleOnlineRequest>
```

3.3.11.2 Deactivate Response

A Deactivate response has the following structure. The response message is identical for Online and Batch transactions except Online includes the `<postDate>` element.

```
<deactivateResponse id="Deactivate Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date transaction posted</postDate> (Online Only)
  <message>Response Message</message>
  <fraudResult>
  <approvedAmount>5000</approvedAmount>
  <giftCardResponse> (included if Gift Card is Method of Payment)
</deactivateResponse>
```

Example: Online Deactivate Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <deactivateResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>000</response>
    <responseTime>2013-07-25T15:13:43</responseTime>
    <postDate>2013-07-25</postDate>
    <message>Approved</message>
    <approvedAmount>5000</approvedAmount>
```

```
      <giftCardResponse>
        <availableBalance>0</availableBalance>
        <beginningBalance>5000</beginningBalance>
        <endingBalance>0</endingBalance>
      </giftCardResponse>
    </deactivateResponse>
  </litleOnlineResponse>
```

3.3.12 Deactivate Reversal Transactions (Online Only)

The Deactivate Reversal transaction changes the status of a newly deactivated Gift Card from inactive to active, thus reversing the operation of an Deactivate transaction. The Deactivate Reversal references the associated Deactivate transaction by means of the `litleTxnId` element returned in the Deactivate response. This transaction type is available only for Online transactions.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.12.1 Deactivate Reversal Request

You must structure an Deactivate Reversal request as shown in the following examples.

```
<deactivateReversal id="Deactivate Reversal Id" reportGroup="iQ Report Group"
customerId="Customer Id">

  <litleTxnId>Transaction Id from Deactivate Response</litleTxnId>

</deactivateReversal>
```

Example: Deactivate Reversal Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <deactivateReversal id="12345" customerId="Customer Id"
  reportGroup="Deactivate Reversals">
    <litleTxnId>12345678</litleTxnId>
  </deactivateReversal>
</litleOnlineRequest>
```

3.3.12.2 Deactivate Reversal Response

An Deactivate Reversal response has the following structure.

```
<deactviateReversalResponse id="Deactivate Reversal Id" reportGroup="iQ
Report Group" customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date transaction posted</postDate>
  <message>Response Message</message>
  <giftCardResponse>
</deactivateReversalResponse>
```

Example: Online Deactivate Reversal Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <deactivateReversalResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-25T15:13:43</responseTime>
    <postDate>2015-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>5000</availableBalance>
      <beginningBalance>0</beginningBalance>
      <endingBalance>5000</endingBalance>
    </giftCardResponse>
  </deactivateReversalResponse>
</litleOnlineResponse>
```

3.3.13 Deposit Reversal Transactions (Online Only)

The Deposit Reversal transaction is a Gift Card transaction that reverses the deposit initiate by either a Capture or Sale transaction. The Deposit Reversal references the associated Capture/Sale transaction by means of the `litleTxnId` element returned in the Capture/Sale response. This transaction type is available only for Online transactions.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.13.1 Deposit Reversal Request

You must structure an Deposit Reversal request as shown in the following examples.

```
<depositReversal id="Deposit Reversal Id" reportGroup="iQ Report Group"
customerId="Customer Id">

  <litleTxnId>Transaction Id from Capture/Sale Response</litleTxnId>

</depositReversal>
```

Example: Deposit Reversal Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <depositReversal id="12345" customerId="Customer Id" reportGroup="Deposit
  Reversals">
    <litleTxnId>12345678</litleTxnId>
  </depositReversal>
</litleOnlineRequest>
```

3.3.13.2 Deposit Reversal Response

An Deposit Reversal response has the following structure.

```
<depositReversalResponse id="Deactivate Reversal Id" reportGroup="iQ
Report Group" customerId="Customer Id">

  <litleTxnId>Transaction Id</litleTxnId>

  <response>Response Code</response>

  <responseTime>Date and Time in GMT</responseTime>

  <postDate>Date transaction posted</postDate>

  <message>Response Message</message>

  <giftCardResponse>

</depositReversalResponse>
```

Example: Online Deposit Reversal Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
 response="0" message="Valid Format">
 <depositReversalResponse id="834262" reportGroup="ABC Division">
  <litleTxnId>9695064321</litleTxnId>
  <response>001</response>
  <responseTime>2015-07-25T15:13:43</responseTime>
  <postDate>2015-07-25</postDate>
  <message>Transaction received</message>
  <giftCardResponse>
   <availableBalance>5000</availableBalance>
   <beginningBalance>0</beginningBalance>
   <endingBalance>5000</endingBalance>
  </giftCardResponse>
 </depositReversalResponse>
</litleOnlineResponse>
```

3.3.14 eCheck Credit Transactions

The eCheck Credit transaction enables you to refund a previous eCheck Sale. Merchants can submit an eCheck Credit transaction for a sale regardless or whether the original transaction was settled by our system, although the requests are structured differently. This section contains the following:

- eCheck Credit Request Against a Vantiv Transaction
- eCheck Credit Request for a Non-Vantiv Processed Sale
- eCheck Credit Response

NOTE: **Although there are two different scenarios for eCheck Credit requests, the response message uses the same structure.**

3.3.14.1 eCheck Credit Request Against a Vantiv Transaction

To request an eCheck Credit against an eCheck Sale that had been settled by us, you only need to specify the `<litleTxnId>` element. When you specify this element, the application uses the `<litleTxnId>` to look up the referenced echeckSale transaction and obtain the necessary information. In this case, the `<amount>` element is optional, but should be included if the credit amount is less than the captured amount. If you do not include the `<amount>` element, the system assumes the credit to be for the total amount of the referenced transaction.

When requesting a echeckCredit against an echeckSale that occurred within our system, specify the Credit request as follows:

```
<echeckCredit id="Credit Id" reportGroup="iQ Report Group" customerId="Customer
Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <amount>Credit Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <customBilling>
</echeckCredit>
```

Example: eCheck Credit Request

The eCheck Credit batch request shown below contains three `<echeckCredit>` elements. The first two use a Transaction Id as a reference. The third, which you would use for a sale occurring outside of our system, uses the `<orderId>`, `<amount>`, `<billToAddress>`, and `<echeck>` elements to provide the required information.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="xmlbat01" numEcheckCredit="3" echeckCreditAmount="12100"
  merchantId="000053">
    <echeckCredit id="credit1" reportGroup="new53" customerId="53">
      <litleTxnId>4455667788</litleTxnId>
      <amount>1000</amount>
    </echeckCredit>
    <echeckCredit reportGroup="new53">
      <litleTxnId>4455667789</litleTxnId>
      <amount>1100</amount>
    </echeckCredit>
    <echeckCredit reportGroup="new53">
      <orderId>12z58743y1</orderId>
      <amount>10000</amount>
      <orderSource>ecommerce</orderSource>
      <billToAddress>
        <name>John Doe</name>
        <addressLine1>123 4th street</addressLine1>
        <addressLine2>Apt. 20</addressLine2>
        <addressLine3>second floor</addressLine3>
        <city>San Jose</city>
        <state>CA</state>
        <zip>95032</zip>
        <country>USA</country>
        <email>jdoe@isp.com</email>
        <phone>408-555-1212</phone>
      </billToAddress>
      <echeck>
        <accType>Checking</accType>
        <accNum>5186005800001012</accNum>
        <routingNum>000010101</routingNum>
        <checkNum>1104</checkNum>
      </echeck>
    </echeckCredit>
  </batchRequest>
</litleRequest>
```

3.3.14.2 eCheck Credit Request for a Non-Vantiv Processed Sale

If the original eCheck Sale transaction was not processed via our system, or the if the <`litleTxnId`> for the original eCheck Sale transaction is not available, specify eCheck Credit request as follows:

```
<echeckCredit id="eCheckCredit Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <orderId>Order Id</orderId>
  <amount>Credit Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <orderSource>Order Entry Source</orderSource>
  <billToAddress>
  <echeck> or <echeckToken>
  <customBilling>
  <merchantData>
</echeckCredit>
```

The third transaction shown in the eCheck Credit Request example on page 241 shows an example of a Credit request against a non-Vantiv processed transaction.

3.3.14.3 eCheck Credit Response

The eCheck Credit message is identical for either type of eCheck Credit request. The <`accountUpdater`> element is included only if you submit account information in the request transaction for which a NOC exists. In this case the system automatically updates the information sent to the ACH network and includes the change information in the response.

The eCheck Credit response has the following structure:

```
<echeckCreditResponse id="eCheck Credit Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
  <postDate>Date of Posting</postDate> (Online Only)
  <accountUpdater>Account Change Info</accountUpdater>
  <tokenResponse> (for Tokenized merchants submitting account data)
</echeckCreditResponse>
```

Example: eCheck Credit Response

```
<litleResponse version="10.0" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <echeckCreditResponse id="AX54321678" reportGroup="RG27"
  customerId="53">
      <litleTxnId>84568456</litleTxnId>
      <response>001</response>
      <responseTime>2015-09-01T10:24:31</responseTime>
      <message>Transaction received</message>
    </echeckCreditResponse>
  </batchResponse>
</litleResponse>
```

3.3.15 eCheck Prenotification Credit Transactions (Batch Only)

You use this non-monetary transaction to verify the consumer's account information prior to submitting an eCheck Credit transaction (also see eCheck Prenotification on page 46). This transaction type is only supported for US transactions.

3.3.15.1 eCheck Prenotification Credit Request

You must specify the eCheck Prenotification Credit request using the following format:

```
<echeckPreNoteCredit id="eCheck PreNote Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <orderId>Order Id</orderId>
```

```
        <orderSource>Order Entry Source</orderSource>
        <billToAddress>
        <echeck>
        <merchantData>
      </echeckPreNoteCredit>
```

Example: eCheck Prenotification Credit Request

```
<litleRequest version="9.2" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="654321" numEcheckPreNoteCredit="1" merchantId="100">
    <echeckPreNoteCredit id="AX54321678" reportGroup="RG27" customerId="53">
      <orderId>12z58743y1</orderId>
      <orderSource>telephone</orderSource>
      <billToAddress>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <addressLine1>123 4th street</addressLine1>
        <addressLine2>Apt. 20</addressLine2>
        <addressLine3>second floor</addressLine3>
        <city>San Jose</city>
        <state>CA</state>
        <zip>95032</zip>
        <country>USA</country>
        <email>jdoe@isp.com</email>
        <phone>408-555-1212</phone>
      </billToAddress>
      <echeck>
        <accType>Checking</accType>
        <accNum>5186005800001012</accNum>
        <routingNum>000010101</routingNum>
        <checkNum>1104</checkNum>
      </echeck>
    </echeckPreNoteCredit>
  </batchRequest>
</litleRequest>
```

3.3.15.2 eCheck Prenotification Credit Response

The eCheck Prenotification Credit response has the following structure:

```
<echeckPreNoteCreditResponse id="eCheckSale Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <orderId>Order Id</orderId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
</echeckPreNoteCreditResponse>
```

Example: eCheck Prenotification Credit Response

```
<litleResponse version="9.2" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <echeckPreNoteCreditResponse id="AX54321678" reportGroup="RG27"
  customerId="53">
      <litleTxnId>84568456</litleTxnId>
      <orderId>12z58743y1</orderId>
      <response>000</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
    </echeckPreNoteCreditResponse>
    <echeckPreNoteCreditResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <orderId>12z58743y7</orderId>
      <response>000</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
    </echeckPreNoteCreditResponse>
  </batchResponse>
</litleResponse>
```

3.3.16 eCheck Prenotification Sale Transactions (Batch Only)

You use this non-monetary transaction to verify the consumer’s account information prior to submitting an eCheck Sale transaction (also see eCheck Prenotification on page 46). This transaction type is only supported for US transactions.

3.3.16.1 eCheck Prenotification Sale Request

You must specify the eCheck Prenotification Credit request using the following format:

```
<echeckPreNoteSale id="eCheck PreNote Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <orderId>Order Id</orderId>
  <orderSource>Order Entry Source</orderSource>
  <billToAddress>
  <echeck>
  <merchantData>
</echeckPreNotesale>
```

Example: eCheck Prenotification Sale Request

```
<litleRequest version="9.2" xmlns="http://www.litle.com/schema" id="123"
 numBatchRequests="1">
 <authentication>
  <user>userName</user>
  <password>password</password>
 </authentication>
 <batchRequest id="654321" numEcheckPreNoteSale="1" merchantId="100">
  <echeckPreNoteSale id="AX54321678" reportGroup="RG27" customerId="53">
   <orderId>12z58743y1</orderId>
   <orderSource>telephone</orderSource>
   <billToAddress>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <addressLine1>123 4th street</addressLine1>
    <addressLine2>Apt. 20</addressLine2>
    <addressLine3>second floor</addressLine3>
    <city>San Jose</city>
    <state>CA</state>
    <zip>95032</zip>
    <country>USA</country>
    <email>jdoe@isp.com</email>
    <phone>408-555-1212</phone>
   </billToAddress>
   <echeck>
    <accType>Checking</accType>
    <accNum>5186005800001012</accNum>
    <routingNum>000010101</routingNum>
    <checkNum>1104</checkNum>
    </echeck>
  </echeckPreNoteSale>
 </batchRequest>
</litleRequest>
```

3.3.16.2 eCheck Prenotification Sale Response

The eCheck Prenotification Sale response has the following structure:

```
<echeckPreNoteSaleResponse id="eCheckSale Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <orderId>Order Id</orderId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
</echeckPreNoteSaleResponse>
```

Example: eCheck Prenotification Sale Response

```
<litleResponse version="9.2" xmlns="http://www.litle.com/schema" id="123"
 response="0" message="Valid Format" litleSessionId="987654321">
 <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
  <echeckPreNoteSaleResponse id="AX54321678" reportGroup="RG27"
 customerId="53">
    <litleTxnId>84568456</litleTxnId>
    <orderId>12z58743y1</orderId>
    <response>000</response>
    <responseTime>2011-09-01T10:24:31</responseTime>
    <message>Approved</message>
  </echeckPreNoteCreditResponse>
  <echeckPreNoteCreditResponse id="AX54325432" reportGroup="RG12">
    <litleTxnId>84568457</litleTxnId>
    <orderId>12z58743y7</orderId>
    <response>000</response>
    <responseTime>2011-09-01T10:24:31</responseTime>
    <message>Approved</message>
  </echeckPreNoteSaleResponse>
 </batchResponse>
</litleResponse>
```

3.3.17 eCheck Redeposit Transactions

You use this transaction type to manually attempt redeposits of eChecks returned for either Insufficient Funds or Uncollected Funds. You can use this element in either Batch or Online transactions.

NOTE: **Do not use this transaction type if you are enabled for the Auto Redeposit feature. If you are enabled for the Auto Redeposit feature, the system will reject any `echeckRedeposit` transaction you submit.**

3.3.17.1 eCheck Redeposit Request

You must specify the eCheck Redeposit request using the following format:

```
<echeckRedeposit id="eCheck Redeposit Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <echeck> or <echeckToken>
  <merchantData>
</echeckredeposit>
```

NOTE: **If you include the echeck element, the values submitted for `accType`, `accNum`, and `routingNum` children must match those submitted in the original `echeckSale` transaction.**

Example: Online eCheck Redeposit Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="81603">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <echeckRedeposit reportGroup="001603">
    <litleTxnId>345454444</litleTxnId>
    <echeck>
      <accType>Checking</accType>
      <accNum>1099999903</accNum>
      <routingNum>114567895</routingNum>
    </echeck>
    <merchantData>
      <campaign>New Marketing Campaign</campaign>
    </merchantData>
  </echeckRedeposit>
</litleOnlineRequest>
```

Example: Batch eCheck Redeposit Request

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema"
  numBatchRequests="1">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <batchRequest id="uniqueId" numEcheckRedeposit="4" merchantId="1603">
    <echeckRedeposit reportGroup="001603">
      <litleTxnId>3456456444</litleTxnId>
      <merchantdata>
        <affiliate>ABC Marketing</affiliate>
      </merchantdata>
    </echeckRedeposit>
    <echeckRedeposit reportGroup="001603">
      <litleTxnId>3456456449</litleTxnId>
      <echeck>
        <accType>Checking</accType>
        <accNum>1099999903</accNum>
        <routingNum>114567895</routingNum>
      </echeck>
      <merchantdata>
        <affiliate>ABC Marketing</affiliate>
      </merchantdata>
    </echeckRedeposit>
    <echeckRedeposit reportGroup="001603">
      <litleTxnId>3456557123</litleTxnId>
      <echeck>
        <accType>Savings</accType>
        <accNum>10999999444</accNum>
        <routingNum>114567895</routingNum>
      </echeck>
      <merchantdata>
        <affiliate>ABC Marketing</affiliate>
      </merchantdata>
    </echeckRedeposit>
    <echeckRedeposit reportGroup="001603">
      <litleTxnId>123456789</litleTxnId>
    </echeckRedeposit>
  </batchRequest>
</litleRequest>
```

3.3.17.2 eCheck Redeposit Response

The eCheck Redeposit response indicates that we have received your eCheck Redeposit request. This does not indicate when funds will be transferred. The `<accountUpdater>` element is included only if the account information submitted in the request transaction has changed (NOC exists). In this case the system automatically updates the information sent to the ACH network and includes the change information in the response.

The eCheck Sale response has the following structure:

```
<echeckRedepositResponse id="eCheckRedeposit Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
  <postDate>Date of Posting</postDate> (Online Only)
  <accountUpdater>Account Change Info</accountUpdater>
</echeckRedepositResponse>
```

Example: Batch eCheck Redeposit Response

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <echeckRedepositResponse id="AX54321678" reportGroup="RG27"
  customerId="53">
      <litleTxnId>84568456</litleTxnId>
      <response>000</response>
      <responseTime>2010-06-01T10:24:31</responseTime>
      <message>Approved</message>
    </echeckRedepositResponse>
    <echeckRedepositResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <response>000</response>
      <responseTime>2010-06-01T10:24:31</responseTime>
      <message>Approved</message>
      <accountUpdater>
        <originalAccountInfo>
          <accType>Checking</accType>
          <accNum>5186005800001012</accNum>
          <routingNum>000010101</routingNum>
        </originalAccountInfo>
        <newAccountInfo>
          <accType>Checking</accType>
          <accNum>5499576040500006</accNum>
          <routingNum>000010102</routingNum>
        </newAccountInfo>
      </accountUpdater>
    </echeckRedepositResponse>
  </batchResponse>
</litleResponse>
```

3.3.18 eCheck Sale Transactions

You use the eCheck Sale transaction to capture funds from a customer paying via electronic checks. It is the eCheck equivalent of a Capture transaction. Setting the <`verify`> element to **true** triggers an eCheck Verification operation prior to the capture. If the verification fails, the system does not process the capture operation.

NOTE: **To perform a verification you must include the following optional children of the billToAddress element in your request: `firstName`, `lastName`, companyName (if accType = Corporate or Corp Savings), `address1` (address 2 and 3 if needed), `city`, `state`, `zip`, and phone.**

The value for the orderSource element must be one of the following: telephone, ecommerce, or recurringtel.

3.3.18.1 eCheck Sale Request

You must specify the eCheck Sale request using the following format:

```
<echeckSale id="eCheckSale Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <orderId>Order Id</orderId>
  <verify>true or false</verify>
  <amount>Authorization Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <orderSource>Order Entry Source</orderSource>
  <billToAddress>
  <shipToAddress>
```

```
      <echeck> or <echeckToken>
      <customBilling>
      <merchantData>
    </echeckSale>
```

Example: eCheck Sale Request

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="654321" numEcheckSales="1" echeckSalesAmount="10000"
  merchantId="100">
    <echeckSale id="AX54321678" reportGroup="RG27" customerId="53">
      <orderId>12z58743y1</orderId>
      <verify>true</verify>
      <amount>10000</amount>
      <orderSource>telephone</orderSource>
      <billToAddress>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <addressLine1>123 4th street</addressLine1>
        <addressLine2>Apt. 20</addressLine2>
        <addressLine3>second floor</addressLine3>
        <city>San Jose</city>
        <state>CA</state>
        <zip>95032</zip>
        <country>USA</country>
        <email>jdoe@isp.com</email>
        <phone>408-555-1212</phone>
      </billToAddress>
      <echeck>
        <accType>Checking</accType>
        <accNum>5186005800001012</accNum>
        <routingNum>000010101</routingNum>
        <checkNum>1104</checkNum>
      </echeck>
    </echeckSale>
  </batchRequest>
</litleRequest>
```

3.3.18.2 eCheck Sale Response

The eCheck Sale response indicates that we have received your eCheck Sale request. This does not indicate when funds will be transferred. The `<accountUpdater>` element is included only if the account information submitted in the request transaction has changed (NOC exists). In this case the system automatically updates the information sent to the ACH network and includes the change information in the response.

NOTE: The schema for `echeckSalesResponse` includes a `verificationCode` child element. This element is not used at this time.

The eCheck Sale response has the following structure:

```
<echeckSalesResponse id="eCheckSale Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
  <postDate>Date of Posting</postDate> (Online Only)
  <accountUpdater>Account Change Info</accountUpdater>
  <tokenResponse> (for Tokenized merchants submitting account data)
</echeckSaleResponse>
```

Example: eCheck Sale Response

The response example below includes the `accountUpdater` element, which indicates that there is a NOC against the account and provides the new account information. If the request used a token, the `accountUpdater` element would have children providing the original and new token information.

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <echeckSalesResponse id="AX54321678" reportGroup="RG27" customerId="53">
      <litleTxnId>84568456</litleTxnId>
      <response>000</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
    </echeckSalesResponse>
    <echeckSalesResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <response>000</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
      <accountUpdater>
        <originalAccountInfo>
          <accType>Checking</accType>
          <accNum>5186005800001012</accNum>
          <routingNum>000010101</routingNum>
        </originalAccountInfo>
        <newAccountInfo>
          <accType>Checking</accType>
          <accNum>5499576040500006</accNum>
          <routingNum>000010102</routingNum>
        </newAccountInfo>
      </accountUpdater>
    </echeckSalesResponse>
  </batchResponse>
</litleResponse>
```

3.3.19 eCheck Verification Transactions

You use an eCheck Verification transaction to initiate a comparison to a database containing information about checking accounts. The database may include information as to whether the account has been closed, as well as whether there is a history of undesirable behavior associated with the account/account holder. This transaction type is only supported for US transactions.

NOTE: **While eCheck Verification is a valuable tool that you can use to reduce possible fraud and loss, unlike a credit card authorization, it does not check for the availability of funds, nor does it place a hold on any funds.**

3.3.19.1 eCheck Verification Request

You must specify the eCheck Verification request using the following format:

IMPORTANT: For an `eCheckVerification` transaction, you must submit the `firstName` and `lastName` elements instead of the name element (`middleInitial` is optional). For a corporate account you must include the companyName element in addition to the `firstName` and `lastName` elements. In both cases, you also must include the `address`, `city`, `state, zip` and phone information.

For a corporate account, if you do not have the name of the check issuer, you can use a value of "`unavailable`" for the `firstName` and `lastName` elements.

```
<echeckVerification id="echeckVerification Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <orderId>Order Id</orderId>
  <amount>Authorization Amount</amount>
  <orderSource>Order Entry Source</orderSource>
  <billToAddress>
  <echeck> or <echeckToken>
  <merchantData>
</echeckVerification>
```

Example: eCheck Verification Request - Personal Checking

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
 numBatchRequests="1">
 <authentication>
  <user>userName</user>
  <password>password</password>
 </authentication>
 <batchRequest id="654321" numEcheckVerification="1"
 echeckVerificationAmount="10000" merchantId="100">
  <echeckVerification id="AX54321678" reportGroup="RG27" customerId="53">
   <orderId>12z58743y1</orderId>
   <amount>10000</amount>
   <orderSource>telephone</orderSource>
   <billToAddress>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <addressLine1>123 4th street</addressLine1>
    <addressLine2>Apt. 20</addressLine2>
    <addressLine3>second floor</addressLine3>
    <city>San Jose</city>
```

```
        <state>CA</state>
        <zip>95032</zip>
        <country>USA</country>
        <email>jdoe@isp.com</email>
        <phone>408-555-1212</phone>
      </billToAddress>
      <echeck>
        <accType>Checking</accType>
        <accNum>5186005800001012</accNum>
        <routingNum>000010101</routingNum>
        <checkNum>1104</checkNum>
      </echeck>
      <merchantData>
        <campaign>New Campaign</campaign>
      </merchantData>
    </echeckVerification>
  </batchRequest>
</litleRequest>
```

Example: eCheck Verification Request - Corporate Account

NOTE: **If you do not have the name of the check issuer, you can use a value of "`unavailable`" for the `firstName` and `lastName` elements.**

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="654321" numEcheckVerification="1"
  echeckVerificationAmount="10000" merchantId="100">
    <echeckVerification id="AX54321678" reportGroup="RG27" customerId="53">
      <orderId>12z58743y1</orderId>
      <amount>10000</amount>
      <orderSource>telephone</orderSource>
      <billToAddress>
        <firstName>Paul</firstName>
        <lastName>Jones</lastName>
        <companyName>Widget Company</companyName>
        <addressLine1>123 4th street</addressLine1>
        <addressLine2>Apt. 20</addressLine2>
        <addressLine3>second floor</addressLine3>
        <city>San Jose</city>
        <state>CA</state>
        <zip>95032</zip>
        <country>USA</country>
        <email>pjones@isp.com</email>
        <phone>408-555-1212</phone>
      </billToAddress>
      <echeck>
        <accType>Corporate</accType>
        <accNum>5186005800001012</accNum>
        <routingNum>000010101</routingNum>
        <checkNum>1104</checkNum>
      </echeck>
    </echeckVerification>
  </batchRequest>
</litleRequest>8.6
```

3.3.19.2 eCheck Verification Response

The <accountUpdater> element is included only if the account information submitted in the request transaction has changed (NOC exists). In this case the system automatically updates the information sent to the ACH network and includes the change information in the response.

The eCheck Verification response has the following structure:

```
<echeckVerificationResponse id="echeckVerification Id" reportGroup="iQ Report
Group" customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
  <postDate>Date of Posting</postDate> (Online Only)
  <tokenResponse> (for Tokenized merchants submitting account data)
  <accountUpdater>Account Change Info</accountUpdater>
</echeckSaleResponse>
```

Example: eCheck Verification Response

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
```

```
    <echeckVerificationResponse id="AX54321678" reportGroup="RG27"
  customerId="53">
      <litleTxnId>84568456</litleTxnId>
      <response>000</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
    </echeckVerificationResponse>
    <echeckVerificationResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <response>000</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
      <accountUpdater>
        <originalAccountInfo>
          <accType>Checking</accType>
          <accNum>5186005800001012</accNum>
          <routingNum>000010101</routingNum>
        </originalAccountInfo>
        <newAccountInfo>
          <accType>Checking</accType>
          <accNum>5499576040500006</accNum>
          <routingNum>000010102</routingNum>
        </newAccountInfo>
      </accountUpdater>
    </echeckVerificationResponse>
  </batchResponse>
</litleResponse>
```

3.3.20 eCheck Void Transactions (Online Only)

You use an eCheck Void transaction to either halt automatic redeposit attempts of eChecks returned for either Insufficient Funds or Uncollected Funds, or cancel an eCheck Sale transaction, as long as the transaction has not yet settled. This also applies to merchant initiated redeposits. You can use this element only in Online transactions.

3.3.20.1 eCheck Void Request

The eCheck Void request references the `<litleTxnId>` of the previously approved transaction. You must structure an eCheck Void request as follows.

```
<echeckVoid id = "echeckVoid Id" reportGroup="iQ Report Group">
  <litleTxnId>Transaction Id</litleTxnId>
```

```
</echeckVoid>
```

Example: eCheck Void Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
 merchantId="81601">
 <authentication>
  <user>User Name</user>
  <password>Password</password>
 </authentication>
 <echeckVoid id="101" reportGroup="001601">
  <litleTxnId>345454444</litleTxnId>
 </echeckVoid>
</litleOnlineRequest>
```

3.3.20.2 eCheck Void Response

The eCheck Void response has the following structure.

```
<echeckVoidResponse id="eCheck Void Id" reportGroup="iQ Report Group"
numDeposits=>"1"
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date of Posting</postDate>
  <message>Response Message</message>
</echeckVoidResponse>
```

Example: Online eCheck Void Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
 response="0" message="Valid Format">
 <echeckVoidResponse id="101" reportGroup="001601">
  <litleTxnId>21200000026600</litleTxnId>
  <response>001</response>
  <responseTime>2015-06-17T21:20:50</responseTime>
  <message>Transaction received</message>
  <postDate>2010-06-17</postDate>
 </echeckVoidResponse>
</litleOnlineResponse>
```

3.3.21 Force Capture Transactions

A Force Capture transaction is a Capture transaction used when you do not have a valid Authorization for the order, but have fulfilled the order and wish to transfer funds.

CAUTION: **Merchants must be authorized by Litle & Co. before submitting transactions of this type. In some instances, using a Force Capture transaction can lead to chargebacks and fines.**

3.3.21.1 Force Capture Request

You must specify the Force Capture request as follows. The structure of the request is identical for either an Online or a Batch submission.

```
<forceCapture id="Id" reportGroup="iQ Report Group" customerId="Customer Id">
  <orderId>Order Id</orderId>
  <amount>Force Capture Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <orderSource>Order Entry Source</orderSource>
  <billToAddress>
  [ <card | token> | <paypage> | <mpos>]
  <customBilling>
  <taxType>payment or fee</taxType>
  <enhancedData>
  <processingInstructions>
  <pos>
  <amexAggregatorData>
  <merchantData>
  <debtRepayment>true or false</debtRepayment>
  <processingType>accountFunding</processingType>
</forceCapture>
```

Example: Batch Force Capture Request

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
```

```
<batchRequest id="01234567" numForceCaptures="1"
forceCaptureAmount="10000" merchantId="100">
 <forceCapture id="AX54321678" reportGroup="RG27" customerId="038945">
  <orderId>orderId</orderId>
  <amount>10000</amount>
  <orderSource>ecommerce</orderSource>
  <card>
   <type>VI</type>
   <number>4005550000081019</number>
   <expDate>0910</expDate>
  </card>
  <enhancedData>
   <customerReference>PO12345</customerReference>
   <salesTax>125</salesTax>
   <taxExempt>false</taxExempt>
   <discountAmount>0</discountAmount>
   <shippingAmount>495</shippingAmount>
   <dutyAmount>0</dutyAmount>
   <shipFromPostalCode>01851</shipFromPostalCode>
   <destinationPostalCode>01851</destinationPostalCode>
   <destinationCountryCode>USA</destinationCountryCode>
   <invoiceReferenceNumber>123456</invoiceReferenceNumber>
   <orderDate>2011-09-14</orderDate>
   <detailTax>
    <taxIncludedInTotal>true</taxIncludedInTotal>
    <taxAmount>55</taxAmount>
    <taxRate>0.0059</taxRate>
    <taxTypeIdentifier>00</taxTypeIdentifier>
    <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
   </detailTax>
   <lineItemData>
    <itemSequenceNumber>1</itemSequenceNumber>
    <itemDescription>chair</itemDescription>
    <productCode>CH123</productCode>
    <quantity>1</quantity>
    <unitOfMeasure>EACH</unitOfMeasure>
    <taxAmount>125</taxAmount>
    <lineItemTotal>9380</lineItemTotal>
    <lineItemTotalWithTax>9505</lineItemTotalWithTax>
    <itemDiscountAmount>0</itemDiscountAmount>
    <commodityCode>300</commodityCode>
    <unitCost>93.80</unitCost>
    <detailTax>
```

```
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>55</taxAmount>
          <taxRate>0.0059</taxRate>
          <taxTypeIdentifier>03</taxTypeIdentifier>
          <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
        </detailTax>
      </lineItemData>
    </enhancedData>
  </forceCapture>
 </batchRequest>
</litleRequest>
```

Example: Online Force Capture Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
 merchantId="123">
 <authentication>
   <user>userName</user>
   <password>password</password>
 </authentication>
 <forceCapture id="AX54321678" reportGroup="RG27" customerId="038945">
   <orderId>orderId</orderId>
   <amount>10000</amount>
   <orderSource>ecommerce</orderSource>
   <card>
     <type>VI</type>
     <number>4005550000081019</number>
     <expDate>0907</expDate>
   </card>
   <enhancedData>
     <customerReference>PO12345</customerReference>
     <salesTax>125</salesTax>
     <taxExempt>false</taxExempt>
     <discountAmount>0</discountAmount>
     <shippingAmount>495</shippingAmount>
     <dutyAmount>0</dutyAmount>
     <shipFromPostalCode>01851</shipFromPostalCode>
     <destinationPostalCode>01851</destinationPostalCode>
     <destinationCountryCode>USA</destinationCountryCode>
     <invoiceReferenceNumber>123456</invoiceReferenceNumber>
     <orderDate>2011-08-14</orderDate>
     <detailTax>
       <taxIncludedInTotal>true</taxIncludedInTotal>
```

```
        <taxAmount>55</taxAmount>
        <taxRate>0.0059</taxRate>
        <taxTypeIdentifier>00</taxTypeIdentifier>
        <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
      </detailTax>
      <lineItemData>
        <itemSequenceNumber>1</itemSequenceNumber>
        <itemDescription>chair</itemDescription>
        <productCode>CH123</productCode>
        <quantity>1</quantity>
        <unitOfMeasure>EACH</unitOfMeasure>
        <taxAmount>125</taxAmount>
        <lineItemTotal>9380</lineItemTotal>
        <lineItemTotalWithTax>9505</lineItemTotalWithTax>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>93.80</unitCost>
      </lineItemData>
    </enhancedData>
  </forceCapture>
</litleOnlineRequest>
```

3.3.21.2 Force Capture Response

The Force Capture response message is identical for Online and Batch transactions, except Online includes the `<postDate>` element. The Force Capture response has the following structure:

```
<forceCaptureResponse id="Capture Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date of Posting</postDate> (Online Only)
  <message>Response Message</message>
  <tokenResponse> (for Tokenized merchants submitting card data)
  <accountUpdater>
</forceCaptureResponse>
```

Example: Batch Force Capture Response

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema"  id="123"
```

```
  litleSessionId="987654321" response="0" message="Valid Format">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <forceCaptureResponse id="AX54325432" reportGroup="RG12"
  customerId="038945">
      <litleTxnId>84568457</litleTxnId>
      <response>000</response>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
    </forceCaptureResponse>
  </batchResponse>
</litleResponse>
```

Example: Online Force Capture Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <forceCaptureResponse id="2" reportGroup="ABC Division"
  customerId="038945">
    <litleTxnId>1100030204</litleTxnId>
    <response>000</response>
    <responseTime>2011-07-11T14:48:48</responseTime>
    <postDate>2011-07-11</postDate>
    <message>Approved</message>
  </forceCaptureResponse>
</litleOnlineResponse>
```

Example: Force Capture Response for Tokenized Merchant Sending Card Data

A tokenized merchant that includes card information in the request receives a response message that includes the `token` element. The example below is an Online response.

```
<forceCaptureResponse id="99999" reportGroup="RG1" customerId="444">
  <litleTxnId>21200000039504</litleTxnId>
  <response>000</response>
  <responseTime>2011-10-20T18:25:38</responseTime>
  <postDate>2011-10-20</postDate>
  <message>Approved</message>
  <tokenResponse>
    <litleToken>111310880008000</litleToken>
    <tokenResponseCode>801</tokenResponseCode>
    <tokenMessage>Account number was successfully registered</tokenMessage>
    <type>AX</type>
    <bin></bin>
  </tokenResponse>
```

```
</forceCaptureResponse>
```

3.3.22 Load Transactions

The Load transaction adds funds to an active Gift Card. The load amount cannot exceed the maximum allowed amount for the Gift Card. If you attempt to load more than the maximum amount, the transaction will be declined with a response Code of 221 - Over Max Balance.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.22.1 Load Request

You must specify the Load request as follows. The structure of the request is identical for either an Online or a Batch submission.

```
<load id="Load Id" reportGroup="iQ Report Group" customerId="Customer Id">
  <orderId>Order Id</orderId>
  <amount>Amount to Load</amount>
  <orderSource>Order Entry Source</orderSource>
  <card>
</load>
```

Example: Online Load Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <load id="834262" reportGroup="ABC Division" customerId="038945">
    <orderId>65347567</orderId>
    <amount>40000</amount>
    <orderSource>ecommerce</orderSource>
    <card>
      <type>GC</type>
      <number>9000000000000001</number>
    </card>
  </load>
```

```
</litleOnlineRequest>
```

3.3.22.2 Load Response

An Load response has the following structure. The response message is identical for Online and Batch transactions except Online includes the `<postDate>` element.

```
<loadResponse id="Load Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date transaction posted</postDate> (Online Only)
  <message>Response Message</message>
  <fraudResult>
  <giftCardResponse> (included if Gift Card is Method of Payment)
</loadResponse>
```

Example: Load Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <loadResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>000</response>
    <responseTime>2013-07-25T15:13:43</responseTime>
    <postDate>2013-07-25</postDate>
    <message>Approved</message>
    <giftCardResponse>
      <availableBalance>5000</availableBalance>
      <beginningBalance>1000</beginningBalance>
      <endingBalance>5000</endingBalance>
    </giftCardResponse>
  </loadResponse>
</litleOnlineResponse>
```

3.3.23 Load Reversal Transactions (Online Only)

The Load Reversal transaction reverses the operation of a Load transaction, removing the newly loaded amount from the Gift Card. The Load Reversal references the associated Load transaction by means of the `litleTxnId` element returned in the Load response. You cannot perform a partial Load Reversal. This transaction always reverses the full amount of the referenced Load transaction. This transaction type is available only for Online transactions.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.23.1 Load Reversal Request

You must structure a Load Reversal request as shown in the following examples.

```
<loadReversal id="Load Reversal Id" reportGroup="iQ Report Group"
customerId="Customer Id">

  <litleTxnId>Transaction Id from Load Response</litleTxnId>

</loadReversal>
```

Example: Online Load Reversal Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <loadReversal id="12345" customerId="Customer Id" reportGroup="Load
  Reversals">
    <litleTxnId>12345678</litleTxnId>
  </loadReversal>
</litleOnlineRequest>
```

3.3.23.2 Load Reversal Response

An Load Reversal response has the following structure.

```
<loadReversalResponse id="Load Reversal Id" reportGroup="iQ Report
Group" customerId="Customer Id">

  <litleTxnId>Transaction Id</litleTxnId>

  <response>Response Code</response>
```

```
      <responseTime>Date and Time in GMT</responseTime>
      <postDate>Date transaction posted</postDate>
      <message>Response Message</message>
      <giftCardResponse>
    </loadReversalResponse>
```

Example: Online Load Reversal Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <loadReversalResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-25T15:13:43</responseTime>
    <postDate>2015-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>1000</availableBalance>
    </giftCardResponse>
  </loadReversalResponse>
</litleOnlineResponse>
```

3.3.24 Status Query Transactions (Online Only)

You use a Status Query Transaction to verify the status of an Online transaction submitted within the prior six hours. As search criteria, you must submit, at a minimum, the id (the `id` attribute) and transaction type (i.e., authorization, deposit, void, etc.) of the original transaction, but to narrow the search, you can also include the transaction id, order id, and the account number (credit, debit, or gift card) from the original transaction. This transaction type is available only for Online transactions.

NOTE: **You must be specifically enable to use this transaction type. Please speak to your Implementation Consultant or Customer Experience Manager for additional information.**

3.3.24.1 Query Transaction Request

You must structure your Query request as shown below. The `origId` and `origActionType` elements are required.

NOTE: **If submitting a query for an eCheck transaction, do not include the account number. Use the `origAccountNumber` element for Credit/Debit/Gift cards only.**

```
<queryTransaction id="GCQueryAuth" reportGroup = "Mer5PM1" customerId="1">
  <origId>id Attribute for Original Transaction</origId>
  <origActionType>Code for type of Original Transaction</origActionType>
  <origLitleTxnId>litleTxnId from Original Transaction</origLitleTxnId>
  <origOrderId>orderId from Original Transaction</origOrderId>
  <origAccountNumber>Card Number from Original Transaction</origAccountNumber>
</queryTransaction>
```

Example: Query Transaction Request

```
<litleOnlineRequest version="10.0" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <queryTransaction id="query1" reportGroup="Some RG" customerId="038945">
    <origId>834262</origId>
    <origActionType>A</origActionType>
    <origLitleTxnId>9695061110103040608</origLitleTxnId>
    <origOrderId>65347567</orderId>
    <origAccountNumber>4000000000000001</origAccountNumber>
  </queryTransaction>
</litleOnlineRequest>
```

3.3.24.2 Query Transaction Response

The structure of the Query Transaction response message can vary according to the results of the query. The results can include a single or multiple transactions that meet the query criteria, no results, if nothing was found, or a limited response, if a transaction was found, but processing was not complete. The structure of the response message will be as follows:

```
<queryTransactionResponse>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
```

```
<matchCount>Number of Matches Found</matchCount>

<results_Max10>

  <queryTransactionUnavailableResponse>

  or

  One or more (10 max) found transaction responses of type specified in the
queryTransaction

</results_Max10>

</queryTransactionResponse>
```

Example: Query Transaction Response with One Found Transaction

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
response="0" message="Valid Format">
  <queryTransactionResponse id="GCQueryAuth" reportGroup="Mer5PM1"
  customerId="1">
    <response>150</response>
    <responseTime>2015-04-06T16:40:24</responseTime>
    <message>Original transaction found</message>
    <matchCount>1</matchCount>
    <results_max10>
      <authorizationResponse id="GiftCardAuth" reportGroup="Mer5PM1"
  customerId="1">
        <litleTxnId>82827170811986124</litleTxnId>
        <orderId>150330_GCAuth</orderId>
        <response>000</response>
        <responseTime>2015-04-06T16:40:04</responseTime>
        <postDate>2015-04-06</postDate>
        <message>Approved</message>
        <authCode>111115</authCode>
        <fraudResult>
          <avsResult>30</avsResult>
          <cardValidationResult>M</cardValidationResult>
        </fraudResult>
        <giftCardResponse>
          <availableBalance>125</availableBalance>
        </giftCardResponse>
      </authorizationResponse>
    </results_max10>
  </queryTransactionResponse>
</litleOnlineResponse>
```

Example: Query Transaction Response with Multiple Found Transactions

NOTE: **This response only occurs if you fail to use unique values for the id attribute, when submitting transactions.**

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
response="0" message="Valid Format">
  <queryTransactionResponse id="GCQueryAuth" reportGroup="Mer5PM1"
  customerId="1">
    <response>150</response>
    <responseTime>2015-04-06T16:40:24</responseTime>
    <message>Original transaction found</message>
    <matchCount>2</matchCount>
    <results_max10>
      <authorizationResponse id="DupeId" reportGroup="Mer5PM1">
        <litleTxnId>82827170811986215</litleTxnId>
        <orderId>150331_DupeAuth2</orderId>
        <response>000</response>
        <responseTime>2015-04-06T16:40:12</responseTime>
        <postDate>2015-04-06</postDate>
        <message>Approved</message>
        <authCode>055858</authCode>
        <fraudResult>
          <avsResult>32</avsResult>
          <cardValidationResult>M</cardValidationResult>
        </fraudResult>
      </authorizationResponse>
      <authorizationResponse id="DupeId" reportGroup="Mer5PM1">
        <litleTxnId>82827170811986207</litleTxnId>
        <orderId>150331_DupeAuth1</orderId>
        <response>000</response>
        <responseTime>2015-04-06T16:40:11</responseTime>
        <postDate>2015-04-06</postDate>
        <message>Approved</message>
        <authCode>111111</authCode>
        <fraudResult>
          <avsResult>00</avsResult>
          <cardValidationResult>M</cardValidationResult>
        </fraudResult>
      </authorizationResponse>
    </results_max10>
  </queryTransactionResponse>
</litleOnlineResponse>
```

Example: Query Transaction Response with No Found Transaction

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <queryTransactionResponse id="AuthFromSale" reportGroup="Mer5PM1">
    <response>151</response>
    <responseTime>2015-04-06T16:40:30</responseTime>
    <message>Original transaction not found</message>
    <matchCount>0</matchCount>
    <results_max10></results_max10>
  </queryTransactionResponse>
</litleOnlineResponse>
```

Example: Query Transaction Response with Transaction Found, but not Complete

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <queryTransactionResponse id="someAuth" reportGroup="Mer5PM1">
    <response>152</response>
    <responseTime>2015-04-06T16:40:30</responseTime>
    <message>Original transaction found but response not yet
  available</message>
    <matchCount>1</matchCount>
    <results_max10>
      <queryTransactionUnavailableResponse>
        <litleTxnId>82827170811986124</litleTxnId>
        <response>152</response>
        <message>Original transaction found but response not yet
  available</message>
      </queryTransactionUnavailableResponse>
    </results_max10>
  </queryTransactionResponse>
</litleOnlineResponse>
```

3.3.25 Refund Reversal Transactions (Online Only)

The Refund Reversal transaction is a Gift Card only transaction that reverses the operation of a Refund transaction on the Gift Card. The Refund Reversal references the associated Credit transaction by means of the `litleTxnId` element returned in the Credit response. You cannot perform a partial Refund Reversal. This transaction always reverses the full amount of the referenced Refund transaction. This transaction type is available only for Online transactions.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.25.1 Refund Reversal Request

You must structure a Refund Reversal request as shown in the following examples.

```
<refundReversal id="Refund Reversal Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id from Refund Response</litleTxnId>
</refundReversal>
```

Example: Online Refund Reversal Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <refundReversal id="12345" customerId="Customer Id" reportGroup="Refund
  Reversals">
    <litleTxnId>12345678</litleTxnId>
  </refundReversal>
</litleOnlineRequest>
```

3.3.25.2 Refund Reversal Response

An Refund Reversal response has the following structure.

```
<refundReversalResponse id="Refund Reversal Id" reportGroup="iQ Report
Group" customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
```

```
      <responseTime>Date and Time in GMT</responseTime>
      <postDate>Date transaction posted</postDate>
      <message>Response Message</message>
      <giftCardResponse>
    </refundReversalResponse>
```

Example: Online Refund Reversal Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <refundReversalResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-25T15:13:43</responseTime>
    <postDate>2015-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>1000</availableBalance>
    </giftCardResponse>
  </refundReversalResponse>
</litleOnlineResponse>
```

3.3.26 Register Token Transactions

The Register Token transaction enables you to submit a credit card number, eCheck account number, or Registration Id to us and receive a token in return. While you can submit Register Token transactions at any time, typically, you would make use of this transactions when initially converting to the use of tokens. In this case you would submit large quantities of credit cards/eCheck account numbers in Batches and replace them in your database with the tokens returned.

NOTE: **When initially tokenizing your customer database, Vantiv recommends that you collect all distinct credit card numbers and submit the information in one or more large Session files. When you receive the response file, parse the returned token information to your database, replacing the card numbers.**

3.3.26.1 Register Token Request

You must specify the Register Token request as follows. The structure of the request is identical for either an Online or a Batch submission. The child elements used differ depending upon whether you are registering a credit card account, an eCheck account, or submitting a Registration Id.

When you submit the CVV2/CVC2/CID in a `registerTokenRequest`, the platform encrypts and stores the value on a temporary basis for later use in a tokenized Auth/Sale transaction submitted without the value. This is done to accommodate merchant systems/workflows where the security code is available at the time of token registration, but not at the time of the Auth/Sale. If for some reason you need to change the value of the security code supplied at the time of the token registration, use an `updateCardValidationNumOnToken` transaction. To use the store value when submitting an Auth/Sale transaction, set the cardValidationNum value to 000.

NOTE: **The use of the `cardValidationNum` element in the `registertokenRequest` only applies when you submit an `accountNumber` element.**

For credit cards:

```
<registerTokenRequest id="Id" reportGroup="iQ Report Group">
  <orderId>Order Id</orderId>
  <accountNumber>Card Account Number</accountNumber>
  <cardValidationNum>CVV2/CVC2/CID</cardValidationNum>
</registerTokenRequest>
```

For eCheck accounts:

```
<registerTokenRequest id="Id" reportGroup="iQ Report Group">
  <orderId>Order Id</orderId>
  <echeckForToken>
    <accNum>Account Number</accNum>
    <routingNum>Routing Number</routingNum>
  </echeckForToken>
</registerTokenRequest>
```

For Registration Ids:

```
<registerTokenRequest id="Id" reportGroup="iQ Report Group">
  <orderId>Order Id</orderId>
  <paypageRegistrationId>
</registerTokenRequest>
```

For Mobile POS transactions:

```
<registerTokenRequest id="Id" reportGroup="iQ Report Group">
  <orderId>Order Id</orderId>
```

```
        <mpos>
          <ksn>Key Serial Number</ksn>
          <formatId>Format of Encrypted Track</formatId>
          <encryptedTrack>Encrypted Track Data</encryptedTrack>
          <track1Status>Track Read Status - 0 or 1</track1Status>
          <track2Status>Track Read Status - 0 or 1</track2Status>
        </mpos>
      </registerTokenRequest>
```

For Apple Pay transactions:

```
      <registerTokenRequest id="Id" reportGroup="iQ Report Group">
        <orderId>Order Id</orderId>
        <applepay>
          <data>Encrypted Payment Data</data>
          <header>
            <applicationData>Hash of Application Data Property</applicationData>
            <ephemeralPublicKey>Ephemeral Public Key</ephemeralPublicKey>
            <publicKeyHash>Merchant Cert Encoded Public Key</publicKeyHash>
            <transactionId>Transaction Id from Device</transactionId>
          </header>
          <signature>Signature of Payment and Header Data</signature>
          <version>Payment Token Version</version>
        </applepay>
      </registerTokenRequest>
```

Example: Batch Register Token Request - Credit Card

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numTokenRegistrations="1" merchantId="000902">
    <registerTokenRequest id="99999" reportGroup="RG1">
      <orderId>F12345</orderId>
      <accountNumber>4005101001000002</accountNumber>
      <cardValidationNum>999</cardValidationNum>
    </registerTokenRequest>
  </batchRequest>
</litleRequest>
```

Example: Batch Register Token Request - eCheck

```
<litleRequest version="10.0" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numTokenRegistrations="1" merchantId="000902">
    <registerTokenRequest id="99999" reportGroup="RG1">
      <orderId>F12345</orderId>
      <echeckForToken>
        <accNum>12345678901234567</accNum>
        <routingNum>000010101</routingNum>
      </echeckForToken>
    </registerTokenRequest>
  </batchRequest>
</litleRequest>
```

Example: Batch Register Token Request - paypageRegistationId

```
<litleRequest version="10.0" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numTokenRegistrations="1" merchantId="000902">
    <registerTokenRequest id="99999" reportGroup="RG1">
      <orderId>F12345</orderId>
      <paypageRegistrationId>12345678901234567</paypageRegistrationId>
    </registerTokenRequest>
  </batchRequest>
</litleRequest>
```

3.3.26.2 Register Token Response

There is no structural difference an Online and Batch response; however, some child elements change depending upon whether the token is for a credit card account or an eCheck account. The response will have one of the following structures.

Register Token response for Credit Cards:

```
<registerTokenResponse id="99999" reportGroup="RG1">
  <litleTxnId>Transaction Id</litleTxnId>
  <litleToken>Token</litleToken>
  <bin>BIN</bin>
  <type>Method of Payment</type>
  <response>Response Code</response>
  <message>Response Message</message>
  <responseTime>Response Time</responseTime>
</registerTokenResponse>
```

Register Token response for eChecks:

```
<registerTokenResponse id="99999" reportGroup="RG1">
  <litleTxnId>Transaction Id</litleTxnId>
  <litleToken>Token</litleToken>
  <type>Method of Payment</type>
  <eCheckAccountSuffix>Last 3 of Acct Number</eCheckAccountSuffix>
  <response>Response Code</response>
  <responseTime>Response Time</responseTime>
  <message>Response Message</message>
</registerTokenResponse>
```

Register Token response for ApplePay:

```
<registerTokenResponse id="99999" reportGroup="RG1">
  <litleTxnId>Transaction Id</litleTxnId>
  <litleToken>Token</litleToken>
  <type>Method of Payment</type>
  <response>Response Code</response>
  <responseTime>Response Time</responseTime>
  <message>Response Message</message>
  <applepayResponse>
```

```
          <applicationExpirationDate>App PAN Exp Date</applicationExpirationDate>
          <currencyCode>Currency Code</currencyCode>
          <transactionAmount>Amount of Transaction</transactionAmount>
          <cardholderName>Name of cardholder</cardholderName>
          <deviceManufacturerIdentifier>Device Mfr Id</deviceManufacturerIdentifier>
          <paymentDataType>Type of Payment Data</paymentDataType>
          <onlinePaymentCryptogram>Payment Cryptogram</onlinePaymentCryptogram>
          <eciIndicator>eCommerece Indicator</eciIndicator>
        </applepayResponse>
      </registerTokenResponse>
```

Example: Batch Register Token Response - Credit Card

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <registerTokenResponse id="99999" reportGroup="RG1">
      <litleTxnId>21122700</litleTxnId>
      <litleToken>1111000100360002</litleToken>
      <bin>400510</bin>
      <type>VI</type>
      <response>801</response>
      <responseTime>2010-10-26T17:21:51</responseTime>
      <message>Account number was successfully registered</message>
    </registerTokenResponse>
  </batchResponse>
</litleResponse>
```

Example: Batch Register Token Request - eCheck

```
<litleResponse version="8.2" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <registerTokenResponse id="99999" reportGroup="RG1">
      <litleTxnId>21122700</litleTxnId>
      <litleToken>1111000100360002</litleToken>
      <type>VI</type>
      <eCheckAccountSuffix>511</eCheckAccountSuffix>
      <response>801</response>
      <responseTime>2010-10-26T17:21:51</responseTime>
      <message>Account number was successfully registered</message>
    </registerTokenResponse>
  </batchResponse>
```

```
</litleResponse>
```

3.3.27 RFR Transactions (Batch Only)

An RFR (Request For Response) transaction enables you to request a response file for a previously submitted Batch. You make the request by submitting either the `litleSessionId` of the Batch, or in the case of a request for an Account Updater file, the `accountUpdateFileRequestData` element.

NOTE: **The use of RFR transactions for Account Updater files apply only to the legacy Account Updater solution.**

3.3.27.1 RFR Request

You must specify the RFR request as follows.

```
<RFRRequest>
  <litleSessionId | accNum>
</RFRRequest>
```

Example: RFR Request for Payment Transaction Batch

The following example shows an RFR request for the response, with 7766554321 as the value of the `<litleSessionId>` element.

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="0">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <RFRRequest>
    <litleSessionId>7766554321</litleSessionId>
  </RFRRequest>
</litleRequest>
```

Example: RFR Request for an Account Updater File

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
  numBatchRequests="0">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <RFRRequest>
    <merchantId>100</merchantId>
    <postDate>2010-01-15</postDate>
  </RFRRequest>
</litleRequest>
```

3.3.27.2 RFR Response

When using an RFR request to obtain the response file for a payment transaction Batch, the RFR response is exactly the same as the original session response associated with the `<litleSessionId>` you submitted in the RFR request. The session ID returned in the response will be the session ID of the original session.

When using an RFR request in an Account Updater scenario, you will receive either an Account Updater Completion response, if the file is ready, or an Account Updater RFR “not ready” response, as shown in the example below.

Example: Account Updater RFR “not ready” Response

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema">
  <RFRResponse response="1" message="The account update file is not ready
  yet. Please try again later.">
  </RFRResponse>
</litleResponse>
```

3.3.28 Sale Transactions

The Sale transaction enables you to both authorize fund availability and deposit those funds by means of a single transaction. The Sale transaction is also known as a conditional deposit, because the deposit takes place only if the authorization succeeds. If the authorization is declined, the deposit will not be processed.

NOTE: **If the authorization succeeds, the deposit is processed automatically, regardless of the AVS, CVV2, CVC2, or CID response, except for American Express transactions. For American Express, a failure to match the security code (CID) results in a declined transaction with the Response Reason Code of 352 - Decline CVV2/CID Fail.**

3.3.28.1 Sale Request

You must specify the Sale request as follows. The structure of the request is identical for either an Online or a Batch submission.

NOTE: **When you submit the CVV2/CVC2/CID in a registerTokenRequest, the platform encrypts and stores the value on a temporary basis for later use in a tokenized Auth/Sale transaction submitted without the value. To use the store value when submitting an Auth/Sale transaction, set the cardValidationNum value to 000.**

```
<sale id="Sale Id" reportGroup="iQ Report Group" customerId="Customer Id">
  <orderId>Order Id</orderId>
  <amount>Authorization Amount</amount>
  <secondaryAmount>Secondary Amount</secondaryAmount>
  <orderSource>Order Entry Source</orderSource>
  <customerInfo>
  <billToAddress>
  <shipToAddress>
  [ <card> | <paypage> | <token> | <paypal> | <mpos> | <applepay>]
  <billMeLaterRequest>
  <cardholderAuthentication>
  <customBilling>
  <taxType>payment or fee</taxType>
  <enhancedData>
  <processingInstructions>
  <pos>
  <payPalOrderComplete>Send true in the final Sale</payPalOrderComplete>
  <amexAggregatorData>
  <allowPartialAuth>
  <healthcareIIAS>
  <filtering>
  <merchantData>
  <recyclingRequest> (for Recycling Engine merchants)
  <fraudFilterOverride>
  <recurringRequest> (for Recurring Engine merchants)
  <debtRepayment>true or false</debtRepayment>
```

```
    <advancedFraudChecks>
    <wallet>
    <processingType>accountFunding</processingType>
  </sale>
```

Example: Batch Sale Request

```
<litleRequest version="9.4" xmlns="http://www.litle.com/schema" id="123"
 numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="01234567" numSales="1" saleAmount="12522"
  merchantId="100">
    <sale id="AX54321678" reportGroup="RG27">
      <orderId>12z58743y1</orderId>
      <amount>12522</amount>
      <orderSource>ecommerce</orderSource>
      <billToAddress>
        <name>John Doe</name>
        <addressLine1>123 4th street</addressLine1>
        <addressLine2>Apt. 20</addressLine2>
        <addressLine3>second floor</addressLine3>
        <city>San Jose</city>
        <state>CA</state>
        <zip>95032</zip>
        <country>USA</country>
        <email>jdoe@isp.com</email>
        <phone>408-555-1212</phone>
      </billToAddress>
      <card>
        <type>MC</type>
        <number>5186005800001012</number>
        <expDate>1110</expDate>
      </card>
    </sale>
  </batchRequest>
</litleRequest>
```

Example: Online Sale Request

NOTE: **The example below includes an `<orderSource>` value of 3dsAuthenticated and includes the `<cardholderAuthentication>` information. Use this `<orderSource>` value only if you are a 3DS merchant and authenticated the cardholder.**

Also, the values for the `<authenticationValue>` and `<authenticationTransactionId>` elements in the example below have been truncated.

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
 merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <sale id="1" reportGroup="ABC Division" customerId="038945">
    <orderId>5234234</orderId>
    <amount>40000</amount>
    <orderSource>3dsAuthenticated</orderSource>
    <billToAddress>
      <name>John Smith</name>
      <addressLine1>100 Main St</addressLine1>
      <addressLine2>100 Main St</addressLine2>
      <addressLine3>100 Main St</addressLine3>
      <city>Boston</city>
      <state>MA</state>
      <zip>12345</zip>
      <country>US</country>
      <email>jsmith@someaddress.com</email>
      <phone>555-123-4567</phone>
    </billToAddress>
    <card>
      <type>VI</type>
      <number>4005550000081019</number>
      <expDate>1210</expDate>
      <cardValidationNum>555</cardValidationNum>
    </card>
    <cardholderAuthentication>
      <authenticationValue>BwABBJQ1AgJDUCAAAAAAA=</authenticationValue>
      <authenticationTransactionId>gMV75TAgk=</authenticationTransactionId>
    </cardholderAuthentication>
    <customBilling>
```

```
      <phone>8888888888</phone>
      <descriptor>bdi*Litle&amp;Co Test</descriptor>
    </customBilling>
    <enhancedData>
      <customerReference>PO12345</customerReference>
      <salesTax>125</salesTax>
      <taxExempt>false</taxExempt>
      <discountAmount>0</discountAmount>
      <shippingAmount>495</shippingAmount>
      <dutyAmount>0</dutyAmount>
      <shipFromPostalCode>01851</shipFromPostalCode>
      <destinationPostalCode>01851</destinationPostalCode>
      <destinationCountryCode>USA</destinationCountryCode>
      <invoiceReferenceNumber>123456</invoiceReferenceNumber>
      <orderDate>2011-08-14</orderDate>
      <detailTax>
        <taxIncludedInTotal>true</taxIncludedInTotal>
        <taxAmount>55</taxAmount>
        <taxRate>0.0059</taxRate>
        <taxTypeIdentifier>00</taxTypeIdentifier>
        <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
      </detailTax>
      <lineItemData>
        <itemSequenceNumber>1</itemSequenceNumber>
        <itemDescription>chair</itemDescription>
        <productCode>CH123</productCode>
        <quantity>1</quantity>
        <unitOfMeasure>EACH</unitOfMeasure>
        <taxAmount>125</taxAmount>
        <lineItemTotal>9380</lineItemTotal>
        <lineItemTotalWithTax>9505</lineItemTotalWithTax>
        <itemDiscountAmount>0</itemDiscountAmount>
        <commodityCode>300</commodityCode>
        <unitCost>93.80</unitCost>
        <detailTax>
          <taxIncludedInTotal>true</taxIncludedInTotal>
          <taxAmount>55</taxAmount>
          <taxRate>0.0059</taxRate>
          <taxTypeIdentifier>03</taxTypeIdentifier>
          <cardAcceptorTaxId>011234567</cardAcceptorTaxId>
        </detailTax>
      </lineItemData>
      <lineItemData>
```

```
            <itemSequenceNumber>2</itemSequenceNumber>
            <itemDescription>table</itemDescription>
            <productCode>TB123</productCode>
            <quantity>1</quantity>
            <unitOfMeasure>EACH</unitOfMeasure>
            <lineItemTotal>30000</lineItemTotal>
            <itemDiscountAmount>0</itemDiscountAmount>
            <commodityCode>300</commodityCode>
            <unitCost>300.00</unitCost>
          </lineItemData>
        </enhancedData>
      </sale>
    </litleOnlineRequest>
```

3.3.28.2 Sale Response

The Sale response message is identical for Online and Batch transactions except Online includes the `postDate` element. The Sale response has the following structure:

```
<saleResponse id="Sale Id" reportGroup="iQ Report Group" customerId="Customer
Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <orderId>Order Id</orderId>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date of Posting</postDate> (Online Only)
  <message>Response Message</message>
  <authCode>Approval Code</authCode>
  <approvedAmount>Approved amount for partial Auth</approvedAmount>
  <accountInformation>
  <fraudResult>
  <billMeLaterResponseData>
  <tokenResponse> (for Tokenized merchants submitting card data)
  <enhancedAuthResponse>
  <accountUpdater>
  <recycling> (included for declined Auths if featrure is enabled)
  <recurringResponse> (for Recurring Engine merchants)
  <giftCardResponse> (included if Gift Card is Method of Payment)
```

```
        <applepayResponse>
        <cardSuffix>Card Last 4</cardSuffix> (included for ApplePay using VI or MC)
      </saleResponse>
```

Example: Batch Sale Response

```
<litleResponse version="9.4" xmlns="http://www.litle.com/schema" id="123"
  response="0" message="Valid Format" litleSessionId="987654321">
  <batchResponse id="01234567" litleBatchId="4455667788" merchantId="100">
    <saleResponse id="AX54321678" reportGroup="RG27">
      <litleTxnId>84568456</litleTxnId>
      <response>000</response>
      <orderId>12z58743y1</orderId>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
      <authCode>123456</authCode>
      <fraudResult>
        <avsResult>00</avsResult>
      </fraudResult>
    </saleResponse>
    <saleResponse id="AX54325432" reportGroup="RG12">
      <litleTxnId>84568457</litleTxnId>
      <response>000</response>
      <orderId>12z58743y7</orderId>
      <responseTime>2011-09-01T10:24:31</responseTime>
      <message>Approved</message>
      <authCode>123456</authCode>
      <fraudResult>
        <avsResult>00</avsResult>
        <authenticationResult>2</authenticationResult>
      </fraudResult>
    </saleResponse>
  </batchResponse>
</litleResponse>
```

Example: Online Sale Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <saleResponse id="1" reportGroup="ABC Division" customerId="038945">
    <litleTxnId>1100030055</litleTxnId>
    <response>000</response>
    <orderId>23423434</orderId>
    <responseTime>2011-07-11T14:48:46</responseTime>
    <postDate>2011-07-11</postDate>
    <message>Approved</message>
    <authCode>123457</authCode>
    <fraudResult>
      <avsResult>01</avsResult>
      <cardValidationResult>U</cardValidationResult>
      <authenticationResult>2</authenticationResult>
    </fraudResult>
  </saleResponse>
</litleOnlineResponse>
```

Example: Online Sale Response for Tokenized Merchant Sending Card Data

A tokenized merchant that includes card information in the request receives a response message that includes the `token` element. The example below is an Online response.

```
<saleResponse id="99999" reportGroup="RG1" customerId="444">
  <litleTxnId>21200000028606</litleTxnId>
  <response>000</response>
  <orderId>F12345</orderId>
  <responseTime>2011-10-26T17:30:00</responseTime>
  <postDate>2011-10-26</postDate>
  <message>Approved</message>
  <authCode>089510</authCode>
  <fraudResult>
    <avsResult>11</avsResult>
    <cardValidationResult>P</cardValidationResult>
  </fraudResult>
  <tokenResponse>
    <litleToken>1111000100329510</litleToken>
    <tokenResponseCode>801</tokenResponseCode>
    <tokenMessage>Account number was successfully registered</tokenMessage>
    <type>VI</type>
    <bin>432610</bin>
  </tokenResponse>
</saleResponse>
```

Example: Online Sale Response with Account Updater Info

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <saleResponse id="1" reportGroup="ABC Division" customerId="038945">
    <litleTxnId>1100030055</litleTxnId>
```

```
      <response>000</response>
      <orderId>23423434</orderId>
      <responseTime>2011-07-11T14:48:46</responseTime>
      <postDate>2011-07-11</postDate>
      <message>Approved</message>
      <authCode>123457</authCode>
      <accountUpdater>
        <originalCardInfo>
          <type>VI</type>
          <number>4234823492346234</number>
          <expDate>1112</expDate>
        </originalCardInfo>
        <newCardInfo>
          <type>VI</type>
          <number>4234823490005777</number>
          <expDate>1114</expDate>
        </newCardInfo>
      </accountUpdater>
      <fraudResult>
        <avsResult>01</avsResult>
        <cardValidationResult>U</cardValidationResult>
        <authenticationResult>2</authenticationResult>
      </fraudResult>
    </saleResponse>
  </litleOnlineResponse>
```

Example: Batch Sales Response with Recurring Info

The following is an example of the Recurring Response file produced daily to provide information about the transactions submitted by the Recurring Engine. This file is delivered via sFTP.

```
<litleResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format" litleSessionId="82912082263408653">
  <batchResponse litleBatchId="82912082263408661" merchantId="101">
    <saleResponse reportGroup="Default Report Group">
      <litleTxnId>82912082263409610</litleTxnId>
      <response>000</response>
      <orderId>recurring_appr1</orderId>
      <responseTime>2014-01-30T20:15:51</responseTime>
      <message>Approved</message>
      <authCode>11111</authCode>
      <fraudResult>
        <avsResult>01</avsResult>
      </fraudResult>
      <recurringResponse>
        <subscriptionId>82912081866997773</subscriptionId>
        <responseCode>473</responseCode>
        <responseMessage>Scheduled recurring payment 
processed</responseMessage>
        <recurringTxnId>211014241510</recurringTxnId>
      </recurringResponse>
    </saleResponse>
    <saleResponse reportGroup="Default Report Group">
      <litleTxnId>82912082263410311</litleTxnId>
      <response>000</response>
      <orderId>recurring_appr2</orderId>
      <responseTime>2014-01-30T20:15:55</responseTime>
      <message>Approved</message>
      <authCode>123457</authCode>
      <fraudResult>
        <avsResult>00</avsResult>
      </fraudResult>
      <recurringResponse>
        <subscriptionId>82912081866997799</subscriptionId>
        <responseCode>473</responseCode>
        <responseMessage>Scheduled recurring payment 
processed</responseMessage>
        <recurringTxnId>211014245016</recurringTxnId>
      </recurringResponse>
    </saleResponse>
    <saleResponse reportGroup="Default Report Group">
      <litleTxnId>82912082263410337</litleTxnId>
      <response>110</response>
      <orderId>recurring_decline1</orderId>
      <responseTime>2014-01-30T20:15:56</responseTime>
      <message>Insufficient Funds</message>
      <fraudResult>
        <avsResult>34</avsResult>
      </fraudResult>
      <recycling>
        <recycleEngineActive>true</recycleEngineActive>
      </recycling>
      <recurringResponse>
        <subscriptionId>82912081866997807</subscriptionId>
        <responseCode>473</responseCode>
        <responseMessage>Scheduled recurring payment
processed</responseMessage>
        <recurringTxnId>211014245115</recurringTxnId>
      </recurringResponse>
    </saleResponse>
    <saleResponse reportGroup="Default Report Group">
      <litleTxnId>82912082263410352</litleTxnId>
      <response>110</response>
      <orderId>recurring_decline2</orderId>
      <responseTime>2014-01-30T20:15:55</responseTime>
      <message>Insufficient Funds</message>
      <fraudResult>
        <avsResult>34</avsResult>
      </fraudResult>
      <recycling>
        <recycleEngineActive>true</recycleEngineActive>
      </recycling>
      <recurringResponse>
        <subscriptionId>82912081866997807</subscriptionId>
        <responseCode>473</responseCode>
        <responseMessage>Scheduled recurring payment
processed</responseMessage>
        <recurringTxnId>211014245214</recurringTxnId>
      </recurringResponse>
    </saleResponse>
    <saleResponse reportGroup="Default Report Group">
      <litleTxnId>82912082263410378</litleTxnId>
      <response>110</response>
      <orderId>recurring_decline3</orderId>
      <responseTime>2014-01-30T20:15:56</responseTime>
      <message>Insufficient Funds</message>
      <fraudResult>
        <avsResult>34</avsResult>
      </fraudResult>
      <recycling>
        <recycleEngineActive>true</recycleEngineActive>
      </recycling>
      <recurringResponse>
        <subscriptionId>82912081866997807</subscriptionId>
        <responseCode>473</responseCode>
        <responseMessage>Scheduled recurring payment
processed</responseMessage>
```

```
        <recurringTxnId>211014245313</recurringTxnId>
      </recurringResponse>
    </saleResponse>
  </batchResponse>
</litleResponse>
```

3.3.29 Unload Transactions

The Unload transaction removes funds from an active Gift Card. The unload amount cannot exceed the available balance on the Gift Card. If you attempt to unload more than the available balance, the transaction will be declined with a response Code of 209 - Invalid Amount.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.29.1 Unload Request

You must specify the Unload request as follows. The structure of the request is identical for either an Online or a Batch submission.

```
<unload id="Unload Id" reportGroup="iQ Report Group" customerId="Customer Id">
  <orderId>Order Id</orderId>
  <amount>Amount to Load</amount>
  <orderSource>Order Entry Source</orderSource>
  <card>
</unload>
```

Example: Online Unload Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <unload id="834262" reportGroup="ABC Division" customerId="038945">
    <orderId>65347567</orderId>
    <amount>40000</amount>
    <orderSource>ecommerce</orderSource>
    <card>
```

```
      <type>GC</type>
      <number>9000000000000001</number>
    </card>
  </onload>
</litleOnlineRequest>
```

3.3.29.2 Unload Response

An Unload response has the following structure. The response message is identical for Online and Batch transactions except Online includes the <`postDate`> element.

```
<unloadResponse id="Unload Id" reportGroup="iQ Report Group"
customerId="Customer Id">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date transaction posted</postDate> (Online Only)
  <message>Response Message</message>
  <fraudResult>
  <giftCardResponse>
</unloadResponse>
```

Example: Unload Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <unloadResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2013-07-25T15:13:43</responseTime>
    <postDate>2013-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>1000</availableBalance>
      <beginningBalance>5000</beginningBalance>
      <endingBalance>1000</endingBalance>
    </giftCardResponse>
  </unloadResponse>
</litleOnlineResponse>
```

3.3.30 Unload Reversal Transactions (Online Only)

The Unload Reversal transaction reverses the operation of a Unload transaction, returning the value removed from the Gift Card by the Unload transaction. The Unload Reversal references the associated Unload transaction by means of the `litleTxnId` element returned in the Unload response. You cannot perform a partial Unload Reversal. This transaction always reverses the full amount of the referenced Unload transaction. This transaction type is available only for Online transactions.

NOTE: **You must be enabled for (Closed Loop) Gift Card transactions to use this transaction type. Please consult you Customer Experience Manager for additional information about Gift Card transactions.**

3.3.30.1 Unload Reversal Request

You must structure a Unload Reversal request as shown in the following examples.

```
<unloadReversal id="Unload Reversal Id" reportGroup="iQ Report Group"
customerId="Customer Id">

  <litleTxnId>Transaction Id from Load Response</litleTxnId>

</unloadReversal>
```

Example: Online Unload Reversal Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <unloadReversal id="12345" customerId="Customer Id" reportGroup="Unload
  Reversals">
    <litleTxnId>12345678</litleTxnId>
  </unloadReversal>
</litleOnlineRequest>
```

3.3.30.2 Unload Reversal Response

An Unload Reversal response has the following structure.

```
<unloadReversalResponse id="Unload Reversal Id" reportGroup="iQ Report
Group" customerId="Customer Id">

  <litleTxnId>Transaction Id</litleTxnId>
```

```
    <response>Response Code</response>
    <responseTime>Date and Time in GMT</responseTime>
    <postDate>Date transaction posted</postDate>
    <message>Response Message</message>
    <giftCardResponse>
  </unloadReversalResponse>
```

Example: Online Unload Reversal Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <unloadReversalResponse id="834262" reportGroup="ABC Division">
    <litleTxnId>9695064321</litleTxnId>
    <response>001</response>
    <responseTime>2015-07-25T15:13:43</responseTime>
    <postDate>2015-07-25</postDate>
    <message>Transaction received</message>
    <giftCardResponse>
      <availableBalance>5000</availableBalance>
      <beginningBalance>1000</beginningBalance>
      <endingBalance>5000</endingBalance>
    </giftCardResponse>
  </unloadReversalResponse>
</litleOnlineResponse>
```

3.3.31 Update Plan Transactions

You use the Update Plan transaction to activate/deactivate Plans associated with recurring payments. When you deactivate a Plan, by setting the `active` flag to **false**, you can no longer reference that Plan for use with subscriptions. Existing subscriptions already using the deactivated Plan will continue to use the Plan until the subscription is either modified or completed. You can also reactivate a deactivated Plan by updating the Plan and setting the `active` flag to **true**.

3.3.31.1 Update Plan Request

You must structure an Update Plan request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
  <updatePlan>
    <planCode>Plan Reference Code</planCode>
```

```
        <active>true or false</active>
      </updatePlan>
```

Example: Online Update Plan Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <updatePlan>
    <planCode>Reference_Code</planCode>
    <active>false</active>
  </updatePlan>
</litleOnlineRequest>
```

3.3.31.2 Update Plan Response

An Update Plan response has the following structure. The response message is identical for Online and Batch transactions.

```
      <updatePlanResponse>
        <litleTxnId>Transaction Id</litleTxnId>
        <response>Response Code</response>
        <message>Response Message</message>
        <responseTime>Date and Time in GMT</responseTime>
        <planCode>Plan Reference Code</subscriptionId>
      </updatePlanResponse>
```

Example: Online Update Plan Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <updatePlanResponse>
    <litleTxnId>1100030055</litleTxnId>
    <response>000</response>
    <message>Approved</message>
    <responseTime>2013-07-11T14:48:46</responseTime>
    <planCode>Reference_Code</planCode>
  </updatePlanResponse>
</litleOnlineResponse>
```

3.3.32 Update Subscription Transactions

The Update Subscription transaction allows you to change certain subscription information associated with a recurring payment. Using this transaction type you can change the plan, card, billing information, and/or billing date. You can also create, update, or delete a Discount and/or an Add On.

NOTE: You can include multiple create, update, and delete Discounts and Add On operations in a single `updateSubscription` transaction.

3.3.32.1 Update Subscription Request

You must structure an Update Subscription request as shown in the following examples. The structure of the request is identical for either an Online or a Batch submission.

```
<updateSubscription>
  <subscriptionId>Subscription Id</subscriptionId>
  <planCode>Plan Reference Code</subscriptionId>
  <billToAddress>
  [ <card> | <paypage> | <token>]
  <billingDate>New Billing Date</billingDate>
  <createDiscount>
  <updateDiscount>
  <deleteDiscount>
  <createAddOn>
  <updateAddOn>
  <deleteAddOn>
</updateSubscription
```

Example: Online Update Subscription Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>password</password>
  </authentication>
  <updateSubscription>
    <subscriptionId>1234</subscriptionId>
    <planCode>Gold_Monthly</planCode>
    <billToAddress>
```

```
      <name>John Smith</name>
      <addressLine1>100 Main St</addressLine1>
      <city>Boston</city>
      <state>MA</state>
      <zip>12345</zip>
      <country>US</country>
      <email>jsmith@someaddress.com</email>
      <phone>555-123-4567</phone>
    </billToAddress>
    <card>
      <type>VI</type>
      <number>4005550000081019</number>
      <expDate>1210</expDate>
      <cardValidationNum>555</cardValidationNum>
    </card>
    <deleteDiscount>
      <discountCode>1GBExtra</discountCode>
    </deleteDiscount>
    <createAddOn>
      <addOnCode>1WF</addOnCode>
      <name>One_GB_Extra</name>
      <amount>500<amount>
      <startDate>2013-09-15</startDate>
      <endDate>2013-09-22</endDate>
    </createAddOn>
  </updateSubscription>
</litleOnlineRequest>
```

3.3.32.2 Update Subscription Response

An Update Subscription response has the following structure. The response message is identical for Online and Batch transactions.

```
<updateSubscriptionResponse>
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <message>Response Message</message>
  <responseTime>Date and Time in GMT</responseTime>
  <subscriptionId>ID of Subscription Canceled</subscriptionId>
  <tokenResponse> (For Tokenized Merchants submitting Card/Paypage)
```

```
</cancelSubscriptionResponse>
```

Example: Online Update Subscription Response

```
<litleOnlineResponse version="9.4" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <updateSubscriptionResponse>
    <litleTxnId>1100030055</litleTxnId>
    <response>001</response>
    <message>Transaction received</message>
    <responseTime>2013-07-11T14:48:46</responseTime>
    <subscriptionId>123457</subscriptionId>
  </updateSubscriptionResponse>
</litleOnlineResponse>
```

3.3.33 Update Card Validation Number Transactions

When you submit the CVV2/CVC2/CID in a `registerTokenRequest`, the platform encrypts and stores the value on a temporary basis for later use in a tokenized Auth/Sale transaction submitted without the value. This is done to accommodate merchant systems/workflows where the security code is available at the time of token registration, but not at the time of the Auth/Sale. If for some reason you need to change the value of the security code supplied at the time of the token registration, use an `updateCardValidationNumOntoken` transaction.

NOTE: **You should only use this transaction type if you had previously submitted the account number and security code in a `registerTokenRequest` transaction and now need to change the CVV2/CVC2/CID value.**

3.3.33.1 Update Card Validation Number Request

The `updateCardValidationNumOnToken` transaction has the following structure:

```
<updateCardValidationNumOnToken id = "Update Id" customerId="Customer Id"
reportGroup="iQ Report Group">
  <orderId>Order Id</orderId>
  <litleToken>Token</litleToken>
  <cardValidationNum>CVV2/CVC2/CID Value</cardValidationNum>
</updateCardValidationNumOnToken>
```

Example: Online Update Card Validation Number Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <updateCardValidationNumOnToken id="99999" customerId="444"
  reportGroup="RG1">
    <orderId>F12345</orderId>
    <litleToken>1111000101039449</litleToken>
    <cardValidationNum>987</cardValidationNum>
  </updateCardValidationNumOnToken>
</litleOnlinerequest>
```

3.3.33.2 Update Card Validation Number Response

The `updateCardValidationNumOnTokenResponse` transaction has the following structure:

```
<updateCardValidationNumOnTokenResponse id="Update Id" reportGroup="iQ Report
Group">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <message>Response Message</message>
  <responseTime>Date and Time in GMT</responseTime>
</updateCardValidationNumOnTokenResponse>
```

Example: Online Update Card Validation Number Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <updateCardValidationNumOnTokenResponse id="99999" customerId="444"
  reportGroup="RG1">
    <litleTxnId>21122700</litleTxnId>
    <response>803</response>
    <message>Card Validation Number Updated</message>
    <responseTime>2012-08-09T17:21:51</responseTime>
  </updateCardValidationNumOnTokenResponse>
</litleOnlineResponse>
```

3.3.34 Void Transactions (Online Only)

You use a Void transaction to cancel a transaction that occurred during the same business day. You can void Capture, Credit, and Sale transactions. Also, if you use Recycling Engine, you can use the `void` transaction to halt the recycling of a `sale` transaction. In this case the response may include the `recycling` element. (see Using Void to Halt Recycling Engine on page 67).

NOTE: Do not use Void transactions to void an Authorization. To remove an Authorization use an Authorization Reversal transaction (see Authorization Reversal Transactions on page 199.)

If you attempt to void a transaction after the cutoff time, the system returns a response code of **362** and the message, **Transaction Not Voided - Already Settled**. In this situation, you can cancel the original transaction by using its reverse transaction, as shown in Table 3-2.

TABLE 3-2 Cancelling a Transaction That Cannot Be Voided

If you had originally sent this transaction...	Cancel it by using this transaction...
Capture Transactions	Credit Transactions
Sale Transactions	Credit Transactions
Credit Transactions	Sale Transactions
Force Capture Transactions	Credit Transactions

3.3.34.1 Void Request

The Void request references the `<litleTxnId>` of the previously approved transaction. You must structure a Void request as follows.

```
<void id = "Void Id" reportGroup="iQ Report Group">
  <litleTxnId>Transaction Id</litleTxnId>
  <processingInstructions>
</void>
```

Example: Online Void Request

```
<litleOnlineRequest version="9.4" xmlns="http://www.litle.com/schema"
  merchantId="100">
  <authentication>
    <user>User Name</user>
    <password>Password</password>
  </authentication>
  <void id="1" reportGroup="Void Division">
    <litleTxnId>345454444</litleTxnId>
  </void>
</litleOnlineRequest>
```

3.3.34.2 Void Response

The Void response has the following structure.

```
<voidResponse id="Void Id" reportGroup="iQ Report Group">
  <litleTxnId>Transaction Id</litleTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <postDate>Date of Posting</postDate>
  <message>Response Message</message>
  <recycling> (May be included if halting recycling.)
</voidResponse>
```

Example: Online Void Response

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <voidResponse id="1" reportGroup="Void Division">
    <litleTxnId>1100026202</litleTxnId>
    <response>001</response>
    <responseTime>2011-07-16T19:43:38</responseTime>
    <postDate>2011-07-16</postDate>
    <message>Transaction received</message>
  </voidResponse>
</litleOnlineResponse>
```

Example: Online Void Response with Recycling Element

When you use a Void transaction to halt recycling, the response may include the `recycling` element. (see Using Void to Halt Recycling Engine on page 67).

```
<litleOnlineResponse version="10.0" xmlns="http://www.litle.com/schema"
  response="0" message="Valid Format">
  <voidResponse id="1" reportGroup="Void Division">
    <litleTxnId>1100026202333456789</litleTxnId>
    <response>001</response>
    <responseTime>2011-07-16T19:43:38</responseTime>
    <postDate>2011-07-16</postDate>
    <message>Transaction received</message>
    <recycling>
      <creditLitleTnxId>1234567890123456789</message>
    </recycling>
  </voidResponse>
```

```
</litleOnlineResponse>
```

4

LITLEXML ELEMENTS

This chapter provides definitions for the elements and attributes used in LitleXML. This information is intended to be used in combination with the various LitleXML schema files to assist you as you build the code necessary to submit transactions to our transaction processing systems. Each section defines a particular element, its relationship to other elements (parents and children), as well as any attributes associated with the element.

For additional information on the structure of LitleXML requests and responses using these elements, as well as XML examples, please refer to Chapter 3, "LitleXML Transaction Examples".

The XML elements defined in this chapter are listed alphabetically.

4.1 accNum

The `accNum` element is a required child of the `echeck`, `originalAccountInfo`, and `newAccountInfo` elements defining the account number of the eCheck account.

Type = String; **minLength** = 4; **maxLength** = 17

NOTE: **Although the schema does not specify a minimum length for the `accNum` element, the number must be greater than or equal to 4 characters for the transaction to succeed.**

Parent Elements:

echeck, newAccountInfo, originalAccountInfo, accountInfo

Attributes:

None

Child Elements:

None

4.2 accountInfo

The `accountInfo` element is a required child of the `submerchantCredit,` and `submerchantDebit` transactions. It contains child elements used to provide details concerning the Sub-merchant account.

Parent Elements:

submerchantCredit, submerchantDebit, vendorCredit, vendorDebit

Attributes:

None

Child Elements:

Required: accType, accNum, routingNum

Optional: ccdPaymentInformation

NOTE: **Although shown as an optional element in the schema, the `checkNum` element should not be used as a child of `acccountInfo`.**

Example: `accountInfo` Structure

```
<accountInfo>
  <accType>Account Type Abbreviation</accType>
  <accNum>Account Number</accNum>
  <routingNum>Routing Number</routingNum>
  <ccdPaymentInformation>Payment Description</ccdPaymentInformation>
</accountInfo>
```

4.3 accountInformation

The `accountInformation` element is an optional child of the `authorizationResponse` and `saleResponse` elements. It contains two children that define the card type and account number.

Parent Elements:

authorizationResponse, saleResponse

Attributes:

None

Child Elements:

Required: type

Optional: number

4.4 accountNumber

The `accountNumber` element is a required child of the `registerTokenRequest` element defining the account number for which you are requesting a token. It is also an optional child of the `virtualGiftCardResponse` element, where it defines the account number of the requested Virtual Gift Card.

Type = String; **minLength** = 13; **maxLength** = 25

Parent Elements:

registerTokenRequest, virtualGiftCardResponse

Attributes:

None

Child Elements:

None

4.5 accountNumberLength

The `accountNumberLength` element is a required child of the `virtualGiftCard` element defining the requested length of the virtual Gift Card number you are requesting.

NOTE: **In an early iteration of schema V8.22 issued in September of 2013 this element was defined as an optional child of the `virtualGiftCard` element. If you coded to the earlier version, be aware that this element is now required. If you do not include this element, the transaction will fail XML validation.**

Type = Integer; **Allowed Values** between 13 and 25 inclusive.

IMPORTANT: **Although the schema defines the allowed values as any integer between 13 and 25 inclusive, it this time you can only use a value of either 16 or 19.**

Parent Elements:

virtualGiftCard

Attributes:

None

Child Elements:

None

4.6 accountUpdate

The `accountUpdate` element is the parent element for all Account Updater request transactions. You can use this only with Batch transactions.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

orderId, cardOrToken (allows the substitution of either the `card` or `token` elements)

4.7 accountUpdateFileRequestData

The `accountUpdateFileRequestData` element is a child of the `RFRRequest` element, required when requesting the response file for an (legacy) Account Updater submission.

Parent Elements:

RFRRequest

Attributes:

None

Child Elements:

Required: merchantId

Optional: postDay

Example: accountUpdateFileRequestData Structure

```
<accountUpdateFileRequestData>
  <merchantId>Merchant ID</merchantId>
  <postDay>Post Date</postDay>
</accountUpdateFileRequestData>
```

4.8 accountUpdater

The `accountUpdater` element is an optional child of the `authorizationResponse`, `captureResponse`, `echeckSalesResponse`, `echeckcreditResponse`, `echeckVerificationResponse`, `forceCaptureResponse`, and `saleResponse` elements. This element is included in the response messages when the submitted account information has changed.

In the case of eCheck accounts, the system automatically updates the information sent to the ACH network and includes the original and updated information in the response. Similarly, if you use the Account Updater service (for credit cards), the system automatically repairs the card information sent to the card networks and depending upon the option you select, can return the info to you.

Parent Elements:

authorizationResponse, captureResponse, forceCaptureResponse, echeckCreditResponse, echeckRedepositResponse, echeckSalesResponse, saleResponse

Attributes:

None

Child Elements:

Required:extendedCardResponse, newAccountInfo, newCardInfo, newCardTokenInfo, newTokenInfo, originalAccountInfo, originalCardInfo, originalCardTokenInfo, originalTokenInfo

IMPORTANT: **When using Account Updater (any variation), you must always code to receive the `extendedCardResponse` element and its children. Vantiv always returns this information whenever applicable regardless of whether you receive other account updater information in the transaction response message.**

Example: accountUpdater Structure - Credit Cards without extendedCardResponse

```
<accountUpdater>
  <originalCardInfo>
    <type>Card Type</type>
    <number>Old Account Number</number>
    <expDate>Old Expiration Date</expDate>
  </originalCardInfo>
  <newCardInfo>
```

```
    <type>Card Type</type>
    <number>New Account Number</number>
    <expDate>New Expiration Date</expDate>
  </newCardInfo>
</accountUpdater>
```

Example: accountUpdater Structure - Credit Cards with extendedCardResponse

```
<accountUpdater>
  <originalCardInfo>
    <type>Card Type</type>
    <number>Old Account Number</number>
    <expDate>Old Expiration Date</expDate>
  </originalCardInfo>
  <newCardInfo>
    <type>Card Type</type>
    <number>New Account Number</number>
    <expDate>New Expiration Date</expDate>
  </newCardInfo>
  <extendedCardResponse>
    <message>Code Description</message>
    <code>Either 501 or 504</code>
  </extendedCardResponse>
</accountUpdater>
```

Example: accountUpdater Structure - Credit Cards only extendedCardResponse

```
<accountUpdater>
  <extendedCardResponse>
    <message>Code Description</message>
    <code>Either 501 or 504</code>
  </extendedCardResponse>
</accountUpdater>
```

Example: accountUpdater Structure - Credit Cards (tokenized Merchant)

NOTE: **This structure can also include the <extendedCardResponse> element.**

```
<accountUpdater>
  <originalCardTokenInfo>
    <litleToken>Old Token</litleToken>
    <type>Card Type</type>
    <expDate>Old Expiration Date</expDate>
    <bin>Old Card BIN</bin>
  </originalCardTokenInfo>
  <newCardTokenInfo>
    <litleToken>New Token</litletoken>
    <type>Card Type</type>
    <expDate>New Expiration Date</expDate>
    <bin>New Card BIN</bin>
  </newCardTokenInfo>
</accountUpdater>
```

Example: accountUpdater Structure - eCheck (for non-Tokenized Merchant)

```
<accountUpdater>
  <originalAccountInfo>
    <accType>Original Account Type</accType>
    <accNum>Original Account Number</accNum>
    <routingNum>Original Routing Number</routingNum>
  </originalAccountInfo>
  <newAccountInfo>
    <accType>New Account Type</accType>
    <accNum>New Account Number</accNum>
    <routingNum>New Routing Number</routingNum>
  </newAccountInfo>
</accountUpdateFileRequestData>
```

Example: accountUpdater Structure - eCheck (for Tokenized Merchant)

```
<accountUpdater>
```

```
    <originalTokenInfo>
      <accType>Original Account Type</accType>
      <litleToken>Original Token</litleToken>
      <routingNum>Original Routing Number</routingNum>
    </originalTokenInfo>
    <newTokenInfo>
      <accType>New Account Type</accType>
      <litleToken>New Token</litleToken>
      <routingNum>New Routing Number</routingNum>
    </newTokenInfo>
  </accountUpdateFileRequestData>
```

4.9 accountUpdateResponse

The `accountUpdaterResponse` element is the parent element for all Account Update responses transactions. You can use this only with Batch transactions.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the accountUpdate transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the accountUpdate transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the accountUpdate transaction. **minLength** = 1 **maxLength** = 25

Child Elements: (Required)

litleTxnId, orderId, response, responseTime, message

Child Elements: (Optional)

updatedCard, originalCard, originalToken, updatedToken

4.10 accType

The `accType` element is a required child of the `echeck`, `originalAccountInfo`, and `newAccountInfo` elements defining the type of eCheck account used in the transaction.

Type = Choice (Enum); **Enumerations** = Checking, Savings, Corporate, or Corp Savings

NOTE: **Use Corporate for Corporate Checking accounts.**

Parent Elements:

echeck, newAccountInfo, originalAccountInfo, originalTokenInfo, newTokenInfo, accountInfo

Attributes:

None

Child Elements:

None

4.11 actionReason

The `actionReason` element is an optional child of the `authReversal` element defining if the reversal is due to suspected fraud.

Type = String (Enum); **Enumerations** = SUSPECT_FRAUD

NOTE: **When you include this optional element in an `authReversal` transaction, the information will be forwarded to MasterCard as part of the MasterCard eCommerce Fraud Alert program.**

When you include this optional element in an `credit` transaction, the system uses the information to track potentially fraudulent transactions for future analysis.

Parent Elements:

authReversal, credit

Attributes:

None

Child Elements:

None

4.12 activate

The `actvate` element is the parent element for the transaction type that activates a Gift Card.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

orderId, amount, orderSource, card, virtualGiftCard

4.13 activateResponse

The `activateResponse` element is the parent element for information returned to you in response to an **`activate`** transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, fraudResult, giftCardResponse, virtualGiftCardResponse

4.14 activateReversal

The `actvateReversal` element is the parent element for the transaction type that reverses the activation of a Gift Card.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId

4.15 activateReversalResponse

The `activateReversalResponse` element is the parent element for information returned to you in response to an `activateReversal` transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, giftCardResponse

4.16 active

The `active` element is an optional child of both the `createPlan` and `updatePlan` elements. You use this flag to activate/deactivate a Plan. When you deactivate a Plan, you can no longer reference that Plan for use with subscriptions. Existing subscriptions making use of the deactivated Plan will continue to use the Plan until either modified or completed. You can also reactivate a deactivated Plan by updating the Plan and setting the `active` flag to true.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

createPlan, updatePlan

Attributes:

None

Child Elements:

None

4.17 addOnCode

The `addOnCode` element is the identifier of a defined add on charge to a subscription. You use this element when creating, updating, and deleting an Add On applied to a subscription.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

createAddOn, updateAddOn, deleteAddOn

Attributes:

None

Child Elements:

None

4.18 addressIndicator

The `addressIndicator` element is an optional child of the `billMeLaterResponseData` element and indicates whether the shipping address is a commercial (**c**) or residential (**r**) shipping address.

Type = String; **minLength** = N/A; **maxLength** = 1

Parent Elements:

billMeLaterResponseData

Attributes:

None

Child Elements:

None

4.19 addressLine1, addressLine2, addressLine3

The elements `addressLine1`, `addressLine2`, and `addressLine3` define the address information in both the `billToAddress` and `shipToAddress` elements.

Type = String; **minLength** = N/A; **maxLength** = 35

Parent Elements:

billToAddress, shipToAddress

Attributes:

None

Child Elements:

None

4.20 advancedAVSResult

The `advancedAVSResult` element is an optional child element of the `fraudResult` element. It defines the American Express Advanced AVS response codes that can be returned as verification of information supplied in the `<phone>` and/or `<email>` child elements of the `<billToAddress>` element. For a list of possible values, please refer to AAVS Response Codes on page 749.

NOTE: **You must be certified to use LitleXML version 7.3 or above and specifically enabled to use the Advanced AVS feature. Please consult your Customer Experience Manager for additional information.**

Type = String; **minLength** = N/A; **maxLength** = 3

Parent Elements:

fraudResult

Attributes:

None

Child Elements:

None

4.21 advancedFraudChecks

The `advancedFraudChecks` element is an optional child of both the `authorization` and `sale` elements and a required child of the `fraudCheck` element.

Parent Elements:

authorization, sale, fraudCheck

Attributes:

None

Child Elements:

Required: threatMetrixSessionId

Optional: customAttribute1 through `customAttribute5`

Example: advancedFraudChecks Structure

```
<advancedFraudChecks>
  <threatMetrixSessionId>Session Id from Threat Metrix</threatMetrixSessionId>
  <customAttribute1>Some attribute passed to ThreatMetrix</customAttribute1>
  <customAttribute2>Some attribute passed to ThreatMetrix</customAttribute2>
  <customAttribute3>Some attribute passed to ThreatMetrix</customAttribute3>
  <customAttribute4>Some attribute passed to ThreatMetrix</customAttribute4>
  <customAttribute5>Some attribute passed to ThreatMetrix</customAttribute5>
</advancedFraudChecks>
```

4.22 advancedFraudResults

The `advancedFraudResults` element is an optional child of both the `fraudResult` and the `fraudCheckResponse` elements. Child elements return the results of advanced fraud checks performed by Threat Metrix, as well as a list of the rules triggered from the ThreatMetrix (merchant) Policy.

Parent Elements:

fraudResult, fraudCheckResponse

Attributes:

None

Child Elements: (Required)

deviceReviewStatus, deviceReputationScore, triggeredRule

Example: advancedFraudChecks Structure

```
<advancedFraudResults>
  <deviceReviewStatus>pass, fail, review, or unavailable</deviceReviewStatus>
  <deviceReputationScore>Score Returned from ThreatMetix</deviceReputationScore>
  <triggeredRule>Triggered Rule #1</triggeredRule>
  .
  .
  .
  <triggeredRule>Triggered Rule #N</triggeredRule>
</advancedFraudResults>
```

4.23 affiliate

The `affiliate` element is an optional child element of the `merchantData` element. You can use it to track transactions associated with various affiliate organizations.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

merchantData

Attributes:

None

Child Elements:

None

4.24 affluence

The `affluence` element is an optional child of the `enhancedAuthResponse` element and defines whether the card used falls into one of the two defined affluent categories. If the card does not meet the definition of either category, the system does not return the `affluence` element.

NOTE: **Please consult your Customer Experience Manager for additional information concerning this feature.**

Type = String (enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

enhancedAuthResponse

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
MASS AFFLUENT	Returned for certain Visa and MasterCard cards indicating high income customers (>100K annual income).
AFFLUENT	Returned for certain Visa and MasterCard cards indicating high income customers with high spending patterns (>100K annual income and >40K in card usage).

NOTE: **The Affluence indicator applies only to certain Visa and MasterCard cards. This indicator does not apply to American Express or Discover cards.**

4.25 allowPartialAuth

The `allowPartialAuth` element is an optional child of both Authorization and Sale transactions, which allows you to specify whether to authorize a partial amount if the entire requested authorization amount exceeds available credit/balance.

NOTE: **When submitting transactions for private label gift cards (card type of GC), the use of partial authorizations is determined by a setting in the Merchant Profile (on or off globally). This flag has no effect.**

Type = Boolean; **Valid Values** = true or false

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

None

NOTE: **For a Sale transaction, the deposit will be for the partial amount.**

4.26 amexAggregatorData

The `amexAggregatorData` element defines Amex Aggregator specific information in the LitleXML. The system does not use the information unless you are designated as an Aggregator by American Express.

Parent Elements:

authorization, captureGivenAuth, credit, forceCapture, sale

Attributes:

None

Child Elements: (Required)

sellerId, sellerMerchantCategoryCode

Example: amexAggregatorData Structure

```
<amexAggregatorData>
  <sellerId>Seller Id</sellerId>
  <sellerMerchantCategoryCode>MerchantCategoryCode</sellerMerchantCategoryCode>
</amexAggregatorData>
```

4.27 amount

The `amount` element is a child of several elements. When used in a payment transaction this element defines the amount of the transaction. When `amount` is a child of the `subscription` element, it defines the amount of the recurring payment. As a child of the `activate`, `load`, or `unload` transactions, `amount` defines the initial value of a newly activated gift Card, the amount loaded onto a reloadable Gift Card, or the amount unloaded from a Gift Card, respectively. When used in an Instruction-Based Dynamic Payout transaction type, it specifies the amount of funds to transfer. Supply the value in cents without a decimal point. For example, a value of 1995 signifies $19.95.

Type = Integer; **totalDigits** = 12

Parent Elements:

The `amount` element is a required child of each of the following Parent Elements: activate, authorization, credit (required if original transaction was not processed by Vantiv), captureGivenAuth, echeckCredit (required if original transaction was not processed by Vantiv), echeckSale, echeckVerification, forceCapture,fraudCheck, load, sale, unload

This element is also a required child of the following Instruction-Based Dynamic Payout transaction types: payFacCredit, payFacDebit, physicalCheckCredit, physicalCheckDebit, reserveCredit, reserveDebit, submerchantCredit, submerchantDebit, vendorCredit, vendorDebit

NOTE: **For additional information about PayFac Instruction-Based Dynamic Payout and the use of this transaction type, please refer to the *PayFac Instruction-Based Dynamic Payout* document.**

The `amount` element is an optional child of each of the following Parent Elements: authReversal, capture, credit, echeckCredit, subscription

NOTE: **For all cases where the `amount` element is optional, except when a child of the `subscription` element, if you do not specify a value, the system uses the entire amount from the referenced (by `litleTxnId`) transaction. When amount is a child of the `subscription` element, if you do not specify a value, the amount defaults to the value defined in the referenced recurring plan (`planCode` element).**

Attributes:

None

Child Elements:

None

4.28 applepay

The `applepay` element is an optional child of several transaction types and takes the place of the card element in Apple Pay transaction where the merchant does not decrypt the (Apple Pay) PKPaymentToken prior to submitting the transaction. It contains child elements for the component parts of the PKPaymentToken.

Parent Elements:

authorization, registerTokenRequest, sale

Attributes:

None

Child Elements (all required):

data, header, signature, version

Example: applepay Structure

```
<applepay>
  <data>User Name</data>
  <header>
    <applicationData>Base64 Hash of App Data Property</applicationData>
    <ephemeralPublicKey>Base64 Encoded Ephemeral Public Key</ephemeralPublicKey>
    <publicKeyHash>Base64 Hash of Public Merchant Key Cert</publicKeyHash>
    <transactionId>Hex Transaction Id</transactionId>
  </header>
  <signature>Signature of Payment and Header Data</signature>
  <version>Payment Token Version Info</version>
</applepay>
```

4.29 applepayResponse

The `applepayResponse` element is an optional child of several transaction types and is returned in response messages, when the request includes the `applepay` element.

Parent Elements:

authorizationResponse, registerTokenResponse, saleResponse

Attributes:

None

Child Elements:

applicationPrimaryAccountNumber, applicationExpirationDate, currencyCode, transactionAmount, cardholderName, deviceManufacturerIdentifier, paymentDataType, onlinePaymentCryptogram, eciIndicator

Example: authentication Structure

```
<applepayResponse>
  <applicationPrimaryAccountNumber>App PAN</applicationPrimaryAccountNumber>
  <applicationExpirationDate>App PAN Exp Date</applicationExpirationDate>
  <currencyCode>Currency Code</currencyCode>
  <transactionAmount>Amount of Transaction</transactionAmount>
  <cardholderName>Name of cardholder</cardholderName>
  <deviceManufacturerIdentifier>Id of Device Mfr</deviceManufacturerIdentifier>
  <paymentDataType>Type of Payment Data</paymentDataType>
  <onlinePaymentCryptogram>Payment Cryptogram</onlinePaymentCryptogram>
  <eciIndicator>eCommerece Indicator</eciIndicator>
</applepayResponse>
```

IMPORTANT: The system never returns the `applicationPrimaryAccountNumber` element in a `registerTokenresponse` message, since this transaction type includes a token replacing the application PAN.

4.30 applicationData

The `applicationData` element is an optional child of the `header` element and provides the SHA-256 hash, hex encoded string of the original PKPaymentRequest of the Apple Pay transaction.

Type = Hex Encoded String; **minLength** = N/A; **maxLength** = 10000

Parent Elements:

header

Attributes:

None

Child Elements:

None

4.31 applicationExpirationDate

The `applicationExpirationDate` element is an optional child of the `applepayResponse` element and defines expiration date of the application primary account number.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

4.32 applicationPrimaryAccountNumber

The `applicationPrimaryAccountNumber` element is an optional child of the `applepayResponse` element and defines the primary account number associated with the application.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

IMPORTANT: The system never returns the `applicationPrimaryAccountNumber` element (child of the `applepayResponse` element) in a `registerTokenresponse` message, since this transaction type includes a token replacing the application PAN.

4.33 approvedAmount

The `approvedAmount` element defines the dollar amount of the approval. It appears in an authorization or sale response only if the `allowPartialAuth` element is set to true in the request transaction. It can also appear as the child of a deactivateResponse message where it specifies the value of the Gift Card prior to deactivation.

Type = Integer; **totalDigits** = 8

Parent Elements:

authorizationResponse, saleResponse, deactivateResponse

Attributes:

None

Child Elements:

None

4.34 authAmount

The `authAmount` element is an optional child of the authInformation element and is used to define the dollar amount of the authorization for Capture Given Auth transactions.

Type = Integer; **totalDigits** = 8

Parent Elements:

authInformation

Attributes:

None

Child Elements:

None

4.35 authCode

The `authCode` element is an optional child of both the `authorizationResponse` and `saleResponse` elements. It is also a required child of the `authInformation` element (used in `captureGivenAuth` transactions), where it specifies the authorization code from the associated Authorization or Sale transaction.

Type = String; **minLength** = N/A; **maxLength** = 6

Parent Elements:

authInformation, authorizationResponse, saleResponse

Attributes:

None

Child Elements:

None

4.36 authDate

The `authDate` element is a required child of the `authInformation` element and defines the date of the associated Authorization transaction.

Type = Date; **Format** = YYYY-MM-DD

Parent Elements:

authInformation

Attributes:

None

Child Elements:

None

4.37 authenticatedByMerchant

The `authenticatedByMerchant` element is an optional child element of the `cardholderAuthentication` element. This element indicates whether or not the customer has logged in to a secure web site or has been authenticated by the call center ANI.

For PayPal Credit transactions, set this element to **true** if this is an ecommerce transaction and you store and verify the customers BML account number. Set this element to **false** for call center BML transaction or ecommerce transactions if you do not store and verify the customers BML account number.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

cardholderAuthentication

Attributes:

None

Child Elements:

None

4.38 authentication

The `authentication` element is a required element of both the `litleOnlineRequest` and the `batchRequest` elements. It contains child elements used to authenticate that the XML message is from a valid user.

NOTE: **The `authentication` element and its child elements, `user` and `password`, are used to identify the merchant submitting transactions. They do not provide other access to platform or to the iQ reporting system.**

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

None

Child Elements:

Required: user, password

Example: authentication Structure

```
<authentication>
  <user>User Name</user>
  <password>Password</password>
</authentication>
```

4.39 authenticationResult

The `authenticationResult` element is an optional child element of the `fraudResult` element. It defines the Visa CAVV Result code (from Verified by Visa). For a list of possible values, please refer to 3DS Authentication Result Codes on page 746.

Type = String; **minLength** = N/A; **maxLength** = 1

Parent Elements:

fraudResult

Attributes:

None

Child Elements:

None

4.40 authenticationTransactionId

The `authenticationTransactionId` element is an optional child of the `cardholderAuthentication` element. This element defines the Verified by Visa Transaction Id.

You must include this element for Visa transactions, when the `orderSource` element is set to **3dsAuthenticated.**

Type = Base 64 Encoded String; **minLength** = N/A; **maxLength** = 28

Parent Elements:

cardholderAuthentication

Attributes:

None

Child Elements:

None

4.41 authenticationValue

The `authenticationValue` element is an optional child of the `cardholderAuthentication` element. This element defines either the Visa CAVV value (fixed length 28 characters) or the MasterCard UCAF value (variable length up to 32 characters).

You must include this element for Visa and MasterCard transactions, when the `orderSource` element is set to **3dsAuthenticated**, as well as MasterCard transactions if the `orderSource` element is set to **3dsAttempted.**

Type = Base 64 Encoded String; **minLength** = N/A; **maxLength** = 56

Parent Elements:

cardholderAuthentication

Attributes:

None

Child Elements:

None

4.42 authInformation

The `authInformation` element is a required child of the `captureGivenAuth` element. It contains child elements used to provide details concerning the external (to the systems) Authorization.

Parent Elements:

captureGivenAuth

Attributes:

None

Child Elements:

Required: authDate, authCode

Optional: fraudResult, authAmount

Example: authInformation Structure

```
<authInformation>
  <authDate>Auth Date</authDate>
  <authCode>Approval Code</authCode>
  <fraudResult>
    <avsResult>AVS Verification Result Code</avsResult>
    <cardValidationResult>Validation Result Code</cardValidationResult>
    <authenticationResult>Verified by Visa Result Code</authenticationResult>
  </fraudResult>
  <authAmount>Amount of Authorization</authAmount>
</authInformation>
```

4.43 authorization

The `authorization` element is the parent element for all Authorization transactions. You can use this element in either Online or Batch transactions.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, amount, orderSource, (choice of) card, paypal, paypage, mpos, token, or applepay, cardholderAuthentication

NOTE: The cardholderAuthentication child element is required only for 3-D Secure transactions.

Optional: customerInfo, billToAddress, shipToAddress, billMeLaterRequest, processingInstructions, pos, customBilling, taxType, enhancedData, amexAggregatorData, allowPartialAuth, healthcareIIAS, merchantData, recyclingRequest, fraudFilterOverride, surchargeAmount, debtRepayment, recurringRequest, advancedFraudChecks, secondaryAmount, wallet, processingType

NOTE: The `enhancedData` element and two of its child elements, `deliveryType` and `shippingAmount`, are required for PayPal Credit Authorizations.

4.44 authorizationResponse

The `authorizationResponse` element is the parent element for information returned to you in response to an Authorization transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, orderId, response, responseTime, message

Optional: postDate, cardProductId (see Note below), authCode, authorizationResponseSubCode (see Note below), approvedAmount, accountInformation, fraudResult, billMeLaterResponseData, tokenResponse, enhancedAuthResponse, accountUpdater, recycling, recurringResponse, giftCardResponse, applepayResponse, cardSuffix

NOTE: **The `postDate` child element is returned only in responses to Online transactions.**

The `cardProductId` element returns a raw code referencing the card type. Please consult your Customer Experience Manager for additional information.

The `authorizationResponseSubCode` element is not used at this time.

4.45 authorizationSourcePlatform

The `authorizationSourcePlatform` element is an optional child element of the `billMeLaterRequest` element. This element defines the physical platform that was used for submitting the authorization request (not the order). Specify as needed for auditing and re-authorization management purposes.

Type = String; **minLength** = N/A; **maxLength** = 1 (valid values below)

Value	Description
A	application processing
B	batch capture, recurring or mail order
C	call center
F	fulfillment/order management
K	kiosk
M	mobile device gateway
P	processor or gateway reauthorization
R	retail POS

Parent Elements:

billMeLaterRequest

Attributes:

None

Child Elements:

None

4.46 authReversal

The `authReversal` element is the parent element for all Authorization Reversal transactions. You can use this element in either Online or Batch transactions. Also see Notes on the Use of Authorization Reversal Transactions on page 59. Also, if you use the Recycling Engine, you can use the `authReversal` transaction to halt the recycling of an `authorization` transaction.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId

Optional: amount, actionReason, payPalNotes, surchargeAmount

NOTE: **If you do not specify an amount child element, the system reverses the full amount from the associated Authorization transaction.**

4.47 authReversalResponse

The `authReversalResponse` element is the parent element for information returned to you in response to an Auth Reversal transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, orderId, response, responseTime, message

Optional: postDate, giftCardResponse

NOTE: **The postDate child element is returned only in responses to Online transactions.**

4.48 availableBalance

The `availableBalance` element is a required child element of the `fundingSource` element and an optional child of the `giftCardResponse` element. It defines the outstanding available balance on the submitted prepaid or Gift Card. If the balance can not be determined, the element returns, "Not Available."

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

fundingSource, giftCardResponse

Attributes:

None

Child Elements:

None

NOTE: **The `fundingSource` element and its child elements, `type` and `availableBalance` are associated with the Insights features (see Customer Insight Features on page 24.)**

Please consult your Customer Experience Manager for additional information.

4.49 avsResult

The `avsResult` element is an optional child element of the `fraudResult` element. It defines the Address Verification response code returned by the networks. For a list of possible values, please refer to AVS Response Codes on page 748.

Type = String; **minLength** = N/A; **maxLength** = 2

Parent Elements:

fraudResult

Attributes:

None

Child Elements:

None

4.50 balanceInquiry

The `balanceInquiry` element is the parent element for the transaction type that queries the available balance of a Gift Card.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

orderId, orderSource, card

4.51 balanceInquiryResponse

The `balanceInquiryResponse` element is the parent element for information returned to you in response to a **`balanceInquiry`** transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, orderId, response, responseTime, message

Optional: postDate, fraudResult, giftCardResponse

4.52 batchRequest

This is the root element for all LitleXML Batch requests.

Parent Elements:

litleRequest

Attributes:

NOTE: **The xxxAmount attributes are required if the associated numXXX attribute is included and greater than 0. For example, if numAuths=5 and each Authorization is $10.00, then you must include authAmount=5000.**

Attribute Name	Type	Required?	Description
id	String	No	A unique string to identify this `batchRequest` within the system. **minLength** = N/A **maxLength** = 50
numAuths	Integer	No	Defines the total count of Authorization transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
authAmount	Integer	No	Defines the total dollar amount of Authorization transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numAuthReversals	Integer	No	Defines the total count of AuthReversal transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
authReversalAmount	Integer	No	Defines the total dollar amount of AuthReversal transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numCaptures	Integer	No	Defines the total count of Capture transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A

Attribute Name	Type	Required?	Description
captureAmount	Integer	No	Defines the total dollar amount of Capture transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numCredits	Integer	No	Defines the total count of Credit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
creditAmount	Integer	No	Defines the total dollar amount of Credit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numForceCaptures	Integer	No	Defines the total count of Force Capture transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
forceCaptureAmount	Integer	No	Defines the total dollar amount of Force Capture transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numSales	Integer	No	Defines the total count of Sale transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
saleAmount	Integer	No	Defines the total dollar amount of Sale transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numCaptureGivenAuths	Integer	No	Defines the total count of Capture Given Auth transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
captureGivenAuthAmount	Integer	No	Defines the total dollar amount of Capture Given Auth transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10

Attribute Name	Type	Required?	Description
numEcheckSales	Integer	No	Defines the total count of eCheck Sale transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
echeckSalesAmount	Integer	No	Defines the total dollar amount of eCheck Sale transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numEcheckCredit	Integer	No	Defines the total count of eCheck Credit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
echeckCreditAmount	Integer	No	Defines the total dollar amount of eCheck Credit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numEcheckVerification	Integer	No	Defines the total count of eCheck Verification transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
echeckVerificationAmount	Integer	No	Defines the total dollar amount of eCheck Verification transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numEcheckRedeposit	Integer	No	Defines the total count of eCheck Redeposit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numEcheckPreNoteSale	Integer	No	Defines the total count of eCheck Prenotification Sale transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numEcheckPreNoteCredit	Integer	No	Defines the total count of eCheck Prenotification Credit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numAccountUpdates	Integer	No	Defines the total count of Account Update transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A

Attribute Name	Type	Required?	Description
numTokenRegistrations	Integer	No	Defines the total count of Token Registration transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numUpdateCardValidationNumOnTokens	Integer	No	Defines the total count of Update Card Validation Number request transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numCancelSubscriptions	Integer	No	Defines the total count of Cancel Subscription transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numUpdateSubscriptions	Integer	No	Defines the total count of Update Subscription transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numCreatePlans	Integer	No	Defines the total count of Create Plan transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numUpdatePlans	Integer	No	Defines the total count of Update Plan transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numActivates	Integer	No	Defines the total count of (Gift Card) Activate transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numDeactivates	Integer	No	Defines the total count of (Gift Card) Deactivate transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
activateAmount	Integer	No	Defines the total dollar amount of (Gift Card) Activate transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numLoads	Integer	No	Defines the total count of (Gift Card) Load transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
loadAmount	Integer	No	Defines the total dollar amount of (Gift Card) Load transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10

Attribute Name	Type	Required?	Description
numUnloads	Integer	No	Defines the total count of (Gift Card) Unload transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
unloadAmount	Integer	No	Defines the total dollar amount of (Gift Card) Unload transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
numBalanceInquirys	Integer	No	Defines the total count of (Gift Card) Balance Inquiry transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numPayFacCredit	Integer	No	Defines the total count of PayFac Credit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numPayFacDebit	Integer	No	Defines the total count of PayFac Debit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numSubmerchantCredit	Integer	No	Defines the total count of Submerchant Credit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numSubmerchantDebit	Integer	No	Defines the total count of Submerchant Debit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numReserveCredit	Integer	No	Defines the total count of Reserve Credit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numReserveDebit	Integer	No	Defines the total count of Reserve Debit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numVendorCredit	Integer	No	Defines the total count of Vendor Credit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A
numVendorDebit	Integer	No	Defines the total count of Vendor Debit transactions in the `batchRequest`. **minLength** = N/A **maxLength** = N/A

Attribute Name	Type	Required?	Description
payFacCreditAmount	Integer	No	Defines the total dollar amount of PayFac Credit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
payFacDebitAmount	Integer	No	Defines the total dollar amount of PayFac Debit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
submerchantCreditAmou nt	Integer	No	Defines the total dollar amount of Sub-merchant Credit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
submerchantDebitAmoun t	Integer	No	Defines the total dollar amount of Sub-merchant Debit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
reserveCreditAmount	Integer	No	Defines the total dollar amount of Reserve Credit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
reserveDebitAmount	Integer	No	Defines the total dollar amount of Reserve Debit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
vendorCreditAmount	Integer	No	Defines the total dollar amount of Vendor Credit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10
vendorDebitAmount	Integer	No	Defines the total dollar amount of Vendor Debit transactions in the `batchRequest`. The decimal point is implied. For example, you enter $25.00 as 2500. **totalDigits** = 10

Attribute Name	Type	Required?	Description
merchantId	String	Yes	A unique string to identify the merchant within the system. **minLength** = N/A **maxLength** = 50 **Note: International currencies are supported on a per merchantId basis.**

Child Elements:

At least one of the following required: activate, authorization, authReversal, balanceInquiry, cancelSubscription, capture, captureGivenAuth, createPlan, credit, deactivate, echeckCredit, echeckPreNoteSale, echeckRedeposit, echeckSale, echeckVerification, forceCapture, load, registerTokenRequest, sale, unload, updateCardValidationNumOnToken, updatePlan, updateSubscription, payFacCredit, payFacDebit, reserveCredit, reserveDebit, submerchantCredit, submerchantDebit, vendorCredit, vendorDebit

4.53 batchResponse

The `batchResponse` element is the parent element for information returned to you in response to a batch you submitted for processing. It is a child of a `litleResponse` element.

Parent Elements:

litleResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	No	The response returns the same value submitted in the authorization transaction. **minLength** = N/A **maxLength** = 25
litleBatchId	Long	Yes	A unique value assigned by Vantiv to identify the batch. **minLength** = N/A **maxLength** = 19
merchantId	String	Yes	The response returns the same value submitted in the authorization transaction. **minLength** = 1 **maxLength** = 50

Child Elements:

Required: activateResponse, authorizationResponse, authReversalResponse, captureResponse, captureGivenAuthResponse, createPlanResponse, creditResponse, deactivateResponse, echeckCreditResponse, echeckPreNoteCreditResponse, echeckPreNoteSaleResponse, echeckRedepositResponse, echeckSalesResponse, echeckVerificationResponse, forceCaptureResponse, loadResponse, registerTokenResponse, saleResponse, unloadResponse, updateCardValidationNumOnTokenResponse, cancelSubscriptionResponse, updatePlanResponse, updateSubscriptionResponse, payFacCreditResponse, payFacDebitResponse, physicalCheckCreditResponse, physicalCheckDebitResponse, reserveCreditResponse, reserveDebitResponse, submerchantCreditResponse, submerchantDebitResponse, vendorCreditResponse, vendorDebitResponse

NOTE: **The `batchResponse` contains child elements corresponding to the requests submitted in the `batchRequest`. For example, if the `batchRequest` contained 10 `authorization` and 8 `capture` transactions, the `batchResponse` would contain 10 `authorizationResponse` and 8 `captureResponse` transactions.**

4.54 beginningBalance

The `beginningBalance` element is an optional child of the `giftCardResponse` element. It defines the available balance on the submitted Gift Card prior to the requested operation.

NOTE: **Although included in the schema, the `beginningBalance`, `endingBalance`, and `cashBackAmonut` elements are not currently supported.**

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

giftCardResponse

Attributes:

None

Child Elements:

None

4.55 billingDate

The `billingDate` element is an optional child of the `updateSubscription` element that defines the new date for the recurring billing when the scheduled date need to be changed.

Type = Date; **Format** = YYYY-MM-DD

Parent Elements:

updateSubscription

Attributes:

None

Child Elements:

None

4.56 billMeLaterRequest

The `billMeLaterRequest` element is the parent of several child elements used to define merchant, product type, terms and conditions, and other items for PayPal Credit authorization transactions, or where you must reference an external (to Vantiv) BML transaction.

Parent Elements:

authorization, captureGivenAuth, credit, sale

Attributes:

None

Child Elements: (all optional)

bmlMerchantId, bmlProductType, itemCategoryCode, termsAndConditions, preapprovalNumber, virtualAuthenticationKeyPresenceIndicator, virtualAuthenticationKeyData, authorizationSourcePlatform

NOTE: **The following elements appear in the schema as children of the billMeLaterRequest element, but are not used at this time:**

- **`authorizationSourcePlatform`**
- **`customerBillingAddressChanged`**
- **`customerEmailChanged`**
- **`customerPasswordChanged`**
- **`customerPhoneChanged`**
- **`merchantPromotionalCode`**
- **`secretQuestionAnswer`**
- **`secretQuestionCode`**

Example: billMeLaterRequest

```
<billMeLaterRequest>
  <bmlMerchantId>bmlMerchantId</bmlMerchantId>
  <bmlProductType>bmlProductType</bmlProductType>
  <termsAndConditions>termsAndConditions</termsAndConditions>
  <preapprovalNumber>preapprovalNumber</preapprovalNumber>
  <virtualAuthenticationKeyPresenceIndicator> Indicator
</virtualAuthenticationKeyPresenceIndicator>
  <virtualAuthenticationKeyData> virtualAuthenticationKeyData
</virtualAuthenticationKeyData>
```

```
  <itemCategoryCode>itemCategoryCode</itemCategoryCode>
  <authorizationSourcePlatform>platformType</authorizationSourcePlatform>
</billMeLaterRequest>
```

4.57 billMeLaterResponseData

The `billMeLaterResponseData` element is the parent of several child elements used in the response XML for PayPal Credit authorization transactions.

Parent Elements:

authorizationResponse, saleResponse

Attributes:

None

Child Elements:

bmlMerchantId, creditLine, addressIndicator

NOTE: The following elements appear in the schema as children of the billMeLaterResponseData element, but are not used at this time:

- **`approvedTermsCode`**
- **`loanToValueEstimator`**
- **`promotionalCodeOffer`**
- **`riskEstimator`**
- **`riskQueueAssignment`**

Example: billMeLaterResponseData Structure

```
<billMeLaterResponseData>
  <bmlMerchantId>bmlMerchantId</bmlMerchantId>
  <creditLine>creditLine</creditLine>
  <addressIndicator>addressIndicator</addressIndicator>
</billMeLaterResponseData>
```

4.58 billToAddress

The `billToAddress` element contains several child elements that define the postal mailing address (and telephone number) used for billing purposes. It also contains several elements used for the eCheck verification process.

Parent Elements:

authorization, captureGivenAuth, credit, echeckCredit (required if original transaction was not processed by Vantiv), echeckPreNoteCredit, echeckPreNoteSale, echeckSale, echeckVerification, forceCapture,fraudCheck, sale, updateSubscription

Attributes:

None

Child Elements: (all optional)

name, firstName, middleInitial, lastName, companyName, addressLine1, addressLine2, addressLine3, city, state, zip, country, email, phone

NOTE: **The name element is required for `echeckSale` and `echeckCredit` transactions. If you do not submit the customer name in one of these eCheck transactions, we return the response 709 - Invalid Data.**

For an `eCheckVerification` transaction, you must submit the `firstName` and `lastName` elements instead of the name element (`middleInitial` is optional). For a corporate account you must include the companyName element in addition to the `firstName` and `lastName` elements. In both cases, you also must include the `address`, `city`, `state, zip` and phone information.

For a corporate account, if you do not have the name of the check issuer, you can use a value of "`unavailable`" for the `firstName` and `lastName` elements.

Example: billToAddress Structure

```
<billToAddress>
  <name>Customer’s Full Name</name>
  <firstName>Customer’s First Name</firstName>
  <middleInitial>Customer’s Middle Initial</middleInitial>
  <lastName>Customer’s Last Name</lastName>
  <companyName>Company’s Name</companyName> (include for echeckVerification of
corporate account)
  <addressLine1>Address Line 1</addressLine1>
  <addressLine2>Address Line 2</addressLine2>
  <addressLine3>Address Line 3</addressLine3>
  <city>City</city>
  <state>State Abbreviation</state>
  <zip>Postal Code</zip>
  <country>Country Code</country>
  <email>Email Address</email>
  <phone>Telephone Number</phone>
</billToAddress>
```

4.59 bin

The `bin` element provides the 6-digit Bank (or Issuer) Identification Number of the Issuing Bank. The system returns this value in XML responses when issuing new tokens to replace Visa or MasterCard account numbers.

For Discover and American Express cards, this element is empty in a `registerTokenResponse`.

For Discover, when included with Account Updater information in a payment transaction response, the `bin` element will have a value of **discov**.

Type = String; **minLength** = 0; **maxLength** = 6

Parent Elements:

The bin element is an optional child of each listed parent element.

registerTokenResponse, tokenResponse, newCardTokenInfo, originalCardTokenInfo, originalToken, updatedToken

Attributes:

None

Child Elements:

None

4.60 bmlMerchantId

The `bmlMerchantId` element is a value assigned by PayPal Credit to identify the merchant within the PayPal Credit system.

Type = Long; **minLength** = N/A; **maxLength** = 19

Parent Elements:

The `bmlMerchantId` element is an optional child of each listed parent element.

billMeLaterRequest, billMeLaterResponseData

Attributes:

None

Child Elements:

None

4.61 bmlProductType

The `bmlProductType` element is a value assigned by PayPal Credit to identify the merchant account type within the PayPal Credit system.

Type = String; **minLength** = 2; **maxLength** = 2

Parent Elements:

The `bmlProductType` element is an optional child of each listed parent element.

billMeLaterRequest, billMeLaterResponseData

NOTE: **At this time, the only valid value for this element is BL.**

Attributes:

None

Child Elements:

None

4.62 bypassVelocityCheck

The `bypassVelocityCheck` element is an optional child of the processingInstructions element, which allows you to specify whether or not the system performs velocity checking on the transaction.

NOTE: **Velocity Checking is not currently supported.**

Type = Boolean; **Valid Values** = true or false

Parent Elements:

processingInstructions

Attributes:

None

Child Elements:

None

4.63 campaign

The `campaign` element is an optional child element of the `merchantData` element. You can use it to track transactions associated with various marketing campaigns.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

merchantData

Attributes:

None

Child Elements:

None

4.64 cancelSubscription

The `cancelSubscription` element is the parent element for the transaction that cancels a subscription. You can use this element in either Online or Batch transactions.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

None

Child Elements:

Required: subscriptionId

4.65 cancelSubscriptionResponse

The `cancelSubscriptionresponse` element is the parent element for the response to a `cancelSubscription` transaction.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

None

Child Elements:

Required: subscriptionId, litleTxnId, response, message, responseTime

4.66 capability

The `capability` element is a required child of the `pos` element, which describes the capability of the point of sale terminal.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

pos

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
notused	terminal not used
magstripe	magnetic stripe reader capability
keyedonly	keyed entry only capability

NOTE: **For CAT (Cardholder Activated Terminal) transactions, the `capability` element must be set to `magstripe`, the `cardholderId` element must be set to `nopin`, and the `catLevel` element must be set to `self service`.**

4.67 capture

The `capture` element is the parent element for all Capture (deposit) transactions. You can use this element in either Online or Batch transactions.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25
partial	Boolean	No	If there is more than one capture that references the same `<litleTxnId>`, set this attribute to “true” for each of those partial captures. The default value is false. **Valid Values** = true or false

Child Elements:

Required: litleTxnId, payPalOrderComplete (required only if closing a PayPal order)

Optional: amount, enhancedData, payPalNotes, processingInstructions, secondaryAmount, surchargeAmount

NOTE: **If you do not specify an amount, the system uses the full amount from the associated Authorization transaction.**

4.68 captureGivenAuth

The `captureGivenAuth` element is the parent element for all Capture Given Auth transactions. These are specialized Capture transactions used when the `litleTxnId` for the associated Authorization is unknown or when the Authorization occurred outside our system. You can use this element in either Online or Batch transactions.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, authInformation, amount, orderSource, choice of card, token, mpos, paypage, or applepay

Optional: billToAddress, shipFromPostalCode, customBilling, taxType, enhancedData, processingInstructions, pos, amexAggregatorData, merchantData, secondaryAmount, surchargeAmount, debtRepayment, processingType

NOTE: **If you do not specify an amount child element, the system uses the full amount from the associated Authorization transaction.**

4.69 captureGivenAuthResponse

The `captureGivenAuthResponse` element is the parent element for information returned to you in response to a Capture Given Auth transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Capture Given Auth transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Capture Given Auth transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Capture Given Auth transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, tokenResponse, giftCardResponse, applepayResponse

NOTE: **The postDate child element is returned only in responses to Online transactions.**

4.70 captureResponse

The `captureResponse` element is the parent element for information returned to you in response to a Capture transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the capture transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the capture transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the capture transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, accountUpdater, giftCardResponse

NOTE: **The postDate child element is returned only in responses to Online transactions.**

4.71 card

The `card` element defines payment card information. It is a required element for most transaction types unless the transaction uses an alternate payment method such as PayPal. It contains one or more child elements depending upon whether the transaction is a card-not-present or a card-present (face-to-face) transaction.

Parent Elements:

activate, accountUpdate, authorization, balanceInquiry, captureGivenAuth, credit, deactivate, forceCapture, load, sale, unload, updateSubscription

Attributes:

None

Child Elements:

For card-not-present transactions (Required): type, number, expDate

For card-present transactions (Required): track

For both transactions types (Optional): cardValidationNum

Example: card Structure - Card-Not-Present

```
<card>
  <type>Card Type Abbreviation</type>
  <number>Account Number</number>
  <expDate>Expiration Date</expDate>
  <cardValidationNum>Card Validation Number</cardValidationNum>
</card>
```

Example: card Structure - Card-Present

```
<card>
  <track>Magnetic Stripe Read</track>
</card>
```

4.72 cardAcceptorTaxId

The `cardAcceptorTaxId` element is an optional child of the `detailTax` element and defines the merchant's Tax Id. This ID is nine digits long if the merchant is domiciled in the U.S. If the card acceptor tax ID is unknown, do not include this element.

Type = String; **minLength** = 1; **maxLength** = 20

Parent Elements:

detailTax

Attributes:

None

Child Elements:

None

4.73 cardholderAuthentication

The `cardholderAuthentication` element is an optional child element of the Authorization and Sale transactions. The children of this element have two purposes. The first is to define Verified by Visa or MasterCard SecureCode data in the Authorization or Sale transactions (`authenticationValue`, `authenticationTransactionId`, and `authenticatedByMerchant` elements). The remaining child element, `customerIpAddress,` as well as the `authenticationTransactionId`, are used in PayPal Credit transactions. The `customerIpAddress` element can also be used to supply the customer IP Address by merchants enabled for American Express Advanced AVS services.

NOTE: **The customerIpAddress child element is required for BML ecommerce transactions to succeed.**

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

authenticationValue, authenticationTransactionId, customerIpAddress, authenticatedByMerchant

Example: cardholderAuthentication Structure

```
<cardholderAuthentication>
  <authenticationValue>BwABBJQ1AgAAAAAgJDUCAAAAAAAA=</authenticationValue>
  <authenticationTransactionId>EaOMucALHQqLAEGAgk=</authenticationTransactionId>
  <customerIpAddress>Customer Ip</customerIpAddress>
  <authenticatedByMerchant>Boolean</authenticatedByMerchant>
</cardholderAuthentication>
```

NOTE: **The values for the `<authenticationValue>` and `<authenticationTransactionId>` elements in the example above have been truncated.**

4.74 cardholderId

The `cardholderId` element is a required child of the `pos` element, which describes the method used for cardholder identification at the point of sale.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

pos

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
signature	customer signature obtained
pin	PIN number
nopin	unattended terminal - no PIN pad
directmarket	mail, telephone, or online

NOTE: **For CAT (Cardholder Activated Terminal) transactions, the `capability` element must be set to `magstripe`, the `cardholderId` element must be set to `nopin`, and the `catLevel` element must be set to `self service`.**

4.75 cardholderName

The `cardholderName` element is an optional child of the `applepayResponse` element and provides the name of the cardholder whose card initiated the Apple Pay transaction.

Type = String; **minLength** = N/A; **maxLength** = 512

Parent Elements:

applepayResponse

Child Elements:

None

4.76 cardOrToken

The `cardOrToken` element is an abstract that allows the substitution of either the card or token element. You must specify one of the two substitution elements as a child of the `accountUpdate` element.

Parent Elements:

accountUpdate

Substitution Options:

card, token

4.77 cardProductType

The `cardProductType` element is an optional child of the `enhancedAuthResponse` element and whether the card used is commercial or consumer.

Type = String (enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

enhancedAuthResponse

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
COMMERCIAL	The card is a commercial card.
CONSUMER	The card is a consumer card.
UNKNOWN	The type of card is not known.

4.78 cardSuffix

The `cardSuffix` element is an optional child of both the `authorizationResponse` and `saleResponse` elements. It provides the last four digits of the actual PAN for Apple Pay transactions, when the underlying card is either Visa or MasterCard.

Type = String; **minLength** = 3; **maxLength** = 6

Parent Elements:

authorizationResponse, saleResponse

Attributes:

None

Child Elements:

None

4.79 cardValidationNum

The `cardValidationNum` element is an optional child of the `card` element, which you use to submit either the CVV2 (Visa), CVC2 (MasterCard), or CID (American Express and Discover) value.

NOTE: **Some American Express cards may have a 4-digit CID on the front of the card and/or a 3-digit CID on the back of the card. You can use either of the numbers for card validation, but not both.**

When you submit the CVV2/CVC2/CID in a `registerTokenRequest`, the platform encrypts and stores the value on a temporary basis for later use in a tokenized Auth/Sale transaction submitted without the value. This is done to accommodate merchant systems/workflows where the security code is available at the time of token registration, but not at the time of the Auth/Sale. If for some reason you need to change the value of the security code supplied at the time of the token registration, use an `updateCardValidationNumOnToken` transaction. To use the store value when submitting an Auth/Sale transaction, set the cardValidationNum value to 000.

The `cardValidationNum` element is an optional child of the `virtualGiftCardResponse` element, where it defines the value of the validation Number associated with the Virtual Gift Card requested.

NOTE: **The use of the `cardValidationNum` element in the `registertokenRequest` only applies when you submit an `accountNumber` element.**

Type = String; **minLength** = N/A; **maxLength** = 4

Parent Elements:

card, paypage, token, registerTokenRequest, updateCardValidationNumOnToken, virtualGiftCardResponse

Attributes:

None

Child Elements:

None

4.80 cardValidationResult

The `cardValidationResult` element is an optional child element of the `fraudResult` element. It defines the Card Validation response code returned by the networks. For a list of possible values, please refer to Card Validation Response Codes on page 752.

Type = String; **minLength** = N/A; **maxLength** = 2

Parent Elements:

fraudResult

Attributes:

None

Child Elements:

None

4.81 cashBackAmount

The `cashBackAmount` element is an optional child of the `giftCardResponse` element. It defines the Cash Back amount provided to the Gift Card holder.

NOTE: **Although included in the schema, the `beginningBalance`, `endingBalance`, and `cashBackAmonut` elements are not currently supported.**

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

giftCardResponse

Attributes:

None

Child Elements:

None

4.82 catLevel

The `catLevel` element is an optional child of the `pos` element, which describes the capability of the Cardholder Activated Terminal. Although optional in the schema, it is required for all CAT transactions.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

pos

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
self service	Cardholder Activated Terminal level

4.83 ccdPaymentInformation

The `ccdPaymentInformation` element is an optional child of the `echeck` element. This element is intended for use by PayFacs using Instruction Based Dynamic Payout to submit a description of the transaction. The description will appear in the extended detail section of the receiver's bank statement, if that section is supported by the receiver's bank.

Type = String; **minLength** = N/A; **maxLength** = 80

Parent Elements:

accountInfo, echeck

Attributes:

None

Child Elements:

None

4.84 chargeback

The `chargeback` element is an optional child of the `filtering` element. To disable the chargeback filtering operation for a selected transaction include the `chargeback` element with a setting of **false**.

Type = Boolean; **Valid Value** = false

NOTE: **Although included in the schema, the <`chargeback`> element is not supported. To override the chargeback filter for a selected transaction, use the fraudFilterOverride flag (see fraudFilterOverride on page 494). Please consult your Customer Experience Manager for additional information.**

Parent Elements:

filtering

Attributes:

None

Child Elements:

None

4.85 checkNum

The `checkNum` element is an optional child of the `echeck` element defining the check number of used in the transaction.

Type = String; **minLength** = N/A; **maxLength** = 15

Parent Elements:

echeck

Attributes:

None

Child Elements:

None

4.86 city

The `city` element defines the customer's city name in the `billToAddress` and `shipToAddress` elements. In the `customBilling` element, `city` defines the location of the merchant for card-present transactions.

Type = String; **minLength** = N/A; **maxLength** = 35

Parent Elements:

billToAddress, shipFromPostalCode, customBilling

Attributes:

None

Child Elements:

None

4.87 clinicOtherAmount

The `clinicAmount` element is an optional child of the `healthcareAmounts` element and defines the healthcare amount used for the clinic/office visits. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

Optional: healthcareAmounts

Attributes:

None

Child Elements:

None

4.88 code

The `code` element is a required child of the `extendedCardResponse` element. The `code`/`message` combination can be either 501- The account was closed, or 504 - Contact the cardholder for updated information.

Type = String; **minLength** = N/A; **maxLength** = 3

Parent Elements:

extendedCardResponse

Attributes:

None

Child Elements:

None

4.89 commodityCode

The `commodityCode` element is an optional child of the `lineItemData` element, which specifies the Identifier assigned by the card acceptor that categorizes the purchased item. Although the schema defines it as an optional child of the `enhancedData` element, it is required by Visa for Level III interchange rates.

Type = String; **minLength** = 1; **maxLength** = 12

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

NOTE: **A commodity code is a numeric code representing a particular product or service. The code can be 3, 5, 7, or 11 digits in length. The longer the code the more granular the description of the product/service. For example, code 045 is used for Appliances and Equipment, Household Type, while code 04506 represents the sub-set of Appliances, Small Electric.**

The codes are issued by the NIGP (National Institute of Governmental Purchasing. Their site, www.nigp.com, offers a subscription based code search engine, as well as downloadable lists for purchase.

You can also find many lists published online by performing a simple search on "Commodity Codes".

4.90 companyName

The `companyName` element is an optional child of the `billToAddress` element, which specifies the name of the company associated with the corporate checking account. This element is required when performing an eCheck Verification of a check from a corporate account, as defined by the <`accType`> child of the <`echeck`> element.

Type = String; **minLength** = N/A; **maxLength** = 40

Parent Elements:

billToAddress

Attributes:

None

Child Elements:

None

4.91 country

The `country` element defines the country portion of the postal mailing address in both the `billToAddress` and `shipToAddress` elements.

Type = String (Enum); **minLength** = N/A; **maxLength** = 3

NOTE: **The enumerations for this element are listed under <countryTypeEnum> in the LitleXML Common XSD. The country names corresponding to the abbreviations can be found in the ISO 3166-1 standard.**

Parent Elements:

billToAddress, shipFromPostalCode

Attributes:

None

Child Elements:

None

4.92 createAddOn

The `createAddOn` element is the parent of several child elements used to define an additional charge added to a new or existing subscription.

Parent Elements:

subscription, updateSubscription

Attributes:

None

Child Elements (all Required):

addOnCode, name, amount, startDate, endDate

Example: customerInfo Structure

```
<createAddOn>
  <addOnCode>Add On Reference Code</addOnCode>
  <name>Name of Add On</name>
  <amount>Amount of Add On</amount>
  <startDate>Start Date of Add On Charge</startDate>
  <endDate>End Date of Add On Charge</endDate>
</createAddOn>
```

4.93 createDiscount

The `createDiscount` element is the parent of several child elements used to define a discount to be applied to a new or existing subscription.

Parent Elements:

subscription, updateSubscription

Attributes:

None

Child Elements (all Required):

discountCode, name, amount, startDate, endDate

Example: customerInfo Structure

```
<createDiscount>
  <discountCode>Discount Reference Code</discountCode>
  <name>Name of Discount</name>
  <amount>Amount of Discount</amount>
  <startDate>Start Date of Discount</startDate>
  <endDate>End Date of Discount</endDate>
</createDiscount>
```

4.94 createPlan

The `createPlan` element is the parent of several child element that define the attributes of a recurring payment plan. You associate Plans with subscriptions to define the billing behavior for the recurring payment.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

None

Child Elements:

planCode, name, description, intervalType, amount, numberOfPayments, trialNumberOfIntervals, trialIntervalType, active

Example: createPlan Structure

```
<createPlan>
  <planCode>Plan Reference Code</planCode>
  <name>Name of Plan</name>
  <description>Description of Plan</description>
  <intervalType>The Type of Interval</intervalType>
  <amount>Amount of Recurring Payment</amount>
  <numberOfPayments>1 to 99</numberOfRemianingPayments>
  <trialNumberOfIntervals>Number of Trial Period
Intervals</trialNumberOfIntervals>
  <trialIntervalType>Type of Trial Period Interval</trialIntervalType>
  <active>true or false</active>
</createPlan>
```

4.95 createPlanResponse

The `createPlanResponse` element is the parent element for the response to a `createPlan` transaction.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

None

Child Elements:

planCode, litleTxnId, response, message, responseTime

4.96 credit

The `credit` element is the parent element for all Credit transactions. You can use this element in either Online or Batch transactions.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

For credits to transactions processed by Vantiv (Required): litleTxnId

For credits to transactions processed by Vantiv (Optional): amount, payPalNotes, secondaryAmount, surchargeAmount,

NOTE: **If you do not specify an `amount` child element, the system uses the full amount from the associated Capture, Force Capture, or Sale transaction.**

The `amount` element is required for credits to transactions not processed by Vantiv

For credits to transactions not processed by Vantiv (Required): orderId, amount, orderSource, choice of card, token, paypage, mpos, paypal, or applepay

For credits to transactions not processed by Vantiv (Optional): billToAddress, billMeLaterRequest, amexAggregatorData

For both transaction types (Optional): customBilling, taxType, enhancedData, processingInstructions, merchantData, actionReason, pos

4.97 creditLine

The `creditLine` element is an optional child of the `billMeLaterResponseData` element and indicates the credit line of the customer. The amount is specified using a two-digit implied decimal.

Type = Integer; **totalDigits** = 8

Parent Elements:

billMeLaterResponseData

Attributes:

None

Child Elements:

None

4.98 creditLitleTxnId

The `creditLitleTxnId` element is the Transaction Id (`litleTxnId`) of a Credit transaction automatically submitted under the following conditions:

- You submitted a Void transaction to halt the recycling of a declined Sale transaction by the Recovery/Recycling Engine.
- The Sale transaction has already been approved and captured.
- Your Recovery/Recycling Engine configuration enables automatic refunds.
- The system has successfully submitted a Credit transaction on your behalf.

Type = Long; **minLength** = N/A; **maxLength** = 19

Parent Elements:

recycling

Attributes:

None

Child Elements:

None

4.99 creditResponse

The `creditResponse` element is the parent element for information returned to you in response to a Credit transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the credit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the credit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the credit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, tokenResponse, giftCardResponse, applepayResponse

NOTE: **The postDate child element is returned only in responses to Online transactions.**

4.100 currencyCode

The `currencyCode` element is an optional child of the `applepayResponse` element and provides the 3-character code for the currency used in the transaction.

Type = String; **minLength** = N/A; **maxLength** = 3

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

4.101 customAttribute1

The `customAttribute1` through `customAttribute5` elements are an optional children of the `advancedFraudChecks` element. These elements allow users of Advanced Fraud Tools with self-serve rules to submit additional custom data to ThreatMetrix for inclusion in the fraud evaluation process. For example, if you assigned a certain attribute to your customers for segmentation purposes, you might wish to submit the assigned value and also establish a ThreatMetrix rule so the value was included in the evaluation.

NOTE: **Once you decide to use a particular custom attribute for a particular value set and establish a rule for its evaluation, you**

Type = String; **minLength** = 1; **maxLength** = 200

Parent Elements:

advancedFraudChecks

Attributes:

None

Child Elements:

None

4.102 customBilling

The `customBilling` element allows you to specify custom billing descriptor information for the transaction. This billing descriptor is used instead of the descriptor defined as the default billing descriptor. If you do not define this element, the default is used.

NOTE: **If you submit a captureGivenAuth transaction with a customBilling element and a matching Authorization is found (see Capture Given Auth Transaction on page 61), the system uses the customBilling information from the Authorization and discards the information from the captureGivenAuth.**

Parent Elements:

authorization, captureGivenAuth, credit, echeckCredit, echeckSale, forceCapture, sale,

Attributes:

None

Child Elements:

Required for card-not-present transactions: phone, or url

NOTE: **Please consult your Customer Experience Manager prior to using the <url> element. The contents of this element are discarded unless you are specifically enabled to use it in your LitleXML submissions.**

Required for card present transactions: city

Optional for either: descriptor

Example: customBilling Structure - Card-Not-Present (using phone child)

```
<customBilling>
  <phone>Telephone Number</phone>
  <descriptor>Billing Descriptor</descriptor>
</customBilling>
```

Example: customBilling Structure - Card-Not-Present (using url child)

```
<customBilling>
  <url>retail.url</url>
  <descriptor>www.retail.com</descriptor>
```

```
</customBilling>
```

Example: customBilling Structure - Card-Present

```
<customBilling>
  <city>City</city>
  <descriptor>Billing Descriptor</descriptor>
</customBilling>
```

4.103 customerInfo

The `customerInfo` element is the parent of several child elements use to define customer information for PayPal Credit transactions.

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

ssn, dob, customerRegistrationDate, customerType, incomeAmount, employerName, customerWorkTelephone, residenceStatus, yearsAtResidence, yearsAtEmployer

NOTE: **Although the schema defines all child elements as optional, under certain conditions ssn, dob, `customerRegistrationDate`, and `customerType` are required for the transaction to succeed.**

Example: `customerInfo` Structure

```
<customerInfo>
  <ssn>ssn</ssn>
  <dob>dob</dob>
  <customerRegistrationDate>customerRegistrationDate</customerRegistrationDate>
  <customerType>customerType</customerType>
  <incomeAmount>incomeAmount</incomeAmount>
  <incomeCurrency>incomeCurrency</incomeCurrency>
  <employerName>employerName</employerName>
  <customerWorkTelephone>customerWorkTelephone</customerWorkTelephone>
  <residenceStatus>residenceStatus</residenceStatus>
  <yearsAtResidence>yearsAtResidence</yearsAtResidence>
  <yearsAtEmployer>yearsAtEmployer</yearsAtEmployer>
</customerInfo>
```

4.104 customerIpAddress

The `customerIpAddress` element is an optional child element of the `cardholderAuthentication` element. This element defines the IP Address of the customer's system. This element is used either for PayPal Credit transactions or to supply the customer IP Address by merchants enabled for American Express Advanced AVS services.

Type = Ip Address; **Format** = nnn.nnn.nnn.nnn

NOTE: **This element is required for BML ecommerce transactions to succeed.**

Parent Elements:

cardholderAuthentication

Attributes:

None

Child Elements:

None

4.105 customerReference

The `customerReference` element defines a reference string used by the customer for the purchase (for example, a Purchase Order Number). Although the schema defines it as an optional child of the `enhancedData` element, it is required by Visa for Level III interchange rates; however, you should omit this element if it is blank.

Type = String; **minLength** = 1; **maxLength** = 17

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.106 customerRegistrationDate

The `customerRegistrationDate` element is an optional child of the `customerInfo` element defining the earliest date on file with this customer. The latest allowable date is the current date. It is used in combination with several other elements to provide required information for some PayPal Credit transactions.

Type = Date; **Format** = YYYY-MM-DD

NOTE: **In order for a BML transaction to succeed, you must include this element if the customer does not have a BML account.**

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.107 customerType

The `customerType` element is an optional child of the `customerInfo` element defining whether the customer is a new or existing customer. An existing customer is a customer in good standing that has been registered with the merchant for a minimum of 30 days and has made at least one purchase in the last 30 days. It is used in combination with several other elements to provide required information for some PayPal Credit transactions.

Type = Choice (Enum); **Enumerations** = New or Existing

NOTE: **In order for a BML transaction to succeed, you must include this element if the customer does not have a BML account.**

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.108 customerWorkTelephone

The `customerWorkTelephone` element is an optional child of the `customerInfo` element and defines the customer's work telephone number. It is used in combination with several other elements to provide information for some PayPal Credit transactions.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.109 data

The `data` element is a required child of the `applepay` element. It is the payment data dictionary, BASE64 encoded string from the PKPaymentToken.

Type = String; **minLength** = N/A; **maxLength** = 2000

Parent Elements:

applepay

Attributes:

None

Child Elements:

None

4.110 deactivate

The `deactvate` element is the parent element for the transaction type that deactivate a Gift Card.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

orderId, orderSource, card

4.111 deactivateResponse

The `deactivateResponse` element is the parent element for information returned to you in response to a **`deactivate`** transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, fraudResult, giftCardResponse

4.112 deactivateReversal

The `deactvateReversal` element is the parent element for the transaction type that reverses the deactivation of a Gift Card.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId

4.113 deactviateReversalResponse

The `deactivateReversalResponse` element is the parent element for information returned to you in response to an `deactivateReversal` transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, giftCardResponse

4.114 debtRepayment

The `debtRepayment` element is an optional child of authorization, captureGivenAuth, forceCapture, and sale transactions. You use this flag only if the method of payment is Visa and the transaction is a for a debt repayment. Also, your MCC must be either 6012 or 6051. If you set this flag to true and you are not one of the allowed MCCs, the system declines the transaction with a Response Reason Code of 852 - Debt Repayment only allowed for VI transactions on MCCs 6012 and 6051.

Type = Boolean; **Valid Values** = true or false (default)

Parent Elements:

authorization, captureGivenAuth, forceCapture, sale

Attributes:

None

Child Elements:

None

4.115 deleteAddOn

The `deleteAddOn` element is the parent element used to define an Add On to be removed from an existing subscription.

Parent Elements:

updateSubscription

Attributes:

None

Child Elements (all Required):

addOnCode

Example: deleteAddOn Structure

```
<deleteAddOn>
  <addOnCode>Add On Reference Code</addOnCode>
</deleteAddOn>
```

4.116 deleteDiscount

The `deleteDiscount` element is the parent element used to define a discount to be removed from an existing subscription.

Parent Elements:

updateSubscription

Attributes:

None

Child Elements (all Required):

discountCode

Example: deleteDiscount Structure

```
<deleteDiscount>
  <discountCode>Discount Reference Code</discountCode>
</deleteDiscount>
```

4.117 deliveryType

The `deliveryType` element is an optional child of the `enhancedData` element and defines the shipping method used for delivery of the product.

NOTE: **Although define in the schema as an optional child of the `enhancedData` element, `deliveryType` is required for PayPal Credit transactions.**

Type = String (enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
CNC	Cash and Carry
DIG	Digital Delivery
PHY	Physical Delivery
SVC	Service Delivery
TBD (default)	To be determined.

4.118 dentalAmount

The `dentalAmount` element is an optional child of the `healthcareAmounts` element and defines the healthcare amount used for dental related purchases. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

Optional: healthcareAmounts

Attributes:

None

Child Elements:

None

4.119 depositReversal

The `depositReversal` element is the parent element for a Gift Card specific transaction type that reverses a `capture` or `sale` transaction.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId

4.120 depositReversalResponse

The `depositReversalResponse` element is the parent element for information returned to you in response to an `depositReversal` transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, giftCardResponse

4.121 description

The `description` element is an optional child of the `createPlan` element and provides a text description of the Plan element.

Type = String; **minLength** = N/A; **maxLength** = 100

Parent Elements:

createPlan

Attributes:

None

Child Elements:

None

4.122 descriptor

The `descriptor` element is a required child of the `customBilling` element. This element defines the text you wish to display on the customer bill, enabling the customer to better recognize the charge.

Type = String; **minLength** = N/A; **maxLength** = 25

NOTE: **If you include a prefix:**

- **the prefix must be either 3, 7, or 12 characters in length.**
- **you must use an asterisk (*) after the prefix as a separator, in one of the following positions: 4th, 8th, or 13th. Do not use an asterisk in more than one position.**
- **Use only the following valid characters:**
  - **Numbers**
  - **Letters**
  - **Special characters as follows: ampersand, asterisk (Required; see note above), comma, dash, period, or pound sign.**

Parent Elements:

customBilling

Attributes:

None

Child Elements:

None

4.123 destinationCountryCode

The `destinationCountryCode` element defines the country portion of the postal mailing address in the `enhancedData` element.

Type = String (Enum); **minLength** = N/A; **maxLength** = 3

NOTE: **The enumerations for this element are listed under `<countryTypeEnum>` in the LitleXML Common XSD. The country names corresponding to the abbreviations can be found in the ISO 3166-1 standard.**

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.124 destinationPostalCode

The `destinationPostalCode` element defines the postal code of the destination in the `enhancedData` element.

Type = String; **minLength** = N/A; **maxLength** = 20

NOTE: **Although the schema specifies the maxLength of the `<destinationPostalCode>` element as 20 characters, in practice you should never exceed 10 characters in your submissions.**

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.125 detailTax

The `detailTax` element is an optional child of both the `enhancedData` and `lineItemData` elements, which you use to specify detailed tax information (for example, city or local tax). The total sum of the `detailTax` values should match either the `salesTax` value, if `detailTax` is a child of `enhancedData`, or the `taxAmount` element if `detailTax` is a child of `lineItemData`.

Parent Elements:

enhancedData, lineItemData

NOTE: **The `detailTax` element can appear a maximum of six times as a child of either parent.**

Attributes:

None

Child Elements:

Required: taxAmount

Optional: taxIncludedInTotal, taxRate, taxTypeIdentifier, cardAcceptorTaxId

Example: detailTax Structure

```
<detailTax>
  <taxIncludedInTotal>true or false</taxIncludedInTotal>
  <taxAmount>Additional Tax Amount</taxAmount>
  <taxRate>Tax Rate of This Tax Amount</taxRate>
  <taxTypeIdentifier>Tax Type Enum</taxTypeIdentifier>
  <cardAcceptorTaxId>Tax ID of Card Acceptor</cardAcceptorTaxId>
</detailTax>
```

4.126 deviceManufacturerIdentifier

The `deviceManufacturerIdentifier` element is an optional child of the `applepayResponse` element and defines the manufacturer of the device originating the transaction.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

4.127 deviceReputationScore

The `deviceReputationScore` element is an optional child of the `advancedFraudResults` element and specifies score resulting from the ThreatMetrix analysis of the customer device.

Type = Integer; **totalDigits** = 8

Parent Elements:

advancedFraudResults

Attributes:

None

Child Elements:

None

4.128 deviceReviewStatus

The `deviceReviewStatus` element is a required child of the `advancedFraudResults` element and specifies the results of the comparison of the deviceReputationScore against the threshold levels configured for the merchant. Typical values are: pass, fail, review, unavailable, and invalid_session.

NOTE: **The system returns *invalid_session* if you submitted a session Id using an invalid prefix.**

Type = String; **minLength** = N/A; **maxLength** =

Parent Elements:

advancedFraudResults

Attributes:

None

Child Elements:

None

4.129 discountAmount

The `discountAmount` element defines the amount of the discount for the order. Although the schema defines it as an optional child of the `enhancedData` element, it is required by Visa for Level III interchange rates. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.130 discountCode

The `discountCode` element is the identifier of a defined discount. You use this element when creating, updating, and deleting a discount applied to a subscription.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

createDiscount, updateDiscount, deleteDiscount

Attributes:

None

Child Elements:

None

4.131 dob

The `dob` element is an optional child of the `customerInfo` element. It is used in combination with several other elements to provide required information for some PayPal Credit transactions.

Type = Date; **Format** = YYYY-MM-DD

NOTE: **In order for a PayPal Credit transaction to succeed, you must include this element if:**

- **the customer does not have a PayPal Credit account**

or

- **the customer has a PayPal Credit account, but the account has not been authenticated.**

You do not need to include this element if the PayPal Credit account has been authenticated.

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.132 dutyAmount

The `dutyAmount` element defines duty on the total purchased amount for the order. Although the schema defines it as an optional child of the `enhancedData` element, it is required by Visa for Level III interchange rates. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.133 echeck

The `echeck` element is a required child of the `echeckSale, echeckVerification`, and `echeckCredit` (when the credit is against a transaction not originally processed through our system) elements. It contains child elements used to provide details concerning the eCheck account.

Parent Elements:

echeckCredit, echeckPreNoteCredit, echeckPreNoteSale, echeckSale, echeckVerification

Attributes:

None

Child Elements:

Required: accType, accNum, routingNum

Optional: checkNum, ccdPaymentInformation

Example: echeck Structure

```
<echeck>
  <accType>Account Type Abbreviation</accType>
  <accNum>Account Number</accNum>
  <routingNum>Routing Number</routingNum>
  <checkNum>Check Number</checkNum>
  <ccdPaymentInformation>Payment Description</ccdPaymentInformation>
</echeck>
```

4.134 eCheckAccountSuffix

The `eCheckAccountSuffix` element is an optional child of the `tokenResponse` element that provides the last three characters of the eCheck account number.

Type = String; **minLength** = 3; **maxLength** = 3

Parent Elements:

registerTokenResponse, tokenResponse

Attributes:

None

Child Elements:

None

4.135 echeckCredit

The `echeckCredit` element is the parent element for all eCheck Credit transactions. You can use this element in either Batch or Online transactions.

Parent Elements:

batchRequest, litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

For credits to transactions processed by Vantiv (Required): litleTxnId

For credits to transactions processed by Vantiv (Optional): amount

NOTE: **If you do not specify an amount child element, the system uses the full amount from the associated echeckSale transaction.**

For credits to transactions not processed by Vantiv (Required): orderId, amount, orderSource, billToAddress, echeckOrEcheckToken (allows the substitution of either the `echeck` or `echeckToken` elements)

For credits to transactions not processed by Vantiv (Optional): merchantData

For both (Optional): customBilling, secondaryAmount

4.136 echeckCreditResponse

The `echeckCreditResponse` element is the parent element for information returned to you in response to an echeckCredit transaction.

Parent Elements:

batchResponse, litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the echeckCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the echeckCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the echeckCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId, response, responseTime, message

Optional: postDate, accountUpdater

NOTE: **The `postDate` child element is returned only in responses to Online transactions.**

4.137 echeckForToken

The `echeckForToken` element is a child of the `registerTokenRequest` element. It contains the routing and account number of the eCheck account which the system uses to generate a token.

Parent Elements:

registerTokenRequest

Attributes:

None

Child Elements:

Required: accNum, routingNum

Example: echeck Structure

```
<echeckForToken>
  <accNum>Account Number</accNum>
  <routingNum>Routing Number</routingNum>
</echeckForToken>
```

4.138 echeckOrEcheckToken

The `echeckOrEcheckToken` element is an abstract that allows the substitution of either the `echeck` or `echeckToken` element. In eCheck transactions, except echeckVoid, you must specify one of the two substitution elements as a child.

Parent Elements:

echeckCredit, echeckRedeposit, echeckSale, echeckVerification

Substitution Options:

echeck, echeckToken

4.139 echeckPreNoteCredit

The echeck`PreNoteCredit` element is the parent element for all eCheck Prenotification Credit transactions. You use this transaction type to preform an eCheck Prenotification, when the subsequent eCheck transaction will be an eCheck Credit transaction. You can use this element only in Batch transactions. This transaction type is only supported for US transactions.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, orderSource, billToAddress, echeck

Optional: merchantData

4.140 echeckPreNoteCreditResponse

The `echeckPreNoteCreditResponse` element is the parent element for information returned to you in response to an `echeckPreNoteCredit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the echeckCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the echeckCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the echeckCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId, response, responseTime, message

Optional: orderId

4.141 echeckPreNoteSale

The echeck`PreNoteSale` element is the parent element for all eCheck Prenotification Sale transactions. You use this transaction type to preform an eCheck Prenotification, when the subsequent eCheck transaction will be an eCheck Sale transaction. You can use this element only in Batch transactions. This transaction type is only supported for US transactions.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, orderSource, billToAddress, echeck

Optional: merchantData

4.142 echeckPreNoteSaleResponse

The `echeckPreNoteSaleResponse` element is the parent element for information returned to you in response to an `echeckPreNoteSale` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the echeckCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the echeckCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the echeckCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId, response, responseTime, message

Optional: orderId

4.143 echeckRedeposit

The echeck`Redeposit` element is the parent element for all eCheck Redeposit transactions. You use this transaction type to manually attempt redeposits of eChecks returned for either Insufficient Funds or Uncollected Funds. You can use this element in either Batch or Online transactions.

NOTE: **Do not use this transaction type if you are enabled for the Auto Redeposit feature. If you are enabled for the Auto Redeposit feature, the system will reject any `echeckRedeposit` transaction you submit.**

Parent Elements:

batchRequest, litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId

Optional: echeckOrEcheckToken (allows the substitution of either the `echeck` or `echeckToken` elements), merchantData

4.144 echeckRedepositResponse

The `echeckRedepositResponse` element is the parent element for information returned to you in response to an `echeckRedeposit` transaction.

Parent Elements:

batchResponse, litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the echeckSale transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the echeckSale transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the echeckSale transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, accountUpdater

NOTE: **The `postDate` child element is returned only in responses to Online transactions.**

4.145 echeckSale

The echeckSale element is the parent element for all eCheck Sale transactions. You can use this element in either Batch or Online transactions.

Parent Elements:

batchRequest, litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, amount, orderSource, billToAddress, echeckOrEcheckToken (allows the substitution of either the `echeck` or `echeckToken` elements)

NOTE: **The value for the orderSource element must be one of the following: telephone, ecommerce, recurringtel, or echeckppd.**

Optional: shipToAddress, verify, customBilling, merchantData, secondaryAmount

4.146 echeckSalesResponse

The `echeckSalesResponse` element is the parent element for information returned to you in response to an echeckSale transaction.

Parent Elements:

batchResponse, litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the echeckSale transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the echeckSale transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the echeckSale transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, accountUpdater, tokenResponse

NOTE: **The `postDate` child element is returned only in responses to Online transactions.**

4.147 echeckToken

The `echeckToken` element replaces the `echeck` element in tokenized eCheck transactions and defines the tokenized account information.

Parent Elements:

echeckCredit, echeckRedeposit, echeckSale, echeckVerification

Attributes:

None

Child Elements:

Required: litleToken, routingNum, accType

Optional: checkNum

Example: echeck Structure

```
<echeckToken>
  <litleToken>Token</litleToken>
  <routingNum>Routing Number</routingNum>
  <accType>Account Type Abbreviation</accType>
  <checkNum>Check Number</checkNum>
</echeckToken>
```

4.148 echeckVerification

The `echeckVerification` element is the parent element for all eCheck Verification transactions. You use this transaction type to initiate a comparison of the consumer's account information against positive/negative databases. You can use this element in either Batch or Online transactions. This transaction type is only supported for US transactions.

Parent Elements:

batchRequest, litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, amount, orderSource, billToAddress, echeckOrEcheckToken (allows the substitution of either the `echeck` or `echeckToken` elements)

Optional: litleTxnId, merchantData

4.149 echeckVerificationResponse

The `echeckVerificationResponse` element is the parent element for information returned to you in response to a eCheck Verification transaction.

Parent Elements:

batchResponse, litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the capture transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the capture transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the capture transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate

NOTE: **The `postDate` child element is returned only in responses to Online transactions.**

4.150 echeckVoid

The echeckVoid element is the parent element for all eCheck Void transactions. You use this transaction type to either cancel an eCheck Sale transaction, as long as the transaction has not yet settled, or halt automatic redeposit attempts of eChecks returned for either Insufficient Funds or Uncollected Funds. You can use this element only in Online transactions.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId

4.151 echeckVoidResponse

The echeck`VoidResponse` element is the parent element for information returned to you in response to an eCheck Void transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the void transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the void transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the void transaction. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId, response, responseTime, message, postDate

4.152 eciIndicator

The `eciIndicator` element is an optional child of the `applepayResponse` element and specifies electronic commerce indicator associated with an Apple Pay transaction.

Type = String; **minLength** = N/A; **maxLength** = 2

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

4.153 email

The `email` element defines the email address of the customer in both the `billToAddress` and `shipToAddress` elements.

Type = String; **minLength** = N/A; **maxLength** = 100

Parent Elements:

billToAddress, shipToAddress

Attributes:

None

Child Elements:

None

4.154 employerName

The `employerName` element is an optional child of the `customerInfo` element and defines the name of the customer's place of employment. It is used in combination with several other elements to provide information for some PayPal Credit transactions.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

4.155 encryptedTrack

The `encryptedTrack` element is a required child of the `mpos` element. This element provides the encrypted track data resulting from a card swipe using a ROAM device.

Type = String; **minLength** = 1; **maxLength** = 1028

Parent Elements:

mpos

Attributes:

None

Child Elements:

None

4.156 endDate

The `endDate` element is a optional child of both the `createAddOn` and `createDiscount` element, where it specifies either the ending date of the Add On charge or the ending date of the discount.

Type = Date; **Format** = YYYY-MM-DD

Parent Elements:

createAddOn, createDiscount

Attributes:

None

Child Elements:

None

4.157 endingBalance

The `endingBalance` element is an optional child of the `giftCardResponse` element. It defines the available balance on the submitted Gift Card after the requested operation.

NOTE: Although included in the schema, the `beginningBalance`, `endingBalance`, and `cashBackAmonut` elements are not currently supported.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

giftCardResponse

Attributes:

None

Child Elements:

None

4.158 enhancedAuthResponse

The `enhancedAuthResponse` element is an optional child of both the `authorizationResponse` and `saleResponse` elements. Through its child elements, it can provide information concerning whether the card used for the transaction is Prepaid and if so, the available balance. Depending upon the card used, other elements can indicate affluence, card product type, prepaid card type, reloadability and whether or not it is a virtual account number.

Parent Elements:

authorizationResponse, saleResponse

Attributes:

None

Child Elements: (all Optional)

fundingSource, affluence, issuerCountry, cardProductType, virtualAccountNumber

Example: enhancedAuthResponse - with fundingSource

```
<enhancedAuthResponse>
  <fundingSource>
    <type>PREPAID</type>
    <availableBalance>0</availableBalance>
    <reloadable>YES|NO|UNKNOWN</reloadable>
    <prepaidCardType>GIFT</prepaidCardType>
  </fundingSource>
</enhancedAuthResponse>
```

Example: enhancedAuthResponse - with affluence

```
<enhancedAuthResponse>
  <affluence>AFFLUENT</affluence>
</enhancedAuthResponse>
```

Example: enhancedAuthResponse - with issuerCountry

```
<enhancedAuthResponse>
  <issuerCountry>MEX</issuerCountry>
</enhancedAuthResponse>
```

Example: enhancedAuthResponse - with cardProductType

```
<enhancedAuthResponse>
  <cardProductType>CONSUMER</cardProductType>
</enhancedAuthResponse>
```

Example: enhancedAuthResponse - with virtualAccountNumber

```
<enhancedAuthResponse>
  <virtualAccountNumber>true or false</virtualAccountNumber>
</enhancedAuthResponse>
```

4.159 enhancedData

The `enhancedData` element allows you to specify extra information concerning a transaction in order to qualify for certain purchasing interchange rates. The following tables provide information about required elements you must submit to achieve Level 2 or Level 3 Interchange rates for Visa and MasterCard.

In addition to the requirements below, please be aware of the following:

- For Visa:
  - The transaction must be taxable.
  - The tax charged must be between 0.1% and 22% of the transaction amount.
  - For Level 3, the transaction must use a a corporate or purchasing card.
- For MasterCard:
  - The transaction must be taxable.
  - The tax charged must be between 0.1% and 30% of the transaction amount.
  - For Level 3, the transaction must use a corporate, business, or purchasing card.

NOTE: **You can qualify for MasterCard Level 2 rates without submitting the total tax amount (submit 0) if your MCC is one of the following: 4111, 4131, 4215, 4784, 8211, 8220, 8398, 9661, 9211, 9222, 9311, 9399, 9402.**

  - You must include at least one line item with amount, description, and quantity defined.

TABLE 4-1 MasterCard Level 2/Level 3 Data Requirements

MasterCard Level 2 Data	MasterCard Level 3 Data	LitleXML Element (child of enhancedData unless noted)
Customer Code (if supplied by customer)	Customer Code (if supplied by customer)	**customerReference**
Card Acceptor Tax ID	Card Acceptor Tax ID	**cardAcceptorTaxId** (child of detailTax)
Total Tax Amount	Total Tax Amount	**salesTax**
	Product Code	**productCode** (child of lineItemData)
	Item Description	**itemDescription** (child of lineItemData)
	Item Quantity	**quantity** (child of lineItemData)

TABLE 4-1 MasterCard Level 2/Level 3 Data Requirements

MasterCard Level 2 Data	MasterCard Level 3 Data	LitleXML Element (child of enhancedData unless noted)
	Item Unit of Measure	**unitOfMeasure** (child of lineItemData)
	Extended Item Amount	**lineItemTotal** (child of lineItemData) or **lineItemTotalWithTax** (child of lineItemData)

TABLE 4-2 Visa Level 2/Level 3 Data Requirements

Visa Level 2 Data	Visa Level 3 Data	LitleXML Element (child of enhancedData unless noted)
Sales Tax	Sales Tax*	**salesTax**
	Discount Amount	**discountAmount**
	Freight/Shipping Amount	**shippingAmount**
	Duty Amount	**dutyAmount**
	Item Sequence Number	**itemSequenceNumber** (child of lineItemData)
	Item Commodity Code	**commodityCode** (child of lineItemData)
	Item Description	**itemDescription** (child of lineItemData)
	Product Code	**productCode** (child of lineItemData)
	Quantity	**quantity** (child of lineItemData)
	Unit of Measure	**unitOfMeasure** (child of lineItemData)
	unit Cost	**unitCost** (child of lineItemData)
	Discount per Line Item	**itemDiscountAmount** (child of lineItemData)
	Line Item Total	**lineItemTotal** (child of lineItemData)

* Sales Tax is no longer required for small-ticket items, and depending upon a number of factors, some large-ticket items may achieve Level 3 interchange rates without this data; however, to assure optimum Level 3 interchange rates, best practices dictate that you should always include the Sales Tax information.

NOTE: **We always attempts to qualify your transactions for the optimal Interchange Rate. Although in some instances your transaction may qualify for either Level 2 or Level 3 rates without submitting all recommended fields, for the most consistent results, Vantiv strongly recommends that you adhere to the guidelines detailed above.**

For Discover transactions, the interchange rate is not impacted by the presence of Level 2 or Level 3 data.

Two child elements, `deliveryType` and `shippingAmount`, are required for PayPal Credit Authorization and Sale transactions.

Parent Elements:

authorization, capture, captureGivenAuth, credit, forceCapture, sale

Child Elements: (all Optional)

customerReference, salesTax, deliveryType, taxExempt, discountAmount, shippingAmount, dutyAmount, shipFromPostalCode, destinationPostalCode, destinationCountryCode, invoiceReferenceNumber, orderDate, detailTax, lineItemData

Example: enhancedData Structure

```
<enhancedData>
  <customerReference>Customer Reference</customerReference>
  <salesTax>Amount of Sales Tax Included in Transaction</salesTax>
  <deliveryType>TBD</deliveryType>
  <taxExempt>true or false</taxExempt>
  <discountAmount>Discount Amount Applied to Order</discountAmount>
  <shippingAmount>Amount to Transport Order</shippingAmount>
  <dutyAmount>Duty on Total Purchase Amount</dutyAmount>
  <shipFromPostalCode>Ship From Postal Code</shipFromPostalCode>
  <destinationPostalCode>Ship To Postal Code</destinationPostalCode>
  <destinationCountryCode>Ship To ISO Country Code</destinationCountryCode>
  <invoiceReferenceNumber>Merchant Invoice Number</invoiceReferenceNumber>
  <orderDate>Date Order Placed</orderDate>
  <detailTax>
    <taxIncludedInTotal>true or false</taxIncludedInTotal>
    <taxAmount>Additional Tax Amount</taxAmount>
    <taxRate>Tax Rate of This Tax Amount</taxRate>
    <taxTypeIdentifier>Tax Type Enum</taxTypeIdentifier>
    <cardAcceptorTaxId>Tax ID of Card Acceptor</cardAcceptorTaxId>
  </detailTax>
  <lineItemData>
    <itemSequenceNumber>Line Item Number within Order</itemSequenceNumber>
    <itemDescription>Description of Item</itemDescription>
    <productCode>Product Code of Item</productCode>
    <quantity>Quantity of Item</quantity>
    <unitOfMeasure>Unit of Measurement Code</unitOfMeasure>
    <taxAmount>Sales Tax or VAT of Item</taxAmount>
    <lineItemTotal>Total Amount of Line Item</lineItemTotal>
    <lineItemTotalWithTax>taxAmount + lineItemTotal</lineItemTotalWithTax>
    <itemDiscountAmount>Discount Amount</itemDiscountAmount>
    <commodityCode>Card Acceptor Commodity Code for Item</commodityCode>
    <unitCost>Price for One Unit of Item</unitCost>
  </lineItemData>
</enhancedData>
```

4.160 entryMode

The `entryMode` element is a required child of the `pos` element, which describes the method used for card data entry at the point of sale.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

pos

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
notused	terminal not used
keyed	card number manually entered
track1	track 1 read
track2	magnetic stripe read (track 2 when known or when the terminal makes no distinction between tracks 1 and 2.)
completeread	complete magnetic stripe read and transmitted

4.161 ephemeralPublicKey

The `ephemeralPublicKey` element is a required child of the `header` element and provides the BASE64 Encoded string of the ephemeral public key bytes from the Apple Pay transaction.

Type = Base 64 Encoded String; **minLength** = N/A; **maxLength** = 400

Parent Elements:

header

Attributes:

None

Child Elements:

None

4.162 expDate

The `expDate` element is a child of the `card`, `token`, `paypage` elements, which specifies the expiration date of the card and is required for card-not-present transactions.

NOTE: **Although the schema defines the `expDate` element as an optional child of the `card`, `token` and paypage elements, you must submit a value for card-not-present transactions.**

Type = String; **minLength** = 4; **maxLength** = 4

Parent Elements:

card, newCardInfo, newCardTokenInfo, originalCard, originalCardInfo, originalCardTokenInfo, originalToken, paypage, token, updatedCard, updatedToken

Attributes:

None

Child Elements:

None

NOTE: **You should submit whatever expiration date you have on file, regardless of whether or not it is expired/stale.**

We recommend all merchant with recurring and/or installment payments participate in the Account Updater program.

4.163 extendedCardResponse

The `extendedCardResponse` element is an optional child of the `accountUpdater` element, which contains two child elements, `code` and `message`. The codes/messages can be either "501 - The Account Was Closed." or "504 - Contact the cardholder for updated information."

IMPORTANT: **When using Account Updater (any variation), you must always code to receive the `extendedCardResponse` element and its children. We always return this information whenever applicable regardless of whether you receive other account updater information in the transaction response message.**

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

code, message

Example: newCardInfo Structure

```
<extendedCardResponse>
  <message>Message for Code</message>
  <code>Either 501 or 504</code>
</extendedCardResponse>
```

4.164 filtering

The `filtering` element is an optional child of either the Authorization or Sale request transaction. You use its child elements to selectively enable/disable the various Basic Fraud toolkit features. Setting either the <`international`> or <`chargeback`> child element to **false** disables that filtering feature for the transaction. The <`prepaid`> child can be set to **true** to enable the feature selectively, or set to **false** to disable the feature for the transaction, if you elected to use the **filter all** prepaid configuration option.

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

Optional: prepaid, international, chargeback

NOTE: **Although included in the schema and shown in the example below, the <`chargeback`> element is not supported. To override the chargeback filter for a selected transaction, use the fraudFilterOverride flag (see fraudFilterOverride on page 494). Please consult your Customer Experience Manager for additional information.**

Example: filtering Structure

```
<filtering>
  <prepaid>true or false</prepaid>
  <international>false</international>
  <chargeback>false</chargeback>
</filtering>
```

4.165 finalPayment

The `fianlPayment` element is a required child of the `litleInternalRecurringRequestType.` A value of **true** indicates that this is the final payment of the subscription. Since this element is used only in internally generated transaction, you do not need to code for its use.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

litleInternalRecurringRequest

Attributes:

None

Child Elements:

None

4.166 firstName

The `firstName` element is a child of the `billtoAddress` element, which specifies the first name of the account holder and is required for `echeckVerification` transactions.

NOTE: **When performing an eCheck Verification for a corporate account, you must include values for the `firstName` and `lastName` elements. If you do not have the name of the check issuer, you can use a value of "`unavailable`" for both elements.**

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

billToAddress

Attributes:

None

Child Elements:

None

4.167 forceCapture

The `forceCapture` element is the parent element for all Force Capture transactions. These are specialized Capture transactions used when you do not have a valid Authorization for the order, but have fulfilled the order and wish to transfer funds. You can use this element in either Online or Batch transactions.

CAUTION: **You must be authorized by Litle & Co. before processing this transaction type. In some instances, using a Force Capture transaction can lead to chargebacks and fines.**

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, amount, orderSource, choice of card, token, mpos, paypage, or applepay

Optional: billToAddress, customBilling, taxType, enhancedData, processingInstructions, pos, amexAggregatorData, merchantData, productCode, secondaryAmount, surchargeAmount, debtRepayment, processingType

4.168 forceCaptureResponse

The `forceCaptureResponse` element is the parent element for information returned to you in response to a Force Capture transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Force Capture transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Force Capture transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Force Capture transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, tokenResponse, accountUpdater, giftCardResponse, applepayResponse

NOTE: **The postDate child element is returned only in responses to Online transactions.**

4.169 formatId

The `formatId` element is a required child of the `mpos` element. This element identifies the format of the encrypted track submitted from the device.

Type = String; **minLength** = 1; **maxLength** = 1028

Parent Elements:

mpos

Attributes:

None

Child Elements:

None

4.170 fraudCheck

The `fraudCheck` element is the parent element for the standalone Advanced Fraud Check transaction. You use this transaction type to retrieve the results of the Advanced Fraud Check tool without submitting an Authorization or Sale transaction. You can use this element only in Online transactions.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: advancedFraudChecks

Optional: billToAddress, shipToAddress, amount

4.171 fraudCheckResponse

The `fraudCheckResponse` element is the parent element for information returned to you in response to a standalone Fraud Check transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Force Capture transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Force Capture transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Force Capture transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: advancedFraudResults

4.172 fraudFilterOverride

The `fraudFilterOverride` element is an optional child of both the `authorization and the sale` elements. A setting of **true** will override (disable) all fraud filters for the submitted transaction.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

None

4.173 fraudResult

The `fraudResult` element is an optional child of the `authorizationResponse`, the `saleResponse` and the `authInformation` elements. It contains child elements defining any fraud checking results.

Parent Elements:

activateResponse, authorizationResponse, deactivateResponse, loadResponse, saleResponse, unloadResponse, authInformation

Attributes:

None

Child Elements: (All Optional)

authenticationResult, avsResult, cardValidationResult, advancedAVSResult, advancedFraudResults

Example: fraudResult Structure

```
<fraudResult>
  <avsResult>00</avsResult>
  <cardValidationResult>N</cardValidationResult>
  <authenticationResult>2</authenticationResult>
  <advancedAVSResult>011</advancedAVSResult>
  <advancedFraudResults>
    <deviceReviewStatus>pass, fail, review, or unavailable</deviceReviewStatus>
    <deviceReputationScore>Score from ThreatMetix</deviceReputationScore>
    <triggeredRule>Triggered Rule_may occur multiple times</triggeredRule>
  </advancedFraudResults>
</fraudResult>
```

NOTE: **The <advancedAVSResults> element applies only to American Express transactions. Also, you must be certified to use LitleXML version 7.3 or above and be enabled specifically to use the Advanced AVS feature. Please consult your Customer Experience Manager for additional information.**

4.174 fundingInstructionVoid

The `fundingInstructionVoid` element is the parent element for the transaction type that a PayFac uses to void a submitted, but not yet processed funding instruction. You must submit the `fundingInstructionVoid` transaction prior to your cutoff time on the same day you submitted the instruction to be voided. This rule also applies to funding instructions submitted on weekends.

NOTE: You must code to LitleXML V10.1 or above to use this transaction type.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId

4.175 fundingInstructionVoidResponse

The `fundingInstructionVoidResponse` element is the parent element for information returned to you in response to a `fundingInstructionVoid` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the credit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the credit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the credit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

4.176 fundingSource

The `fundingSource` element is an optional child of the `enhancedAuthResponse` element. Through its child elements, it provides information concerning whether the card used for the transaction is Prepaid, Credit, Debit, or FSA and if Prepaid, the available balance, the type of prepaid card, and whether it is reloadable.

Parent Elements:

enhancedAuthResponse

Attributes:

None

Child Elements:

Required: type, availableBalance, reloadable, prepaidCardType

Example: `fundingSource` Structure

```
<fundingSource>
  <type>PREPAID</type>
  <availableBalance>0</availableBalance>
  <reloadable>YES|NO|UNKNOWN</reloadable>
  <prepaidCardType>GIFT</prepaidCardType>
</fundingSource>
```

NOTE: The `fundingSource` element and its child elements, `type` and `availableBalance` are associated with the Insights features (see Customer Insight Features on page 24.)

Please consult your Customer Experience Manager for additional information.

4.177 fundingSubmerchantId

The `fundingSubmerchantId` element is a required child of each funding instruction request transaction type, where it specifies the identifier of the submerchant whose funds are moved by the instruction.

NOTE: **If you are processing solely on the Vantiv Core platform or on both the Vantiv Core and Vantiv eCommerce platforms, the value of the `fundingSubmerchantId` is the Vantiv supplied Sub-merchant Merchant Id.**

If you are processing solely on the Vantiv eCommerce platform, the value of the `fundingSubmerchantId` is the value of `fundingSubmerchantId` the returned in the Sub-merchant Retrieval Request. Please refer to the *Vantiv PayFac API Reference Guide* for additional information.

Type = String; **minLength** = N/A; **maxLength** = 50

Parent Elements:

payFacCredit, payFacDebit, physicalCheckCredit, physicalCheckDebit, reserveCredit, reserveDebit, submerchantCredit, submerchantDebit, vendorCredit, vendorDebit

Attributes:

None

Child Elements:

None

4.178 fundsTransferId

The `fundingTransferId` element is a required child of each funding instruction request/response transaction type, where it specifies the PayFac assigned identifier for the transaction. You must use unique values for each transaction across you entire organization. This identifier is mirrored in the response messages.

Type = String; **minLength** = N/A; **maxLength** = 36

Parent Elements:

payFacCredit, payFacCreditResponse, payFacDebit, payFacDebitResponse, physicalCheckCredit, physicalCheckCreditResponse, physicalCheckDebit, physicalCheckDebitResponse, reserveCredit, reserveCreditResponse, reserveDebit, reserveDebitResponse, submerchantCredit, submerchantCreditResponse, submerchantDebit, submerchantDebitResponse, vendorCredit, vendorCreditResponse, vendorDebit, vendorDebitResponse

Attributes:

None

Child Elements:

None

4.179 giftCardBin

The `giftCardBin` element is a required child of the `virtualGiftCard` element defining the requested BIN of the virtual Gift Card number you are requesting.

NOTE: **In an early iteration of schema V8.22 issued in September of 2013 this element was defined as an optional child of the `virtualGiftCard` element. If you coded to the earlier version, be aware that this element is now required. If you do not include this element, the transaction will fail XML validation.**

Type = String; **minLength** = N/A; **maxLength** = 10

Parent Elements:

virtualGiftCard

Attributes:

None

Child Elements:

None

4.180 giftCardResponse

The `giftCardResponse` element is an optional child of several transaction types. Through its child elements, it provides details about the beginning, ending, and available balance on a Gift Card, as well as the cash back amount, if applicable.

Parent Elements:

activateResponse, activateReversalResponse, authorizationResponse, authReversalResponse, balanceInquiryResponse, captureGivenAuthResponse, captureResponse, creditResponse, deactivateResponse, deactviateReversalResponse, depositReversalResponse, forceCaptureResponse, loadResponse, loadReversalResponse, refundReversalResponse, saleResponse, unloadResponse, unloadReversalResponse

Attributes:

None

Child Elements (All Optional, but must contain at least one child):

Optional: availableBalance, beginningBalance, endingBalance, cashBackAmount

NOTE: **Although included in the schema, the `beginningBalance`, `endingBalance`, and `cashBackAmonut` elements are not currently supported.**

Example: giftCardResponse Structure

```
<giftCardResponse>
  <availableBalance>Balance Available on Gift Card</availableBalance>
</giftCardResponse>
```

4.181 header

The `header` element is a required child of the `applepay` element. Its child elements provides information required to process the Apple Pay transaction.

Type = String; **minLength** = N/A; **maxLength** = 10000

Parent Elements:

applepay

Attributes:

None

Child Elements (All Optional, but must contain at least one child):

Optional: applicationData, ephemeralPublicKey, publicKeyHash, transactionId

Example: header Structure

```
<header>Password</header>

  <applicationData>SHA-256 Hash Hex Encoded of App Data
Property</applicationData>

  <ephemeralPublicKey>Base64 Encoded Ephemeral Public Key</ephemeralPublicKey>

  <publicKeyHash>Base64 Hash of Public Key Bytes from Merchant
Certtificate</publicKeyHash>

  <transactionId>Hex Transaction Id</transactionId>

</header>
```

4.182 healthcareAmounts

The `healthcareAmount` element is a required child of the `healthcareIIAS` element. Through its child elements, it provides details about the dollar amount and type of IIAS qualified items purchased using Healthcare Prepaid cards.

The value used for the `totalHealthcareAmount` child must be the sum of the values applied to the following elements: `RxAmount`, `visionAmount`, `clinicOtherAmount`, and `dentalAmount`.

Parent Elements:

healthcareIIAS

Attributes:

None

Child Elements:

Required: totalHealthcareAmount

Optional: RxAmount, visionAmount, clinicOtherAmount, dentalAmount

Example: fundingSource Structure

```
<healthcareAmounts>
  <totalHealthcareAmount>Total of Healthcare Items</totalHealthcareAmount>
  <RxAmount>Amount for Medications</RxAmount>
  <visionAmount>Amount for Vision Items</visionAmount>
  <clinicOtherAmount>Amount for Clinic Charges</clinicOtherAmount>
  <dentalAmount>Amount for Dental Charges</dentalAmount>
</healthcareAmounts>
```

4.183 healthcareIIAS

The `healthcareIIAS` element is an optional child of Authorization and Sale transactions. Through its child elements, it provides information about IIAS qualified items purchased using Healthcare Prepaid cards.

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

Required: healthcareAmounts, IIASFlag

Example: fundingSource Structure

```
<healthcareIIAS>
  <healthcareAmounts>
    <totalHealthcareAmount>Total of Healthcare Items</totalHealthcareAmount>
    <RxAmount>Amount for Medications</RxAmount>
    <visionAmount>Amount for Vision Items</visionAmount>
    <clinicOtherAmount>Amount for Clinic Charges</clinicOtherAmount>
    <dentalAmount>Amount for Dental Charges</dentalAmount>
  </healthcareAmounts>
  <IIASFlag>Y</IIASFlag>
</healthcareIIAS>
```

4.184 IIASFlag

The `IIASFlag` element is a required child of the `healthcareIIAS` element. This element only supports a value of **Y**.

Type = String (enum); **minLength** = N/A; **maxLength** = 1; **Valid Value** = Y

Parent Elements:

healthcareIIAS

Child Elements:

None

4.185 incomeAmount

The `incomeAmount` element is an optional child of the `customerInfo` element and defines the yearly income of the customer. It is used in combination with several other elements to provide information for some PayPal Credit transactions.

Type = Long; **minLength** = N/A; **maxLength** = N/A

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.186 incomeCurrency

The `incomeCurrency` element is an optional child of the `customerInfo` element and defines the currency of the `incomeAmount` element. The default value is USD (United States Dollars). It is used in combination with several other elements to provide information for some PayPal Credit transactions.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
AUD	Australian Dollar
CAD	Canadian Dollar
CHF	Swiss Francs
DKK	Denmark Kroner
EUR	Euro
GBP	United Kingdom Pound
HKD	Hong Kong Dollar
JPY	Japanese Yen
NOK	Norwegian Krone
NZD	New Zealand Dollar
SEK	Swedish Kronor
SGD	Singapore Dollar
USD (default)	United States Dollar

4.187 international

The `international` element is an optional child of the `filtering` element. To disable the filtering operation for a selected transaction include the `international` element with a setting of **false**.

Type = Boolean; **Valid Value** = false

Parent Elements:

filtering

Attributes:

None

Child Elements:

None

4.188 intervalType

The `intervalType` element is a required child of the createPlan element and defines the billing period associated with the Plan.

Type = String (enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

createPlan

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
ANNUAL	The billing period is once per year.
SEMIANNUAL	The billing period is twice per year.
QUARTERLY	The billing period is every three months.
MONTHLY	The billing period is every month.
WEEKLY	The billing period is every week.

4.189 invoiceReferenceNumber

The `invoiceReferenceNumber` element is an optional child of the `enhancedData` element, which specifies the merchant's invoice number. If you do not know the invoice number, do not include this element.

Type = String; **minLength** = 1; **maxLength** = 15

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.190 issuerCountry

The `issuerCountry` element is an optional child of the `enhancedAuthResponse` element, which defines the country of the bank that issued the card submitted in the Authorization or Sale transaction.

Type = String; **minLength** = N/A; **maxLength** = 3

Parent Elements:

enhancedAuthResponse

Attributes:

None

Child Elements:

None

4.191 itemCategoryCode

The `itemCategoryCode` element is an optional child of the `billMeLaterRequest` element and defines the PayPal Credit item category for the type of product sold.

NOTE: **According to the PayPal Credit documentation, merchants typically assign the applicable Item Category Code at the store or department level as opposed to the actual product level. The PayPal Credit documentation goes on to state, “Your PayPal Credit Implementation Project Manager will provide you the Item Category Codes that are best associated with your merchandise.”**

For additional information, please refer to the PayPal Credit Implementation documentation.

Type = Integer; **totalDigits** = 4

Parent Elements:

billMeLaterRequest

Attributes:

None

Child Elements:

None

4.192 itemDescription

The `itemDescription` element is a required child of the `lineItemData` element, which provides a brief text description of the item purchased.

Type = String; **minLength** = N/A; **maxLength** = 26

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.193 itemDiscountAmount

The `itemDiscountAmount` element is an optional child of the `lineItemData` element, which specifies the item discount amount. Although an optional element, it is required by Visa for Level III Interchange rates. The value must be greater than or equal to 0. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.194 itemSequenceNumber

The `itemSequenceNumber` element is an optional child of the `lineItemData` element (required for Visa transactions). When providing line item data, you must number each item sequentially starting with 1.

Type = Integer; **minInclusive value** = 1, **maxInclusive value** = 99

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.195 ksn

The `ksn` element is a required child of the `mpos` element. This element defines the Key serial Number returned from the encrypting device. It is created automatically from the unique identifier of the device and an internal transaction counter.

Type = String; **minLength** = 1; **maxLength** = 1028

Parent Elements:

mpos

Attributes:

None

Child Elements:

None

4.196 lastName

The `lastName` element is a child of the `billtoAddress` element, which specifies the last name of the account holder and is required for `echeckVerification` transactions.

NOTE: **When performing an eCheck Verification for a corporate account, you must include values for the `firstName` and `lastName` element. If you do not have the name of the check issuer, you can use a value of "`unavailable`" for both elements.**

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

billToAddress

Attributes:

None

Child Elements:

None

4.197 lineItemData

The `lineItemData` element contains several child elements used to define information concerning individual items in the order. Although the schema defines it as an optional child of the `enhancedData` element, it is required for Level III interchange rates.

NOTE: **MasterCard and Visa allow up to 99 instances of this element in a transaction. American Express allows a maximum of 4 instances of this element in a transaction.**

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

Required: itemDescription

Optional: itemSequenceNumber, productCode, quantity, unitOfMeasure, taxAmount, lineItemTotal, lineItemTotalWithTax, itemDiscountAmount, commodityCode, unitCost, detailTax

NOTE: **When including the lineItemData element, please be aware of the following rules for its child elements:**

- **`itemSequenceNumber` is required by Visa**
- **`productCode`, `quantity`, `unitOfMeasure`, and `lineItemTotal` are required by Visa and MasterCard**
- **`itemDiscountAmount`, `commodityCode`, and `unitCost` are required by Visa for Level III Interchange rates**

Example: `lineItemData` Structure

```
<lineItemData>
  <itemSequenceNumber>Line Item Number within Order</itemSequenceNumber>
  <itemDescription>Description of Item</itemDescription>
  <productCode>Product Code of Item</productCode>
  <quantity>Quantity of Item</quantity>
  <unitOfMeasure>Unit of Measurement Code</unitOfMeasure>
  <taxAmount>Sales Tax or VAT of Item</taxAmount>
```

```
    <lineItemTotal>Total Amount of Line Item</lineItemTotal>
    <lineItemTotalWithTax>taxAmount + lineItemTotal</lineItemTotalWithTax>
    <itemDiscountAmount>Discount Amount</itemDiscountAmount>
    <commodityCode>Card Acceptor Commodity Code for Item</commodityCode>
    <unitCost>Price for One Unit of Item</unitCost>
    <detailTax>
      <taxIncludedInTotal>true or false</taxIncludedInTotal>
      <taxAmount>Additional Tax Amount</taxAmount>
      <taxRate>Tax Rate of This Tax Amount</taxRate>
      <taxTypeIdentifier>Tax Type Enum</taxTypeIdentifier>
      <cardAcceptorTaxId>Tax ID of Card Acceptor</cardAcceptorTaxId>
    </detailTax>
  </lineItemData>
```

4.198 lineItemTotal

The `lineItemTotal` element is an optional child of the `lineItemData` element, which specifies the total cost of the line items purchased, not including tax. For example, if the order was for 500 pencils at $1.00 each, the lineItemTotal would be $500. Although an optional element, it is required by Visa and MasterCard when specifying line item data. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.199 lineItemTotalWithTax

The `lineItemTotalWithTax` element is an optional child of the `lineItemData` element, which specifies the total cost of the line items purchased including tax. If the tax is not known, do not include this element. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.200 litleInternalRecurringRequest

The `litleInternalRecurringRequest` element and its children is an element structure that exists solely for internally (to system) generated transactions associated with recurring payments managed by the Recurring engine. You do not need to code for this structure.

Parent Elements:

sale

Attributes:

None

Child Elements:

subscriptionId, recurringTxnId, finalPayment

4.201 litleOnlineRequest

This is the root element for all LitleXML Online requests.

Parent Elements:

None

Attributes:

Attribute Name	Type	Required?	Description
version	String	Yes	Defines the LitleXML schema version against which the XML is validated. The current version is 8.10, but you may be using an older version. **minLength** = N/A **maxLength** = 10
xmlns	String	Yes	Defines the URI of the schema definition. This is a fixed location and must be specified as: http://www.litle.com/schema. **minLength** = N/A **maxLength** = 38
merchantId	String	Yes	A unique string used to identify the merchant within the system. **minLength** = N/A **maxLength** = 50 **Note: International currencies are supported on a per merchantId basis.**
loggedInUser	String	No	**Internal Use Only**

Child Elements:

Required: authentication

One of the following required: activate, activateReversal, authorization, authReversal, balanceInquiry, cancelSubscription, capture, captureGivenAuth, createPlan, credit, deactivate, deactivateReversal, depositReversal, echeckCredit, echeckRedeposit, echeckSale, echeckVerification, echeckVoid, forceCapture, fraudCheck, load, loadReversal, registerTokenRequest, refundReversal, sale, unload, updateCardValidationNumOnToken, updatePlan, updateSubscription, unloadReversal, void

4.202 litleOnlineResponse

This is the root element for all LitleXML Online responses.

Parent Elements:

None

Attributes:

Attribute Name	Type	Required?	Description
version	String	Yes	Defines the LitleXML schema version against which the XML is validated. The current version is 8.10, but you may be using an older version. **minLength** = N/A **maxLength** = 10
xmlns	String	Yes	Defines the URI of the schema definition. This is a fixed location and must be specified as: http://www.litle.com/schema. **minLength** = N/A **maxLength** = 38
response	String	Yes	Indicates whether your XML syntax passed validation. Expected values are as follows: 0 - XML validation succeeded. 1 - XML validation failed. See the message attribute for more details. 2 - Indicates that the submitted content was either improperly formatted XML or non-XML content. 3 - Indicates that the submission contains empty or invalid credentials (user and password). 4 - Indicates that the merchant has reached the maximum number of concurrent connections. 5 - Indicates that systems may have detected message content that violates certain restrictions. **minLength** = N/A **maxLength** = 3

Attribute Name	Type	Required?	Description
message	String	Yes	XML validation error message. Expected values are as follows: • If the response attribute returns 0, the message attribute returns the text “Valid Format.” • If the response attribute returns 1, the message attribute returns an error message that helps you to identify and troubleshoot the syntax problem. See XML Validation Error Messages on page 770 for example messages. • If the response attribute returns 2, the message attribute is "System Error - Call Litle & Co." • If the response attribute returns a value of 3, 4, or 5, the message attribute is "There is a problem with the system. Contact support@litle.com." **minLength** = N/A **maxLength** = 512

Child Elements:

One of the following required: activateResponse, activateReversalResponse, authorizationResponse, authReversalResponse, balanceInquiryResponse, cancelSubscriptionResponse, captureGivenAuthResponse, captureResponse, createPlanResponse, deactivateResponse, deactviateReversalResponse, depositReversalResponse, creditResponse, echeckCreditResponse, echeckRedepositResponse, echeckSalesResponse, echeckVerificationResponse, forceCaptureResponse, loadResponse, loadReversalResponse, refundReversalResponse, registerTokenResponse, saleResponse, unloadResponse, unloadReversalResponse, updateCardValidationNumOnTokenResponse, voidResponse, updatePlanResponse, updateSubscriptionResponse

4.203 litleRequest

This is the root element for all LitleXML Batch requests.

Parent Elements:

None

Attributes:

Attribute Name	Type	Required?	Description
version	String	Yes	Defines the LitleXML schema version against which the XML is validated. The current version is 8.10, but you may be using an older version. **minLength** = N/A **maxLength** = 10
xmlns	String	Yes	Defines the URI of the schema definition. This is a fixed location and must be specified as: http://www.litle.com/schema. **minLength** = N/A **maxLength** = 38
id	String	No	A unique string to identify the session within the system. **minLength** = N/A **maxLength** = 25
numBatchRequests	Integer	Yes	Defines the total number of batchRequest children included in the `litleRequest`. If the `litleRequest` contains only an `RFRRequest`, then set this attribute to “0”.

Child Elements:

Required: authentication

One of the following required: batchRequest, RFRRequest

4.204 litleResponse

This is the root element for all LitleXML Batch responses.

Parent Elements:

None

Attributes:

Attribute Name	Type	Required?	Description
version	String	Yes	Defines the LitleXML schema version against which the XML is validated. The current version is 8.10, but you may be using an older version. **minLength** = N/A **maxLength** = 10
xmlns	String	Yes	Defines the URI of the schema definition. This is a fixed location and must be specified as: http://www.litle.com/schema. **minLength** = N/A **maxLength** = 38
id	String	No	The response returns the same value submitted in the authorization transaction. **minLength** = N/A **maxLength** = 25
response	String	Yes	Indicates whether your XML syntax passed validation. Expected values are as follows: 0 - XML validation succeeded. 1 - XML validation failed. See the message attribute for more details. 2 - Indicates that the submitted content was either improperly formatted XML or non-XML content. 3 - Indicates that the submission contains empty or invalid credentials (user and password). 4 - Indicates that the merchant has reached the maximum number of concurrent connections. 5 - Indicates that systems may have detected message content that violates certain restrictions. **minLength** = N/A **maxLength** = 3

Attribute Name	Type	Required?	Description
message	String	Yes	XML validation error message. Expected values are as follows: • If the response attribute returns 0, the message attribute returns the text “Valid Format.” • If the response attribute returns 1, the message attribute returns an error message that helps you to identify and troubleshoot the syntax problem. See XML Validation Error Messages on page 770 for example messages. • If the response attribute returns 2, the message attribute is "System Error - Call Litle & Co." • If the response attribute returns a value of 3, 4, or 5, the message attribute is "There is a problem with the system. Contact support@litle.com." **minLength** = N/A **maxLength** = 512
litleSessionId	Long	Yes	A unique value assigned by Vantiv to identify the session. **minLength** = N/A **maxLength** = 19

Child Elements:

One of the following required: batchResponse, RFRResponse

4.205 litleSessionId

The `litleSessionId` element is a child of the `RFRRequest` element used to request the response from a previously submitted Batch. The value of the `litleSessionId` must be the same at the value returned in the corresponding attribute of the `litleResponse`.

Type = Long; **minLength** = N/A; **maxLength** = 19

Parent Elements:

RFRRequest

Attributes:

None

Child Elements:

None

4.206 litleToken

The `litleToken` element defines the value of the token. The system returns this value in XML responses when issuing new tokens to replace account numbers. The length of the token is the same as the length of the submitted account number for credit card tokens or a fixed length of seventeen (17) characters for eCheck account tokens.

Type = String; **minLength** = 13; **maxLength** = 25

Parent Elements:

The `litleToken` element is an optional child of each listed parent element.

registerTokenResponse, tokenResponse, newCardTokenInfo, originalCardTokenInfo, originalToken, originalTokenInfo, newTokenInfo, updatedToken, token, echeckToken

Attributes:

None

Child Elements:

None

4.207 litleTxnId

The `litleTxnId` element is used to identify transactions in the system. The system returns this element in XML responses. You use it in various requests to reference the original transaction. For example, when you submit a Capture transaction, you include the `litleTxnId` for the associated Authorization.

Type = Long; **minLength** = N/A; **maxLength** = 19

Parent Elements:

This element is a required child of the following: accountUpdateResponse, activateResponse, activateReversal, activateReversalResponse, authorizationResponse, authReversalResponse, capture, captureResponse, credit, creditResponse, captureGivenAuthResponse, deactivateResponse, deactivateReversal, deactviateReversalResponse, depositReversal, depositReversalResponse, echeckCredit, echeckCreditResponse, echeckPreNoteCreditResponse, echeckPreNoteSaleResponse, echeckRedeposit, echeckRedepositResponse, echeckSalesResponse, echeckVerificationResponse, echeckVoid, echeckVoidResponse, forceCapture, forceCaptureResponse, fraudCheckResponse, fundingInstructionVoid, loadResponse, loadReversal, loadReversalResponse, payFacCreditResponse, payFacDebitResponse, physicalCheckCreditResponse, physicalCheckDebitResponse, refundReversal, refundReversalResponse, saleResponse, unloadResponse, void, voidResponse, cancelSubscriptionResponse, updatePlanResponse, updateSubscriptionResponse, unloadReversal, unloadReversalResponse, submerchantCreditResponse, submerchantDebitResponse, vendorCreditResponse, vendorDebitResponse

NOTE: **Although the schema shows the `litleTxnId` element as an optional child of the `authorization`, `echeckSale`, `echeckVerification`, and `sale` transactions, under normal circumstances, merchants would never use this option.**

Attributes:

None

Child Elements:

None

4.208 load

The `load` element is the parent element for the transaction type that adds funds to a reloadable Gift Card.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

orderId, amount, orderSource, card

4.209 loadResponse

The `loadResponse` element is the parent element for information returned to you in response to a **`load`** transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, fraudResult, giftCardResponse

4.210 loadReversal

The `loadReversal` element is the parent element for the transaction type that reverses the loading of a Gift Card.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId

4.211 loadReversalResponse

The `loadReversalResponse` element is the parent element for information returned to you in response to an `loadReversal` transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, giftCardResponse

4.212 matchCount

The `matchCount` element is a required child of the `queryTransactionResponse` element and defines the number of found transactions that matched the criteria submitted in the `queryTransaction`.

Type = Integer; **totalDigits** = 2

Parent Elements:

queryTransactionResponse

Attributes:

None

Child Elements:

None

4.213 merchantData

The `merchantData` element is an optional child element of several transaction types. You can use its children to track transactions based upon marketing campaigns, affiliates, or other user defined parameter.

Parent Elements:

authorization, captureGivenAuth, credit, echeckCredit, echeckPreNoteCredit, echeckPreNoteSale, echeckRedeposit, echeckSale, echeckVerification, forceCapture, sale

Attributes:

None

Child Elements (all optional):

affiliate, campaign, merchantGroupingId

4.214 merchantGroupingId

The `merchantGroupingId` element is an optional child element of the `merchantData` element. You can use it to track transactions based upon this user defined parameter.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

merchantData

Attributes:

None

Child Elements:

None

4.215 merchantId

The `merchantId` element is a child of the `accountUpdateFileRequestData` element used when you request an Account Update file. This value is a unique string used to identify the merchant within the system.

Type = String; **minLength** = N/A; **maxLength** = 50

Parent Elements:

accountUpdateFileRequestData

Attributes:

None

Child Elements:

None

NOTE: **Several elements use `merchantId` as an attribute, including `batchRequest`, `batchResponse`, and `litleOnlineRequest`.**

4.216 message

The `message` element contains a brief definition of the response code returned for the transaction.

When it is a child of the `extendedCardResponse` element, the only values allowed are either "The account was closed," or "Contact the cardholder for updated information."

For a complete list of response codes and associated messages, please refer to Appendix A.

Type = String; **minLength** = N/A; **maxLength** = 512

Parent Elements:

activateResponse, activateReversalResponse, authorizationResponse, captureResponse, captureGivenAuthResponse, creditResponse, deactivateResponse, deactviateReversalResponse, depositReversalResponse, echeckCreditResponse, echeckPreNoteCreditResponse, echeckPreNoteSaleResponse, echeckRedepositResponse, echeckSalesResponse, echeckVerificationResponse, echeckVoidResponse, extendedCardResponse, forceCaptureResponse, fraudCheckResponse, loadResponse, loadReversalResponse, queryTransactionResponse, queryTransactionUnavailableResponse, refundReversalResponse, saleResponse, unloadResponse, unloadReversalResponse, voidResponse, cancelSubscriptionResponse,updatePlanResponse, updateSubscriptionResponse, payFacCreditResponse, payFacDebitResponse, physicalCheckCreditResponse, physicalCheckDebitResponse, reserveCreditResponse, reserveDebitResponse, submerchantCreditResponse, submerchantDebitResponse, vendorCreditResponse, vendorDebitResponse

Attributes:

None

Child Elements:

None

4.217 middleInitial

The `middleInitial` element is a child of the `billtoAddress` element, which specifies the middle initial of the account holder. It is an optional element used for `echeckVerification` transactions.

Type = String; **minLength** = N/A; **maxLength** = 1

Parent Elements:

billToAddress

Attributes:

None

Child Elements:

None

4.218 mpos

The `mpos` element defines payment card information when the transaction originates with a ROAM device.

Parent Elements:

authorization, captureGivenAuth, credit, forceCapture, sale, registerTokenRequest

Attributes:

None

Child Elements: (all Required)

ksn, formatId, encryptedTrack, track1Status, track2Status

Example: mpos Structure

```
<mpos>
  <ksn>Key Serial Number</ksn>
  <formatId>Format of Encrypted Track</formatId>
  <encrytpedTrack>Encrypted Track Data</encrytpedTrack>
  <track1Status>Card Validation Number</track1Status>
  <track2Status>Card Validation Number</track2Status>
</mpos>
```

4.219 name

The `name` element defines the customer name in both the `billToAddress` and `shipToAddress` elements. When used as a child of one of the Recurring Engine associated parents (i.e., `createAddOn`, `updateAddOn`, `createDiscount`, `updateDiscount`, or `createPlan`), the name element specifies the name of the parent item being created/updated.

Type = String; **minLength** = N/A; **maxLength** = 100

Parent Elements:

billToAddress, shipToAddress, createAddOn, updateAddOn, createDiscount, updateDiscount, createPlan

NOTE: **The name element is required for Echeck transactions. If you do not submit the customer name in an Echeck transaction, we return Response Code 330 - Invalid Payment Type.**

Attributes:

None

Child Elements:

None

4.220 newAccountInfo

The `newAccountInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the updated information for the submitted account.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

accType, accNum, routingNum

Example: newAccountInfo Structure

```
<newAccountInfo>
  <accType>Account Type</accType>
  <accNum>New Account Number</accNum>
  <routingNum>New Routing Number</routingNum>
</newAccountInfo>
```

4.221 newCardInfo

The `newCardInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the updated information for the submitted card.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

type, number, expDate

Example: newCardInfo Structure

```
<newCardInfo>
  <type>Card Type</type>
  <number>New Account Number</number>
  <expDate>New Expiration Date</expDate>
</newCardInfo>
```

4.222 newCardTokenInfo

The `newCardTokenInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the updated token information for the submitted token.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

litleToken, type, expDate, bin

Example: newCardInfo Structure

```
<newCardTokenInfo>
  <litleToken>New Token</litletoken>
  <type>Card Type</type>
  <expDate>New Expiration Date</expDate>
  <bin>New Card BIN</bin>
</newCardTokenInfo>
```

4.223 newTokenInfo

The `newTokenInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the updated information for the submitted account. The system returns this information when processing a tokenized eCheck transactions and a change (NOC) is found against the account.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

accType, litleToken, routingNum

Example: newAccountInfo Structure

```
<newTokenInfo>
  <accType>Account Type</accType>
  <litleToken>New Token Number</litleToken>
  <routingNum>New Routing Number</routingNum>
</newTokenInfo>
```

4.224 nextRecycleTime

The `nextRecycleTime` element is an optional child of the `recycleAdvice` element, which specifies the date and time (in GMT) recommended for the next recycle of the declined Authorization/Sale transaction. The format of the element is YYYY-MM-DDTHH:MM:SSZ. For example, 2011-04-21T11:00:00Z.

NOTE: Per the ISO8601 standard, the Z appended to the end of the date/time stamp indicates the time is GMT.

Type = dateTime; **minLength** = N/A; **maxLength** = 20

Parent Elements:

recycleAdvice

Attributes:

None

Child Elements:

None

4.225 number

The `number` element is defines the account number associated with the transaction or the new/old account number associated with an update. This is a required child of the `card` element for card-not-present transactions.

Type = String; **minLength** = 13; **maxLength** = 25

Parent Elements:

accountInformation, card, newCardInfo, originalCardInfo

Attributes:

None

Child Elements:

None

4.226 numberOfPayments

The `numberOfPayments` element is defines the number of payments in a recurring billing plan including the initial payment. The timing of subsequent charges is defined by the `planCode` element. This element is an optional child of both the `subscription`, and `createPlan` elements. When submitted as a child of the `subscription` element, the value overrides the default value defined in the Plan.

NOTE: **For an open-ended Plan, please omit the optional `numberOfPayments` element in createPlan.**

For an open-ended subscription, please omit the optional `numberOfPayments` element in subscription and reference an open-ended Plan.

Type = Integer; **minLength** = 1; **maxLength** = 99

Parent Elements:

subscription, createPlan

Attributes:

None

Child Elements:

None

4.227 onlinePaymentCryptogram

The `onlinePaymentCryptogram` element is an optional child of the `applepayResponse` element and provides the BASE64 Encoded signature cryptogram associated with the Apple Pay transaction.

Type = Base 64 Encoded String; **minLength** = N/A; **maxLength** = 56

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

4.228 orderDate

The `orderDate` element is an optional child of the `enhancedData` element, which specifies the date the order was placed. If you do not know the order date, do not include this element.

Type = Date; **Format** = YYYY-MM-DD

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.229 orderId

The `orderId` element defines a merchant-assigned value representing the order in the merchant's system.

Type = String; **minLength** = N/A; **maxLength** = 25

NOTE: **If you are using the orderId element as the transaction signature for the Recycling Engine, do not use the pipe character ("|") in the orderId. Use of the pipe character in this scenario will cause recycling errors.**

Parent Elements:

accountUpdate, accountUpdateResponse, activate, authorization, authorizationResponse, balanceInquiry, credit, captureGivenAuth, deactivate, echeckCredit, echeckPreNoteCredit, echeckPreNoteSaleResponse, echeckPreNoteCreditResponse, echeckPreNoteSale, echeckSale, echeckVerification, forceCapture, load, registerTokenRequest, sale, saleResponse

Attributes:

None

Child Elements:

None

4.230 orderSource

The `orderSource` element defines the order entry source for the type of transaction.

Type = Choice (enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

activate, authorization, balanceInquiry, captureGivenAuth, credit, deactivate, echeckCredit, echeckPreNoteCredit, echeckPreNoteSale, echeckSale, echeckVerification forceCapture, load, sale, unload

Attributes:

None

Child Elements:

None

Enumerations:

NOTE: **If you submit the wrong `orderSource` value, we return the response code 370 - Internal System Error - Contact Litle.**

PayPal Credit transactions must use an `orderSource` of either ecommerce, mailorder, or telephone. Use of other types will cause the authorization to fail.

eCheckSale transactions must use an `orderSource` of one of the following: telephone, ecommerce, echeckppd, or recurringtel.

Enumeration	Description
3dsAuthenticated	Use this value only if you authenticated the cardholder via an approved 3DS system such as Visa Verified By Visa and MasterCard SecureCode. This value applies to Visa and MasterCard transactions only. **NOTE: Your Merchant Profile must be configured to process 3DS type payments and accept this value.**

Enumeration	**Description**
3dsAttempted	Use this value only if you attempted to authenticate the cardholder via an approved 3DS system such as Visa VerifiedByVisa and MasterCard SecureCode, but either the Issuer or cardholder is not participating in the 3DS program. This value applies to Visa and MasterCard transactions only. If this is a MasterCard transaction, you must include the `authenticationValue` returned by MasterCard. **NOTE: Your Merchant Profile must be configured to process 3DS type payments and accept this value.**
echeckppd	(**eCheck only**) Use this value for eCheck PPD transactions (Prearranged Payment and Deposit Entries). This type of transaction occurs when a merchants receives a written authorization, including a voided paper check, from a consumer so that the merchant can debit the consumer account. These transactions can be single entry or recurring debits to a consumer's account.
ecommerce	The transaction is an Internet or electronic commerce transaction.
installment	The transaction in an installment payment.
mailorder	The transaction is for a single mail order transaction.
recurring	The transaction is a recurring transaction. For Visa transactions, you can use this value for all transactions in a recurring stream including the initial transaction.
retail	The transaction is a Swiped or Keyed Entered retail purchase transaction.
telephone	The transaction is for a single telephone order.
recurringtel	(**eCheck only**) The transaction is a recurring eCheck transaction initiated via telephone
applepay	The transaction uses the Apple Pay service.

4.231 originalAccountInfo

The `originalAccountInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the original information for the submitted account.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

accType, accNum, routingNum

Example: originalAccountInfo Structure

```
<originalAccountInfo>
  <accType>Account Type</accType>
  <litleToken>Original Token Number</litleToken>
  <routingNum>Original Routing Number</routingNum>
</originalAccountInfo>
```

4.232 origAccountNumber

The `origAccountNumber` element is an optional child of the `queryTransaction` element and defines the account number of the credit/debit/gift card used in the original transaction.

NOTE: **If you are performing a query for an eCheck transaction, do not use this element to designate the checking/savings account number. You should use this element for Credit/Debit/Gift card account numbers only.**

Type = String; **minLength** = 13; **maxLength** = 25

Parent Elements:

queryTransaction

Attributes:

None

Child Elements:

None

4.233 origActionType

The `origactionType` element is a required child of the `queryTransaction` element and defines the transaction type of original transaction.

Type = String (Enum); **minLength** = 1; **maxLength** = 2 (Valid values shown below)

Parent Elements:

queryTransaction

Attributes:

None

Child Elements:

None

Enumerations:

origActionType

Enumeration	Transaction Type
A	authorization
AR	activateReversal
D	deposit or sale
G	activate
I	unload
J	deactivate
L	load
LR	loadReversal
P	authReversal
R	credit
RR	refundReversal
S	echeckSale
T	echeckCredit
UR	unloadReversal
V	void
W	depositReversal

Enumeration	Transaction Type
X	echeckVoid

4.234 originalCard

The `originalCard` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the original information for the submitted card.

Parent Elements:

accountUpdateResponse

Attributes:

None

Child Elements:

type, number, expDate

Example: originalCard Structure

```
<originalCard>
  <type>Card Type</type>
  <number>Old Account Number</number>
  <expDate>Old Expiration Date</expDate>
</originalCard>
```

4.235 originalCardInfo

The `originalCardInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the original information for the submitted card.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

type, number, expDate

Example: originalCard Structure

```
<originalCardInfo>
  <type>Card Type</type>
  <number>Old Account Number</number>
  <expDate>Old Expiration Date</expDate>
</originalCardInfo>
```

4.236 originalCardTokenInfo

The `originalCardTokenInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the original information for the submitted token.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

litleToken, type, expDate, bin

Example: originalCard Structure

```
<originalCardTokenInfo>
  <litleToken>Old Token</litleToken>
  <type>Card Type</type>
  <expDate>Old Expiration Date</expDate>
  <bin>Old Card BIN</bin>
</originalCardTokenInfo>
```

4.237 origId

The `origId` element is a required child of the `queryTransaction` element and defines the `id` attribute used in the original transaction.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

queryTransaction

Attributes:

None

Child Elements:

None

4.238 origLitleTxnId

The `origLitleTxnId` element is an optional child of the `queryTransaction` element and defines the value of the `litleTxnId` element assigned to the original transaction and returned in the response message.

Type = Long; **minLength** = N/A; **maxLength** = 19

Parent Elements:

queryTransaction

Attributes:

None

Child Elements:

None

4.239 origOrderId

The `origOrderId` element is an optional child of the `queryTransaction` element and defines the merchant-assigned value for the orderId element submitted in the original transaction.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

queryTransaction

Attributes:

None

Child Elements:

None

4.240 originalToken

The `originalToken` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the original information for the submitted token.

Parent Elements:

accountUpdateResponse

Attributes:

None

Child Elements:

type, number, expDate, bin

Example: originalCard Structure

```
<originalToken>
  <litleToken>Old Token Number</litleToken>
  <expDate>Old Expiration Date</expDate>
  <type>Card Type</type>
  <bin>Card BIN</bin>
</originalToken>
```

4.241 originalTokenInfo

The `originalTokenInfo` element is an optional child of the `accountUpdater` element, which contains child elements providing the original token information for the submitted account. The system returns this information when processing a tokenized eCheck transactions and a change (NOC) is found against the account.

Parent Elements:

accountUpdater

Attributes:

None

Child Elements:

accType, litleToken, routingNum

Example: originalAccountInfo Structure

```
<originalTokenInfo>
  <accType>Account Type</accType>
  <litletoken>Old Account Number</litletoken>
  <routingNum>Old Routing Number</routingNum>
</originalTokenInfo>
```

4.242 password

The `password` element is a required child of the `authentication` element. It is used in combination with the `user` element to authenticate that the message is from a valid source.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

authentication

Attributes:

None

Child Elements:

None

4.243 payerId

The `payerId` element is a required child of the `paypal` element for all cases except for an Online Credit transaction, where you can choose between this element and the `payerEmail` element. This element specifies the Payer Id returned from PayPal.

NOTE: The value of the <`payerId`> element must match the PAYERID value returned by the GetExpressCheckout call operation to PayPal.

Type = String; **minLength** = 1; **maxLength** = 17

Parent Elements:

paypal

Attributes:

None

Child Elements:

None

4.244 payFacCredit

The `payFacCredit` element is the parent element for the transaction type that a PayFac uses to distribute funds to themselves (i.e., from the PayFac Settlement Account to the PayFac Operating Account).

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: amount, fundingSubmerchantId, fundsTransferId

4.245 payFacCreditResponse

The `payFacCreditResponse` element is the parent element for information returned to you in response to a `payFacCredit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.246 payFacDebit

The `payFacDebit` element is the parent element for the transaction type that a PayFac uses to move funds from the PayFac Operating Account back to the PayFac Settlement Account.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: amount, fundingSubmerchantId, fundsTransferId

4.247 payFacDebitResponse

The `payFacDebitResponse` element is the parent element for information returned to you in response to a `payFacDebit` transaction.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacDebit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.248 paymentDataType

The `paymentDataType` element is an optional child of the `applepayResponse` element and specifies data type of the payment data associated with an Apple Pay transaction.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

4.249 paypage

The `paypage` element defines eProtect account information. It replaces the `card` or `token` elements in transactions using the eProtect feature of the Vault solution. When you submit the `paypage` element in a request, response messages will include token information.

Parent Elements:

authorization, captureGivenAuth, credit, forceCapture, sale, updateSubscription

Attributes:

None

Child Elements:

Required: paypageRegistrationId

Optional: expDate, cardValidationNum, type

NOTE: **Although the schema defines the `expDate` element as an optional child of the paypage element, you must submit a value for card-not-present transactions.**

Example: Example: paypage Structure

```
<paypage>
  <paypageRegistrationId>Registration ID from eProtect</paypageRegistrationId>
  <expDate>Expiration Date</expDate>
  <cardValidationNum>Card Validation Number</cardValidationNum>
  <type>Method of Payment</type>
</paypage>
```

4.250 paypageRegistrationId

The `paypageRegistrationId` element is a required child of the `paypage` element, and specifies the Registration ID generated by securepaypage.litle.com (eProtect). It can also be used in a Register Token Request to obtain a token based on eProtect activity prior to submitting an Authorization or Sale transaction.

Type = String; **minLength** = N/A; **maxLength** = 512

Parent Elements:

paypage, registerTokenRequest

Attributes:

None

Child Elements:

None

4.251 paypal

The `paypal` element defines paypal account information. It replaces the card or token elements in transactions using PayPal as a payment method.

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

Required: payerId, transactionId

Optional: token

Example: paypal Structure

```
<paypal>
  <payerId>PayPal Customer Identifier</payerId>
  <token>Token Value Returned</token>
  <transactionId>PayPal Transaction ID</transactionId>
</paypal>
```

4.252 payPalNotes

The `payPalNotes` element is an optional child of multiple transaction types. You use this field to record additional information about the PayPal transaction.

Type = String; **Type** = String; **minLength** = N/A; **maxLength** = 255

Parent Elements:

authReversal, capture, credit, sale

Attributes:

None

Child Elements:

None

4.253 payPalOrderComplete

The `payPalOrderComplete` element is an optional child of both the `capture` and sale elements, but is required to close a PayPal order. Set the value to **true** to close the order, when you have fulfilled the order and do not need to send any further auths or deposits against it. Set the value to **false** to keep the order open for additional auths or deposits.

Type = Boolean; **Valid values** = true or false

Parent Elements:

capture, sale

Attributes:

None

Child Elements:

None

4.254 phone

The `phone` element has two different uses in LitleXML depending upon the parent element. When used as a child of either the `billToAddress` or `shipToAddress` elements, it defines the customers phone number. When used as a child of the `customBilling` element, it defines the phone number of the merchant.

4.254.0.1 phone as a child of billToAddress and shipToAddress

The `phone` element defines the customer’s phone number in both the `billToAddress` and `shipToAddress` elements.

NOTE: **When submitting an eCheck Verification, the string can only contain numbers (0 through 9). Letters and special characters are not allowed.**

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

billToAddress, shipFromPostalCode

Attributes:

None

Child Elements:

None

4.254.0.2 phone as a child of customBilling

The `phone` element defines the merchant’s phone number. The string can only contain numbers (0 through 9). Letters and special characters are not allowed.

Type = String; **minLength** = N/A; **maxLength** = 13

Parent Elements:

customBilling

Attributes:

None

Child Elements: None

4.255 physicalCheckCredit

The `physicalCheckCredit` element is the parent element for the transaction type that a PayFac uses to distribute funds to a third party who issues physical checks on the PayFacs behalf. (i.e., from the PayFac Settlement Account to the Third Party Account).

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: amount, fundingSubmerchantId, fundsTransferId

4.256 physicalCheckCreditResponse

The `physicalCheckCreditResponse` element is the parent element for information returned to you in response to a `physicalCheckCredit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the physicalCheckCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the physicalCheckCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the physicalCheckCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.257 physicalCheckDebit

The `physicalCheckDebit` element is the parent element for the transaction type that a PayFac uses to move funds from a third party who issues physical checks on the PayFac's behalf. (i.e., from the Third Party Account to the PayFac Settlement Account).

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: amount, fundingSubmerchantId, fundsTransferId

4.258 physicalCheckDebitResponse

The `physicalCheckDebitResponse` element is the parent element for information returned to you in response to a `physicalCheckDebit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the physicalCheckDebit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the physicalCheckDebit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the physicalCheckDebit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.259 planCode

The `planCode` element is the identifier of a defined recurring payment plan. You use it to specify the payment plan when submitting a recurring transaction to the Recurring Engine. For example, there could be a define plan called **Monthly** that instructs the Recurring Engine to bill the consumer the same amount every month for the number of months defined by the `numberOfPayments` element. This element is a required child of the `subscription` element.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

subscription, updateSubscription, createPlan, updatePlan, updatePlanResponse

Attributes:

None

Child Elements:

None

4.260 pos

The `pos` element contains child elements used to specify information required when submitting `authorization`, `captureGivenAuth`, `credit`, `forceCapture`, and `sale` transactions from point of sale terminals.

Parent Elements:

authorization, captureGivenAuth, credit, forceCapture, sale

Attributes:

None

Child Elements:

capability, entryMode, cardholderId, terminalId, catLevel

Example: pos Structure

```
<pos>
  <capability>Capabilty Enumeration</capability>
  <entryMode>Entry Mode Enumeration</entryMode>
  <cardholderId>Cardholder ID Enumeration</cardholderId>
  <terminalId>1234567890</terminalId>
  <catLevel>Capabilty of CAT Terminal</catLevel>
</pos>
```

NOTE: **For CAT (Cardholder Activated Terminal) transactions, the `capability` element must be set to `magstripe`, the `cardholderId` element must be set to nopin, and the `catLevel` element must be set to `self service`.**

4.261 postDate

The `postDate` element defines the date the transaction was posted. The format is YYYY-MM-DD. It occurs only in response to Online transactions.

NOTE: **Although the schema defines this element as optional in all cases except for the `voidResponse` parent element, the system returns it in the response for all Online transactions.**

Type = Date; **minLength** = N/A; **maxLength** = 10

Parent Elements:

activateResponse, activateReversalResponse, authorizationResponse, authReversalResponse, captureResponse, captureGivenAuthResponse, creditResponse, deactivateResponse, deactviateReversalResponse, depositReversalResponse, echeckCreditResponse, echeckSalesResponse, echeckVerificationResponse, forceCaptureResponse, loadResponse, loadReversalResponse, refundReversalResponse, saleResponse, unloadResponse, unloadReversalResponse, voidResponse

Attributes:

None

Child Elements:

None

4.262 postDay

The `postDay` element is an optional child of the `accountUpdateFileRequestData` element that defines the date you submitted the Account Updater request. The format is YYYY-MM-DD.

NOTE: **This is also the same date that the system created the Account Updater acknowledgement file.**

Type = Date; **minLength** = N/A; **maxLength** = 10

Parent Elements:

accountUpdateFileRequestData

Attributes:

None

Child Elements:

None

4.263 preapprovalNumber

The `preapprovalNumber` element is an optional child of the `billMeLaterRequest` element, which you use to specify the pre-approval number issued by PayPal Credit. If you include this element, the value must be 16 digits in length. Do not include this element to indicate there is no pre-approval. Internal pre-approval is indicated by using 1 as the first digit.

Type = String; **minLength** = 13; **maxLength** = 25

Parent Elements:

billMeLaterRequest

Attributes:

None

Child Elements:

None

4.264 prepaid

The `prepaid` element is an optional child of the `filtering` element. How you choose to implement the Prepaid Filtering feature determines the use of the `prepaid` element. If your configuration filters all prepaid card transactions, you can disable the feature on selected transactions by including the `prepaid` element with a setting of **false**. If your configuration filters prepaid card transactions on a per transaction basis, you enable the filtering on a selected transaction by including the `prepaid` element with a setting of **true**.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

filtering

Attributes:

None

Child Elements:

None

4.265 prepaidCardType

The `prepaidCardType` element is an optional child of the `enhancedAuthResponse` element, which specifies the type of prepaid card submitted in the Authorization or Sale transaction. For example, a few of the possible values are: GIFT, PAYROLL, and GENERAL_PREPAID

Type = String; **minLength** = N/A; **maxLength** = 50

Parent Elements:

fundingSource

Attributes:

None

Child Elements:

None

4.266 processingInstructions

The `processingInstructions` element contains a child element that allows you to specify whether or not the system performs velocity checking on the transaction.

Parent Elements: (optional for all)

authorization, capture, captureGivenAuth, credit, forceCapture, sale, void

Attributes:

None

Child Elements:

bypassVelocityCheck

NOTE: **Please consult your Customer Experience Manager for additional information concerning Velocity Checking.**

Example: processingInstructions Structure

```
<processingInstructions>
  <bypassVelocityCheck>true or false</bypassVelocityCheck>
</processingInstructions>
```

4.267 processingType

The `processingType` element is an optional child of several transaction types. You use this element to define a Visa transaction is intended to fund a host-based prepaid product, a brokerage account, or an escrow account.

Type = String (Enum); **Allowed Value = accountFunding**

Parent Elements:

authorization, captureGivenAuth, forceCapture, sale

Attributes:

None

Child Elements:

None

4.268 productCode

The `productCode` element is an optional child of the `lineItemData` element, which specifies the product code of the purchased item. This value is a merchant defined description code of the product/service. This could be an inventory number, UPC, catalog number, or some other value that the merchant uses to define the specific product. Although an optional element, it is required by Visa and MasterCard when specifying line item data.

Type = String; **minLength** = 1; **maxLength** = 12

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.269 publicKeyHash

The `publicKeyHash` element is a required child of the `header` element and provides the BASE64 Encoded string that is a hash of the merchant’s certificate public key bytes associated with the Apple Pay transaction.

Type = Base 64 Encoded String; **minLength** = N/A; **maxLength** = 200

Parent Elements:

header

Attributes:

None

Child Elements:

None

4.270 quantity

The `quantity` element is an optional child of the `lineItemData` element, which specifies the number of items purchased. Although an optional element, it is required by Visa and MasterCard when specifying line item data. The value must be greater than zero, but no more than 12 digits not including the decimal point.

NOTE: **If you accidentally omit the `quantity` element, our system will submit the transaction using a default value of 1.**

Type = Decimal; **minInclusive** = 0; **totalDigits** = 12

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.271 queryTransaction

The `queryTransaction` element is the parent element for Query transactions. You use this transaction type to determine the status of a previously submitted transaction. You can submit this element only as an Online transaction.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: origId, origActionType

Optional: origLitleTxnId, origOrderId, origAccountNumber

4.272 queryTransactionResponse

The `queryTransactionResponse` element is the parent element for the response to `queryTransaction` requests.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the capture transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the capture transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the capture transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

All Required: response, responseTime, message, matchCount, results_Max10

4.273 queryTransactionUnavailableResponse

The `queryTransactionUnavailableResponse` element is an optional child of the `results_Max10` element. If the query results is a response code of 152 - Transaction found, but response not yet available, the `results_Max10` element will contain at least one `queryTransactionUnavailableResponse` child (see example *results_Max10 Element for 152 Response Code*).

Parent Elements:

results_Max10

Attributes:

None

Child Elements:

All Required: litleTxnId, response, message

4.274 recurringRequest

The `recurringRequest` element is the parent of several child element that define the number of payments and plan type of recurring transaction to be handled by the Recurring Engine. It is an optional child of the Authorization and Sale transactions.

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

subscription

Example: recurringRequest Structure

```
<recurringRequest>
  <subscription>
    <planCode>Plan Reference Code</planCode>
    <numberOfPayments>1 to 99</numberOfRemianingPayments>
    <startDate>Start Date of Recurring Cycle</startDate>
    <amount>Amount of Recurring Payment</amount>
  </subscription>
</recurringRequest>
```

4.275 recurringResponse

The `recuringResponse` element is the parent element for the `subscriptionId`, `responseCode`, `responseMessage`, and recurringTxnId elements associated with a requested recurring payment. The system returns this element only when the `sale` transaction includes a `recurringRequest` element.

Parent Elements:

authorizationResponse, saleResponse

Attributes:

None

Child Elements:

subscriptionId, responseCode, responseMessage, recurringTxnId

Example: recurringResponse Structure

```
<recurringResponse>
  <subscriptionId>1234567890</subscriptionId>
  <responseCode>Response Code</responseCode>
  <responseMessage>Response Message</responseMessage>
</recurringResponse>
```

4.276 recurringTxnId

The `recurringTxnId` element is an optional child of the **`recurringResponse`** element used to identify the record of recurring, scheduled transactions.

Type = Long; **minLength** = N/A; **maxLength** = 19

Parent Elements:

recurringResponse, litleInternalRecurringRequest

NOTE: **Although the element is an optional child of the `recurringResponse` element, it will never be returned in the response to a merchant initiated transaction.**

Attributes:

None

Child Elements:

None

4.277 recycleAdvice

The `recyclingAdvice` element contains a two child elements that either specifies the date and time (in GMT) recommended for the next recycle of the declined Authorization/Sale transaction or indicates that there is no additional recycling advice. The two children are mutually exclusive.

Parent Elements: (optional for all)

recycling

Attributes:

None

Child Elements:

nextRecycleTime, recycleAdviceEnd

NOTE: **The `recycleAdvice` element contains either a `nextRecycleTime` or `recycleAdviceEnd` element, but not both.**

Example: recycleAdvice Structure - with recommended Date:Time

```
<recycleAdvice>
  <nextRecycleTime>2011-04-15T12:00:00</nextRecycleTime>
</recycleAdvice>
```

Example: recycleAdvice Structure - with end message

```
<recycleAdvice>
  <recycleAdviceEnd>End of Advice</recycleAdviceEnd>
</recycleAdvice>
```

4.278 recycleAdviceEnd

The `recycleAdviceEnd` element is an optional child of the `recycleAdvice` element and signifies that no further recycling recommendations are available.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

recycleAdvice

Attributes:

None

Child Elements:

None

4.279 recycleBy

The `recycleBy` element is an optional child of the `recyclingRequest` element and determines the use of the Recycling Engine/Recycling Advice. The default setting is `Litle`, so omitting this element is the same as submitting a value of `Litle`.

NOTE: Also, if your Merchant Profile includes a preset percentage split of transactions between merchant and Vantiv controlled, then settings of `Merchant` and `Litle` are ignored; you can still use a setting of None to exclude the transaction.

Also, although the default setting is normally `Litle`, it can be altered in your merchant profile to a setting of `Merchant`.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

recyclingRequest

Attributes:

None

Child Elements:

None

Enumerations:

Enum	Description
Merchant	This setting indicates that the merchant controls the recycling of the transaction. For A/B comparison testing, transactions using this setting will be counted as merchant controlled. After setting this value in the initial transaction, subsequent transactions should have same value. Any different value will be ignored.
Litle	This setting indicates either that the Recycling Engine controls the recycling of the transaction or the recycling of the transaction will follow the Recycling Advice returned in the response message. For A/B comparison testing, transactions using this setting will be counted as Vantiv controlled. After setting this value in the initial transaction, subsequent transactions should have same value. Any different value will be ignored.
None	For A/B comparison testing, transactions using this setting are excluded from all counts. These transactions will not be counted as either merchant or Vantiv controlled.

4.280 recycleEngineActive

The `recycleEngineActive` element is an optional child of the `recycling` element that indicates whether or not the engine is recycling the declined transaction. This element is returned only if you are using the Recycling Engine.

Type = Boolean; **Valid values** = true or false

Parent Elements:

recycling

Attributes:

None

Child Elements:

None

4.281 recycleId

The `recycleId` element is an optional child of the `recyclingRequest` element. Merchants can use this identifier as part of the transaction signature used to track the recycling of a transaction. This element is an alternative to using the `orderId` element as part of the transaction signature.

Type = String; **minLength** = N/A; **maxLength** = 25

Parent Elements:

recyclingRequest

Attributes:

None

Child Elements:

None

4.282 recycling

The `type` element has two uses in LitleXML depending upon the parent. When used as a child of either the `authorizationResponse` or `saleResponse` elements, the `recycling` element contains a child element that specify either the recommended date and time for the next recycling attempt for the declined Authorization/Sale transaction or a statement that no further advice is available for merchants using the Recycling Advice feature. For merchants using the Recycling Engine feature there is a child element that specifies whether or not the engine is recycling the declined transaction.

When used as a child of the `voidResponse`, the `recycling` element contains a child providing the Transaction Id of the Credit transaction issued. This occurs only if a Void transaction is used to halt the recycling of a transaction by the recycling and the transaction has already been approved and captured (see Using Void to Halt Recycling Engine on page 67).

4.282.1 recycling Element as a Child of authorizationResponse or saleResponse

The `recycling` element contains child elements indicating the next time to recycle, end of recycling advice, or that the Recycling Engine is active.

Parent Elements:

authorizationResponse, saleResponse

Attributes:

None

Child Elements:

recycleAdvice, recycleEngineActive

NOTE: **The `recycleAdvice` element contains either a `nextRecycleTime` or `recycleAdviceEnd` element, but not both.**

Example: recycling Structure - with recommended Date:Time

```
<recycling>
  <recycleAdvice>
    <nextRecycleTime>2011-04-15T12:00:00</nextRecycleTime>
  </recycleAdvice>
</recycling>
```

Example: recycling Structure - with end message

```
<recycling>
  <recycleAdvice>
    <recycleAdviceEnd>End of Advice</recycleAdviceEnd>
  </recycleAdvice>
</recycling>
```

Example: recycling Structure - with engine active flag

```
<recycling>
  <recycleEngineActive>true or false</recycleEngineActive>
</recycling>
```

4.282.2 recycling Element as a Child of voidResponse

The `recycling` element in an optional child of the `voidResponse` element and contains a child providing the Transaction Id of the Credit transaction issued. This element is present in the Void response only under the following circumstances (see Using Void to Halt Recycling Engine on page 67):

- You submitted a Void transaction to halt the recycling of a declined Sale transaction by the Recovery/Recycling Engine.
- The Sale transaction has already been approved and captured.
- Your Recovery/Recycling Engine configuration enables automatic refunds.
- The system has successfully submitted a Credit transaction on your behalf.

Parent Elements:

voidResponse

Attributes:

None

Child Elements:

creditLitleTxnId

Example: recycling Structure - child of voidResponse

```
<recycling>
  <creditLitleTxnId>1234567890123456789</creditLitleTxnId>
</recycling>
```

4.283 recyclingRequest

The `recyclingrequest` element is an optional child of the `authorization` and `sale` transactions, which contains a child element that specifies who is responsible for recycling the transaction. It also contains an optional element for an identifier assigned by the merchant to track the recycling of the transaction. This element only applies to merchants using either the Recycling Engine or Recycling Advice.

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

recycleBy, recycleId

Example: recyclingRequest Structure

```
<recyclingRequest>
  <recycleBy>Merchant or Litle or None</recycleBy>
  <recycleId>abcdef1234567890</recycleId>
</recyclingRequest>
```

4.284 refundReversal

The `refundReversal` element is the parent element for a Gift Card specific transaction type that reverses the a refund associated with a Gift Card.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId

4.285 refundReversalResponse

The `refundReversalResponse` element is the parent element for information returned to you in response to an `refundReversal` transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, giftCardResponse

4.286 registerTokenRequest

The `registerTokenRequest` element is the parent element for the Register Token transaction. You use this transaction type when you wish to submit an account number for tokenization, but there is no associated payment transaction.

You can use this element in either Online or Batch transactions.

NOTE: **When submitting `registerTokenRequest` elements in a `batchRequest`, you must also include a `numTokenRegistrations`= attribute in the `batchRequest` element.**

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute defining the merchant sub-group in the user interface where this transaction displays. Also see Coding for Report Groups on page 9 for information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: either accountNumber, echeckForToken, mpos, paypageRegistrationId, or applepay

Optional: orderId, cardValidationNum

NOTE: **The use of the `cardValidationNum` element in the `registertokenRequest` only applies when you submit an `accountNumber` element.**

4.287 registerTokenResponse

The `registerTokenResponse` element is the parent element for the response to `registerTokenRequest` transactions. You receive this transaction type in response to the submission of an account number for tokenization in a `registerTokenRequest` transaction.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the `registerTokenRequest` transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the `registerTokenRequest` transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the `registerTokenRequest` transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, message, responseTime

Optional: eCheckAccountSuffix, litleToken, bin, type, applepayResponse

4.288 reloadable

The `reloadable` element is an optional child of the `fundingSource` element and defines whether the prepaid card is reloadable.

NOTE: This element is never returned for American Express card transaction.

Type = String (Enum); **Enumerations** = YES, NO, or UNKNOWN

Parent Elements:

fundingSource

Attributes:

None

Child Elements:

None

4.289 reserveCredit

The `reserveCredit` element is the parent element for the transaction type that a PayFac uses to move funds from the PayFac Settlement Account to the PayFac Reserve Account.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: amount, fundingSubmerchantId, fundsTransferId

4.290 reserveCreditResponse

The `reserveCreditResponse` element is the parent element for information returned to you in response to a `reserveCredit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the reserveCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.291 reserveDebit

The `reserveDebit` element is the parent element for the transaction type that a PayFac uses to move funds from the PayFac Reserve Account to the PayFac Settlement Account.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: amount, fundingSubmerchantId, fundsTransferId

4.292 reserveDebitResponse

The `reserveDebitResponse` element is the parent element for information returned to you in response to a `reserveDebit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the reserveDebit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.293 residenceStatus

The `residenceStatus` element is an optional child of the `customerInfo` element and defines the type of domicile in which the customer resides. It is used in combination with several other elements to provide required information for some PayPal Credit transactions.

Type = String (Enum); **Enumerations** = Own, Rent, or Other

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.294 response

The `response` element contains a three digit numeric code which specifies either that the transaction is approved (000 code) or declined. The `message` element provides a brief definition of the response code.

For a complete list of response codes and associated messages, please refer to Payment Transaction Response Codes on page 726.

Type = String; **minLength** = N/A; **maxLength** = 3

Parent Elements:

activateResponse, activateReversalResponse, authorizationResponse, authReversalResponse, captureResponse, captureGivenAuthResponse, creditResponse, deactivateResponse, deactviateReversalResponse, depositReversalResponse, echeckCreditResponse, echeckPreNoteCreditResponse, echeckPreNoteSaleResponse, echeckRedepositResponse, echeckSalesResponse, echeckVerificationResponse, echeckVoidResponse, forceCaptureResponse, fraudCheckResponse, loadResponse, loadReversalResponse, queryTransactionResponse, queryTransactionUnavailableResponse, registerTokenResponse, refundReversalResponse, saleResponse, voidResponse, cancelSubscriptionResponse, unloadResponse, updatePlanResponse, updateSubscriptionResponse, unloadReversalResponse, payFacCreditResponse, payFacDebitResponse, physicalCheckCreditResponse, physicalCheckDebitResponse, submerchantCreditResponse, reserveCreditResponse, reserveDebitResponse, submerchantDebitResponse, vendorCreditResponse, vendorDebitResponse

Attributes:

None

Child Elements:

None

4.295 responseCode

The `responseCode` element contains a three digit numeric code which along with the **`responseMessage`** element specifies either acceptance by the Recurring Engine or the reason the recurring Engine was unable to schedule subsequent payments.

Type = String; **minLength** = N/A; **maxLength** = 3

Parent Elements:

recurringResponse

Attributes:

None

Child Elements:

None

4.296 responseMessage

The `responseMessage` element contains a brief definition of the **`responseCode`** returned for the recurring transaction.

Type = String; **minLength** = N/A; **maxLength** = 512

Parent Elements:

recurringResponse

Attributes:

None

Child Elements:

None

4.297 responseTime

The `responseTime` element provides a date/time stamp of the response. The format of the element is YYYY-MM-DDTHH:MM:SS. For example, 2009-12-21T11:37:04.

Type = dateTime; **minLength** = N/A; **maxLength** = 19

Parent Elements:

activateResponse, activateReversalResponse, authorizationResponse, authReversalResponse, captureResponse, captureGivenAuthResponse, creditResponse, deactivateResponse, deactviateReversalResponse, depositReversalResponse,echeckCreditResponse, echeckPreNoteCreditResponse, echeckPreNoteSaleResponse, echeckRedepositResponse, echeckSalesResponse, echeckVerificationResponse, echeckVoidResponse, forceCaptureResponse, fraudCheckResponse, loadResponse, loadReversalResponse, queryTransactionResponse, registerTokenResponse, refundReversalResponse, saleResponse, voidResponse, cancelSubscriptionResponse, unloadResponse, unloadReversalResponse, updatePlanResponse, updateSubscriptionResponse, payFacCreditResponse, payFacDebitResponse, physicalCheckCreditResponse, physicalCheckDebitResponse, reserveCreditResponse, reserveDebitResponse, submerchantCreditResponse, submerchantDebitResponse, vendorCreditResponse, vendorDebitResponse

Attributes:

None

Child Elements:

None

4.298 results_Max10

The `results_Max10` element is a required child of the `queryTransactionResponse.` Any original transaction responses that match the criteria submitted in the `queryTransaction` appear as children of this element in the response. The system can return a maximum of ten responses as children of the `results_Max10` element. The value for the `matchCount` element reflects the number of found transactions.

If the system does not find any transactions matching the query criteria, the `results_Max10` element will be empty.

If the query results is a response code of 152 - Transaction found, but response not yet available, the `results_Max10` element will contain at least one `queryTransactionUnavailableResponse` child and may contain other found responses.

Parent Elements:

queryTransactionResponse

Attributes:

None

Child Elements:

All Optional: activateResponse, activateReversalResponse, authorizationResponse, captureResponse, creditResponse, deactivateResponse, depositReversalResponse, echeckCreditResponse, echeckSalesResponse, loadResponse, loadReversalResponse, refundReversalResponse, saleResponse, unloadResponse, unloadReversalResponse, voidResponse, queryTransactionUnavailableResponse

Example: results_Max10 Element with One Found Transaction

```
<results_max10>
  <authorizationResponse id="GiftCardAuth" reportGroup="Mer5PM1" customerId="1">
    <litleTxnId>82827170811986124</litleTxnId>
    <orderId>150330_GCAuth</orderId>
    <response>000</response>
    responseTime>2015-04-06T16:40:04</responseTime>
    <postDate>2015-04-06</postDate>
    <message>Approved</message>
    <authCode>111115</authCode>
    <fraudResult>
      <avsResult>30</avsResult>
```

```
        <cardValidationResult>M</cardValidationResult>
      </fraudResult>
      <giftCardResponse>
        <availableBalance>125</availableBalance>
      </giftCardResponse>
    </authorizationResponse>
  </results_max10>
```

Example: results_Max10 Element with Multiple Found Transactions

```
  <results_max10>
    <authorizationResponse id="DupeId" reportGroup="Mer5PM1">
      <litleTxnId>82827170811986215</litleTxnId>
      <orderId>150331_DupeAuth2</orderId>
      <response>000</response>
      <responseTime>2015-04-06T16:40:12</responseTime>
      <postDate>2015-04-06</postDate>
      <message>Approved</message>
      <authCode>055858</authCode>
      <fraudResult>
        <avsResult>32</avsResult>
        <cardValidationResult>M</cardValidationResult>
      </fraudResult>
    </authorizationResponse>
    <authorizationResponse id="DupeId" reportGroup="Mer5PM1">
      <litleTxnId>82827170811986207</litleTxnId>
      <orderId>150331_DupeAuth1</orderId>
      <response>000</response>
      <responseTime>2015-04-06T16:40:11</responseTime>
      <postDate>2015-04-06</postDate>
      <message>Approved</message>
      <authCode>111111</authCode>
      <fraudResult>
        <avsResult>00</avsResult>
        <cardValidationResult>M</cardValidationResult>
      </fraudResult>
    </authorizationResponse>
  </results_max10>
```

Example: results_Max10 Element for 152 Response Code

```
  <results_max10>
    <queryTransactionUnavailableResponse>
      <litleTxnId>82827170811986124</litleTxnId>
      <response>152</response>
      <message>Original transaction found but response not yet available</message>
    </queryTransactionUnavailableResponse>
  </results_max10>
```

4.299 RFRRequest

The `RFRRequest` element is an optional child of a `litleRequest` element. You can use this type of request in one of two ways.

- To request a session response from a previously processed `litleRequest`, include the `litleSessionId` child. The resulting RFR response will duplicate the original session response (Authorization, Credit, Capture, or Sale response) associated with the `litleSessionId`. The session ID returned in the response will be the session ID of the original session.
- To request an Account Updater completion response file, include the `accountUpdateFileRequestData` element. If the completion file is ready, it is returned. If the completion file is not ready, you receive an RFRResponse message with the response attribute set to 1 and the message attribute reading, “The account Update file is not ready yet. Please try again later.”

Parent Elements:

litleRequest

Attributes:

None

Child Elements: (Choice of)

litleSessionId or accountUpdateFileRequestData

Example: RFRRequest Structure - Batch

```
<RFRRequest>
  <litleSessionId>Session ID</litleSessionId>
</RFRRequest>
```

Example: RFRRequest Structure - Account Updater

```
<RFRRequest>
  <accountUpdateFileRequestData>
    <merchantId>Merchant ID</merchantId>
    <postDay>Post Date</postDay>
  </accountUpdateFileRequestData>
</RFRRequest>
```

4.300 RFRResponse

The `RFRResponse` element is an optional child of a `litleResponse` element returned in response to a RFRRequest.

Parent Elements:

litleResponse

Attributes:

Attribute Name	Type	Required?	Description
response	String	Yes	The RFR Response Code indicating the result of the RFR request. **minLength** = N/A **maxLength** = 3
message	String	Yes	A brief definition of the response code returned for this transaction. **minLength** = N/A **maxLength** = 512

Child Elements:

None

4.301 routingNum

The `routingNum` element is a required child of the `echeck`, `originalAccountInfo`, and `newAccountInfo` elements defining the routing number of the Echeck account.

Type = String; **minLength** = 9; **maxLength** = 9

Parent Elements:

echeck, newAccountInfo, originalAccountInfo, newTokenInfo, originalTokenInfo, accountInfo

Attributes:

None

Child Elements:

None

NOTE: **If you submit an invalid routing number, we return the XML Response Code 900 - Invalid Bank Routing Number.**

4.302 RxAmount

The `RxAmount` element is an optional child of the `healthcareAmounts` element and defines the healthcare amount used for the purchased medications. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

Optional: healthcareAmounts

Attributes:

None

Child Elements:

None

4.303 sale

The `sale` element is the parent element for all Sale transactions. A Sale transaction is a combination Authorization and Capture transaction. You can use this element in either Online or Batch transactions.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: orderId, amount, orderSource, (choice of) card, paypal, paypage, mpos, token, or applepay

NOTE: The cardholderAuthentication child element is required only for 3-D Secure transactions and for BML ecommerce transactions.

Optional: litleTxnId, customerInfo, billToAddress, shipToAddress, billMeLaterRequest, cardholderAuthentication, customBilling, taxType, enhancedData, processingInstructions, pos, payPalNotes, payPalOrderComplete, amexAggregatorData, allowPartialAuth, healthcareIIAS, merchantData, recyclingRequest, fraudFilterOverride, secondaryAmount, surchargeAmount, recurringRequest, litleInternalRecurringRequest, debtRepayment, advancedFraudChecks, wallet, processingType

NOTE: **The `fraudCheck` element has been deprecated; use the `cardholderAuthentication` element instead.**

Also, the `enhancedData` element and two of its child elements, `deliveryType` and `shippingAmount`, are required for PayPal Credit Authorizations.

4.304 saleResponse

The `saleResponse` element is the parent element for information returned in response to a Sale transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Sale transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Sale transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Sale transaction. **minLength** = 1 **maxLength** = 25
duplicate	Boolean	No	If the request is a duplicate (see Online Duplicate Checking on page 8), the response includes the duplicate flag set to true and the entire original response. **Note:** This attribute applies only to Online transaction responses.

Child Elements:

Required: litleTxnId, orderId, response, responseTime, message

Optional: postDate, cardProductId (see Note below), authCode, authorizationResponseSubCode (see Note below), approvedAmount, accountInformation, fraudResult, billMeLaterResponseData, tokenResponse, enhancedAuthResponse, accountUpdater, recycling, recurringResponse, giftCardResponse, applepayResponse, cardSuffix

NOTE: **The `postDate` child element is returned only in responses to Online transactions.**

The `cardProductId` element returns a raw code referencing the card type. Please consult your Customer Experience Manager for additional information.

The `authorizationResponseSubCode` element is not used at this time.

4.305 salesTax

The `salesTax` element defines the amount of sales tax included in the transaction amount. Although the schema defines it as an optional child of the `enhancedData` element, it is required to receive the best interchange rate for Level II and Level III corporate purchases. The decimal is implied. Example: 500 = $5.00.

NOTE: **For a non-taxable transaction, use 0 as the value. In this case you must also set the `taxExempt` element to true.**

If you provide `detailTax` data, the `salesTax` should be the sum of the `detailTax`.

Type = Integer; **totalDigits** = 8

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.306 secondaryAmount

The `secondaryAmount` element defines the principal portion of the total amount when a convenience fee applied to the transaction by the merchant. for example, if the total charge is $105, with the principal amount being $100 and the convenience fee being $5, you must use $100 as the value for the `secondaryAmount` element. Supply the value in cents without a decimal point. For example, a value of 400 signifies $4.00.

Type = Integer; **totalDigits** = 12

NOTE: **Although this element appears in the schema, the feature associated with its use is not yet generally available. Please consult your Customer Experience Manager for additional information.**

Parent Elements:

authorization, capture, credit, captureGivenAuth, echeckCredit, echeckSale, forceCapture, sale

Attributes:

None

Child Elements:

None

4.307 sellerId

The `sellerId` element is a required child of the `amexAggregatorData` element, which defines the Seller Id as assigned by American Express.

Type = String; **minLength** = 1; **maxLength** = 16

Parent Elements:

amexAggregatorData

Attributes:

None

Child Elements:

None

4.308 sellerMerchantCategoryCode

The sellerMerchantCategoryCode element is a required child of the amexAggregatorData element, which defines the Merchant Category Code as assigned by American Express.

Type = String; **minLength** = 1; **maxLength** = 4

Parent Elements:

amexAggregatorData

Attributes:

None

Child Elements:

None

4.309 shipFromPostalCode

The `shipFromPostalCode` element defines the postal code from which the product ships in the `enhancedData` element.

Type = String; **minLength** = N/A; **maxLength** = 20

NOTE: **Although the schema specifies the maxLength of the `<shipFromPostalCode>` element as 20 characters, in practice you should never exceed 10 characters in your submissions.**

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.310 shippingAmount

The `shippingAmount` element defines shipping cost for the order. Although the schema defines it as an optional child of the `enhancedData` element, it is required by Visa for Level III interchange rates. The decimal is implied. Example: 500 = $5.00.

This element is also required for PayPal Credit transactions.

Type = Integer; **totalDigits** = 8

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.311 shipToAddress

The `shipToAddress` element contains several child elements that define the postal mailing address (and telephone number) used for shipping purposes.

Parent Elements:

authorization, captureGivenAuth, fraudCheck, sale

Attributes:

None

Child Elements: (all Optional)

name, addressLine1, addressLine2, addressLine3, city, state, zip, country, email, phone

Example: shipToAddress Structure

```
<shipToAddress>
  <name>Customer’s Full Name</name>
  <addressLine1>Address Line 1</addressLine1>
  <addressLine2>Address Line 2</addressLine2>
  <addressLine3>Address Line 3</addressLine3>
  <city>City</city>
  <state>State Abbreviation</state>
  <zip>ZIP Code</zip>
  <country>Country Code</country>
  <email>Email Address</email>
  <phone>Telephone Number</phone>
</shipToAddress>
```

4.312 signature

The `signature` element is a required child of the `applepay` element. It is the BASE64 encoded string signature of the payment and header data from the PKPaymentToken.

Type = String; **minLength** = N/A; **maxLength** = 10000

Parent Elements:

applepay

Attributes:

None

Child Elements:

None

4.313 ssn

The `ssn` element is an optional child of the `customerInfo` element. It is used in combination with several other elements to provide required information for some PayPal Credit transactions.

Type = Pattern; **minLength** = 4 (last four digits of SSN); **maxLength** = 9 (full SSN)

NOTE: **In order for a BML transaction to succeed, you must include this element if:**

- **the customer does not have a BML account**

or

- **the customer has a BML account, but the account has not been authenticated.**

You do not need to include this element if the BML account has been authenticated.

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.314 startDate

The `startDate` element is a optional child of the `subscription` element, which specifies the date the recurring billing should begin. It is also an optional child of both the `createAddOn` and `createDiscount` element, where it specifies either the starting date of the Add On charge or the starting date of the discount.

Type = Date; **Format** = YYYY-MM-DD

Parent Elements:

subscription, createAddOn, createDiscount, updateAddOn, updateDiscount

Attributes:

None

Child Elements:

None

4.315 state

The `state` element defines the customer's state name in the `billToAddress`, `shipToAddress`, `taxBilling` and elements.

Type = String; **minLength** = N/A; **maxLength** = 2

NOTE: **Although the schema defines the maxLength for this element as 30, the best practice is to use the 2 character abbreviation. When submitting an eCheck Verification transaction, you must use the 2 character abbreviation or the transaction will be rejected with a 370 reason code.**

Parent Elements:

billToAddress, shipToAddress, taxExempt

Attributes:

None

Child Elements:

None

4.316 submerchantCredit

The `submerchantCredit` element is the parent element for the transaction type that a PayFac uses to move funds from the PayFac Settlement Account to the Sub-merchant Account.

NOTE: **For additional information about PayFac Instruction-Based Dynamic Payout and the use of this transaction type, please refer to the *PayFac Instruction-Based Dynamic Payout* document.**

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: accountInfo, amount, fundingSubmerchantId, fundsTransferId, submerchantName

4.317 submerchantCreditResponse

The `submerchantCreditResponse` element is the parent element for information returned to you in response to a `submerchantCredit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the submerchantCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.318 submerchantDebit

The `submerchantDebit` element is the parent element for the transaction type that a PayFac uses to move funds from the Sub-merchant Account to the PayFac Settlement Account.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: accountInfo, amount, fundingSubmerchantId, fundsTransferId, submerchantName

4.319 submerchantDebitResponse

The `submerchantDebitResponse` element is the parent element for information returned to you in response to a `submerchantDebit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the submerchantDebit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.320 submerchantName

The `submerchantName` element is a required child of the `submerchantCredit` element and specifies the name of the Sub-merchant.

Type = String; **minLength** = 1; **maxLength** = 256

Parent Elements:

submerchantCredit, submerchantDebit

Attributes:

None

Child Elements:

None

4.321 subscription

The `subscription` element is a required child of the `recurringRequest` element and the parent of several child element that define information about the recurring transaction stream to be handled by the Recurring Engine.

Parent Elements:

recurringRequest

Attributes:

None

Child Elements (required):

planCode

Child Elements (optional):

numberOfPayments, startDate, amount, createDiscount, createAddOn

NOTE: **If you include the `numberOfPayments` child element, the value submitted overrides the default value defined in the Plan.**

Example: subscription Structure

```
<subscription>
  <planCode>Plan Reference Code</planCode>
  <numberOfPayments>1 to 99</numberOfRemianingPayments>
  <startDate>Start Date of recurring Cycle</startDate>
  <amount>Amount of Recurring Payment</amount>
  <createDiscount>
    <discountCode>Discount Reference Code</addOnCode>
    <name>Name of Discount</name>
    <amount>Amount of Discount</amount>
    <startDate>Start Date of Discount</startDate>
    <endDate>End Date of Discount</endDate>
  </createDiscount>
  <createAddOn>
    <addOnCode>Add On Reference Code</addOnCode>
    <name>Name of Add On</name>
    <amount>Amount of Add On</amount>
    <startDate>Start Date of Add On Charge</startDate>
    <endDate>End Date of Add On Charge</endDate>
  </createAddOn>
</subscription>
```

4.322 subscriptionId

The `subscriptionId` element is a required child of the `recurringResponse` element and defines the assigned identifier for the sequence of recurring billing transactions. You also use this element in the `updateSubscription` and `cancelSubscription` transactions to identify the subscription for changes/cancellation.

Type = Long; **minLength** = N/A; **maxLength** = 19

Parent Elements:

recurringResponse, litleInternalRecurringRequest, cancelSubscription, updateSubscription, updateSubscriptionResponse, cancelSubscriptionResponse

Attributes:

None

Child Elements:

None

4.323 surchargeAmount

The `surchargeAmount` element defines the amount of the surcharge applied to the transaction by the merchant. Supply the value in cents without a decimal point. For example, a value of 400 signifies $4.00.

Type = Integer; **totalDigits** = 12

NOTE: **Use of the `surchargeAmount` element applies to Visa or MasterCard credit card payments only. Also, you are required to notify the card networks and us of your intent to applying surcharges at least 30 days prior to implementing the surcharges. Please consult your Customer Experience Manager if you have additional questions.**

Parent Elements:

authorization, authReversal, capture, credit, captureGivenAuth, forceCapture, sale

Attributes:

None

Child Elements:

None

4.324 taxAmount

The `taxAmount` element is a required child of the `detailTax` element and an optional child of the `lineItemData` element and defines the detail tax amount on the purchased good or service. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

Required: detailTax

Optional: lineItemData

NOTE: **If you include `taxAmount` as a child of `lineItemData` along with `detailTax`, the `lineItemData` `taxAmount` should be the sum of the `taxAmount` children from `detailTax` children.**

Attributes:

None

Child Elements:

None

4.325 taxExempt

The `taxExempt` element is an optional child of the `enhancedData` element and specifies whether or not the transaction is exempt from sales tax. If you do not include this element, the value defaults to **false**.

NOTE: **You must set this element to true, if you set the `salesTax` element to 0.**

Type = Boolean; **Valid values** = true or false

Parent Elements:

enhancedData

Attributes:

None

Child Elements:

None

4.326 taxIncludedInTotal

The `taxIncludedInTotal` element is an optional child of the `detailTax` element and defines whether or not the tax is included in the total purchase amount.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

detailTax

Attributes:

None

Child Elements:

None

4.327 taxRate

The `taxRate` element is an optional child of the `detailTax` element and defines the tax rate applied to this specific taxable amount.

Type = Decimal; **totalDigits** = 5

Parent Elements:

detailTax

Attributes:

None

Child Elements:

None

4.328 taxType

The `taxType` element is an optional child of several transaction types that designates the transaction as either a convenience fee or tax payment for merchants using the Visa Tax Payment Program or the MasterCard Convenience Fee Program.

Type = String (enum); **minLength** = N/A; **maxLength** = 1; **Valid Values** = payment or fee

Parent Elements:

authorization, captureGivenAuth, credit, forceCapture, sale

Attributes:

None

Child Elements:

None

4.329 taxTypeIdentifier

The `taxTypeIdentifier` element is an optional child of the `detailTax` element and defines the type of tax collected on this specific tax amount. If the tax type identifier is unknown, do not include this element.

Type = String (Enum); **minLength** = N/A; **maxLength** = 2

Parent Elements:

detailTax

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
00	Unknown
01	Federal/National Sales Tax
02	State Sales Tax
03	City Sales Tax
04	Local Sales Tax
05	Municipal Sales Tax
06	Other Tax
10	Value Added Tax (VAT)
11	Goods and Services Tax (GST)
12	Provincial Sales Tax (PST)
13	Harmonized Sales Tax (HST)
14	Quebec Sales Tax (QST)
20	Room Tax
21	Occupancy Tax
22	Energy Tax

4.330 terminalId

The `terminalId` element is an optional child of the `pos` element and defines the identifier of the terminal used at the point of sale.

NOTE: The `terrminalId` element is required for MasterCard POS transactions.

Type = String; **minLength** = N/A; **maxLength** = 8 (No special characters allowed.)

Parent Elements:

pos

Attributes:

None

Child Elements:

None

4.331 termsAndConditions

The `termsAndConditions` element is an optional child of the `billMeLaterRequest` element and defines the specific lending terms of the PayPal Credit account.

NOTE: **The PayPal Credit documentation requires you use code 12103 for Call Center purchases and code 32103 for Web purchases.**

Please refer to your PayPal Credit documentation for additional information.

Type = Integer; **totalDigits** = 5

Parent Elements:

billMeLaterRequest

Attributes:

None

Child Elements:

None

4.332 threatMetrixSessionId

The `threatMetrixSessionId` element is a required child of the `advancedFraudChecks` element.

Type = String; **Allowed Characters** = a-z, A-Z, 0-9, -, _ ; **minLength** = 1; **maxLength** = 128

NOTE: **While generated by you at the time the consumer accesses your page, each `threatMetrixSessionId` must include a 5-character prefix, supplied by your Implementation Consultant, followed by a dash ("-"). The remainder of the Id must be unique for each instance of the customer accessing your page.**

Parent Elements:

advancedFraudChecks

Attributes:

None

Child Elements:

None

4.333 token

The `token` element has two uses depending upon whether the element concerns a Vantiv generated token (for tokenized merchants) or a PayPal generated token.

4.333.1 token (Vantiv generated card number replacement)

In this case, the `token` element replaces the `card` element in tokenized card transactions or the `echeck` element in eCheck transactions, and defines the tokenized payment card/account information.

Parent Elements:

authorization, captureGivenAuth, credit, forceCapture, sale, accountUpdate, updateSubscription

Attributes:

None

Child Elements:

Required: litleToken

Optional: expDate, cardValidationNum, routingNum, accType

4.333.2 token (PayPal generated)

In this case, the `token` element is the token generated by PayPal.

Type = String; **minLength** = N/A; **maxLength** = N/A

Parent Elements:

paypal

Attributes:

None

Child Elements:

None

4.334 tokenMessage

The `tokenMessage` element provides a short, human-readable explanation of the `tokenResponseCode` (see Table 4-3).

Type = String; **minLength** = N/A; **maxLength** = N/A

Parent Elements:

tokenResponse

Attributes:

None

Child Elements:

None

4.335 tokenResponse

The `tokenResponse` element is the parent element for several children defining the registered token, as well the either card type and BIN, or last three characters of the account number in the case of eChecks. This element appears in the response only if a tokenized merchant submits card or eCheck account information in the transaction request.

Parent Elements:

authorizationResponse, captureGivenAuthResponse, creditResponse, echeckCreditResponse, echeckRedepositResponse, echeckSalesResponse, echeckVerificationResponse, forceCaptureResponse, saleResponse, updateSubscriptionResponse

Attributes:

None

Child Elements:

Required: tokenResponseCode, tokenMessage

Optional: litleToken, type, bin, eCheckAccountSuffix

Example: tokenResponse Structure

```
<tokenResponse>
  <litleToken>Token</litleToken>
  <tokenResponseCode>Response Code</tokenResponseCode>
  <tokenMessage>Response Message</tokenMessage>
  <type>Method of Payment</type>
  <bin>BIN</bin>
  <eCheckAccountSuffix>Last 3 of Account Number</eCheckAccountSuffix> (returned
for eCheck account tokens)
</tokenResponse>
```

4.336 tokenResponseCode

The `tokenResponseCode` element provides a 3-digit code (see Table 4-3) indicating the results of a transaction involving the conversion or attempted conversion of an account number to a token. The `tokenMessage` element contains a short, human-readable explanation of the `tokenResponseCode`.

Type = String; **minLength** = N/A; **maxLength** = 3

Parent Elements:

tokenResponse

Attributes:

None

Child Elements:

None

TABLE 4-3 tokenResponseCode and tokenMessage Values

Code	Message
801	Account number was successfully registered
802	Account number was previously registered
820	Credit card number was invalid
821	Merchant is not authorized for tokens
822	Token was not found
823	Token was Invalid
898	Generic token registration error
899	Generic token use error

4.337 totalHealthcareAmount

The `totalHealthcateAmount` element is a required child of the `healthcareAmounts` element and defines the total amount of healthcare related purchases. This value must be the greater than or equal to the sum of the values applied to the following elements: `RxAmount`, `visionAmount`, `clinicOtherAmount`, and `dentalAmount`. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

Optional: healthcareAmounts

Attributes:

None

Child Elements:

None

4.338 track

The `track` element is child of the `card` element, which is required for card-present transactions. The contents of the `track` element is the data read from the magnetic stripe.

Type = String; **minLength** = 1; **maxLength** = 256

Parent Elements:

card

Attributes:

None

Child Elements:

None

4.339 track1Status

The `track1Status` element is a required child of the `mpos` element. This element indicates whether the device read track 1 from the magnetic stripe. A value of 0 indicates a successful read, while a value of 1 indicates a failure.

Type = Integer; **minInclusive** = 0; **maxInclusive** = 1028

Parent Elements:

mpos

Attributes:

None

Child Elements:

None

4.340 track2Status

The `track2Status` element is a required child of the `mpos` element. This element indicates whether the device read track 2 from the magnetic stripe. A value of 0 indicates a successful read, while a value of 1 indicates a failure.

Type = Integer; **minInclusive** = 0; **maxInclusive** = 1028

Parent Elements:

mpos

Attributes:

None

Child Elements:

None

4.341 transactionAmount

The `transactionAmount` element is an optional child of the `applepayResponse` element and specifies the amount of the transaction. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 12

Parent Elements:

applepayResponse

Attributes:

None

Child Elements:

None

4.342 transactionId

The `transactionId` element is used in two locations: in PayPal transactions, as a child of the `paypal` element and in Apple Pay transactions as a child of the `header` element.

4.342.1 transactionId as a Child of the paypal element

The `transactionId` element is a required child of the `paypal` element, specifying the transaction Id returned from PayPal.

NOTE: **The value of the <transactionId> element must match the TRANSACTIONID returned by the DoExpressCheckoutPayment call operation to PayPal.**

Type = String; **minLength** = N/A; **maxLength** = N/A

Parent Elements:

paypal

Attributes:

None

Child Elements:

None

4.342.2 transactionId as a Child of the header element

The `transctionId` element is a required child of the `header` element and provides the hexadecimal transaction identifier generated on the device for an Apple Pay transaction.

Type = Hex Encoded String; **minLength** = N/A; **maxLength** = 250

Parent Elements:

header

Attributes:

None

Child Elements:

None

4.343 trialIntervalType

The `trialIntervalType` element is an optional child of the `createPlan` element and defines the interval period of a trial associated with the Plan. The overall length of a trial period is defined by the `trialIntervalType` combined with the `trialNumberOfIntervals` element.

Type = String (enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

createPlan

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
MONTH	The trial interval one month.
DAY	The trial interval one day.

4.344 trialNumberOfIntervals

The `trialNumberOfIntervals` element is an optional child of the `createPlan` element and defines the number of trial intervals (`trialIntervalType`) associated with the Plan. The overall length of a trial period is defined by the `trialIntervalType` combined with the `trialNumberOfIntervals` element.

Type = Integer; **minLength** = 1; **maxLength** = 99

Parent Elements:

createPlan

Attributes:

None

Child Elements:

None

4.345 triggeredRule

The `triggeredRule` element is an optional child of the `advancedFraudResult` element. It can appear multiple times in the response, once for each triggered rule from the ThreatMetrix policy. A triggered rule is one where the threshold is exceeded.

Type = String; **minLength** = N/A; **maxLength** = 64

Parent Elements:

advancedFraudResults

Attributes:

None

Child Elements:

None

4.346 type

The `type` element has two uses in LitleXML depending upon the parent. In one case it defines the type of account used in the transaction in terms of association, company, PayPal Credit, PayPal, or eCheck. When used as a child of the `fundingSource` element, it defines the card type in terms of prepaid, credit, debit, FSA, or unknown.

4.346.1 type Element as a Child of the parent elements listed below

This `type` element defines the type of account used in the transaction in terms of card association, card company, PayPal Credit, PayPal, or eCheck.

Type = String (Enum); **minLength** = N/A; **maxLength** = 2

Parent Elements:

accountInformation, newCardInfo, newCardTokenInfo, originalCard, originalCardInfo, originalCardTokenInfo, originalToken, updatedCard, updatedToken, registerTokenResponse, tokenResponse, card, paypage

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
MC	MasterCard
VI	Visa
AX	American Express
DC	Diner's Club (see Table B-1)
DI	Discover
PP	PayPal
JC	JCB (Japanese Credit Bureau)
BL	PayPal Credit
EC	eCheck

Enumeration	Description
GC	Gift Card
“” (empty)	Card type unknown or undefined

4.346.2 type Element as a Child of fundingSource

This `type` element defines the card type in terms of prepaid, credit, debit, FSA, or unknown.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

fundingSource

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
UNKNOWN	The card type can not be determined.
PREPAID	This is a prepaid card.
CREDIT	This is a credit card.
DEBIT	This is a debit card.
FSA	This is a Flexible Spending Account card. Cards of this type can be used only for IRS-approved healthcare items.

NOTE: The `fundingSource` element and its child elements, `type` and `availableBalance` are associated with the Insights features (see Customer Insight Features on page 24.)

Please consult your Customer Experience Manager for additional information.

4.347 unitCost

The `unitCost` element is an optional child of the `lineItemData` element, which specifies the price of one unit of the item purchased. Although the schema defines it as an optional child of the `enhancedData` element, it is required by Visa for Level III interchange rates. The value must be greater than or equal to 0.

Type = Decimal; **minInclusive value** = 0, **totalDigits** = 12

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.348 unitOfMeasure

The `unitOfMeasure` element is an optional child of the `lineItemData` element, which specifies the unit of measure of the purchased item. For example, each, kit, pair, gallon, and month would all be valid values. Although an optional element, it is required by Visa and MasterCard when specifying line item data.

Type = String; **minLength** = 1; **maxLength** = 12

Parent Elements:

lineItemData

Attributes:

None

Child Elements:

None

4.349 unload

The `unload` element is the parent element for the transaction type that removes funds from a Gift Card.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

amount, orderSource, card

4.350 unloadResponse

The `unloadResponse` element is the parent element for information returned to you in response to an **`unload`** transaction. It can be a child of either a `litleOnlineResponse` element or a `batchResponse` element.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, fraudResult, giftCardResponse

4.351 unloadReversal

The `unloadReversal` element is the parent element for the transaction type that reverses the unloading of a Gift Card.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements: (all Required)

litleTxnId

4.352 unloadReversalResponse

The `unloadReversalResponse` element is the parent element for information returned to you in response to an `unloadReversal` transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the Authorization transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the Authorization transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, responseTime, message

Optional: postDate, giftCardResponse

4.353 updateAddOn

The `updateAddOn` element is the parent of several child elements used to modify an additional charge added to an existing subscription.

Parent Elements:

updateSubscription

Attributes:

None

Child Elements (all Required):

addOnCode, name, amount, startDate, endDate

Example: updateAddOn Structure

```
<updateAddOn>
  <addOnCode>Add On Reference Code</addOnCode>
  <name>Name of Add On</name>
  <amount>Amount of Add On</amount>
  <startDate>Start Date of Add On Charge</startDate>
  <endDate>End Date of Add On Charge</endDate>
</updateAddOn>
```

4.354 updatedCard

The `updatedCard` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the updated information for the submitted card.

Parent Elements:

accountUpdateResponse

Attributes:

None

Child Elements:

type, number, expDate

Example: updatedCard Structure

```
<updatedCard>
  <type>Card Type</type>
  <number>New Account Number</number>
  <expDate>New Expiration Date</expDate>
</updatedCard>
```

4.355 updateCardValidationNumOnToken

The `updateCardValidationNumOnToken` element is the parent element for the transaction type used to update a CVV2/CVC2/CID code stored temporarily on the platform. You should only use this transaction type if you had previously submitted the account number and security code in a `registerTokenRequest` transaction and now need to change the CVV2/CVC2/CID value.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleToken, cardValidationNum

Optional: orderId

4.356 updateCardValidationNumOnTokenResponse

The `updateCardValidationOnTokenResponse` element is the parent element for the response to `updateCardValidationNumOnToken` transactions.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the `updateCardValidationOnToken` transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the `updateCardValidationOnToken` transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the `updateCardValidationOnToken` transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, response, message, responseTime

4.357 updateDiscount

The `updateDiscount` element is the parent of several child elements used to define updates to a discount applied to an existing subscription.

Parent Elements:

updateSubscription

Attributes:

None

Child Elements (all Required):

discountCode, name, amount, startDate, endDate

Example: customerInfo Structure

```
<updateDiscount>
  <discountCode>Discount Reference Code</discountCode>
  <name>Name of Discount</name>
  <amount>Amount of Discount</amount>
  <startDate>Start Date of Discount</startDate>
  <endDate>End Date of Discount</endDate>
</updateDiscount>
```

4.358 updatePlan

The `updatePlan` element is the parent of the transaction used to activate/deactivate Plans associated with recurring payments. When you deactivate a Plan, you can no longer reference that Plan for use with subscriptions. Existing subscriptions making use of the deactivated Plan will continue to use the Plan until either modified or completed. You can also reactivate a deactivated Plan by updating the Plan and setting the `active` flag to true.

Parent Elements:

litleOnlineRequest, litleRequest

Attributes:

None

Child Elements:

planCode, active

Example: createPlan Structure

```
<updatePlan>
  <planCode>Plan Reference Code</planCode>
  <active>true or false</active>
</updatePlan>
```

4.359 updatePlanResponse

The `updatePlanResponse` element is the parent of the response message to the `updatePlan` transaction used to deactivate Plans associated with recurring payments.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

None

Child Elements:

litleTxnId, response, message, responseTime, planCode

Example: updatePlan Structure

```
<updatePlan>
  <litleTxnId>Transaction ID</litleTxnId>
  <response>Response Reason Code</response>
  <message>Response Message</message>
  <responseTime>Date and Time in GMT</responseTime>
  <planCode>Plan Reference Code</planCode>
</updatePlan>
```

4.360 updateSubscription

The `updateSubscription` element is the parent element for the transaction that updates the subscription information associated with a recurring payment. Using this transaction type you can change the plan, card, billing information, and/or billing date. You can also create, update, or delete a Discount and/or an Add On.

Parent Elements:

litleOnlineRequest, batchRequest

Attributes:

None

Child Elements:

Required: subscriptionId

Optional: planCode, billToAddress, (choice of) card, paypage, or token, billingDate, createDiscount, deleteDiscount, updateDiscount, createAddOn, updateAddOn, deleteAddOn

Example: updateSubscription - Change Plan

```
<updatedSubscription>
  <subscriptionId>Subscription Id</subscriptionId>
  <planCode>New Plan Code</planCode>
</updatedSubscription>
```

Example: updateSubscription - Change Card

```
<updatedSubscription>
  <subscriptionId>Subscription Id</subscriptionId>
  <card>
    <type>Card Type Abbreviation</type>
    <number>Account Number</number>
    <expDate>Expiration Date</expDate>
  </card>
</updatedSubscription>
```

Example: updateSubscription - Change Billing Date

```
<updatedSubscription>
  <subscriptionId>Subscription Id</subscriptionId>
```

```
    <billingDate>New Billing Date</billingDate>
  </updatedSubscription>
```

Example: updateSubscription - Change Billing Info

```
  <updatedSubscription>
    <subscriptionId>Subscription Id</subscriptionId>
    <billToAddress>
      <name>Customer's Full Name</name>
      <companyName>Company's Name</companyName>
      <addressLine1>Address Line 1</addressLine1>
      <addressLine2>Address Line 2</addressLine2>
      <addressLine3>Address Line 3</addressLine3>
      <city>City</city>
      <state>State Abbreviation</state>
      <zip>Postal Code</zip>
      <country>Country Code</country>
      <email>Email Address</email>
      <phone>Telephone Number</phone>
    </billToAddress>
  </updatedSubscription>
```

Example: updateSubscription - Create Discount

```
  <updatedSubscription>
    <subscriptionId>Subscription Id</subscriptionId>
    <createDiscount>
      <discountCode>Discount Reference Code</discountCode>
      <name>Name of Discount</name>
      <amount>Amount of Discount</amount>
      <startDate>Start Date of Discount</startDate>
      <endDate>End Date of Discount</endDate>
    </createDiscount>
  </updatedSubscription>
```

Example: updateSubscription - Create Add On

```
  <updatedSubscription>
    <subscriptionId>Subscription Id</subscriptionId>
    <createAddOn>
      <addOnCode>Add On Reference Code</addOnCode>
      <name>Name of Add On</name>
      <amount>Amount of Add On</amount>
      <startDate>Start Date of Add On Charge</startDate>
      <endDate>End Date of Add On Charge</endDate>
    </createAddOn>
  </updatedSubscription>
```

Example: updateSubscription - Update Discount

```
  <updatedSubscription>
    <subscriptionId>Subscription Id</subscriptionId>
    <updateDiscount>
      <discountCode>Discount Reference Code</discountCode>
      <name>Name of Discount</name>
      <amount>Amount of Discount</amount>
      <startDate>Start Date of Discount</startDate>
      <endDate>End Date of Discount</endDate>
    </updateDiscount>
  </updatedSubscription>
```

Example: updateSubscription - Update Add On

```
  <updatedSubscription>
    <subscriptionId>Subscription Id</subscriptionId>
    <updateAddOn>
      <addOnCode>Add On Reference Code</addOnCode>
      <name>Name of Add On</name>
      <amount>Amount of Add On</amount>
      <startDate>Start Date of Add On Charge</startDate>
      <endDate>End Date of Add On Charge</endDate>
    </updateAddOn>
  </updatedSubscription>
```

Example: updateSubscription - Delete Discount

```
  <updatedSubscription>
    <subscriptionId>Subscription Id</subscriptionId>
    <deleteDiscount>
      <discountCode>Discount Reference Code</discountCode>
    </deleteDiscount>
  </updatedSubscription>
```

Example: updateSubscription - Delete Add On

```
  <updatedSubscription>
    <subscriptionId>Subscription Id</subscriptionId>
    <deleteAddOn>
      <addOnCode>Add On Reference Code</addOnCode>
    </deleteAddOn>
  </updatedSubscription>
```

4.361 updateSubscriptionResponse

The `updateSubscriptionresponse` element is the parent element for the response to an `updateSubscription` transaction.

Parent Elements:

litleOnlineResponse, batchResponse

Attributes:

None

Child Elements:

subscriptionId, litleTxnId, response, message, responseTime, tokenResponse

4.362 updatedToken

The `updatedToken` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the updated information for the submitted token.

Parent Elements:

accountUpdateResponse

Attributes:

None

Child Elements:

type, number, expDate, bin

Example: originalCard Structure

```
<updatedToken>
  <litleToken>New Token Number</litleToken>
  <expDate>New Expiration Date</expDate>
  <type>Card Type</type>
  <bin>Card BIN</bin>
</updatedToken>
```

4.363 url

The `url` element is an optional child of the `customBilling` element. You use it to designate your customer service web site instead of providing a customer service phone number. This element may include any of the following characters: A-Z, a-z, 0-9, /, \, -, ., or _.

Type = String; **minLength** = N/A; **maxLength** = 13

NOTE: **Please consult your Customer Experience Manager prior to attempting to use the <`url`> element. This contents of this element are discarded unless you are specifically enabled to use in your LitleXML submissions.**

Parent Elements:

customBilling

Attributes:

None

Child Elements:

None

4.364 user

The `user` element is a required child of the `authentication` element. It is a unique identifier of the user/merchant used to authenticate that the message is from a valid source.

Type = String; **minLength** = N/A; **maxLength** = 20

Parent Elements:

authentication

Attributes:

None

Child Elements:

None

4.365 vendorCredit

The `vendorCredit` element is the parent element for the transaction type that a PayFac uses to move funds from the PayFac Settlement Account the Vendor Account.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: accountInfo, amount, fundingSubmerchantId, fundsTransferId, vendorName

4.366 vendorCreditResponse

The `vendorCreditResponse` element is the parent element for information returned to you in response to a `vendorCredit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the submerchantCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.367 vendorDebit

The `vendorDebit` element is the parent element for the transaction type that a PayFac uses to move funds from the Vendor Account to the PayFac Settlement Account.

Parent Elements:

batchRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	For PayFacs, this attribute does not segregate transactions in iQ. This field does appear in various SSR reports. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: accountInfo, amount, fundingSubmerchantId, fundsTransferId, vendorName

4.368 vendorDebitResponse

The `vendorDebitResponse` element is the parent element for information returned to you in response to a `vendorDebit` transaction.

Parent Elements:

batchResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the payFacCredit transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the submerchantCredit transaction. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId, fundsTransferId, response, responseTime, message

4.369 vendorName

The vendorName element is a required child of both the `vendorCredit` and `vendorDebit` elements and specifies the name of the vendor involved in the funding instructions.

Type = String; **minLength** = 1; **maxLength** = 256

Parent Elements:

vendorCredit, vendorDebit

Attributes:

None

Child Elements:

None

4.370 verificationCode

NOTE: This element is not used at this time.

The `verificationCode` element is an optional child of the `echeckSaleResponse` element. It specifies the verification code from the associated eCheck Sale transaction.

Type = String; **minLength** = N/A; **maxLength** = 6

Parent Elements:

echeckSalesResponse

Attributes:

None

Child Elements:

None

4.371 verify

The `verify` element is an optional child of the `echeckSale` element, which allows you to specify to perform an eCheck Verification prior to processing the sale. If the account fails the verification operation, the system does not process the sale.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

echeckSale

Attributes:

None

Child Elements:

None

4.372 version

The `version` element is a required child of the `applepay` element and provides version information about the payment token.

Type = String; **minLength** = 5; **maxLength** = 20

Parent Elements:

applepay

Attributes:

None

Child Elements:

None

4.373 visionAmount

The `visionAmount` element is an optional child of the `healthcareAmounts` element and defines the healthcare amount used for vision related purchases. The decimal is implied. Example: 500 = $5.00.

Type = Integer; **totalDigits** = 8

Parent Elements:

Optional: healthcareAmounts

Attributes:

None

Child Elements:

None

4.374 virtualAccountNumber

The `virtualAccountNumber` element is an optional child of the `enhancedAuthResponse` element and indicates if the card number used for the transaction corresponds to a virtual account number.

Type = Boolean; **Valid Values** = true or false

Parent Elements:

enhancedAuthResponse

Attributes:

None

Child Elements:

None

4.375 virtualAuthenticationKeyData

The `virtualAuthenticationKeyData` is an optional child of the `billMeLaterRequest` element.

Type = String; **minLength** = N/A; **maxLength** = 4

Parent Elements:

billMeLaterRequest

Attributes:

None

Child Elements:

None

4.376 virtualAuthenticationKeyPresenceIndicator

The `virtualAuthenticationKeyPresenceIndicator` is an optional child of the `billMeLaterRequest` element.

Type = String; **minLength** = N/A; **maxLength** = 1

Parent Elements:

batchRequest

Attributes:

None

Child Elements:

None

4.377 virtualGiftCard

The `virtualGiftCard` element is an optional child of the `activate` transaction. You include this element when you are requesting a Virtual Gift Card.

NOTE: **In an early iteration of schema V8.22 issued in September of 2013 the `accountNumberLength` and `giftCardBin` child elements were defined as optional. If you coded to the earlier version, be aware that these elements are now required children of `virtualGiftCard`. If you do not include these elements, the transaction will fail XML validation.**

Parent Elements:

activate

Attributes:

None

Child Elements (all required):

accountNumberLength, giftCardBin

Example: virtualGiftCard Structure

```
<virtualGiftCard>
  <accountNumberLength>Length of Virtual Card Number</accountNumberLength>
  <giftCardBin>Requested BIN of Virtual Gift Card</giftCardBin>
</virtualGiftCard>
```

4.378 virtualGiftCardResponse

The `virtualGiftCardResponse` element is an optional child of the `activateResponse` transaction. This element is returned when you request a Virtual Gift Card number via an `activate` transaction and through its children, defines the virtual gift Card number, as well as the Card Validation number.

Parent Elements:

activateResponse

Attributes:

None

Child Elements (all optional):

accountNumber, cardValidationNum

Example: virtualGiftCard Structure

```
<virtualGiftCardResponse>
  <accountNumber>Virtual Card Number</accountNumber>
  <cardValidationNum>Validation Number</cardValidationNum>
</virtualGiftCardResponse>
```

4.379 void

The `void` element is the parent element for all Void transactions. You can use this element only in Online transactions. If you use this Recycling Engine, you can use the `void` transaction to halt the recycling of a `sale` transaction.

Parent Elements:

litleOnlineRequest

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. **minLength** = N/A **maxLength** = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. Please refer to Coding for Report Groups on page 9 for additional information. **minLength** = 1 **maxLength** = 25

Child Elements:

Required: litleTxnId

Optional: processingInstructions

4.380 voidResponse

The `voidResponse` element is the parent element for information returned to you in response to a Void transaction.

Parent Elements:

litleOnlineResponse

Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	The response returns the same value submitted in the void transaction. **minLength** = N/A **maxLength** = 25
customerId	String	No	The response returns the same value submitted in the void transaction. **minLength** = N/A **maxLength** = 50
reportGroup	String	Yes	The response returns the same value submitted in the void transaction. **minLength** = 1 **maxLength** = 25

Child Elements: (Required)

litleTxnId, response, responseTime, message, postDate

Child Elements: (Optional)

recycling

4.381 wallet

The `wallet` element is an optional child of the of both the `authorization` and `sale` transactions. You must use this element along with its child elements, when the consumer used MasterPass or Visa Checkout to make a purchase.

Parent Elements:

authorization, sale

Attributes:

None

Child Elements:

walletSourceType, walletSourceTypeId

Example: wallet Structure

```
<wallet>
  <walletSourceType>MasterPass</walletSourceType>
  <walletSourceTypeId>MasterPass supplied Id</walletSourceTypeId>
</wallet>
```

4.382 walletSourceType

The `walletSourceType` element is a required child of the `wallet` element, which defines the source of the transaction information. You must submitted this element with the transaction when the consumer uses MasterPass or Visa Checkout.

Type = String (Enum); **minLength** = N/A; **maxLength** = N/A

Parent Elements:

wallet

Attributes:

None

Child Elements:

None

Enumerations:

Enumeration	Description
MasterPass	The origin of the information used in the transaction is from MasterPass.
VisaCheckout	The origin of the information used in the transaction is from Visa Checkout.

4.383 walletSourceTypeId

The `walletSourceTypeId` element is a required child of the `wallet` element. The value of this element is returned from either MasterPass or Visa Checkout along with the card information and must be submitted with the transaction when the consumer uses MasterPass or Visa Checkout.

Type = String; **minLength** = N/A; **maxLength** = N/A

Parent Elements:

wallet

Attributes:

None

Child Elements:

None

4.384 yearsAtEmployer

The `yearsAtEmployer` element is an optional child of the `customerInfo` element and defines the number of years the customer has worked for their current employer. It is used in combination with several other elements to provide required information for some PayPal Credit transactions.

Type = Integer; **totalDigits** = 2

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.385 yearsAtResidence

The `yearsAtResidence` element is an optional child of the `customerInfo` element and defines the number of years the customer has resided in their current domicile. It is used in combination with several other elements to provide required information for some PayPal Credit transactions.

Type = Integer; **totalDigits** = 2

Parent Elements:

customerInfo

Attributes:

None

Child Elements:

None

4.386 zip

The `zip` element defines the customer's postal code in both the `billToAddress` and `shipToAddress` elements.

Type = String; **minLength** = N/A; **maxLength** = 20

NOTE: **Although the schema specifies the maxLength of the `zip` element as 20 characters, in practice you should never exceed 10 characters in your submissions.**

If including the `zip` element for eCheck Verification, do not exceed 9 characters and do not use dashes.

Parent Elements:

billToAddress, shipToAddress

Attributes:

None

Child Elements:

None

A

PAYMENT TRANSACTION RESPONSE CODES

This appendix provides reference material regarding the codes that are returned in a LitleXML response for a payment transaction. This appendix contains the following sections:

A.1 Payment Transaction Response Codes

This section contains a list of codes and messages that the system can return in the response message for a payment transaction.

NOTE: **For information concerning Chargeback Response Code, see the *Chargeback XML and Support Documentation API Reference Guide*.**

Table A-1 shows all possible values for the `<response>` and `<message>` elements. You should code appropriately to handle all codes applicable to the transactions you use.

- The Response Code value appears in the <response> element.
- The Response Message value appears in the <message> element.

TABLE A-1 Valid Values for the Response and Message Elements

Response Code	Response Message	Response Type	Description
001	Transaction Received	Info	This is sent to acknowledge that the submitted transaction has been received.
000	Approved	Approved	No action required.
010	Partially Approved	Approved	The authorized amount is less than the requested amount.
100	Processing Network Unavailable	Soft Decline	There is a problem with the card network. Contact the network for more information.
101	Issuer Unavailable	Soft Decline	There is a problem with the issuer network. Please contact the issuing bank.
102	Re-submit Transaction	Soft Decline	There is a temporary problem with your submission. Please re-submit the transaction.
108	Try again later	Soft	Returned if the eProtect token is not immediately available, when submitting an Auth or Sale transaction.
110	Insufficient Funds	Soft Decline	The card does not have enough funds to cover the transaction.
111	**Authorization amount has already been depleted**	**Hard Decline**	**The total amount of the original Authorization has been used.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
120	Call Issuer	Referral or Soft Decline	There is an unspecified problem, contact the issuing bank.
121	Call AMEX	Referral	There is an unspecified problem; contact AMEX.
122	Call Diners Club	Referral	There is an unspecified problem; contact Diners Club.
123	Call Discover	Referral	There is an unspecified problem; contact Discover.
124	Call JBS	Referral	There is an unspecified problem; contact JBS.
125	Call Visa/MasterCard	Referral	There is an unspecified problem; contact Visa or MasterCard.
126	Call Issuer - Update Cardholder Data	Referral	Some data is out of date; contact the issuer to update this information.
127	**Exceeds Approval Amount Limit**	**Hard Decline**	**This transaction exceeds the daily approval limit for the card.**
130	Call Indicated Number	Referral	There is an unspecified problem; contact the phone number provided.
140	Update Cardholder Data	Referral	Cardholder data is incorrect; contact the issuing bank.
150	Original transaction found.	Info	A Query transaction response indicating that the original transaction was found.
151	Original transaction not found.	Info	A Query transaction response indicating that the original transaction was not found.
152	Original transaction found, but response not yet available.	Info	A Query transaction response indicating that the original transaction was found, but the final response information is not yet available.
153	Query transaction not enabled.	Info	A Query transaction response indicating that you are not enabled for use of the Query transaction.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
191	The merchant is not registered in the update program.	N/A	This is an Account Updater response indicating a set-up problem that must be resolved prior to submitting another request file. Escalate this to your Customer Experience Manager.
192	**Merchant not certified/enabled for IIAS**	**Hard Decline**	**Your organization is not certified or enabled for IIAS/FSA transactions.**
206	Issuer Generated Error	Soft Decline	An unspecified error was returned by the issuer. Please retry the transaction and if the problem persist, contact the issuing bank.
207	**Pickup card - Other than Lost/Stolen**	**Hard Decline**	**The issuer indicated that the gift card should be removed from use.**
209	**Invalid Amount**	**Hard Decline**	**The specified amount is invalid for this transaction.**
211	**Reversal Unsuccessful**	**Hard Decline**	**The reversal transaction was unsuccessful.**
212	**Missing Data**	**Hard Decline**	**Contact your Customer Experience Manager.**
213	**Pickup Card - Lost Card**	**Hard Decline**	**The submitted card was reported as lost and should be removed from use.**
214	**Pickup Card - Stolen Card**	**Hard Decline**	**The submitted card was reported as stolen and should be removed from use.**
215	**Restricted Card**	**Hard Decline**	**The specified Gift Card is not available for use.**
216	**Invalid Deactivate**	**Hard Decline**	**The Deactivate transaction is invalid for the specified card.**
217	**Card Already Active**	**Hard Decline**	**The submitted card is already active.**
218	**Card Not Active**	**Hard Decline**	**The submitted card has not been activated.**
219	**Card Already Deactivate**	**Hard Decline**	**The submitted card has already been deactivated.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
221	Over Max Balance	Hard Decline	The activate or load amount exceeds the maximum allowed for the specified gift Card.
222	Invalid Activate	Hard Decline	The activate transaction is not valid or can no longer be reversed.
223	No transaction Found for Reversal	Hard Decline	The transaction referenced in the reversal transaction does not exist.
226	Incorrect CVV	Hard Decline	The transaction was declined because it was submitted with the incorrect security code.
229	Illegal Transaction	Hard Decline	The transaction would violate the law.
251	Duplicate Transaction	Hard Decline	The transaction is a duplicate of a previously submitted transaction.
252	System Error	Hard Decline	Contact Customer Experience Manager.
253	Deconverted BIN	Hard Decline	The BIN is no longer valid.
254	Merchant Depleted	Hard Decline	No balance remains on gift Card.
255	Gift Card Escheated	Hard Decline	The Gift Card has been seized by the government while resolving an estate.
256	Invalid Reversal Type for Credit Card Transaction	Hard Decline	You attempted to use a Closed Loop Gift Card reversal transaction to reverse a credit card transaction. For example, you cannot use a Deposit Reversal transaction to reverse a Capture. To reverse a credit card Capture transaction, use a Credit transaction.
257	System Error (message format error)	Hard Decline	Issuer reported message format is incorrect. Contact Customer Experience Manager.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
258	**System Error (cannot process)**	**Hard Decline**	**Issuer reported transaction could not be processed. Contact Customer Experience Manager.**
301	**Invalid Account Number**	**Hard Decline**	**The account number is not valid; contact the cardholder to confirm information or inquire about another form of payment.**
302	**Account Number Does Not Match Payment Type**	**Hard Decline**	**The payment type was selected as one card type (e.g. Visa), but the card number indicates a different card type (e.g. MasterCard).**
303	**Pick Up Card**	**Hard Decline**	**This is a card present response, but in a card not present environment. Do not process the transaction and contact the issuing bank.**
304	**Lost/Stolen Card**	**Hard Decline**	**The card has been designated as lost or stolen; contact the issuing bank.**
305	**Expired Card**	**Hard Decline**	**The card is expired.**
306	**Authorization has expired; no need to reverse**	**Hard Decline**	**The original Authorization is no longer valid, because it has expired. You can not perform an Authorization Reversal for an expired Authorization.**
307	**Restricted Card**	**Hard Decline**	**The card has a restriction preventing approval for this transaction. Please contact the issuing bank for a specific reason.** **You may also receive this code if the transaction was declined due to Prior Fraud Advice Filtering and you are using a schema version V8.10 or older.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
308	**Restricted Card - Chargeback**	**Hard Decline**	**This transaction is being declined due the operation of the Prior Chargeback Card Filtering Service or the card has a restriction preventing approval if there are any chargebacks against it.**
309	**Restricted Card - Prepaid Card Filtering Service**	**Hard Decline**	**This transaction is being declined due the operation of the Prepaid Card Filtering service.**
310	**Invalid track data**	**Hard Decline**	**The track data is not valid.**
311	**Deposit is already referenced by a chargeback**	**Hard Decline**	**The deposit is already referenced by a chargeback; therefore, a refund cannot be processed against the original transaction.**
312	**Restricted Card - International Card Filtering Service**	**Hard Decline**	**This transaction is being declined due the operation of the International Card Filtering Service.**
313	**International filtering for issuing card country <country>** (where <country> is the 3-character country code)	**Hard Decline**	**This is returned when the transaction involves a US based merchant processing Canadian transactions has a transaction that uses a US card.**
315	**Restricted Card - Auth Fraud Velocity Filtering Service**	**Hard Decline**	**This transaction is being declined due the operation of the Auth Fraud Velocity Filtering Service.**
316	**Automatic Refund Already Issued**	**Hard Decline**	**This refund transaction is a duplicate for one already processed automatically by the Fraud Chargeback Prevention Service (FCPS).**
318	**Restricted Card - Auth Fraud Advice Filtering Service**	**Hard Decline**	**This transaction is being declined due the operation of the Auth Fraud Advice Filtering Service.**
319	**Restricted Card - Fraud AVS Filtering Service**	**Hard Decline**	**This transaction is being declined due the operation of the Auth Fraud AVS Filtering Service.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
320	**Invalid Expiration Date**	**Hard Decline**	**The expiration date is invalid**
321	**Invalid Merchant**	**Hard Decline**	**The card is not allowed to make purchases from this merchant (e.g. a Travel only card trying to purchase electronics).**
322	**Invalid Transaction** **Note:** If you are enabled for Transaction Filtering, but have not upgraded to use schema version 8.3 or above, the system returns this code for transactions filtered by the Prepaid or International Card Filtering Service. If you are enabled for Velocity Fraud Filtering, but have not upgraded to V8.9, you will receive this code for filtered transactions. If you are enabled for AVS Fraud Filtering, but have not upgraded to V8.13, you will receive this code for filtered transactions.	**Hard Decline**	**The transaction is not permitted; contact the issuing bank.**
323	**No such issuer**	**Hard Decline**	**The card number references an issuer that does not exist. Do not process the transaction.**
324	**Invalid Pin**	**Hard Decline**	**The PIN provided is invalid.**
325	**Transaction not allowed at terminal**	**Hard Decline**	**The transaction is not permitted; contact the issuing bank.**
326	**Exceeds number of PIN entries**	**Hard Decline**	**(Referring to a debit card) The incorrect PIN has been entered excessively and the card is locked.**
327	**Cardholder transaction not permitted**	**Hard Decline**	**Merchant does not allow that card type or specific transaction.**
328	**Cardholder requested that recurring or installment payment be stopped**	**Hard Decline**	**Recurring/Installment Payments no longer accepted by the card issuing bank.**
330	**Invalid Payment Type**	**Hard Decline**	**This payment type is not accepted by the issuer.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
331	Invalid POS Capability for Cardholder Authorized Terminal Transaction	Hard Decline	For a Cardholder Authorized Terminal Transaction the POS capability must be set to magstripe.
332	Invalid POS Cardholder ID for Cardholder Authorized Terminal Transaction	Hard Decline	For a Cardholder Authorized Terminal Transaction the POS Cardholder ID must be set to nopin.
335	This method of payment does not support authorization reversals	Hard Decline	You can not perform an Authorization Reversal transaction for this payment type.
336	Reversal amount does not match Authorization amount.	Hard Decline	For a merchant initiated reversal against an American Express authorization, the reversal amount must match the authorization amount exactly.
340	Invalid Amount	Hard Decline	The transaction amount is invalid (too high or too low). For example, less than 0 for an authorization, or less than .01 for other payment types.
341	Invalid Healthcare Amounts	Hard Decline	The amount submitted with this FSA/Healthcare transaction is invalid. The FSA amount must be greater than 0, and cannot be greater than the transaction amount.
346	Invalid billing descriptor prefix	Hard Decline	The billing descriptor prefix submitted is not valid.
347	Invalid billing descriptor	Hard Decline	The billing descriptor is not valid because you are not authorized to send transactions with custom billing fields.
348	Invalid Report Group	Hard Decline	The Report Group specified in the transaction is invalid, because it is either not in the defined list of acceptable Report Groups or there is a mis-match between the Report Group and the defined Billing Descriptor.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
349	Do Not Honor	Soft Decline	The issuing bank has put a temporary hold on the card.
350	Generic Decline	Soft or **Hard Decline**	There is an unspecified problem; contact the issuing bank for more details. **Note**: This code can be a hard or soft decline, depending on the method of payment, and other variables.
351	Decline - Request Positive ID	Hard Decline	Card Present transaction that requires a picture ID match.
352	**Decline CVV2/CID Fail**	**Hard Decline**	**The CVV2/CID is invalid.**
354	**3-D Secure transaction not supported by merchant**	**Hard Decline**	**You are not certified to submit 3-D Secure transactions.**
356	Invalid purchase level III, the transaction contained bad or missing data	Soft Decline	Submitted Level III data is bad or missing.
357	**Missing healthcareIIAS tag for an FSA transaction**	**Hard Decline**	**The FSA Transactions submitted does not contain the** `<healtcareIIAS>` **data element.**
358	**Restricted by Litle due to security code mismatch.**	**Hard Decline**	**The transaction was declined due to the security code (CVV2, CID, etc) not matching.**
360	**No transaction found with specified litleTxnId**	**Hard Decline**	**There were no transactions found with the specified litleTxnId.**
361	**Authorization no longer available**	**Hard Decline**	**The authorization for this transaction is no longer available. Either the authorization has already been consumed by another capture, or the authorization has expired.**
362	**Transaction Not Voided - Already Settled**	**Hard Decline**	**This transaction cannot be voided; it has already been delivered.**
363	**Auto-void on refund**	**Hard Decline**	**This transaction (both capture and refund) has been voided.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
364	**Invalid Account Number - original or NOC updated eCheck account required**	**Hard Decline**	**The submitted account number is invalid. Confirm the original account number or check NOC for new account number.**
365	**Total credit amount exceeds capture amount**	**Hard Decline**	**The amount of the credit is greater than the capture, or the amount of this credit plus other credits already referencing this capture are greater than the capture amount.**
366	**Exceed the threshold for sending redeposits**	**Hard Decline**	**NACHA rules allow two redeposit attempts within 180 days of the settlement date of the initial deposit attempt. This threshold has been exceeded.**
367	**Deposit has not been returned for insufficient/non-sufficient funds**	**Hard Decline**	**NACHA rules only allow redeposit attempts against deposits returned for Insufficient or Uncollected Funds.**
368	Invalid check number	Soft Decline	The check number is invalid.
369	**Redeposit against invalid transaction type**	**Hard Decline**	**The redeposit attempted against an invalid transaction type.**
370	**Internal System Error - Call Litle**	**Hard Decline**	**There is a problem with the system. Contact support@litle.com.**
372	Soft Decline - Auto Recycling In Progress	Soft Decline	The transaction was intercepted because it is being auto recycled by the Recycling Engine.
373	**Hard Decline - Auto Recycling Complete**	**Hard Decline**	**The transaction was intercepted because auto recycling has completed with a final decline.**
375	**Merchant is not enabled for surcharging**	**Hard Decline**	**The submitted transaction contained a surcharge and the merchant is not enabled for surcharging.**
376	**This method of payment does not support surcharging**	**Hard Decline**	**The use of a surcharge is only allowed for Visa and MasterCard methods of payment.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
377	**Surcharge is not valid for debit or prepaid cards**	**Hard Decline**	**You cannot apply a surcharge to a transaction using a debit or prepaid card.**
378	**Surcharge cannot exceed 4% of the sale amount**	**Hard Decline**	**The surcharge in the submitted transaction exceeded 4% maximum allowed for a surcharge.**
380	**Secondary amount cannot exceed the sale amount**	**Hard Decline**	**The secondary amount exceeded the sale amount in the submitted transaction.**
381	**This method of payment does not support secondary amount**	**Hard Decline**	**The submitted method of payment does not allow the use of Convenience Fees.**
382	**Secondary amount cannot be less than zero**	**Hard Decline**	**The secondary amount must be a positive integer.**
383	**Partial transaction is not supported when including a secondary amount**	**Hard Decline**	**Transactions set to allow partial authorizations cannot include a secondary amount.**
384	**Secondary amount required on partial refund when used on deposit**	**Hard Decline**	**If the associated sale or capture transaction included a secondary amount, an associated partial refund must include a secondary amount.**
385	**Secondary amount not allowed on refund if not included on deposit**	**Hard Decline**	**If the associated sale or capture transaction did not included a secondary amount, you cannot include a secondary amount on an associated refund.**
401	**Invalid E-mail**	**Hard Decline**	**The e-mail address provided is not valid. Verify that it was entered correctly.**
469	**Invalid Recurring Request - See Recurring Response for Details**	**Hard Decline**	**The Recurring Request was invalid, which invalidated the transaction. The Response Code and Message in the Recurring Response contains additional information.**
470	Approved - Recurring Subscription Created	Approved	The recurring request was processed successfully.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
471	**Parent Transaction Declined - Recurring Subscription Not Created**	**Hard Decline**	**The original payment transaction was declined, so the recurring payments have not been scheduled.**
472	**Invalid Plan Code**	**Hard Decline**	**The plan specified in the recurring request was invalid.**
473	Scheduled Recurring Payment Processed	Approved	The scheduled recurring payment has been processed successfully.
475	**Invalid Subscription Id**	**Hard Decline**	**The referenced subscription Id does not exist.**
476	**Add On Code Already Exists**	**Hard Decline**	**The specified Add On code already exists.**
477	**Duplicate Add On Codes in Requests**	**Hard Decline**	**Multiple createAddOn requests submitted with the same Add On Code.**
478	**No Matching Add On Code for the Subscription**	**Hard Decline**	**The Add On code specified does not exist.**
480	**No Matching Discount Code for the Subscription**	**Hard Decline**	**The Discount Code supplied in the updateDiscount or deleteDiscount transaction does not exist.**
481	**Duplicate Discount Codes in Request**	**Hard Decline**	**Multiple createDiscount requests submitted with the same Discount Code.**
482	**Invalid Start Date**	**Hard Decline**	**The supplied Start Date is invalid.**
483	**Merchant Not Registered for Recurring Engine**	**Hard Decline**	**You are not registered for the use of the Recurring Engine.**
500	**The account number was changed**	**Hard Decline**	**An Account Updater response indicating the Account Number changed from the original number.**
501	**The account was closed**	**Hard Decline**	**An Account Updater response indicating the account was closed. Contact the cardholder directly for updated information.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
502	The expiration date was changed	N/A	An Account Updater response indicating the Expiration date for the card has changed.
503	The issuing bank does not participate in the update program	N/A	An Account Updater response indicating the issuing bank does not participate in the update program
504	Contact the cardholder for updated information	N/A	An Account Updater response indicating you should contact the cardholder directly for updated information.
505	No match found	N/A	An Account Updater response indicating no match was found in the updated information.
506	No changes found	N/A	An Account Updater response indicating there have been no changes to the account information.
521	Soft Decline - Card reader decryption service is not available	Soft Decline	The connection to the decryption service is currently unavailable. Please retry the transaction and/or contact your Customer Experience Manager.
523	Soft Decline - Decryption failed	Soft Decline	Our attempt to decrypt the card information failed. Please retry the transaction.
524	**Hard Decline - Input data is invalid.**	**Hard Decline**	**The submitted data is invalid.**
530	**Apple Pay Key Mismatch**	**Hard Decline**	**The submitted publicKeyHash element does not match any configured entries. Contact your Implementation Consultant.**
531	**Apple Pay Decryption Failed**	**Hard Decline**	**Vantiv was unable to decrypt the submitted information.**
550	**Restricted Device or IP - ThreatMetrix Fraud Score Below Threshold**	**Hard Decline**	**The transaction was declined because the resulting ThreatMetrix Fraud Score was below the acceptable threshold set in the merchant's policy.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
601	Soft Decline - Primary Funding Source Failed	Soft Decline	A PayPal response indicating the transaction failed due to an issue with primary funding source (e.g. expired Card, insufficient funds, etc.).
602	Soft Decline - Buyer has alternate funding source	Soft Decline	A PayPal response indicating the merchant may resubmit the transaction immediately, and the use of an alternate funding source will be attempted.
610	**Hard Decline - Invalid Billing Agreement Id**	**Hard Decline**	**A PayPal response indicating the Billing Agreement ID is invalid.**
611	**Hard Decline - Primary Funding Source Failed**	**Hard Decline**	**A PayPal response indicating the issuer is unavailable.**
612	**Hard Decline - Issue with Paypal Account**	**Hard Decline**	**A PayPal response indicating the transaction failed due to an issue with the buyer account.**
613	**Hard Decline - PayPal authorization ID missing**	**Hard Decline**	**A PayPal response indicating the need to correct the authorization ID before resubmitting.**
614	**Hard Decline - confirmed email address is not available**	**Hard Decline**	**A PayPal response indicating your account is configured to decline transactions without a confirmed address. request another payment method or contact support@litle.com to modify your account settings.**
615	**Hard Decline - PayPal buyer account denied**	**Hard Decline**	**A PayPal response indicating account unauthorized payment risk.**
616	**Hard Decline - PayPal buyer account restricted**	**Hard Decline**	**A PayPal response indicating PayPal is unable to process the payment. Buyer should contact PayPal with questions.**
617	**Hard Decline - PayPal order has been voided, expired, or completed**	**Hard Decline**	**A PayPal response indicating no further authorizations/captures can be processed against this order. A new order must be created.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
618	Hard Decline - issue with PayPal refund	Hard Decline	A PayPal response indicating one of these potential refund related issues: duplicate partial refund must be less than or equal to original or remaining amount, past time limit, not allowed for transaction type, consumer account locked/inactive, or complaint exists - only a full refund of total/remaining amount allowed. Contact support@litle.com for specific details.
619	Hard Decline - PayPal credentials issue	Hard Decline	A PayPal response indicating you do not have permissions to make this API call.
620	Hard Decline - PayPal authorization voided or expired	Hard Decline	A PayPal response indicating you cannot capture against this authorization. You need to perform a brand new authorization for the transaction.
621	Hard Decline - required PayPal parameter missing	Hard Decline	A PayPal response indicating missing parameters are required. Contact support@litle.com for specific details.
622	Hard Decline - PayPal transaction ID or auth ID is invalid	Hard Decline	A PayPal response indicating the need to check the validity of the authorization ID prior to reattempting the transaction.
623	Hard Decline - Exceeded maximum number of PayPal authorization attempts	Hard Decline	A PayPal response indicating you should capture against a previous authorization.
624	Hard Decline - Transaction amount exceeds merchant's PayPal account limit.	Hard Decline	A PayPal response indicating the transaction amount exceeds the merchant's account limit. Contact support@litle.com to modify your account settings.
625	Hard Decline - PayPal funding sources unavailable.	Hard Decline	A PayPal response indicating the buyer needs to add another funding sources to their account.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
626	**Hard Decline - issue with PayPal primary funding source.**	**Hard Decline**	**A PayPal response indicating there are issues with the buyer's primary funding source.**
627	**Hard Decline - PayPal profile does not allow this transaction type.**	**Hard Decline**	**Contact Customer Experience Manager to adjust your PayPal merchant profile preferences.**
628	**Internal System Error with PayPal - Contact Litle**	**Hard Decline**	**There is a problem with your username and password. Contact support@litle.com.**
629	**Hard Decline - Contact PayPal consumer for another payment method**	**Hard Decline**	**A PayPal response indicating you should contact the consumer for another payment method.**
637	**Invalid terminal Id**	**Hard Decline**	**The terminal Id submitted with the POS transaction is invalid.**
701	**Under 18 years old**	**Hard Decline**	**A PayPal Credit response indicating the customer is under 18 years of age based upon the date of birth.**
702	**Bill to outside USA**	**Hard Decline**	**A PayPal Credit response indicating the billing address is outside the United States.**
703	**Bill to address is not equal to ship to address**	**Hard Decline**	**A PayPal Credit response indicating that the billing address does not match the shipping address.**
704	**Declined, foreign currency, must be USD**	**Hard Decline**	**A PayPal Credit response indicating the transaction is declined, because it is not in US dollars.**
705	**On negative file**	**Hard Decline**	**A PayPal Credit response indicating the account is on the negative file.**
706	**Blocked agreement**	**Hard Decline**	**A PayPal Credit response indicating a blocked agreement account status.**
707	Insufficient buying power	Other	A PayPal Credit response indicating that the account holder does not have sufficient credit available for the transaction amount.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
708	**Invalid Data**	**Hard Decline**	**A PayPal Credit response indicating that there are one or more problems with the submitted data.**
709	**Invalid Data - data elements missing**	**Hard Decline**	**A PayPal Credit response indicating one or more required data elements are missing.** **Also, returned for an eCheck transaction that is missing a required data element. For example, failure to include the `name` element in an `echeckSale` or `echeckCredit` transaction would result in this code being returned.**
710	**Invalid Data - data format error**	**Hard Decline**	**A PayPal Credit response indicating that some data was formatted incorrectly.**
711	**Invalid Data - Invalid T&C version**	**Hard Decline**	**A PayPal Credit response indicating the T&C version is invalid.**
712	**Duplicate transaction**	**Hard Decline-**	**A PayPal Credit response indicating that the transaction is a duplicate.**
713	**Verify billing address**	**Hard Decline**	**A PayPal Credit response indicating that you should verify the billing address.**
714	**Inactive Account**	**Hard Decline**	**A PayPal Credit response indicating the customer account is inactive.**
716	**Invalid Auth**	**Hard Decline**	**A PayPal Credit response indicating that the referenced authorization is invalid.**
717	**Authorization already exists for the order**	**Hard Decline**	**A PayPal Credit response indicating that an authorization already exists for the transaction.**
801	Account number was successfully registered	Approved	The card number was successfully registered and a token number was returned.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
802	Account number was previously registered	Approved	The card number was previously registered for tokenization.
805	Card Validation Number Updated	Approved	The stored value for CVV2/CVC2/CID has been successfully updated.
820	**Credit card number was invalid**	**Hard Decline**	**The card number submitted for tokenization is invalid.**
821	**Merchant is not authorized for tokens**	**Hard Decline**	**Your organization is not authorized to use tokens.**
822	**Token was not found**	**Hard Decline**	**The token number submitted with this transaction was not found.**
835	**Capture amount can not be more than authorized amount**	**Hard Decline**	**The amount in the submitted Capture exceeds 115% of the authorized amount.**
850	**Tax Billing only allowed for MCC 9311**	**Hard Decline**	**Tax Billing elements are allowed only for MCC 9311.**
851	**MCC 9311 requires taxType element**	**Hard Decline**	**Missing taxType element**
852	**Debt Repayment only allowed for VI transactions on MCCs 6012 and 6051**	**Hard Decline**	**You must be either MCC 6012 or 6051 to designate a Visa transaction as Debt Repayment (debtRepayment element set to true).**
877	**Invalid Pay Page Registration Id**	**Hard Decline**	**An eProtect response indicating that the Registration ID submitted is invalid.**
878	**Expired Pay Page Registration Id**	**Hard Decline**	**An eProtect response indicating that the Registration ID has expired (Registration IDs expire 24 hours after being issued).**
879	**Merchant is not authorized for Pay Page**	**Hard Decline**	**Your organization is not authorized to use eProtect.**
898	Generic token registration error	Soft Decline	There is an unspecified token registration error; contact your Customer Experience Manager
899	Generic token use error	Soft Decline	There is an unspecified token use error; contact Customer Experience Manager.

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
900	**Invalid Bank Routing Number**	**Hard Decline**	**The eCheck routing number submitted with this transaction has failed validation.**
950	**Decline - Negative Information on File**	**Hard Decline**	**An eCheck response indicating the account is on the negative file.**
951	**Absolute Decline**	**Hard Decline**	**An eCheck response indicating that this transaction was declined.**
952	**The Merchant Profile does not allow the requested operation**	**Hard Decline**	**An eCheck response indicating that your Merchant Profile does not allow the requested operation. Contact your Customer Experience Manager for additional information.**
953	**The account cannot accept ACH transactions**	**Hard Decline**	**An eCheck response indicating the customer's checking account does not accept ACH transactions.**
954	**The account cannot accept ACH transactions or site drafts**	**Hard Decline**	**An eCheck response indicating the customer's checking account does not accept ACH transactions or site drafts.**
955	**Amount greater than limit specified in the Merchant Profile**	**Hard Decline**	**An eCheck response indicating that the dollar amount of this transaction exceeds the maximum amount specified in your Merchant Profile. Contact your Customer Experience Manager for additional information.**
956	**Merchant is not authorized to perform eCheck Verification transactions**	**Hard Decline**	**An eCheck response indicating that your organization is not authorized to perform eCheck verifications. Contact your Customer Experience Manager for additional information.**
957	**First Name and Last Name required for eCheck Verifications**	**Hard Decline**	**An eCheck response indicating that the first and last name of the customer is required for eCheck verifications.**

TABLE A-1 Valid Values for the Response and Message Elements (Continued)

Response Code	Response Message	Response Type	Description
958	**Company Name required for corporate account for eCheck Verifications**	**Hard Decline**	**An eCheck response indicating that the company name is required for verifications on corporate accounts.**
959	**Phone number required for eCheck Verifications**	**Hard Decline**	**An eCheck response indicating that the phone number of the customer is required for eCheck verifications.**
961	**Card Brand token not supported**	**Hard Decline**	**This code is returned if the merchant submits a Visa generated token.**
962	**Private Label Card not supported**	**Hard Decline**	**This code is returned if the transaction involves a Visa Private Label card.**

A.2 3DS Authentication Result Codes

Table A-2 contains a list of valid authentication result codes returned by Visa for the Verified by Visa service or MasterCard for the MasterCard SecureCode service. It specifies what authentication result values apply to what order sources.

TABLE A-2 Authentication Result Codes

Authentication Result Code	**Description**
Order Source - Ecommerce	
Blank	Standard ecommerce or non-ecommerce transactions, not an authentication or attempted authentication. CAVV not present
Order Source - any	
B	CAVV passed verification, but no liability shift because a) ECI was not 5 or 6 or b) the card type is an excluded (e.g., Commercial Card)
Order Source - 3DSAuthenticated or 3DSAttempted	
0	CAVV data field not properly formatted; verification cannot be performed.
6	CAVV not verified because Issuer has requested no verification. VisaNet processes as if CAVV is valid.
Order Source - 3DSAuthenticated	
1	CAVV failed verification
2	CAVV passed verification
D	Issuer elected to return CAVV verification results and Field 44.13 blank. Value is set by VisaNet; means CAVV Results are valid.
Order Source - 3DSAttempted	
3	CAVV passed verification
4	CAVV failed verification
5	Not currently used
7	CAVV failed verification
8	CAVV passed verification
9	CAVV failed verification; Visa generated CAVV because Issuer ACS was not available.
A	CAVV passed verification; Visa generated CAVV because Issuer Access Control Server (ACS) was not available.

TABLE A-2 Authentication Result Codes (Continued)

Authentication Result Code	**Description**
B	CAVV passed verification but no liability shift because a) ECI was not 5 or 6 or b) the card type is an excluded (e.g., Commercial Card)
C	Issuer elected to return CAVV verification results and Field 44.13 blank. Value is set by VisaNet; means CAVV Results are valid

A.3 AVS Response Codes

Table A-3 contains a list of AVS response codes that can be returned in the response for a payment transaction. There are some codes that you may never receive. Code your system to expect codes from this list. The description is not included in the response.

TABLE A-3 AVS Response Codes

AVS Response Code	Description
00	5-Digit zip and address match
01	9-Digit zip and address match
02	Postal code and address match
10	5-Digit zip matches, address does not match
11	9-Digit zip matches, address does not match
12	Zip does not match, address matches
13	Postal code does not match, address matches
14	Postal code matches, address not verified
20	Neither zip nor address match
30	AVS service not supported by issuer
31	AVS system not available
32	Address unavailable
33	General error
34	AVS not performed
40	Address failed Litle & Co. edit checks

A.4 AAVS Response Codes

Table A-4 contains a list of American Express Advanced AVS response codes that can be returned as verification of information supplied in the `<name>`, `<phone>` and/or `<email>` child elements of the `<billToAddress>` element. The system returns the AAVS response code in the `<advancedAVSResult>` child of the `<fraudResult>` element.

The code returned has the following format:

- **1st position -** name match
- **2nd position -** phone match
- **3rd position -** email match
- Each position can have one of the following values:
  - **0 -** No Match (failure)
  - **1 -** Match
  - **2 -** Not Sent
  - **3 -** No Response (unchecked, retry, or service not allowed)

For example, a code of 210 would indicate that the name was not sent, the phone matches, and the email does not match.

You should code your system to parse all codes from this list. The description is not included in the response.

TABLE A-4 Advances AVS Response Codes

AAVS Response Code	Description
000	No Match
001	Email matches, name and phone do not match
002	Name and phone do not match, email not sent
003	Name and phone do not match, no response for email
010	Phone matches, name and email do not match
011	Phone and email match, name does not match
012	Phone matches, name does not match, email not sent
013	Phone matches, name does not match, no response for email
020	Name and email do not match, phone not sent

TABLE A-4 Advances AVS Response Codes

AAVS Response Code	Description
021	Email matches, name does not match, phone not sent
030	Name and email do not match, no response for phone
031	Email matches, name does not match, no response for phone
033	Name does not match, no response for phone or email
100	Name matches, phone and email do not match
101	Name and email match, phone does not match
102	Name matches, phone does not match, email not sent
103	Name matches, phone does not match, no response for email
110	Name and phone match, no match for email
111	Full match
112	Name and phone match, email not sent
113	Name and phone match, no response for email
120	Name matches, email does not match, phone not sent
121	Name and email match, phone not sent
130	Name matches, email does not match, no response for phone
131	Name and email match, no response for phone
133	Name matches, no response for phone or email
200	Name not sent, phone and email do not match
201	Email matches, phone does not match, name not sent
202	Phone does not match, name and email not sent
203	Phone does not match, name not sent, no response for email
210	Phone matches, email does not match, name not sent
211	Phone and email match, name not sent
212	Phone matches, name and email not sent
213	Phone matches, name not sent, no response for email
220	Email does not match, name and phone not sent

TABLE A-4 Advances AVS Response Codes

AAVS Response Code	Description
221	Email matches, name and phone not sent
230	Email does not match, name not sent, no response for phone
231	Email matches, name not sent, no response for phone
233	Name not sent, no response for phone and email
300	Phone and email do not match, no response for name
301	Email matches, phone does not match, no response for name
302	Phone does not match, no response for name, email not sent
303	Phone does not match, no response for name and email
310	Phone matches, email does not match, no response for name
311	Phone and email match, no response for name
312	Phone matches, email not sent, no response for name
313	Phone matches, no response for name and email
320	Email does not match, phone not sent, no response for name
321	Email matches, phone not sent, no response for name
330	Email does not match, no response for name and phone
331	Email matches, no response for name and phone
333	No response

A.5 Card Validation Response Codes

Table A-5 contains a normalized list of response codes that can be returned when requesting a card validation check.

- CVV2
- CVC2
- CID

The description is not included in the response.

NOTE: **For American Express transactions, if the submitted security code does not match, the transaction is declined with a Response Reason Code of 352 - Decline CVV2/CID Fail.**

TABLE A-5 Card Validation Response Codes

CVV2/CVC2/CID Response Code	Description
M	Match
N	No Match
P	Not Processed
S	CVV2/CVC2/CID should be on the card, but the merchant has indicated CVV2/CVC2/CID is not present
U	Issuer is not certified for CVV2/CVC2/CID processing
“” (empty response)	Check was not done for an unspecified reason

A.6 Advanced Fraud Tools Triggered Rules

This section provides definitions of the triggered rules returned in the Advanced Fraud Results (`advancedFraudResults` element) section of the response message (see Example below). ThreatMetrix uses the rules triggered by each advanced fraud check to determine the device reputation score, which in turn determines the final review status: Pass, Review, or Fail.

NOTE: **The rules/descriptions in this document reflect those used in the generic merchant policy. Depending upon the policy configured in your merchant profile, some rules may not apply to you, or additional rules, not defined here, may appear in your results.**

Example: `advancedFraudResults` Structure

```
<advancedFraudResults>
  <deviceReviewStatus>pass, fail, review, etc.</deviceReviewStatus>
  <deviceReputationScore>Score Returned from
ThreatMetrix</deviceReputationScore>
  <triggeredRule>Triggered Rule #1</triggeredRule>
  .
  .
  .
  <triggeredRule>Triggered Rule #N</triggeredRule>
</advancedFraudResults>
```

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
10PaymentsOnDeviceLocalDay	This device submitted 10 or more payments in the previous 24 hours. This is atypical and may be an indicator of misuse.
10PaymentsOnDeviceLocalHour	This device has submitted 10 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
10PaymentsOnFuzzyDeviceLocalDay	This device appears to have submitted 10 or more payments in the previous 24 hours. This is atypical and may be an indicator of misuse.
10PaymentsOnFuzzyDeviceLocalHour	This device appears to have submitted 10 or more payments in the previous hour. This is atypical and may be an indicator of misuse.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
10PaymentsOnTrueIPLocalDay	This True IP submitted 10 or more payments in the previous day. This is atypical and may be an indicator of misuse.
10PaymentsOnTrueIPLocalHour	This True IP submitted 10 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
10PaymentsWithEmailAddressLocalDay	This email address submitted 10 or more payments in the previous day. This is atypical and may be an indicator of misuse.
15PaymentsWithCustomerIDLocalDay	This customer ID submitted 15 or more payments in the previous day. This is atypical and may be an indicator of misuse.
15PaymentsWithPaymentCardLocalDay	This payment card submitted 15 or more payments in the previous day. This is atypical and may be an indicator of misuse.
100PaymentsOnDeviceLocalMonth	This device submitted 100 or more payments in the previous month. This is atypical and may be an indicator of misuse.
100PaymentsOnFuzzyDeviceLocalMonth	This device appears to have submitted 100 or more payments in the previous month. This is atypical and may be an indicator of misuse.
100PaymentsOnTrueIPLocalMonth	This True IP submitted 100 or more payments in the previous month. This is atypical and may be an indicator of misuse.
2ScreenResolutionsPerDeviceGlobalDay	This device used 2 or more screen resolutions in the past day. This is atypical and may indicate misuse.
20PaymentsOnDeviceLocalDay	This device submitted 20 or more payments in the previous 24 hours. This is atypical and may be an indicator of misuse.
20PaymentsOnFuzzyDeviceLocalDay	This device appears to have submitted 20 or more payments in the previous 24 hours. This is atypical and may be an indicator of misuse.
20PaymentsOnTrueIPLocalDay	This True IP submitted 20 or more payments in the previous day. This is atypical and may be an indicator of misuse.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
20PaymentsWithCustomerIDLocalWeek	This customer ID submitted 20 or more payments in the previous week. This is atypical and may be an indicator of misuse.
20PaymentsWithPaymentCardLocalWeek	This payment card submitted 20 or more payments in the previous week. This is atypical and may be an indicator of misuse.
3CustomerIDsPerDeviceLocalDay	This device submitted transactions using 3 or more distinct customer IDs in the previous 24 hours. This is abnormal and may be an indicator of a card-testing attack or free-trial abuse.
3CustomerIDsPerDeviceLocalWeek	This device submitted transactions using 3 or more distinct customer IDs in the previous 7 days. This is abnormal and may be an indicator of a card-testing attack or free-trial abuse.
3DevicesPerCustomerIDLocalDay	Three or more devices have been used to submit transactions with this customer ID in the previous 24 hours. This may be an indicator of misuse.
3DevicesPerCustomerIDLocalWeek	Three or more devices have been used to submit transactions with this customer ID in the previous 7 days. This may be an indicator of misuse.
3DevicesPerEmailGlobalDay	Three or more devices have been used to submit transactions with this email address in the previous 24 hours. This may be an indicator of misuse.
3DevicesPerEmailGlobalWeek	Three or more devices have been used to submit transactions with this email address in the previous 7 days. This may be an indicator of misuse.
3DevicesPerPaymentCardGlobalDay	Three or more devices have been used to submit transactions with this payment card in the previous 24 hours. This may be an indicator of misuse.
3DevicesPerPaymentCardGlobalWeek	Three or more devices have been used to submit transactions with this payment card in the previous 7 days. This may be an indicator of misuse.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
3EmailsPerDeviceGlobalDay	This device has submitted transactions using 3 or more distinct email addresses in the previous 24 hours. This is abnormal and may be an indicator of a card-testing attack or free-trial abuse.
3EmailsPerDeviceGlobalWeek	This device has submitted transactions using 3 or more distinct email addresses in the previous 7 days. This is abnormal and may be an indicator of a card-testing attack or free-trial abuse.
3EmailsPerFuzzyDeviceLocalHour	This device appears to have submitted transactions using 3 or more distinct email addresses in the previous 60 minutes. This is abnormal and may be an indicator of a card-testing attack or free-trial abuse.
3PaymentCardsPerDeviceGlobalDay	This device has submitted transactions using 3 or more distinct payment cards in the previous 24 hours. This is abnormal and may be an indicator of a card-testing attack or free-trial abuse.
3PaymentCardsPerDeviceGlobalWeek	This device has submitted transactions using 3 or more distinct payment cards in the previous 7 days. This is abnormal and may be an indicator of a card-testing attack or free-trial abuse.
3PaymentsOnDeviceLocalHour	This device has submitted 3 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
3PaymentsOnFuzzyDeviceLocalHour	This device appears to have submitted 3 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
3PaymentsOnTrueIPLocalHour	This True IP submitted 3 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
3ProxiesPerDeviceGlobalDay	This device submitted transactions through 3 or more distinct IP proxies in the previous 24 hours. This is atypical and may be an indicator of misuse.
4ScreenResolutionsPerDeviceGlobalDay	This device has used 4 or more screen resolutions in the past day. This is atypical and may indicate misuse.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
5PaymentsOnDeviceLocalDay	This device has submitted 5 or more payments in the previous 24 hours. This is atypical and may be an indicator of misuse.
5PaymentsOnDeviceLocalHour	This device has submitted 5 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
5PaymentsOnFuzzyDeviceLocalDay	This device appears to have submitted 5 or more payments in the previous 24 hours. This is atypical and may be an indicator of misuse.
5PaymentsOnFuzzyDeviceLocalHour	This device appears to have submitted 5 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
5PaymentsOnTrueIPLocalDay	This True IP has submitted 5 or more payments in the previous day. This is atypical and may be an indicator of misuse.
5PaymentsOnTrueIPLocalHour	This True IP submitted 5 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
5PaymentsWithCustomerIDLocalHour	This customer ID submitted 5 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
5PaymentsWithEmailAddressLocalHour	This email address has submitted 5 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
5PaymentsWithPaymentCardLocalHour	This payment card submitted 5 or more payments in the previous hour. This is atypical and may be an indicator of misuse.
50PaymentsOnDeviceLocalWeek	This device has submitted 50 or more payments in the previous week. This is atypical and may be an indicator of misuse.
50PaymentsOnFuzzyDeviceLocalWeek	This device appears to have submitted 50 or more payments in the previous week. This is atypical and may be an indicator of misuse.
50PaymentsOnTrueIPLocalMonth	This True IP has submitted 50 or more payments in the previous month. This is atypical and may be an indicator of misuse.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
20PaymentsWithCustomerIDLocalMonth	This customer ID submitted 20 or more payments in the previous month. This is atypical and may be an indicator of misuse.
20PaymentsWithPaymentCardLocalWeek	This payment card submitted 20 or more payments in the previous week. This is atypical and may be an indicator of misuse.
AnonymousProxy	This transaction was submitted through an anonymous web proxy, a method that is sometimes employed when trying to cloak one's identity.
AnonymousProxyIP	This transaction was submitted through an anonymous proxy IP Address, a method that is sometimes employed when trying to cloak one's identity.
BINCustomerAddressGeolocationMismatch	The customer's bill-to address country does not match that of the payment card's issuing bank. This may be an indicator of a fraud attack.
ComputerGeneratedEmail	This email address may have been automatically generated by a computer. Fraudsters frequently employ automated bots that create email addresses programmatically to enable their fraud attacks.
CookiesDisabled	The browser used to submit this transaction has disabled cookies. This is common to fraud attacks and may be an indicator of misuse.
CookiesJavascriptDisabled	The browser used to submit this transaction has disabled cookies and JavaScript. This is common to fraud attacks and may be an indicator of misuse.
CustomAttribute1OnLocalBlacklist	Custom attribute 1 for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
CustomAttribute1OnLocalWhitelist	Custom attribute 1 for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.
CustomAttribute2OnLocalBlacklist	Custom attribute 2 for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
CustomAttribute2OnLocalWhitelist	Custom attribute 2 for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
CustomAttribute3OnLocalBlacklist	Custom attribute 3 for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
CustomAttribute3OnLocalWhitelist	Custom attribute 3 for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.
CustomAttribute4OnLocalBlacklist	Custom attribute 4 for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
CustomAttribute4OnLocalWhitelist	Custom attribute 4 for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.
CustomAttribute5OnLocalBlacklist	Custom attribute 5 for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
CustomAttribute5OnLocalWhitelist	Custom attribute 5 for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.
CustomerIDOnLocalBlacklist	The customer ID for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
CustomerIDOnLocalWhitelist	The customer ID for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.
CustomerNameOnLocalBlacklist	The customer name for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
CustomerNameOnLocalWhitelist	The customer name for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.
DeviceCountriesNotAllowed	This transaction originated from an IP address located in a country on ThreatMetrix-hosted blacklist.
DeviceIDOnThreatMetrixGlobalBlacklist	The originating device is on the ThreatMetrix global blacklist.
DeviceGlobalAgeLessThanOneHour	The originating device was first seen across the entire ThreatMetrix global network within the past hour. This is uncommon and may point to a fraudster simulating a new device through advanced techniques in an attempt to avoid detection.
DeviceLocalAgeLessThanOneHour	The originating device was first seen by Vantiv within the past hour. This may point to a fraudster simulating a new device through advanced techniques in an attempt to avoid detection.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
DeviceNotFingerprinted	ThreatMetrix could not fingerprint the originating device. This is atypical and may indicate a deliberate attempt by the user to cloak his or her identity.
DeviceOnLocalBlacklist	The originating device is on ThreatMetrix-hosted blacklist.
DeviceOnLocalWhitelist	The originating device is on ThreatMetrix-hosted whitelist.
DeviceOnThreatMetrixGlobalBlacklist	The originating device is on the ThreatMetrix global blacklist.
DeviceRejectedByNetwork10Times	The originating device has been rejected by one of ThreatMetrix's customers and/or partners 10 or more times on the suspicion of fraud.
DeviceRejectedByNetwork25Times	The originating device has been rejected by one of ThreatMetrix's customers and/or partners 25 or more times on the suspicion of fraud.
DeviceRejectedByNetwork5Times	The originating device has been rejected by one of ThreatMetrix's customers and/or partners 5 or more times on the suspicion of fraud.
DeviceRejectedByNetworkInLastWeek	The originating device has been rejected by one of ThreatMetrix's customers and/or partners in the last week on the suspicion of fraud.
DeviceReviewedByNetwork5Times	The originating device has been reviewed by one of ThreatMetrix's customers and/or partners 5 or more times on the suspicion of fraud.
DeviceReviewedByNetwork10Times	The originating device has been reviewed by one of ThreatMetrix's customers and/or partners 10 or more times on the suspicion of fraud.
DeviceReviewedByNetwork25Times	The originating device has been reviewed by one of ThreatMetrix's customers and/or partners 25 or more times on the suspicion of fraud.
EmailDistanceTraveled	This email address has been associated with transactions originating from locations at least 1,000 miles apart in the last hour. This is a red flag and warrants caution.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
EmailHostnameTooLong	The hostname portion (i.e. to the right of "@") of this email address exceeds 30 characters. Email addresses associated with suspicious domain names are often used as part of attacks. Overly long hostnames are a common marker of such domains.
EmailHostnameWithNonLetters	The hostname portion (i.e. to the right of "@") of this email address contains non-letter characters (e.g. numbers and special characters). Email addresses associated with suspicious domain names are often used as part of attacks. Hostnames with non-letter characters are a common marker of such domains.
EmailOnLocalBlacklist	The customer email address for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
EmailOnLocalWhitelist	The customer email address for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.
EmailOnThreatMetrixGlobalBlacklist	This email address is on the ThreatMetrix global blacklist.
EmailRejectedByNetwork10TimesInLastDay	The associated email address has been rejected by one of ThreatMetrix's customers and/or partners 10 or more times in the last day on the suspicion of fraud.
EmailRejectedByNetworkInLastWeek	A transaction using this email address has been rejected by one of ThreatMetrix's customers and/or partners in the last week on the suspicion of fraud.
EmailUsernameTooLong	The name portion (i.e. to the left of "@") of this email address exceeds 30 characters. Email addresses associated with suspicious usernames are often used as part of attacks. Overly long usernames are a common marker of such domains.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
EmailUsernameWithNonLetters	The name portion (i.e. to the left of "@") of this email address contains non-letter characters (e.g. numbers and special characters). Email addresses associated with suspicious usernames are often used as part of attacks. Usernames with non-letter characters are a common marker of such domains.
ExcessivePaymentsOnDeviceHour	An abnormally high number of transactions have been submitted from this device in the last hour. This is a common indicator of fraudulent payment.
ExcessivePaymentsOnDeviceDay	An abnormally high number of transactions have been submitted from this device in the last 24 hours. This is a common indicator of fraudulent payment.
ExcessivePaymentsOnFuzzyDeviceHour	An abnormally high number of transactions appear to have been submitted from this device in the last hour. This is a common indicator of fraudulent payment.
ExcessivePaymentsOnFuzzyDeviceDay	An abnormally high number of transactions appear to have been submitted from this device in the last 24 hours. This is a common indicator of fraudulent payment.
FlashBrowserLanguageMismatch	The language used by the web browser used to submit this transaction does not match the language used by the Flash plug-in. This is atypical and may be an indicator of misuse.
FlashCook1esJavascriptDisabled	The browser used to submit this transaction has disabled Flash objects, cookies, and JavaScript. This is common to fraud attacks and may be an indicator of misuse.
FlashCookiesDisabled	The browser used to submit this transaction has disabled Flash objects and cookies. This is common to fraud attacks and may be an indicator of misuse.
FlashDisabled	The browser used to submit this transaction has disabled Flash objects. This is common to fraud attacks and may be an indicator of misuse.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
FlashImagesCookiesDisabled	The browser used to submit this transaction has disabled Flash objects, images, and cookies. This is common to fraud attacks and may be an indicator of misuse.
FlashImagesCookiesJavascriptDisabled	The browser used to submit this transaction has disabled Flash objects, images, cookies, and JavaScript. This is common to fraud attacks and may be an indicator of misuse.
FlashImagesDisabled	The browser used to submit this transaction has disabled Flash objects and images. This is common to fraud attacks and may be an indicator of misuse.
FlashImagesJavascriptDisabled	The browser used to submit this transaction has disabled Flash objects, images, and JavaScript. This is common to fraud attacks and may be an indicator of misuse.
FlashJavascriptDisabled	The browser used to submit this transaction has disabled Flash objects and JavaScript. This is common to fraud attacks and may be an indicator of misuse.
FuzzyDeviceLocalAgeLessThanOneHour	The originating device appears to have been seen by Vantiv for the first time within the past hour. This may point to a fraudster simulating a new device through advanced techniques in an attempt to avoid detection.
FuzzyDeviceOnLocalBlacklist	The originating device appears to be on Vantiv's ThreatMetrix-hosted blacklist.
FuzzyDeviceOnLocalWhitelist	The originating device appears to be on Vantiv's ThreatMetrix-hosted whitelist.
FuzzyDeviceOnThreatMetrixGlobalBlacklist	The originating device appears to be on the ThreatMetrix global blacklist.
FuzzyDeviceRejectedByNetworkInLastWeek	The originating device appears to have been rejected by one of ThreatMetrix's customers and/or partners in the last week on the suspicion of fraud.
GeolocationLanguageMismatch	The language detected from the originating web browser is not appropriate for the location. This is atypical and may be an indicator of misuse.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
HiddenProxy	This transaction was submitted through a hidden web proxy, a method that is sometimes employed when trying to cloak one's identity.
ImagesCookiesDisabled	The browser used to submit this transaction has disabled images and cookies. This is common to fraud attacks and may be an indicator of misuse.
ImagesCookiesJavascriptDisabled	The browser used to submit this transaction has disabled images, cookies, and JavaScript. This is common to fraud attacks and may be an indicator of misuse.
ImagesDisabled	The browser used to submit this transaction has disabled images. This is common to fraud attacks and may be an indicator of misuse.
ImagesJavascriptDisabled	The browser used to submit this transaction has disabled images and JavaScript. This is common to fraud attacks and may be an indicator of misuse.
IPHasNegativeReputation	The originating IP address is a potential threat based upon analysis of its activity across the ThreatMetrix network.
IPOnLocalBlacklist	The originating IP address is on ThreatMetrix-hosted blacklist.
IPOnLocalWhitelist	The originating IP address is on ThreatMetrix-hosted whitelist.
IPOnThreatMetrixGlobalBlacklist	The originating IP address is on the ThreatMetrix global blacklist.
IPRejectedByNetwork10Times	The originating IP address has been rejected by one of ThreatMetrix's customers and/or partners 10 or more times on the suspicion of fraud.
IPRejectedByNetwork25Times	The originating IP address has been rejected by one of ThreatMetrix's customers and/or partners 25 or more times on the suspicion of fraud.
IPRejectedByNetwork5Times	The originating IP address has been rejected by one of ThreatMetrix's customers and/or partners 5 or more times on the suspicion of fraud.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
JavascriptDisabled	The browser used to submit this transaction has disabled JavaScript. This is common to fraud attacks and may be an indicator of misuse.
KnownVPNISP	This transaction was submitted through a known Virtual Private Network (VPN), a method that is sometimes employed when trying to cloak one's identity.
MalwareDetectedOnDevice	The originating device appears have to been infected with malware.
OpenProxy	This transaction was submitted through an open web proxy, a method that is sometimes employed when trying to cloak one's identity.
PaymentCardBINShippingAddressGeolocationMismatch	The customer's ship-to address country does not match that of the payment card's issuing bank. This may be an indicator of a fraud attack.
PaymentCardBINTrueIPGeolocationMismatch	The geolocation of the True IP address does not match that of the payment card's issuing bank. This may be an indicator of a fraud attack.
PaymentCardDistanceTraveled	This payment card has been associated with transactions originating from locations at least 1,000 miles apart in the last hour. This is a red flag and warrants caution.
PaymentCardOnThreatMetrixGlobalBlacklist	This payment card is on the ThreatMetrix global blacklist.
PaymentCardRejectedByNetworkInLastWeek	A transaction using this payment card has been rejected by one of ThreatMetrix's customers and/or partners in the last week on the suspicion of fraud.
PhoneNumberOnLocalBlacklist	The customer telephone number for this transaction is on Vantiv's ThreatMetrix-hosted blacklist.
PhoneNumberOnLocalWhitelist	The customer telephone number for this transaction is on Vantiv's ThreatMetrix-hosted whitelist.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
PossibleCookieWipingDay	The user appears to have cleared his or her browser's cookies 3 or more times in the last day. This is common to fraud attacks and may be an indicator of misuse.
PossibleCookieWipingHour	The user appears to have cleared his or her browser's cookies 3 or more times in the last hour. This is common to fraud attacks and may be an indicator of misuse.
PossibleCookieWipingWeek	The user appears to have cleared his or her browser's cookies 3 or more times in the last week. This is common to fraud attacks and may be an indicator of misuse.
PossibleVPNOrTunnel	This transaction may have been submitted through a Virtual Private Network (VPN), a method that is sometimes employed when trying to cloak one's identity.
PossibleVPNConnection	This transaction may have been submitted through a Virtual Private Network (VPN), a method that is sometimes employed when trying to cloak one's identity.
PotentialVirtualMachine	This transaction may have been submitted using a Virtual Machine, a method that is sometimes employed when trying to cloak one's identity.
ProxyHasNegativeReputation	The originating IP proxy is a potential threat based upon an analysis of its activity across the ThreatMetrix network.
ProxyIPHasNegativeReputation	The originating IP address is a potential threat based upon analysis of its activity across the ThreatMetrix network.
ProxyIPOnLocalBlacklist	The originating proxy IP address is on Vantiv's ThreatMetrix-hosted blacklist.
ProxyIPOnLocalWhitelist	The originating proxy IP address is on Vantiv's ThreatMetrix-hosted whitelist.
ProxyIPOnThreatMetrixGlobalBlacklist	The originating proxy IP address is on the ThreatMetrix global blacklist.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
SatelliteISP	This transaction was submitted through a Satellite Internet Service Provider, a method that is sometimes employed when trying to cloak one's identity.
SatelliteProxyISP	This transaction was submitted through a Satellite Proxy Internet Service Provider, a method that is sometimes employed when trying to cloak one's identity.
SessionAnomaly	Characteristics of the originating device appear to have been modified during the course of the user's web session. This is atypical and may indicate misuse.
ShippingAddressTrueIPGeolocationMismatch	The shipping address country does not match that of the True IP address. This may be an indicator of a package redirection/interception/forwarding or re-shipping fraudster attack.
SuspectedSessionCloaking	The characteristics of the originating browser are consistent with common fraud attacks, and may be an indicator of a fraudster's deliberate attempt to cloak his or her identity.
SuspectedTORNetwork	This transactions appears to have originated from a TOR network, a common source of fraud attacks.
SystemStateAnomaly	The system state of the originating device has changed two or more times within the past hour. This is atypical and may indicate misuse.
TimeZoneTrueGeolocationMismatch	The time zone setting on the originating device does not match to the true geolocation of the customer. This is atypical and may be an indicator of misuse.
TransparentProxy	This transaction was submitted through a transparent web proxy, a method that is most often used in corporate environments, though also employed when trying to cloak one's identity.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	Description
TrueIPDNSGeolocationMismatch	The geolocation of the True IP address does not match that of the DNS provider. This may be an indicator of a fraudster's attempt to cloak his or her identity.
TrueIPHasNegativeReputation	The originating IP address is a potential threat based upon analysis of its activity across the ThreatMetrix network.
TrueIPOnLocalBlacklist	The originating true IP address is on Vantiv's ThreatMetrix-hosted blacklist.
TrueIPOnLocalWhitelist	The originating true IP address is on Vantiv's ThreatMetrix-hosted whitelist.
TrueIPOnThreatMetrixGlobalBlacklist	The originating true IP address is on the ThreatMetrix global blacklist.
TrueIPProxyIPCityMismatch	The city of the True IP address does not match that of the Proxy IP address. This may be an indicator of a fraudster's attempt to cloak his or her identity.
TrueIPProxyIPGeolocationMismatch	The geolocation of the True IP address does not match that of the Proxy IP address. This may be an indicator of a fraudster's attempt to cloak his or her identity.
TrueIPProxyIPISPMismatch	The Internet Service Provider of the True IP address does not match that of the Proxy IP address. This may be an indicator of a fraudster's attempt to cloak his or her identity.
TrueIPProxyIPOrganizationMismatch	The organization of the True IP address does not match that of the Proxy IP address. This may be an indicator of a fraudster's attempt to cloak his or her identity.
TrueIPProxyIPRegionMismatch	The region of the True IP address does not match that of the Proxy IP address. This may be an indicator of a fraudster's attempt to cloak his or her identity.
TrueIPRejectedByNetwork10TimesInLastDay	The originating IP address has been rejected by one of ThreatMetrix's customers and/or partners 10 or more times in the last day on the suspicion of fraud.

TABLE A-6 Triggered Rules Definitions

Triggered Rule Name	**Description**
TrueIPRejectedByNetworkInLastWeek	The originating true IP has been rejected by one of ThreatMetrix's customers and/or partners in the last week on the suspicion of fraud.
UnusualProxyAttributes	This web proxy used to submit the transaction has unusual attributes (e.g. dialup), which may indicate an attempt to cloak one's identity.

A.7 XML Validation Error Messages

Table A-7 provides examples of XML Validation Error Messages. These messages are the value associated with the `message` attribute of either a `litleResponse` or `litleOnlineResponse`, when the `response="1"` (the `response` attribute).

NOTE: **If `response="0"`, the associated `message="Valid Format"`.**

For information about response values 2 through 5, please refer to Additional Response Header Error Messages on page 772.

TABLE A-7 Response Header Error Message Examples

Example Message (message attribute of litleOnlineResponse)	Description (line numbers will vary according to the location of the error)
Error validating xml data against the schema on line 13. The length of the value is 3, but the required minimum is 4.	The value on line 13 does not meet the minimum length requirement for the element as specified in the schema. For example, if you specified 812 as a value for the `<expDate>` element, which has a minLength of 4, the system returns this error message.
Error validating xml data against the schema on line 18. The length of the value is 6, but the required maximum is 4.	The value on line 18 exceeds the maximum length requirement for the element as specified in the schema. For example, if you specified 082012 as a value for the `<expDate>` element, which has a maxLength of 4, the system returns this error message.
Error validating xml data against the schema on line 11. The value is not a member of the enumeration.	The value on line 11 is not a valid enumeration for the specified element. For example, The `<type>` element allows values of VI, MC, DI, AX, DC, JC, PP and BL. If you submitted a value of VISA, the system returns this error message.
Error validating xml data against the schema on line 8. Content of element &quot;amount&quot; is incomplete.	The `<amount>` element does not contains a valid value. For example, if you submitted a captureGivenAuth request and included the amount element without specifying a value, the system returns this error message.
Error validating xml data against the schema on line 6 tag name &quot;echeckSale&quot; is not allowed. Possible tag names are: &lt;authorization&gt;,&lt;capture&gt;,&lt;credit&gt;, &lt;sale&gt;,&lt;void&gt;	The submitted transaction failed validation against the schema, because an element name was out of sequence or not allowed in the transaction. The error message specifies the invalid element (`<echeckSale>` in the example), as well as the possible valid elements.

TABLE A-7 Response Header Error Message Examples (Continued)

Example Message (message attribute of litleOnlineResponse)	**Description (line numbers will vary according to the location of the error)**
System Error - Call Litle &amp; Co.	Typically, the system returns this error if there was a problem with authentication due to an error in the submitted Merchant Id, user, and/or password. The problem may also be due to the use of single quotes around the attribute (merchantId) value.
Error validating xml data against the schema on line 1. Probably namespace URI of tag &quot;litleOnlineRequest&quot; is wrong (correct one is &quot;http://www.litle.com/schema&quot;)	The URI named in the `xmlns=` attribute is incorrect. The problem may also be due to the use of single quotes around the attribute value. **Note:** The URI may differ based upon the version of LitleXML you are using.
Error validating xml data against the schema on line 12786. The entity name must immediately follow the'& amp;'in the entity reference.	The '&' symbol is used in XML to designate certain special characters. The error indicates that the symbol was submitted without an entity name (for example, &quot; or &amp;). Typically, the error occurs when the name or one of the address lines of the billToAddress element includes the symbol instead of the entity reference. For example, “John & Mary Smith” should be sent as “John &amp; Mary Smith” or “John and Mary Smith”).
Error validating xml data against the schema on line 1. Content is not allowed in prolog.	This error is usually an indication of extraneous characters appearing in front of the first XML element. For example, the “?” before the “<“symbol in the following line would cause this error to be returned: `?<?xml version="1.0" encoding="utf-8">`
Duplicate Batch (Litle ID: 28292109643, session sequence: 1, unique ID:) not processed - 29 duplicate transactions (57 total) in a row found. Duplicate Batch (Litle ID: 23829210964, session sequence: 1, unique ID:) not processed - 96.49% of the transactions (57 total) in the batch are duplicates.	(**Batch only**) The system has determined that the Batch is a duplicate and therefore not processed. The first part of the message provides the count of the greatest number of consecutive duplicate transaction in the batch (29 in the example). The second part of the message the overall percentage of duplicates in the batch (96.49% in the example). The limits are more than 10 consecutive duplicate transactions detected and/or more than 25% of all transaction in the batch detected as duplicates.

A.8 Additional Response Header Error Messages

When submitting transactions via Open Access, there are additional HTTP responses and validation errors that may occur. The table below provides information about these responses/error messages.

NOTE: **The response value and message in the table represent the values for the `response` and `message` attributes of either a `litleResponse` or `litleOnlineResponse`.**

TABLE A-8 HTTP Status Message and Validation Errors

response value	message	HTTP Status Code/Message	Description
2	Invalid XML. Contact support@litle.com.	200 OK	The submission is not valid XML containing the `user` and `password` elements.
3	Invalid credentials. Contact support@litle.com.	200 OK	The submission contains empty or invalid credentials (`user` and `password`).
4	Connection limit exceeded. Contact support@litle.com.	200 OK	The merchant has exceeded the maximum number of concurrent connections.
5	Objectionable content detected. Contact support@litle.com.	200 OK	The system has determined that the submission may contain objectionable content.
N/A	N/A	405 Method Not Allowed	Only HTTP POST method is allowed.
N/A	N/A	404 Not Found	An invalid URI was used. Verify the URI you are using is correct and that you have not appended any parameters to the URI.
N/A	N/A	417 Expectation Failed	An HTTP **Expect** header was included in the HTTP POST, which is not allowed.

A.9 ACH Return Reason Codes

Table A-9 is a list of ACH Return Reason Codes, which can apply to either eCheck transactions, or Dynamic Payout funding instructions. These codes are not returned in the LitleXML response messages, but are visible in iQ on the eCheck Returns Received report, as well as the Payment Detail screen and the Funding Instruction Detail screen.

NOTE: If an eCheck is returned for reason Code R01 or R09, it is eligible for redeposit.

TABLE A-9 eCheck Return Reason Codes

ACH Return Reason Code	Description
R01	Insufficient funds in account
R02	Account is closed
R03	No account on file
R04	Invalid account number
R05	Unauthorized debit to consumer account
R06	Returned at request of ODFI
R07	Authorization revoked by customer
R08	Payment stopped
R09	Insufficient collected funds in account being charged
R10	Customer advises not Authorized, notice not provided, improper source document, or amount of entry not accurately obtained from source document
R11	Check truncation return
R12	Account sold to another financial institution
R13	Invalid ACH routing number
R14	Representative payee is deceased or cannot continue in that capacity
R15	Beneficiary or account holder other than representative payee deceased
R16	Account funds have been frozen

TABLE A-9 eCheck Return Reason Codes

ACH Return Reason Code	Description
R17	Item returned because of invalid data; refer to addenda fro information
R18	Improper effective date
R19	Amount error
R20	Account does not allow ACH transactions or limit for transactions has been exceeded
R21	Invalid company identification
R22	Invalid individual ID
R23	Credit entry refused by receiver
R24	Duplicate entry
R25	Addenda record error
R26	Mandatory field error
R27	Trace number error
R28	Routing/transit number check digit error
R29	Corporate customer advised not authorized
R30	RDFI not participant in check truncation program
R31	Permissible return entry
R32	RDFI non-settlement
R33	Return of item
R34	Limited participation ODFI
R35	Return of improper debit entry
R36	Return of improper credit entry
R37	Source document presented for payment
R38	Stop payment on source document
R39	Improper source document
R40	Return of item by government agency
R41	Invalid Transaction Code
R42	Routing/transit number check digit error
R43	Invalid account number

TABLE A-9 eCheck Return Reason Codes

ACH Return Reason Code	Description
R44	Invalid individual ID
R45	Invalid individual name or company name
R46	Invalid representative payee indicator code
R47	Duplicate enrollment
R50	State law affecting RCK acceptance
R51	Item is ineligible, notice not provided, signature not genuine, or original item altered for adjustment entry
R52	Stop payment on item
R53	Item and ACH entry presented for payment
R61	Misrouted return - RDFI for original entry has placed incorrect routing/transit number in RDFI identification field
R67	Duplicate return
R68	Untimely return - return was not sent within the established timeframe
R69	Field errors
R70	Permissible return entry not accepted
R71	Misrouted dishonored return -incorrect routing/transit number in RDFI identification field
R72	Untimely return - dishonored return was not sent within the established timeframe
R73	Timely original return - RDFI certifies the original return entry was sent within established timeframe for original returns
R74	Corrected return - RDFI is correcting a previous return entry that was dishonored because it contained incomplete or incorrect information
R75	Original return not a duplicate
R76	No errors found
R80	Cross-border payment coding error
R81	Non-participant in cross-border program
R82	Invalid foreign RDFI identification
R83	Foreign RDFI unable to settle

TABLE A-9 eCheck Return Reason Codes

ACH Return Reason Code	Description
R84	Cross-border entry not processed by originating gateway operator
R94	Administrative return item was processed and resubmitted as a photocopy
R95	Administrative return item was processed and resubmitted as a MICR-Split
R97	Administrative return item was processed and resubmitted with corrected dollar amount
R98	Indicates a return PAC (pre-authorized check); RDFI provides a text reason and indicated a new account number on the PAC itself
R99	Indicates a return PAC (pre-authorized check); RDFI provides a text reason on the PAC itself for which there is no equivalent return reason code

A.10 ACH NoC Change Codes

Table A-10 is a list of ACH NOC Change Codes. These codes are included in the daily NOC report made available to you via sFTP.

TABLE A-10 eCheck NOC Change Codes

ACH NOC Change Code	Description
C01	Incorrect account number
C02	Incorrect routing/transit number
C03	Incorrect routing/transit number and incorrect account number
C04	Incorrect account name
C05	Incorrect transaction code
C06	Incorrect account number and transaction code
C07	Incorrect routing/transit number, account number and transaction code
C08	Incorrect foreign RDFI identification
C09	Incorrect individual ID
C13	Addenda format error
C61	Misrouted NOC
C62	Incorrect trace number
C63	Incorrect company ID
C64	Incorrect individual ID
C65	Incorrectly formatted correct data
C66	Incorrect discretionary data
C67	Routing/transit number not from original entry
C68	Account number not from original entry
C69	Incorrect transaction code
C96	Administrative return dishonor (dollar amount will be zero)
C99	Converted to MICR draft (check conversion items)

A.11 Canadian eCheck Return Codes

Table A-9 is a list of ACH Return Reason Codes, which can apply to either eCheck transactions, or Dynamic Payout funding instructions. These codes are not returned in the LitleXML response messages, but are visible in iQ on the eCheck Returns Received report, as well as the Payment Detail screen and the Funding Instruction Detail screen.

NOTE: **If an eCheck is returned for reason Code R901 or R908, it is eligible for redeposit.**

TABLE A-11 Canadian eCheck Return Reason Codes

Canadian eCheck Return Reason Code	Description
R901	NFS (Debit Only)
R902	Cannot Trace
R903	Payment Stopped/Recalled
R904	Post/Stale Dated
R905	Account Closed
R907	No Debit Allowed
R908	Funds Not Cleared
R909	Currency/Account Mismatch
R910	Payor/Payee Deceased
R911	Account Frozen
R912	Invalid/Incorrect Account Number
R914	Incorrect Payor/Payee Name
R915	PAD No Agreement Existed - Business/Personal
R916	PAD Not According to Agreement - Personal
R917	PAD Agreement Revoked - Personal
R918	PAD No Confirmation/Pre-Notification - Personal
R919	PAD Not According to Agreement - Business
R920	PAD Agreement Revoked - Business
R921	PAD No Confirmation/Pre-Notification - Business

TABLE A-11 Canadian eCheck Return Reason Codes

Canadian eCheck Return Reason Code	**Description**
R922	Customer Initiated Return - CREDIT only
R990	Institution in Default

B

CREDIT CARD NUMBER FORMATS

This appendix has two parts. The first provides basic information about card numbers, such as length, prefixes, and validation numbers. The second part provides information about the Luhn Mod-10 algorithm used to validate account numbers.

Credit Card Number Formats:

Table B-1 provides information on number formats for various credit card types.

CAUTION: **The data presented here is for informational proposes only and is subject to change by the Credit Card Associations/Companies. You should verify the information using additional sources prior to using it to create or alter any of your business systems, processes, or procedures.**

TABLE B-1 Card Number Formats

Card Type	Card Number Prefix/Range	Number Length	Card Validation Number Length	Comments
American Express	34 and 37	15 digits	4 digits	
Diners Club International	36	14 digits	3 digits	Account Numbers starting with 36 should be submitted as Discover.
Diners Club (US and Canada)	54 and 55	16 digits	3 digits	These are processed through the MasterCard network and must be submitted as MasterCard.

Card Type	Card Number Prefix/Range	Number Length	Card Validation Number Length	Comments
Discover	30000000-30599999 30950000-30959999 35280000-35899999 36 38 39 64 65 6011 62212600-62699999 62400000-62699999 62820000-62889999	14 digits or 16 digits	3 digits	
JCB	35 (except 352800-358999)	16 digits	3 digits	Account numbers 352800-358999 are processed through the Discover network
MasterCard	51-55	16 digits or 19 digits	3 digits	
Visa	4	16 digits or 19 digits	3 digits	

Luhn Mod-10 Algorithm for Card Number Validation:

The Luhn Mod-10 algorithm was invented in 1954 by IBM scientist Hans Peter Luhn and is a relatively simple formula used in numerous applications to validate identification numbers, including credit cards. The algorithm detects all single digit errors in an account number, as well as most transpositions of adjacent numbers.

Use the following method to determine if an account number is Mod-10 compliant:

1. Working from the right, double every other number. If the result of any doubling is a 2-digit number, treat them as individual digits for step 2. For example, 2 * 9 = 18, should be treated as a 1 and an 8.
2. Add all the numbers together, including those you did not double. Remember to treat any 2-digit numbers as individual numbers.

3. If the result of step 2 is a multiple of 10, the account number is Mod-10 compliant.

Example: Mod-10 Algorithm

For the account number 4005550000081019, the computations are shown in the table below.

4	0	0	5	5	5	0	0	0	0	0	8	1	0	1	9
x2		x2		x2		x2		x2		x2		x2		x2	
8	0	0	5	10	5	0	0	0	0	0	8	2	0	2	9
8+	0+	0+	5+	1+0+	5+	0+	0+	0+	0+	0+	8+	2+	0+	2+	9

The result is 40, which is a multiple of 10 and therefore compliant.

C

TEST CARD NUMBERS

The following table provides a list of credit card numbers you can use in our Certification environment to construct your own transactions beyond what is required for certification. These account numbers are extracted from the Certification tests of Chapter 2 and the transaction examples of Chapter 3. Never use these account numbers in the live, production environment.

IMPORTANT: **Per PCI DSS Requirements and Security Assessment Procedure, Section 6.4.3, "Production data (live PANs) are not used for testing or development."**

TABLE C-1 Test Card Numbers

Account Number	Card Type	CVV2/CID
4457010000000009	Visa	349
4457010100000008	Visa	992
4457010140000141	Visa	N/A
4457010200000247	Visa	N/A
4100200300011001	Visa	463
4100200300012009	Visa	N/A
4100200300013007	Visa	N/A
4100200310000002	Visa	N/A
4024720001231239	Visa	N/A
4457012400000001	Visa	N/A
4457013200000001	Visa	N/A
4457119922390123	Visa	N/A

TABLE C-1 Test Card Numbers

Account Number	Card Type	CVV2/CID
4457000300000007	Visa	N/A
4457000100000009	Visa	N/A
4457003100000003	Visa	N/A
4457000400000006	Visa	N/A
4457000200000008	Visa	N/A
4457000800000002	Visa	N/A
4457000900000001	Visa	N/A
4457001000000008	Visa	N/A
4005550000081019	Visa	N/A
4000000000000001	Visa	555
5112000100000003	MasterCard	N/A
5112002100000009	MasterCard	N/A
5112002200000008	MasterCard	N/A
5112000200000002	MasterCard	N/A
5112000300000001	MasterCard	N/A
5112000400000000	MasterCard	N/A
5112010400000009	MasterCard	N/A
5112000600000008	MasterCard	N/A
5112010000000003	MasterCard	261
5112010100000002	MasterCard	251
5112010140000004	MasterCard	N/A
5500000254444445	MasterCard	N/A
5592106621450897	MasterCard	N/A
5590409551104142	MasterCard	N/A
5587755665222179	MasterCard	N/A
5445840176552850	MasterCard	N/A
5390016478904678	MasterCard	N/A
5112010201000109	MasterCard	N/A
5112010202000108	MasterCard	N/A

TABLE C-1 Test Card Numbers

Account Number	Card Type	CVV2/CID
5194560012341234	MasterCard	N/A
5435101234510196	MasterCard	987
5112000900000005	MasterCard	N/A
6011010000000003	Discover	758
6011010100000002	Discover	184
6011010140000004	Discover	N/A
375000026600004	American Express	N/A
375001000000005	American Express	N/A
375001010000003	American Express	0421
375001014000009	American Express	N/A
341234567890127	American Express	N/A

D

PayFac™ Dynamic Payout

This appendix discusses the Vantiv Instruction-Based Dynamic Payout option provided for use by PayFacs (Payment Facilitators).

Topics covered in this document include:

Note: **Please also refer to the *PayFac Dynamic Payout FAQ* document, which contains answers to numerous topics including payout timing, split platform processing, report availability, and general process items.**

D.1 Advantages of Using Dynamic Payout

Dynamic Payout provides a closed-loop transaction life cycle from payment to payout by allowing you to control the distribution of funds using instructions defined by you. The Dynamic Payout funding solution has the following capabilities and benefits:

Charge sub-merchants what you want, when you want:

- Execute payouts for all card brands, including American Express, as early as the next day.
- Determine when to payout. Our solution works if you have a funding frequency (weekly, monthly) or a funding delay (float of 3 days).
- Calculate the fees to charge sub-merchants for rendering service. You can use a complex formula or a tiered billing structure.
- Charge fees at a transaction level, not just MID level.
- Maintain a reserve on your sub-merchants.
- Fund a sub-merchant that needs funds split across multiple bank accounts. You can fund multiple bank accounts per sub-merchant.

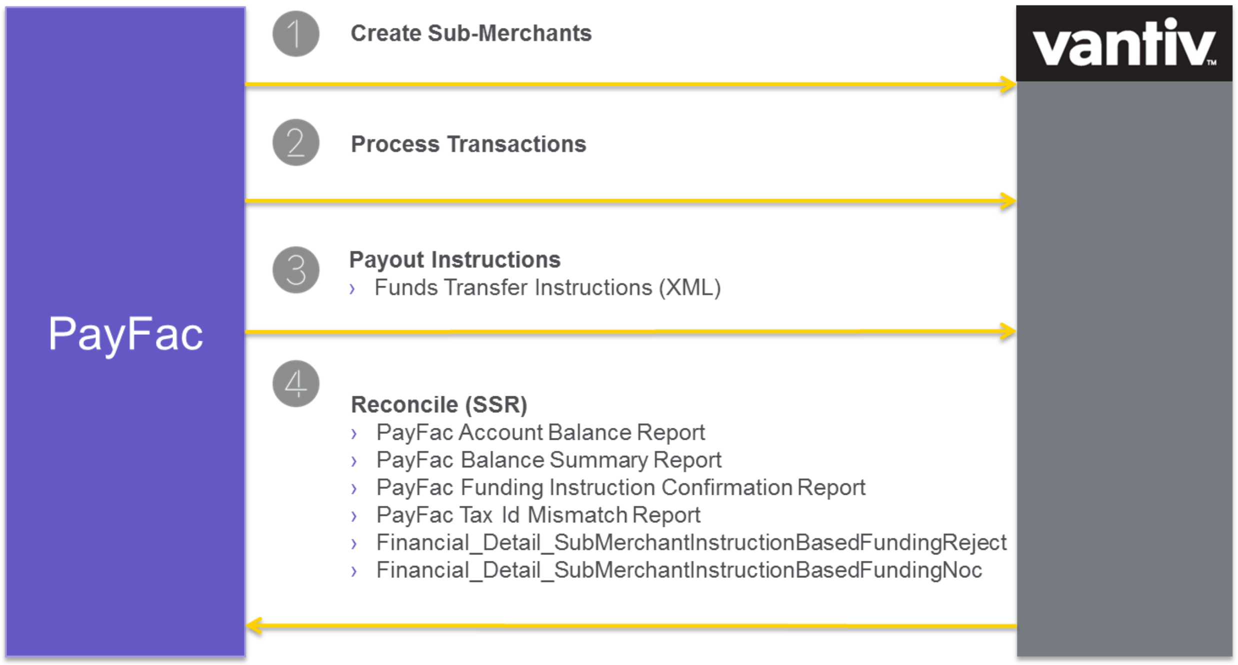
Dynamic Payout Benefits:

- Streamlines reconciliation
- Provides fast payment funding
- Improves customer service
- Reduces vendor count
- Supports full flexibility in payouts
- Scales with enterprise growth
- Minimizes cost associated with PCI by reducing scope

D.2 Overview of Dynamic Payout

Dynamic Payout is a method of distributing funds to your sub-merchants, physical check (writing) services, other third party vendors (in the payment flow), and yourself via the ACH network. With Dynamic Payout, you board sub-merchants and submit transactions normally. Funds from settled transactions accumulate in a FBO (For Benefit Of) account. You distribute the funds to your sub-merchants by submitting a Batch file containing Funds Transfer Instructions (see Example of Funding Instructions). You submit these instruction Batch files based upon your payout agreements with your sub-merchants (daily, weekly, monthly, etc.). Vantiv processes the instructions and moves the funds from the holding account to the sub-merchants. Funding can take place as early as the next day after settlement.

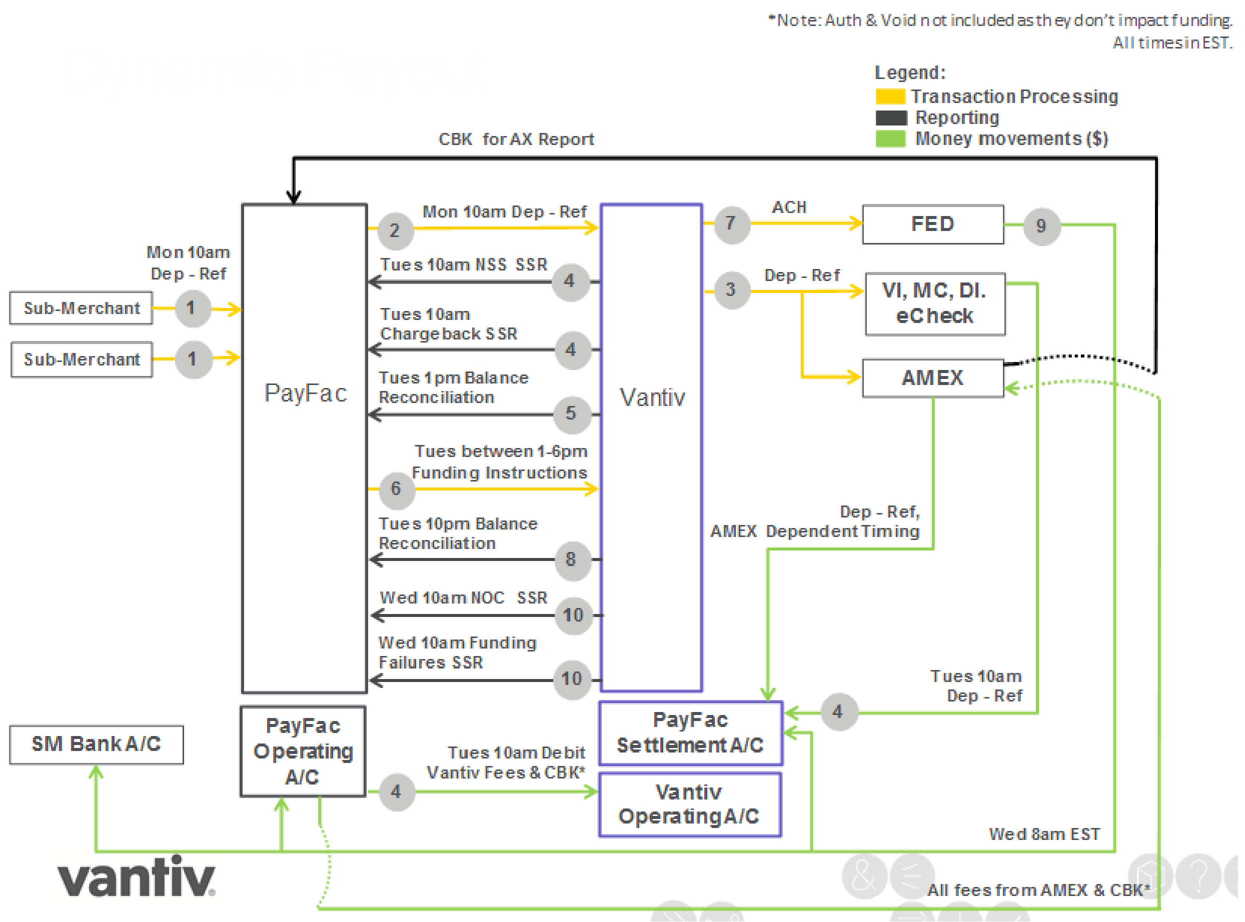
FIGURE D-1 Overview of Instruction-Based Funding


PayFac
vantiv
1 Create Sub-Merchants
2 Process Transactions
3 Payout Instructions
› Funds Transfer Instructions (XML)
4 Reconcile (SSR)
› PayFac Account Balance Report
› PayFac Balance Summary Report
› PayFac Funding Instruction Confirmation Report
› PayFac Tax Id Mismatch Report
› Financial_Detail_SubMerchantInstructionBasedFundingReject
› Financial_Detail_SubMerchantInstructionBasedFundingNoc

D.2.1 Timing of Transactions, Reports, and Money Movement

The diagram below illustrates the timing and flow of transactions, reports, and money movement. In the diagram, the process begins with the delivery of transactions on Monday morning from the Sub-merchants to the PayFac and completes on Wednesday morning with the final money movement.

FIGURE D-2 Transaction, Reports, and Money Movement



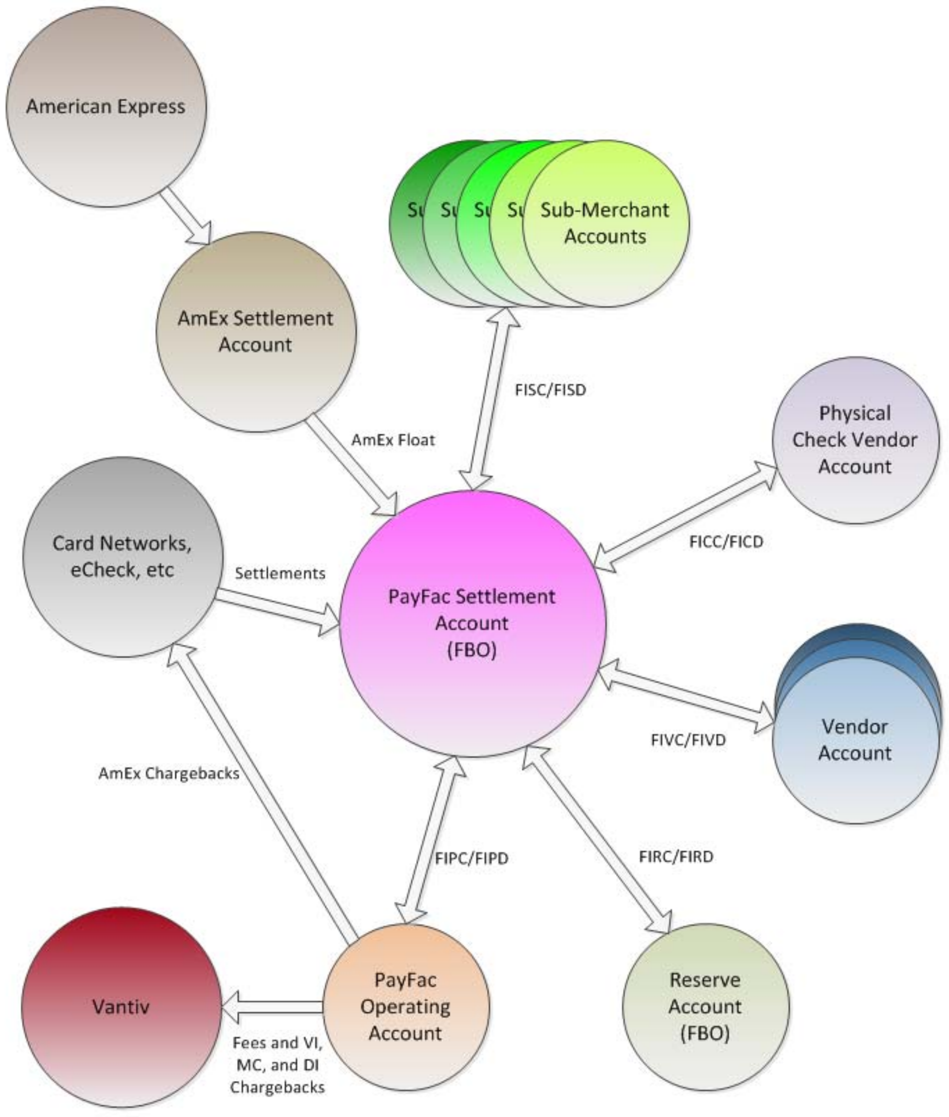
NOTE: **The money movement into the PayFac Settlement account from card and eCheck transactions is the Net Settled Sales (i.e., Deposits - Refunds). The funds debited from the PayFac Operating account is the total of Interchange + Chargebacks + Assessments + Vantiv Fees for PayFacs processing on the eComm platform or just Vantiv fees, if processing on the Vantiv Core platform.**

D.2.2 Money Movement and Accounts

Figure D-3 below illustrates the various possible accounts, as well as the funding instructions associated with moving the funds between the accounts.

IMPORTANT: **Vantiv performs a check on the net (deposits - refunds) money movement between accounts for each Batch of funding instructions. If there are insufficient funds in any account impacted by the funding instructions, Vantiv rejects the entire Batch without processing any instructions. The returned error message provides information about which account lacks the necessary funds.**

FIGURE D-3 Dynamic Payout Accounts



The LitleXML file shown in Example of Funding Instructions on page 795 provides examples of the transactions used for each type of money movement. The following transaction type are available for your use:

- **Funding Instruction PayFac Credit (FIPC) -** used to move funds from the PayFac Settlement account to the PayFac Operating account.
- **Funding Instruction PayFac Debit (FIPD) -** used to move funds from the PayFac Operating account to the PayFac Settlement account.
- **Funding Instruction Reserve Credit (FIRC) -** used to move funds from the PayFac Settlement account to the PayFac Reserve account.
- **Funding Instruction Reserve Debit (FIRD) -** used to move funds from the PayFac Reserve account to the PayFac Settlement account.
- **Funding Instruction Sub-merchant Debit (FISC) -** used to move funds from the PayFac Settlement account to the sub-merchant Operating account.
- **Funding Instruction Sub-merchant Debit (FISD) -** used to move funds from the sub-merchant Operating account to the PayFac Settlement account.
- **Funding Instruction Vendor Credit (FIVC) -** used to move funds from the PayFac Settlement account to the Vendor account.
- **Funding Instruction Vendor Debit (FIVD) -** used to move funds from the Vendor account to the PayFac Settlement account.
- **Funding Instruction Physical Check Credit (FICC) -** used to move funds from the PayFac Settlement account to the Physical Check account.
- **Funding Instruction Physical Check Debit (FICD) -** used to move funds from the Physical Check account to the PayFac Settlement.

D.2.2.1 Account Balance Verifications

Vantiv performs a front-end check on each Funding Instruction Batch, verifying the account balances are adequate to cover the net money movement from each account. If there are insufficient funds in any account impacted by the funding instructions, the entire Batch is rejected. The returned error message provides information about the account lacking funds.

For example, you submit a Batch of funding instructions that include a number of `reserveCredit` and `reserveDebit` transactions, such that the net funds movement (credits - debits) results in $200,000 being moved from the PayFac Reserve Account to the PayFac Settlement Account. However, the current balance in the Reserve account is only $175,000. The front-end checks detect this situation and reject the entire Batch with a reject message similar to:

```
<litleResponse version="9.0" xmlns="http://www.litle.com/schema" id="691"
response="1" message="Over Balance (Litle ID: 819812345678357001, session
sequence: 2, unique ID: null) not processed - The specified Funding Instructions
would result in a negative balance in your Reserve Account"
litleSessionId="810123456789357102">

</litleResponse>
```

D.3 Example of Funding Instructions

To use Instruction-Based Funding, you must code to LitleXML V9.0 or above. The example below shows a Batch containing the various funding instruction you can use. Do not mix other transaction types in a Batch containing funding instructions.

Example: LitleXML Funding Instructions

```
<litleRequest version="10.0" xmlns="http://www.litle.com/schema"
 numBatchRequests="1">
 <authentication>
  <user>username</user>
  <password>password</password>
 </authentication>
 <batchRequest merchantId="01601" numPayFacCredit="1"
 payFacCreditAmount="1000" numPayFacDebit="1" payFacDebitAmount="2000"
 numSubmerchantCredit="1" submerchantCreditAmount="3000"
 numSubmerchantDebit="1" submerchantDebitAmount="4000" numReserveCredit="1"
 reserveCreditAmount="5000" numReserveDebit="1" reserveDebitAmount="6000"
 numVendorCredit="1" vendorCreditAmount="7000" numVendorDebit="1"
 vendorDebitAmount="8000" numPhysicalCheckCredit="1"
 physicalCheckCreditAmount="9000" numPhysicalCheckDebit="1"
 physicalCheckDebitAmount="10000">
  <!-- Example of PayFac funding themselves. Funds move from the PayFac
 Settlement Account to the PayFac Operating Account. -->
  <payFacCredit reportGroup="CollectedFees">
<!-- ID of Submerchant associated with fee - NOT Payfac ID -->
   <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
<!-- Your internal tracking number for fund transfer -->
   <fundsTransferId>123e4567-e89b-12d3-a456-426655440000</fundsTransferId>
   <amount>1000</amount>
  </payFacCredit>
  <!-- Example of PayFac returning money to the settlement account. Funds
 move from the PayFac Operating Account to the PayFac Settlement Account.
 -->
  <payFacDebit reportGroup="MiscRefunds">
   <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
   <fundsTransferId>123e4567-e89b-12d3-a456-426655440001</fundsTransferId>
   <amount>2000</amount>
  </payFacDebit>
  <!-- Example of PayFac funding the Submerchant. Funds move from the
 PayFac Settlement Account to the Submerchant Account. -->
  <submerchantCredit reportGroup="SubMerchantPayment">
   <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
   <submerchantName>Some Merchant Inc.</submerchantName>
   <fundsTransferId>123e4567-e89b-12d3-a456-426655440002</fundsTransferId>
```

```
      <amount>3000</amount>
      <accountInfo>
        <accType>Checking</accType>
        <accNum>123456789012</accNum>
        <routingNum>114567895</routingNum>
      </accountInfo>
    </submerchantCredit>
    <!-- Example of PayFac debiting the Submerchant. Funds move from the
  Submerchant Account to the PayFac Settlement Account. -->
    <submerchantDebit reportGroup="SubMerchantRefund">
      <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
      <submerchantName>Some Merchant Inc.</submerchantName>
      <fundsTransferId>123e4567-e89b-12d3-a456-426655440003</fundsTransferId>
      <amount>4000</amount>
      <accountInfo>
        <accType>Checking</accType>
        <accNum>123456789012</accNum>
        <routingNum>114567895</routingNum>
      </accountInfo>
    </submerchantDebit>
    <!-- Example of PayFac adding money into reserves. Funds move from the
  PayFac Settlement Account to the Reserve Account. -->
    <reserveCredit reportGroup="Reserve">
      <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
      <fundsTransferId>123e4567-e89b-12d3-a456-426655440004</fundsTransferId>
      <amount>5000</amount>
    </reserveCredit>
    <!-- Example of PayFac getting money from Reserves. Funds move from the
  Reserve Account to the PayFac Settlement Account. -->
    <reserveDebit reportGroup="SubMerchantRefund">
      <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
      <fundsTransferId>123e4567-e89b-12d3-a456-426655440005</fundsTransferId>
      <amount>6000</amount>
    </reserveDebit>
<!-- Example of PayFac funding the vendor. Funds move from the PayFac
  Settlement Account to the Vendor Account. -->
    <vendorCredit reportGroup="vendorPayment">
      <fundingSubmerchantId>SomeVendor</fundingSubmerchantId>
      <vendorName>Some Vendor Inc.</vendorName>
      <fundsTransferId>123e4567-e89b-12d3-a456-426655440006</fundsTransferId>
      <amount>7000</amount>
      <accountInfo>
        <accType>Checking</accType>
        <accNum>123456789012</accNum>
        <routingNum>114567895</routingNum>
      </accountInfo>
    </vendorCredit>
<!-- Example of PayFac debiting the vendor account. Funds move from the
  Vendor Account to the Payfac Settlement Account. -->
    <vendorDebit reportGroup="vendorReturn">
      <fundingSubmerchantId>SomeVendor</fundingSubmerchantId>
      <vendorName>Some Vendor Inc.</vendorName>
      <fundsTransferId>123e4567-e89b-12d3-a456-426655440007</fundsTransferId>
      <amount>8000</amount>
        <accountInfo>
        <accType>Checking</accType>
        <accNum>123456789014</accNum>
        <routingNum>114567895</routingNum>
      </accountInfo>
    </vendorDebit>
<!-- Example of PayFac funding the Physical Check Account. Funds move from
  the PayFac Settlement Account to the Physical Check Account -->
    <physicalCheckCredit reportGroup="physicalCheck">
      <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
      <fundsTransferId>123e4567-e89b-12d3-a456-426655440008</fundsTransferId>
      <amount>9000</amount>
    </physicalCheckCredit>
<!-- Example of PayFac debiting the Physical Check account. Funds move from
  the Physical Check Account to the PayFac Settlement Account-->
    <physicalCheckDebit reportGroup="physicalCheckDebit">
      <fundingSubmerchantId>SomeSubMerchant</fundingSubmerchantId>
      <fundsTransferId>123e4567-e89b-12d3-a456-426655440009</fundsTransferId>
      <amount>10000</amount>
    </physicalCheckDebit>
  </batchRequest>
</litleRequest>
```

Example: Funding Instruction Response

```
  <payFacCreditResponse reportGroup="CollectedFees">
    <litleTnxId>82823972759879805</litleTxnId>
    <fundsTransferId>123e4567-e89b-12d3-a456-426655440000</fundsTransferId>
    <response>000</response>
    <responseTime>2014-01-09T20:28:32</responseTime>
    <message>Approved</message>
  </payFacCreditResponse>
```

D.3.1 Funding Instruction Void Transactions

You can use the Funding Instruction Void transaction type to void/remove a designated instruction from a submitted batch of instructions provided the following conditions are met:

- You must be coded to XML V10.1 or above.
- Submit the Funding Instruction Void transaction prior to your cutoff time.
- The funding instruction you wish to void must be in a Funding Instruction Batch submitted the same day as the void. This rule also applies to weekends.

Example: Funding Instruction Void Request

```
<litleRequest  version="10.1" xmlns="http://www.litle.com/schema"
 numBatchRequests = "1">
 <authentication>
   <user>userName</user>
   <password>password</password>
 </authentication>
 <batchRequest merchantId="PayFacMerch02" numFundingInstructionVoid="1">
   <fundingInstructionVoid reportGroup="void" id="1">
     <litleTxnId>1234</litleTxnId>
   </fundingInstructionVoid>
 </batchRequest>
</litleRequest>
```

Example: Funding Instruction Void Response

```
<litleResponse version="10.1" xmlns="http://www.litle.com/schema"
 response="0" message="Valid Format" litleSessionId="82828656962027535">
 <batchResponse litleBatchId="82828656962027543"
 merchantId="PayFacMerch02">
   <fundingInstructionVoidResponse id="1" reportGroup="void">
     <litleTxnId>82828656962109465</litleTxnId>
     <response>001</response>
     <responseTime>2015-11-02T15:51:54</responseTime>
     <message>Transaction Received</message>
   </fundingInstructionVoidResponse>
 </batchResponse>
</litleResponse>
```

D.4 Funding Instruction Certification Testing

In order to validate of your LitleXML structure for Instruction-Based transaction types, submit two Batches, one containing credit transaction and one containing debit transactions, using the data supplied in Table D-1.

NOTE: **All test transactions result in approved responses. They are intended only to allow you to verify that your XML messages will pass validation.**

Although the tests separate debit and credit transactions, there are no system requirements to do when constructing your Batches.

For required field without supplied data, submit any value valid for the element.

TABLE D-1 Funding Instruction Test Data

	Supplied Data Elements		Key Response Elements	
Transaction Type	**Element**	**Value**	**Element**	**Value**
First Batch Containing Credit Transactions:				
payFacCredit	<fundsTransferId> <amount>	00001 1000	<fundsTransferId> <response> <message>	00001 000 Approved
submerchantCredit	<fundsTransferId> <amount>	00003 3000	<fundsTransferId> <response> <message>	00003 000 Approved
reserveCredit	<fundsTransferId> <amount>	00005 5000	<fundsTransferId> <response> <message>	00005 000 Approved
vendorCredit	<fundsTransferId> <amount>	00007 7000	<fundsTransferId> <response> <message>	00007 000 Approved
physicalCheckCredit	<fundsTransferId> <amount>	00009 9000	<fundsTransferId> <response> <message>	00009 000 Approved
Second Batch Containing Debit Transactions:				

TABLE D-1 Funding Instruction Test Data

Transaction Type	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
payFacDebit	<fundsTransferId>	00002	<fundsTransferId>	00002
	<amount>	2000	<response>	000
			<message>	Approved
submerchantDebit	<fundsTransferId>	00004	<fundsTransferId>	00004
	<amount>	4000	<response>	000
			<message>	Approved
reserveDebit	<fundsTransferId>	00006	<fundsTransferId>	00006
	<amount>	6000	<response>	000
			<message>	Approved
vendorDebit	<fundsTransferId>	00008	<fundsTransferId>	00008
	<amount>	8000	<response>	000
			<message>	Approved
physicalCheckDebit	<fundsTransferId>	00010	<fundsTransferId>	00010
	<amount>	10000	<response>	000
			<message>	Approved

D.5 SSR Reports

You are required to receive the following Scheduled Secure Reports when using the Dynamic Payout feature:

- **Failed Fund Transfer Report -** contains data about failures to transfers funds to Sub-merchants accounts. The report is produced daily.
- **NoC Report -** contains NoC data detailing changes in Sub-merchants accounts discovered during funds transfer operations. The report is produced daily and removed after 24 hours.
- **Account Balance Report-** contains data about balances in various accounts used by this solution. The report is produced daily.
- **TIN Validation Report -** contains data about Legal Entity Tax Identification Numbers validation failures. The report is produced daily.
- **Funding Instruction Discrepancy Report -** provides data about each funding instruction, between 30 to 60 days old, that does not reconcile with submitted Funds In/Out reports.
- **Activity Discrepancy Report -** provides data reconciling the Finds In/Out report, settlement activity, and Net Sales per Source by activity day.
- **Funding Instruction ACH Summary Report -** provides counts of all funding instruction types, as well as counts of NOCs and fund transfer failures for the previous month
- **Funding Instruction Confirmation Report -** provides data about all settled funding instructions from the previous day.
- **Balance Summary Report -** provides a summary of the balance in the PayFac account for the previous day.

In addition to the required reports listed above, you can use the SSR to track transactional data, chargebacks, and to assist in reconciliation operations. Some of these reports are:

- **Net Settled Sales by Transaction Report -** includes all settled and conveyed transactions (deposits and refunds), including echeck transactions. The report can be scheduled based upon either Activity (post) or Settlement (funds transfer) day.
- **Session Report -** includes all transactions for a particular activity post day and allows reconciliation against submitted transactions.
- **Transaction Summary Report -** includes summarized deposits and refunds (both settled and conveyed) submitted by the merchant and broken down by purchase currency, reporting groups, and payment type for a particular activity post day.
- **Activity Report -** includes summarized financial data for transactions (deposits and refunds) based upon activity post date and broken down by Reporting Group and payment type.
- **Settlement Report -** includes summarized financial data for settled transactions (deposits and refunds) based upon settlement (funds transfer) date and broken down by Reporting Group and payment type.

- **Chargeback Financial Report -** includes detailed information about financial impacting chargeback activities for a given activity (post) or fund transfer (settlement) date.
- **Chargeback Status Report -** provides details of all chargeback activities for a designated activity (post day) date or date range in the case of a monthly report. This report is run daily or monthly.
- **Fee Report -** provides a detailed breakdown of all Vantiv and Passthrough (Interchange) fees associated with transactions for a given activity (post) or fund transfer (settlement) date.

NOTE: **For additional information about these and other reports, please refer to the latest version of the *Vantiv Scheduled Secure Reports Reference Guide*.**

D.6 Tax ID Validation Process

The Internal Revenue Service requires that “a payment settlement entity (PSE) must file Form 1099-K, *Payment Card and Third Party Network Transactions*, for payments made in settlement of reportable payment transactions for each calendar year.”

Vantiv issues 1099-Ks to e-commerce merchants, PayFacs, and sub-merchants who are enabled for Dynamic Payout. Prior to issuing 1099-Ks, it is the responsibility of the PayFac to provide and validate sub-merchant Tax ID information to ensure that the validation process performed by Vantiv through IRS.gov is successful.

If the Tax ID validation fails, it is indicated in the Legal Entity Background Check Results panel of the PayFac Portal. You can also view the **PayFac Tax Id Validation Report**, available through the Scheduled Secure Report (SSR) service, to determine if a Legal Entity Tax ID Validation has failed. This report only applies to legal entities that have a sub-merchant funded through our platform, and is produced daily.

You can re-submit the sub-merchant request when certain Tax ID validation errors occur using the **Edit** button at the top of the View Sub-merchant page of the PayFac Portal to edit and re-submit Tax ID information.

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