



**Secure XML API Integration Guide - Periodic and Triggered
add in**

Document Control

This is a control document

| | | | |
|----------------------|--|---------------------|------------|
| DESCRIPTION | Secure XML API Integration Guide - Periodic and Triggered add in | | |
| CREATION DATE | 15/05/2009 | CREATED BY | SecurePay |
| VERSION | 1.1 | DATE UPDATED | 12/01/2010 |

Table of Contents

| | | | | | |
|---|---|-------------------------------------|--|------------------------|----|
| 1 Introduction..... | 4 | 7.5 | Triggering a Triggered Payment..... | 31 | |
| 1.1 | About this Guide..... | 4 | 7.5.1 | Request | 31 |
| 1.2 | Intended Audience..... | 4 | 7.5.2 | Response | 31 |
| 2 System Overview..... | 5 | 8 Echo Message Elements..... | 33 | | |
| 3 SecurePeriodic Payments..... | 7 | 8.1 | Request Messages..... | 33 | |
| 3.1 | Periodic Requests..... | 7 | 8.2 | Response Messages..... | 33 |
| 3.2 | Authentication, Communication & Encryption..... | 7 | 8.3 | Echo URLs..... | 33 |
| 4 XML Message Format and Contents..... | 8 | 8.4 | Sample XML Messages..... | 33 | |
| 4.1 | XML Header..... | 8 | 8.4.1 | Echo | 33 |
| 4.2 | Element Definitions..... | 8 | 8.4.2 | Request | 33 |
| 4.2.1 | Element Codes | 8 | 9 XML Over HTTP..... | 35 | |
| 4.2.2 | Element Types and Constraints | 8 | 9.1 | Request..... | 35 |
| 4.3 | Sample XML Request and Response... | 9 | 9.2 | Response..... | 35 |
| 4.3.1 | Request | 9 | Appendix A: Periodic Types..... | 36 | |
| 4.3.2 | Respos | 10 | Appendix B: Calendar Payment Intervals..... | 37 | |
| 5 Common XML Message Elements..... | 11 | Appendix C: Card Types..... | 38 | | |
| 5.1 | Request Messages..... | 11 | Appendix D: Location of CVV..... | 39 | |
| 5.1.1 | MessageInfo Element | 11 | Appendix E: Timestamp String Format..... | 40 | |
| 5.1.2 | MerchantInfo Element | 11 | Appendix F: SecurePay Status Codes..... | 41 | |
| 5.1.3 | RequestType Element | 12 | Appendix G: XML Request DTD..... | 42 | |
| 5.1.4 | Periodic Element | 12 | Appendix H: XML Response DTD..... | 43 | |
| 5.2 | Response Messages..... | 18 | Appendix I: EBCDIC Character Set..... | 45 | |
| 5.2.1 | MessageInfo Element | 18 | | | |
| 5.2.2 | MerchantInfo Element | 18 | | | |
| 5.2.3 | RequestType Element | 19 | | | |
| 5.2.4 | Status Element | 19 | | | |
| 5.2.5 | Periodic Element | 19 | | | |
| 6 Payment URLs..... | 25 | | | | |
| 7 Sample XML Messages..... | 26 | | | | |
| 7.1 | Adding a Once Off Payment..... | 26 | | | |
| 7.1.1 | Request | 26 | | | |
| 7.1.2 | Response | 26 | | | |
| 7.2 | Adding a Periodic Payment..... | 27 | | | |
| 7.2.1 | Request | 27 | | | |
| 7.2.2 | Response | 28 | | | |
| 7.3 | Adding a Triggered Payment..... | 28 | | | |
| 7.3.1 | Request | 28 | | | |
| 7.3.2 | Response | 29 | | | |
| 7.4 | Deleting a Payment..... | 30 | | | |
| 7.4.1 | Request | 30 | | | |
| 7.4.2 | Response | 30 | | | |

1 Introduction

1.1 About this Guide

This guide provides technical information about integrating and configuring SecurePeriodic within your environment.

SecurePeriodic uses an Application Programming Interface as well as platform independent XML interface allowing developers to build their own products to utilise SecurePeriodic functionality.

SecurePeriodic uses XML request and response messages which can be run on any platform and in any programming language. These messages are transport is via HTTP over SSL.

This guide covers the process of configuring Secure Periodic within an environment in order to integrate the XML API.

1.2 Intended Audience

This document is intended for developers, integrating SecurePay's SecurePeriodic interface into their own applications or websites.

It is recommended that someone with web site, XML or application programming experience reads this guide and implements the SecurePeriodic.

2 System Overview

SecurePay's Payment Gateway provides merchants with the ability to process credit card and direct entry payments in a secure environment.

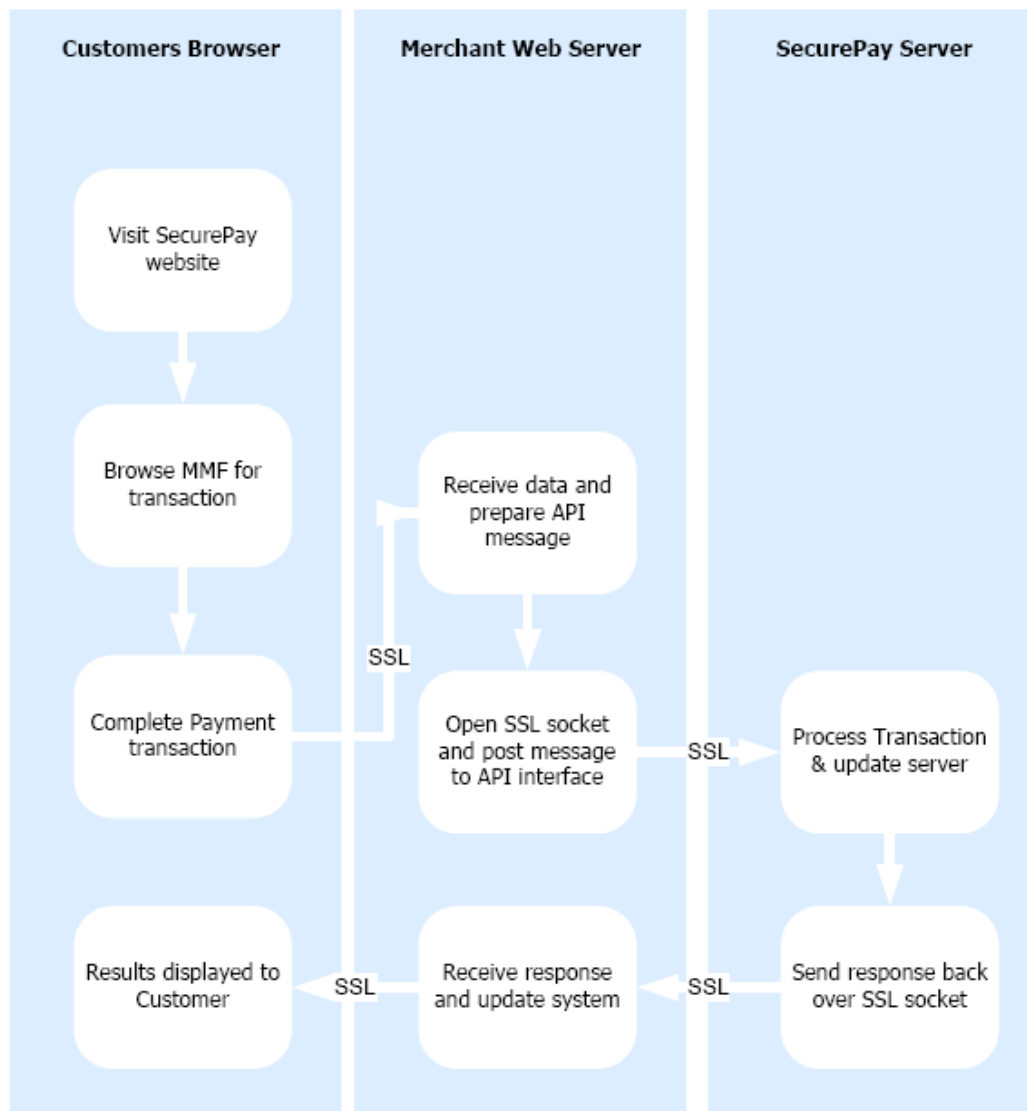
SecurePay partners with the following major banks and financial institutions in the provision of the SecurePay Payment Gateway:

- ANZ
- American Express
- BankWest
- Commonwealth Bank
- Diners Club
- National Australia Bank
- St George (including Bank of SA)
- Westpac (including Challenge Bank and Bank of Melbourne)

Direct entry payments are not processed in real time; they are stored in SecurePay's database and processed daily at 4.30pm EST.

SecurePeriodic is an application that allows real time processing of recurring credit card or direct entry payments on specified dates that suit merchant requirements.

SecurePeriodic uses utilises a XML request and response messages, and can be run on any platform and in any programming language. The message transport is done via HTTP protocol using SSL.



3 SecurePeriodic Payments

SecurePeriodic processes the following payment types:

- **Once off** payments only occur once on a merchant specified day.
- **Periodic payments** occur on regular basis as specified by the merchant. The merchant also needs to specify a number of occurrences of the payment to be processed. The Periodic payments occur for the first time on a merchant specified date and then at regular intervals until the requested number of occurrences.
- **Triggered payments** are stored in the SecurePeriodic database before they can be triggered. Once stored in the database the merchant can trigger the payments at any time. They do not require payment details (such as credit card numbers or direct entry details) as they are securely stored in the database when the payment is initially added. The merchant can update the amount of the payment at the time when the payment is triggered.

Credit card and direct entry payment details are stored in SecurePay's database in an encrypted binary format and are never stored in decrypted form on the system. The scheduled payments will be processed at 4.30 PM (direct entry transactions) or 5.30 PM (credit card transactions) on the scheduled date.

All SecurePeriodic payments contain the merchant's name and details. This information appears on the customer's monthly banking statement enabling your customers to have a record of all payments made.

Periodic payments can be cancelled at any time via the web interface or XML request when they are no longer required.

It is necessary for merchants to have signed agreements from their customers before setting up periodic payments for credit card or direct debit

3.1 Periodic Requests

Periodic requests are used to pass periodic or triggered transaction messages to SecurePay's Periodic Server, which will perform the requested operation, and produce a response based on the outcome.

The Periodic request can be used to perform the following actions:

- Add Periodic or Triggered payments (Credit Card or Direct Entry)
- Delete previously set up Periodic or Triggered payments
- Trigger previously set up Triggered payments.

3.2 Authentication, Communication & Encryption

To ensure security, each merchant is issued with transaction password. This password is authenticated with each request before it is processed. This makes sure that unauthorised users will be unable to use the interface.

The password can be changed by the merchant via SecurePay's Merchant Management facility.

The SecurePeriodic interface uses HTTP protocol and SSL for communication with SecurePay's Periodic servers.

Merchants using SecurePeriodic will automatically use SecurePay's security certificate to encrypt requests and decrypt responses from SecurePay.

4 XML Message Format and Contents

SecurePeriodic's XML Messages can take the following formats:

- Requests are the messages sent to SecurePay Periodic Server requesting periodic or triggered transactions.
- Responses are the messages sent from SecurePay to the merchant in a response to a request message.
- The Echo requests are used to verify that the SecurePay Periodic Server is available. For information on Echo messages Click [Echo Message Elements](#).

4.1 XML Header

The XML document will begin with an XML declaration that contains the following data:

```
<?xml version="1.0" encoding="UTF-8"?>
```

| Markup | Usage | Explanation |
|-------------|----------|--|
| <? | required | Begins a processing instruction. |
| xml | required | Declares this to be an XML instruction. |
| version="" | required | Identifies the version of XML specification in use. |
| encoding="" | required | Indicates which international character set is used. |
| ?> | required | Terminates the processing instruction. |

The XML document must contain a following top level (root) element: <SecurePayMessage>

4.2 Element Definitions

4.2.1 Element Codes

The XML elements located in the Element matrices in sections below have the following definitions used to indicate whether the elements are present in the request and response messages:

| Code | Condition |
|------|--|
| P | Present, the element is required in the message and must be present. |
| O | Optional, the element is not required in the message but may be present. |
| X | Not present, the element should not be present. |

4.2.2 Element Types and Constraints

The value format descriptions in sections below use keys from the following table:

| Type | Constraint | Description |
|--------|------------|---|
| String | A | <ul style="list-style-type: none"> • Alphabetic characters • Value in the element is valid if it only contains characters in the specified set (alphabetic) |
| | N | <ul style="list-style-type: none"> • Numeric characters • Value in the element is valid if it only contains characters in the specified set (numeric) |

| Type | Constraint | Description |
|---------|------------|--|
| | S | <ul style="list-style-type: none"> Special characters Will be followed with a list of allowed characters Value in the element is valid if it only contains characters in the specified set (special characters) |
| | EBCDIC | <ul style="list-style-type: none"> EBCDIC character set See Appendix I: EBCDIC Character Set |
| | LEN | <ul style="list-style-type: none"> Number of characters in the string Value in the element is valid if the length of the value is equal to the defined length |
| | MINLEN | <ul style="list-style-type: none"> Minimum number of characters in the string Value in the element is valid if the length of the value is greater than or equal to the defined minimum length |
| | MAXLEN | <ul style="list-style-type: none"> Maximum number of characters in the string Value in the element is valid if the length of the value is less than or equal to the defined maximum length |
| Integer | DIGNO | <ul style="list-style-type: none"> Number of digits in the integer value Value in the element is valid if the number of digits in the value is less than or equal to the defined digits number |
| | MINVAL | <ul style="list-style-type: none"> Minimum numerical value Value in the element is valid if it is numerically greater than or equal to the defined minimum value |
| | MAXVAL | <ul style="list-style-type: none"> Maximum numerical value Value in the element is valid if it is numerically less than or equal to the defined maximum value |

4.3 Sample XML Request and Response

4.3.1 Request

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0cf40f5fb5c630c</messageID>
    <messageTimestamp>20041803161306527000+660</messageTimestamp>
    <timeoutValue>60</timeoutValue>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
    <password>changeit</password>
  </MerchantInfo>
  <RequestType>Periodic</RequestType>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>add</actionType>
        <clientID>test</clientID>
        <CreditCardInfo>
          <cardNumber>4444333322221111</cardNumber>
          <expiryDate>09/15</expiryDate>
        </CreditCardInfo>
        <amount>2995</amount>
        <periodicType>4</periodicType>
      </PeriodicItem>
    </PeriodicList>
  </Periodic>
</SecurePayMessage>
```

```
</Periodic>  
</SecurePayMessage>
```

4.3.2 Respons

```
<?xml version="1.0" encoding="UTF-8"?>  
<SecurePayMessage>  
  <MessageInfo>  
    <messageID>8af793f9af34bea0cf40f5fb5c630c</messageID>  
    <messageTimestamp>20041803161316345000+660</messageTimestamp>  
    <apiVersion>spxml-3.0</apiVersion>  
  </MessageInfo>  
  <RequestType>Periodic</RequestType>  
  <MerchantInfo>  
    <merchantID>ABC0001</merchantID>  
  </MerchantInfo>  
  <Status>  
    <statusCode>0</statusCode>  
    <statusDescription>Normal</statusDescription>  
  </Status>  
  <Periodic>  
    <PeriodicList count="1">  
      <PeriodicItem ID="1">  
        <actionType>add</actionType>  
        <clientID>test</clientID>  
        <responseCode>00</responseCode>  
        <responseText>Successful</responseText>  
        <successful>yes</successful>  
        <CreditCardInfo>  
          <pan>444433...111</pan>  
          <expiryDate>09/15</expiryDate>  
          <recurring>no</recurring>  
        </CreditCardInfo>  
        <amount>2995</amount>  
        <periodicType>4</periodicType>  
      </PeriodicItem>  
    </PeriodicList>  
  </Periodic>  
</SecurePayMessage>
```

5 Common XML Message Elements

5.1 Request Messages

Requests are the messages sent to SecurePay. Following sections describe elements common to all requests.

5.1.1 MessageInfo Element

| | |
|--------------------------------|-------------------------|
| Description: | Identifies the message. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Validated by SecurePay: | Yes |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<MessageInfo> sub-elements:

| Element | Comments |
|--------------------|---|
| <messageID> | <p>Description: Unique identifier for the XML message. Generated by the merchant.</p> <p>Format type: String</p> <p>Format constraints: AN, MINLEN = 0, MAXLEN = 30</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "8af793f9af34bea0cf40f5fb5c630c"</p> <p>Sub-elements: No</p> |
| <messageTimestamp> | <p>Description: Time of the request.</p> <p>Format type: String, see Appendix E: Timestamp String Format</p> <p>Format constraints: NS ('+', '-'), LEN = 24</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "20041803161306527000+660"</p> <p>Sub-elements: No</p> |
| <timeoutValue> | <p>Description: Timeout value used, in seconds.</p> <p>Format type: Integer</p> <p>Format constraints: DIGNO = 3, MINVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Recommended "60"</p> <p>Sub-elements: No</p> |
| <apiVersion> | <p>Description: Version of the product used.</p> <p>Format type: String</p> <p>Format constraints: ANS ('-', '.'), MINLEN = 1, MAXLEN = 13</p> <p>Validated by SecurePay: Yes</p> <p>Value: Always "spxml-4.2"</p> <p>Sub-elements: No</p> |

5.1.2 MerchantInfo Element

| | |
|--------------------------------|--------------------------|
| Description: | Identifies the merchant. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Validated by SecurePay: | Yes |
| Value: | (No value) |

Sub-elements: Yes, see table below

<MerchantInfo> sub-elements:

| Element | Comments |
|--------------|---|
| <merchantID> | <p>Description: Merchant ID. 5 or 7-character merchant ID supplied by SecurePay.</p> <p>Format type: String</p> <p>Format constraints: AN, MINLEN = 5, MAXLEN = 7</p> <p>Validated by SecurePay: Yes</p> <p>Value: 5-character merchant ID for Direct Entry transactions, eg: "ABC00" 7-character merchant ID for Credit Card transactions, eg: "ABC0001"</p> <p>Sub-elements: No</p> |
| <password> | <p>Description: Payment password. Password used for authentication of the merchant's request message, supplied by SecurePay.</p> <p>Note: The password can be changed via SecurePay's Merchant Management facility.</p> <p>Format type: String</p> <p>Format constraints: ANS (All characters are allowed), MINLEN = 6, MAXLEN = 20</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "password_01"</p> <p>Sub-elements: No</p> |

5.1.3 RequestType Element

Description: Defines the type of the request being processed.

Format type: String

Format constraints: A, MINLEN = 1, MAXLEN = 20

Validated by SecurePay: Yes

Value: One of the following:

- "Periodic"
- "Echo"

Sub-elements: No

5.1.4 Periodic Element

The following <RequestType> element value must be used for all Periodic messages:

```
<RequestType>Periodic</RequestType>
```

Description: Contains information about financial transactions to be processed.

Format type: (No value)

Format constraints: (No value)

Validated by SecurePay: Yes

Value: (No value)

Sub-elements: Yes, see table below

<Periodic> sub-elements:

| Element | Comments |
|---------|----------|
|---------|----------|

| | |
|----------------|--------------------------|
| <PeriodicList> | See PeriodicList Element |
|----------------|--------------------------|

5.1.4.1 PeriodicList Element

| | |
|--------------------------------|--|
| Description: | Contains list of transactions to be processed. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Validated by SecurePay: | Yes |
| Value: | (No value) |
| Attributes: | Yes, see table below |
| Sub-elements: | Yes, see table below |

<PeriodicList> sub-elements:

| Element | Comments |
|----------------------|---|
| <PeriodicList.count> | <p>Description: Item count is an attribute of <PeriodicList> element and specifies number of <PeriodicItem> elements.</p> <p>Note: Currently only single item per request is supported. Requests submitted with more than one <PeriodicItem> element will be rejected with Status code "577".</p> <p>Format type: Integer</p> <p>Format constraints: DIGNO = 1, MINVAL = 1, MAXVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Currently always "1"</p> <p>Sub-elements: No</p> |
| <PeriodicItem> | See PeriodicItem Element |

5.1.4.1.1 PeriodicItem Element

| | |
|--------------------------------|---|
| Description: | Contains information about a periodic or triggered transaction. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Validated by SecurePay: | Yes |
| Value: | (No value) |
| Attributes: | Yes, see table below |
| Sub-elements: | Yes, see table below |

5.1.4.1.2 <PeriodicItem> sub-elements:

Not all of the <PeriodicItem> sub-elements are required for different types of transactions. Please refer to section Transaction Type-Required Element Map for information what elements are required for various transaction types.

| Element | Comments |
|---------|----------|
|---------|----------|

| Element | Comments |
|-------------------|--|
| <PeriodicItem.ID> | <p>Description: Transaction ID is an attribute of <PeriodicItem> element and specifies transaction ID. All transactions should be numbered sequentially starting at "1".</p> <p>Note: Currently only single transactions per request are supported. Transactions submitted with more than one <PeriodicItem> element will be rejected with Status code "577".</p> <p>Format type: Integer</p> <p>Format constraints: DIGNO = 1, MINVAL = 1, MAXVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Currently always "1"</p> <p>Sub-elements: No</p> |
| <actionType> | <p>Description: Action type specifies the type of action to be performed. Periodic and Triggered payments can either be added or deleted from SecurePay's database. Triggered payments can also be triggered.</p> <p>Format type: String</p> <p>Format constraints: A, MINLEN = 1, MAXLEN = 20</p> <p>Validated by SecurePay: Yes</p> <p>Value: One of the following:</p> <ul style="list-style-type: none"> • "add" • "delete" • "trigger" <p>Sub-elements: No</p> |
| <periodicType> | <p>Description: Periodic type specifies the type of transaction being processed.</p> <p>Format type: Integer, see Appendix A: Periodic Types</p> <p>Format constraints: DIGNO = 1, MINVAL = 1, MAXVAL = 4</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "1"</p> <p>Sub-elements: No</p> |
| <paymentInterval> | <p>Description: Payment interval specifies the frequency of the periodic payments.</p> <p>Format type: Integer.</p> <p>For Day Based Periodic Payments the payment interval is a number of days between payments.</p> <p>For Calendar Based Periodic Payments see Appendix B: Calendar Payment Intervals.</p> <p>Format constraints: MINVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "1" to indicate a payment recurring every day for Day Based Periodic Payments. Eg: "1" to indicate a weekly payment for Calendar Based Periodic Payments.</p> <p>Sub-elements: No</p> |
| <amount> | <p>Description: Transaction amount in cents.</p> <p>Format type: Integer</p> <p>Format constraints: MINVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "123" for \$1.23</p> <p>Sub-elements: No</p> |

| Element | Comments |
|--------------------|--|
| <clientID> | Description: Unique merchant transaction identifier, typically an invoice number. Format type: String Format constraints: For Credit Card payments ANS (All characters allowed except spaces and "" single quote), For Direct Entry payments EBCDIC (see Appendix I: EBCDIC Character Set), MINLEN = 1, MAXLEN = 20 Validated by SecurePay: Yes Value: Eg: "order000235" Sub-elements: No |
| <startDate> | Description: Date indicating when the first payment should be processed. Format type: String, in Format YYYYMMDD Format constraints: N, LEN = 8 Validated by SecurePay: Yes Value: Eg: "20041007" to process the first payment on October 10, 2004. Sub-elements: No |
| <numberOfPayments> | Description: Number of payments to occur for a particular periodic payment. Format type: Integer Format constraints: MINVAL = 1 Validated by SecurePay: Yes Value: Eg: "7" for the payment to occur 7 times Sub-elements: No |
| <CreditCardInfo> | See CreditCardInfo Element |
| <DirectEntryInfo> | See DirectEntryInfo Element |

5.1.4.1.3 CreditCardInfo Element

| | |
|--------------------------------|-----------------------------------|
| Description: | Contains credit card information. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Validated by SecurePay: | Yes |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<CreditCardInfo> sub-elements:

| Element | Comments |
|--------------|--|
| <cardNumber> | Description: Credit card number. Format type: String Format constraints: N, MINLEN = 13, MAXLEN = 16 Validated by SecurePay: Yes Value: Eg: "4242424242424242" Sub-elements: No |

| | |
|-----------------|---|
| <cvv> | <p>Description: Card verification value. The CVV value assists the bank with detecting fraudulent transactions based on automatically generated card numbers, as the CVV number is printed on the physical card and cannot be generated in conjunction with a card number. If passed, the bank may check the supplied value against the value recorded against the card. See Appendix D: Location of CVV</p> <p>Format type: String</p> <p>Format constraints: N, MINLEN = 3, MAXLEN = 4</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "123"</p> <p>Sub-elements: No</p> |
| <expiryDate> | <p>Description: Credit card expiry date.</p> <p>Format type: String</p> <p>Format constraints: NS ('/'), LEN = 5</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "05/06" for May 2006</p> <p>Sub-elements: No</p> |
| <recurringFlag> | <p>Description: Marks the item as recurring. Recurring transactions may attract lower MSF for some merchants</p> <p>Format type: String</p> <p>Format constraints: A, MINLEN = 2, MAXLEN = 3</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: either "yes" or "no"</p> <p>Sub-elements: No</p> |

5.1.4.1.4 DirectEntryInfo Element

| | |
|--------------------------------|------------------------------------|
| Description: | Contains direct entry information. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Validated by SecurePay: | Yes |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<DirectEntryInfo> sub-elements:

| Element | Comments |
|-----------------|--|
| <bsbNumber> | <p>Description: BSB number.</p> <p>Format type: String</p> <p>Format constraints: N, LEN = 6</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "012012"</p> <p>Sub-elements: No</p> |
| <accountNumber> | <p>Description: Account number.</p> <p>Format type: String</p> <p>Format constraints: N, MINLEN = 1, MAXLEN = 9</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "00123"</p> <p>Sub-elements: No</p> |

| | |
|---------------|---|
| <accountName> | Description: Account name. Format type: String Format constraints: EBCDIC (see Appendix I: EBCDIC Character Set), MINLEN = 0, MAXLEN = 32 Validated by SecurePay: Yes Value: Eg: "John Smith" Sub-elements: No |
| <creditFlag> | Description: Marks the item as credit. All Direct Entry transactions are debits as a default. Format type: String Format constraints: A, MINLEN = 2, MAXLEN = 3 Validated by SecurePay: Yes Value: Eg: either "yes" or "no" Sub-elements: No |

5.1.4.1.5 Transaction Type-Required Element Map

The table below shows which elements are required for each transaction type. Elements are mandatory, optional or not required.

| ACTION TYPE ELEMENT | Adding Periodic or Triggered Payment | Deleting Periodic or Triggered Payment | Triggering Triggered Payment |
|--|--------------------------------------|--|------------------------------|
| | add | delete | trigger |
| <actionType> | M | M | M |
| <periodicType> | M | X | X |
| <paymentInterval> | M (periodic) | X | X |
| <amount> | M | X | O (triggered) |
| <clientID> | M | M | M |
| <startDate> | M (once off, periodic) | X | X |
| <numberOfPayments> | M (periodic) | X | X |
| <cardNumber> | M (cc) | X | X |
| <cvv> | O (cc) | X | X |
| <expiryDate> | M (cc) | X | X |
| <recurringFlag> | O (cc) | X | X |
| <bsbNumber> | M (de) | X | X |
| <accountNumber> | M (de) | X | X |
| <accountName> | M (de) | X | X |
| <creditFlag> | O (de) | X | X |
| M – Mandatory O – Optional X – Not required (ignored) once off – periodic type 1 periodic – periodic types 2 and 3 triggered – periodic type 4 cc – credit card payments only de – direct entry payments only | | | |

5.2 Response Messages

Responses are the messages sent from SecurePay to the merchant in a response to a request message. Following sections describe elements common to all responses.

5.2.1 MessageInfo Element

| | |
|----------------------------|-------------------------|
| Description: | Identifies the message. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<MessageInfo> sub-elements:

| Element | Comments |
|--------------------|---|
| <messageID> | <p>Description: Unique identifier for the XML message. Returned unchanged from the request.</p> <p>Format type: String</p> <p>Format constraints: AN, MINLEN = 0, MAXLEN = 30</p> <p>Value: Eg: "8af793f9af34bea0cf40f5fb5c630c"</p> <p>Sub-elements: No</p> |
| <messageTimestamp> | <p>Description: Time of the response.</p> <p>Format type: String, see Appendix E: Timestamp String Format</p> <p>Format constraints: NS ('+', '-'), LEN = 24</p> <p>Value: Eg: "20041803161306527000+660"</p> <p>Sub-elements: No</p> |
| <apiVersion> | <p>Description: Version of the product used. Returned unchanged from the request.</p> <p>Format type: String</p> <p>Format constraints: ANS ('-', '.'), MINLEN = 1, MAXLEN = 13</p> <p>Value: Eg: "spxml-4.2"</p> <p>Sub-elements: No</p> |

5.2.2 MerchantInfo Element

| | |
|----------------------------|--------------------------|
| Description: | Identifies the merchant. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<MerchantInfo> sub-elements:

| Element | Comments |
|--------------|--|
| <merchantID> | <p>Description: Merchant ID. 5 or 7-character merchant ID supplied by SecurePay. Returned unchanged from the request.</p> <p>Format type: String</p> <p>Format constraints: AN, MINLEN = 5, MAXLEN = 7</p> <p>Value: 5-character merchant ID for Direct Entry transactions, eg: "ABC00" 7-character merchant ID for Credit Card transactions, eg: "ABC0001"</p> <p>Sub-elements: No</p> |

5.2.3 RequestType Element

| | |
|----------------------------|--|
| Description: | Defines the type of the request being processed. Returned unchanged from the request. |
| Format type: | String |
| Format constraints: | A, MINLEN = 1, MAXLEN = 20 |
| Value: | One of the following: <ul style="list-style-type: none"> • “Periodic” • “Echo” |
| Sub-elements: | No |

5.2.4 Status Element

| | |
|----------------------------|---|
| Description: | Status of the processing of merchant’s request. Always present in the response. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<Status> sub-elements:

| Element | Comments |
|---------------------|--|
| <statusCode> | Description: Status code. Format type: String, see Appendix F: SecurePay Status Codes Format constraints: N, MINLEN = 1, MAXLEN = 3 Value: Eg: “0” or “000” for Normal Sub-elements: No |
| <statusDescription> | Description: Status description. Format type: String, see Appendix F: SecurePay Status Codes Format constraints: ANS (All characters are allowed), MINLEN = 0, MAXLEN = 40 Value: Eg: “Normal” Sub-elements: No |

5.2.5 Periodic Element

Following sections describe elements used in Periodic responses. The following elements will only be returned if Status received in the response is “000 – Normal” or “0 – Normal”.

| | |
|----------------------------|--|
| Description: | Contains information about transactions processed. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<Periodic> sub-elements:

| Element | Comments |
|----------------|--------------------------|
| <PeriodicList> | See PeriodicList Element |

5.2.5.1 PeriodicList Element

| | |
|---------------------|--|
| Description: | Contains list of transactions processed. |
| Format type: | (No value) |

Format constraints: (No value)
Value: (No value)
Attributes: Yes, see table below
Sub-elements: Yes, see table below

<PeriodicList> sub-elements:

| Element | Comments |
|----------------------|--|
| <PeriodicList.count> | <p>Description: Transaction count is an attribute of <PeriodicList> element and specifies number of <PeriodicItem> elements. Returned unchanged from the request.</p> <p>Note: Currently only single transactions per request are supported. Transactions submitted with more than one <PeriodicItem> element will be rejected with Status code "577".</p> <p>Format type: Integer</p> <p>Format constraints: DIGNO = 1, MINVAL = 1, MAXVAL = 1</p> <p>Value: Currently always "1"</p> <p>Sub-elements: No</p> |
| <PeriodicItem> | See PeriodicItem Element |

5.2.5.2 PeriodicItem Element

Description: Contains information about a transaction.
Format type: (No value)
Format constraints: (No value)
Value: (No value)
Attributes: Yes, see table below
Sub-elements: Yes, see table below

<PeriodicItem> sub-elements:

Not all of the <PeriodicItem> sub-elements will be returned in a response.

| Element | Comments |
|-------------------|---|
| <PeriodicItem.ID> | <p>Description: ID is an attribute of <PeriodicItem> element and specifies transaction ID. All transactions returned should be numbered sequentially starting at "1" just as they were in the request message. Returned unchanged from the request.</p> <p>Note: Currently only single transactions per request are supported. Payments submitted with more than one <Txn> element will be rejected with Status code "577".</p> <p>Format type: Integer</p> <p>Format constraints: DIGNO = 1, MINVAL = 1, MAXVAL = 1</p> <p>Value: Currently always "1"</p> <p>Sub-elements: No</p> |

| Element | Comments |
|-------------------|---|
| <actionType> | <p>Description: Action type specifies the type of action to be performed. Returned unchanged from the request.</p> <p>Format type: String</p> <p>Format constraints: A, MINLEN = 1, MAXLEN = 20</p> <p>Validated by SecurePay: Yes</p> <p>Value: One of the following:</p> <ul style="list-style-type: none"> • “add” • “delete” • “trigger” <p>Sub-elements: No</p> |
| <periodicType> | <p>Description: Periodic type specifies the type of transaction being processed. Returned unchanged from the request.</p> <p>Format type: Integer, see Appendix A: Periodic Types</p> <p>Format constraints: DIGNO = 1, MINVAL = 1, MAXVAL = 4</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: “1”</p> <p>Sub-elements: No</p> |
| <paymentInterval> | <p>Description: Payment interval specifies the frequency of the periodic payments. Returned unchanged from the request.</p> <p>Format type: Integer.</p> <p>For Day Based Periodic Payments the payment interval is a number of days between payments.</p> <p>For Calendar Based Periodic Payments see Appendix B: Calendar Payment Intervals.</p> <p>Format constraints: MINVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: “1” to indicate a payment recurring every day for Day Based Periodic Payments. Eg: “1” to indicate a weekly payment for Calendar Based Periodic Payments.</p> <p>Sub-elements: No</p> |
| <amount> | <p>Description: Transaction amount in cents. Returned unchanged from the request.</p> <p>Format type: Integer</p> <p>Format constraints: MINVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: “123” for \$1.23</p> <p>Sub-elements: No</p> |
| <clientID> | <p>Description: Unique merchant transaction identifier, typically an invoice number. Returned unchanged from the request.</p> <p>Format type: String</p> <p>Format constraints: For Credit Card payments ANS (All characters allowed except spaces and “” single quote), For Direct Entry payments EBCDIC (see Appendix I: EBCDIC Character Set), MINLEN = 1, MAXLEN = 20</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: “order000235”</p> <p>Sub-elements: No</p> |

| Element | Comments |
|--------------------|---|
| <startDate> | <p>Description: Date indicating when the first payment should be processed. Returned unchanged from the request.</p> <p>Format type: String, in Format YYYYMMDD</p> <p>Format constraints: N, LEN = 8</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "20041007" to process the first payment on October 10, 2004.</p> <p>Sub-elements: No</p> |
| <numberOfPayments> | <p>Description: Number of payments to occur for a particular periodic payment. Returned unchanged from the request.</p> <p>Format type: Integer</p> <p>Format constraints: MINVAL = 1</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "7" for the payment to occur 7 times</p> <p>Sub-elements: No</p> |
| <endDate> | <p>Description: Date of the last scheduled payment.</p> <p>Format type: String, in Format YYYYMMDD</p> <p>Format constraints: N, LEN = 8</p> <p>Validated by SecurePay: Yes</p> <p>Value: Eg: "20041007" to indicate that the last payment will be processed on October 10, 2004.</p> <p>Sub-elements: No</p> |
| <responseCode> | <p>Description: Response code of the transaction. Either a 2-digit bank response (for triggered payments) or a 3-digit SecurePay Periodic response. Element <responseText> provides more information in a textual format. Refer to SecurePay Payment Response Codes documents for details of codes returned. This document may be downloaded from SecurePay's Merchant Login website or provided via email by SecurePay's Merchant Support team.</p> <p>Format type: String</p> <p>Format constraints: AN, MINLEN = 2, MAXLEN = 3</p> <p>Value: Eg: "00"</p> <p>Sub-elements: No</p> |
| <responseText> | <p>Description: Textual description of the response code received.</p> <p>Format type: String</p> <p>Format constraints: ANS (All characters allowed), MINLEN = 0, MAXLEN = 40</p> <p>Value: Eg: "Approved"</p> <p>Sub-elements: No</p> |
| <successful> | <p>Description: Indicates whether the transaction processed has been successfully added, deleted or triggered.</p> <p>Format type: String</p> <p>Format constraints: A, MINLEN = 2, MAXLEN = 3</p> <p>Value: Either "yes" or "no"</p> <p>Sub-elements: No</p> |

| Element | Comments |
|-------------------|---|
| <settlementDate> | <p>Description: Bank settlement date when the funds will be settled into the merchant's account (only for triggered payments). This will be the current date mostly, however after the bank's daily cut-off time, or on non-banking days, the settlement date will be the next business day. Will not be returned if the bank did not receive the transaction. (A settlement date may be returned for declined transactions.)</p> <p>Format type: String</p> <p>Format constraints: N, LEN = 8</p> <p>Value: Eg: "20040326" for 26th March 2004</p> <p>Sub-elements: No</p> |
| <txnID> | <p>Description: Bank transaction ID (only for triggered payments). Will not be returned if the transaction has not been processed or in some cases if it was not received by the bank.</p> <p>Format type: String</p> <p>Format constraints: AN, MINLEN = 6, MAXLEN = 16</p> <p>Value: Eg: "TX123456"</p> <p>Sub-elements: No</p> |
| <CreditCardInfo> | See CreditCardInfo Element |
| <DirectEntryInfo> | See DirectEntryInfo Element |

5.2.5.2.1 CreditCardInfo Element

| | |
|----------------------------|-----------------------------------|
| Description: | Contains credit card information. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

<CreditCardInfo> sub-elements:

| Element | Comments |
|--------------|--|
| <pan> | <p>Description: Truncated credit card number. Contains first 6 digits of the card number, followed by "..." and then last 3 digits of the card number. May not be returned for invalid transactions.</p> <p>Format type: String</p> <p>Format constraints: N, LEN = 12</p> <p>Value: Eg: "424242...242"</p> <p>Sub-elements: No</p> |
| <expiryDate> | <p>Description: Credit card expiry date. May not be returned for invalid transactions.</p> <p>Format type: String</p> <p>Format constraints: NS ('/'), LEN = 5</p> <p>Value: Eg: "05/06" for May 2006</p> <p>Sub-elements: No</p> |
| <cardType> | <p>Description: Card type used. May not be returned for invalid transactions.</p> <p>Format type: Integer, see Appendix C: Card Types</p> <p>Format constraints: DIGNO = 1</p> <p>Value: Eg: "6" for Visa cards</p> <p>Sub-elements: No</p> |

| | |
|--------------------------------------|--|
| <code><cardDescription></code> | Description: Card description. May not be returned for invalid transactions. Format type: String, see Appendix C: Card Types Format constraints: A, MINLEN = 0, MAXLEN = 20 Value: Eg: "Visa" Sub-elements: No |
|--------------------------------------|--|

5.2.5.2.2 DirectEntryInfo Element

| | |
|--------------------------------|------------------------------------|
| Description: | Contains direct entry information. |
| Format type: | (No value) |
| Format constraints: | (No value) |
| Validated by SecurePay: | Yes |
| Value: | (No value) |
| Sub-elements: | Yes, see table below |

`<DirectEntryInfo>` sub-elements:

| Element | Comments |
|------------------------------------|--|
| <code><bsbNumber></code> | Description: BSB number. May not be returned for invalid transactions. Format type: String Format constraints: N, LEN = 6 Validated by SecurePay: Yes Value: Eg: "012012" Sub-elements: No |
| <code><accountNumber></code> | Description: Account number. May not be returned for invalid transactions. Format type: String Format constraints: N, MINLEN = 1, MAXLEN = 9 Validated by SecurePay: Yes Value: Eg: "00123" Sub-elements: No |
| <code><accountName></code> | Description: Account name. May not be returned for invalid transactions. Format type: String Format constraints: EBCDIC (see Appendix I: EBCDIC Character Set), MINLEN = 0, MAXLEN = 32 Validated by SecurePay: Yes Value: Eg: "John Smith" Sub-elements: No |
| <code><creditFlag></code> | Description: Marks the item as credit. All Direct Entry transactions are debits as a default. May not be returned for invalid transactions. Format type: String Format constraints: A, MINLEN = 2, MAXLEN = 3 Validated by SecurePay: Yes Value: Eg: either "yes" or "no" Sub-elements: No |

6 Payment URLs

The Periodic messages must be sent to the following URLs.

Test URL: <https://test.securepay.com.au/xmlapi/periodic>

Live URL: <https://api.securepay.com.au/xmlapi/periodic>

7 Sample XML Messages

7.1 Adding a Once Off Payment

This is for Direct Entry

7.1.1 Request

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff711c9d3</messageID>
    <messageTimestamp>20040710015921142000+600</messageTimestamp>
    <timeoutValue>60</timeoutValue>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <MerchantInfo>
    <merchantID>ABC00</merchantID>
    <password>changeit</password>
  </MerchantInfo>
  <RequestType>Periodic</RequestType>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>add</actionType>
        <clientID>test</clientID>
        <DirectEntryInfo>
          <bsbNumber>123123</bsbNumber>
          <accountNumber>1234</accountNumber>
          <accountName>John Smith</accountName>
          <creditFlag>no</creditFlag>
        </DirectEntryInfo>
        <amount>1100</amount>
        <periodicType>1</periodicType>
        <startDate>20041101</startDate>
      </PeriodicItem>
    </PeriodicList>
  </Periodic>
</SecurePayMessage>
```

7.1.2 Response

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff711c9d3</messageID>
    <messageTimestamp>20040710115921873000+600</messageTimestamp>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <RequestType>Periodic</RequestType>
  <MerchantInfo>
    <merchantID>sec00</merchantID>
  </MerchantInfo>
  <Status>
    <statusCode>0</statusCode>
    <statusDescription>Normal</statusDescription>
```

```
</Status>
<Periodic>
  <PeriodicList count="1">
    <PeriodicItem ID="1">
      <actionType>add</actionType>
      <clientID>test</clientID>
      <responseCode>00</responseCode>
      <responseText>Successful</responseText>
      <successful>no</successful>
      <DirectEntryInfo>
        <bsbNumber>123123</bsbNumber>
        <accountNumber>1234</accountNumber>
        <accountName>John Smith</accountName>
        <creditFlag>yes</creditFlag>
      </DirectEntryInfo>
      <amount>1100</amount>
      <periodicType>1</periodicType>
      <paymentInterval/>
      <numberOfPayments/>
      <startDate>20041101</startDate>
      <endDate>20041101</endDate>
    </PeriodicItem>
  </PeriodicList>
</Periodic>
</SecurePayMessage>
```

7.2 Adding a Periodic Payment

This is for a Credit Card

7.2.1 Request

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff71a55f6</messageID>
    <messageTimestamp>20040710042843759000+600</messageTimestamp>
    <timeoutValue>60</timeoutValue>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
    <password>changeit</password>
  </MerchantInfo>
  <RequestType>Periodic</RequestType>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>add</actionType>
        <clientID>test2</clientID>
        <CreditCardInfo>
          <cardNumber>4444333322221111</cardNumber>
          <cvv>123</cvv>
          <expiryDate>09/15</expiryDate>
        </CreditCardInfo>
        <amount>1100</amount>
        <periodicType>2</periodicType>
```

```
<paymentInterval>10</paymentInterval>
<startDate>20041101</startDate>
<numberOfPayments>2</numberOfPayments>
</PeriodicItem>
</PeriodicList>
</Periodic>
</SecurePayMessage>
```

7.2.2 Response

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff71a55f6</messageID>
    <messageTimestamp>20040710142844382000+600</messageTimestamp>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <RequestType>Periodic</RequestType>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
  </MerchantInfo>
  <Status>
    <statusCode>0</statusCode>
    <statusDescription>Normal</statusDescription>
  </Status>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>add</actionType>
        <clientID>test2</clientID>
        <responseCode>00</responseCode>
        <responseText>Successful</responseText>
        <successful>yes</successful>
        <CreditCardInfo>
          <pan>444433...111</pan>
          <expiryDate>15/08</expiryDate>
          <recurringFlag>no</recurringFlag>
        </CreditCardInfo>
        <amount>1100</amount>
        <periodicType>2</periodicType>
        <paymentInterval>10</paymentInterval>
        <startDate>20041101</startDate>
        <endDate>20041111</endDate>
      </PeriodicItem>
    </PeriodicList>
  </Periodic>
</SecurePayMessage>
```

7.3 Adding a Triggered Payment

This is for a Credit Card.

7.3.1 Request

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
```

```
<MessageInfo>
  <messageID>8af793f9af34bea0ecd7eff71b37ef</messageID>
  <messageTimestamp>20040710044409342000+600</messageTimestamp>
  <timeoutValue>60</timeoutValue>
  <apiVersion>spxml-3.0</apiVersion>
</MessageInfo>
<MerchantInfo>
  <merchantID>ABC0001</merchantID>
  <password>changeit</password>
</MerchantInfo>
<RequestType>Periodic</RequestType>
<Periodic>
  <PeriodicList count="1">
    <PeriodicItem ID="1">
      <actionType>add</actionType>
      <clientID>test3</clientID>
      <CreditCardInfo>
        <cardNumber>4444333322221111</cardNumber>
        <cvv>123</cvv>
        <expiryDate>09/15</expiryDate>
      </CreditCardInfo>
      <amount>1100</amount>
      <periodicType>4</periodicType>
    </PeriodicItem>
  </PeriodicList>
</Periodic>
</SecurePayMessage>
```

7.3.2 Response

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff71b37ef</messageID>
    <messageTimestamp>20040710144410220000+600</messageTimestamp>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <RequestType>Periodic</RequestType>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
  </MerchantInfo>
  <Status>
    <statusCode>0</statusCode>
    <statusDescription>Normal</statusDescription>
  </Status>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>add</actionType>
        <clientID>test3</clientID>
        <responseCode>00</responseCode>
        <responseText>Successful</responseText>
        <successful>yes</successful>
        <CreditCardInfo>
          <pan>444433...111</pan>
          <expiryDate>09/15</expiryDate>
          <recurringFlag>no</recurringFlag>
        </CreditCardInfo>
      </PeriodicItem>
    </PeriodicList>
  </Periodic>
</SecurePayMessage>
```

```
<amount>1100</amount>
<periodicType>4</periodicType>
</PeriodicItem>
</PeriodicList>
</Periodic>
</SecurePayMessage>
```

7.4 Deleting a Payment

7.4.1 Request

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff71c3ef1</messageID>
    <messageTimestamp>20040710050206632000+600</messageTimestamp>
    <timeoutValue>60</timeoutValue>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
    <password>changeit</password>
  </MerchantInfo>
  <RequestType>Periodic</RequestType>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>delete</actionType>
        <clientID>test2</clientID>
      </PeriodicItem>
    </PeriodicList>
  </Periodic>
</SecurePayMessage>
```

7.4.2 Response

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff71c3ef1</messageID>
    <messageTimestamp>20040710150207549000+600</messageTimestamp>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <RequestType>Periodic</RequestType>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
  </MerchantInfo>
  <Status>
    <statusCode>0</statusCode>
    <statusDescription>Normal</statusDescription>
  </Status>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>delete</actionType>
        <clientID>test2</clientID>
      </PeriodicItem>
    </PeriodicList>
  </Periodic>
</SecurePayMessage>
```

```
<responseCode>00</responseCode>
<responseText>Successful</responseText>
<successful>yes</successful>
</PeriodicItem>
</PeriodicList>
</Periodic>
</SecurePayMessage>
```

7.5 Triggering a Triggered Payment

7.5.1 Request

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff71c94d6</messageID>
    <messageTimestamp>20040710050758444000+600</messageTimestamp>
    <timeoutValue>60</timeoutValue>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
    <password>changeit</password>
  </MerchantInfo>
  <RequestType>Periodic</RequestType>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
        <actionType>trigger</actionType>
        <clientID>test3</clientID>
        <amount>1400</amount>
      </PeriodicItem>
    </PeriodicList>
  </Periodic>
</SecurePayMessage>
```

7.5.2 Response

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0ecd7eff71c94d6</messageID>
    <messageTimestamp>20040710150808428000+600</messageTimestamp>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <RequestType>Periodic</RequestType>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
  </MerchantInfo>
  <Status>
    <statusCode>0</statusCode>
    <statusDescription>Normal</statusDescription>
  </Status>
  <Periodic>
    <PeriodicList count="1">
      <PeriodicItem ID="1">
```

```
<actionType>trigger</actionType>
<clientID>test3</clientID>
<responseCode>00</responseCode>
<responseText>Approved</responseText>
<successful>yes</successful>
<amount>1400</amount>
<txnID>011700</txnID>
<CreditCardInfo>
  <pan>424242...242</pan>
  <expiryDate>09/08</expiryDate>
  <recurringFlag>no</recurringFlag>
  <cardType>6</cardType>
  <cardDescription>Visa</cardDescription>
</CreditCardInfo>
<settlementDate>20041007</settlementDate>
</PeriodicItem>
</PeriodicList>
</Periodic>
</SecurePayMessage>
```

]

8 Echo Message Elements

8.1 Request Messages

Echo requests do not have any additional elements.

The following `<RequestType>` element value must be used for all Echo messages:

```
<RequestType>Echo</RequestType>
```

SecurePay recommends that the Echo messages should not be sent more often than every 5 minutes and only if there were no real transactions processed in the last 5 minutes.

8.2 Response Messages

Echo responses do not return any additional elements. The `<Status>` element will return a response code "000" if the service is available.

8.3 Echo URLs

Echo requests can be sent to any of the Payment URLs to verify if the service is available. The Status Code returned in the Echo response will be "000" if the service is up.

8.4 Sample XML Messages

8.4.1 Echo

8.4.2 Request

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0cf40f5fb79f383</messageID>
    <messageTimestamp>20042403095953349000+660</messageTimestamp>
    <timeoutValue>60</timeoutValue>
    <apiVersion>spxml-3.0</apiVersion>
  </MessageInfo>
  <MerchantInfo>
    <merchantID>ABC0001</merchantID>
    <password>changeit</password>
  </MerchantInfo>
  <RequestType>Echo</RequestType>
</SecurePayMessage>
```

8.4.2.1 Response

```
<?xml version="1.0" encoding="UTF-8"?>
<SecurePayMessage>
  <MessageInfo>
    <messageID>8af793f9af34bea0cf40f5fb79f383</messageID>
```

```
<messageTimestamp>20042403095956732000+660</messageTimestamp>
<apiVersion>spxml-3.0</apiVersion>
</MessageInfo>
<MerchantInfo>
  <merchantID>ABC0001</merchantID>
</MerchantInfo>
<RequestType>Echo</RequestType>
<Status>
  <statusCode>000</statusCode>
  <statusDescription>Normal</statusDescription>
</Status>
</SecurePayMessage>
```

9 XML Over HTTP

The structure of the HTTP request and response messages will conform to the HTTP 1.1 network protocol.

Below are examples of the expected HTTP exchange.

The HTTP communication between the client and SecurePay Payment Server must be done via SSL socket so that the sensitive information included in the request and response messages is encrypted.

9.1 Request

```
POST /test/periodic HTTP/1.1
host: www.securepay.com.au
content-type: text/xml
content-length: 581
```

```
<?xml version="1.0" encoding="UTF-8" ?><SecurePayMessage><MessageInfo><messageID>8af793f9af34bea0ecd7eff71c94d6</messageID><messageTimestamp>20040710050758444000+600</messageTimestamp><timeoutValue>60</timeoutValue><apiVersion>spxml-3.0</apiVersion></MessageInfo><MerchantInfo><merchantID>ABC0001</merchantID><password>changeit</password></MerchantInfo><RequestType>Periodic</RequestType><Periodic><PeriodicList count="1"><PeriodicItem ID="1"><actionType>trigger</actionType><clientID>test3</clientID><amount>1400</amount></PeriodicItem></PeriodicList></Periodic></SecurePayMessage>
```

9.2 Response

The initial HTTP server response (100 continue) is to indicate that the request has been received and should be ignored. The 200 response should follow with the XML response message. If content length is 0 and no XML response is included then the request could not be understood and no response was produced.

```
HTTP/1.1 100 Continue
Server: Microsoft-IIS/5.0
Date: Thu, 07 Oct 2004 05:43:16 GMT
HTTP/1.1 200 OK
Server: Microsoft-IIS/5.0
Date: Thu, 07 Oct 2004 05:43:59 GMT
Content-Type: text/xml
Content-Length: 948
```

```
<?xml version="1.0" encoding="UTF-8" ?>
<SecurePayMessage><MessageInfo><messageID>8af793f9af34bea0ecd7eff71c94d6</messageID><messageTimestamp>20040710154359932000+600</messageTimestamp><apiVersion>spxml-3.0</apiVersion></MessageInfo><RequestType>Periodic</RequestType><MerchantInfo><merchantID>ABC0001</merchantID></MerchantInfo><Status><statusCode>0</statusCode><statusDescription>Normal</statusDescription></Status><Periodic><PeriodicList count="1"><PeriodicItem ID="1"><actionType>trigger</actionType><clientID>test3</clientID><responseCode>00</responseCode><responseText>Approved</responseText><successful>yes</successful><amount>1400</amount><txnID>011502</txnID><CreditCardInfo><pan>424242...242</pan><expiryDate>09/08</expiryDate><recurringFlag>no</recurringFlag><cardType>6</cardType><cardDescription>Visa</cardDescription></CreditCardInfo><settlementDate>20041007</settlementDate></PeriodicItem></PeriodicList></Periodic></SecurePayMessage>
```

Appendix A: Periodic Types

Periodic types define the type of transaction to be processed by SecurePay.

| Code | Description |
|------|---------------------------------|
| 1 | Once Off Payment |
| 2 | Day Based Periodic Payment |
| 3 | Calendar Based Periodic Payment |
| 4 | Triggered Payment |

Appendix B: Calendar Payment Intervals

The Periodic payment interval values in the table below apply only to payments where periodic type is type 3, Calendar Based Payment.

| Code | Description |
|------|-------------|
| 1 | Weekly |
| 2 | Fortnightly |
| 3 | Monthly |
| 4 | Quarterly |
| 5 | Half Yearly |
| 6 | Annually |

Appendix C: Card Types

SecurePay uses numeric codes to refer to credit card types in our system.

| Code | Description |
|------|-------------------------|
| 0 | Unknown |
| 1 | JCB |
| 2 | American Express (Amex) |
| 3 | Diners Club |
| 4 | Bankcard |
| 5 | MasterCard |
| 6 | Visa |

Appendix D: Location of CVV

The Card Verification Value is an anti-fraud measure used by some banks to prevent payments from generated card numbers. The CVV number is printed on the physical card, and is randomly assigned, therefore cannot be auto-generated.

The CVV number can be found in the following places:

| Card Type | Location |
|--------------------|---|
| Visa | Signature strip on back of card. Last digits of card number are re-printed in reverse italics, followed by 3-digit CVV. |
| MasterCard | Signature strip on back of card. Last digits of card number are re-printed in reverse italics, followed by 3-digit CVV. |
| Bankcard | Signature strip on back of card. Last digits of card number are re-printed in reverse italics, followed by 3-digit CVV. |
| Amex | 4 digit CVV above card number on front of card. |
| Diners Club | Signature strip on back of card. Last digits of card number are re-printed in reverse italics, followed by 3-digit CVV. |
| JCB | Not used |

Appendix E: Timestamp String Format

The format of the Timestamp or Log Time strings returned by SecurePay xmlapi is:

YYYYDDMMHHNNSSKKK000s000

where:

- YYYY is a 4-digit year
- DD is a 2-digit zero-padded day of month
- MM is a 2-digit zero-padded month of year (January = 01)
- HH is a 2-digit zero-padded hour of day in 24-hour clock format (midnight =0)
- NN is a 2-digit zero-padded minute of hour
- SS is a 2-digit zero-padded second of minute
- KKK is a 3-digit zero-padded millisecond of second
- 000 is a Static 0 characters, as SecurePay does not store nanoseconds
- s000 is a Time zone offset, where s is "+" or "-", and 000 = minutes, from GMT.

E.g. June 24, 2002 5:12:16.789 PM, Australian EST is:

20022406171216789000+600

Appendix F: SecurePay Status Codes

| Status Code | Response Text | Description |
|-------------|--|--|
| 000 | Normal | Message processed correctly (check transaction response for details). |
| 504 | Invalid Merchant ID | If Merchant ID does not follow the format XXXDDDD, where X is a letter and D is a digit, or Merchant ID is not found in SecurePay's database. |
| 505 | Invalid URL | The URL passed to either Echo, Query, or Payment object is invalid. |
| 510 | Unable To Connect To Server | Produced by SecurePay Client API when unable to establish connection to SecurePay Payment Gateway |
| 511 | Server Connection Aborted During Transaction | Produced by SecurePay Client API when connection to SecurePay Payment Gateway is lost after the payment transaction has been sent |
| 512 | Transaction timed out By Client | Produced by SecurePay Client API when no response to payment transaction has been received from SecurePay Payment Gateway within predefined time period (default 80 seconds) |
| 513 | General Database Error | Unable to read information from the database. |
| 514 | Error loading properties file | Payment Gateway encountered an error while loading configuration information for this transaction |
| 515 | Fatal Unknown Error | Transaction could not be processed by the Payment Gateway due to unknown reasons |
| 516 | Request type unavailable | SecurePay system doesn't support the requested transaction type |
| 517 | Message Format Error | SecurePay Payment Gateway couldn't correctly interpret the transaction message sent |
| 524 | Response not received | The client could not receive a response from the server. |
| 545 | System maintenance in progress | The system maintenance is in progress and the system is currently unable to process transactions |
| 550 | Invalid password | The merchant has attempted to process a request with an invalid password. |
| 575 | Not implemented | This functionality has not yet been implemented |
| 577 | Too Many Records for Processing | The maximum number of allowed events in a single message has been exceeded. |
| 580 | Process method has not been called | The process() method on either Echo, Payment or Query object has not been called |
| 595 | Merchant Disabled | SecurePay has disabled the merchant and the requests from this merchant will not be processed. |

Appendix G: XML Request DTD

```
<!--ELEMENT SecurePayMessage (MessageInfo, RequestType, MerchantInfo, Periodic)>

<!-- define elements for SecurePayMessage -->
<!--ELEMENT MessageInfo (messageID, messageTimestamp, apiVersion)>
<!--ELEMENT RequestType (#PCDATA)>
<!--ELEMENT MerchantInfo (merchantID)>
<!--ELEMENT Periodic (PeriodicList)>

<!-- define elements for MessageInfo -->
<!--ELEMENT messageID (#PCDATA)>
<!--ELEMENT messageTimestamp (#PCDATA)>
<!--ELEMENT apiVersion (#PCDATA)>

<!-- define elements for MerchantInfo -->
<!--ELEMENT merchantID (#PCDATA)>

<!-- define elements for Periodic -->
<!--ELEMENT PeriodicList (PeriodicItem*)>
<!--ATTLIST PeriodicList
    count CDATA #REQUIRED>

<!-- define elements for PeriodicList -->
<!--ELEMENT PeriodicItem (actionType, clientID, CreditCardInfo?,
DirectEntryInfo?,
    amount?, periodicType?, paymentInterval?, startDate?, numberOfPayments?)>
<!--ATTLIST PeriodicItem ID CDATA #REQUIRED>

<!-- define elements for PeriodicItem -->
<!--ELEMENT actionType (#PCDATA)>
<!--ELEMENT clientID (#PCDATA)>
<!--ELEMENT CreditCardInfo (cardNumber, cvv?, expiryDate, recurringFlag?)>
<!--ELEMENT DirectEntryInfo (bsbNumber, accountNumber, accountName, creditFlag?)>
<!--ELEMENT amount (#PCDATA)>
<!--ELEMENT periodicType (#PCDATA)>
<!--ELEMENT paymentInterval (#PCDATA)>
<!--ELEMENT startDate (#PCDATA)>
<!--ELEMENT numberOfPayments (#PCDATA)>

<!-- define elements for CreditCardInfo -->
<!--ELEMENT cardNumber (#PCDATA)>
<!--ELEMENT cvv (#PCDATA)>
<!--ELEMENT expiryDate (#PCDATA)>
<!--ELEMENT recurringFlag (#PCDATA)>

<!-- define elements for DirectEntryInfo -->
<!--ELEMENT bsbNumber (#PCDATA)>
<!--ELEMENT accountNumber (#PCDATA)>
<!--ELEMENT accountName (#PCDATA)>
<!--ELEMENT creditFlag (#PCDATA)>
```

Appendix H: XML Response DTD

```
<!ELEMENT SecurePayMessage (MessageInfo, RequestType, MerchantInfo, Status,
Periodic)>

<!-- define elements for SecurePayMessage -->
<!ELEMENT MessageInfo (messageID, messageTimestamp, apiVersion)>
<!ELEMENT RequestType (#PCDATA)>
<!ELEMENT MerchantInfo (merchantID)>
<!ELEMENT Status (statusCode, statusDescription)>
<!ELEMENT Periodic (PeriodicList)>

<!-- define elements for MessageInfo -->
<!ELEMENT messageID (#PCDATA)>
<!ELEMENT messageTimestamp (#PCDATA)>
<!ELEMENT apiVersion (#PCDATA)>

<!-- define elements for MerchantInfo -->
<!ELEMENT merchantID (#PCDATA)>

<!-- define elements for Status -->
<!ELEMENT statusCode (#PCDATA)>
<!ELEMENT statusDescription (#PCDATA)>

<!-- define elements for Periodic -->
<!ELEMENT PeriodicList (PeriodicItem*)>
<!ATTLIST PeriodicList
    count CDATA #REQUIRED>

<!-- define elements for PeriodicList -->
<!ELEMENT PeriodicItem (actionType, clientID, CreditCardInfo?,
DirectEntryInfo?,
    amount?, periodicType?, paymentInterval?, startDate?, endDate?,
numberOfPayments?,
    responseCode, responseText, successful, settlementDate?, txnID?)>
<!ATTLIST PeriodicItem ID CDATA #REQUIRED>

<!-- define elements for PeriodicItem -->
<!ELEMENT actionType (#PCDATA)>
<!ELEMENT clientID (#PCDATA)>
<!ELEMENT CreditCardInfo (pan, expiryDate, recurringFlag?, cardType?,
cardDescription?)>
<!ELEMENT DirectEntryInfo (bsbNumber, accountNumber, accountName, creditFlag?)>
<!ELEMENT amount (#PCDATA)>
<!ELEMENT periodicType (#PCDATA)>
<!ELEMENT paymentInterval (#PCDATA)>
<!ELEMENT startDate (#PCDATA)>
<!ELEMENT endDate (#PCDATA)>
<!ELEMENT numberOfPayments (#PCDATA)>
<!ELEMENT responseCode (#PCDATA)>
<!ELEMENT responseText (#PCDATA)>
<!ELEMENT successful (#PCDATA)>
<!ELEMENT settlementDate (#PCDATA)>
<!ELEMENT txnID (#PCDATA)>

<!-- define elements for CreditCardInfo -->
<!ELEMENT pan (#PCDATA)>
```

```
<!ELEMENT expiryDate (#PCDATA)>
<!ELEMENT recurringFlag (#PCDATA)>
<!ELEMENT cardType (#PCDATA)>
<!ELEMENT cardDescription (#PCDATA)>

<!-- define elements for DirectEntryInfo -->
<!ELEMENT bsbNumber (#PCDATA)>
<!ELEMENT accountNumber (#PCDATA)>
<!ELEMENT accountName (#PCDATA)>
<!ELEMENT creditFlag (#PCDATA)>
```

Appendix I: EBCDIC Character Set

| Description | Characters allowed |
|---------------|--------------------|
| Numeric | 0 - 9 |
| Alphabetic | a - z, A - Z |
| Oblique slash | / |
| Hyphen | - |
| Ampersand | & |
| Period | . |
| Asterisk | * |
| Apostrophe | ' |
| Blank space | |