



Sprint Web Services User Guide

Discount Management Service

Version: 2.0

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Audience

This document is designed to help Web Services consumers and application developers integrate their applications with Sprint Web Services. It details the functional and technical aspects of the Web Service interface, including the technologies utilized, the security approach, error handling procedures, and available support options.

Revision History

Date	Version	Description	Author
07/15/2011	1.0	Initial version	Fernando C. Filho
08/03/2011	1.1	Updated applyRebate request and response samples	Fernando C. Filho
08/08/2011	2.0	Added 2 new operations	Fernando C. Filho

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1 Service Overview

The Discount Management Service include the following operations:

Operation	Description
ApplyRebate	Apply a rebate to a subscriber within the billing system
LockRebateEligibilit	Validates input subscriber information, checks subscriber's rebate eligibility status, renews subscriber contract, and more.
ProcessDeviceReturn	Validates input subscriber information, dealer code, device return information and more.

2 Web Service Operation Details

The Discount Management Service contains the following operations:

- ApplyRebate
- LockRebateEligibility
- ProcessDeviceReturn

NOTE: Operations with enumerated types are case-sensitive and in some cases restricted. Values must match exactly as documented in the WSDL.

The following sections contain the details of each of these operations, including documentation on every input and output parameter.

They also contain sample SOAP request and response messages. Note that they are filled with test data that is unlikely to be available after publication of this document. Note also that these samples are unsigned (for readability), and actual messages sent to and returned from Sprint's Web Services Gateway should contain the Web Services Security element (`<wsse:Security>`) inside the SOAP Header (`<soapenv:Header>`).

2.1 ApplyRebate

Front end can use this API to apply a rebate to a subscriber within the billing system.

- The subscriber must be active or reserved within the system
- The billing system will provide a unique transaction id for the rebate

2.1.1 Input Parameters

The input request to ApplyRebate API consists of two parts, the WSMessagesHeader V2 and the request data structure

trackingMessageHeader

Name	Details	Descriptions
consumerId	Required	The ID of the corporate entity or business unit from which this message originated (e.g. Corporation code or Portal applId).
applicationId	Required	The ID of the application within the corporate entity from which this message originated.
messageId	Required	A unique identifier for this message, to enable tracking, reporting, and correlation.
conversationId	Optional	Each message is part of a conversation between two or more systems in a given session. The Conversation ID is a UID, which can be used to group all messages exchanged within a session. This field is primarily used for tracking, reporting, root-cause-analysis, and non-repudiation.
timeToLive	Required	Specifies how long in seconds this message is relevant after the message timestamp. The calling application can time-out after 'timeToLive' seconds.
messageDateTimeStamp	Required	The dateTimeStamp of when the message was created. This can be used for tracking and reporting and also by the consuming application to determine if the message is stale.

All front-ends must send a consistent value in MessageHeader structure in the API request message. This is the only way to identify which application is calling the API. This structure will be used for analysis, reporting and troubleshooting purposes. MessageHeader will start to be validated in future releases.

applyRebate

Field Name	Description	Details
rebateTrxReqList	List of Rebate Transaction information structures	Structure, Required

rebateTrxReqList

Field Name	Description	Details
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rebateTrxReqInfo	Rebate Transaction information	Structure, Required
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rebateTrxReqInfo

Field Name	Description	Details
rebatePlanCode	Rebate Plan Code Valid Values: For new activations – DUMRPC For upgrades – selected rebate plan code from the REC response file For upgrades when the subscriber is not eligible for a rebate – dummy rebate plan code that is not DUMRPC (refer to section 4.3.1.4) For new activations that are a part of a BOGX offer, a new dummy rebate plan code will be introduced ('BOGRPC') that will replace the 'DUMRPC' code that exists for non-BOGX related activations. For upgrades that are part of a BOGX offer – offer code	6, String, Required
subscriberInfo	Subscriber Info	Structure, Required
filteringInfo	Filtering information	Structure, Optional
itemID	Item ID for a given equipment item	15, String, Required
Srp	Suggested Retail Price of the Equipment	Double, Optional
extRebateInd	Additional Rebate indicator would be set to 'true' if an additional rebate is added to the rebate amount. 'false', if no additional rebate amount is applied. For new activations – N, For upgrades – According to the Rebate indicator from the rebateEligibilityCheck API response; if the Rebate indicator in REC is E, Y should be sent; otherwise, N should be sent.	5, Boolean, Required
rebateAmt	Rebate/Discount Amount This amount includes all the rebate amounts, for example: Rebate Amount + Additional Rebate Amount. Populate with "-1" for an	9.2, Number, Required

	unknown amount	
contractTerm	Contract Term need to be in months. Must be greater than zero except when contract exists and is not extended (for that populate with -2)	2, Number, Required
serialType	Serial Type of the Equipment	1, String, Required
equipmentId	Serial Number of the Equipment	20, String, Optional
rebateStatus	Status of rebate. Values: T – Tentative (Only in case of upgrade private order where the sale is completed outside of Sprint's Billing System), C – Confirmed	1, String, Required
referenceId	Reference information that uniquely identifies the transaction ID of the calling application, such as order number or subscriber number	20, String, Required
dealerCode	Dealer code providing the rebate	8, String, Required
rebateInd	Indicator for the type of rebate Values: R – Rebate with history D – Discount A- Activation E – Extended Rebate ' ' (Space) – When no rebate was recorded. T – Tier Override V – VBS B – BOGX Rebate for upgrades and new activations For new activations not related to BOGX - A For Upgrades – According to the Rebate indicator from the REC API response: 1. If the Rebate indicator in REC is E, E should be sent. 2. If the Rebate indicator in REC is V, V should be sent. 3. If the Rebate indicator in REC is T, T should be sent. 4. For BOGX rebate – the Rebate indicator should be sent with a B value.	1, String, Required

	<p>If the Rebate indicator in REC is anything other than E, V, or T, and this is not a BOGX rebate, R should be sent.</p> <p>For upgrades when the subscriber is not eligible for a rebate – R</p>	
rebateCategory	<p>Category of the rebate for use by Sprint reports. ‘N’ – New Acquisition, ‘U’ – Upgrade order discount, ‘O’ – Price/Manager override discount, ‘P’ – Overlay discounts for promotional, per handset discounts that are on top of the standard acquisition and upgrade discounts.</p>	1, String, Required
eligibilityCode	<p>XXXXXXXXXX-AA is an 9-digit unique random number with a 2 or 3-digit eligibility term as suffix. Values: Suffix (AA) is 99 for subscribers eligible when Extended Rebate Indicator is set in the “Extended Rebate File Feed”. For new activations – empty, For upgrades – eligibility code from the rebateEligibilityCheck API response, For upgrades when the subscriber is not eligible for a rebate – empty, For BOGX rebates must not be sent</p>	12, String, Optional
rebateType	I - Instant rebate.	1, String, Required
msoRebateAmt	MSORebate Amount if subscriber is eligible for MSO rebates.	9, 2, Number , Optional
additionalBOGXRebateInfo	BOGX Rebate information. Must be sent when applying BOGX rebate (rebateInd is ‘B’)	Structure, Optional

subscriberInfo

Field Name	Description	Details
ban	Billing account number	9, Int, Choice
subscriberId	Subscription Identifier uniquely identifies an instance of the subscriber	8-20, String, Choice

mdn	Mobile Directory Number (MDN) is the actual phone number one would dial to reach a specific mobile phone. Prior to Wireless Number Portability, MDN was the same number as the Mobile Identification Number (MIN) for many mobile phones. But now that MDN's can be ported (moved) to other carriers, MDN and MIN will be different for ported numbers.	10, String, Choice
ufmi	Urban Fleet Member Identifier (UFMI) is the combination of the Urban Area Id, Fleet Id, and Member Id representing an address in a format recognized within iDEN Push-To-Talk (PTT) or Direct Connect. For example, a UFMI number of 500•600•700, translates to 500 is the Urban Area ID, 600 is the Fleet, and 700 is the Member.	20, String, Choice
deviceSerialNumber	Equipment Serial Number holds the identifier used by the device to communicate (broadcast) its identity to the wireless mobile network. Network Device Identifier will contain one of the following: Electronic Serial Number (ESN); Mobile Equipment Identifier (MEID); International Mobile Equipment Identifier (IMEI); Subscriber Identify Module (SIM). Media Access Control Identifier (macId)	8-20, String, Choice
ipAddress	An Internet Protocol Address is the numerical address by which a location in the Internet is identified. Computers on the Internet use IP addresses to route traffic and establish connections among themselves.	5-15, String, Choice
imsi	International Mobile Subscriber Identity (IMSI) is a unique number	15, String, Choice

	<p>associated with all GSM and Universal Mobile Telecommunications System (UMTS) network mobile phone users. It is stored in the Subscriber Identity Module (SIM) inside the phone and is sent by the phone to the network. It is also used to acquire other details of the mobile in the Home Location Register (HLR) or as locally copied in the Visitor Location Register. In order to avoid the subscriber being identified and tracked by eavesdroppers on the radio interface, the IMSI is sent as rarely as possible and a randomly generated TMSI is sent instead.</p> <p>The IMSI is used in any mobile network that interconnects with other networks, in particular CDMA and EVDO networks as well as GSM nets. This number is provisioned in the phone directly or in the R-UIM card (a CDMA analogue equivalent to a SIM card in GSM)</p> <p>An IMSI is usually 15 digits long, but can be shorter (for example MTN South Africa's IMSIs are 14 digits). The first 3 digits are the Mobile Country Code (MCC), and is followed by the Mobile Network Code (MNC), either 2 digits (European standard) or 3 digits (North American standard). The remaining digits are the Mobile Subscriber Identification Number (MSIN) within the network's customer base.</p> <p>The IMSI conforms to the International Telecommunication Union (ITU) E.212 numbering standard</p>	
nai	Network Access Identifier (NAI) is a standard way of identifying users	64, String, Choice

	<p>who request access to a network.</p> <p>The standard syntax is "user@realm".</p>	
additionalImsi	<p>International Mobile Subscriber Identity (IMSI) is a unique number associated with all GSM and Universal Mobile Telecommunications System (UMTS) network mobile phone users. It is stored in the Subscriber Identity Module (SIM) inside the phone and is sent by the phone to the network. It is also used to acquire other details of the mobile in the Home Location Register (HLR) or as locally copied in the Visitor Location Register. In order to avoid the subscriber being identified and tracked by eavesdroppers on the radio interface, the IMSI is sent as rarely as possible and a randomly generated TMSI is sent instead.</p> <p>The IMSI is used in any mobile network that interconnects with other networks, in particular CDMA and EVDO networks as well as GSM nets. This number is provisioned in the phone directly or in the R-UIM card (a CDMA analogue equivalent to a SIM card in GSM)</p> <p>An IMSI is usually 15 digits long, but can be shorter (for example MTN South Africa's IMSIs are 14 digits). The first 3 digits are the Mobile Country Code (MCC), and is followed by the Mobile Network Code (MNC), either 2 digits (European standard) or 3 digits (North American standard). The remaining digits are the Mobile Subscriber Identification Number (MSIN) within the network's customer base.</p> <p>The IMSI conforms to the</p>	15, String, Choice

	International Telecommunication Union (ITU) E.212 numbering standard	
hppttId	High Performance Push To Talk Identifier (HPPTTID) is the identifier of a Subscription utilizing the QChat Push-To-Talk technology. HPPTTID is constructed in the username@domain URI format. The username will be a MDN or UFMI based number.	40, String, Choice

filteringInfo

Field Name	Description	Details
location	RMS location	4, String, Optional

additionalBOGXRebateInfo

Field Name	Description	Details
offerTrxId	BOGX offer transaction ID	12, String, Required
offerLineCode	BOGX offer line code	6, String, Required
price	BOGX price	9.2, Number, Required
additionalDiscount	The additional equipment offer pricing discount	9.2, Number, Required

2.1.2 Output Parameters

Name	Values	Details	Descriptions
Faultcode	Fault code, e.g. "Client.804	20	String
Faultstring	Fault reason text e.g., "Server 804: System Exception".	100	String
Faultactor	Shall have the MessageNumber returned from Amdocs for an exception	10	String
Detail	Contains the error detail text.	n/a	Structure

applyRebateResponse

Field Name	Description	Details
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rebateTrxInfoList	Unbounded list of rebate transaction information structures	Structure, Required
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rebateTrxInfoList

Field Name	Description	Details
ban	Billing account number	9, Integer, Required
subscriberId	Subscriber number	20, String, Required
rebateTrxId	Identifier for the rebate generated after a successful validation. Used to track cancellations. This will be a number followed by the suffix separated by hyphen. Example: 980182-2Y12	100, String, Required

2.1.3 Sample Request Message

```

<soapenv:Envelope
  xmlns:soapenv = "http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:v2 = "http://integration.sprint.com/common/header/WSMessageHeader/v2"
  xmlns:app = "http://integration.sprint.com/interfaces/applyRebate/v1/applyRebate.xsd">
  <soapenv:Header>
    <v2:wsMessageHeader>
      <v2:trackingMessageHeader>
        <v2:applicationId>7UL</v2:applicationId>
        <v2:applicationUserId>user123</v2:applicationUserId>
        <v2:consumerId>7UL</v2:consumerId>
        <v2:messageId>123</v2:messageId>
        <v2:timeToLive>30</v2:timeToLive>
        <v2:messageDateTimeStamp>2011-06-21T00:10:55.0552-07:00</v2:messageDateTimeStamp>
      </v2:trackingMessageHeader>
    </v2:wsMessageHeader>
  </soapenv:Header>
  <soapenv:Body>
    <app:applyRebate>
      <app:rebateTrxReqList>
        <app:rebateTrxReqInfo>
          <app:rebatePlanCode>DUMRPC</app:rebatePlanCode>
          <app:subscriberInfo>
            <app:subscriberId>19605475021</app:subscriberId>
          </app:subscriberInfo>
          <app:itemId>LG265KIT</app:itemId>
          <app:extRebateInd>true</app:extRebateInd>
          <app:rebateAmount>99.00</app:rebateAmount>
          <app:contractTerm>24</app:contractTerm>
          <app:serialType>E</app:serialType>
          <app:equipmentId>268435458412174068</app:equipmentId>
          <app:rebateStatus>T</app:rebateStatus>
        </app:rebateTrxReqInfo>
      </app:rebateTrxReqList>
    </app:applyRebate>
  </soapenv:Body>
</soapenv:Envelope>

```

```

    <app:referenceId>2367984328754</app:referenceId>
    <app:dealerCode>0A0G601X</app:dealerCode>
    <app:rebateInd>R</app:rebateInd>
    <app:rebateCategory>N</app:rebateCategory>
    <app:rebateType>I</app:rebateType>
  </app:rebateTrxReqInfo>
</app:rebateTrxReqList>
</app:applyRebate>
</soapenv:Body>
</soapenv:Envelope>

```

2.1.4 Sample Response Message

```

<SOAP-ENV:Envelope
  xmlns:SOAP-ENC = "http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:SOAP-ENV = "http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd = "http://www.w3.org/2001/XMLSchema"
  xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance">
  <SOAP-ENV:Header>
    <m:wsMessageHeader xmlns:m =
"http://integration.sprint.com/common/header/WSMessageHeader/v2">
      <m:trackingMessageHeader>
        <m:applicationId>7UL</m:applicationId>
        <m:applicationUserId>user123</m:applicationUserId>
        <m:consumerId>7UL</m:consumerId>
        <m:messageId>123</m:messageId>
        <m:conversationId/>
        <m:timeToLive>30</m:timeToLive>
        <m:replyCompletionCode>0</m:replyCompletionCode>
        <m:messageDateTimeStamp>2011-08-03T16:35:34-05:00</m:messageDateTimeStamp>
      </m:trackingMessageHeader>
    </m:wsMessageHeader>
  </SOAP-ENV:Header>
  <SOAP-ENV:Body>
    <wsu:Id = "Body-1edf14f7-6a02-4ba9-b724-90d5fd5fdd6c"
    xmlns:wsu = "http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
      <tns:applyRebateResponse
        xmlns:tns = "http://integration.sprint.com/interfaces/applyRebate/v1/applyRebate.xsd"
        xmlns:xalan = "http://xml.apache.org/xalan">
        <tns:rebateTrxInfoList>
          <tns:rebateTrxInfo>
            <tns:ban>967346721</tns:ban>
            <tns:subscriberId>19605475021</tns:subscriberId>
            <tns:rebateTrxId>085041106-99</tns:rebateTrxId>
          </tns:rebateTrxInfo>
        </tns:rebateTrxInfoList>
      </tns:applyRebateResponse>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>

```

2.2 LockRebateEligibility

This API performs the following functions:

- Validates input subscriber information, and also validates if the Account (BAN) identified by input subscriber is eligible for Rebates or not. If BAN is not rebate eligible, then an error will be returned.
- Checks subscriber's rebate eligibility status in Amdocs ARM.
- Will take a Rebate Plan code from a potential list of Rebate Plan Codes returned from checkRebateEligibility API response.
- Applies derived rebate.
- Renews subscriber contract.

2.2.1 Input Parameters

The input request to LockRebateEligibility API consists of two parts, the WSMMessageHeader V2 and the request data structure

trackingMessageHeader

Name	Details	Descriptions
consumerId	Required	The ID of the corporate entity or business unit from which this message originated (e.g. Corporation code or Portal applId).
applicationId	Required	The ID of the application within the corporate entity from which this message originated.
messageId	Required	A unique identifier for this message, to enable tracking, reporting, and correlation.
conversationId	Optional	Each message is part of a conversation between two or more systems in a given session. The Conversation ID is a UID, which can be used to group all messages exchanged within a session. This is field is primarily used for tracking, reporting, root-cause-analysis, and non-repudiation.
timeToLive	Required	Specifies how long in seconds this message is relevant after the message timestamp. The calling application can time-out after 'timeToLive' seconds.
messageDateTimeStamp	Required	The dateTimeStamp of when the message was created. This can be used for tracking and reporting and also by the consuming application to determine if the message is stale.

All front-ends must send a consistent value in MessageHeader structure in the API request message. This is the only way to identify which application is calling the API. This structure will be used for analysis, reporting and troubleshooting purposes. MessageHeader will start to be validated in future releases.

lockRebateEligibility

Field Name	Description	Details
subscriberInfo	Structure containing choices for subscriber selection	Structure Required
Info	Structure containing equipment subscriber's device/contract and contract info for rebatesupgrade information	Structure Required

subscriberInfo

Field Name	Description	Details
subscriberId	Unique subscriber id.	15 String Choice
mdn	Mobile Directory Number	10 String Choice
equipmentId	Equipment Serial Number holds the identifier used by the device to communicate (broadcast) its identity to the wireless mobile network. Network Device Identifier will contain one of the following: Electronic Serial Number (ESN); Mobile Equipment Identifier (MEID); International Mobile Equipment Identifier (IMEI); Subscriber Identify Module (SIM). Media Access Control Identifier (macId)	8-20 String Choice
ufmi	Urban Fleet Member Identifier (UFMI) is the combination of the Urban Area Id, Fleet Id, and Member	20 String Choice

	Id representing an address in a format recognized within iDEN Push-To-Talk (PTT) or Direct Connect. For example, a UFMI number of 500•600•700, translates to 500 is the Urban Area ID, 600 is the Fleet, and 700 is the Member.	
ipAddress	An Internet Protocol Address is the numerical address by which a location in the Internet is identified. Computers on the Internet use IP addresses to route traffic and establish connections among themselves.	5-15 String Choice
imsi	<p>International Mobile Subscriber Identity (IMSI) is a unique number associated with all GSM and Universal Mobile Telecommunications System (UMTS) network mobile phone users. It is stored in the Subscriber Identity Module (SIM) inside the phone and is sent by the phone to the network. It is also used to acquire other details of the mobile in the Home Location Register (HLR) or as locally copied in the Visitor Location Register. In order to avoid the subscriber being identified and tracked by eavesdroppers on the radio interface, the IMSI is sent as rarely as possible and a randomly generated TMSI is sent instead.</p> <p>The IMSI is used in any mobile network that interconnects with other networks, in particular CDMA and EVDO networks as well as GSM nets. This number is provisioned in the phone directly or in the R-UIM card (a CDMA analogue equivalent to a SIM card in GSM)</p> <p>An IMSI is usually 15 digits long, but can be shorter (for example MTN South Africa's IMSIs are 14 digits).</p>	15 String Choice

	<p>The first 3 digits are the Mobile Country Code (MCC), and is followed by the Mobile Network Code (MNC), either 2 digits (European standard) or 3 digits (North American standard). The remaining digits are the Mobile Subscriber Identification Number (MSIN) within the network's customer base.</p> <p>The IMSI conforms to the International Telecommunication Union (ITU) E.212 numbering standard</p>	
nai	<p>Network Access Identifier (NAI) is a standard way of identifying users who request access to a network.</p> <p>The standard syntax is "user@realm".</p>	64 String Choice

upgradeInfo

Field Name	Description	Details
itemId	Model Number (SKU) of device.	20 String Required
contractTerm	Number of month's customer is extending their contract using rebate.	2 Positive Integer Required
dealerCode	Dealer Code	1:8 String Required

2.2.2 Output Parameters

Name	Values	Details	Descriptions
Faultcode	Fault code, e.g. "Client.804"	20	String
Faultstring	Fault reason text e.g., "Server 804: System Exception".	100	String
Faultactor	Shall have the MessageNumber returned	10	String

	from Amdocs for an exception		
Detail	Contains the error detail text.	n/a	Structure

LockRebateEligibilityResponse

Field Name	Description	Details
appliedRebateInfo	Structure providing rebate details	Structure Required
updateContractResponse	Structure providing the response for contract update request.	Structure Optional

appliedRebateInfo

Field Name	Description	Details
ban	Billing Account Number	9 String Required
subscriberId	Subscription Identifier uniquely identifies an instance of SUBSCRIPTION.	15 String Required
rebateTrxId	Unique identifier provided by Amdocs to identify successful rebate application request.	50 String Required

updateContractResponse

Field Name	Description	Details
contractUpdatedInd	Indicates if contract is successfully updated or not. true – means contract is updated successfully. false – indicates contract update failed.	15 positiveInteger Required
messageList	If contract update is fails, this structure will contain the error details. Will be returned if contractUpdatedInd is 'false'.	Structure Optional

messageList

Field Name	Description	Details
messageInfo	Structure containing error message info from API backends.	Structure Required

messageInfo

Field Name	Description	Details
messageCode	Error code from backend.	15 String Required
messageText	Error message text from backend	500 String Required

2.2.3 Sample Request Message

2.2.4 Sample Response Message

2.3 ProcessDeviceReturn

This API performs the following functions:

- Validates input subscriber information, dealer code.
- Validates if the new and return device is IDEN, if any one device is IDEN error will be returned
- Validates if device return is eligible or not, based on 30 day return policy. If return is not within 30 days error will be returned.
- Validate if the return device is purchased for upgrade or new activations.
 - If new activation and new device identifier is not in the input create a case
 - If upgrade and new device identifier is not in the input create a case.
- Validate input new device identifier is available in NMS for activation.
- Validate input return device identifier for lost/stolen flag in NMS if device is not active
- If return device is not active new device identifier passed will be ignored

- If return device item id is passed and a corresponding device serial number is found. Error will be returned and FE has to pass device serial number to process returns
- Perform swap if return device identifier is active or reserved in billing and/or new device identifier is passed
- Reset subscriber rebate
- Reset Subscriber Contract
- Waive upgrade fee if subscriber AT/ST is set up to apply upgrade fee for swap's
- Create Case if swap or reset subscriber rebate or reset subscriber contract or waive upgrade fee fails.

2.3.1 Input Parameters

The input request to ProcessDeviceReturn API consists of two parts, the WSMessagesHeader V2 and the request data structure

trackingMessageHeader

Name	Details	Descriptions
consumerId	Required	The ID of the corporate entity or business unit from which this message originated (e.g. Corporation code or Portal applId).
applicationId	Required	The ID of the application within the corporate entity from which this message originated.
messageId	Required	A unique identifier for this message, to enable tracking, reporting, and correlation.
conversationId	Optional	Each message is part of a conversation between two or more systems in a given session. The Conversation ID is a UID, which can be used to group all messages exchanged within a session. This is field is primarily used for tracking, reporting, root-cause-analysis, and non-repudiation.
timeToLive	Required	Specifies how long in seconds this message is relevant after the message timestamp. The calling application can time-out after 'timeToLive' seconds.
messageDateTimeStamp	Required	The dateTimeStamp of when the message was created. This can be used for tracking and reporting and also by the consuming application to determine if the message is stale.

All front-ends must send a consistent value in MessageHeader structure in the API request message. This is the only way to identify which application is calling the API.

This structure will be used for analysis, reporting and troubleshooting purposes. MessageHeader will start to be validated in future releases.

processDeviceReturn

Field Name	Description	Details
subscriberInfo	Structure containing choices for subscriber selection	Structure Required
contactInfo	Structure containing subscriber's contract information	Structure Required
deviceInfo	Structure containing return or new device information	Structure Required

subscriberInfo

Field Name	Description	Details
subscriberId	Unique subscriber id.	15 String Choice
mdn	Mobile Directory Number	10 String Choice
equipmentId	Equipment Serial Number holds the identifier used by the device to communicate (broadcast) its identity to the wireless mobile network. Network Device Identifier will contain one of the following: Electronic Serial Number (ESN); Mobile Equipment Identifier (MEID); International Mobile Equipment Identifier (IMEI); Subscriber Identify Module (SIM). Media Access Control Identifier (macId)	8-20 String Choice
ufmi	Urban Fleet Member Identifier (UFMI) is the combination of the Urban Area Id, Fleet Id, and Member Id representing an address in a format	20 String Choice

	<p>recognized within iDEN Push-To-Talk (PTT) or Direct Connect. For example, a UFMI number of 500•600•700, translates to 500 is the Urban Area ID, 600 is the Fleet, and 700 is the Member.</p>	
ipAddress	<p>An Internet Protocol Address is the numerical address by which a location in the Internet is identified. Computers on the Internet use IP addresses to route traffic and establish connections among themselves.</p>	5-15 String Choice
imsi	<p>International Mobile Subscriber Identity (IMSI) is a unique number associated with all GSM and Universal Mobile Telecommunications System (UMTS) network mobile phone users. It is stored in the Subscriber Identity Module (SIM) inside the phone and is sent by the phone to the network. It is also used to acquire other details of the mobile in the Home Location Register (HLR) or as locally copied in the Visitor Location Register. In order to avoid the subscriber being identified and tracked by eavesdroppers on the radio interface, the IMSI is sent as rarely as possible and a randomly generated TMSI is sent instead.</p> <p>The IMSI is used in any mobile network that interconnects with other networks, in particular CDMA and EVDO networks as well as GSM nets. This number is provisioned in the phone directly or in the R-UIM card (a CDMA analogue equivalent to a SIM card in GSM)</p> <p>An IMSI is usually 15 digits long, but can be shorter (for example MTN South Africa's IMSIs are 14 digits). The first 3 digits are the Mobile</p>	15 String Choice

	<p>Country Code (MCC), and is followed by the Mobile Network Code (MNC), either 2 digits (European standard) or 3 digits (North American standard). The remaining digits are the Mobile Subscriber Identification Number (MSIN) within the network's customer base.</p> <p>The IMSI conforms to the International Telecommunication Union (ITU) E.212 numbering standard</p>	
nai	<p>Network Access Identifier (NAI) is a standard way of identifying users who request access to a network.</p> <p>The standard syntax is "user@realm".</p>	<p>64 String Choice</p>

contactInfo

Field Name	Description	Details
nameInfo	Structure containing customer contact name information	Structure Required
phoneInfo	Structure containing customer contact phone information	Structure Required
emailId	Customer email address	100 String optional

nameInfo

Field Name	Description	Details
firstName	Customers first name	32 String Required
middleName	Customers middle name	32 String optional
lastName	Customers last name	60

		String Required
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phoneInfo

Field Name	Description	Details
phoneNumber	Customer contact phone number	10 String Required
extension	Customer contact phone number extension	4 String optional

deviceInfo

Field Name	Description	Details
dealerCode	Dealer Code	1:8 String Required
newDeviceSerialNumber	Equipment Serial Number holds the identifier used by the device to communicate (broadcast) its identity to the wireless mobile network. Network Device Identifier will contain one of the following: Electronic Serial Number (ESN); Mobile Equipment Identifier (MEID); International Mobile Equipment Identifier (IMEI); Subscriber Identify Module (SIM). Media Access Control Identifier (macId)	8-20 String Required
returnDeviceItemId	Model Number (SKU) of device. SKU will be sent if customer is not assigned device serial number, this applies in case of orders cancelled before the device is activated in billing	20 String Choice
returnDeviceSerialNumber	Equipment Serial Number holds the identifier used by the device to	8-20

	communicate (broadcast) its identity to the wireless mobile network. Network Device Identifier will contain one of the following: Electronic Serial Number (ESN); Mobile Equipment Identifier (MEID); International Mobile Equipment Identifier (IMEI); Subscriber Identify Module (SIM). Media Access Control Identifier (macId)	String Choice
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2.3.2 Output Parameters

Name	Values	Details	Descriptions
Faultcode	Fault code, e.g. "Client.804	20	String
Faultstring	Fault reason text e.g., "Server 804: System Exception".	100	String
Faultactor	Shall have the MessageNumber returned from Amdocs for an exception	10	String
Detail	Contains the error detail text.	n/a	Structure

processDeviceReturnResponse

Field Name	Description	Details
mdn	Mobile Directory Number	10 String Required
caseId	Case identifier in case management system. Used by care to trouble shoot issues.	255 String Optional
rebateResetInd	Indicator to denote rebate reset status.	Boolean Required
returnDeviceDeactivationInd	Indicator to denote return device deactivation status. This will not be returned if device deactivation is not required and rebate was locked at SKU level	Boolean Optional
newDeviceActivationInd	Indicator to denote new device activation status. This will not be	Boolean Optional

	returned if the input does not have new device identifier	
contractResetInd	Indicator to denote contract reset status	Boolean Optional
upgradeFeeRefundInd	Indicator to denote upgrade fee refund status. This flag will be returned only if upgrade is applied during device swap	Boolean Optional

2.3.3 Sample Request Message

2.3.4 Sample Response Message

2.4 Error Handling

Sprint's approach to error handling is to maximize transparency for all exceptional conditions and minimize the occurrence of "under the radar" errors, thus encouraging improved data quality and rapid error resolution. In support of this philosophy, all exceptional or out-of-band responses, including error responses for Sprint's Web Services will be returned as SOAP Faults conforming to the SOAP 1.1 specification.

SOAP 1.1 allows for customization of the details element to carry implementation-specific fault information. The XML schema ErrorDetails.xsd defines the customization used by Sprint and is also presented in this document.

SOAP 1.1 defines a required fault code element that is used to communicate the codified error. The spec also defines four major fault code categories that can be extended by applications using a dot-delimited format. These are major fault code categories are:

- VersionMismatch
- MustUnderstand
- Client
- Server

The WS-I Basic Profile 1.1 restricts this extension capability by disallowing use of the dot-delimited notation for the faults in the soapenv namespace (<http://schemas.xmlsoap.org/soap/envelope/>). The Basic Profile does, however, allow for

the use of dot-delimited faultcodes provided that the fault codes are NOT in the soapenv namespace.

3 Error Information

There are a number of SOAP Faults commonly returned from Sprint's Web Services Gateway. These are generally configuration issues and usually easily resolved.

Code	Message	Description	Action
env:Client	Rejected by Policy	Rejected by Policy (from client)	Ensure that the request Soap message is signed with the certificate that was used during the beta integration and that any additional authentication fields (if required) are populated correctly. If yes, then contact your EWS contact.
General	Internal error	Internal errors may be due to various reasons such as a schema validation error or due to an outage.	Ensure that the correct service URL is being utilized. If so contact your EWS contact.

3.1 Service-Specific Errors

This interface can generate standard SOAP exceptions as defined by the SOAP specification. In addition, the service itself can also generate certain exceptions that will be communicated via the SOAP Fault construct. The fault string/Text is dependent on the exact error encountered.

Code	Message	Description
Client.701	Data not found	Used only in cases where the data specifically requested by the front end is not found. If some <i>other</i> data is not found while performing an ancillary query as part of the API logic, It will throw Server.704 or simply return successfully without returning the elements associated with the query.
Server.702	Database error	Used when an error (e.g., an ORA-* exception) from a database access is received.
Server.703	Multiple records found	Used when multiple records are found when only one is expected.
Server.704	Application processing error	Used for application processing errors as well as most backend exceptions.
Client.705	Input validation error	Includes XSD schema errors as well as code-

		checked validations.
Server.706	Output validation error	Includes response XSD schema errors. Response could be generated by the backend or internal system
Client.707	Security validation error	Authentication or Authorization validation has failed
Server.803	Internal database error	Reserved for database connectivity / timeout issues.
Server.804	Communication error	Reserved for backend system connectivity / timeout issues.
Server.805	Service unavailable; experiencing high load	The transaction could not be completed due to high volume experienced by the receiving service.

4 WSDL Information

The following table lists the environments and the corresponding URL location of this of Web Service

Environment	Description
Production	https://webservicesgateway.sprint.com:444/services/wireless/account/DiscountManagementService/v1?wsdl
Test - RTB2	https://webservicesgatewaytest.sprint.com:444/rtb2/services/wireless/account/DiscountManagementService/v1?wsdl

5 Definitions and Acronyms

Term	Definition
XML	eXtensible Markup Language
SOAP	Simple Object Access Protocol
WSDL	Web Service Description Language
XSD	Xml Schema Definition
UDDI	Universal Description, Discovery and Integration
WSM	Web Services Management Platform
EWS	Enterprise Web Services Team
Client	The users of Sprint's Web Services, either Business Customers or Partners and Resellers

6 References

This guide assumes that the reader is conversant with XML, WSDL, SOAP and HTTP specifications. It further assumes a basic knowledge of either Java or Microsoft's .Net

web service technologies. The following links provide useful background knowledge of the Web Service standards:

Term	Definition
Apache Axis 1.x, 2.x	http://ws.apache.org/axis/
HTTP	http://www.w3.org/Protocols/rfc2616/rfc2616.htm
SOAP 1.1	http://www.w3.org/TR/2000/NOTE-SOAP-20000508/
WSDL 1.1	http://www.w3.org/TR/2001/NOTE-wsdl-20010315
Web Services Security 1.0	http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=wss
XML 1.1	http://www.w3.org/TR/xml11/
XML Schema 1.1	http://www.w3.org/XML/Schema
XML Schema Definition	http://www.w3.org/2001/XMLSchema.xsd

7 Feedback

Please email to SprintWebServicesIntegrationTeam@sprint.com for feedback. We are trying to make our online user guides as complete, error free, and easy to read as possible. You can help by giving us your feedback. Thank you!