Account Manager
XML API

Document Version:	1.0.183
Issue Date:	06/29/2010
Comments:	

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1.0 General Information

PSiGate specializes in the integration and deployment of e-commerce payment service solutions. PSiGate's payment solutions enable automated and secure authorization and fulfillment of credit card and INTERAC Online transactions. PSiGate communicates directly with major Canadian and U.S. credit card financial institutions and supports businesses that wish to deploy an online storefront.

1.1 About this Guide

The Account Manager service has been created to allow merchants to register payment accounts for their customers and store their customers' payment information for future recurring or real-time authorization. Merchants may use payment account information to track customers' recurring or real-time transaction activity in the form of invoices. Merchants may either administer their accounts via an online interface available at https://secure.psigate.com or via an application you create using the information within this document.

This document provides merchants and their affiliates, the tools to integrate with PSiGate's *Account Manager XML Interface* to perform one of the following checked Account Manager actions:

Context Summary Level	Retrieve
Account (Summary)	☒
Charge (Summary)	☒
Invoice (Summary)	☒
Template (Summary)	☒
Email Report (Summary)	☒

Context Body Level	Register	Update	Delete	Get Detail	Enable/Disable	Express Charge
Account (Body)	☒	☒	☐	☒	☒	☐
Charge (Body)	☒	☒	☒	☒	☒	☒
Invoice (Body)	☐	☒	☐	☒	☒	☒
Template (Body)	☒	☒	☒	☒	☒	☐
Email Report (Body)	☒	☒	☒	☒	☒	☐

Context Detail Level	Add	Delete	Enable/Disable
Account (Detail)	☒	☒	☒
Charge (Detail)	☒	☒	☒
Template (Detail)	☒	☒	☒

1.2 Revision History

Document Version	Revision Date	Revised Items
0.0.00 to 0.0.01	March 10, 2008	• First draft edited • Email Reports section added
0.0.01 to 0.0.02	March 19, 2008	• Entity Relationship Diagram updated to place Invoice entity within Account entity. • Outline for Terminology section added.
0.0.02 to 0.0.03	March 24, 2008	• Terminology definitions defined.
0.0.03 to 0.0.04	March 25, 2008	• Minor formatting edits…
0.0.04 to 0.0.05	April 07, 2008	• Added Test Account Information • Added Test Card Numbers Appendix • Added Operating Requirements • Added Sample Scripts • Added Sample Email Receipts • Element Lists embedded within their appropriate Entity sections • Sorted Error List appendix and removed duplicate errors
0.0.05 to 0.0.06	April 11, 2008	• Changed development port to 8645 • Included "Inc." in logo • Added element list to Appendices
0.0.06 to 0.0.07	April 21, 2008	• Changed sample UserID and Password fields
0.0.07 to 0.0.08	April 23, 2008	• Removed disclaimer notice
0.0.08 to 0.0.09	April 28, 2008	• Altered sample requests • Altered Charge Template and Invoice Summary conditions
1.0.10 to 1.0.11	June 4, 2008	• UserID made a required verification element (Release Date)
1.0.12 to 1.0.14	August 28, 2008	• RBCID added to RBC99 response • SerialNo included as a Charge Body add or update element • SerioalNo description corrected
1.0.15 to 1.0.16	October 20, 2008	• Documentation edited for code sample and element table accuracy
1.0.16 to 1.0.18	February 17, 2010	• INV99 (Rebill invoices) added • DateFrom and DateTo elements added to searchable INV00 (Invoice Summary) conditions

1.3 Intended Audiences

Merchants, developers and shopping cart development teams with some level of XML programming proficiency.

1.4 Contact Information

Support Team:
Please contact the support team to help you integrate this document and resolve errors you encounter.
Phone: 1-877-374-9444 option 4
Email: support@psigate.com

Sales Team:
Phone: 1-877-374-9444 option 3
Email: support@psigate.com

2.0 About this Application

The *Account Manager API* allows merchants to create and configure customer accounts for the purpose of charging their customers in the future.

2.1 Account Manager Entity Relationship Diagram
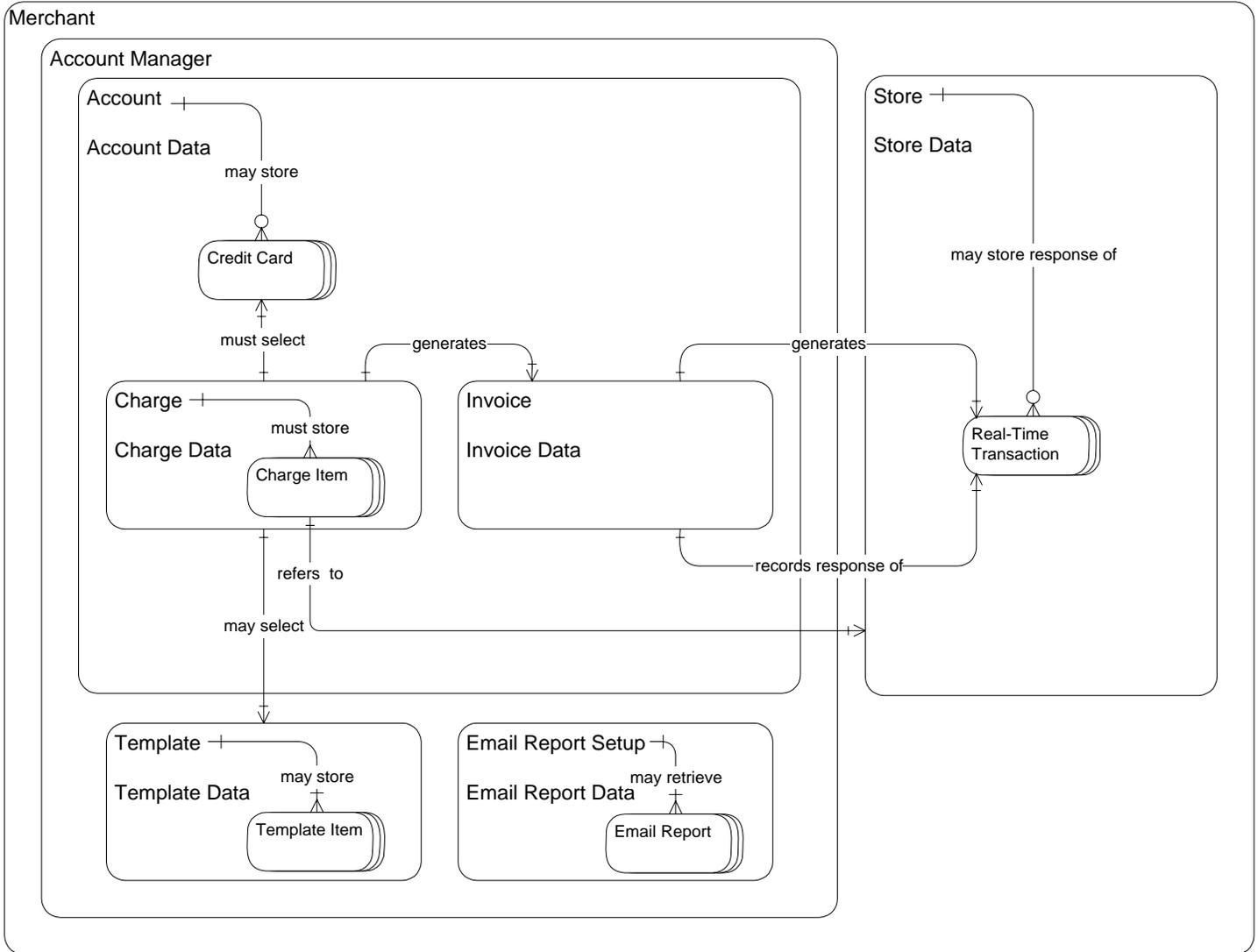
2.2 Terminology

Entity: A real or abstract object (noun) about which we want to store data.
Merchant: Any business that collects payment for the sale of goods or services.
Account: Merchant's customer or client.
Payment Method: The means by which payment is accepted. (ie. credit card, electronic account transfer, cheques, etc.)
Charge: The sum of controls that determine the amount of an invoice and the conditions in which that invoice is generated. Charges are assigned to accounts to control when and how a merchant receives payment from a client.
Item: The good or service provided to the client.
Invoice: An invoice is an electronic notification to the seller and buyer, indicating the products, quantities and agreed prices for products or services with which the seller has provided the buyer. An invoice indicates that payment is due from the buyer to the seller, according to the payment terms.
Charge Template: A profile of a charge that has not been assigned to an account. Merchants store charge templates to simplify the account setup process. Using charge templates prevents the merchant from inputting charge data that has already been created for another account.
Email Report: An electronic mail report of data. Report types include past invoices, soon to be expired cards, and soon to be expired charges.
Store: A profile that specifies how transactions are processed and settled. It communicates the identity of the merchant, how to route funds to the merchant and the currency of the transaction.
Transaction: A merchant's electronic request to receive payment from their client.

2.3 Operating Requirements

The XML Interface transfers data securely from a merchant's host server to PSiGate's transaction server.

Development Network Requirements: Access to **dev.psigate.com** through the outgoing **port 8645**

Production Network Requirements: PSiGate shall provide the Production Network Requirements to you once your application is complete.

3.0 Test Account Information

PSiGate's testing environment supports a shared test account that you are welcome to use while developing and testing your interface.

IMPORTANT:
- *Do **NOT** use real credit card numbers within the testing environment. For a list of test card numbers, please see **Appendix C: Test Card Numbers**.*
- *When you are ready to go live, send an email to support@psigate.com to receive your production URL and production parameters.*

Send your test transactions to: https://dev.psigate.com:8645/Messenger/AMMessenger.

To process a transaction through the test account, pass the following:

> CID: 1000001
> UserID: teststore
> Password: testpass

To review your test transactions, log into https://dev.psigate.com with the following account information:

> CID: 1000001
> User ID: teststore
> Password: testpass

If you require an unshared test account, send a request to support@psigate.com once the merchant has begun the application process.

4.0 Sample Implementation

Step One: Register account body and account detail information

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>AMA01</Action>
    <Account>
        <AccountID></AccountID>
        <Name>John Smith</Name>
        <Company>PSiGate Inc.</Company>
        <Address1>145 King St.</Address1>
        <Address2>2300</Address2>
        <City>Toronto</City>
        <Province>Ontario</Province>
        <Postalcode>M5H 1J8</Postalcode>
        <Country>Canada</Country>
        <Phone>1-905-123-4567</Phone>
        <Fax>1-905-123-4568</Fax>
        <Email>support@psigate.com</Email>
        <Comments>No Comment Today</Comments>
        <CardInfo>
            <CardHolder>John Smith</CardHolder>
            <CardNumber>4005550000000019</CardNumber>
            <CardExpMonth>08</CardExpMonth>
            <CardExpYear>11</CardExpYear>
        </CardInfo>
    </Account>
</Request>
```

Verification and Action Elements

Account Elements

Payment Method (Account Detail) Elements
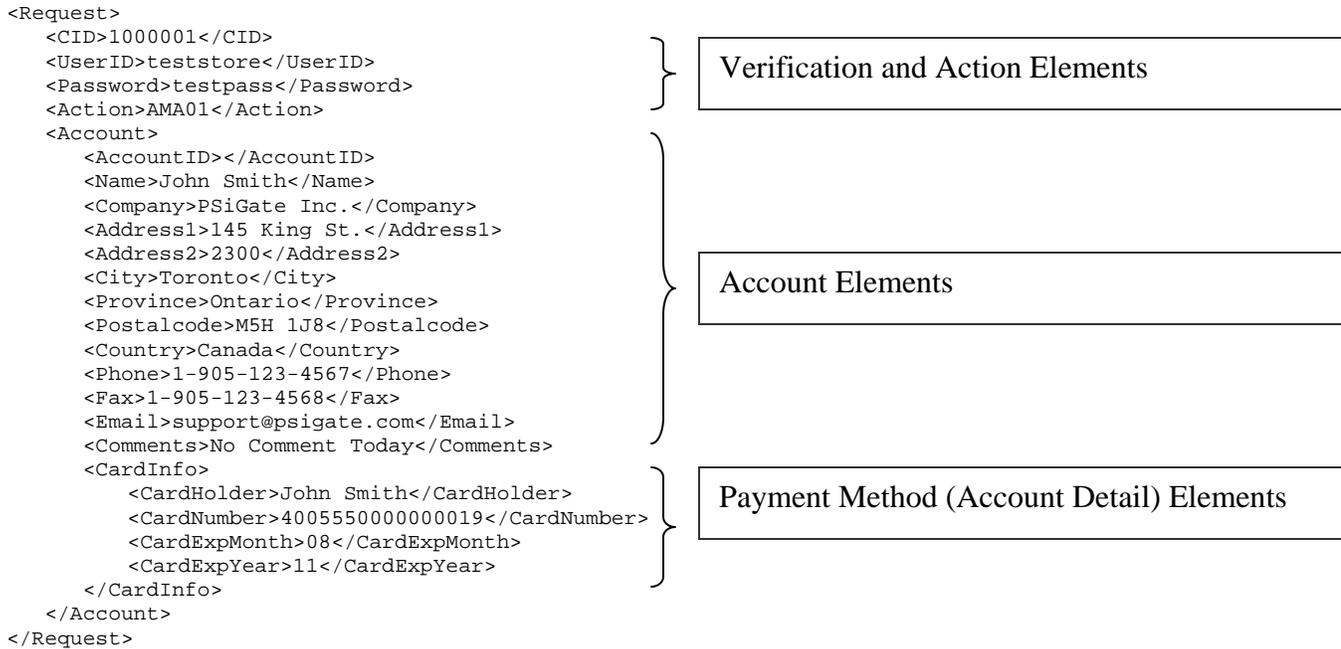
In step one an account entity is created and the following occurs:

- a unique AccountID is created by PSiGate and assigned to the account
- account information is recorded
- credit card information is collected

Step Two: Register charge information and item information.

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC01</Action>
   <Charge>
      <RBCID></RBCID>
      <RBName>Monthly Payment</RBName>
      <StoreID>teststore</StoreID>
      <AccountID>
         [Reference the AccountID received from Step One]
      </AccountID>
      <SerialNo>1</SerialNo>
      <Interval>M</Interval>
      <RBTrigger>12</RBTrigger>
      <EndTime>2011.12.31</EndTime>
      <ItemInfo>
         <ProductID>NEWSPAPER</ProductID>
         <Description>TORONTO STAR</Description>
         <Quantity>1</Quantity>
         <Price>25</Price>
         <Tax1>2</Tax1>
         <Tax2>1.25</Tax2>
      </ItemInfo>
      <ItemInfo>
         <ProductID>Three Month Promotion</ProductID>
         <Description>Flyer Coupon</Description>
         <Quantity>1</Quantity>
         <Price>-10</Price>
      </ItemInfo>
   </Charge>
</Request>
```

Verification and Action Elements

Charge Elements

Item (Charge Details) Elements
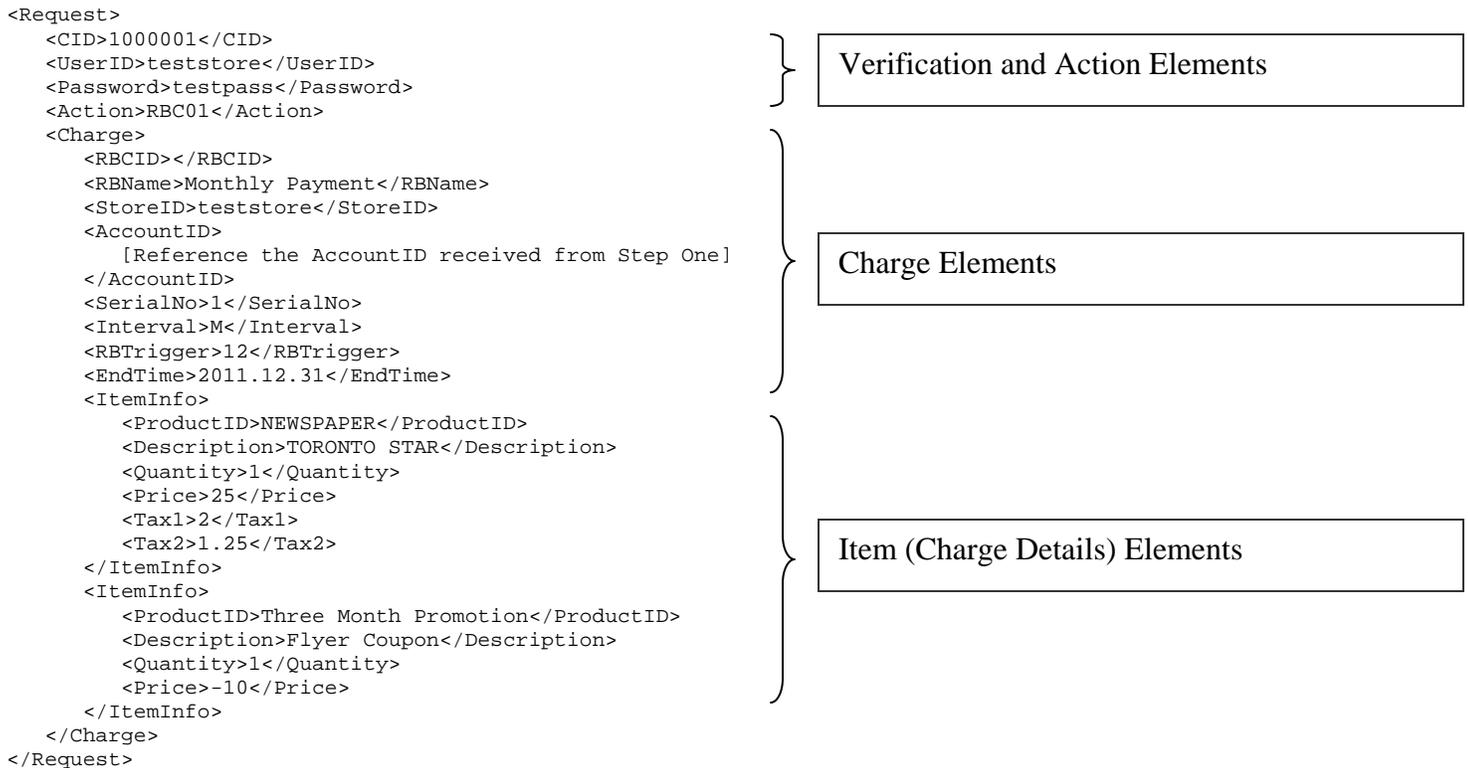
In step two a charge entity is created and the following occurs:
- a unique RBCID is created by PSiGate and assigned to the charge
- a store is selected that indicates the merchant's online bank account and currency
- an AccountID is referenced to assign the charge to an account
- the first credit card on file is selected to be used when the charge is triggered
- the charge interval is set to "Monthly"
- the trigger date is set to the twelfth of the month
- the end date is set to midnight December 31st, 2011
- the charge item is one Toronto Star newspaper that costs twenty five dollars in the currency of the selected store
- two set of taxes are applied to the charge
- one promotion credit (flyer coupon) is applied to the charge

5.0 Requests and Responses

5.1 Common Request Elements

The *Account Manager API* transfers XML requests from the merchant's application to PSiGate. Each Account Manager request contains verification elements, an action element and action-specific elements. The minimum number of action-specific elements required for a particular request depends on the value of the Action element.

Information is passed within the elements using this format: <Element>Value</Element>
Requests are context and action specific.

Note: There may be more than one set of detail level elements. Special symbols such as the ampersand symbol ("&") must be formatted for XML using UTF-8. The ampersand symbol is an invalid character and will cause an error if inputted within any element of the XML request. For example, the XML format for the ampersand is represented by the text "&".

5.1.1 Register Account Management User

To send transaction requests to the *Account Manager API,* a CID, Password and UserID must be registered for each merchant entity. The CID and Password are given to a merchant within a Welcome Email when their PSiGate gateway setup is completed. To create and register the UserID that you will use when submitting Account Manager XML requests, do the following:

1) Go to https://secure.psigate.com.
2) Login with the CID, UserID and User Password given within your *Welcome Email*.
3) Select "Setup User Permissions" from the merchant index.
4) Click "New User" button.
5) Create a UserID that is between 8 and 12 characters and contains at least one number, upper case letter and lower case letter.
Note – Never login to the Merchant Tools interface using this UserID otherwise its password will expire in 90 days and then you will have to change the UserID's password in both the interface and your code.
6) We recommend you give this UserID only the Account Management permissions cited below:
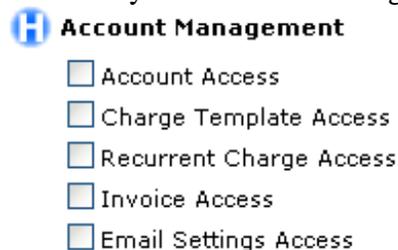
7) Click the "Save Merchant Level Permissions" button.
8) Use the UserID you have created as a verification element within transaction requests you send to the Account Manager API.

5.1.2 Verification Elements

The verification elements are CID, Password and UserID. These elements specify the merchant's client identifier, client password and the unique user identifier of the person or application making the request.

Name	Description	Notes
CID	Specifies the referred merchant account.	Required.
Password	Specifies the merchant account password. A request with an invalid password will not be accepted or processed.	Required. The maximum length of a Password is 12 characters.
UserID	Specifies the individual or application that created the request.	Required. The maximum length of a UserID is 12 characters.

5.1.3 Action Element

Each action code belongs to one of five entities. Those entities are: Accounts, Templates, Charges, Invoices and Reports. This document shall define each entity, list all entity-related actions and elements and provide sample requests and responses for each entity action.

Name	Description	Notes
Action	A code that specifies the action the system will use the data to perform. This element also determines which element(s) may be included within the request. See the context Action Tables or Appendix for values.	Required.

5.2 Basic Response Format

Each Account Manager response includes a reference to the merchant (CID), action description, result code, and result message.

Basic response format:

Basic Response Format

```
<Response>
   <CID>[CID]</CID>
   <Action>Action Description…</Action>
   <ReturnCode>[ReturnCode]</ReturnCode>
   <ReturnMessage>[ReturnMessage]</ReturnMessage>
</Response>
```

5.3 Context-specific Actions

The Account Manager API includes five entities: Accounts, Charges, Charge Templates, Invoices and Email Reports. Each entity may have three levels of information: Summary, Body and Detail. A context is a reference to an entity and level combination. Each context performs its own set of actions.

5.3.1 Context Information Table

	Summary	Body	Detail
Accounts	Account reference info	Account info	Payment Method
Charges	Charge reference info	Charge info	Item info
Invoices	Invoice reference info	Invoice info	N/A
Charge Templates	Template reference info	Charge Template info	Item info
Email Reports	Reporting reference info	Reporting info	N/A

5.3.2 Accounts

Accounts store customer contact information. Charges and payment methods such as credit cards are added to accounts for future billing of the customer. All account action values have the format "AMAXX".

Table of Account Actions

Context	Retrieve	Register (Add)	Update	Delete	Get Detail	Enable/Disable
Account (Summary)	AMA00					
Account (Body)		AMA01	AMA02		AMA05	AMA08/AMA09
Account (Detail)		AMA11		AMA14		AMA18/AMA19

Account Summary Request and Response

The only Account Summary action retrieves a list of all accounts registered to a merchant that matches account conditions. All accounts shall be listed if you include no conditions but if you do include conditions, only accounts that match all conditions will be listed. The retrieved AccountID and account holder name describe returned account records. You may use the retrieved AccountIDs to get the account body and account detail information via action "AMA05".

Account Summary request and response formats:

AMA00 Request Format (Retrieve)	AMA00 Response Format (Retrieve)
```<Request> Verification Elements… <Action>AMA00</Action> <Condition> Conditions… </Condition> </Request>```	```<Response> <CID> <Action>Action Description…</Action> <ReturnCode>Return Code</ReturnCode> <ReturnMessage>Return Message</ReturnMessage> <Condition> Given Conditions… </Condition> <Account>```

```
                                      <AccountID>[AccountID]</AccountID>
                                        <Name>[Name]</Name>
                                    </Account>
                                    More than one Charge Template record may
                                    exist.
                                  </Response>
```

Note: To display all registered accounts, do not include conditions.

Account Summary Action

Action: AMA00
Action Description: Retrieve account summary

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA00</Action>
   <Condition>
       <AccountID>[AccountID]</AccountID>
   </Condition>
</Request>
```
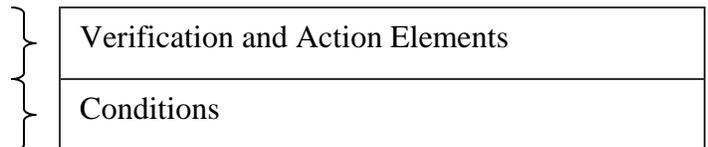
Verification and Action Elements

Conditions

Account elements listed below are used to filter the account summary and must be included within
<Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	0/25	
Name	Client's name	0/100	
Company	Billing company name	0/100	
Address1	Billing address line 1	0/100	
Address2	Billing address line 2	0/100	
City	Billing city	0/100	
Province	Billing province	0/100	
Postalcode	Billing postalcode	0/100	
Country	Billing country	0/50	
Phone	Phone number	0/50	
Fax	Fax number	0/50	
Email	Email address	0/100	Receipt sent to the email address given.
Comments	Comments	0/300	

Note: Only accounts that exactly match the given conditions will be returned.

Account Body Formats

Account Body requests may follow one of three formats. The account body "register" request (action AMA01) format includes account information and associated payment method (credit card) information. The account body "update" request (action AMA02) format includes a reference to an account (AccountID) and the updated account information. All other request formats include only a reference to the account.

Account Body request formats:

AMA01 Request Format (Register)	AMA02 Request Format (Update)	AMA0X Request Format (Other)

`<Request>`
`   Verification Elements…`
`   <Action>AMA01</Action>`
`   <Account>`
`      Account Elements…`
`      <CardInfo>`
`         Card Elements…`
`      </CardInfo>`
`   </Account>`
`</Request>`
	`<Request>`
	`   Verification Elements…`
	`   <Action>AMA02</Action>`
	`   <Condition>`
	`      <AccountID>`
	`         [AccountID]`
	`      </AccountID>`
	`   </Condition>`
	`   <Update>`
	`      Updated Account Elements…`
	`   </Update>`
	`</Request>`
		`<Request>`
		`   Verification Elements…`
		`   <Action>AMA0X</Action>`
		`   <Condition>`
		`      <AccountID>`
		`         [AccountID]`
		`      </AccountID>`
		`   </Condition>`
		`</Request>`

Note: Currently, credit cards are the only accepted payment method. Credit card information within Account requests must be placed within the element "CardInfo".

Account Body Actions

Action: AMA01
Action Description: Register a new account

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA01</Action>
   <Account>
      <AccountID></AccountID>
      <Name>John Smith</Name>
      <Company>PSiGate Inc.</Company>
      <Address1>145 King St.</Address1>
      <Address2>2300</Address2>
      <City>Toronto</City>
      <Province>Ontario</Province>
      <Postalcode>M5H 1J8</Postalcode>
      <Country>Canada</Country>
      <Phone>1-905-123-4567</Phone>
      <Fax>1-905-123-4568</Fax>
      <Email>support@psigate.com</Email>
      <Comments>No Comment Today</Comments>
      <CardInfo>
         <CardHolder>John Smith</CardHolder>
         <CardNumber>4005550000000019</CardNumber>
         <CardExpMonth>08</CardExpMonth>
         <CardExpYear>11</CardExpYear>
      </CardInfo>
   </Account>
</Request>
```

Verification and Action Elements

Account Elements

Payment Method (Account Detail) Elements

Account elements listed below are used to describe the newly registered account and must be included within
<Account></Account>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	0/25	Optional. Must be unique. If not provided, PSiGate will assign.
Name	Client's name	0/100	Optional.
Company	Billing company	0/100	Optional.
Address1	Billing address line 1	0/100	Optional.
Address2	Billing address line 2	0/100	Optional.
City	Billing city	0/100	Optional.
Province	Billing province	0/100	Optional.
Postalcode	Billing postal code	0/100	Optional.
Country	Billing Country	0/50	Optional.
Phone	Phone number	0/50	Optional.
Fax	Fax number	0/50	Optional.
Email	Email address	0/100	Optional.
Comments	Comments	0/300	Optional.

Card elements (aka. Account Details) are used to describe the newly registered account and must be included within <Account><CardInfo></CardInfo></Account>.

Name	Description	Length Min/Max	Notes
CardHolder	Card Holder Name	0/100	Optional.
CardNumber	Card Number	10/16	Optional.
CardExpMonth	Card Expiry Month	2/2	Optional.
CardExpYear	Card Expiry Year	2/2	Optional.

Action: AMA02
Action Description: Update an account

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA02</Action>
   <Condition>
      <AccountID>
          [AccountID]
      </AccountID>
   </Condition>
   <Update>
      <Address1>[Address1]</Address1>
   </Update>
</Request>
```

Verification and Action Elements

Conditions

Updatable Account Elements

The account identifier of the account to be updated must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.

Updatable account elements listed below must be included within <Update></Update>.

Name	Description	Length Min/Max	Notes
Company	Billing company	0/100	Optional.
Name	Client's name	0/100	Optional.
Address1	Billing address line 1	0/100	Optional.
Address2	Billing address line 2	0/100	Optional.
City	Billing city	0/100	Optional.
Province	Billing province	0/100	Optional.
Postalcode	Billing postal code	0/100	Optional.
Country	Billing Country	0/50	Optional.
Phone	Phone number	0/50	Optional.
Fax	Fax number	0/50	Optional.
Email	Email address	0/100	Optional.
Comments	Comments	0/300	Optional.

Action: AMA05
Action Description: Retrieve account details

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA05</Action>
   <Condition>
      <AccountID>[AccountID]</AccountID>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions

The account identifier of the account details to be retrieved must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.

Action: AMA08
Action Description: Enable account(s)

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA08</Action>
   <Condition>
      <AccountID>[AccountID]</AccountID>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions

The account identifier(s) of the account to be enabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required, may be multiple.

Action: AMA09
Action Description: Disable account(s)

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA09</Action>
   <Condition>
      <AccountID>[AccountID]</AccountID>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions

The account identifier(s) of the account to be disabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required, may be multiple.

Account Body Responses

Account Body responses may follow one of three formats. The account body "register" response includes basic response information, account information and associated payment information. The account body "update" response includes basic response information, updated account information and a reference to the affected account (AccountID). All other responses aside from the "retrieve" request (action AMA05), aside from basic response information, include only a reference to the affected account(s). The "retrieve" response additionally includes account information.

Account Body response formats:

AMA01 Response Format (Register)	AMA02 Response Format (Update)	AMA0X Response Format (Other)

<pre><Response>
   <CID>[CID]</CID>
   <Action>
      Action Description…
   </Action>
   <ReturnCode>
      Return Code…
   </ReturnCode>
   <ReturnMessage>
      Return Message…
   </ReturnMessage>
   <Account>
      Account Elements…
      <CardInfo>
         Credit Card Elements…
      </CardInfo>
   </Account>
</Response></pre>
	<pre><Response>
	   <CID>[CID]</CID>
	   <Action>
	      Action Description…
	   </Action>
	   <ReturnCode>
	      Return Code…
	   </ReturnCode>
	   <ReturnMessage>
	      Return Message…
	   </ReturnMessage>
	   <Condition>
	      <AccountID>
	         [AccountID]
	      </AccountID>
	   </Condition>
	   <Update>
	      Updated Account Elements…
	   </Update>
	</Response></pre>
		<pre><Response>
		   <CID>[CID]</CID>
		   <Action>
		      Action Description…
		   </Action>
		   <ReturnCode>
		      Return Code…
		   </ReturnCode>
		   <ReturnMessage>
		      Return Message…
		   </ReturnMessage>
		   <Condition>
		      <AccountID>
		         [AccountID]
		      </AccountID>
		   </Condition>
		   Action AMA05 displays
		   Account information here…
		</Response></pre>

Account Detail Formats

Account Detail requests may follow one of two formats. The account detail "add" request (action AMA11) format includes a reference to an account (AccountID) and associated payment information to be added to the account. All other request formats include a reference to an account and a reference to the associated payment data (SerialNo).

Account Detail request formats:

AMA11 Request Format (Add)	AMA1X Request Format (Other)
<pre><Request>
Verification Elements…
<Action>AMA11</Action>
<Account>
<AccountID>[AccountID]</AccountID>
<CardInfo>
Card Elements…
</CardInfo>
</Account>
</Request></pre>	<pre><Request>
Verification Elements…
<Action>AMA1X</Action>
<Condition>
<AccountID>[AccountID]</AccountID>
<SerialNo>[SerialNo]</SerialNo>
</Condition>
</Request></pre>

Note: There is no account detail (credit card or future payment methods) update request. Instead new payment data is added and old payment data is disabled or deleted.

Account Detail Actions

Action: AMA11
Action Description: Add new credit card(s) to an account

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA11</Action>
   <Account>
      <AccountID>[AccountID]</AccountID>
      <CardInfo>
         <CardHolder>Johnathan Smith</CardHolder>
         <CardNumber>4111111111111111</CardNumber>
         <CardExpMonth>07</CardExpMonth>
         <CardExpYear>12</CardExpYear>
      </CardInfo>
   </Account>
</Request>
```

Verification and Action Elements

AccountID

Payment Method (Account Detail) Elements
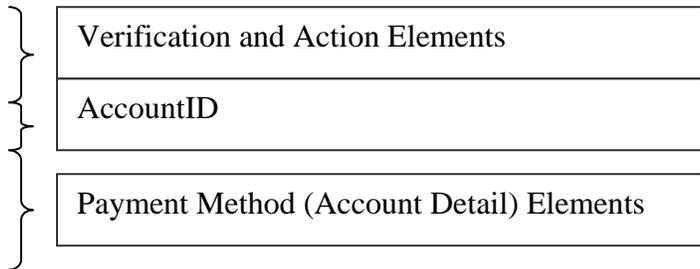
The account identifier of the account to which the card(s) will be added must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.

Card elements (aka. Account Details) listed below are used to describe a registered account and must be included within <Account><CardInfo></CardInfo></Account>.

Name	Description	Length Min/Max	Notes
CardHolder	Cardholder name	0/100	Optional.
CardNumber	Card number	10/16	Required.
CardExpMonth	Card expiry month	2/2	Required.
CardExpYear	Card expiry year	2/2	Required.

Action: AMA14
Action Description: Delete a payment method

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA14</Action>
   <Condition>
      <AccountID>[AccountID]</AccountID>
      <SerialNo>[SerialNo]</SerialNo>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
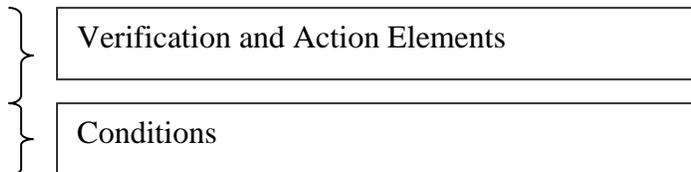
The account identifier and payment method serial number of the account from which the payment method(s) will be deleted must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment method serial number	0/2, Pregenerated by PSiGate	Required.

Action: AMA18
Action Description: Enable a payment method

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA18</Action>
   <Condition>
      <AccountID>[AccountID]</AccountID>
      <SerialNo>[SerialNo]</SerialNo>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
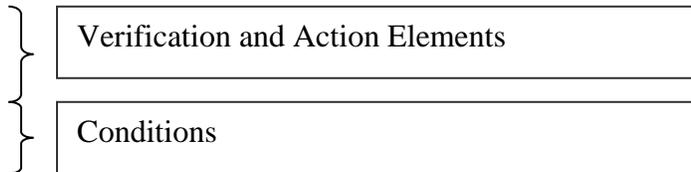
The account identifier and payment method serial number of the account whose card will be enabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment method serial number	0/2, Pregenerated by PSiGate	Required.

Action: AMA19
Action Description: Disable a payment method

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>AMA19</Action>
   <Condition>
      <AccountID>[AccountID]</AccountID>
      <SerialNo>[SerialNo]</SerialNo>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
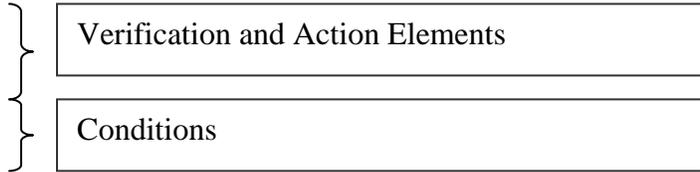
The account identifier and payment method serial number of the account whose card will be disabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment method serial number	0/2, Pregenerated by PSiGate	Required.

Account Detail Responses

Account Detail responses may follow one of two formats. The account detail "Add" response is a basic response format while other account detail responses includes the basic response and a reference to the affected account (AccountID) and associated payment data (SerialNo).

Account Detail response formats:

AMA11 Response Format (Add)	AMA1X Response Format (Other)
```<Response> <CID>[CID]</CID> <Action>Action Description…</Action> <ReturnCode>[ReturnCode]</ReturnCode> <ReturnMessage>[ReturnMessage]</ReturnMessage></Response>```	```<Response> <CID>[CID]</CID> <Action>Action Description…</Action> <ReturnCode>[ReturnCode]</ReturnCode> <ReturnMessage>[ReturnMessage]</ReturnMessage> <Condition> <AccountID>[AccountID]</AccountID> <SerialNo>[SerialNo]</SerialNo> </Condition></Response>```

Note: There is no account detail (credit card or future payment methods) update request. Instead new payment data is added and old payment data is disabled or deleted.

5.3.3 Charges

Charges control how accounts are charged. Charges set the store profile, payment method (credit card), charge interval, and trigger date used to process the invoice. All charge action values have the format "RBCXX".

Table of Charge Actions

Context	Retrieve	Register (Add)	Update	Delete	Get Detail	Enable/Disable	Immediate Charge
Charge (Summary)	RBC00						
Charge (Body)		RBC01	RBC02	RBC04	RBC05	RBC08/RBC09	RBC99
Charge (Detail)		RBC11		RBC14		RBC18/RBC19	

Charge Summary Formats

The only Charge Summary action retrieves a list of all charges registered to a merchant that matches given charge conditions. All charges will be listed if you include no conditions but if you choose to include conditions, only charges that match all given conditions will be listed. You may use the retrieved RBCIDs to get charge body and charge detail information via action "RBC05".

Charge Summary request and response formats:

RBC00 Request Format (Retrieve)	RBC00 Response Format (Retrieve)

<pre><Request>
   Verification Elements…
   <Action>RBC00</Action>
   <Condition>
      <RBTrigger>[RBTrigger]</RBTrigger>
      Other Conditions…
   </Condition>
</Request></pre>
	<pre><Response>
	   <CID>
	   <Action>Action Description…</Action>
	   <ReturnCode>Return Code</ReturnCode>
	   <ReturnMessage>Return Message</ReturnMessage>
	   <Condition>
	      <RBTrigger>[RBTrigger]</RBTrigger>
	      Given Conditions…
	   </Condition>
	   <ChargeTemplate>
	      <RBCID>[RBCID]</RBCID>
	      Other charge elements…
	   </ChargeTemplate>
	   More than one Charge record may exist.
	</Response></pre>

Note: To display all registered charges, do not include conditions.

Charge Summary Action

Action: RBC00
Action Description: Retrieve charge summary

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>RBC00</Action>
    <Condition>
        <Status>Active</Status>
    </Condition>
</Request>
```

Verification and Action Elements

Conditions

Charge elements listed below are used to filter the charge summary and must be included within
<Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional.
AccountID	Unique account identifier	0/25	Optional.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID	1/25	Optional. Controls settlement currency
Interval	Charge interval	1/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: Weekly - "1" (Sunday = 1) Monthly - "25" (25th) Quarterly - "03-25" (Mar. 25) Annually - "03-25" (Mar. 25)
ProcessType	Payment schedule type	1/1	Default is "A". Process types include: A: Automatic I: Installment M: Manual
Status	Current status of charge	6/8	Displays "Active" or "Inactive". **Note**: The RBTrigger of active charges will generate invoices provided the date/time is within the StartTime and End Time
StartTime	Charge start date and time inclusive.	0/10	YYYY.MM.DD
EndTime	Charge start date and time inclusive.	0/10	YYYY.MM.DD

Note: Only charges that exactly match the given conditions will be returned.

Charge Body Formats

Charge Body requests may follow one of four formats. The charge body "register" request (action RBC01) includes charge information and associated item information. The charge body "update" request (action RBC02) includes a reference to a charge (RBCID) and updated charge information. The charge body "immediate charge" request (action RBC99) includes charge information and associated item information. All other charge body requests include only a reference to the affected charge.

Charge Body request formats:

RBC01 Request Format (Register)	RBC02 Request Format (Update)

<pre><Request>
   Verification Elements…
   <Action>RBC01</Action>
   <Charge> (May be multiple)
      Charge Elements…
      <ItemInfo> (May be multiple)
         Item Elements…
      </ItemInfo>
   </Charge>
</Request></pre>
	<pre><Request>
	   Verification Elements…
	   <Action>RBC02</Action>
	   <Condition>
	      <RBCID>[RBCID]</RBCID>
	   </Condition>
	   <Update>
	      Updated Charge Elements…
	   </Update>
	</Request></pre>

RBC0X Request Format (Other)	RBC99 Request Format (Immediate Charge)

<pre><Request>
   Verification Elements…
   <Action>RBC0X</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
   </Condition>
</Request></pre>
	<pre><Request>
	   Verification Elements…
	   <Action>RBC99</Action>
	   <Charge>
	      Immediate Charge Elements…
	      <ItemInfo> (May be multiple)
	         Item Elements…
	      </ItemInfo>
	   </Charge>
	</Request></pre>

Charge Body Actions

Action: RBC01
Action Description: Register a new charge

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC01</Action>
   <Charge>
      <RBCID></RBCID>
      <RBName>Monthly Payment</RBName>
      <StoreID>teststore</StoreID>
      <AccountID>
         [Reference the AccountID received from Step One]
      </AccountID>
      <SerialNo>1</SerialNo>
      <Interval>M</Interval>
      <RBTrigger>12</RBTrigger>
      <EndTime>2011.12.31</EndTime>
      <ItemInfo>
         <ProductID>NEWSPAPER</ProductID>
         <Description>TORONTO STAR</Description>
         <Quantity>1</Quantity>
         <Price>25</Price>
         <Tax1>2</Tax1>
         <Tax2>1.25</Tax2>
      </ItemInfo>
      <ItemInfo>
         <ProductID>Three Month Promotion</ProductID>
         <Description>Flyer Coupon</Description>
         <Quantity>1</Quantity>
         <Price>-10</Price>
      </ItemInfo>
   </Charge>
</Request>
```

Verification and Action Elements

Charge Elements

Item Elements

Charge elements listed below are used to describe the newly registered charge and must be included within <Charge></Charge>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional. If not provided, PSiGate will assign.
AccountID	Unique account identifier	1/25	Required.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID	1/25	Required. Controls settlement currency
SerialNo	Payment method serial number	1/2	Required. Identifies the registered payment method to be charged.
Interval	Charge interval	1/1	Optional, Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually

RBTrigger	Charge trigger date	0/10	Optional for Daily intervals. Required for other intervals. Indicates specific trigger date within an interval. Trigger date formats: OneTime - "2012.12.31" Daily - "" Not applicable Weekly - "1" (Sunday = 1) Monthly - "25" (25th) Quarterly - "03-25" (Mar. 25) Annually - "03-25" (Mar. 25)
ProcessType	Payment schedule type	1/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional. Default is the creation date of the charge.
EndTime	Charge start date and time inclusive.	0/10	Optional. Default is forever.

Item elements (aka. Charge Details) listed below are used to determine the recurring amount of the newly registered charge and must be included within <Charge><ItemInfo></ItemInfo></Charge>.

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required
Description	Item description	0/150	Optional
Quantity	Item quantity	1/10	Required
Price	Item price	1/10	Required
Tax1	First Tax	0/10	Optional
Tax2	Second Tax	0/10	Optional
Cost	Item cost	0/10	Optional

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Action: RBC02
Action Description: Update a charge

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>RBC02</Action>
    <Condition>
        <RBCID>[RBCID]</RBCID>
    </Condition>
    <Update>
        <RBTrigger>25</RBTrigger>
    </Update>
</Request>
```

Verification and Action Elements

Conditions

Updatable Charge Elements
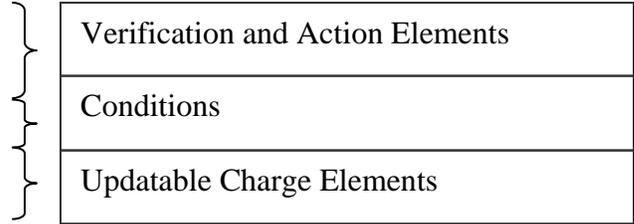
The charge identifier of the charge to be updated must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Updatable charge elements listed below must be included within <Update></Update>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	0/25	Optional.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID	0/25	Optional. Controls settlement currency
SerialNo	Payment method serial number	0/2	Optional. Identifies the registered payment method to be charged.
Interval	Charge interval	0/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: OneTime - "2012.12.31" Daily - "" Not applicable Weekly - "1" (Sunday = 1) Monthly - "25" (25th) Quarterly - "03-25" (Mar. 25) Annually - "03-25" (Mar. 25)
ProcessType	Payment schedule type	0/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional. Default is the

			creation date of the charge.
EndTime	Charge start date and time inclusive.	0/10	Optional. Default is forever.

Action: RBC04
Action Description: Delete a charge

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC04</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
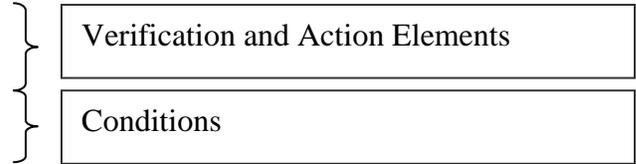
The charge identifier of the charge details to be deleted must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Action: RBC05
Action Description: Retrieve charge details

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC05</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
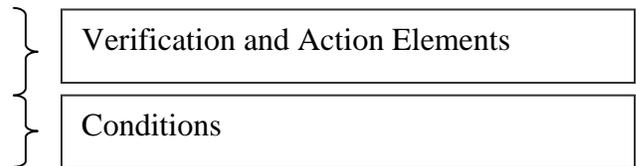
The charge identifier of the charge details to be retrieved must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Action: RBC08
Action Description: Enable charge(s) – Changes the charge status to "Active"

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC08</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
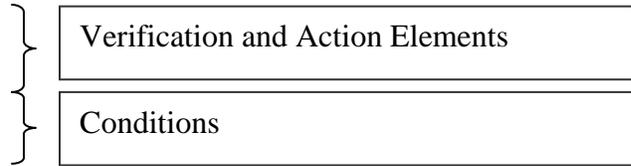
The charge identifier(s) of the charge details to be enabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required, may be multiple.

Action: RBC09
Action Description: Disable charge(s) – Changes the charge status to "Inactive"

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC09</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
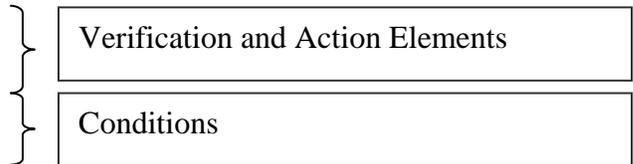
The charge identifier(s) of the charge details to be disabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required, may be multiple.

Action: RBC99
Action Description: Perform an immediate charge

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>RBC99</Action>
    <Charge>
        <RBCID></RBCID>
        <RBName>Immediate Payment</RBName>
        <StoreID>teststore</StoreID>
        <AccountID>
            [Reference the AccountID received from Step One]
        </AccountID>
        <SerialNo>1</SerialNo>
        <ItemInfo>
            <ProductID>NEWSPAPER</ProductID>
            <Description>TORONTO STAR</Description>
            <Quantity>1</Quantity>
            <Price>25</Price>
            <Tax1>2</Tax1>
            <Tax2>1.25</Tax2>
        </ItemInfo>
    </Charge>
</Request>
```

Verification and Action Elements

Charge Elements

Item Elements

Charge elements listed below are used to describe the immediate charge and must be included within
<Charge></Charge>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional. If not provided, PSiGate will assign.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID	1/25	Required. Controls settlement currency
AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment method serial number	1/2	Required. Identifies the registered payment method to be charged.

Item elements (aka. Charge Details) listed below are used to determine the amount to immediately charge and
must be included within <Charge><ItemInfo></ItemInfo></Charge>.

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required
Description	Item description	0/150	Optional
Quantity	Item quantity	1/10	Required
Price	Item price	1/10	Required
Tax1	First Tax	0/10	Optional
Tax2	Second Tax	0/10	Optional
Cost	Item cost	0/10	Optional

*Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies,
PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.*

Charge Body Responses

Charge Body responses may follow one of four formats.   The charge body "Add" response includes the basic response, charge information and associated item information. The charge body "update" response includes the basic response, a reference to the affected charge (RBCID) and the updated charge information. The charge body "immediate charge" response includes the basic response and a reference to the affected charge. All other charge body responses include the basic response and a reference to the affected charge (RBCID).

Charge Body response formats:

RBC01 Response Format (Register)	RBC02 Response Format (Update)

<pre><Response>
   Verification Elements…
   <Action>Action Description…</Action>
   <ReturnCode>
      Return Code…
   </ReturnCode>
   <ReturnMessage>
      Return Message…
   </ReturnMessage>
   <Charge> (May be multiple)
      Charge Elements…
      <ItemInfo> (May be multiple)
         Item Elements…
      </ItemInfo>
   </Charge>
</Response></pre>
	<pre><Response>
	   Verification Elements…
	   <Action>Action Description…</Action>
	   <ReturnCode>
	      Return Code…
	   </ReturnCode>
	   <ReturnMessage>
	      Return Message…
	   </ReturnMessage>
	   <Condition>
	      <RBCID>[RBCID]</RBCID>
	   </Condition>
	   <Update>
	      Updated Charge Elements…
	   </Update>
	</Response></pre>

RBC0X Response Format (Other)	RBC99 Response Format (Immediate Charge)

<pre><Response>
   Verification Elements…
   <Action>Action Description…</Action>
   <ReturnCode>
      Return Code…
   </ReturnCode>
   <ReturnMessage>
      Return Message…
   </ReturnMessage>
   <Condition>
      <RBCID>[RBCID]</RBCID>
   </Condition>
   Action RBC05 displays Charge information here…
</Response></pre>
	<pre><Response>
	   Verification Elements…
	   <Action>Action Description…</Action>
	   <ReturnCode>
	      Return Code…
	   </ReturnCode>
	   <ReturnMessage>
	      Return Message…
	   </ReturnMessage>
	   <Condition>
	      <RBCID>[RBCID]</RBCID>
	   </Condtion>
	   <Invoice>
	      <StoreID>[StoreID]</StoreID>
	      <PayerName>[PayerName]</PayerName>
	      <Status>[Status]</Status>
	      <InvoiceNo>[InvoiceNo]</InvoiceNo>
	      <SubNo>[SubNo]</SubNo>
	      <ReturnCode>[ReturnCode]</ReturnCode>
	      <ErrMsg>[ErrMsg]</ErrMsg>
	      <ExecDate>[ExecDate]</ExecDate>
	      <AccountID>[AccountID]</AccountID>
	      <SerialNo>[SerialNo]</SerialNo>
	      <CardNumber>[CardNumber]</CardNumber>
	      <CardExpMonth>[CardExpMonth]</CardExpMonth>
	      <CardExpYear>[CardExpYear]</CardExpYear>
	      <CardType>[CardType]</CardType>
	   </Invoice>
	</Response></pre>

Charge Detail Formats

Charge detail requests may follow one of two formats. The charge detail "Add" request (action RBC11) format includes a reference to the "RBCID" and item information. All other request formats include a reference to the merchant's "RBCID" and payment method (SerialNo).

Charge Detail request formats:

RBC11 Request Format (Add)	RBC1X Request Format (Other)

<pre><Request>
   Verification Elements…
   <Action>RBC11</Action>
   <Charge>
      <RBCID>[RBCID]</RBCID>
      <ItemInfo>
         Item Elements…
      </ItemInfo>
   </Charge>
</Request></pre>
	<pre><Request>
	   Verification Elements…
	   <Action>RBC1X</Action>
	   <Condition>
	      <RBCID>[RBCID]</RBCID>
	      <ItemSerialNo>[ItemSerialNo]</ItemSerialNo>
	   </Condition>
	</Request></pre>

Charge Detail Actions

Action: RBC11
Action Description: Add new charge item(s)

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC11</Action>
   <Charge>
      <StoreID>teststore</StoreID>
      <AccountID>
         [Reference the AccountID of the account the charge item is to be added to]
      </AccountID>
      <SerialNo>1</SerialNo>
      <Interval>M</Interval>
      <RBTrigger>20</RBTrigger>
      <RBCID>
        [Reference the RBCID of the charge the charge item is to be added to]
      </RBCID>
      <ItemInfo>
         <ProductID>MEMBERSHIP</ProductID>
         <Description>CAA</Description>
         <Quantity>1</Quantity>
         <Price>60</Price>
         <Tax1></Tax1>
         <Tax2></Tax2>
         <Cost></Cost>
      </ItemInfo>
   </Charge>
</Request>
```

Verification and Action Elements

The charge identifier of the account containing the item information to be added must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes

RBCID	Unique charge identifier	1/25	Required.

The item elements (Charge Details) listed below are used to determine the amount to immediately charge and must be included within <Charge><ItemInfo></ItemInfo></Charge>. May be multiple.

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required. May be multiple.
Description	Item description	0/150	Optional.
Quantity	Item quantity	1/10	Required.
Price	Item price	1/10	Required.
Tax1	First Tax	0/10	Optional.
Tax2	Second Tax	0/10	Optional.
Cost	Item cost	0/10	Optional.

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Action: RBC14
Action Description: Delete a charge item

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC14</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
      <ItemSerialNo>[SerialNo]</ItemSerialNo>
   </Condition>
</Request>
```
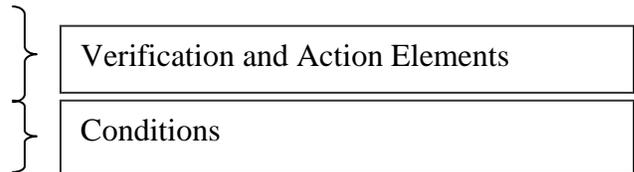
Verification and Action Elements

Conditions

The charge identifier and item serial number of the charge item whose item information will be deleted must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.
ItemSerialNo	Item serial number	0/2, Pregenerated by PSiGate	Required.

Action: RBC18
Action Description: Enable a charge item - Changes the charge item status returned via RBC05 to "Active"

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC18</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
      <ItemSerialNo>[SerialNo]</ItemSerialNo>
   </Condition>
```
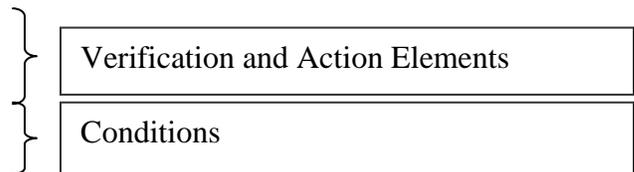
Verification and Action Elements

Conditions

```
</Request>
```

The charge identifier and item serial number of the charge item whose item information will be enabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.
ItemSerialNo	Item serial number	0/2, Pregenerated by PSiGate	Required.

Action: RBC19
Action Description: Disable a charge item - Changes the charge item status returned via RBC05 to "Inactive"

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>RBC19</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
      <ItemSerialNo>[SerialNo]</ItemSerialNo>
   </Condition>
</Request>
```
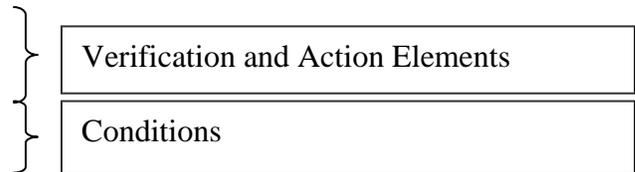
Verification and Action Elements

Conditions

The charge identifier and item serial number of the charge item whose item information will be disabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.
ItemSerialNo	Item serial number	0/2, Pregenerated by PSiGate	Required.

Charge Detail Response Formats

Charge Detail responses may follow one of two formats. The charge detail "add" response includes the basic response information, charge information and associated item information. All other charge detail responses follow the basic response format.

Charge Detail response formats:

RBC11 Response Format (Add)	RBC1X Response Format (Other)
<pre><Response>
   <CID>[CID]</CID>
   <Action>Action Description…</Action>
   <ReturnCode>[ReturnCode]</ReturnCode>
   <ReturnMessage>
      [ReturnMessage]
   </ReturnMessage>
   <Charge>
      <RBCID>[RBCID]</RBCID></pre>	<pre><Response>
   <CID>[CID]</CID>
   <Action>Action Description…</Action>
   <ReturnCode>[ReturnCode]</ReturnCode>
   <ReturnMessage>
      [ReturnMessage]
   </ReturnMessage>
</Response></pre>

```
         <ItemInfo> (May be multiple)
              Item Elements…
         </ItemInfo>
     </Charge>
</Response>
```

Note: There is no Charge Detail (item info) update request. Instead new items are added and old items are disabled or deleted.

5.3.4 Charge Templates

As a convenience, merchants may store charge profiles as templates and select those templates when charges are assigned to accounts from within the online interface. All charge template action values have the format "CTLXX".

Table of Charge Template Actions

Context	Retrieve	Register (Add)	Update	Delete	Get Detail	Enable/Disable
Charge Template (Summary)	CTL00					
Charge Template (Body)		CTL01	CTL02	CTL04	CTL05	CTL08/CTL09
Charge Template (Detail)		CTL11		CTL14		CTL18/CTL19

Charge Template Summary Request and Response

The only Charge Template Summary action retrieves a list of all templates registered to a merchant that matches template conditions. All templates shall be listed if you include no conditions but if you do include conditions, only templates that match all conditions will be listed. The retrieved RBCID and charge template data describe existing charge template records. You may use the retrieved RBCIDs to get the charge template body and charge template detail information via action "CTL05".

Charge Template Summary request and response formats:

CTL00 Request Format (Retrieve)	CTL00 Response Format (Retrieve)
<pre><Request>
   Verification Elements…
   <Action>CTL00</Action>
   <Condition>
      <Status>[Status]</Status>
      Other Conditions…
   </Condition>
</Request></pre>	<pre><Response>
   <CID>
   <Action>Action Description…</Action>
   <ReturnCode>Return Code</ReturnCode>
   <ReturnMessage>Return Message</ReturnMessage>
   <Condition>
       <Status>[Status]</Status>
       Given Conditions…
   </Condition>
   <ChargeTemplate> (May be multiple)
       <RBCID>[RBCID]</RBCID>
       Other charge template elements…
   </ChargeTemplate>
</Response></pre>

Note: To display all registered templates, do not include conditions.

Charge Template Summary Action

Action: CTL00
Action Description: Retrieve Charge Template Summary

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>CTL00</Action>
    <Condition>
        <Interval>M</Interval>
    </Condition>
</Request>
```

Verification and Action Elements

Conditions
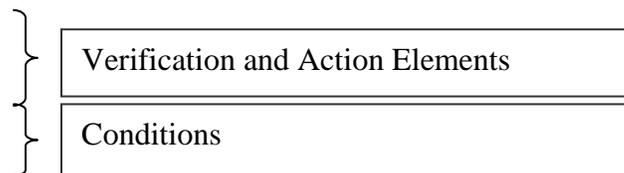
Charge Template elements listed below may be used to filter the charge template summary and must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (Controls settlement currency)	0/25	Optional.
Interval	Charge interval	0/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: OneTime - "2012.12.31" Daily - "" Not applicable Weekly - "1" (Sunday = 1) Monthly - "25" (25th) Quarterly - "03-25" (Mar. 25) Annually - "03-25" (Mar. 25)
ProcessType	Payment schedule type	0/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
Status	Current status of charge template	0/8	Optional. Either "Active" or "Inactive". **Note**: The RBTrigger of active charges will generate invoices provided the date/time is within the StartTime and End Time
StartTime	Charge start date and time inclusive.	0/10	Optional. YYYY.MM.DD format
EndTime	Charge start date and time inclusive.	0/10	Optional. YYYY.MM.DD format

Note: Only charge templates that exactly match the given conditions will be returned.

Charge Template Body Requests

Charge Template Body requests may follow one of three formats. The charge template body "Register" request (action CTL01) includes new charge profile information and associated item information. The charge template body "update" request (action CTL02) includes a reference to the affected template (RBCID) and updated template information. All other requests include only a reference to the affected template.

Charge Template Body request formats:

CTL01 Request Format (Register)	CTL02 Request Format (Update)	CTL0X Request Format (Other)
```\n<Request>\n Verification Elements…\n <Action>CTL01</Action>\n <ChargeTemplate>\n Template Elements…\n <ItemInfo>\n Item Elements…\n </ItemInfo>\n More than one item\n record may be added.\n </ChargeTemplate>\n</Request>\n```	```\n<Request>\n Verification Elements…\n <Action>CTL02</Action>\n <Condition>\n <RBCID>[RBCID]</RBCID>\n </Condition>\n <Update>\n Updated Template Elements…\n </Update>\n</Request>\n```	```\n<Request>\n Verification Elements…\n <Action>CTL0X</Action>\n <Condition>\n <RBCID>[RBCID]</RBCID>\n </Condition>\n</Request>\n```

Charge Template Body Actions

Action: CTL01
Action Description: Register a new charge template

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>CTL01</Action>
   <ChargeTemplate>
      <RBCID></RBCID>
      <RBName>Charge Template</RBName>
      <StoreID>teststore</StoreID>
      <AccountID>
         [Reference the AccountID received]
      </AccountID>
      <SerialNo>1</SerialNo>
      <ItemInfo>
         <ProductID>NEWSPAPER</ProductID>
         <Description>TORONTO STAR</Description>
         <Quantity>1</Quantity>
         <Price>25</Price>
         <Tax1>2</Tax1>
         <Tax2>1.25</Tax2>
      </ItemInfo>
   </ChargeTemplate>
</Request>
```

Verification and Action Elements

Charge Template Elements

Item Elements
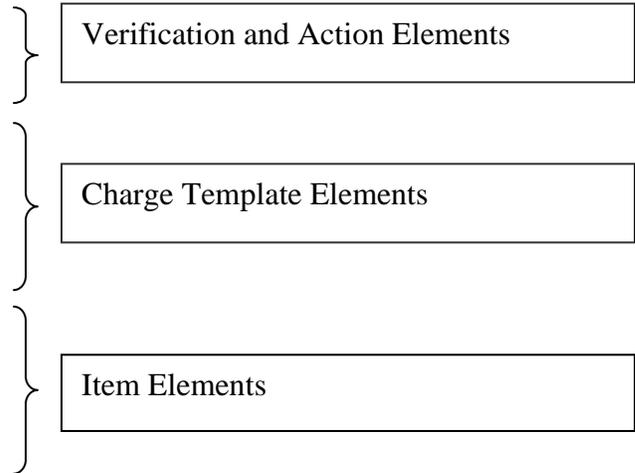
Charge Template elements listed below are used to describe the newly registered charge template and must be included within <Charge></Charge>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (controls settlement currency)	0/25	Optional.
Interval	Charge interval	0/1	Optional. Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Default is the current date. Trigger date formats: OneTime - "2012.12.31" Daily - "" Not applicable Weekly - "1" (Sunday = 1) Monthly - "25" (25th) Quarterly - "03-25" (Mar. 25) Annually - "03-25" (Mar. 25)
ProcessType	Payment schedule type	0/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional.
EndTime	Charge start date and time inclusive.	0/10	Optional.

Item elements (aka. Charge Details) listed below are used to determine the amount to immediately charge and must be included within <Charge><ItemInfo></ItemInfo></Charge>. Multiple item elements may be included.

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required.
Description	Item description	0/150	Optional.
Quantity	Item quantity	1/10	Required.
Price	Item price	1/10	Required.
Tax1	First Tax	0/10	Optional.
Tax2	Second Tax	0/10	Optional.
Cost	Item cost	0/10	Optional.

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Action: CTL02
Action Description: Update a charge template

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>CTL02</Action>
   <Condition>
      <RBCID>[RBCID]</RBCID>
   </Condition>
   <Update>
      <RBName>Jane Smith</RBName>
   </Update>
</Request>
```

Verification and Action Elements

RBCID

Updatable Charge Template Elements
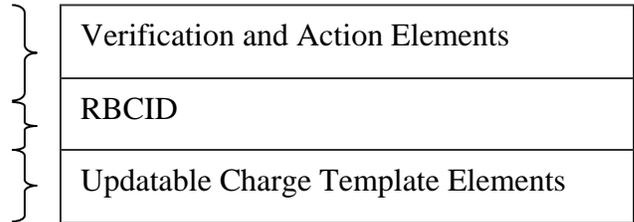
The charge identifier of the charge template to be updated must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.

Updatable charge template elements listed below must be included within <Update></Update>.

Name	Description	Length Min/Max	Notes
RBName	Charge Name	0/50	Optional
StoreID	Assigned StoreID (controls settlement currency)	1/25	Optional
Interval	Charge interval	1/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: OneTime - "2012.12.31" Daily - "" Not applicable Weekly - "1" (Sunday = 1) Monthly - "25" (25th) Quarterly - "03-25" (Mar. 25) Annually - "03-25" (Mar. 25)
ProcessType	Payment schedule type	1/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional.
EndTime	Charge start date and time inclusive.	0/10	Optional.

Action: CTL04
Action Description: Delete a charge template

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>CTL04</Action>
    <Condition>
        <RBCID>[RBCID]</RBCID>
    </Condition>
</Request>
```

Verification and Action Elements

RBCID

The charge identifier of the charge template to be deleted must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.

Action: CTL05
Action Description: Retrieve charge template details

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>CTL05</Action>
    <Condition>
        <RBCID>[RBCID]</RBCID>
    </Condition>
</Request>
```

Verification and Action Elements

RBCID

The charge identifier of the charge template details to be retrieved must be included within
<Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.

Action: CTL08
Action Description: Enable charge template

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>CTL08</Action>
    <Condition>
        <RBCID>[RBCID]</RBCID>
    </Condition>
</Request>
```

Verification and Action Elements

RBCID

The charge identifier of the charge template details to be enabled must be included within
<Condition></Condition>. May list multiple RBCIDs.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required, may be multiple.

Action: CTL09
Action Description: Disable charge template(s)

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>CTL09</Action>
    <Condition>
        <RBCID>[RBCID]</RBCID>
    </Condition>
</Request>
```

Verification and Action Elements

RBCID

The charge identifier of the charge template details to be disabled must be included within
<Condition></Condition>. May list multiple RBCIDs.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required, may be multiple.

Charge Template Body Responses

Charge Template Body responses may follow one of three formats. The charge template body "Register" response includes the basic response, template information and associated item information. The other account detail responses include the basic response, a reference to the affected account (AccountID) and a reference to associated payment data (SerialNo).

Charge Template Body response formats:

CTL01 Response Format (Register)	CTL02 Response Format (Update)	CTL0X Response Format (Other)
```<Response> <CID>[CID]</CID> <Action> Action Description… </Action> <ReturnCode> Return Code… </ReturnCode> <ReturnMessage> Return Message… </ReturnMessage> <ChargeTemplate> Template Elements… <ItemInfo> Item Elements… </ItemInfo> </ChargeTemplate> </Response>```	```<Response> <CID>[CID]</CID> <Action> Action Description… </Action> <ReturnCode> Return Code… </ReturnCode> <ReturnMessage> Return Message… </ReturnMessage> <Condition> <RBCID>[RBCID]</RBCID> </Condition> <Update> Updated Template Elements… </Update> </Response>```	```<Response> <CID>[CID]</CID> <Action> Action Description… </Action> <ReturnCode> Return Code… </ReturnCode> <ReturnMessage> Return Message… </ReturnMessage> <Condition> <RBCID>[RBCID]</RBCID> </Condition> Action CTL05 displays Template information here… </Response>```

Charge Template Detail Requests

Charge Template Detail requests may follow one of two formats. The charge template detail "Add" request (action CTL11) format includes a reference to the "RBCID" and item information to add the referenced template. All other request formats include a reference to the affected account (Account ID) and a reference to the affected payment data (SerialNo).

Charge Template Detail request formats:

CTL11 Request Format (Add)	CTL1X Request Format (Other)
```<Request> Verification Elements… <Action>CTL11</Action> <ChargeTemplate> <RBCID>[RBCID]</RBCID> <ItemInfo> Item Elements… </ItemInfo> More ItemInfo elements may be given… </ChargeTemplate> </Request>```	```<Request> Verification Elements… <Action>CTL1X</Action> <Condition> <RBCID>[RBCID]</RBCID> <SerialNo>[SerialNo]</SerialNo> </Condition> </Request>```

Note: There is no Charge Template Detail (item info) update request. Instead a new item is added and the old item is disabled or deleted.

Charge Template Detail Actions

Action: CTL11
Action Description: Add new charge template item(s)

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>                          Verification and Action Elements
   <Password>testpass</Password>
   <Action>CTL11</Action>
   <ChargeTemplate>
      <RBCID>[RBCID]</RBCID>                            RBCID
      <ItemInfo>
         <ProductID>Goodyear</ProductID>
         <Description>Tires</Description>
         <Quantity>8</Quantity>                         Item Elements
         <Price>25</Price>
         <Tax1>16</Tax1>
         <Tax2>10</Tax2>
      </ItemInfo>
   </ChargeTemplate>
</Request>
```

The charge identifier of the charge template item information to be added must be included within
<ChargeTemplate></ChargeTemplate>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.

Item elements (aka. Charge Details) listed below are used to describe the charge template item(s) and must be
included within <ChargeTemplate><ItemInfo></ItemInfo></ChargeTemplate>. Multiple item elements may
be included.

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required.
Description	Item description	0/150	Optional.
Quantity	Item quantity	1/10	Required.
Price	Item price	1/10	Required.
Tax1	First Tax	0/10	Optional.
Tax2	Second Tax	0/10	Optional.
Cost	Item cost	0/10	Optional.

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any
discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a
percentage.

Action: CTL14
Action Description: Delete charge template item

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>CTL14</Action>
    <Condition>
        <RBCID>[RBCID]</RBCID>
        <ItemSerialNo>[ItemSerialNo]</ItemSerialNo>
    </Condition>
</Request>
```

Verification and Action Elements

RBCID

The charge identifier and item serial number of the charge template item whose information will be deleted must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.
ItemSerialNo	Item serial number	Pregenerated by PSiGate.	Required.

Action: CTL18
*Action Description: Enable charge template item*

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>CTL18</Action>
    <Condition>
        <RBCID>[RBCID]</RBCID>
        <ItemSerialNo>[ItemSerialNo]</ItemSerialNo>
    </Condition>
</Request>
```

Verification and Action Elements

RBCID, ItemSerialNo

The charge identifier and item serial number of the charge template item whose information will be enabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.
ItemSerialNo	Item serial number	Given by PSiGate. Number (any length)	Required.

Action: CTL19
Action Description: Disable charge template item

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>CTL19</Action>
   <ChargeTemplate>
      <RBCID>[RBCID]</RBCID>
      <ItemSerialNo>[ItemSerialNo]</ItemSerialNo>
   </ChargeTemplate>
</Request>
```
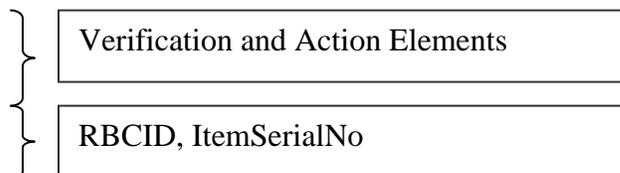
Verification and Action Elements

RBCID, ItemSerialNo

The charge identifier and item serial number of the charge template item whose information will be disabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.
ItemSerialNo	Item serial number	Given by PSiGate. Number (any length)	Required.

Charge Template Detail Responses

Charge Template Detail responses may follow one of two formats. The charge template detail "Add" response is a basic response. The charge template body "register" response includes the basic response, a reference to the affected charge template information and a reference to the affected item.

Charge Template Detail response formats:

CTL11 Response Format	CTL1X Response Format
<pre><Response>
   <CID>[CID]</CID>
   <Action>Action Description…</Action>
   <ReturnCode>[ReturnCode]</ReturnCode>
   <ReturnMessage>[ReturnMessage]</ReturnMessage>
</Response></pre>	<pre><Response>
   <CID>[CID]</CID>
   <Action>Action Description…</Action>
   <ReturnCode>[ReturnCode]</ReturnCode>
   <ReturnMessage>[ReturnMessage]</ReturnMessage>
   <Condition>
      <RBCID>[RBCID]</RBCID>
      <SerialNo>[SerialNo]</SerialNo>
   </Condition>
</Response></pre>

5.3.5 Invoices

Triggered charges generate invoices.   The bank response of triggered charges is stored within invoices. The status of an invoice may be outstanding, pending or paid. If the status is outstanding, the cause will be listed within the ReturnCode and ErrMsg.   Invoice actions include retrieval of summary and detail invoice data and modification of the invoice status.

Table of Invoice Actions

Context	Retrieve	Register (Add)	Update	Delete	Get Detail	Enable/Disable	Rebill Invoice
Invoice (Summary)	INV00						
Invoice (Body)			INV02		INV05	INV08/INV09	INV99
Invoice (Detail)							

Note: Invoices do not perform detail level actions.

Invoice Summary Request and Response

The only invoice summary action retrieves a list of all the merchant's invoices that match given invoice conditions. All invoices will be listed if you include no conditions, but if you choose to include conditions, only invoices that match all conditions will be listed. You may use the retrieved "InvoiceNo" to get additional invoice information via action "INV05".

Invoice Summary request and response formats:

INV00 Request Format	INV00 Response Format
<pre><Request>
   Verification Elements…
   <Action>INV00</Action>
   <Condition>
      <InvoiceNo>[InvoiceNo]</InvoiceNo>
      Other Conditions…
   </Condition>
</Request></pre>	<pre><Response>
   <CID>
   <Action>Action Description…</Action>
   <ReturnCode>[ReturnCode]</ReturnCode>
   <ReturnMessage>[ReturnMessage]</ReturnMessage>
   <Condition>
      <InvoiceNo>[InvoiceNo]</InvoiceNo>
      Given Conditions…
   </Condition>
   <Invoice>
      <InvoiceNo>[InvoiceNo]</InvoiceNo>
      <ReturnCode>Auth. Response…</ReturnCode>
      <ErrMsg>Error Message if applicable…</ErrMsg>
      Other invoice elements…
   </Invoice>
   More than one Invoice record may exist.
</Response></pre>

Note: To display all report types, do not include conditions.

Note: The Invoice "ReturnCode" element returns the card issuer's authorization response.

Invoice Summary Action

Action: INV00
Action Description: Retrieve invoice summary

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>INV00</Action>
   <Condition>
      <InvoiceNo>[InvoiceNo]</InvoiceNo>
      <DateFrom>[DateFrom]</DateFrom>
      <DateTo>[DateTo]</DateTo>
   </Condition>
</Request>
```

Verification and Action Elements

Conditions
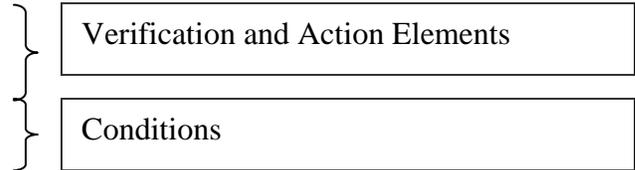
Invoice elements listed below are used to filter the invoice summary and must be included within
<Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	0/25	Optional.
InvoiceNo	Unique invoice identifier	0/8	Optional.
PayerName	Name of the person charged (May be the same as the cardholder name)	0/50	Optional.
DateFrom	Start date search criteria	0/10	Optional. Format: yyyy.mm.dd
DateTo	End date search criteria	0/10	Optional. Format: yyyy.mm.dd
SubNo	Invoice installment identifier	0/2	Optional. Default is '0'. When ProcessType is set to Installment, values may be "1, 2, 3…"
Status	Current status of an invoice	0/1	Optional. Statuses include: 1 = Outstanding 0 = Pending 8 = Paid **Note**: The system scans the database every two minutes for 'Pending' invoices and immediately bills the invoice.

Note: Only invoices that exactly match the given conditions will be returned.

Invoice Body Requests

Invoice Body requests have one format. Invoice body requests include a reference to the affected invoice (InvoiceNo).

Invoice Body request format:

INV02 Request Format	INV0X or INV99 Request Format (All requests)
```<Request>` ` Verification Elements…` ` <Action>INV02</Action>` ` <Condition>` ` <InvoiceNo>[InvoiceNo]</InvoiceNo>` ` </Condition>` ` <Update>` ` <SerialNo>[SerialNo]</SerialNo>` ` </Update>` `</Request>```	```<Request>` ` Verification Elements…` ` <Action>INV0X</Action>` ` <Condition>` ` <InvoiceNo>[InvoiceNo]</InvoiceNo>` ` </Condition>` `</Request>```

Invoice Body Actions

Action: INV02
Action Description: Update an invoice

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>INV02</Action>
   <Condition>
      <InvoiceNo>[InvoiceNo]</InvoiceNo>
   </Condition>
   <Update>
      <SerialNo>[SerialNo]</SerialNo>
   </Update>
</Request>
```

Verification and Action Elements

InvoiceNo

Updatable SerialNo Element

The invoice identifier of the invoice to be updated must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	0/8	Required.

Updatable invoice elements listed below must be included within <Update></Update>.

Name	Description	Length Min/Max	Notes
SerialNo	Payment method serial number	0/2	Required.

Note: If a credit card has expired, add a new credit card via action AMA11 and then update the SerialNo via action INV02 to use the new credit card information to charge the outstanding invoice.

Action: INV05
Action Description: Retrieve invoice details

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>INV05</Action>
    <Condition>
        <InvoiceNo>[InvoiceNo]</InvoiceNo>
    </Condition>
</Request>
```
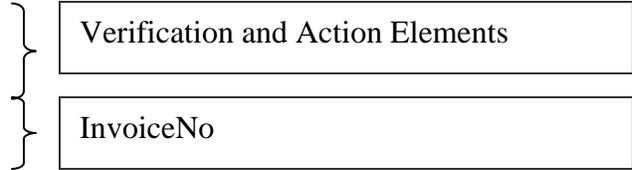
Verification and Action Elements

InvoiceNo

The invoice identifier of the invoice to be updated must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	Given Number (any length)	Required.

Action: INV08
Action Description: Change Invoice Status to Paid

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>INV08</Action>
    <Condition>
        <InvoiceNo>[InvoiceNo]</InvoiceNo>
    </Condition>
</Request>
```

Verification and Action Elements
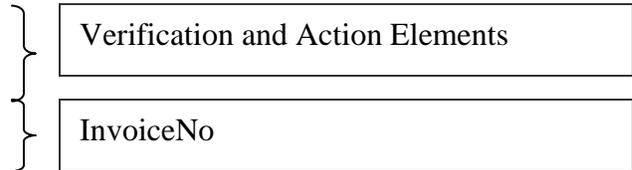
InvoiceNo

The invoice identifier of the invoice whose status shall be changed to Paid must be included within <Condition></Condition>. May list multiple InvoiceNos.

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	Given Number (any length)	Required, may be multiple.

Action: INV09
Action Description: Change Invoice Status to Outstanding

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>INV09</Action>
    <Condition>
        <InvoiceNo>[InvoiceNo]</InvoiceNo>
    </Condition>
</Request>
```

Verification and Action Elements
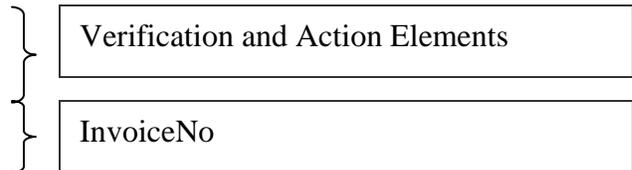
InvoiceNo

The invoice identifier of the invoice whose status shall be changed to Outstanding must be included within <Condition></Condition>. May list multiple InvoiceNos.

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	Given Number (any length)	Required, may be multiple.

Action: INV99
Action Description: Rebill invoice

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>INV99</Action>
   <Condition>
      <InvoiceNo>[InvoiceNo]</InvoiceNo>
   </Condition>
</Request>
```

Verification and Action Elements
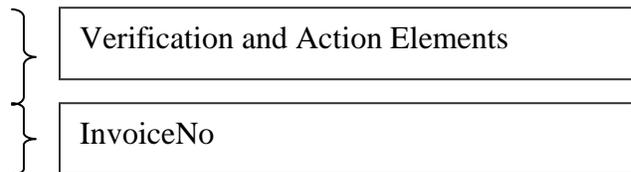
InvoiceNo

The invoice identifier of the invoice to be re-billed must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	Given Number (any length)	Required.

Invoice Body Responses

Invoice Body responses have one format. Invoice body responses include the basic response and a reference to the affected invoice (InvoiceNo).

Invoice Body response formats:

INV0X Response Format (All requests)
```
<Response>
   <CID>[CID]</CID>
   <Action>Action Description…</Action>
   <ReturnCode>Return Code…</ReturnCode>
   <ReturnMessage>Return Message…</ReturnMessage>
   <Condition>
      <InvoiceNo>[InvoiceNo]</InvoiceNo>
   </Condition>
   Action INV05 displays Invoice information here…
</Response>
```

5.3.6 Email Reports

There are three reports that may be configured to be sent to the merchant by e-mail. These reports include the "soon to be expired card report", the "soon to be expired charge" report and a "past invoices report". Configuration of the reports control if and how reports are sent.

Table of Email Report Actions

Context	Retrieve	Register (Add)	Update	Delete	Get Detail	Enable/Disable
Email Report (Summary)	EMR00					
Email Report (Body)		EMR01	EMR02	EMR04	EMR08	EMR09
Email Report (Detail)						

Note: Email Reports do not have detail level actions.

Email Report Summary Request and Response

The Email Report Summary action retrieves the detail of each email report type. If no conditions are included within the request, each report type will be listed, but if the request includes any conditions, only reports that match all given conditions will be listed.

Email Report Summary request and response formats:

EMR00 Request Format (Retrieve)	EMR00 Response Format (Retrieve)

<pre><Request>
   Verification Elements…
   <Action>EMR00</Action>
   <Condition>
      <Type>[Type]</Type>
      Other Conditions…
   </Condition>
</Request></pre>
	<pre><Response>
	   <CID>
	   <Action>Action Description…</Action>
	   <ReturnCode>[ReturnCode]</ReturnCode>
	   <ReturnMessage>[ReturnMessage]</ReturnMessage>
	   <Condition>
	      <Type>[Type]</Type>
	      Given Conditions…
	   </Condition>
	   <EmailReportSetting>
	      <Type>[Type]</Type>
	      Other email report elements…
	   </EmailReportSetting>
	   <i>More than one email report record may exist.</i>
	</Response></pre>

Note: To display all report types, do not include conditions.

Email Report Summary Actions

Action: EMR00
Action Description: Retrieve email report(s)

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>EMR00</Action>
    <Condition>
        <Type>[Type]</Type>
    </Condition>
</Request>
```

Verification and Action Elements

Conditions
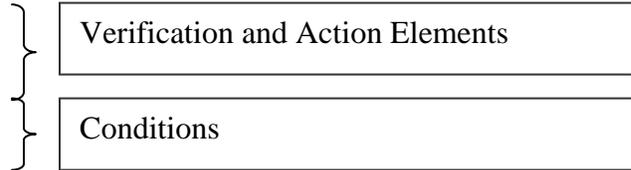
Email Report elements listed below are used to filter the email report summary and must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	
Interval	The frequency of reports generation.	1/1	
Period	Number of past or future intervals to report.	0/2	
Address	Email address to receive the report.	0/100	
Status	Current status	1/1	"Active" or "Inactive"

Note: Only email reports that exactly match the given conditions will be returned.

Email Report Body Requests

Email Report Body requests may follow one of three formats. The email report body "register" request (action EMR01) includes configuration settings for the new email report. The email report body "update" request includes a reference to the affected report (Type) and updated account information. All other requests include only a reference to the affected report.

Email Report Body request formats:

EMR01 Request Format (Register)	EMR02 Request Format (Update)	EMR0X Request Format (Other)
```<Request> Verification Elements… <Action>EMR01</Action> <EmailReportSetting> Email Report Elements… </EmailReportSetting></Request>```	```<Request> Verification Elements… <Action>EMR02</Action> <Condition> <Type>[Type]</Type> </Condition> <Update> Updated Report Elements… </Update></Request>```	```<Request> Verification Elements… <Action>EMR0X</Action> <Condition> <Type>[Type]</Type> </Condition></Request>```

Email Report Body Actions

Action: EMR01
Action Description: Register an email report

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>EMR01</Action>
    <EmailReportSetting>
        <Type>C</Type>
        <Interval>O</Interval>
        <Period></Period>
        <Address>[Your Email Address]</Address>
        <Status></Status>
    </EmailReportSetting>
</Request>
```

Verification and Action Elements

Email Report Elements

Email report elements listed below are used to describe the newly registered email report and must be included within <EmailReportSetting></EmailReportSetting>.

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required. Types include: "C" = expiring card report "R" = expiring charge report "I" = past invoice report
Interval	The frequency of reports generation.	1/1	Optional. Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
Period	Number of past or future intervals to report.	0/2	Optional. Default is "1".
Address	Email address to receive the report.	6/100	Required. May be multiple. Separate addresses with a comma.
Status	Current status	1/1	Optional. Statuses include: "A" for "Active" "N" for "Inactive"

Action: EMR02
Action Description: Update an email report

Sample request:

```
<Request>
   <CID>1000001</CID>
   <UserID>teststore</UserID>
   <Password>testpass</Password>
   <Action>EMR02</Action>
   <Condition>
      <Type>[Type]</Type>
   </Condition>
   <Update>
      <Status>N</Status>
   </Update>
</Request>
```

Verification and Action Elements

Type

Updatable Email Report Elements

The email report type of the report to be retrieved must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required.

Updatable email report elements listed below must be included within <Update></Update.

Name	Description	Length Min/Max	Notes
Interval		1/1	Optional. Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
Period		0/2	Optional. Default is "1".
Address	Email address to receive the report.	0/100	Optional. May be multiple. Separate addresses with a comma.
Status		1/1	Optional. Statuses include: "A" for "Active" "N" for "Inactive"

Action: EMR04
Action Description: Delete an email report

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>EMR04</Action>
    <Condition>
        <Type>[Type]</Type>
    </Condition>
</Request>
```

Verification and Action Elements
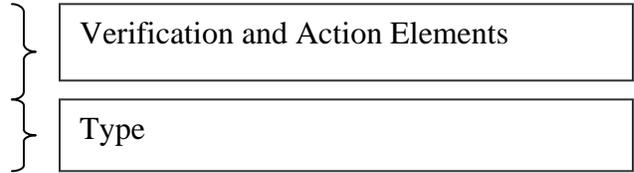
Type

The email report type of the report to be deleted must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required.

Action: EMR05
Action Description: Retrieve email report details

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>EMR05</Action>
    <Condition>
        <Type>[Type]</Type>
    </Condition>
</Request>
```
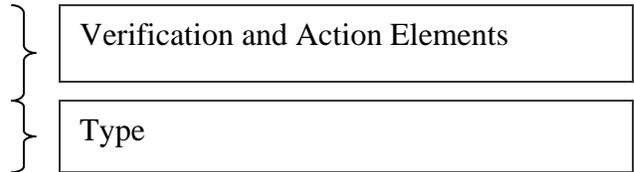
Verification and Action Elements

Type

The email report type of the report to be retrieved must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required.

Action: EMR08
Action Description: Enable email report(s)

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>EMR08</Action>
    <Condition>
        <Type>[Type]</Type>
    </Condition>
</Request>
```

Verification and Action Elements
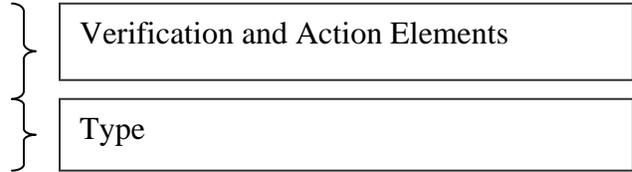
Type

The email report type of the report to be enabled must be included within <Condition></Condition>. May list multiple Types.

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required, may be multiple.

Action: EMR09
Action Description: Disable email report(s)

Sample request:

```
<Request>
    <CID>1000001</CID>
    <UserID>teststore</UserID>
    <Password>testpass</Password>
    <Action>EMR09</Action>
    <Condition>
        <Type>[Type]</Type>
    </Condition>
</Request>
```

Verification and Action Elements
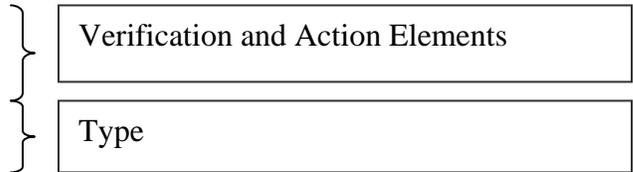
Type

The email report type of the report to be disabled must be included within <Condition></Condition>.

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required, may be multiple.

Email Report Body Responses

The Email Report Body responses may follow one of three formats. The email report body "register" request includes a basic response and configuration settings for the new email report. The email report body "update" request includes a reference to the affected report and updated report information. All other requests include only a reference to the affected report.

Email Report Body response format:

EMR01 Response Format (Register)	EMR02 Response Format (Update)	EMR0X Response Format (Other)

``
<Response>
   <CID>[CID]</CID>
   <Action>
      Action Description…
   </Action>
   <ReturnCode>
      Return Code…
   </ReturnCode>
   <ReturnMessage>
      Return Message…
   </ReturnMessage>
   <EmailReportSetting>
      Report Elements…
   </EmailReportSetting>
</Response>
``
	``
	<Response>
	   <CID>[CID]</CID>
	   <Action>
	      Action Description…
	   </Action>
	   <ReturnCode>
	      Return Code…
	   </ReturnCode>
	   <ReturnMessage>
	      Return Message…
	   </ReturnMessage>
	   <Condition>
	      <Type>[Type]</Type>
	   </Condition>
	   <Update>
	      Updated Report Elements…
	   </Update>
	</Response>
	``
		``
		<Response>
		   <CID>[CID]</CID>
		   <Action>
		      Action Description…
		   </Action>
		   <ReturnCode>
		      Return Code…
		   </ReturnCode>
		   <ReturnMessage>
		      Return Message…
		   </ReturnMessage>
		   <Condition>
		      <Type>[Type]</Type>
		   </Condition>
		</Response>
		``

Appendix A - Frequently Asked Questions

Under Construction

Appendix B - Return Codes and Messages

Return Messages	
Account Errors	
RPA-0000	Register Account action completed successfully.
RPA-0001	Register Account action completed partially.
RPA-0002	Register Account action failed.
RPA-0010	Register Account action completed successfully.
RPA-0011	Duplicate AccountID.
RPA-0015	Add Card action completed successfully.
RPA-0016	Add Card action failed. Invalid AccountID.
RPA-0017	Add Card action partially failed. Invalid Card Number.
RPA-0019	Retrieve Account(s) action failed. Invalid AccountID.
RPA-0020	Retrieve Account(s) action completed successfully.
RPA-0021	No Accounts found.
RPA-0022	Update Account action completed successfully.
RPA-0023	Update Account action failed. Invalid AccountID.
RPA-0024	Update Account action failed. Invalid Change Item.
RPA-0025	Update Card action completed successfully.
RPA-0026	Update Card action failed. Invalid AccountID.
RPA-0027	Update Card action failed. Invalid SerialNo.
RPA-0028	Update Card action failed. Invalid Change Item.
RPA-0040	Disable Account(s) action completed successfully.
RPA-0041	Disable Account(s) action failed. Invalid AccountID.
RPA-0042	Disable Card action completed successfully.
RPA-0043	Disable Card action failed. Invalid AccountID.
RPA-0044	Disable Card action failed. Invalid SerialNo.
RPA-0046	Enable Account(s) action completed successfully.
RPA-0047	Enable Account(s) action failed. Invalid AccountID.
RPA-0048	Enable Card action completed successfully.
RPA-0049	Enable Card action failed. Invalid AccountID.
RPA-0057	Delete Card action failed. No record found.
RPA-0058	Delete Card action completed successfully.
RPA-0059	Delete Card action failed. Invalid AccountID.
RPA-0125	Update Card action failed. No record found.
RPA-0444	Enable Card action failed. Invalid SerialNo.
RPA-0454	Delete Card action failed. Invalid SerialNo.
Charge Response Codes	
PSI-0000	The transaction completed successfully. (For Immediate charges)
RRC-0000	Register Charge action completed successfully.
RRC-0005	Register Charge action completed partially.
RRC-0006	Register Charge action failed.

RRC-0019	Register Charge action failed. Invalid Charge ID.
RRC-0050	Register Charge action completed successfully.
RRC-0051	Duplicate Charge ID.
RRC-0060	Retrieve Charge Summary action completed successfully.
RRC-0061	No Recurring Charges found.
RRC-0065	Add Charge Item action completed successfully.
RRC-0066	Add Charge Item action failed. Invalid Charge ID.
RRC-0072	Update Charge action completed successfully.
RRC-0073	Update Charge action failed. Invalid Charge ID.
RRC-0074	Update Charge action failed. Invalid Charge Item.
RRC-0075	Update Charge Item action completed successfully.
RRC-0076	Update Charge Item action failed. Invalid Charge ID.
RRC-0077	Update Charge Item action failed. Invalid SerialNo.
RRC-0078	Update Charge Item action failed. Invalid Change Item.
RRC-0082	Delete Charge action completed successfully.
RRC-0083	Delete Charge Charge action failed. Invalid Charge ID.
RRC-0090	Disable Charge(s) action completed successfully.
RRC-0091	Disable Charge(s) action failed. Invalid Charge ID(s).
RRC-0092	Disable Charge Item action completed successfully.
RRC-0093	Disable Charge Item action failed. Invalid Charge ID.
RRC-0094	Disable Charge Item action failed. Invalid SerialNo.
RRC-0095	Enable Charge Item action completed successfully.
RRC-0096	Enable Charge Item action failed. Invalid Charge ID.
RRC-0097	Enable Charge Item action failed. Invalid SerialNo.
RRC-0098	Delete Charge Item action completed successfully.
RRC-0099	No record found.
RRC-0100	The action is invalid.
RRC-0101	Data validation failed. No StoreID.
RRC-0102	Data validation failed. No AccountID.
RRC-0103	Data validation failed. No SerialNo.
RRC-0104	Data validation failed. No Interval.
RRC-0105	Data validation failed. No Trigger.
RRC-0106	Data validation failed. Invalid Trigger.
RRC-0107	Data validation failed. Invalid StartTime.
RRC-0108	Data validation failed. Invalid EndTime.
RRC-0109	Data validation failed. StartTime later than EndTime.
RRC-0110	Data validation failed. No Item.
RRC-0111	Data validation failed. Invalid amount data.
RRC-0112	Data validation failed. No Charge found.
RRC-0190	Enable Charge(s) action completed successfully.
RRC-0191	Enable Charge(s) action failed. Invalid Charge ID(s).
RRC-0192	Data validation failed. Invalid StoreID.
Charge Template Response Codes	
CTL-0000	Register Charge Template action completed successfully.
CTL-0005	Register Charge Template action completed partially.
CTL-0006	Register Charge Template action failed.
CTL-0050	Register Charge Template completed successfully.

CTL-0051	Duplicate Charge Template ID.
CTL-0060	Retrieve Charge Template Summary action completed successfully.
CTL-0061	No Charge Templates found.
CTL-0065	Add Charge Template Item action completed successfully.
CTL-0066	Add Charge Template Item action failed. Invalid Charge ID.
CTL-0072	Update Charge Template action completed successfully.
CTL-0073	Update Charge Template action failed. Invalid Charge ID.
CTL-0074	Update Charge Template action failed. Invalid Change Item.
CTL-0075	Update Charge Template Item action completed successfully.
CTL-0076	Update Charge Template Item action failed. Invalid Charge ID.
CTL-0077	Update Charge Template Item action failed. Invalid SerialNo.
CTL-0078	Update Charge Template Item action failed. Invalid Change Item.
CTL-0082	Delete Charge Template action completed successfully.
CTL-0083	Delete Charge Template action failed. Invalid Charge ID.
CTL-0090	Disable Charge Template(s) action completed successfully.
CTL-0091	Disable Charge Template(s) action failed. Invalid Recurring Charge IDs.
CTL-0092	Disable Charge Template Item action completed successfully.
CTL-0093	Disable Charge Template Item action failed. Invalid Charge ID.
CTL-0094	Disable Charge Template Item action failed. Invalid SerialNo.
CTL-0096	Delete Charge Template Item action failed. Invalid Charge ID.
CTL-0097	Delete Charge Template Item action failed. Invalid SerialNo.
CTL-0098	Delete Charge Template Item action completed successfully.
CTL-0100	The action is invalid.
CTL-0190	Enable Charge Template(s) action completed successfully.
CTL-0191	Enable Charge Template(s) action failed. Invalid Recurring Charge IDs.
CTL-0192	Enable Charge Template Item action completed successfully.
CTL-0193	Enable Charge Template Item action failed. Invalid Charge ID.
CTL-0194	Enable Charge Template Item action failed. Invalid SerialNo.
Invoice Response Codes	
RIV-0019	Retrieve Invoice details action failed. Invalid InvoiceNo.
RIV-0050	Register Invoice action completed successfully.
RIV-0051	Duplicate Invoice ID.
RIV-0060	Retrieve Invoice Summary action completed successfully.
RIV-0061	No Invoices found.
RIV-0072	Update Invoice action completed successfully.
RIV-0073	Update Invoice action failed. Invalid InvoiceNo.
RIV-0074	Update Invoice action failed. Invalid Invoice Item.
RIV-0090	Change Invoice Status to OUTSTANDING action completed successfully.
RIV-0091	Change Invoice Status to OUTSTANDING action failed. Invalid InvoiceNo..
RIV-0100	The action is invalid.
RIV-0190	Change Invoice Status to PAID action completed successfully.
RIV-0191	Change Invoice Status to PAID action failed. Invalid Invoice Number.
RIV-0196	Immediate Charge invoice failed.
RIV-0197	Immediate Charge invoice completed partially.
RIV-0198	Immediate Charge invoice completed successfully.
Email Report Response Codes	
EMR-0000	Register Email Report action completed successfully.

EMR-0005	Register Email Report action completed partially.
EMR-0006	Register Email Report action failed.
EMR-0050	Register Email Report action completed successfully.
EMR-0051	Register Email Report action failed. Duplicate record.
EMR-0052	Register Email Report action failed.
EMR-0060	Retrieve Email Report details action completed successfully.
EMR-0061	No Email Report Types found.
EMR-0071	Update Email Report action failed. No record found.
EMR-0072	Update Email Report action completed successfully.
EMR-0073	Update Email Report action failed. Invalid Type(s).
EMR-0074	Update Email Report action failed. Invalid Change Item.
EMR-0081	Delete Email Report action failed. No record found.
EMR-0082	Delete Email Report action completed successfully.
EMR-0090	Disable Email Report action completed successfully.
EMR-0091	Disable Email Report action failed. Invalid Type(s).
EMR-0092	Disable Email Report action failed. No record found.
EMR-0100	The action is invalid.
EMR-0190	Enable Email Report action completed successfully.
EMR-0191	Enable Email Report action failed. Invalid Type(s).
EMR-0192	Enable Email Report action failed. No record found.

Appendix C - Test Credit Card Numbers

Credit Card Type	Test Card Number
Visa	4111111111111111
	4012000033330026
	4217651111111119
MasterCard	5454545454545454
	5424180279791765
	5191111111111111
AMEX	370000000000002
	371449635398431

Appendix D - Sample Email Reports

Sample Expiry Card Report
CARD NUMBER   EXPIRY   CARD HOLDER

```
------------------------------------------------------------------
400555...0019           03/08           JOHN SMITH
545454...5454           03/08           JOHN SMITH
411111...1111           02/08           JOHN SMITH
411111...1111           02/08           JOHN SMITH
540501...0016           03/08           JOHN SMITH
400555...0019           03/08           JOHN SMITH
411111...1111           02/08           TEST1
545454...5454           02/08           TEST1
411111...1111           02/08           TESTACCOUNT4
545454...5454           03/08           JOHN SMITH
411111...1111           02/08           JOHN SMITH
411111...1111           02/08           JOHN SMITH
540501...0016           03/08           JOHN SMITH
400555...0019           03/08           JOHN SMITH
545454...5454           03/08           JOHN SMITH
411111...1111           02/08           JOHN SMITH
411111...1111           02/08           JOHN SMITH
540501...0016           03/08           JOHN SMITH
```

Sample Expiry Charge Report

```
EXPIRY          RBCID                      INTERVAL    RB_NAME
------------------------------------------------------------------
2008.04.30      DEMO-RBC01-0001            M      Monthly Payment
2008.04.30      DEMO-RBC01-0002            M      Monthly Hydro
2008.04.30      2008022714333600008        M      Yearly Gold Membership
2008.04.30      2008022715303200009        M      Yearly Silver Membership
2008.04.30      2008022715495800010        M      Yearly Gold Membership
2008.04.30      2008022810443000011        M      Yearly Silver Membership
2008.04.30      DEMO-RBC01-0051            M      Monthly Payment
2008.04.30      DEMO-RBC01-0052            M      Monthly Payment
2008.04.30      DEMO-RBC01-0053            M      Monthly Payment
```

Sample Monthly Invoice Report

```
INVOICE_NO      STATUS    EXEC_DATE      AMOUNT      RESPONSE
------------------------------------------------------------------
000001     8    2008.03.22    129.00     Y:TEST:TESTTRANS:M:X:NNN
000003     8    2008.03.22    129.00     Y:TEST:TESTTRANS:M:X:NNN
```

```
000005    8    2008.03.25    129.00    Y:TEST:TESTTRANS:M:X:NNN
000007    8    2008.03.25    129.00    Y:TEST:TESTTRANS:M:X:NNN
000009    8    2008.03.25    129.00    Y:TEST:TESTTRANS:M:X:NNN
000011    8    2008.03.25    129.00    Y:TEST:TESTTRANS:M:X:NNN
000013    8    2008.03.25    129.00    Y:TEST:TESTTRANS:M:X:NNN
000023    8    2008.03.25    129.00    Y:TEST:TESTTRANS:M:X:NNN
000025    8    2008.03.28    28.00     Y:TEST:TESTTRANS:M:X:NNN
000026    8    2008.03.30    135.00    Y:TEST:TESTTRANS:M:X:NNN
000027    8    2008.03.30    137.00    Y:TEST:TESTTRANS:M:X:NNN
000028    8    2008.03.31    135.00    Y:TEST:TESTTRANS:M:X:NNN
000029    8    2008.04.01    13.00     Y:TEST:TESTTRANS:M:X:NNN
```

Appendix E: Action-Specific Element Tables

Account Element Tables

Context: Account Summary
Action: AMA00
Action Description: Retrieve account summary

Account elements listed below are used to filter the account summary and must be included within
<Condition></Condition>.

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	0/25	Optional.
Name	Client's name	0/100	Optional.
Company	Billing company name	0/100	Optional.
Address1	Billing address line 1	0/100	Optional.
Address2	Billing address line 2	0/100	Optional.
City	Billing city	0/100	Optional.
Province	Billing province	0/100	Optional.
Postalcode	Billing postalcode	0/100	Optional.
Country	Billing country	0/50	Optional.
Phone	Phone number	0/50	Optional.
Fax	Fax number	0/50	Optional.
Email	Email address	0/100	Optional. Receipt sent to the email address given.
Comments	Comments	0/300	Optional.

Note: Only accounts that exactly match the given conditions will be returned.

Context: Account Body
Action: AMA01
Action Description: Register a new account

Account Elements

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	0/25	Optional. Must be unique. If not provided, PSiGate will assign.
Name	Client's name	0/100	Optional.
Company	Billing company	0/100	Optional.
Address1	Billing address line 1	0/100	Optional.
Address2	Billing address line 2	0/100	Optional.
City	Billing city	0/100	Optional.
Province	Billing province	0/100	Optional.
Postalcode	Billing postal code	0/100	Optional.
Country	Billing Country	0/50	Optional.
Phone	Phone number	0/50	Optional.
Fax	Fax number	0/50	Optional.
Email	Email address	0/100	Optional.
Comments	Comments	0/300	Optional.

Card Elements

Name	Description	Length Min/Max	Notes
CardHolder	Card Holder Name	0/100	Optional.
CardNumber	Card Number	10/16	Optional.
CardExpMonth	Card Expiry Month	2/2	Optional.
CardExpYear	Card Expiry Year	2/2	Optional.

Context: Account Body
Action: AMA02
Action Description: Update an account

Conditional Element

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.

Updatable Account Elements

Name	Description	Length Min/Max	Notes
Company	Billing company	0/100	Optional.
Name	Client's name	0/100	Optional.
Address1	Billing address line 1	0/100	Optional.
Address2	Billing address line 2	0/100	Optional.
City	Billing city	0/100	Optional.
Province	Billing province	0/100	Optional.
Postalcode	Billing postal code	0/100	Optional.
Country	Billing Country	0/50	Optional.
Phone	Phone number	0/50	Optional.
Fax	Fax number	0/50	Optional.
Email	Email address	0/100	Optional.

| Comments | Comments | 0/300 | Optional. |

Context: Account Body
Action: AMA05
Action Description: Retrieve account details

Conditional Element

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.

Context: Account Body
Action: AMA08
Action Description: Enable account(s)

Conditional Element (May list multiple AccountIDs)

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required, may be multiple.

Context: Account Body
Action: AMA09
Action Description: Disable account(s)

Conditional Element (May list multiple AccountIDs)

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required, may be multiple.

Context: Account Detail
Action: AMA11
Action Description: Add new credit card(s) to an account

Conditional Element

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.

Card Elements

Name	Description	Length Min/Max	Notes
CardHolder	Cardholder name	0/100	Optional.
CardNumber	Card number	10/16	Required.
CardExpMonth	Card expiry month	2/2	Required.
CardExpYear	Card expiry year	2/2	Required.

Context: Account Detail
Action: AMA14
Action Description: Delete a payment method

Conditional Elements

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment method serial number	1/2	Required.

Context: Account Detail
Action: AMA18
Action Description: Enable a payment method

Conditional Elements

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment method serial number	1/2	Required.

Context: Account Detail
Action: AMA19
Action Description: Disable a payment method

Conditional Elements

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment method serial number	1/2	Required.

Charge Element Tables

Context: Charge Summary

Action: RBC00
Action Description: Retrieve charge summary

Charge Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional.
AccountID	Unique account identifier	0/25	Optional.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (controls settlement currency)	0/25	Optional.
SerialNo	Payment method serial number	Number (any length)	Optional.
Interval	Charge interval	0/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: Weekly - "1" (Sunday = 1) Monthly - "25" Annually - "03-25"
ProcessType	Payment schedule type	0/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
Status	Current status of charge	0/8	Optional. Displays "Active" or "Inactive". **Note**: The RBTrigger of active charges will generate invoices provided the date/time is within the StartTime and End Time
StartTime	Charge start date and time inclusive.	0/10	Optional. YYYY.MM.DD format
EndTime	Charge start date and time inclusive.	0/10	Optional. YYYY.MM.DD format

Note: Only charges that exactly match the given conditions will be returned.

Context: Charge Body
Action: RBC01

Action Description: Register a new charge

Charge Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional. If not provided, PSiGate will assign.
AccountID	Unique account identifier	1/25	Required.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (controls settlement currency)	1/25	Required.
SerialNo	Payment method serial number	Number (any length)	Required.
Interval	Charge interval	0/1	Optional, Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: Weekly - "1" (Sunday = 1) Monthly - "25" Annually - "03-25"
ProcessType	Payment schedule type	0/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional. Default is the creation date of the charge.
EndTime	Charge start date and time inclusive.	0/10	Optional. Default is forever.

Item Elements (May be multiple)

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required
Description	Item description	0/150	Optional
Quantity	Item quantity	1/10	Required
Price	Item price	1/10	Required
Tax1	First Tax	0/10	Optional
Tax2	Second Tax	0/10	Optional
Cost	Item cost	0/10	Optional

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Context: Charge Body
Action: RBC02

Action Description: Update a charge

Charge Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Updatable Elements

Name	Description	Length Min/Max	Notes
AccountID	Unique account identifier	0/25	Optional.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (controls settlement currency)	0/25	Optional.
SerialNo	Payment method serial number	0/2	Optional.
Interval	Charge interval	0/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: Weekly - "1" (Sunday = 1) Monthly - "25" Annually - "03-25"
ProcessType	Payment schedule type	0/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional. Default is the creation date of the charge.
EndTime	Charge start date and time inclusive.	0/10	Optional. Default is forever.

Context: Charge Body
Action: RBC04

Action Description: Delete a charge

Conditional Element

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Context: Charge Body
Action: RBC05
Action Description: Retrieve charge details

Conditional Element

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Context: Charge Body
Action: RBC08
Action Description: Enable charge(s) – Changes the charge status to "Active"

Conditional Element (May list multiple RBCIDs)

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required, may be multiple.

Context: Charge Body
Action: RBC09
Action Description: Disable charge(s) – Changes the charge status to "Inactive"

Conditional Element (May list multiple RBCIDs)

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required, may be multiple.

Context: Charge Body
Action: RBC99
Action Description: Perform an immediate charge

Charge Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional. If not provided, PSiGate will assign.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (controls settlement currency)	1/25	Required.

AccountID	Unique account identifier	1/25	Required.
SerialNo	Payment serial number	1/2	Required.

Item elements (May be multiple)

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required.
Description	Item description	0/150	Optional.
Quantity	Item quantity	1/10	Required.
Price	Item price	1/10	Required.
Tax1	First Tax	0/10	Optional.
Tax2	Second Tax	0/10	Optional.
Cost	Item cost	0/10	Optional.

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Context: Charge Detail
Action: RBC11
Action Description: Add new charge item(s)

Conditional Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Item Elements (May be multiple)

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required.
Description	Item description	0/150	Optional.
Quantity	Item quantity	1/10	Required.
Price	Item price	1/10	Required.
Tax1	First Tax	0/10	Optional.
Tax2	Second Tax	0/10	Optional.
Cost	Item cost	0/10	Optional.

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Context: Charge Detail
Action: RBC14
Action Description: Delete a charge item

Conditional Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.
ItemSerialNo	Item serial number	1/2, Pregenerated by PSiGate	Required.

Context: Charge Detail
Action: RBC18
Action Description: Enable a charge item – Changes the charge item status returned via RBC05 to "Active"

Conditional Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.
ItemSerialNo	Item serial number	1/2, Pregenerated by PSiGate	Required.

Context: Charge Detail
Action: RBC19
Action Description: Disable a charge item – Changes the charge item status returned via RBC05 to "Inactive"

Conditional Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.
ItemSerialNo	Item serial number	1/2, Pregenerated by PSiGate	Required.

Charge Template Element Tables

Context: Charge Template Summary
Action: CTL00
Action Description: Retrieve charge template summary

Charge Template Summary Conditions

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/50	Optional.
AccountID	Unique account identifier	0/25	Optional.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (controls settlement currency)	0/25	Optional.
Interval	Charge interval	0/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: Weekly - "1" (Sunday = 1) Monthly - "25" Annually - "03-25"
ProcessType	Payment schedule type	0/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
Status	Current status of charge template	0/8	Optional. Either "Active" or "Inactive". **Note**: The RBTrigger of active charges will generate invoices provided the date/time is within the StartTime and End Time
StartTime	Charge start date and time inclusive.	0/10	Optional. YYYY.MM.DD format
EndTime	Charge start date and time inclusive.	0/10	Optional. YYYY.MM.DD format

Note: Only templates that exactly match the given conditions will be returned.

Context: Charge Template Body
Action: CTL01
Action Description: Register a new charge template

Charge Template Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	0/25	Optional.
AccountID	Unique account identifier	1/25	Required.
RBName	Charge name	0/50	Optional.
StoreID	Assigned StoreID (controls settlement currency)	1/25	Optional.
Interval	Charge interval	1/1	Optional, Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: Weekly - "1" (Sunday = 1) Monthly - "25" Annually - "03-25"
ProcessType	Payment schedule type	1/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional.
EndTime	Charge start date and time inclusive.	0/10	Optional.

Item Elements (May be multiple)

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required.
Description	Item description	0/150	Optional.
Quantity	Item quantity	1/10	Required.
Price	Item price	1/10	Required.
Tax1	First Tax	0/10	Optional.
Tax2	Second Tax	0/10	Optional.
Cost	Item cost	0/10	Optional.

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Context: Charge Template Body
Action: CTL02
Action Description: Update a charge template

Conditional Element

Name	Description	Length Min/Max	Notes
AccountID	Account ID	1/25	Required.

Updatable Charge Template Elements

Name	Description	Length Min/Max	Notes
RBName	Charge Name	0/50	Optional
StoreID	Assigned StoreID (controls settlement currency)	1/25	Optional
Interval	Charge interval	1/1	Optional. Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
RBTrigger	Charge trigger date	0/10	Optional. Indicates specific trigger date within an interval. Trigger date formats: Weekly - "Monday" Monthly - "25" Annually - "03-25"
ProcessType	Payment schedule type	1/1	Optional. Default is "A". Process types include: A: Automatic I: Installment M: Manual
StartTime	Charge start date and time inclusive.	0/10	Optional.
EndTime	Charge start date and time inclusive.	0/10	Optional.

Context: Charge Template Body
Action: CTL04
Action Description: Delete a charge template

Conditional Element

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Context: Charge Template Body
Action: CTL05
Action Description: Retrieve charge template details

Conditional Element

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Context: Charge Template Body
Action: CTL08
Action Description: Enable charge template(s)

Condition (May list multiple RBCIDs)

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required, may be multiple.

Context: Charge Template Body
Action: CTL09
Action Description: Disable charge template(s)

Conditional Element (May list multiple RBCIDs)

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required, may be multiple.

Context: Charge Template Detail
Action: CTL11
Action Description: Enable charge template(s)

Conditional Elements (May list multiple RBCIDs)

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.

Item Elements (May be multiple)

Name	Description	Length Min/Max	Notes
ProductID	Unique product identifier	1/50	Required.
Description	Item description	0/150	Optional.
Quantity	Item quantity	1/10	Required.
Price	Item price	1/10	Required.
Tax1	First Tax	0/10	Optional.
Tax2	Second Tax	0/10	Optional.
Cost	Item cost	0/10	Optional.

Note: Input taxes as a real number, pre-calculated by your system or cart, not as a percentage. To avoid any discrepancies, PSiGate has elected to process the tax amount you specify rather than calculate the tax from a percentage.

Context: Charge Template Detail
Action: CTL14
Action Description: Delete charge template item

Conditional Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/25	Required.
ItemSerialNo	Item serial number	1/2, Pregenerated by PSiGate	Required.

Context: Charge Template Detail
Action: CTL18
Action Description: Enable charge template item

Conditional Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.
ItemSerialNo	Item serial number	1/2, Pregenerated by PSiGate	Required.

Context: Charge Template Detail
Action: CTL19
Action Description: Enable charge template item

Conditional Elements

Name	Description	Length Min/Max	Notes
RBCID	Unique charge identifier	1/50	Required.
ItemSerialNo	Item serial number	1/2, Pregenerated by PSiGate	Required.

Invoice Element Tables

Context: Invoice Summary
Action: INV00
Action Description: Retrieve invoice summary

Invoice Elements

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	0/8, Pregenerated by PSiGate	Optional.
StoreID	Assigned StoreID (controls settlement currency)	0/25	Optional.
PayerName	Name of the person charged (May be the same as the cardholder name)	0/50	Optional.
DateFrom	Start date search criteria inclusive.	0/10	Optional. Format: yyyy.mm.dd
DateTo	End date search criteria inclusive.	0/10	Optional. Format: yyyy.mm.dd
SubNo	Invoice installment identifier	0/2	Optional. Default is '0'. When ProcessType is set to Installment, values may be "1, 2, 3…"
Status	Current status of an invoice	0/1	Optional. Statuses include: Outstanding Pending Paid **Note**: The system scans the database every two minutes for 'Pending' invoices and immediately bills the invoice.
ExecDate	Last time an invoice was attempted	0/10	Optional.

Note: Only invoices that exactly match the given conditions will be returned.

Context: Invoice Body
Action: INV02
Action Description: Update an invoice

Conditional Element

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	1/8 Pregenerated by PSiGate	Required.

Updatable Invoice Elements

Name	Description	Length Min/Max	Notes
PayerName	Name of the person charged (May be the same as the cardholder name)	0/50	Optional.
Status	Current status of an invoice	1/1	Optional. Statuses:

			Outstanding Pending Paid

Context: Invoice Body
Action: INV05
Action Description: Retrieve invoice details

Conditional Element

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	1/8 Pregenerated by PSiGate	Required.

Context: Invoice Body
Action: INV08
Action Description: Enable Invoice(s)

Conditional Element (May list multiple InvoiceNos)

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	1/8 Pregenerated by PSiGate	Required, may be multiple.

Context: Invoice Body
Action: INV09
Action Description: Disable invoice details

Conditional Element (May list multiple InvoiceNos)

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	1/8 Pregenerated by PSiGate	Required, may be multiple.

Context: Invoice Body
Action: INV99
Action Description: Rebill invoice

Conditional Element (May list multiple InvoiceNos)

Name	Description	Length Min/Max	Notes
InvoiceNo	Unique invoice identifier	1/8 Pregenerated by PSiGate	Required, may be multiple.

Email Report Element Tables

Context: Email Report Summary
Action: EMR00
Action Description: Retrieve email report summary

Email Report Elements

Name	Description	Length Min/Max	Notes
Type	Email report type	0/1	Optional.
Interval	The frequency of reports generation.	0/1	Optional.
Period	Number of past or future intervals to report.	0/2	Optional.
Address	Email address to receive the report.	0/100	Optional.
Status	Current status	0/1	Optional. Either "Active" or "Inactive"

Note: Only email reports that exactly match the given conditions will be returned.

Context: Email Report Body
Action: EMR01
Action Description: Register a new email report

Email Report Elements

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required. Types include: "C" = expiring card report "R" = expiring charge report "I" = past invoice report
Interval	The frequency of reports generation.	0/1	Optional. Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
Period	Number of past or future intervals to report.	0/2	Optional. Default is "1".
Address	Email address to receive the report.	6/100	Required. May be multiple. Separate addresses with a comma.
Status	Current status	1/1	Optional. Statuses include: "A" for "Active" "N" for "Inactive"

Context: Email Report Body
Action: EMR02

Action Description: Update an email report

Conditional Element

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required.

Updatable Email Report Elements

Name	Description	Length Min/Max	Notes
Interval	Frequency that the report is generated and emailed.	0/1	Optional. Default is "M". Intervals include: O: Onetime M: Monthly D: Daily Q: Quarterly W: Weekly A: Annually
Period	Range of data that is contained within the report.	0/2	Optional. Default is "1".
Address	Email address to receive the report.	0/100	Optional. May be multiple. Separate addresses with a comma.
Status	Status of the invoice	1/1	Optional. Statuses include: "A" for "Active" "N" for "Inactive"

Context: Email Report Body
Action: EMR04
Action Description: Delete an email report

Conditional Element

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required.

Context: Email Report Body
Action: EMR05
Action Description: Retrieve an email report

Conditional Element

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required.

Context: Email Report Body
Action: EMR08

Action Description: Enable email report(s)

Conditional Element (May list multiple Types)

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required, may be multiple.

Context: Email Report Body
Action: EMR09
Action Description: Disable email report(s)

Conditional Element (May list multiple Types)

Name	Description	Length Min/Max	Notes
Type	Email report type	1/1	Required, may be multiple.