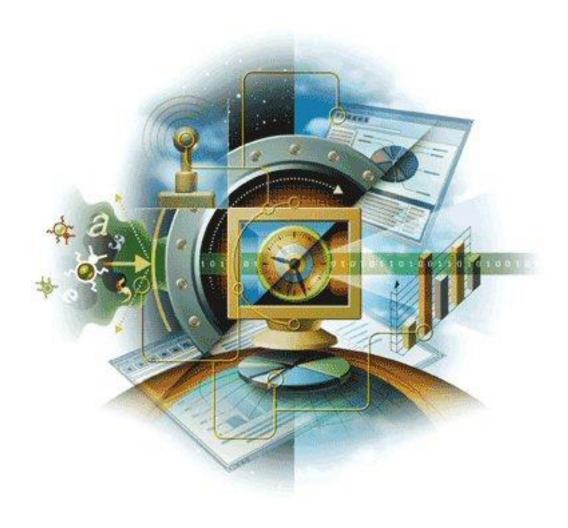
Partner Services XML Communication Guide

Revision 3.5

McAfee® Consumer





Primary Author

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Preface

Thank you for becoming a McAfee Partner. This preface briefly introduces the McAfee Partner Services XML Communication Guide, its audience, the document's revision history, and updates to this version of the guide.

About This Guide

This guide:

- Introduces McAfee Partner Services XML communication
- Describes the secure communication protocols
- Explains the message formats that McAfee and its Partners use to communicate with each other.

Audience

This guide helps McAfee Partners to understand the Partner Services XML communication protocol and message formats that Partners use to send customer and services information to McAfee.

Revision History

This guide includes these revisions:

Date	Document Version	Description	
February 23, 2015	3.5	Added section 'Request and Response – Disconnect Mobile devices for cancelled subscription'	
December 3, 2014	3.4	Added Product Download chapter.	
October 27, 2014	3.3	License Query	
June 13, 2014	3.2	Included the following sections: Non-Unified Sku Request and Response Unified Sku Request and Response	
June 03, 2013	3.1	Included the following chapters:	
June 26, 2009	2.1	Changed 'Email 2' to 'Email 1' in the McAfee DB Store column, last row in the Table 22.	
May 18, 2009	2.0	Includes the updates listed in the section, What's New in This Release?.	
August 22, 2007	1.8	See the Revision History of the guide revision 1.8.	
October 27, 2003	1.4	See the Revision History of the guide revision 1.4.	

What's New in This Release?

The McAfee Partner Services XML Communication Guide version 3.4 includes the new chapter $\frac{1}{2}$ Product $\frac{1}{2}$ Download.

Conventions Used in This Guide

This document uses these typographical conventions:

Convention	Example
Terms that identify fields, buttons, tabs, options, selections, and commands on the User Interface (UI) are shown in Arial Narrow bold font.	The Service field on the Properties tab specifies the name of the requested service.
Menu or action group selections are indicated using a right angle bracket (>).	Select My Company > Admin Domain > View Details.
Procedures are presented as a series of numbered steps.	1. On the Configuration tab, click Backup.
Names of keys on the keyboard are denoted using UPPER CASE.	Press ENTER.
Text such as syntax, keywords, and values that you must type exactly are denoted using Courier New font.	Type: setup and then press ENTER.
Variable information that you must type based on your specific situation or environment is shown in <i>italics</i> .	Type: sensor-IP-address and then press ENTER.
Parameters that you must supply are shown enclosed in angle brackets.	set sensor ip <a.b.c.d></a.b.c.d>
Information that you must read before beginning a procedure or that alerts you to negative consequences of certain actions, such as loss of data is denoted using "Caution" notation.	Caution:
Information that you must read to prevent injury, accidents from contact with electricity, or other serious consequences is denoted using "Warning" notation.	Warning:
Information that is critical and must be followed to get the correct related results denoted with "Important" notation.	Important:
Notes that provide related, but non-critical, information are denoted using "Note" notation.	Note:

1. Introducing McAfee Partner Services XML Communication

Overview

McAfee Partner Services is a platform of callable services that are exposed to the Partners. When the Partners sell McAfee products and services to their customers, the Partners send customer and service information to McAfee. Using this information, McAfee provides service provisioning to customers. The following section briefly explains the secure communication protocol.

Secure Communication Protocol

A Partner can send a service request to McAfee using real-time communication. In the real-time communication, a Partner sends one request per customer to subscribe or unsubscribe to the McAfee products and services:

- Partner posts Extensible Markup Language (XML) messages to a secure McAfee Uniform Resource Locator (URL) using Hypertext Transfer Protocol Secure (HTTPS).
- McAfee sends an XML response message to the Partner with a result code.

This communication method assumes that the Partner has the skills and resources to develop code to send messages in real-time, and also to handle responses from McAfee Partner Services.

2. Message Formats

This chapter describes the Partner request and McAfee response XML message formats along with sample XML code.

Overview

All communication from the Partners is message-based. A message is an XML document that has the HEADER and DATA sections. For Partner and McAfee message formats, see Partner Message Format and McAfee Message Format respectively.

Partner Message Format

This section describes the fields in the Partner message.

PARTNERCONTEXT

PARTNERCONTEXT is the root node of the Partner message. **PARTNERCONTEXT** contains HEADER and DATA sections.

Table 1: Sections in PARTNECONTEXT

Section	Description
HEADER	Contains information about the Partner that is required for McAfee to process and apply the correct business rules and configuration.
DATA	Contains the payload of the message. This section has CUSTOMERCONTEXT, ACCOUNT, and ORDER subsections. The CUSTOMERCONTEXT section is mandatory for each customer. The information in the ACCOUNT and ORDER sections depend on the request action.

Table 2: PARTNERCONTEXT XML Field Matrix

Field	Description	Mandatory?
PARTNER	Identifies the Partner with a unique PARTNER_ID.	Yes
PARTNER_ID	Specifies the number that McAfee assigns to each Partner.	Yes

CUSTOMERCONTEXT

CUSTOMERCONTEXT contains customer profile and order information for a specific customer. The DATA section contains this field.

Table 3: CUSTOMERCONTEXT XML Field Matrix

Field	Description	Mandatory?
ID	Specifies a unique identifier that the Partner assigns to a specific customer. This ID remains constant during the customer's life time.	Yes
REQUESTTYPE	Defines the type of message. NEW – Purchase transactions UPDATE – Cancellation transactions UPDPROFILE – Update user profile	Yes
ACCOUNT	Contains customer profile information. See ACCOUNT.	Yes
ORDER	Contains customer order information. See ORDER.	Yes
PAYMENTINFO	Contains the payment information and the billing address of the customer. See PAYMENTINFO.	No

ACCOUNT

The following table lists the ACCOUNT XML field matrix:

Table 4: ACCOUNT XML Field Matrix

Field	Subfield or Attribute	Description	Mandatory?
ACCOUNT	EMAILADDRESS	Contains the customer's email address.	Yes; for Purchase transactions
ACCOUNT	FIRSTNAME	Contains the customer's first name.	Yes; for Purchase transactions
ACCOUNT	LASTNAME	Contains the customer's last name.	Yes; for Purchase transactions
ACCOUNT	PASSWORD	Contains the customer's password. If the Partner requests McAfee to generate a random password for each user, then this field will be blank.	Yes; for Purchase transactions
ACCOUNT	PREFERENCES	Contains all of the customer's preferences.	Yes
ACCOUNT	OPTINS	Contains different programs in which a user can be opted-in.	Yes
PREFERENCES	PREFERENCE	Contains different types of customer preferences. Currently, this field determines only the site and language to assign to the customer.	No
PREFERENCES	TYPE	Defines the type of preference. For example, LANG. See Language Code and Description.	No
OPTINS	OPTINGROUP	Specifies the category of opt-in. Currently, the category is limited to NL for Newsletter. ID – Indicates the Group ID for the opt-in programs in which a user will be enrolled. CODE – Indicates the code for the opt-in program.	No
OPTINS	OPTIN	Specifies the actual program in which a user will be opted-in. ID – Indicates the Program ID for the opt-in program in which a user will be enrolled. Currently, the category is limited to VN for Virus newsletter. CODE – Indicates the Program code for the opt-in program.	No

The following table lists the language codes and descriptions for preference type:

Table 5: Language Code and Description

Language Code	Description	Language Code	Description
en-us	English – United States	ja	Japanese
en-au	English – AUSTRALIA	pt-br	Portuguese – Brazil
en-ca	English – CANADA	es	Spanish – Standard
en-gb	English – United Kingdom	es-mx	Spanish – Mexico
fr	French – Standard	zh-cn	Simplified Chinese
fr-ca	French – CANADA	zh-tw	Traditional Chinese
de	German – Standard	ko	Korean
it	Italian - Standard		

ORDER

The following table lists the ORDER XML field matrix:

Table 6: ORDER XML Field Matrix

Field	Subfield or Attribute	Description	Mandatory?
ORDER	PARTNERREF	Specifies a unique Partner order reference number associated with an order. The Partner sends the order number for the customer's order.	Yes
ORDER	REF	Contains the McAfee order reference number.	No
ORDER	ITEMS	Contains all items associated with an order.	Yes
ITEMS	ITEM	Contains an individual line item for an order.	Yes
ITEM	SKU	Specifies the product ID or the stock-keeping unit (SKU) number that the customer intends to purchase or cancel.	Yes
		Either McAfee provides SKUs to the Partner or the Partner specifies the SKUs to use. If the Partner provides SKUs, McAfee maps the Partner SKUs to the McAfee product IDs.	
ITEM	QTY	Specifies the quantity of products or services.	Yes
ITEM	ACTION	Specifies the transaction type as either Paid (PD) or Cancel (CN).	Yes

PAYMENTINFO

The following table lists the PAYMENTINFO XML field matrix:

Table 7: PAYMENTINFO XML Field Matrix

Field	Subfield or Attribute	Description	
PAYMENTINFO	TYPE	Contains the type of payment used for a purchase. CC – Credit Card	
PAYMENTINFO	AUTHCODE	Specifies the authorization code from the payment processor.	
PAYMENTINFO	CREDITCARD	Contains the customer's credit card details.	
PAYMENTINFO	BILLINGADDRESS	Contains the customer's billing address.	
CREDITCARD	CCTYPE	Contains the type of credit card used for the transaction. 1 - VISA 2 - MASTERCARD 3 - AMEX 4 - Discover 5 - Diner's Club 6 - JCB	
CREDITCARD	CCNUMBER	Contains the credit card number used for the transaction.	
CREDITCARD	CCEXPIREMONTH	Contains the credit card expiration month.	
CREDITCARD	CCEXPIREYEAR	Contains the credit card expiration year.	
BILLINGADDRESS	BILLINGFIRSTNAME	Contains the customer's first name.	
BILLINGADDRESS	BILLINGLASTNAME	Contains the customer's last.	
BILLINGADDRESS	BILLINGADDRESS1	Contains the customer's address.	
BILLINGADDRESS	BILLINGADDRESS2	Contains the continued address of the customer.	

Field	Subfield or Attribute	Description
BILLINGADDRESS	BILLINGCITY	Contains the customer's city.
BILLINGADDRESS	BILLINGSTATE	Contains the customer's state.
BILLINGADDRESS	BILLINGZIP	Contains the zip code of the state.
BILLINGADDRESS	BILLINGCOUNTRY	Contains the customer's country name.
BILLINGADDRESS	BILLINGPHONE	Contains the customer's phone number.
BILLINGADDRESS	BILLINGFAX	Contains the customer's fax number.

Partner Request Sample XML

A typical Partner request message to create an account and services for a customer is as follows:

```
<PARTNERCONTEXT>
<HEADER>
<partner partner_iD="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="SARA334455" REQUESTTYPE="NEW">
<ACCOUNT>
<EMAILADDRESS>SARA@HOTMAIL.COM</EMAILADDRESS>
<FIRSTNAME><! [CDATA[SARA]]></firstNAME>
<LASTNAME><! [CDATA[JONES]]></LASTNAME>
<PASSWORD><! [CDATA[12345ABC]]></password>
<PREFERENCES>
<PREFERENCE TYPE="LANG">en-us</prefERENCE>
<OPTINGROUP ID="1" CODE="NL">
<OPTIN ID="2" CODE="VN">YES</OPTIN>
</OPTINGROUP>
</OPTINS>
</ACCOUNT>
<ORDER PARTNERREF="AB12345" REF="">
<ITEM SKU="101-544-vso" QTY="1" ACTION="PD" />
<ITEM SKU="101-550-mpfp" QTY="1" ACTION="PD" />
</ITEMS>
</ORDER>
<PAYMENTINFO TYPE="CC" AUTHCODE="0253414544752157713874">
<CREDITCARD>
```

```
<CCTYPE>1</CCTYPE>
<CCNUMBER>4111111111111111</CCNUMBER>
<CCEXPIREMONTH>1</CCEXPIREMONTH>
<CCEXPIREYEAR>05</CCEXPIREYEAR>
</CREDITCARD>
<BILLINGADDRESS>
<BILLINGFIRSTNAME><! [CDATA[SARA]]></BILLINGFIRSTNAME>
<BILLINGLASTNAME><![CDATA[JONES]]></BILLINGLASTNAME>
<BILLINGADDRESS1><![CDATA[535 OAKMEAD PARKWAY]]></BILLINGADDRESS1>
<BILLINGADDRESS2><![CDATA[SUITE 1]]></BILLINGADDRESS2>
<BILLINGCITY><! [CDATA[SUNNYVALE]]></BILLINGCITY>
<BILLINGSTATE>CA</BILLINGSTATE>
<BILLINGZIP>94085</BILLINGZIP>
<BILLINGCOUNTRY>US</BILLINGCOUNTRY>
<BILLINGPHONE>408222222
<BILLINGFAX></BILLINGFAX>
</BILLINGADDRESS>
</PAYMENTINFO>
</CUSTOMERCONTEXT>
</DATA>
</partnercontext>
```

McAfee Message Format

This section describes the fields in the McAfee message.

PARTNERRESPONSECONTEXT

PARTNERRESPONSECONTEXT is the root node of the Partner response message. The HEADER section contains this field. For PARTNER and PARTNER_ID details, see Table 2.

RESPONSECONTEXT

RESPONSECONTEXT contains the Partner's customer identifier. The DATA section contains this field.

Table 8: RESPONSECONTEXT XML Field Matrix

Field	Subfield or Attribute	Description	Mandatory?
RESPONSECONTEXT	ID	Specifies a unique customer identifier that Partner provides and maintains. This field is identical to the CUSTOMERCONTEXT ID.	Yes
RESPONSECONTEXT	RETURNCODE	Specifies the transaction code that McAfee returns to the request.	Yes
RESPONSECONTEXT	RETURNDESC	Contains a short description of the transaction code. See Table 17.	Yes
RESPONSECONTEXT	ORDER	Contains information specific to the order.	Yes
RESPONSECONTEXT	ACCOUNT	For Paid transactions, McAfee returns the email address and password available in the McAfee database. This information helps the user to log on to the McAfee Web site.	Yes
ORDER	PARTNERREF	Contains the Partner order reference number that the Partner associated with this order.	Yes
ORDER	REF	Specifies the McAfee sales order ID that is passed for all successful trial, purchase, and renewal orders. McAfee does not send this field for cancellations and for failed transactions.	Yes, if McAfee created a new subscription.
ACCOUNT	EMAILADDRESS	Contains the customer's email address in the McAfee database. The customer must log on to the McAfee Web site using this email address. Yes; returned value for Purchase transaction	
ACCOUNT	PASSWORD	Contains the customer's password of record in the McAfee database. The customer must log on to the McAfee Web site using this password.	Yes; returned value for Purchase transactions

McAfee Response Sample XML

A typical successful response message from McAfee for a first-time paid customer is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<partner partner_iD="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="SARA334455">
<RETURNCODE>1000
<RETURNDESC>Success/RETURNDESC>
<ORDER PARTNERREF="AB12345" REF="NCS775444" />
<ACCOUNT>
<EMAILADDRESS>SARA@HOTMAIL.COM</EMAILADDRESS>
<PASSWORD><![CDATA[12345ABC]]></password>
</ACCOUNT>
</RESPONSECONTEXT>
</DATA>
</partnerresponsecontext>
```

3. Message Details

This chapter explains the Partner request messages and McAfee response messages for several scenarios.

Overview

The message exchange between the Partner and McAfee happens for the following transactions:

- Creating an account and a subscription for a new customer.
- Updating the existing customer by cancelling SKU.
- Updating the existing customer by including additional SKU.
- Updating the existing user's profile.

For information about the message fields and formats, see:

- Partner Message Format
- McAfee Message Format

Creating a New Customer and New Subscription

This section provides examples of Partner request message to create an account and services for a new customer, and McAfee response.

Partner Request

The Partner request message is as follows. This example contains all the mandatory and optional fields.

```
<PARTNERCONTEXT>
<HEADER>
<PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="PAUL1234567" REQUESTTYPE="NEW">
<EMAILADDRESS>PAUL@HOTMAIL.COM</EMAILADDRESS>
<FIRSTNAME><! [CDATA[PAUL]]></FIRSTNAME>
<LASTNAME><! [CDATA[ANDERSON]]></LASTNAME>
<PASSWORD><! [CDATA[ABC12345]]>
<PREFERENCES>
<PREFERENCE TYPE="LANG">en-us</prefERENCE>
</PREFERENCES>
<OPTINS>
<OPTINGROUP ID="1" CODE="NL">
<OPTIN ID="2" CODE="VN">YES</OPTIN>
```

```
</OPTINGROUP>
</OPTINS>
</ACCOUNT>
<ORDER PARTNERREF="CS12345" REF="">
<TTEMS>
<ITEM SKU="101-544-vso" QTY="1" ACTION="PD" />
<ITEM SKU="101-550-mpfp" QTY="1" ACTION="PD" />
</ITEMS>
</ORDER>
<PAYMENTINFO TYPE="CC" AUTHCODE="0555417540002887713823">
<CREDITCARD>
<CCTYPE>1</CCTYPE>
<CCNUMBER>4111111111111111</CCNUMBER>
<CCEXPIREMONTH>1</CCEXPIREMONTH>
<CCEXPIREYEAR>05</CCEXPIREYEAR>
</CREDITCARD>
<BILLINGADDRESS>
<BILLINGFIRSTNAME><![CDATA[PAUL]]></BILLINGFIRSTNAME>
<BILLINGLASTNAME><! [CDATA[ANDERSON]]></BILLINGLASTNAME>
<BILLINGADDRESS1><![CDATA[535 OAKMEAD PARKWAY]]></BILLINGADDRESS1>
<BILLINGADDRESS2><![CDATA[204]]></BILLINGADDRESS2>
<BILLINGCITY><! [CDATA[SUNNYVALE]]></BILLINGCITY>
<BILLINGSTATE>CA</BILLINGSTATE>
<BILLINGZIP>94085</BILLINGZIP>
<BILLINGCOUNTRY>US</BILLINGCOUNTRY>
<BILLINGPHONE>4082434563/BILLINGPHONE>
<BILLINGFAX></BILLINGFAX>
</BILLINGADDRESS>
</PAYMENTINFO>
</CUSTOMERCONTEXT>
</DATA>
</partnercontext>
```

McAfee Response

The McAfee response message is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>1000</RETURNCODE>
<RETURNCOSC>Success</RETURNDESC>
<ORDER PARTNERREF="CS12345" REF="NCS775657" />
<ACCOUNT>
<EMAILADDRESS>PAUL@HOTMAIL.COM</EMAILADDRESS>
<PASSWORD><! [CDATA [ABC12345]]></PASSWORD>
```

```
</account>
</responsecontext>
</data>
</partnerresponsecontext>
```

Updating an Existing Customer

This section provides examples of message exchanges between the Partner and McAfee to update an existing customer in different scenarios.

Scenario 1

This section provides an example of the Partner request message and McAfee response message when updating a customer's subscription with a cancellation of the existing SKU.

Partner Request

The Partner request message is as follows. This example contains all the mandatory and optional fields.

Note: McAfee strongly recommends that Partners include the **PARTNERREF** from the original Paid transaction. By doing so, McAfee links the purchase with the cancellation. The **PARTNERREF** value also serves as a backup when McAfee cannot link the **CUSTOMERCONTEXT ID** to the information in the McAfee database.

If technical limitations prevent a Partner from sending the original **PARTNERREF**, the Partner can send a new **PARTNERREF**. The Partner also sends the McAfee's **REF** from the original purchase.

```
<PARTNERCONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="PAUL1234567" REQUESTTYPE="UPDATE">
<ACCOUNT/>
<ORDER PARTNERREF="CS12345" REF="NCS775657">
<ITEMS>
<ITEMS>
<ITEM SKU="101-544-vso" QTY="1" ACTION="CN" />
</ITEMS>
</ORDER>
</CUSTOMERCONTEXT>
</DATA>
</PARTNERCONTEXT>
```

McAfee Response

The McAfee response message is as follows:

```
<PARTNERESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>1000</RETURNCODE>
<RETURNCODE>1000</RETURNCODE>
<RETURNDESC>Success</RETURNDESC>
<ORDER PARTNERREF="CS12345" REF="" />
</RESPONSECONTEXT>
</DATA>
</PARTNERRESPONSECONTEXT>
```

Scenario 2

This section provides an example of the Partner request message and McAfee response message when updating a customer's subscription with an additional SKU.

Partner Request

The Partner request message is as follows. This example includes only the minimum required mandatory fields for the Paid transactions.

```
<PARTNERCONTEXT>
<HEADER>
<PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="PAUL1234567" REQUESTTYPE="NEW">
<ACCOUNT>
<EMAILADDRESS>PAUL@HOTMAIL.COM</EMAILADDRESS>
<FIRSTNAME><! [CDATA[PAUL]]></FIRSTNAME>
<LASTNAME><! [CDATA[ANDERSON]]></LASTNAME>
<PASSWORD><![CDATA[QWERTY123]]></password>
<PREFERENCES>
<PREFERENCE TYPE="LANG">en-us</prefERENCE>
</ACCOUNT>
<ORDER PARTNERREF="CS12378" REF="">
<ITEM SKU="101-561-mps" QTY="1" ACTION="PD" />
</ITEMS>
</ORDER>
</CUSTOMERCONTEXT>
</DATA>
</PARTNERCONTEXT>
```

Note: The **CUSTOMERCONTEXT ID** and **EMAILADDRESS** are the same as the original order but the **PASSWORD** is different from the original order. Also note that the Partner sends a new **PARTNERREF**.

McAfee Response

The McAfee response message is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>5001</RETURNCODE>
<RETURNDESC>Transaction success: Warning, Email Address Exists.
</RETURNDESC>
<ORDER PARTNERREF="CS12378" REF="NCS7784754" />
<ACCOUNT>
<EMAILADDRESS>PAUL@HOTMAIL.COM</EMAILADDRESS>
<PASSWORD><! [CDATA[ABC12345]]></password>
</ACCOUNT>
</RESPONSECONTEXT>
</DATA>
</PARTNERRESPONSECONTEXT>
```

Note: The transaction code is 5001. This code means that McAfee recognized the customer as an existing customer and found the email address in the McAfee database. McAfee sends the existing email address and password to the customer. The customer requires this information to log on to the McAfee system.

Scenario 3

This section provides an example of the Partner request message and McAfee response message when updating a customer's subscription with an additional SKU.

Partner Request

The Partner request message is as follows. This example includes only the minimum required fields.

```
<PARTNERCONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="PAUL1234567" REQUESTTYPE="NEW">
<ACCOUNT>
<EMAILADDRESS>PAUL456@YAHOO.COM</EMAILADDRESS>
```

```
<FIRSTNAME><! [CDATA[PAUL]]></FIRSTNAME>
<LASTNAME><! [CDATA[ANDERSON]]></LASTNAME>
<PASSWORD><! [CDATA[ABC12345]]></PASSWORD>
<PREFERENCES>
<PREFERENCE TYPE="LANG">en-us</PREFERENCE>
</PREFERENCES>
</ACCOUNT>
<ORDER PARTNERREF="CS12399" REF="">
<ITEMS>
<ITEM SKU="101-562-msk" QTY="1" ACTION="PD" />
</ITEMS>
</ORDER>
</CUSTOMERCONTEXT>

<
```

Note: The **CUSTOMERCONTEXT ID** and **PASSWORD** are the same as the original order but the **EMAILADDRESS** is different. Also note that the Partner sends a new **PARTNERREF**.

McAfee Response

The McAfee response message is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>5002</RETURNCODE>
<RETURNDESC>Transaction success: Warning, Customer Context ID exists
for another Email address. Email Address is ignored</RETURNDESC>
<ORDER PARTNERREF="CS12399" REF="NCS7784798" />
<ACCOUNT>
<EMAILADDRESS>PAUL@HOTMAIL.COM</EMAILADDRESS>
<PASSWORD><! [CDATA[ABC12345]]></password>
</ACCOUNT>
</RESPONSECONTEXT>
</DATA>
</PARTNERRESPONSECONTEXT>
```

Note: The transaction code is 5002. This code means that McAfee recognized the **CUSTOMERCONTEXT ID** but the email address does not match with the entry in the McAfee database. McAfee does not overwrite the customer's email address and password with the information from the Partner. McAfee responds with the customer's current email address and

Updating the Existing User Profile

This section provides an example of the message exchanges between the Partner and McAfee to update an existing user profile.

Partner Request

The Partner request message is as follows. This feature is new on the Partner Services Platform, and enables the Partners to update the email address, password, first name, and last name of a customer.

```
<PARTNERCONTEXT>
<HEADER>
<PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="unicom100" REQUESTTYPE="UPDPROFILE">
<EMAILADDRESS>unicom100@mcafee.com</EMAILADDRESS>
<FIRSTNAME><! [CDATA[unicom100]]></FIRSTNAME>
<LASTNAME><![CDATA[unicom100]]></LASTNAME>
<PASSWORD><! [CDATA[ABC12345]]></password>
<PREFERENCES>
<PREFERENCE TYPE="LANG">zh-cn</prefERENCE>
</ACCOUNT>
</CUSTOMERCONTEXT>
</DATA>
</partnercontext>
```

Notes:

The **CUSTOMERCONTEXT ID** and **EMAILADDRESS** fields are mandatory. The **PREFERENCES** and **OPTINS** fields are optional.

McAfee displays an Invalid Data error when a Partner sends the **ORDER** and **PAYMENTINFO** fields.

McAfee ignores the empty **FIRSTNAME**, **LASTNAME**, and **PASSWORD** when updating the user's profile.

If a Partner does not send the preference language value, McAfee ignores this field.

McAfee Response

The McAfee response message is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="unicom053120061">
<RETURNCODE>1000</RETURNCODE>
<RETURNCODE>1000</RETURNCODE>
<RETURNDESC>Transaction is successful</RETURNDESC>
<ACCOUNT>
<EMAILADDRESS>unicom053120061@mcafee.com</EMAILADDRESS>
<PASSWORD><![CDATA[aaaa]]></PASSWORD>
</ACCOUNT>
</RESPONSECONTEXT>
</PARTNERRESPONSECONTEXT>
```

4. SOAP Interface Specifications

This chapter explains the SOAP interface of McAfee partner services.

Understanding Web Services Details

The McAfee partners must send one Web service Simple Object Access Protocol (SOAP) request per customer to query the McAfee subscription and machine installation data.

A partner invokes the Web service method using SOAP over HTTPS protocol by passing an XML request message. McAfee sends an XML response message to the partner.

The Web service SOAP implementation of McAfee Partner Services exposes a Web method that the partner application invokes to perform the following transactions:

- Create new user subscription
- Cancel existing user subscription
- Update user profile details

PostRequest Web Service

McAfee hosts the PostRequest Web service at the following location:

https://partnersvc.mcafee.com/request/postrequest.asmx

The **PostRequest** Web service exposes the **ProcessRequestWS** method, which takes a Request XML message as a string parameter for processing. The return value is a string containing the Response XML message.

The following table lists the details about the **ProcessRequestWS** method:

Table 9: ProcessRequestWS Method

Method	Parameter	Return Value		
ProcessRequestWS string (Request XML)		string (Response XML)		

Defining Web Services Description Language

The Web Services Description Language (WSDL) definition is as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"</pre>
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:tns="https://Partnersvc.mcafee.com"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
targetNamespace="https://Partnersvc.mcafee.com"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"</pre>
       targetNamespace="https://Partnersvc.mcafee.com">
      <s:element name="ProcessRequestWS">
        <s:complexType>
          <s:sequence>
           <s:element minOccurs="0" maxOccurs="1" name="requestXML"</pre>
type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="ProcessRequestWSResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1"</pre>
name="ProcessRequestWSResult"
               type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </wsdl:types>
  <wsdl:message name="ProcessRequestWSSoapIn">
    <wsdl:part name="parameters" element="tns:ProcessRequestWS" />
  </wsdl:message>
  <wsdl:message name="ProcessRequestWSSoapOut">
    <wsdl:part name="parameters" element="tns:ProcessRequestWSResponse"</pre>
  </wsdl:message>
  <wsdl:portType name="PostRequestSoap">
    <wsdl:operation name="ProcessRequestWS">
      <wsdl:input message="tns:ProcessReguestWSSoapIn" />
      <wsdl:output message="tns:ProcessRequestWSSoapOut" />
    </wsdl:operation>
```

```
</wsdl:portType>
  <wsdl:binding name="PostRequestSoap" type="tns:PostRequestSoap">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http"</pre>
style="document" />
    <wsdl:operation name="ProcessRequestWS">
      <soap:operation</pre>
soapAction="https://Partnersvc.mcafee.com/ProcessRequestWS"
            style="document" />
     <wsdl:input>
        <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
        <soap:body use="literal" />
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:service name="PostRequest">
    <documentation xmlns="http://schemas.xmlsoap.org/wsdl/" />
    <wsdl:port name="PostRequestSoap" binding="tns:PostRequestSoap">
      <soap:address
location="https://partnersvc.mcafee.com/request/postrequest.asmx"
      />
    </wsdl:port>
  </wsdl:service>
</wsdl:definitions>
```

5. Multi-Licensing Implementation

This chapter introduces the Multi-Licensing feature that McAfee provides to its partners.

Overview

The Multi-Licensing feature enables the partners to procure additional licenses of a McAfee product, to sell it to its customer base. The partners place such orders or requests through XML.

In the ITEM node, the new LIC_QTY attribute represents the total number of licenses that user has purchased, which is the sum of base subscription license plus additional license. The maximum number of additional licenses that a partner can avail is 100.

The following transactions involve LIC_QTY:

- Creating New Subscription
- Updating Existing User Subscription
- Canceling Existing User Subscription

Note: Cannot combine the licenses of different products or of different licensing models.

Introducing New Attribute

The new LIC_QTY attribute in the ITEM node specifies the total number of licenses that a user has purchased. The following table lists the attribute details:

Table 10: LIC_QTY Details

Attribute Name	XML Node	Туре	Valid Values	Mandatory?
LIC_QTY	ITEM	Int	Integer value [range: 1-100]	Yes; optional for paid, and mandatory for upgrade or downgrade XML requests

Note: A Cancel XML request does not include this attribute. See Canceling Trade-Up Subscription.

Creating New Subscription

The partners send an XML request to McAfee to create a new Paid subscription. In such a request, the **ACTION** attribute is set to **PD**. McAfee processes the request as follows:

- If the user already exists, but has not subscribed to the product, McAfee creates a new subscription for the requested product.
- If the user already exists and has activated the product subscription, and if the requested license quantity is different from the existing quantity, McAfee processes the XML request as an update transaction.

For information about the response codes, see Table 17: List of Transaction Codes.

In the following example, the partner has one base license, and requests for two additional licenses.

```
<PARTNERCONTEXT>
<HEADER>
 <PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
 <CUSTOMERCONTEXT ID="ABC12345" REQUESTTYPE="NEW">
  <ACCOUNT>
   <EMAILADDRESS>
   <FIRSTNAME><! [CDATA[PAUL]]></FIRSTNAME>
   <LASTNAME><![CDATA[ANDERSON]]></LASTNAME>
   <PASSWORD><![CDATA[]]>
   <PREFERENCES>
    <PREFERENCE TYPE="LANG">en-us</prefERENCE>
   </PREFERENCES>
  </ACCOUNT>
  <ORDER PARTNERREF="XYZ12345" REF="">
   <ITEMS>
    <ITEM SKU="101-50-mis" QTY="1" ACTION="PD" LIC QTY="3"/>
   </TTEMS>
  </ORDER>
 </CUSTOMERCONTEXT>
</DATA>
</PARTNERCONTEXT>
```

Updating Existing User Subscription

The partners send an XML request to McAfee to either upgrade or downgrade the license quantities. In such a request, the **ACTION** attribute is set to **UD**.

McAfee processes the request as follows:

- If the user adds more licenses or removes a few licenses from the product subscription, McAfee performs an update action.
- If the user subscription does not exist, McAfee creates a new subscription for the user with the license quantity specified in the XML request.
- If the user already has a subscription and the subscription's license quantity
 is same as value specified in the XML request, McAfee does not revise the
 user subscription record; returns the response code, 5001.

For information about the response codes, see Table 17: List of Transaction Codes.

In the following example, the partner has one base license and five additional licenses.

```
<PARTNERCONTEXT>
<HEADER>
 <PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
 <CUSTOMERCONTEXT ID="ABC12345" REQUESTTYPE="UPDATE">
   <EMAILADDRESS>
   <FIRSTNAME><! [CDATA[PAUL]]></FIRSTNAME>
   <LASTNAME><![CDATA[ANDERSON]]></LASTNAME>
   <PASSWORD><![CDATA[]]></password>
   <PREFERENCES>
    <PREFERENCE TYPE="LANG">en-us
   </ACCOUNT>
  <ORDER PARTNERREF="CS12345" REF="">
    <TTEM SKU="101-50-mis" ACTION="UD" LIC QTY="6"/>
   </ITEMS>
  </ORDER>
 </CUSTOMERCONTEXT>
</DATA>
</PARTNERCONTEXT>
```

Canceling Existing User Subscription

The partners send an XML request to McAfee to cancel all the licenses that a user had purchased for a product. In such a request, the **ACTION** attribute is set to **CN**.

 Note: McAfee strongly recommends that Partners include the PARTNERREF from the original Paid transaction. By doing so, McAfee links the purchase with the cancellation. The PARTNERREF value also serves as a backup when McAfee cannot link the CUSTOMERCONTEXT ID to the information in the McAfee database.

If technical limitations prevent a Partner from sending the original **PARTNERREF**, the Partner can send a new **PARTNERREF**. The Partner also sends the McAfee's **REF** from the original purchase.

For more information, see Defining Response Code 4000.

In the following example, the partner requests McAfee to cancel all the user licenses (both the base and additional licenses) for a product:

Understanding Response Messages

The McAfee response message includes a mandatory field, **RETURNCODE**. The value of this code indicates whether the transaction was successful or not. The following sections provide response messages that McAfee sends to the partners.

Table 11: List of Response Codes

Response Code	Message Displayed	Transaction Type
1000	Transaction is successful	Normal
2001	Invalid schema	Error
2002	Invalid data	Error
2003	Item error: invalid SKU	Error
4000	Transaction failed	Error
5001	Transaction success: Warning, Email Address Exists.	Success: Warning
6004	Transaction Failed - Additional license quantity exceeded maximum allowed limit	Error
6007	The Query API returns this error code when the license information is not available.	Error

Defining Response Code 1000

The following XML defines the response code, 1000:

Defining Response Code 4000

The following XML defines the response code, 4000:

Table 12: List of Messages Displayed for Response Code 4000

Message Displayed	Scenario	Request Type	Action
Transaction Failed.	Generic system error	NEW UPDATE	Paid (PD), Upgrade or Downgrade (UD), Cancel (CN)
Transaction Failed – SKUs repeated in the request.	When same SKU is repeated as multiple <item> nodes under <items></items></item>	NEW UPDATE	Paid (PD), Upgrade or Downgrade (UD)
Transaction Failed – Partner reference already exists in the system.	PARTNERREF already exists in our system for a different order	NEW UPDATE	Paid (PD), Upgrade or Downgrade (UD)
Transaction Failed – No transaction details record to cancel.	When subscription is already cancelled or expired	UPDATE	Cancel (CN)
Transaction Failed – No Valid Subscription Record.	When no valid subscription found for the user & SKU	UPDATE	Cancel (CN)
Transaction Failed – Cust Context ID does not exist in the System.	When customer context id for which the subscription cancel is requested does not exist	UPDATE	Cancel (CN)

Defining Response Code 6007

When no license information is specified in the XML request, McAfee sends an error code, 6007. The following XML defines the response code, 6007:

6. McAfee Partner Services Requests for Mobile Products

This chapter explains the partner services requests for McAfee mobile products.

Overview

The new extended Partner Service Web handler method accepts an XML message for handling mobile products subscription, cancellation, and phone number change as described in the following sections. The new elements, such as **PHONE**, **TABLET**, and **PRODUCTKEY**, are introduced in the **ITEM** node for new subscription, cancellation, and update phone requests.

New Elements and Attributes

This table lists details about the new elements:

Table 13: New Elements in ITEM XML Node

Element Name	Туре	Valid Value
PRODUCT KEY	String	Product Key length is variable; however, the maximum number of characters is 256.
PHONE	String	Not applicable
TABLET	String	Not applicable

Note: The **PHONE** or **TABLET** element must be passed with the mobile product SKU. The **PRODUCTKEY** element is unique key per subscription, and McAfee requires this information during cancellation of subscriptions. Therefore, the partner must store the **PRODUCTKEY** information.

This table lists details about the new attributes:

Table 14: New Attributes to Support Mobile Products Implementation

Element Name	XML Node	Туре	Valid Value
NUMBER	PHONE	String	[0-9] (50 characters length)
OLDNUMBER	PHONE	String	[0-9] (50 characters length)
COUNTRYCODE	PHONE	String	[a-z]/[A-Z] (three characters length)

Understanding Partner Service Requests and Responses

This will explain the Partner Service requests and response for mobile products.

Partner Response Context

The partner Response XML is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="ABC12345">
<RETURNCODE>1000</RETURNCODE>
<RETURNDESC>Transaction is successful</RETURNDESC>
<ORDER PARTNERREF="609786" REF="NCS609786">
<TTEM SKU="101-50-mws">
<PRODUCTKEY><! [CDATA [12BBC41834SDDF913011341] ]>
</ITEM>
</ITEMS>
</ORDER>
</RESPONSECONTEXT>
</DATA>
</PARTNERRESPONSECONTEXT>
```

When the mobile product SKU is added to the XML implementation for Windows products, the following change becomes standard to the Response XML. A new attribute, **PRODUCTKEY**, is always included in the Response XML irrespective of whether the SKU is for Windows or for mobile product.

Note: The LIC_QTY field is not supported for mobile products. McAfee displays an invalid data error, if LIC_QTY is sent in the Request XML for mobile products transactions.

Non-Unified SKU Request and Response

- 1. Create New Subscription
- 2. Update Phone Number

Request and Response - Create New Subscription

The partner sends a paid XML request to McAfee, to create a new user subscription.

Smartphone XML Request and Response

A sample XML request for the Smartphone subscription creation is as follows:

```
<PARTNERCONTEXT>
<HEADER>
 <PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="ABC12345" REQUESTTYPE="NEW">
<ACCOUNT>
<EMAILADDRESS>SARA@HOTMAIL.COM/EMAILADDRESS>
<FIRSTNAME><![CDATA[SARA]]></FIRSTNAME>
<LASTNAME><! [CDATA[JONES]]></LASTNAME>
<PASSWORD><! [CDATA[12345ABC]]>
<PREFERENCES>
 <PREFERENCE TYPE="LANG">en-us</prefERENCE>
</ACCOUNT>
<ORDER PARTNERREF="XYZ12345" REF="">
  <ITEM SKU="101-50-mws" QTY="1" ACTION="PD">
  <PHONE NUMBER="0011234567890" COUNTRYCODE="US"/>
  </ITEM>
 </ITEMS>
</ORDER>
</CUSTOMERCONTEXT>
</DATA>
</partnercontext>
```

A sample successful XML response is as follows:

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
   <PARTNER PARTNER_ID="101"/>
   </HEADER>
   <DATA>
        <RESPONSECONTEXT ID="ABC12345">
        <RETURNCODE>1000</RETURNCODE>
        <RETURNDESC>Transaction is successful</RETURNDESC>
        <ORDER PARTNERREF="609786" REF="NCS609786">
```

```
<ITEMS>
  <ITEM SKU="101-50-mws">
  <PRODUCTKEY><! [CDATA [12BBC41834SDDF913011341]]>
</ITEM>
</ITEMS>
</ORDER>
</RESPONSECONTEXT>
</DATA>
</PARTNERRESPONSECONTEXT>
```

Tablet XML Request and Response

A sample XML request for the tablet subscription creation is as follows:

```
<PARTNERCONTEXT>
<HEADER>
 <partner partner_iD="101"/>
</HEADER>
<DATA>
 <CUSTOMERCONTEXT ID="ABC12345" REQUESTTYPE="NEW">
 <ACCOUNT>
 <EMAILADDRESS>SARA@HOTMAIL.COM</EMAILADDRESS>
 <FIRSTNAME><! [CDATA[SARA]]></FIRSTNAME>
 <LASTNAME><! [CDATA[JONES]]></LASTNAME>
 <PASSWORD><! [CDATA[12345ABC]]>
 <PREFERENCES>
  <PREFERENCE TYPE="LANG">en-us</prefERENCE>
 </ACCOUNT>
 <ORDER PARTNERREF="XYZ12345" REF="">
 <ITEMS>
  <ITEM SKU="101-50-mws" QTY="1" ACTION="PD">
  <TABLET COUNTRYCODE="US"/>
  </ITEM>
 </ITEMS>
 </ORDER>
</CUSTOMERCONTEXT>
</DATA>
</partnercontext>
```

A sample successful XML response is as follows:

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
  <PARTNER PARTNER_ID="101"/>
  </HEADER>
  <DATA>
  <RESPONSECONTEXT ID="ABC12345">
  <RETURNCODE>1000
```

Request and Response – Update Phone Number

The partner must send XML request to McAfee, to update the phone number of an existing user subscription. The product key with the original subscription must be sent in the request along with the old phone number and new phone number.

The new action type, CD, needs to be passed in case of the Phone Number update flow. McAfee updates the new phone number unless the phone number sent is associated to another active account.

```
<PARTNERCONTEXT>
<HEADER>
<PARTNER PARTNER ID="101"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="ABC12345" REQUESTTYPE="UPDATE">
<ACCOUNT/>
<ORDER PARTNERREF="CS12345" REF="">
<ITEM SKU="123-33210-mws" QTY="1" ACTION="CD">
<PRODUCTKEY><! [CDATA[1238941834913013041341]]>
<PHONE OLDNUMBER="0011234567890" NUMBER="0010987654321"/>
</ITEM>
</ITEMS>
</ORDER>
</CUSTOMERCONTEXT>
</DATA>
</PARTNERCONTEXT>
```

Unified SKU Request and Response

Create New Subscription

Request and Response - Create New Subscription

The partner sends a paid XML request to McAfee, to create a new user subscription.

Smartphone XML Request and Response

A sample XML request for the Smartphone subscription creation is as follows:

```
<PARTNERCONTEXT>
       <HEADER>
              <PARTNER PARTNER ID="737"/>
       </HEADER>
       <DATA>
         <CUSTOMERCONTEXT ID="ABC123d45" REQUESTTYPE="NEW">
           <ACCOUNT>
            <EMAILADDRESS>ABC123d45@test.COM</EMAILADDRESS>
           <FIRSTNAME><! [CDATA[SARA]]></firstNAME>
           <LASTNAME><! [CDATA[JONES]]></LASTNAME>
            <password><! [CDATA[12345ABC]]></password>
            <PREFERENCES>
              <PREFERENCE TYPE="LANG">en-us</prefERENCE>
            </ACCOUNT>
          <ORDER PARTNERREF="XYZ12d345" REF="">
              <ITEMS>
                  <ITEM SKU="737-53571-mmsu" QTY="1" ACTION="PD">
                  <!--NUMBER attribute is optional-->
                  <PHONE NUMBER="4324354454356" COUNTRYCODE="US"/>
                  </ITEM>
              </ITEMS>
          </ORDER>
        </CUSTOMERCONTEXT>
     </DATA>
</PARTNERCONTEXT>
```

Here's a sample of a successful XML response:

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
   <PARTNER PARTNER_ID="737" />
   </HEADER>
   <DATA>
   <RESPONSECONTEXT ID="ABC123d45">
```

```
<RETURNCODE>1000
     <RETURNDESC>Transaction is successful</RETURNDESC>
     <ORDER PARTNERREF="XYZ12d345" REF="NCS1230361">
         <ITEM SKU="737-53571-mmsu" EXPDT="2014-07-12">
<PRODUCTKEY><! [CDATA[ghy7ksEnmpUwTYpP3GVeZvph20]]></PRODUCTKEY>
           <PHONE ACTIVATIONCODE="RGYABC" />
         </ITEM>
       </ITEMS>
     </ORDER>
     <ACCOUNT>
       <EMAILADDRESS>ABC123d45@test.COM</EMAILADDRESS>
       <PASSWORD><! [CDATA[12345ABC]]>
     </ACCOUNT>
   </RESPONSECONTEXT>
 </para>
</PARTNERRESPONSECONTEXT>
```

Tablet XML Request and Response

Here's a sample XML request for the tablet subscription creation:

```
<PARTNERCONTEXT>
   <HEADER>
       <PARTNER PARTNER ID="737"/>
   </HEADER>
   <DATA>
       <CUSTOMERCONTEXT ID="737UNFMAR2d9za" REQUESTTYPE="New">
        <ACCOUNT>
          <EMAILADDRESS>mmsUnifiedMay29zda@mma.com</EMAILADDRESS>
           <FIRSTNAME><! [CDATA[Uday]]></fIRSTNAME>
           <LASTNAME><![CDATA[Sankar]]></LASTNAME>
           <PASSWORD><![CDATA[Password]]></password>
           <PREFERENCES>
              <PREFERENCE TYPE="">en-us</prefERENCE>
           </PREFERENCES>
        </ACCOUNT>
        <ORDER PARTNERREF="737UNFMAR29dza" REF="">
              <ITEM SKU="737-53571-mmsu" QTY="1" ACTION="PD">
              <TABLET COUNTRYCODE="US"/>
              </ITEM>
           </ITEMS>
        </ORDER>
       </CUSTOMERCONTEXT>
   </DATA>
</PARTNERCONTEXT>
```

Here's a sample of a successful XML response:

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
     <PARTNER PARTNER ID="737"/>
  </HEADER>
  <DATA>
     <RESPONSECONTEXT ID="737UNFMAR2d9za">
       <RETURNCODE>1000
       <RETURNDESC>Transaction is successful</RETURNDESC>
       <ORDER PARTNERREF="737UNFMAR29dza" REF="NCS1230363">
         <ITEMS>
           <ITEM SKU="737-53571-mmsu" EXPDT="2014-07-12">
            <PRODUCTKEY><! [CDATA[0VmjjkjkllIX2irpRB7]]></PRODUCTKEY>
             <TABLET ACTIVATIONCODE="AYBABN"/>
           </ITEM>
         </ITEMS>
       </ORDER>
       <ACCOUNT>
          <EMAILADDRESS>mmsUnifiedMay29zda@mma.com</EMAILADDRESS>
          <PASSWORD><! [CDATA[Password]]></password>
        </ACCOUNT>
     </RESPONSECONTEXT>
  </DATA>
</PARTNERRESPONSECONTEXT>
```

Request and Response - Cancel Existing User Subscription

The cancel XML request will cancel the user subscription at McAfee. Pass both the product key of the subscription and the phone number in the ITEM node to indicate the specific subscription that has to be canceled. The expiration date will be set to the date when cancellation is received (immediate cancellation) or just stops autorenewal based on partner configuration.

Smartphone XML Request

Here's a sample XML request:

```
<PARTNERCONTEXT>
   <HEADER>
      <PARTNER PARTNER ID="101"/>
   </HEADER>
   <DATA>
       <CUSTOMERCONTEXT ID="ABC12345" REQUESTTYPE="UPDATE">
          <ACCOUNT/>
          <ORDER PARTNERREF="XYZ12345" REF="">
              <ITEMS>
                 <TTEM SKU="101-50-mws" QTY="1" ACTION="CN">
       <PRODUCTKEY><! [CDATA[1238941834913013041341]]>
       <PHONE NUMBER="0011234567890"/>
                 </ITEM>
              </ITEMS>
          </ORDER>
       </CUSTOMERCONTEXT>
   </DATA>
</partnercontext>
```

Tablet XML Request

Here's a sample XML request:

```
<PARTNERCONTEXT>
   <HEADER>
       <PARTNER PARTNER ID="101"/>
   </HEADER>
   <DATA>
       <CUSTOMERCONTEXT ID="ABC12345" REQUESTTYPE="UPDATE">
          <ACCOUNT/>
              <ORDER PARTNERREF="XYZ12345" REF="">
                 <ITEMS>
                     <ITEM SKU="101-50-mwt" QTY="1" ACTION="CN">
       <PRODUCTKEY><! [CDATA[1238941834913013041342]]>
       <TABLET/>
                     </ITEM>
                 </ITEMS>
              </ORDER>
       </CUSTOMERCONTEXT>
   </DATA>
</PARTNERCONTEXT>
```

Note: We need a <TABLET/> element as part of the above Tablet cancel request to do specific validations depending on the device type (phone or tablet).

Request and Response – Disconnect Mobile Devices for Cancelled Subscription

The Disconnect XML request will disconnect user's mobile devices from the SKU subscription. Each device is disconnected even if a failure occurs for earlier devices. The disconnect request only supports one SKU at a time. If disconnects for more than one SKU are sent, a data validation error is returned.

Before sending a Disconnect request, a Cancel request should be sent for the SKU. If the SKU is not cancelled before the Disconnect request, a Transaction Failure error is returned. On successful disconnection, all smartphone and tablet devices are removed from the subscription immediately and the user can't retrieve any backed up data. Disconnected devices can then be used to subscribe to a different SKU.

XML Request

Here's a sample XML request:

XML Response

Here's a sample of a successful XML response:

7. Error Responses for Mobile Products

The following table lists the failure return codes applicable for Mobile Products.

Table 15: Error Responses

Return Code	Return Description	Scenario	Request Type	Action
4000	Transaction Failed.	Phone Number passed is already active for another user.	NEW	Paid (PD)
4000	Transaction Failed	One or more devices failed to disconnect.	UPDATE	Disconnect (DC)
7001	No Valid Subscription Record.	Invalid Product Key passed.	UPDATE	Change Device (CD)
7002	Old Phone Number is not valid.	Invalid Old Phone Number passed.	UPDATE	Change Device (CD)
7003	New Phone Number is already used.	New Phone Number is already active for another user.	UPDATE	Change Device (CD)
7004	No Active Subscription Record.	User subscription has expired.	UPDATE	Change Device (CD)

8. Cross Device Trade-Up Implementation

This chapter documents the new attribute and the transactions involving the attribute, and sample code for the transactions for the Cross Device trade-up transactions.

Overview

McAfee and its partners exchange messages during the Cross Device trade-up transactions. This chapter provides the revised XML code for the following transactions:

- Trading Up Existing Subscription
- Canceling Trade-Up Subscription

Introducing New Action Type and New Elements

The Partner Services platform provides support for trade-up through a new action type, TU. The new elements, PRODUCTKEY and SOURCESKU, are introduced in the ITEM node to trade up an existing subscription.

The following table lists the attribute details:

Table 16: Details of New Elements for Trade Up

Element Name	XML Node	Туре	Valid Values
PRODUCTKEY	ITEM	String	Product key value
SOURCESKU	ITEM	String	Source key value

Notes:

- The LIC_QTY and ADDL_LIC_QTY fields are not supported for Trade-Up. If the
 partners include these fields in the Request XML for Trade-Up, the system
 raises an invalid data error.
- The Trade-Up feature is available only for the WSS products.
- An existing paid subscription cannot be traded up to trial subscription.

Trading Up Existing Subscription

The partners send a XML request to trade-up an existing user subscription. This request must contain the product key or the source SKU with the original subscription along with the action type, TU. If both the product key and source SKU are present, the system uses the product key to identify the existing subscription.

Trade-Up Request with PRODUCTKEY

In the following example, the trade-up request type passes the **PRODUCTKEY** as well as action, which is **TU**.

```
<PARTNERCONTEXT>
<HEADER>
  <partner partner iD="737"/>
</HEADER>
<DATA>
 <CUSTOMERCONTEXT ID="testaccount" REQUESTTYPE="UPDATE">
  <ACCOUNT/>
   <ORDER PARTNERREF="testorderref" REF="">
    <ITEMS>
     <ITEM SKU="737-50676-3dmma" QTY="1" ACTION="TU">
     <PRODUCTKEY>
        <![CDATA[ecMc9WjqnesN7NqVIK1F2fZxxxxx/xxxxxxxxxxxxxxxxxxxxxxxxxxxx]]>
     </PRODUCTKEY>
     </ITEM>
    </ITEMS>
   </ORDER>
 </CUSTOMERCONTEXT>
</DATA>
</PARTNERCONTEXT>
```

Trade-Up Request with SOURCESKU

In the following example, the trade-up request type passes the ${\bf SOURCESKU}$ as well as action, which is ${\bf TU}$.

```
<PARTNERCONTEXT>
<HEADER>
 <PARTNER PARTNER ID="737"/>
</HEADER>
<DATA>
<CUSTOMERCONTEXT ID="testaccount" REQUESTTYPE="UPDATE">
 <ACCOUNT/>
  <ORDER PARTNERREF="testorderref" REF="">
   <ITEMS>
    <ITEM SKU="737-50676-3dmma" QTY="1" ACTION="TU">
     <SOURCESKU>737-35356-3usermtp</SOURCESKU></ITEM>
    </ITEMS>
  </ORDER>
 </CUSTOMERCONTEXT>
</DATA>
</partnercontext>
```

Canceling Trade-Up Subscription

The Cancel XML request cancels the user subscription at McAfee. The partner has to pass the Trade-Up SKU of the subscription in the ITEM node to indicate that the specific subscription that has to be canceled. After cancelling the traded-up subscription, McAfee cancels both the source subscription and the traded-up subscription.

The McAfee system sets the subscription expiration date to the date on which the cancellation was received (immediate cancellation), or just stops the automatic renewal based on the partner configuration.

9. Product Download

Overview

This feature provides the Product Download page URL to the partners.

Note: This URL is provided only for multi-device products.

The Product Download page URL can be provided to the user in the following flows.

Subscription Creation Flow

New Subscription Creation

In the new subscription flow for multi-device SKUs, the product download URL is sent back in response.

Request

No new elements need to be passed in the subscription creation flow.

Response

The <PRODUCTDOWNLOADURL> node will be embedded in the current response with the URL value.

Response XML

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
   <PARTNER PARTNER ID="737" />
 </HEADER>
  <DATA>
    <RESPONSECONTEXT ID="nov17 new New">
      <RETURNCODE>1000</RETURNCODE>
      <RETURNDESC>Transaction is successful</RETURNDESC>
      <ORDER PARTNERREF="nov17 new New" REF="NCS120381520">
          <ITEM SKU="737-52747-livesafe" EXPDT="2014-12-16">
<PRODUCTKEY><! [CDATA[YcsH+1+Z6GztFpEnzltQFrbchpFntX/8uj21so6So/</pre>
sldxyefR2ChIk6W0]]></PRODUCTKEY>
          </ITEM>
        </ITEMS>
      </ORDER>
      <ACCOUNT>
        <EMAILADDRESS>nov17 new New@mcafee.com</EMAILADDRESS>
```

On Trade-Up

If the trade-up destination is multi-device SKU, the product download URL will be part of the response.

Request XML

```
<PARTNERCONTEXT>
  <HEADER>
   <PARTNER PARTNER ID="737" />
 </HEADER>
  <DATA>
    <CUSTOMERCONTEXT ID="MMS737NOV20" REQUESTTYPE="Update">
      <ACCOUNT />
      <ORDER PARTNERREF="MMS737NOV20" REF="">
          <ITEM SKU="737-57285-3dumma" QTY="1" ACTION="TU" >
           <SOURCESKU>737-53294-mcafee mobile securi
</sourcesku>
          </ITEM>
        </ITEMS>
      </ORDER>
    </CUSTOMERCONTEXT>
 </DATA>
</PARTNERCONTEXT>
```

Response XML

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
   <PARTNER PARTNER ID="737" />
  </HEADER>
   <RESPONSECONTEXT ID="MMS737NOV20">
     <RETURNCODE>1000
     <RETURNDESC>Transaction is successful
     <ORDER PARTNERREF="MMS737NOV20" REF="NCS211361454">
       <ITEMS>
         <ITEM SKU="737-57285-3dumma" EXPDT="2014-12-04">
<PRODUCTKEY><! [CDATA[7qtsG+oQqflsy645Wyd5K3jd8dIvxw0aPiuRyURywB
bl7gCV34hsD+vObG9G51KS]]></PRODUCTKEY>
         </ITEM>
       </ITEMS>
     </ORDER>
     <ACCOUNT>
       <EMAILADDRESS>mms737nov20@mma.com</EMAILADDRESS>
```

Existing User

A new Product Download API is introduced to provide the Product Download page URL to the Partners.

New API request and response XMLs contains these parameters:

■ CUSTOMERCONTEXTID:

CUSTOMERCONTEXTID identifies the customer account.

■ REQUESTTYPE:

The new RequestType **PRODUCTDOWNLOAD** identifies the XML as the request for the product download page URL.

SKU or PRODUCTKEY:

The SKU or PRODUCTKEY must be part of the request XML.

DEVICE TYPE:

This is an optional parameter. If this is left blank, a multi-device URL will be sent in response. If the device type is set to '**Phone**' or '**Tablet**,' then an MMS download URL is sent in response.

Request for Multi-device Download URL

URL Request XML

URL Response

```
<PARTNERRESPONSECONTEXT>
<HEADER>
   <PARTNER PARTNER ID="737" />
 </HEADER>
 <DATA>
   <RESPONSECONTEXT ID="RRTREGRESSIONCHECK1">
     <RETURNCODE>####</RETURNCODE>
     <RETURNDESC>
       { Transaction success or Error Message }
     </RETURNDESC>
          <PRODUCTDOWNLOADURL>
<![CDATA[http://home.mcafee.com/downloads/keycard.aspx?</pre>
                   %3FAFFID%3D313%26%26CULTURE%3DEN-
US%26%26TK%3DFAM8
JKCOMTp6Ug6QDY2%2BEwPN4TvVJ8Oik6gCiFZuzfVJX%2B
                   YKgdK]]>
              </PRODUCTDOWNLOADURL>
     </RESPONSECONTEXT>
    </DATA>
   </PARTNERRESPONSECONTEXT>
```

Request for MMS Download URL for Multi-device SKU

URL Request XML

URL Response

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
   <PARTNER PARTNER ID="737" />
 </HEADER>
 <DATA>
   <RESPONSECONTEXT ID="RRTREGRESSIONCHECK1">
     <RETURNCODE>####</RETURNCODE>
     <RETURNDESC>
       { Transaction success or Error Message }
      </RETURNDESC>
           <PRODUCTDOWNLOADURL>
<![CDATA[http://home.mcafee.com/downloads/keycard.aspx?</pre>
                    %3FAFFID%3D313%26%26CULTURE%3DEN-
US%26%26TK%3DFAM8
JKCOMTp6Ug6QDY2%2BEwPN4TvVJ8Oik6gCiFZuzfVJX%2B
                    YKgdK]]>
              </PRODUCTDOWNLOADURL>
    </RESPONSECONTEXT>
    </DATA>
   </PARTNERRESPONSECONTEXT>
 </DATA>
</partnerresponsecontext>
```

If Partner provides the ProductKey instead of SKU

URL Request XML

```
<PARTNERCONTEXT>
  <HEADER>
   <partner partner id="737" />
  </HEADER>
  <DATA>
    <CUSTOMERCONTEXT ID="RRTREGRESSIONCHECK1" REQUESTTYPE="</pre>
PRODUCTDOWNLOAD " >
   <ORDER>
     <ITEMS>
     <ITEM >
<PRODUCTKEY><! [CDATA[bRkkd6wTlV8uvVSi3+g8j4nuIkyxqrRSnaX6EFiFR2</pre>
1c0b0bieBhIQFoQiEGfx5U]]></PRODUCTKEY>
           </ITEM>
     </ITEMS>
    </ORDER>
    </CUSTOMERCONTEXT>
  </DATA>
</PARTNERCONTEXT>
```

URL Response

```
<PARTNERRESPONSECONTEXT>
  <HEADER>
   <PARTNER PARTNER ID="737" />
 </HEADER>
  <DATA>
    <RESPONSECONTEXT ID="RRTREGRESSIONCHECK1">
      <RETURNCODE>####</RETURNCODE>
      <RETURNDESC>
       { Transaction success or Error Message }
      </RETURNDESC>
           <PRODUCTDOWNLOADURL>
<![CDATA[http://home.mcafee.com/downloads/keycard.aspx?</pre>
                    %3FAFFID%3D313%26%26CULTURE%3DEN-
US%26%26TK%3DFAM8
JKCOMTp6Ug6QDY2%2BEwPN4TvVJ8Oik6gCiFZuzfVJX%2B
                    YKgdK]]>
              </PRODUCTDOWNLOADURL>
     </RESPONSECONTEXT>
    </DATA>
   </PARTNERRESPONSECONTEXT>
```

URLs

Partners should use these URLS to post their XMLs to use the new Product Download API.

URL to post for plain request:

http://partnersvc.mcafee.com/Request/PostProductDownloadRequest.aspx

URL to post for RIJNDAEL encrypted request:

http://partnersvc.mcafee.com/Request/postrijndaelencryptedPDreq.aspx

URL to post for TRIPLEDES encrypted request:

http://partnersvc.mcafee.com/Request/posttripledesencryptedPDreq.aspx

Product Download Web Service

To use the Product Download web service, a request should be posted to the below web service. McAfee hosts the **ProductDownloadPostRequest** Web service at the following location:

https://partnersvc.mcafee.com/request/productdownloadpostrequest.asmx

The **ProductDownloadPostRequest** Web service exposes the **ProcessRequestWS** method, which takes a Request XML message as a string parameter for processing. The return value is a string containing the Response XML message.

This table includes details about the **ProcessRequestWS** method:

Method	Parameter	Return Value
ProcessRequestWS	string (Request XML)	string (Response XML)

The Web Services Description Language (WSDL) definition is as follows:

```
<wsdl:definitions xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:so</pre>
ap12="http://schemas.xmlsoap.org/wsdl/soap12/" xmlns:http="http://sch
emas.xmlsoap.org/wsdl/http/"xmlns:mime="http://schemas.xmlsoap.org/ws
dl/mime/" xmlns:tns="https://Partnersvc.mcafee.com" xmlns:soap="http:
//schemas.xmlsoap.org/wsdl/soap/"xmlns:tm="http://microsoft.com/wsdl/
mime/textMatching/" xmlns:soapenc="http://schemas.xmlsoap.org/soap/en
coding/" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"targetNamespace
="https://Partnersvc.mcafee.com">
<wsdl:types>
<s:schema elementFormDefault="qualified" targetNamespace="https://Par</pre>
tnersvc.mcafee.com">
<s:element name="ProcessRequestWS">
<s:complexType>
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="requestXML" type="s:stri</pre>
ng"/>
</s:sequence>
</s:complexType>
</s:element>
<s:element name="ProcessRequestWSResponse">
<s:complexType>
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="ProcessRequestWSResult"</pre>
type="s:string"/>
</s:sequence>
</s:complexType>
</s:element>
</s:schema>
</wsdl:types>
<wsdl:message name="ProcessRequestWSSoapIn">
<wsdl:part name="parameters" element="tns:ProcessRequestWS"/>
</wsdl:message>
<wsdl:message name="ProcessRequestWSSoapOut">
<wsdl:part name="parameters" element="tns:ProcessRequestWSResponse"/>
</wsdl:message>
<wsdl:portType name="productdownloadpostrequestSoap">
<wsdl:operation name="ProcessRequestWS">
<wsdl:input message="tns:ProcessRequestWSSoapIn"/>
<wsdl:output message="tns:ProcessRequestWSSoapOut"/>
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="productdownloadpostrequestSoap" type="tns:product</pre>
downloadpostrequestSoap">
<soap:binding transport="http://schemas.xmlsoap.org/soap/http"/>
<wsdl:operation name="ProcessRequestWS">
<soap:operation soapAction="https://Partnersvc.mcafee.com/ProcessRequ</pre>
estWS" style="document"/>
```

```
<wsdl:input>
<soap:body use="literal"/>
</wsdl:input>
<wsdl:output>
<soap:body use="literal"/>
</wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="productdownloadpostrequestSoap12" type="tns:produ</pre>
ctdownloadpostrequestSoap">
<soap12:binding transport="http://schemas.xmlsoap.org/soap/http"/>
<wsdl:operation name="ProcessRequestWS">
<soap12:operation soapAction="https://Partnersvc.mcafee.com/ProcessRe</pre>
questWS" style="document"/>
<wsdl:input>
<soap12:body use="literal"/>
</wsdl:input>
<wsdl:output>
<soap12:body use="literal"/>
</wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="productdownloadpostrequest">
<wsdl:port name="productdownloadpostrequestSoap" binding="tns:product</pre>
downloadpostrequestSoap">
<soap:address location="https://partnersvc.mcafee.com/webservice/prod</pre>
uctdownloadpostrequest.asmx"/>
</wsdl:port>
<wsdl:port name="productdownloadpostrequestSoap12" binding="tns:produ</pre>
ctdownloadpostrequestSoap12">
<soap12:address location="https://partnersvc.mcafee.com/webservice/pr</pre>
oductdownloadpostrequest.asmx"/>
</wsdl:port>
</wsdl:service>
</wsdl:definitions>
```

Return Codes

These are the possible return codes:

Code	Description
1000	Transaction is successful
2001	Invalid schema
2002	Invalid data
2003	Invalid SKU
7001	No valid subscription record
4000	Transaction failed

10. Error Messages

This chapter explains the McAfee response messages when an error occurs during a transaction between McAfee and Partner.

Overview

The McAfee response message includes a mandatory field, **RETURNCODE**. The value of this code indicates whether the transaction was successful or not. The following sections provide the response message that McAfee sends to the Partner when an errors occurs during a transaction.

During the development and quality assurance (QA) process, McAfee discusses with the Partner to identify the potential reasons for an invalid data response.

Table 17: List of Transaction Codes

Transaction Code	Message Displayed	Transaction Type
1000	Transaction is successful	Normal
2001	Invalid schema	Error
2002	Invalid data	Error
2003	Item error: invalid SKU	Error
4000	Transaction failed	Error
5001	Transaction success: Warning, Email Address Exists.	Success: Warning
5002	Transaction success: Warning, Customer Context ID exists for another Email address. Email Address is ignored	Success: Warning

Transaction Code	Message Displayed	Transaction Type
6001	Email address exists in the system	Error
6002	Account has active subscriptions from other partners	Error
6003	AFFID/CCID combination does not exist in the system.	Error
6004	Transaction failed: Additional license quantity exceeded maximum allowed limit.	Error
6005	Transaction failed: Base subscription does not exist. Invalid Additional license purchase.	Error
6006	Transaction failed: Cannot cancel additional licenses. Invalid additional license quantity.	Error
6007	No license information available.	Error
7001	No valid subscription record.	Error
7002	Old phone number Is not valid.	Error
7003	New phone number is already used.	Error
7004	No active subscription record.	Error

For more information about AFF_ID and CCID, see the *McAfee Consumer Partner Login API White Paper*. Contact McAfee Consumer Sales to obtain this White Paper.

Error Response 2001 - Invalid Schema

The Invalid Schema error occurs when the Partner message does not contain the required elements and attributes.

An example of the Invalid Schema error response from McAfee is as follows:

```
<PARTNERESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>2001</RETURNCODE>
<RETURNCODE>2001</RETURNCODE>
<ORDER PARTNERREF="CS1234545" REF="" />
</RESPONSECONTEXT>
</partnersponsecontext>
```

Error Response 2002 - Invalid Data

The Invalid Data error occurs due to one of the following possible reasons:

- PARTNERREF is unavailable.
- EMAILADDRESS is unavailable.
- CUSTOMERCONTEXT ID is unavailable.
- Invalid CCTYPE, CCNUMBER, CCEXPIREMONTH, or CCEXPIREYEAR.
- A single Partner message includes both the purchase and cancellation transactions.
- A single real-time Partner message includes transactions for more than one user.

An example of the Invalid Data error response from McAfee is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>2002</RETURNCODE>
<RETURNCODE>2002</RETURNCODE>
<CRETURNDESC>Invalid data</RETURNDESC>
<ORDER PARTNERREF="CS1234545" REF="" />
</RESPONSECONTEXT>
</DATA>
</PARTNERRESPONSECONTEXT>
```

Error Response 2003 - Invalid SKU

The Invalid SKU error occurs when the Partner message contains a SKU that does not map to the McAfee SKUs for that Partner.

An example of the Invalid SKU error response from McAfee is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>2003</RETURNCODE>
<RETURNDESC>Item error: invalid SKU</RETURNDESC>
<ORDER PARTNERREF="CS1234545" REF="" />
</RESPONSECONTEXT>

<
```

Error Response 4000 - General Error

The messages from a Partner can fail due to one of the following possible reasons:

- Invalid PARTNER_ID.
- After an initial Paid message, the same PARTNERREF repeats for a subsequent Paid message. McAfee rejects this PARTNERREF as a duplicate.
- The Partner message attempts to cancel a subscription that does not exist.
- The Partner message attempts to add a trial for a customer that already has a trial for that product.
- McAfee system errors.

An example of a general error response from McAfee is as follows:

```
<PARTNERRESPONSECONTEXT>
<HEADER>
<PARTNER PARTNER_ID="101"/>
</HEADER>
<DATA>
<RESPONSECONTEXT ID="PAUL1234567">
<RETURNCODE>4000</RETURNCODE>
<RETURNCODE>Transaction Failed</RETURNDESC>
<ORDER PARTNERREF="CS1234545" REF="" />
</RESPONSECONTEXT>

</pre
```

A. Country Codes and International Dialing Codes

The following table lists the country codes and international dialing codes.

Table 18: Country Codes and International Dialing Codes

Country	Code	Dialing Code
Albania	al	355
Algeria	dz	213
American Samoa	as	1684
Andorra	ad	376
Angola	ao	244
Anguilla	ai	1264
Antigua and Barbuda	ag	1268
Argentina	ar	54
Armenia	am	374
Aruba	aw	297
Australia	au	61
Austria	at	43
Azerbaijan	az	994
Bahamas	bs	1242
Bahrain	bh	973
Bangladesh	bd	880
Barbados	bb	246
Belarus	by	375
Belgium	be	32
Belize	bz	501

Benin	bj	229
Bermuda	bm	441
Bhutan	bt	975
Bolivia	bo	591
Bosnia and Herzegovina	ba	387
Botswana	bw	267
Brazil	br	55
Brunei Darussalam	bn	673
Bulgaria	bg	359
Burkina Faso	bf	226
Burundi	bi	257
Cambodia	kh	855
Cameroon	cm	287
Canada	ca	1
Cape Verde	cv	238
Cayman Islands	ky	345
Central African Republic	cf	236
Chad	td	235
Chile	cl	56
China	cn	86

Country	Code	Dialing Code
Colombia	со	57
Comoros	km	269
Congo	cg	242
Congo, <i>The Democratic</i> Republic of the	cd	243
Cook Islands	ck	682
Costa Rica	cr	506
Cote D'ivoire	ci	225
Croatia	hr	385
Cyprus	су	357
Czech Republic	cz	420
Denmark	dk	45
Djibouti	dj	253
Dominica	dm	1767
Dominican Republic	do	1
Ecuador	ec	593
Egypt	eg	20
El Salvador	sv	503
Equatorial Guinea	gq	240
Eritrea	er	291
Estonia	ee	372
Ethiopia	et	251
Falkland Islands (Malvinas)	fk	679

Country	Code	Dialing Code
Faroe Islands	fo	298
Fiji	fj	679
Finland	fi	358
France	fr	33
French Guiana	gf	594
French Polynesia	pf	689
Gabon	ga	241
Gambia	gm	220
Georgia	ge	995
Germany	de	49
Ghana	gh	233
Gibraltar	gi	350
Greece	gr	30
Greenland	gl	299
Grenada	gd	1473
Guadeloupe	gp	590
Guam	gu	1671
Guatemala	gt	502
Guinea	gn	224
Guinea-bissau	gw	245
Guyana	gy	592
Haiti	ht	509

Country	Code	Dialing Code
Holy See (Vatican City State)	va	39
Honduras	hn	504
Hong Kong	hk	852
Hungary	hu	36
Iceland	is	354
India	in	91
Indonesia	id	62
Iraq	iq	964
Ireland	ie	353
Israel	il	972
Italy	it	39
Jamaica	jm	1876
Japan	jp	81
Jordan	jo	962
Kazakhstan	kz	7
Kenya	ke	254
Kiribati	ki	686
Korea, Republic of	kr	82
Kuwait	kw	965
Kyrgyzstan	kg	996
Lao People's Democratic Republic	la	856
Latvia	lv	371

Country	Code	Dialing Code
Lebanon	lb	961
Lesotho	Is	266
Liberia	Ir	231
Libyan Arab Jamahiriya	ly	218
Liechtenstein	li	423
Lithuania	It	370
Luxembourg	lu	352
Macau	mo	853
Macedonia, The Former Yugoslav Republic of	mk	389
Madagascar	mg	261
Malaysia	my	60
Maldives	mv	960
Mali	ml	223
Malta	mt	356
Marshall Islands	mh	692
Martinique	mq	596
Mauritania	mr	222
Mauritius	mu	230
Mexico	mx	52
Micronesia, Federated States of	fm	691
Moldova, Republic of	md	373
Monaco	mc	377
Mongolia	mn	976

Country	Code	Dialing Code
Montenegro	me	382
Montserrat	ms	664
Morocco	ma	212
Mozambique	mz	258
Myanmar	mm	95
Namibia	na	264
Nauru	nr	674
Nepal	np	977
Netherlands	nl	31
Netherlands Antilles	an	599
New Caledonia	nc	687
New Zealand	nz	64
Nicaragua	ni	505
Niger	ne	227
Nigeria	ng	234
Northern Mariana Islands	mp	670
Norway	no	47
Oman	om	968
Pakistan	pk	92
Palau	pw	680
Panama	ра	507
Papua New Guinea	pg	675

Country	Code	Dialing Code
Paraguay	ру	595
Peru	ре	51
Philippines	ph	63
Poland	pl	48
Portugal	pt	351
Puerto Rico	pr	1
Qatar	qa	974
Reunion	re	262
Romania	ro	40
Rwanda	ru	7
Saint Kitts and Nevis	kn	869
Saint Lucia	Ic	758
Saint Vincent and the Grenadines	vc	809
Samoa	ws	685
San Marino	sm	378
Sao Tome and Principe	st	239
Saudi Arabia	sa	966
Senegal	sn	221
Serbia	rs	381
Seychelles	sc	248
Sierra Leone	sl	232
Singapore	sg	65

Country	Code	Dialing Code
Slovakai (Slovak Republic)	sk	421
Slovenia	si	386
Solomon Islands	sb	677
Somalia	so	252
South Africa	za	27
Spain	es	34
Sri Lanka	lk	94
St. Pierre and Miquelon	pm	508
Suriname	sr	597
Swaziland	sz	268
Sweden	se	46
Switzerland	ch	41
Taiwan	tw	886
Tajikistan	tj	992
Tanzania, United Republic of	tz	255
Thailand	th	66
Togo	tg	228
Tonga	to	676
Trinidad and Tobago	tt	868
Tunisia	tn	216
Turkey	tr	90
Turkmenistan	tm	993

Country	Code	Dialing Code
Turks and Caicos Islands	tc	649
Uganda	ug	256
Ukraine	ua	380
United Arab Emirates	ae	971
United Kingdom	uk	44
United States	us	1
Uruguay	uy	598
Uzbekistan	uz	998
Vanuatu	vu	678
Venezula	ve	58
Vietnam	vn	84
Virgin Islands (British)	vg	284
Virgin Islands (U S)	vi	340
Wallis and Futuna Islands	wf	681
Yemen	ye	967
Zambia	zm	260
Zimbabwe	zw	263

B. XML Field Length and Character Restriction

This chapter documents the XML field length and character restriction for both the Partner request and McAfee response messages.

XML Field Length

The following table lists the XML field length:

Table 19: List of XML Field Length

Field	Data Length (in characters)	Double-byte Support
CUSTOMERCONTEXTID	100	No
EMAILADDRESS	100	No
FIRSTNAME	20	Yes
LASTNAME	20	Yes
PASSWORD	50 Minimum of eight characters.	No
PARTNERREF	100	No

The double-byte data requires UTF-8 encoding. For more information, see http://en.wikipedia.org/wiki/UTF-8.

Character Restriction

The following table lists the restricted characters. The XML parser will check the special characters mentioned in the **SpecialChars** node with the **FIRSTNAME**, **LASTNAME**, **CCID**, and **PARTNERREF**. The parser will also check the additional characters, such as 8, !, ~, and #, mentioned in the **SpecialCharsEx** node with the **EMAILADDRESS**.

For example,

Table 20: List of Special Characters

Special Characters			
@@	••	;	?
:\\	//	((\$
))	xp_	<	1
>	%	=	[
	::	=/]
0x	*	+	(
)			

C. Response Code Matrix

This chapter documents that response code matrix for Paid and Cancel transactions and for existing customers.

Paid Transaction

This section lists the transaction codes that Partner receives for Paid transactions. This matrix assumes that the Partner's request message was properly formatted and does not contain invalid data.

Transaction Code 1000

The following table lists the response code matrix for transaction code 1000 and transaction status Success:

Table 21: Lists Transaction Details for Code 1000 and Status Success

Partner Sends	Previously in McAfee DB	McAfee DB Stores	Comments
CCID 1, Email 1, Password 1	Nothing	CCID 1, Email 1, Password 1	McAfee captures this transaction as new user
CCID 1,	No CCID 1,	CCID 1,	New user transaction. No relationships among users except that they share passwords.
Email 2,	Email 1,	Email 2,	
Password 1	Password 1	Password 1	
CCID 1,	No CCID 1,	CCID 1,	New user transaction. No relationships among users.
Email 2,	Email 1,	Email 2,	
Password 2	Password 1	Password 2	
CCID 2,	CCID 1,	CCID 2,	New user transaction. No relationship to CCID 1 or Email 1 except that they share passwords.
Email 2,	Email 1,	Email 2,	
Password 1	Password 1	Password 1	

Transaction Code 5001

The following table lists the response code matrix for transaction code 5001 and transaction status Success: Warning:

Table 22: Lists Transaction Details for Code 5001 and Status Success: Warning

Partner Sends	Previously in McAfee DB	McAfee DB Stores	Comments
CCID 1,	CCID 1,	CCID 1,	Standard behavior
Email 1,	Email 1,	Email 1,	
Password 1	Password 1	Password 1	
CCID 1,	No CCID 1,	CCID 1,	CCID stored
Email 1,	Email 1,	Email 1,	
Password 1	Password 1	Password 1	
CCID 1,	No CCID 1,	CCID 1,	CCID stored; Password 2 ignored
Email 1,	Email 1,	Email 1,	
Password 2	Password 1	Password 1	
CCID 1,	CCID 1,	CCID 1,	Password 2 ignored
Email 1,	Email 1,	Email 1,	
Password 2	Password 1	Password 1	
CCID 2, Email 1, Password 1	CCID 1, Email 1, Password 1	CCID 2, CCID 1, Email 1, Password 1	McAfee assigns user to CCID 2 along with CCID 1.

Transaction Code 5002

The following table lists the response code matrix for transaction code 5002 and transaction status Success: Warning:

Table 23: Lists Transaction Details for Code 5002 and Status Success: Warning

Partner Sends	Previously in McAfee DB	McAfee DB Stores	Comments
CCID 1,	CCID 1,	CCID 1,	Email 2 ignored
Email 2,	Email 1,	Email 1,	
Password 1	Password 1	Password 1	
CCID 1,	CCID 1,	CCID 1,	Email 2 and Password 2 ignored
Email 2,	Email 1,	Email 1,	
Password 2	Password 1	Password 1	

Canceled Transaction

This section lists the transaction codes that Partner receives for cancel messages.

Transaction Code 1000

The following table lists the response code matrix for transaction code 1000:

Table 24: Lists Transaction Details for Code 1000 and Status Success

Partner Sends	Previously in McAfee DB	McAfee DB	Comments
CCID 1, Email 2	CCID 1, Email 1	Cancels subscription	CCID 1 remains linked to Email 1. Subscription gets canceled. No special message from McAfee.
CCID 1, Email 1	CCID 1, Email 1	Cancels subscription	Normal

Transaction Code 4000

The following table lists the response code matrix for transaction code 4000 and transaction status Failure:

Table 25: Lists Transaction Details for Code 4000 and Status Failure

Partner Sends	Previously in McAfee DB	McAfee DB	Comments
CCID 1, Email 1	Nothing	Nothing	This account never existed, and therefore, no account to cancel. After having sent a Paid transaction, Partner can send a cancellation to McAfee.
	No CCID 1, Email 1	Nothing	After having sent a Paid transaction, Partner can send a cancellation to McAfee. Thereby, associating Email 1 with CCID 1.
CCID 1, Email 2	No CCID 1, Email 1	Nothing	No relationship among these accounts. If CCID 1 does not exist in the McAfee DB, then transaction fails. If CCID 1 previously existed in the McAfee DB, then the application will cancel the CCID 1.
CCID 2, Email 1	CCID 1, Email 1	Nothing	If CCID 2 does not exist in the McAfee DB, then transaction fails. If CCID 2 previously existed in the McAfee DB, then the application will cancel the CCID 2.
CCID 2, Email 2	CCID 1, Email 1	Nothing	No relationship among the accounts.

Existing Customer

The following matrix explains the different transaction codes that a Partner will receive if a user has already subscribed to McAfee. This matrix assumes that the Partner properly formatted the request message and that the message does not contain invalid data.

Transaction Codes 1000 and 5001

The following table lists the response code matrix for transaction codes 1000 and 5001:

Table 26: Lists Transaction Details for Codes 1000 and 5001

Partner Sends	Previously in McAfee DB	McAfee DB	Transaction Status	Comments
1 month subscription for VirusScan (VS) with trial	No previous VS subscription	Creates VS subscription and sets auto- renewal	Success	If user has an existing McAfee account, then this transaction returns 5001.
1 month subscription for VS without trial	Active VS subscription with current or previous trial	Adds 1 month to VS subscription and sets auto- renewal	Success: Warning	System assumes that Partner wants to add additional month to the existing VS subscription.
	Active VS subscription without current or previous trial	Adds 1 month to VS subscription and sets auto- renewal	Success: Warning	System assumes that Partner wants to add additional month to the existing VS subscription.
1 month subscription for VS plus McAfee Personal Firewall Plus (MPFP) suite with trial	Active VS subscription	Creates VS plus MPFP suite subscription and sets auto- renewal. Original VS subscription remains active.	Success: Warning	The VS plus MPFP suite is treated as independent product. Users can have trial versions of VS and the VS plus MPFP suite without any issues. Rather than counting the user twice, McAfee suggests that Partner cancel the VS subscription.
	Expired VS subscription	Creates VS plus MPFP suite subscription and sets autorenewal. Original VS subscription becomes inactive.	Success: Warning	The VS plus MPFP suite is treated as independent product. Users can have trial versions of VS and the VS plus MPFP suite without any issues.

Partner Sends	Previously in McAfee DB	McAfee DB	Transaction Status	Comments
1 month subscription for VS plus MPFP suite without trial	Active VS subscription	Retains existing subscription.	Success: Warning	The VS plus MPFP suite is treated as independent product. Users can have trial versions of VS and the VS plus MPFP suite without any issues. Rather than counting the user twice, McAfee suggests that Partner cancel the VS subscription.
	Expired VS subscription	Creates VS plus MPFP suite subscription and sets auto-renewal. Original VS subscription becomes inactive.	Success: Warning	The VS plus MPFP suite is treated as independent product. Users can have trial versions of VS and the VS plus MPFP suite without any issues.

Transaction Code 4000

The following table lists the response code matrix for transaction code $4000\,$ and transaction status Failure. For the transactions listed, the users are not entitled to new trial of product that they have already subscribed.

Table 27: Lists Transaction Details for Code 4000 and Status Failure

Partner Sends	Previously in McAfee DB	McAfee DB
1 month subscription for VS with trial	Active VS subscription with current or previous trial	Retains existing subscription.
	Active VS subscription without current or previous trial	Retains existing subscription.
	Expired VS subscription does not include trial	Nothing
	Expired VS subscription includes trial	Nothing

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